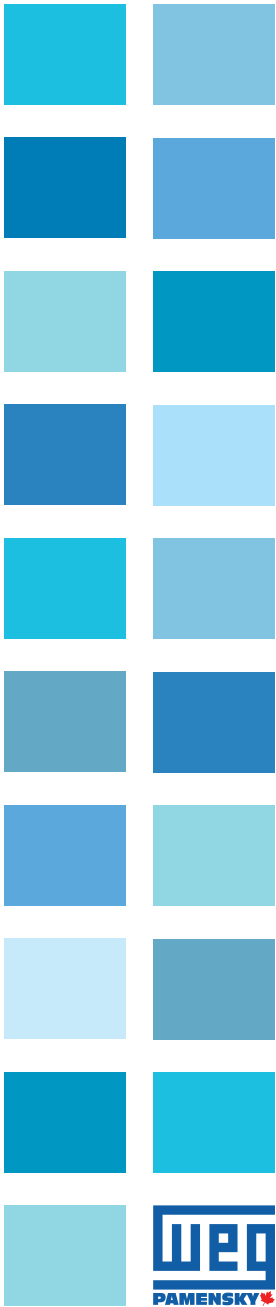


# Motors





## TERMS AND CONDITIONS OF SALE V.J. PAMENSKY CANADA INC.

**1. EXCLUSIVE CONDITIONS OF SALE:** This Quotation or Order is subject to terms and conditions contained here-in and supersedes Buyer's Specification and/or Purchase Order. Seller will recognize no modifications or additions to these conditions unless specifically agreed to in writing by Seller. Failure of Seller to object to provisions contained in the Purchaser's Order or any other communication from Buyer shall not be construed as a waiver of these conditions or an acceptance of any such provisions. If Buyer places an Order with Seller based on Seller's Quotation, whether the Order is placed in writing or orally, then the Quotation (including Seller's terms and conditions) and the Seller's acceptance of the Order will constitute the entire contract between Buyer and Seller with respect to the subject matter thereof notwithstanding any terms and conditions inconsistent with these terms and conditions on any of Buyer's forms or correspondence. All orders, sales contracts and other documentation between Buyer and Seller shall become effective only when approved and accepted by the Seller.

**2. PRICES:** Prices quoted herein are based upon presently prevailing duties, rates of duties, taxes, special assessments, monetary exchange and freight as applied to materials and/or equipment purchased or imported by Seller. Seller reserves the right to amend the price(s) in this quotation where variations in regulated costs such as rate of duties, taxes, special assessments, monetary exchange and freight between the date of quotation and date of delivery are deemed significant by the Seller.

**3. TERMS OF PAYMENT:** The standard terms of payment are Net-30 Days from date of invoice, with a service and interest charge of 1-1/2% per month (18% per annum) on past due invoices applying. If Buyer defaults in any payment when due or refuses to accept delivery or becomes insolvent, the Seller at its option, without prejudice to other lawful remedies, may defer deliveries or cancel the remainder of the order. Equipment held for Buyer shall be at the risk and expense of Buyer and payment shall become due from the date of which Seller is prepared to make shipment. Printed terms on face of our Quotation will take precedence.

**4. TITLE:** Title to the goods covered by this Quotation and the right to immediate possession thereof shall remain with the Seller until the purchase price is paid in full and Buyer hereby grants to Seller a security interest in the equipment (and all proceeds thereof) to secure the Buyer's obligation to pay for the equipment.

**5. CERTIFICATIONS AND TAXES:** Prices do not include sales, use or other similar federal, state or local taxes. Any certification for special duty or tax rate must be supplied at time of order. A service charge will be applied on any credit notes necessitated by the Buyer not providing proper certification at time of order. Exception from taxes extended to the buyer does not prejudice our right to charge the buyer with taxes plus any penalties assessed at any subsequent date should the taxing authorities determine that the equipment is taxable.

**6. PENALTIES AND DELAYS:** No penalty clause of any kind, in any specification of order will be effective unless specifically approved in writing by Seller. Seller shall not be liable for any damage, expenses or consequential damages caused by delays beyond Seller's control including without limiting the generality of the foregoing; fire, strike, act of the Buyer, restriction by civil or military authority, Act of God, transportation failures or inability to obtain labor, materials or manufacturing facilities. In the event of any such delay, the date of delivery shall be extended for a period equal to the time lost by reason of the delay.

**7. CANCELLATION:** Orders once accepted are not subject to cancellation unless on terms that will indemnify Seller against loss and/or expenses incurred.

**8. SHIPMENT:** Unless otherwise specified in writing, all shipments are EX-WORKS (Incoterms 2000) Seller's shop, in which case Seller is not responsible for damage, apparent or concealed, or loss in transit and all claims on "collect" shipments must be made by Buyer direct to the carrier. Seller will assist insofar as practical in securing satisfactory adjustment to reasonable claims.

**9. ACCEPTANCE, INSPECTION:** By virtue of Buyer issuing an order for equipment in accordance with this Quotation, he also accepts Seller's Terms and Conditions as part of the order. Buyer shall inspect the goods immediately upon the receipt thereof. All claims by Buyer (including claims for shortages), except only those provided for under the WARRANTY clauses below, must be asserted in writing by Buyer within a 10 day period or they are waived. If this contract involves partial performances, all such claims must be asserted within a 10-day period for each partial performance.

**10. WARRANTY:** Seller warrants to the Buyer that its products are free from defects in workmanship and materials when operated under normal conditions and in accordance with nameplate characteristic limits. This warranty will be in effect for the following time period and for the following products:

Low voltage standard efficiency motors NEMA & IEC frames are warranted for a period of 12 months from date of installation, but not more than 18 months from date of manufacture.

EPACT & NEMA Premium Efficiency motors both NEMA & IEC frames are warranted for a period of 24 months from date of installation but for not more than 30 months from date of manufacture.

IEEE841 motors are warranted for a period of 60 months from date of installation but for not more than 66 months from date of manufacture.

Machines & Generators are warranted for a period of 12 months from date of installation, but not more than 18 months from date of manufacture. These products include but are not limited to; Above NEMA size Motors: low voltage, medium voltage and high voltage, DC motors, Turbo Generators, Hydro Generators, Synchronous Motors, and Wound Rotor Motors.

Automation products (variable frequency drives and soft starters) and Electrical components are warranted for a period of 18 months from date of installation, but not more than 24 months from date of manufacture. If any defects are claimed by the Buyer during the

warranty period, Seller's sole obligation shall be limited to alteration, repair or replacement at Seller's expense, EX-WORKS (Incoterms 2000) Seller's shop, on parts or equipment which upon return to Buyer and upon Buyer's examination prove to be defective. UNLESS OTHERWISE SPECIFIED IN WRITING HEREIN, THERE ARE NO REPRESENTATION, WARRANTIES OR CONDITIONS, EXPRESSED OR IMPLIED STATUTORY OR OTHERWISE, EXCEPT FOR THE FOREGOING AND WITHOUT LIMITING THE GENERALITY OF THE ABOVE, THERE ARE NO EXPRESS OR IMPLIED REPRESENTATIONS OR WARRANTIES CONCERNING THE QUALITY OF THE EQUIPMENT OR THAT ANY SUCH EQUIPMENT WILL BE FIT FOR ANY PARTICULAR PURPOSE OF THE PURCHASER. THE SELLER SHALL HAVE NO OBLIGATION TO REPAIR OR REPLACE SUCH PRODUCTS OR PARTS UNLESS IT RECEIVES AT ITS OFFICES IN CANADA WRITTEN NOTICE OF SUCH DEFECT WITHIN THE ABOVE-MENTIONED WARRANTY PERIOD.

This warranty does not cover the cost of transportation, labor, removal, installation, or re-testing of the new or repaired goods or parts, or any other direct or incidental expenses incurred in shipping the product to or from Seller. Replacement goods or parts are warranted for the remainder of the warranty period applicable to the goods originally supplied by the seller. No warranty shall apply to any equipment upon which repairs or alterations have been made unless authorized by Seller, nor to equipment which has been subjected to misuse, negligence or mishandling.

**11. DAMAGES:** Subject to the balance of the provisions of this clause, Seller shall only be liable for the cost of replacement of any defective Equipment provided hereunder. Seller shall not be liable to the Buyer in any circumstances for any incidental, special, consequential or indirect damages, including but not limited to loss of profits or revenue, loss of use of equipment and facilities, and claims by or payments to customers, suppliers or other parties who have a relationship with the Buyer. This disclaimer applies to consequential damages based upon any cause of action whatever asserted against Seller including causes of action arising out of any breach of warranty, express or implied, guarantee, product liability, negligence, tort, or any other cause pertaining to the performance or non-performance of this Quotation or contract by Seller and the Buyer hereby waives any right to claim punitive, aggravated or exemplary damages with respect to a breach of this Quotation or the performance or non-performance of the Equipment, and whether such claim is founded in contract, tort or otherwise. Seller shall not be responsible for losses or damages arising out of the negligence of the Buyer, its' employees, agents or third party contractors. In no event will Sellers maximum liability to the Purchaser in connection with the Equipment, including without limitation resulting from breach of contract or any other performance or non-performance of this Quotation or contract, exceed the amount of the purchase price paid to Seller hereunder.

**12. RETURNING EQUIPMENT:** No equipment is to be returned without first obtaining from Seller shipping instructions and a return material identification number and agreement in writing as to terms. Returned equipment, which Seller elects to accept for credit is subject to reasonable handling and restocking charge commensurate with the policy of the manufacturer plus all charges incurred by Seller. Seller is not responsible for equipment that is returned without complying with the foregoing. Equipment is returned at the expense and risk of the Buyer. Returned equipment must be in the original packaging and unused.

**13. PRIVILEGE AND LIEN RIGHTS:** Seller retains all lien rights with regard to the equipment in accordance with any Builder's Lien Act, Mechanic's Lien Act, Builder and Works Act or other legislation passed pursuant to or in replacement thereof.

**14. BACK CHARGES:** Seller will accept no back charges for any reason without Seller's written permission to incur such back charges.

**15. TECHNICAL ADVICE:** Any technical advice furnished or recommendation made by Seller or any representative of Seller concerning any use or application of any of the goods is believed to be reliable, but SELLER MAKES NO WARRANTY, EXPRESSED OR IMPLIED, ON RESULTS TO BE OBTAINED. BUYER ASSUMES ALL RESPONSIBILITY FOR LOSS OR DAMAGE RESULTING FROM THE HANDLING OR USE OF ANY OF THE GOODS.

**16. INVALIDITY:** If any provision of this contract shall be found to be invalid or illegal by reason of any determination made by a court of competent jurisdiction or any governmental authority having jurisdiction in the circumstances, such provisions shall be severed from this contract to the extent of such invalidity or illegality and the validity, legality or enforceability of the remaining provisions of this contract shall not in any way be affected or impaired thereby. Waiver of any default shall not be a waiver of any other or subsequent default.

**17. GST NUMBER:** V.J. Pamensky Canada Inc. GST Number is 105553648

**18. APPLICABLE LAWS AND FORUM:** This contract shall be interpreted in accordance with and shall be governed by the laws of the Province of Ontario, and the parties agree that any disputes hereunder or with respect to this quotation or the resulting contract between the parties shall be determined exclusively by the Courts in the Province of Ontario, and the parties hereby expressly attorn to the exclusive jurisdiction of the Courts in the Province of Ontario.

**19. LANGUAGE:** The parties acknowledge that they have required that this contract and all related documents be prepared in English. Les parties reconnaissent avoir exigé que la présente convention et tous les documents connexes soient rédigés en anglais. If the Buyer requests, a French version of this agreement will be used.

**20. LIABILITY:** Notwithstanding anything to the contrary herein contained, the Liability of the Seller under any circumstances whatsoever and without exception shall be limited to the Purchase Price of the particular item forming part of the goods.



This catalog will be periodically updated with new and updated pages. The current version can be found on our website [www.pamensky.com](http://www.pamensky.com) or can be requested from V.J. Pamensky Canada Inc.  
1 877 PAMENSKY

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7.1



# General Purpose Motors Feature Comparison

	W01 Rolled Steel TEFC	W22 NEMA Premium Efficiency	W22 Super Premium Efficiency	W22 Medium Voltage	W22 IEEE 841-2009
	Page	Page	Page	Page	Page
					
Enclosure	TEFC	TEFC	TEFC	TEFC	TEFC
Degree of Protection	IP55	IP55	IP55	IP55	IP55
Efficiency	NEMA Premium	NEMA Premium	Super Premium		NEMA Premium
HP Range	1 - 25 HP	1 - 750 HP	1 - 250 HP	125 - 600 HP	1 - 700 HP
Frame Size Range	143/5T - 254/6T	143/5T - 588/9T	143/5T - 586/7T	L447/9T - 588/9T	143/5T - 588/9T
Frequency	60 Hz - Standard 50Hz - Optional	60 Hz - Standard 50Hz - Optional	60 Hz - Standard 50Hz - Optional	60 Hz - Standard 50Hz - Optional	60 Hz - Standard 50Hz - Optional
Power (Phase)	3 Phase	3 Phase	3 Phase	3 Phase	3 Phase
Voltage	208-230/460V, 575V	208-230/460V, 575V	230/460V, 575V	1200V, 2300V, 2400V, 3300V, 4000V, 4160V & 6600V	460V & 575V
Service Factor	1.15	1.25 - 1 to 100HP 1.15 - 125 and up	1.25	1.15 Some frames have 1.00 SF, see page 1.26 for details.	1.25 - 1 to 100HP 1.15 - 125 and up
Electrical Design	NEMA Design 'B'	NEMA Design 'B'	NEMA Design 'A'	NEMA Design 'B'	NEMA Design 'B'
Insulation	Class F Meets NEMA MG1 Part 31	Class F Meets NEMA MG1 Part 31	Class F Meets NEMA MG1 Part 31	Class F Meets NEMA MG1 Part 31	Class F Meets NEMA MG1 Part 31
Temp. Rise	Class B - 80K	Class B - 80K	Class B - 80K	Class B - 80K	Class B - 80K
Frame	Rolled Steel	Cast Iron	Cast Iron	Cast Iron	Cast Iron
End Shields	Aluminum	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Terminal Box	Aluminum	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Fan Cover	Plastic - 143/5T Steel Plate - 182/4T and up	Steel - 143T to 215T Cast Iron - 254T and up	Steel - 143T to 215T Cast Iron - 254T and up	Cast Iron	Cast Iron
Fan	Plastic	Plastic	Plastic	Plastic - 2P up to 586/7TS Aluminum - 4-8P and 2P 588/9T	Plastic
Rotor	Die cast aluminum squirrel cage rotor	Die cast aluminum squirrel cage rotor	Die cast aluminum squirrel cage rotor	Die cast aluminum squirrel cage rotor	Die cast aluminum squirrel cage rotor
Shaft	1045 heat treated and stress relieved carbon steel	1040/45 - up to 364/5T and all 2P motors 4140 - 404/5T and up	1040/45 - up to 364/5T and all 2P motors 4140 - 404/5T and up	4140	1040/45 - up to 364/5T and all 2P motors 4140 - 404/5T and up
Shaft Seal / Slinger	V'Ring	V'Ring - up to 324/6T WSeal - 364/5T to 504/5T Labyrinth Taconite - 586/7T and up	V'Ring - up to 324/6T WSeal - 364/5T to 504/5T Labyrinth Taconite - 586/7T and up	WSeal	Labyrinth Taconite
Drain Plug		Rubber Drain Breathers	Rubber Drain Breathers	Rubber Drain Breathers	Stainless Steel Drain/Breather Plug
Nameplate	Mylar	Stainless Steel - Laser Etched	Stainless Steel - Laser Etched	Stainless Steel - Laser Etched	Stainless Steel - Laser Etched
Paint Plan	207N - 143/5T 207A - 182/4T & 213/5T 203A - 254/6T Munsell N1 - Flat Black	207A - up to 213/5T 203A - 254/6T and up RAL 5009 (Blue)	207A - up to 213/5T 203A - 254/6T and up RAL 6002 (Green)	203A RAL 5009 (Blue)	202E RAL 5009 (Blue)
Area Classification		Class I, Div II, Groups A,B,C & D Class II, Div II, Groups F & G	Class I, Div II, Groups A,B,C & D Class II, Div II, Groups F & G	Class I, Div II, Groups A,B,C & D Class II, Div II, Groups F & G	Class I, Div II, Groups A,B,C & D Class II, Div II, Groups F & G
VFD Rating	2 Pole: 10:1 CT / 1000:1 VT 4 Pole: 4:1 CT / 1000:1 VT	WEG VFD 100:1 CT / 1000:1 VT Any VFD 20:1 CT / 1000:1 VT	WEG VFD 100:1 CT / 1000:1 VT Any VFD 20:1 CT / 1000:1 VT	10:1 CT / 10:1 VT	WEG VFD 100:1 CT / 1000:1 VT Any VFD 20:1 CT / 1000:1 VT

# General Purpose Motors Feature Comparison

	Explosion Proof	W01 Rolled Steel ODP	W40 NEMA Premium Efficiency	W40 Medium Voltage	W22 IEC Tru-Metric
	Page	Page	Page	Page	Page
					
Enclosure	TEFC	ODP	ODP	ODP	TEFC
Degree of Protection	IP55	IP21	IP23 - Standard IP24/IPW24 - Optional for frames L5010/11 and up	IP23 - Standard IP24/IPW24 - Optional for frames L5010/11 and up	IP55
Efficiency	NEMA Premium	NEMA Premium	NEMA Premium		NEMA Premium
HP Range	1 - 500 HP	1 - 25 HP	15 - 1250 HP	350 - 2500 HP	0.75 - 355 kW
Frame Size	143T - 586/7T	143/5T - 254/6T	254T - L5810/11	5010/11 - L6808/09	63 - 355M/L
Frequency	60 Hz	60 Hz - Standard 50Hz - Optional	60 Hz - Standard 50Hz - Optional	60 Hz - Standard 50Hz - Optional	60 Hz - Standard 50 Hz - Optional
Power (Phase)	3 Phase	3 Phase	3 Phase	3 Phase	3 Phase
Voltage	208-230/460V, 575V	208-230/460V, 575V	208-230/460V, 575V	1200V, 2300V, 2400V, 3300V, 4000V, 4160V & 6600V	460//220-240/380-415V - 63 to 100L 460//380-415V - 112M to 355M/L 575V
Service Factor	1.15	1.15	1.15	1.15	1.25 - up to 315L 1.15 - 355 M/L * 60Hz only
Electrical Design	NEMA Design 'B'	NEMA Design 'B'	NEMA Design 'B'	NEMA Design 'B'	Design 'N'
Insulation	Class F Meets NEMA MG1 Part 31	Class F Meets NEMA MG1 Part 31	Class F Meets NEMA MG1 Part 31	Class F Meets NEMA MG1 Part 31	Class F Meets NEMA MG1 Part 31
Temp. Rise	Class B - 80K	Class B - 80K	Class B - 80K	Class B - 80K	Class B - 80K
Frame	Cast Iron	Rolled Steel	Cast Iron	Cast Iron	Cast Iron
End Shields	Cast Iron	Aluminum	Cast Iron	Cast Iron	Cast Iron
Terminal Box	Cast Iron	Aluminum	Cast Iron	Cast Iron	Cast Iron
Fan Cover	Steel - 143T to 215T Cast Iron - 254T and up	Plastic - 143/5T Steel Plate - 182/4T and up	N/A	N/A	Steel - up to 132 Cast Iron - 160 and up
Fan	Plastic - up to 326T Aluminum - 364/5T and up	Plastic	Cooling system with finned rotor	Cooling system with finned rotor	Plastic - up to 315S/M and 2P motors Aluminum - 315L and up
Rotor	Die cast aluminum squirrel cage rotor	Die cast aluminum squirrel cage rotor	Die cast aluminum squirrel cage rotor	Die cast aluminum squirrel cage rotor	Die cast aluminum squirrel cage rotor
Shaft	1040/45 - up to 364/5T and all 2P motors 4140 - 404/5T and up	1045 heat treated and stress relieved carbon steel	1040/45 - up to 364/5T and all 2P motors 4140 - 404/5T and up	1040/45 - for all 2P motors 4140 - for 4P motors	1040/45 - up to 315S/M 4140 - 315L and up
Shaft Seal / Slinger	Internal Oil/Lip Seal	N/A	N/A	N/A	V'Ring - up to 200L WSeal - 225S/M to 355M/L
Drain Plug	Brass drain/breather - 254T and up	N/A	N/A	N/A	Rubber Drain Breathers
Nameplate	Stainless Steel - Laser Etched	Mylar	Stainless Steel - Laser Etched	Stainless Steel - Laser Etched	Stainless Steel - Laser Etched
Paint Plan	202P RAL 5009 (Blue)	207N - 143/5T 207A - 182/4T & 213/5T 203A - 254/6T Munsell N1 - Flat Black	207A - up to 213/5T 203A - 254/6T and up RAL 5009 (Blue)	203A RAL 5009 (Blue)	207A - up to 132M 203A - 160M and up
CSA Area Classification	TEMP CODE T3C CSA / UL: Class I, Div II, Groups C & D CSA: Class II, Div I, Groups F & G CSA: Class I, Zone 1, IIB TEMP CODE T4 with a max SF 1.15, not as Inverter Duty, max ambient temp of 40°C.	Safe Area	254T to 447/9T: Safe Area 5010/11 and up: Class I, Div II, Groups A,B,C & D Class I, Zone 2, IIC	Class I, Div II, Groups A,B,C & D Class I, Zone 2, IIC	Class I, Div II, Groups A,B,C & D Class II, Div II, Groups F & G Class I, Zone 2, IIC
VFD Rating	20:1 CT (Any VFD) 1000:1 CT (WEG VFD) 1000:1 VT (Any VFD)	2 Pole - 3:1 CT 4 Pole - 5:1 CT 1000:1 VT	10:1 CT 10:1 VT Other speed ranges available. Please call for details	10:1 CT 10:1 VT Other speed ranges available. Please call for details	20:1 CT (Any VFD) 100:1 CT (WEG VFD) 1000:1 VT (Any VFD)

# W01 Rolled Steel NEMA Premium Eff. Motors

## TEFC

### Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4 and 6 pole, 60Hz
- Voltage: 230/460V, 575V
- Totally Enclosed Fan Cooled -TEFC (IP55) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- V'Ring sealing
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- 460V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2000V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Dip and Bake Insulation system
- NEMA design "B"
- 1.15 Service Factor
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 207N - Frame 143/5T
  - 207A - Frame 182/4T & 213/5T
  - 203A - Frame 254/6T
- Color: Munsell N1 - Flat Black
- All frames have dual mounting



Class I, Div 2, Groups A,B,C & D  
Class I, Zone 2, IIC

Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
143/5T - 254/6T	2 Pole	10:1	1000:1	Any
	4 Pole	4:1		

See page 7.6 for details

### Optional Features

- 50Hz
- Special voltages
- Special shafts
- Oil Seal, Lip Seal
- Thermostats, Thermistors
- Drip cover (canopy) for shaft down applications
- NEMA C flange for all ratings
- Special paint
- Shaft grounding (Aegis or WEG). Not for Hazloc.
- No feet



# W01 Rolled Steel NEMA Premium Eff. Motors

## TEFC - Purchasing & Electrical Data

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM					460V	575V				
1	3600	143/5T	\$774	\$956	HT000X02NPW01	1.44	1.15	78.5	26.2	13.189	.875
	1800	143/5T	\$702	\$884	HT000X04NPW01	1.47	1.18	85.5	37.9	13.583	.875
	1200	143/5T	\$856	\$1,036	HT000X06NPW01	1.58	1.26	82.5	38.6	13.583	.875
1.5	3600	143/5T	\$796	\$978	HT001X02NPW01	1.87	1.50	84.0	34.2	13.189	.875
	1800	143/5T	\$778	\$960	HT001X04NPW01	2.02	1.62	86.5	37.9	13.583	.875
	1200	182/4T	\$1,024	\$1,250	HT001X06NPW01	2.22	1.78	87.5	65.9	16.339	1.125
2	3600	143/5T	\$834	\$1,014	HT002X02NPW01	2.47	1.98	85.5	40.1	13.976	.875
	1800	143/5T	\$806	\$988	HT002X04NPW01	2.72	2.18	86.5	42.3	13.976	.875
	1200	182/4T	\$1,204	\$1,430	HT002X06NPW01	3.00	2.40	88.5	76.1	17.126	1.125
3	3600	143/5T	\$906	\$1,086	HT003X02NPW01145T	3.51	2.81	86.5	48.1	15.157	.875
	3600	182/4T	\$1,024	\$1,250	HT003X02NPW01	3.67	2.94	86.5	63.5	16.339	1.125
	1800	182/4T	\$1,024	\$1,250	HT003X04NPW01	3.81	3.05	89.5	80.3	17.913	1.125
	1200	213/5T	\$1,616	\$1,888	HT003X06NPW01	4.17	3.34	89.5	130	19.291	1.375
5	3600	182/4T	\$1,196	\$1,422	HT005X02NPW01	5.90	4.72	88.5	78.5	17.913	1.125
	1800	182/4T	\$1,164	\$1,390	HT005X04NPW01	6.49	5.19	89.5	71.4	17.913	1.125
	1200	213/5T	\$1,934	\$2,206	HT005X06NPW01	6.74	5.39	89.5	144	20.079	1.375
7.5	3600	182/4T	\$1,354	\$1,580	HT007X02NPW01184T	8.57	6.86	89.5	79.4	17.126	1.125
	3600	213/5T	\$1,630	\$1,902	HT007X02NPW01	8.67	6.94	89.5	133	20.079	1.375
	1800	213/5T	\$1,540	\$1,812	HT007X04NPW01	9.07	7.26	91.7	120	18.898	1.375
	1200	254/6T	\$2,976	\$3,382	HT007X06NPW01	10.0	7.98	91.0	204	22.559	1.625
10	3600	213/5T	\$1,802	\$2,074	HT010X02NPW01	11.5	9.20	90.2	161	21.654	1.375
	1800	213/5T	\$1,874	\$2,146	HT010X04NPW01	12.2	9.76	91.7	130	19.291	1.375
	1200	254/6T	\$3,288	\$3,696	HT010X06NPW01	13.8	11.0	91.0	234	23.346	1.625
15	3600	213/5T	\$2,368	\$2,640	HT015X02NPW01215T	17.0	13.6	91.0	154	21.654	1.375
	3600	254/6T	\$2,730	\$3,138	HT015X02NPW01	17.4	13.9	91.0	175	22.559	1.625
	1800	254/6T	\$2,704	\$3,110	HT015X04NPW01	18.2	14.6	92.4	197	22.559	1.625
20	3600	254/6T	\$3,536	\$3,944	HT020X02NPW01	22.7	18.2	91.0	211	23.346	1.625
	1800	254/6T	\$3,216	\$3,622	HT020X04NPW01	24.7	19.8	93.0	227	23.346	1.625
25	3600	254/6T	\$4,320	\$4,728	HT025X02NPW01	28.5	22.8	91.7	221	23.346	1.625

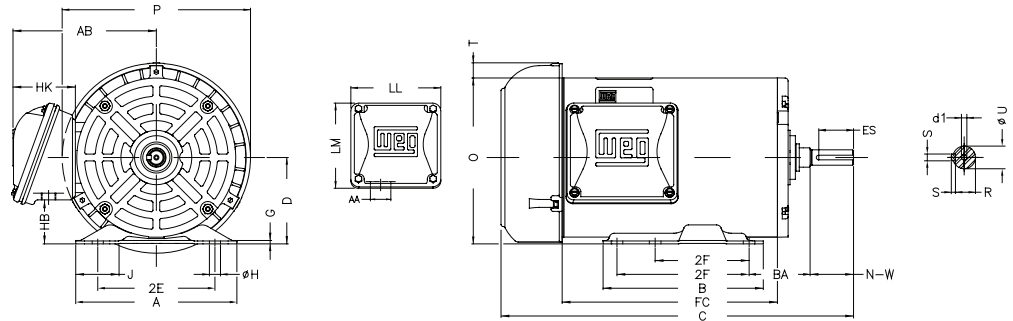
Flange: Replace 'H' with 'C' for C Flange  
Voltage: Replace 'X' with '4' for 208-230/460V  
Replace 'X' with '5' for 575V

Rated Output	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor			
			230V	460V	575V							50%	75%	100%	50%	75%	100%	
1	0.75	3510	143/5T	2.88	1.44	1.15	7.8	200%	300%	22	26.2	1.15	72.0	77.0	78.5	0.65	0.76	0.83
		1765	143/5T	2.94	1.47	1.18	8.6	280%	300%	19	37.9	1.15	82.5	84.0	85.5	0.52	0.66	0.75
		1145	143/5T	3.16	1.58	1.26	5.8	230%	280%	31	38.6	1.15	80.0	82.5	82.5	0.50	0.63	0.72
1.5	1.1	3520	143/5T	3.74	1.87	1.50	9.1	230%	300%	17	34.2	1.15	80.0	82.5	84.0	0.71	0.82	0.88
		1750	143/5T	4.04	2.02	1.62	8.2	270%	300%	21	37.9	1.15	85.5	86.5	86.5	0.59	0.72	0.79
		1170	182/4T	4.44	2.22	1.78	6.9	240%	340%	55	65.9	1.15	84.0	86.5	87.5	0.50	0.63	0.71
2	1.5	3520	143/5T	4.94	2.47	1.98	9.9	250%	300%	13	40.1	1.15	82.5	85.5	85.5	0.73	0.83	0.89
		1745	143/5T	5.44	2.72	2.18	8.2	270%	300%	15	42.3	1.15	85.5	87.5	86.5	0.60	0.73	0.80
		1170	182/4T	6.00	3.00	2.40	7.5	260%	370%	44	76.1	1.15	84.0	86.5	88.5	0.50	0.62	0.71
3	2.2	3500	143/5T	7.02	3.51	2.81	9.5	300%	380%	10	48.1	1.15	84.0	86.5	86.5	0.78	0.87	0.91
		3515	182/4T	7.34	3.67	2.94	8.8	220%	300%	22	63.5	1.15	84.0	86.5	86.5	0.71	0.82	0.87
		1765	182/4T	7.62	3.81	3.05	8.8	220%	300%	18	80.3	1.15	87.5	88.5	89.5	0.61	0.74	0.81
		1175	213/5T	8.34	4.17	3.34	6.4	230%	290%	46	130	1.15	85.5	88.5	89.5	0.55	0.67	0.74
5	3.7	3500	182/4T	11.8	5.90	4.72	7.8	220%	300%	17	78.5	1.15	87.5	88.5	88.5	0.76	0.85	0.89
		1750	182/4T	13.0	6.49	5.19	7.0	220%	300%	16	71.4	1.15	88.5	89.5	89.5	0.60	0.73	0.80
		1175	213/5T	13.5	6.74	5.39	6.0	220%	250%	30	144	1.15	87.5	88.5	89.5	0.59	0.71	0.77
7.5	5.5	3480	182/4T	17.1	8.57	6.86	8.0	270%	360%	19	79.4	1.15	88.5	89.5	89.5	0.77	0.86	0.90
		3530	213/5T	17.3	8.67	6.94	7.6	260%	300%	15	133	1.15	87.5	88.5	89.5	0.76	0.85	0.89
		1770	213/5T	18.1	9.07	7.26	7.3	260%	300%	22	120	1.15	90.2	91.0	91.7	0.64	0.76	0.82
		1175	254/6T	20.0	9.98	7.98	5.4	200%	230%	42	204	1.15	89.5	89.5	91.0	0.58	0.70	0.76
10	7.5	3530	213/5T	23.0	11.5	9.20	7.5	260%	300%	12	161	1.15	89.5	90.2	90.2	0.80	0.88	0.91
		1760	213/5T	24.4	12.2	9.76	7.0	250%	300%	15	130	1.15	91.0	91.0	91.7	0.67	0.78	0.84
		1175	254/6T	27.6	13.8	11.0	5.4	210%	230%	30	234	1.15	90.2	91.0	91.0	0.57	0.69	0.75
15	11	3525	254/6T	34.8	17.4	13.9	7.0	200%	300%	14	175	1.15	89.5	91.0	91.0	0.73	0.83	0.87
		3520	213/5T	34.0	17.0	13.6	8.2	280%	330%	11	154	1.15	90.2	91.0	91.0	0.76	0.85	0.89
		1770	254/6T	36.4	18.2	14.6	6.6	250%	300%	19	197	1.15	91.0	92.4	92.4	0.64	0.76	0.82
20	15	3515	254/6T	45.4	22.7	18.2	6.6	200%	290%	12	211	1.15	90.0	91.0	91.0	0.81	0.88	0.91
		1765	254/6T	49.4	24.7	19.8	6.7	270%	300%	16	227	1.15	91.7	92.4	93.0	0.66	0.77	0.82
25	18.5	3530	254/6T	57.0	28.5	22.8	8.3	240%	340%	8	221	1.15	91.0	91.7	91.7	0.77	0.85	0.89

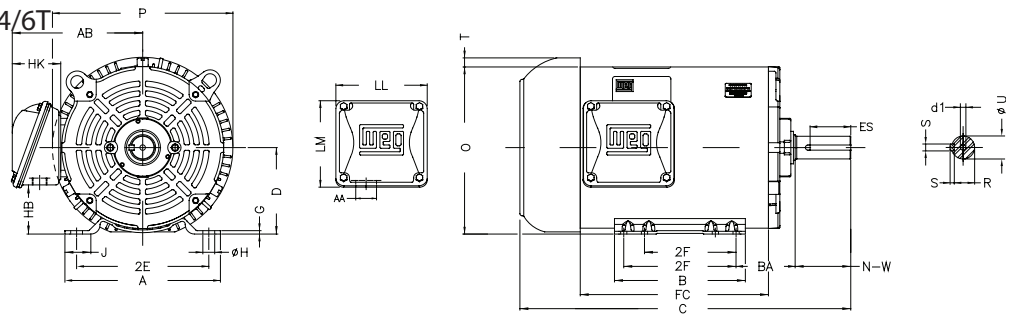
# W01 Rolled Steel NEMA Premium Eff. Motors

## TEFC - Mechanical Data

### Frame 143/5T



### Frames 182/4T up to 254/6T



NEMA FRAME	MOUNTING					AB	D	HB	HK	Hole H	J	LL	LM	O	P	T	SHAFT END						BEARINGS	
	2E	2F	A	B	BA												d1	ES	N-W	R	S	U	D.E.	N.D.E.
143/5T	5.500	4.000/5.000	6.535	6.496	2.250	5.873	3.500	1.784	2.629	0.343	1.722	4.563	4.090	6.723	7.638	0.604	A 3.15	1.417	2.250	0.766	0.187	0.875	6205 ZZ	6203 ZZ
182/4T	7.500	4.500/5.500	8.661	6.299	2.750	6.696	4.500	2.784	0.406	1.299	4.563	4.090	8.557	9.435	0.661	A 4	1.969	2.750	0.984	0.250	1.125	6206 ZZ	6205 ZZ	
213/5T	8.500	5.500/7.000	9.449	7.953	3.500	7.973	5.250	2.982		3.022							1.575	5.551	5.250	10.144	11.306	0.761	2.480	3.380
254/6T	10.000	8.252/10.000	11.417	11.417	4.250	9.448	6.250	3.631	3.645	0.530	1.693	6.299	6.017	12.010	13.180	0.830	2.756	4.000	1.406	0.375	1.625	6309 Z-C3	6208 Z-C3	

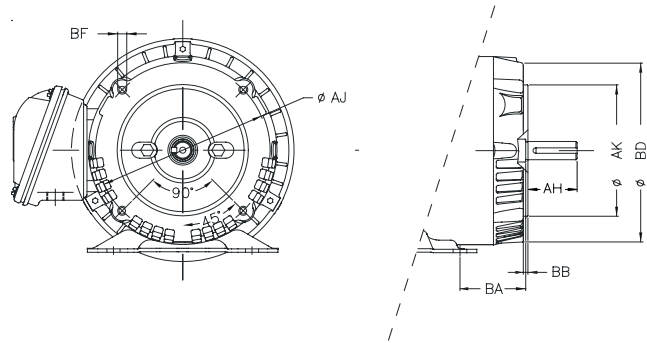
NEMA FRAME	OUTPUT		POLES	C	FC
	HP	kW			
143/5T	1	0.75	2	13.189	7.480
			4	13.583	7.874
			6		
182/4T	1.5	1.1	2	13.189	7.480
			4	13.583	7.874
			6	16.339	8.661
143/5T	2	1.5	2	13.976	8.268
			4		
			6	17.126	9.449
143/5T	3	2.2	2	16.339	8.661
			4	17.913	10.236
			6	19.291	10.630
182/4T	5	3.7	2	17.913	10.236
			4		
			6	20.079	11.417
213/5T	7.5	5.5	2	18.898	10.236
			4	22.559	12.992
			6	21.654	12.992
213/5T	10	7.5	2	19.291	10.630
			4	23.346	13.780
			6		
213/5T	15	11	2	22.559	12.992
			4		
			6		
254/6T	20	15	2	23.346	13.780
			4		
			6		
254/6T	25	18.5	2		
			6		

# W01 Rolled Steel NEMA Premium Eff. Motors

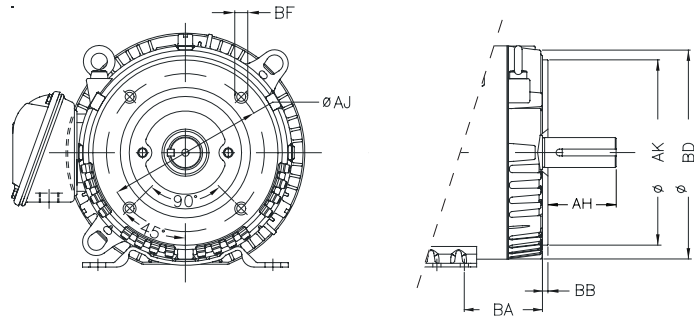
## TEFC - Mechanical Data

"C" Flange Dimensions							
Frame	BA	Flange					
		AJ	AK	BB	BD	BF	AH
143/5TC	2.750	5.874	4.500	0.157	6.028	UNC 3/8"x16	2.129
182/4TC	3.500				8.858		2.620
213/5TC	4.309	7.250	8.500	0.250	9.401	UNC 1/2"x13	3.129
254/6TC	4.750				11.084		3.750

Frame 143/5T



Frames 182/4T up to 254/6T



# W22 NEMA Premium Efficiency Motors

TEFC - Severe Duty

## Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4, 6 and 8 pole, 60Hz
- Voltage: 230/460V, 575V
- Totally Enclosed Fan Cooled -TEFC (IP55) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- Sealing:
  - V Ring sealing up to frame 324/6T.
  - WSeal®(double lipped V Ring with metallic cap) sealing on both endshields from frame 364/5T up to 504/5T
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft up to frame 364/5T, all 2 pole motors
- 4140 for 404/5T shaft upwards in 4, 6 and 8 pole motors
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Insulation System:
  - Dip and Bake Insulation system with class "H" resin up to frame 324/6T
  - CFRI Continuous Flow Resin Impregnation Insulation system with class "H" resin for frame 364/5T and up.
- Insulated NDE endbells from frame L447/9T and up
- NEMA design "B"
- Service Factor:
  - 1.25 up to 100HP
  - 1.15 from 125HP and up
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Re-configurable Terminal Box for frames 445/7T and up
- Stainless steel nameplate with laser etching
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 207A - Frames 143T to 215T
  - 203A - Frames 254T to 588/9T
- Color: RAL 5009 - Blue
- Fitted with closed rubber drain breathers
- Regreasable bearings for frames 254/6T and up
- All frames have dual mounting



Class I, Div 2, Groups A, B, C & D  
 Class II, Div 2, Groups F & G  
 Class I, Zone 2, IIC

Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
143/5T - 586/7T ≤ 250HP	All	20:1	1000:1	Any
	All	1000:1*		WEG
447/9T - 588/9T > 250 HP	All	6:1		Any
	All	12:1*		WEG

\* Can only be achieved by a WEG VFD running in Sensorless Vector  
 See page 7.6 for details

## Optional Features

- 50Hz
- Special voltages
- Special shafts
- Space heaters (standard on 586/7T and 588/9T frames)
- Labyrinth taconite seal available for all ratings
- Thermostats, Thermistors, RTD's (PT100)
- Additional terminal box
- Drip cover (canopy) for shaft down applications
- NEMA C & D flanges and Metric flanges for all ratings
- Roller bearings
- Special paint
- Shaft grounding (Aegis)
- Insulated bearings
- Insulated NDE endbells (standard for frame L447/9T and up)
- Degree of protection: IP56, IP65, IP66
- Forced ventilation
- Encoders
- UL Listed fire pump duty
- No feet

## For Frame 586/7T and 588/9T

- Space heaters (220V)
- Taconite Labyrinth seal



# W22 NEMA Premium Efficiency Motors

## TEFC - Severe Duty - Purchasing Data

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	List Price with 'D' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM						460V	575V				
1	3600	143/5T	\$910	\$1,092	\$1,102	HT000X02NPW22	1.43	1.14	78.5	36.4	12.346	0.875
	1800	143/5T	\$820	\$1,000	\$1,010	HT000X04NPW22	1.39	1.11	85.5	40.8	12.346	0.875
	1200	143/5T	\$1,010	\$1,190	\$1,202	HT000X06NPW22	1.73	1.38	82.5	52.9	13.346	0.875
	900	182/4T	\$1,884	\$2,110	\$2,132	HT000X08NPW22	2.30	1.84	78.5	94.8	14.86	1.125
1.5	3600	143/5T	\$938	\$1,118	\$1,130	HT001X02NPW22	1.90	1.52	84.0	40.8	12.346	0.875
	1800	143/5T	\$914	\$1,096	\$1,106	HT001X04NPW22	1.97	1.58	86.5	48.5	13.346	0.875
	1200	182/4T	\$1,204	\$1,430	\$1,446	HT001X06NPW22	2.39	1.91	87.5	70.3	14.86	1.125
	900	182/4T	\$2,214	\$2,440	\$2,466	HT001X08NPW22	2.70	2.16	82.5	111	15.86	1.125
2	3600	143/5T	\$982	\$1,164	\$1,176	HT002X02NPW22	2.53	2.02	85.5	51.8	13.346	0.875
	1800	143/5T	\$950	\$1,132	\$1,144	HT002X04NPW22	2.61	2.09	86.5	50.7	13.346	0.875
	1200	182/4T	\$1,418	\$1,644	\$1,660	HT002X06NPW22	3.23	2.58	88.5	87.5	15.86	1.125
	900	213/5T	\$2,780	\$3,052	\$3,082	HT002X08NPW22	3.39	2.71	85.5	149	18.021	1.375
3	3600	143/5T	\$1,060	\$1,240	\$1,254	HT003X02NPW22145T	3.71	2.97	86.5	52.0	13.358	0.875
	3600	182/4T	\$1,204	\$1,430	\$1,446	HT003X02NPW22	3.62	2.90	86.5	88.2	14.86	1.125
	1800	182/4T	\$1,204	\$1,430	\$1,446	HT003X04NPW22	3.88	3.10	89.5	90.4	14.86	1.125
	1200	213/5T	\$1,902	\$2,174	\$2,196	HT003X06NPW22	4.41	3.53	89.5	121	18.021	1.375
	900	213/5T	\$3,284	\$3,554	\$3,590	HT003X08NPW22	4.56	3.65	85.5	176	19.517	1.375
	3600	182/4T	\$1,408	\$1,634	\$1,652	HT005X02NPW22	5.90	4.72	88.5	88.2	15.86	1.125
5	1800	182/4T	\$1,368	\$1,594	\$1,610	HT005X04NPW22	6.45	5.16	89.5	94.8	15.86	1.125
	1200	213/5T	\$2,274	\$2,544	\$2,570	HT005X06NPW22	6.83	5.46	89.5	162	19.517	1.375
	900	254/6T	\$5,470	\$5,878	\$5,936	HT005X08NPW22	7.58	6.06	87.5	258	23.213	1.625
	3600	182/4T	\$1,566	\$1,794	\$1,812	HT007X02NPW22184T	8.76	7.01	89.5	93	15.86	1.125
7.5	3600	213/5T	\$1,844	\$2,114	\$2,136	HT007X02NPW22	8.78	7.02	89.5	139	18.021	1.375
	1800	213/5T	\$1,812	\$2,084	\$2,104	HT007X04NPW22	9.00	7.20	91.7	154	18.021	1.375
	1200	254/6T	\$3,500	\$3,908	\$3,948	HT007X06NPW22	9.48	7.58	91.0	276	23.213	1.625
	900	254/6T	\$5,502	\$5,910	\$5,968	HT007X08NPW22	11.1	8.88	87.5	284	24.945	1.625
10	3600	213/5T	\$2,124	\$2,396	\$2,420	HT010X02NPW22	11.6	9.28	90.2	163	19.517	1.375
	1800	213/5T	\$2,138	\$2,410	\$2,434	HT010X04NPW22	12.4	9.92	91.7	172	19.517	1.375
	1200	254/6T	\$3,872	\$4,280	\$4,322	HT010X06NPW22	12.9	10.3	91.0	290	24.945	1.625
	900	284/6T	\$6,960	\$7,504	\$7,578	HT010X08NPW22	13.4	10.7	90.2	373	26.433	1.875
15	3600	213/5T	\$2,736	\$3,006	\$3,036	HT015X02NPW22215T	17.0	13.6	91	163	19.517	1.375
	3600	254/6T	\$3,216	\$3,622	\$3,658	HT015X02NPW22	17.0	13.6	91.0	258	23.213	1.625
	1800	254/6T	\$3,080	\$3,486	\$3,522	HT015X04NPW22	18.0	14.4	92.4	265	23.213	1.625
	1200	284/6T	\$5,276	\$5,818	\$5,878	HT015X06NPW22	17.9	14.3	91.7	379	26.433	1.875
	900	284/6T	\$8,010	\$8,554	\$8,640	HT015X08NPW22	19.4	15.5	90.2	417	27.929	1.875
	3600	254/6T	\$4,162	\$4,570	\$4,614	HT020X02NPW22	23.2	18.6	91.0	282	24.945	1.625
20	1800	254/6T	\$3,782	\$4,188	\$4,230	HT020X04NPW22	24.1	19.3	93.0	298	24.945	1.625
	1200	284/6T	\$6,422	\$6,964	\$7,034	HT020X06NPW22	24.2	19.4	91.7	426	27.929	1.875
	900	324/6T	\$9,296	\$9,976	\$10,076	HT020X08NPW22	28.3	22.6	91.0	452	29.62	2.125
	3600	284/6T	\$5,456	\$6,000	\$6,060	HT025X02NPW22	28.5	22.8	91.7	362	25.061	1.625
25	1800	284/6T	\$4,760	\$5,302	\$5,356	HT025X04NPW22	29.5	23.6	93.6	388	26.433	1.875
	1200	324/6T	\$8,364	\$9,044	\$9,134	HT025X06NPW22	30.4	24.3	93.0	560	29.62	2.125
	900	324/6T	\$10,442	\$11,122	\$11,232	HT025X08NPW22	35.9	28.7	91.0	509	31.116	2.125
	3600	284/6T	\$6,072	\$6,616	\$6,682	HT030X02NPW22	33.8	27.0	91.7	392	26.557	1.625
30	1800	284/6T	\$5,384	\$5,928	\$5,986	HT030X04NPW22	35.1	28.1	93.6	437	27.929	1.875
	1200	324/6T	\$9,332	\$10,012	\$10,112	HT030X06NPW22	35.8	28.6	93.0	553	31.116	2.125
	900	364/5T	\$17,054	\$18,412	\$18,596	HT030X08NPW22	37.0	29.6	92.4	803	34.251	2.375
	3600	324/6T	\$8,096	\$8,776	\$8,864	HT040X02NPW22	45.8	36.6	92.4	547	28.12	1.875
40	1800	324/6T	\$7,648	\$8,328	\$8,410	HT040X04NPW22	48.2	38.6	94.1	492	29.62	2.125
	1200	364/5T	\$13,196	\$14,554	\$14,700	HT040X06NPW22	46.5	37.2	94.1	833	34.251	2.375
	900	364/5T	\$19,358	\$20,716	\$20,924	HT040X08NPW22	50.0	40.0	92.4	875	34.251	2.375
	3600	324/6T	\$9,898	\$10,578	\$10,684	HT050X02NPW22	56.1	44.9	93.0	584	29.616	1.875
50	1800	324/6T	\$8,672	\$9,350	\$9,444	HT050X04NPW22	59.2	47.4	94.5	536	31.116	2.125
	1200	364/5T	\$15,216	\$16,574	\$16,740	HT050X06NPW22	57.4	45.9	94.1	869	34.251	2.375
	900	404/5T	\$23,634	\$24,992	\$25,242	HT050X08NPBBW22	60.0	48.0	93.0	1012	39.73	2.875
	3600	364/5T	\$13,232	\$14,590	\$14,736	HT060X02NPW22	67.0	53.6	93.6	825	32.276	1.875
60	1800	364/5T	\$13,418	\$14,776	\$14,924	HT060X04NPW22	68.3	54.6	95.0	869	34.251	2.375
	1200	404/5T	\$18,168	\$19,526	\$19,722	HT060X06NPBBW22	69.5	55.6	94.5	1036	39.73	2.875
	900	404/5T	\$25,694	\$27,052	\$27,322	HT060X08NPBBW22	73.0	58.4	93.0	1111	39.73	2.875
	3600	364/5T	\$17,000	\$18,358	\$18,542	HT075X02NPW22	81.9	65.5	93.6	847	32.276	1.875
75	1800	364/5T	\$16,022	\$17,380	\$17,554	HT075X04NPW22	84.1	67.3	95.4	919	34.251	2.375
	1200	404/5T	\$19,716	\$21,074	\$21,286	HT075X06NPBBW22	84.9	67.9	94.5	1089	39.73	2.875
	900	444/5T	\$33,654	\$35,918	\$36,278	HT075X08NPBBW22	93.0	74.4	93.6	1444	45.193	3.375
	3600	404/5T	\$21,768	\$23,126	\$23,358	HT100X02NPW22	110	88.0	94.1	1045	36.732	2.125
100	1800	404/5T	\$19,848	\$21,206	\$21,418	HT100X04NPBBW22	111	88.8	95.4	1140	39.73	2.875
	1200	444/5T	\$28,230	\$30,494	\$30,798	HT100X06NPBBW22	121	96.8	95.0	1577	45.193	3.375
	900	444/5T	\$39,550	\$41,814	\$42,232	HT100X08NPBBW22	127	102	94.1	1599	45.193	3.375
	3600	444/5T	\$29,548	\$31,812	\$32,130	HT125X02NPW22	134	107	95.0	1599	41.443	2.375
125	1800	444/5T	\$26,476	\$28,742	\$29,028	HT125X04NPBBW22	139	111	95.4	1590	45.193	3.375
	1200	444/5T	\$32,464	\$34,728	\$35,074	HT125X06NPBBW22	143	114	95.0	1751	45.193	3.375
	900	504/5T	\$50,740	\$53,004	\$53,534	HT125X08NPBBW22505T	149	119	94.5	2110	54.095	3.625
	3600	445/7T	\$50,740	\$53,004	\$53,534	HT125X08NPBBW22447T	151	121	94.5	1887	49.051	3.375

Flange: Replace 'H' with 'C' for C Flange

Replace 'H' with 'D' for D Flange

Voltage: Replace 'X' with '4' for 208-230/460V

Replace 'X' with '5' for 575V

Bearings: Replace 'BB' with 'RB' for Rollers Bearings on frame 404/5T and up



# W22 NEMA Premium Efficiency Motors

## TEFC - Severe Duty - Purchasing Data

Rated Output		NEMAFrame	List Price	ListPricewith 'C' Flange	ListPricewith 'D' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	OverallLength "C" Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM						460V	575V				
150	3600	444/5TS	\$36,444	\$38,708	\$39,096	HT150X02NPBBW22	161	129	95.0	1709	41.443	2.375
	1800	444/5T	\$30,670	\$32,934	\$33,264	HT150X04NPBBW22	170	136	95.8	1676	45.193	3.375
	1200	504/5T	\$37,870	\$40,134	\$40,536	HT150X06NPBBW22	176	141	95.8	2249	54.095	3.625
	1200	445/7T	\$37,870	\$40,134	\$40,536	HT150X06NPBBW22447T	176	141	95.8	2042	49.051	3.375
	900	504/5T	\$61,450	\$63,714	\$64,350	HT150X08NPBBW22	180	144	94.5	2293	54.095	3.625
	900	445/7T	\$61,450	\$63,714	\$64,350	HT150X08NPBBW22447T	185	148	94.5	2042	49.051	3.375
200	3600	504/5TS	\$46,384	\$48,648	\$49,134	HT200X02NPBBW22505TS	222	178	95.4	2168	48.125	2.375
	3600	445/7TS	\$46,384	\$48,648	\$49,134	HT200X02NPBBW22447TS	219	175	95.4	1914	45.301	2.375
	1800	444/5T	\$37,662	\$39,926	\$40,326	HT200X04NPBBW22445T	230	184	96.2	2095	45.157	3.375
	1800	504/5T	\$39,708	\$41,972	\$42,392	HT200X04NPBBW22504T	228	182	96.2	2273	54.095	3.625
	1800	445/7T	\$37,662	\$39,926	\$40,326	HT200X04NPBBW22447T	230	184	96.2	1899	49.051	3.375
	1200	504/5T	\$48,258	\$50,522	\$51,028	HT200X06NPBBW22505T	237	190	95.8	2459	54.095	3.625
	1200	445/7T	\$48,258	\$50,522	\$51,028	HT200X06NPBBW22447T	237	190	95.8	2247	49.051	3.375
	900	447/9T	\$72,212	\$75,610	\$76,366	HT200X08NPBBW22449T	254	203	95.0	2509	56.338	3.375
900	586/7T	\$87,980	\$93,868	\$94,806	HT200X08NPBBW22587T	247	198	95.4	3334	61.704	3.875	
250	3600	504/5TS	\$53,080	\$55,344	\$55,898	HT250X02NPBBW22505TS	269	215	95.8	2388	48.215	2.375
	3600	445/7TS	\$52,446	\$54,710	\$55,258	HT250X02NPBBW22447TS	266	213	95.8	2159	45.301	2.375
	3600	447/9TS	\$59,692	\$63,088	\$63,720	HT250X02NPBBW22449TS	266	213	95.8	2159	52.588	2.375
	1800	504/5T	\$49,050	\$51,314	\$51,828	HT250X04NPBBW22505T	277	222	96.2	2450	54.095	3.625
	1800	445/7T	\$49,050	\$51,314	\$51,828	HT250X04NPBBW22447T	281	225	96.2	2079	49.051	3.375
	1800	447/9T	\$54,938	\$58,334	\$58,916	HT250X04NPBBW22449T	281	225	96.2	2079	56.338	3.375
	1200	447/9T	\$62,486	\$65,882	\$66,542	HT250X06NPBBW22449T	292	234	95.8	2538	56.338	3.375
	1200	586/7T	\$77,578	\$83,466	\$84,300	HT250X06NPBBW22587T	299	239	95.8	3206	61.704	3.875
	900	L447/9T	\$85,006	\$88,402	\$89,286	HT250X08NPBBW22L449T	308	246	95.4	3550	57.181	3.375
	900	586/7T	\$97,694	\$103,580	\$104,616	HT250X08NPBBW22587T	299	239	95.8	3649	61.704	3.875
300	3600	447/9TS	\$72,376	\$75,772	\$76,530	HT300X02NPBBW22449TS	320	256	95.8	2545	52.588	2.375
	3600	586/7TS	\$83,040	\$88,926	\$89,816	HT300X02NPBBW22587TS	317	254	95.8	3382	54.829	2.375
	1800	447/9T	\$60,158	\$63,554	\$64,190	HT300X04NPBBW22449T	330	264	96.2	2381	56.338	3.375
	1800	586/7T	\$70,772	\$76,660	\$77,426	HT300X04NPBBW22587T	334	267	96.2	3080	61.704	3.875
	1200	447/9T	\$67,816	\$71,212	\$71,924	HT300X06NPBBW22449T	347	278	95.8	2613	56.338	3.375
	1200	586/7T	\$88,890	\$94,778	\$95,726	HT300X06NPBBW22587T	356	285	95.8	3495	61.704	3.875
	900	L447/9T	\$96,096	\$99,492	\$100,486	HT300X08NPBBW22L449T	371	297	95.4	3704	57.181	3.375
	900	586/7T	\$112,052	\$117,940	\$119,120	HT300X08NPBBW22587T	356	285	95.8	4035	61.704	3.875
	3600	447/9TS	\$78,914	\$82,310	\$83,134	HT350X02NPBBW22449TS	377	302	96.2	2701	52.588	2.375
	3600	586/7TS	\$93,640	\$99,528	\$100,522	HT350X02NPBBW22587TS	373	298	96.2	3621	54.829	2.375
350	1800	447/9T	\$66,820	\$70,216	\$70,918	HT350X04NPBBW22449T	394	315	96.2	2675	56.338	3.375
	1800	586/7T	\$82,406	\$88,292	\$89,176	HT350X04NPBBW22587T	394	315	96.2	2675	61.704	3.875
	1200	L447/9T	\$86,794	\$90,190	\$91,092	HT350X06NPBBW22L449T	404	323	96.2	3574	57.181	3.375
	1200	586/7T	\$96,842	\$102,730	\$103,756	HT350X06NPBBW22587T	421	337	95.8	3784	61.704	3.875
	900	586/7T	\$113,258	\$119,144	\$120,336	HT350X08NPBBW22	426	341	95.8	4309	54.829	3.875
	3600	L447/9TS	\$91,386	\$94,782	\$95,730	HT400X02NPBW22L449TS	432	346	95.8	3158	53.431	2.375
400	3600	586/7TS	\$100,850	\$106,736	\$107,804	HT400X02NPBBW22587TS	430	344	96.2	3749	54.829	2.375
	1800	L447/9T	\$80,858	\$84,254	\$85,096	HT400X04NPBBW22L449T	455	364	96.2	3285	57.181	3.375
	1800	586/7T	\$94,624	\$100,510	\$101,516	HT400X04NPBBW22587T	455	364	96.2	3455	61.704	3.875
	1200	L447/9T	\$96,806	\$100,202	\$101,204	HT400X06NPBBW22L449T	477	382	96.2	3682	57.181	3.375
	1200	586/7T	\$104,354	\$110,242	\$111,344	HT400X06NPBBW22587T	483	386	96.2	4115	61.704	3.875
	900	588/9T	\$116,472	\$122,360	\$123,582	HT400X08NPBBW22	498	398	95.7	4851	69.381	3.875
450	3600	L447/9TS	\$93,514	\$96,910	\$97,880	HT450X02NPBW22L449TS	475	380	95.8	3268	53.431	2.375
	3600	586/7TS	\$105,894	\$111,782	\$112,898	HT450X02NPBBW22587TS	473	378	96.2	3918	54.829	2.375
	1800	L447/9T	\$86,110	\$89,506	\$90,402	HT450X04NPBBW22L449T	504	401	96.2	3396	57.181	3.375
	1800	586/7T	\$98,926	\$104,812	\$105,860	HT450X04NPBBW22587T	501	401	96.2	3640	61.704	3.875
	1200	586/7T	\$109,612	\$115,498	\$116,654	HT450X06NPBBW22	532	426	96.2	4384	61.704	3.875
	900	588/9T	\$124,116	\$130,004	\$131,304	HT450X08NPBBW22	540	432	95.8	5281	69.381	3.875
500	3600	586/7TS	\$111,188	\$117,074	\$118,246	HT500X02NPBBW22	530	424	96.2	4086	54.829	2.375
	1800	L447/9T	\$90,748	\$94,144	\$95,084	HT500X04NPBBW22L449T	561	449	96.2	3462	57.181	3.375
	1800	586/7T	\$104,268	\$110,156	\$111,258	HT500X04NPBBW22587T	555	444	96.2	3912	61.704	3.875
	1200	586/7T	\$124,588	\$130,474	\$131,778	HT500X06NPBBW22	603	482	96.2	4403	61.704	3.875
	3600	588/9TS	\$108,896	\$114,784	\$115,932	HT550X02NPBBW22	578	462	96.5	4410	62.506	2.375
	1800	586/7T	\$105,312	\$111,198	\$112,310	HT550X04NPBBW22	605	484	96.5	4335	61.902	3.875
550	1200	588/9T	\$127,078	\$132,966	\$134,296	HT550X06NPBBW22	661	529	96.1	4734	69.381	3.875
	3600	588/9TS	\$108,896	\$114,784	\$115,932	HT550X02NPBBW22	578	462	96.5	4410	62.506	2.375
	1800	586/7T	\$105,312	\$111,198	\$112,310	HT550X04NPBBW22	605	484	96.5	4335	61.902	3.875
	1200	588/9T	\$127,078	\$132,966	\$134,296	HT550X06NPBBW22	661	529	96.1	4734	69.381	3.875
600	3600	588/9TS	\$111,324	\$117,210	\$118,382	HT600X02NPBBW22	650	520	96.5	4410	62.506	2.375
	1800	586/7T	\$111,012	\$116,898	\$118,068	HT600X04NPBBW22	665	532	96.5	4335	61.704	3.875
	1200	588/9T	\$132,692	\$138,580	\$139,966	HT600X06NPBBW22	743	594	96.2	5173	69.381	3.875
650	3600	588/9TS	\$117,958	\$123,844	\$125,082	HT650X02NPBBW22	685	548	96.6	4635	62.506	2.375
	1800	588/9T	\$117,542	\$123,428	\$124,662	HT650X04NPBBW22	734	587	96.6	4395	69.381	3.875
700	3600	588/9TS	\$123,184	\$129,070	\$130,360	HT700X02NPBBW22	736	589	96.6	4805	62.506	2.375
	1800	588/9T	\$121,032	\$126,920	\$128,188	HT700X04NPBBW22	788	630	96.6	4584	69.381	3.875
750	1800	588/9T	\$125,344	\$131,230	\$132,542	HT750X04NPBBW22	840	672	96.7	4952	69.381	3.875

Flange: Replace 'H' with 'C' for C Flange  
 Replace 'H' with 'D' for D Flange  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V  
 Bearings: Replace 'BB' with 'RB' for Rollers Bearings on frame 404/5T and up



# W22 NEMA Premium Efficiency Motors

## TEFC - Severe Duty - Electrical Data

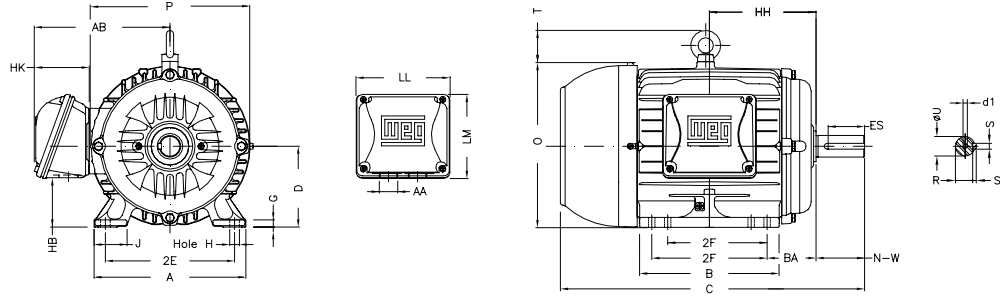
Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (lI/in)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V								50%	75%	100%	50%	75%	100%
150	110	3570	444/5TS	322	161	129	6.5	180%	240%	22	1709	81.0	1.15	94.1	95.0	95.0	0.83	0.88	0.90
		1780	444/5T	340	170	136	6.6	200%	250%	27	1676	73.0	1.15	95.4	95.8	95.8	0.74	0.82	0.85
		1190	504/5T	352	176	141	6.7	230%	250%	29	2249	70.0	1.15	94.5	95.4	95.8	0.67	0.78	0.82
		1190	445/7T	352	176	141	6.7	240%	290%	20	2042	69.0	1.15	95.0	95.4	95.8	0.67	0.78	0.82
		890	504/5T	360	180	144	5.8	180%	200%	21	2293	66.0	1.15	94.5	94.5	94.5	0.68	0.77	0.81
		890	445/7T	370	185	148	6.0	190%	210%	15	2042	63.0	1.15	94.5	94.5	94.5	0.64	0.74	0.79
200	150	3575	504/5TS	444	222	178	7.2	200%	270%	17	2168	81.0	1.15	94.1	95.0	95.4	0.81	0.87	0.89
		3570	445/7TS	438	219	175	7.2	240%	240%	14	1914	81.0	1.15	95.0	95.4	95.4	0.86	0.89	0.90
		1785	504/5T	456	228	182	6.6	220%	220%	22	2273	---	1.15	95.4	96.2	96.2	0.75	0.83	0.86
		1780	445/7T	460	230	184	6.8	240%	250%	16	1899	---	1.15	95.4	96.2	96.2	0.73	0.82	0.85
		1190	504/5T	474	237	190	6.6	220%	230%	21	2459	70.0	1.15	95.0	95.4	95.8	0.70	0.80	0.83
		1190	445/7T	474	237	190	6.6	230%	240%	15	2247	69.0	1.15	95.0	95.4	95.8	0.68	0.79	0.83
		890	447/9T	508	254	203	6.2	200%	220%	13	2509	---	1.15	94.5	95.0	95.0	0.62	0.73	0.78
		895	586/7T	494	247	198	6.3	140%	210%	40	3334	75.0	1.15	95.0	95.4	95.4	0.65	0.75	0.80
		3575	504/5TS	538	269	215	7.0	200%	240%	23	2388	81.0	1.15	95.0	95.8	95.8	0.85	0.89	0.90
250	185	3570	445/7TS	532	266	213	6.5	230%	220%	18	2159	81.0	1.15	95.4	95.8	95.8	0.87	0.90	0.91
		1785	504/5T	554	277	222	6.6	230%	220%	20	2450	75.0	1.15	95.8	96.2	96.2	0.78	0.85	0.87
		1780	445/7T	562	281	225	6.6	230%	240%	15	2079	73.0	1.15	95.8	96.2	96.2	0.75	0.83	0.86
		1185	447/9T	584	292	234	6.7	240%	240%	12	2538	---	1.15	95.0	95.4	95.8	0.68	0.79	0.83
		1190	586/7T	598	299	239	6.2	200%	210%	30	3206	77.0	1.15	95.0	95.4	95.8	0.68	0.77	0.81
		895	586/7T	598	299	239	6.2	140%	210%	40	3649	75.0	1.15	95.4	95.8	95.8	0.66	0.76	0.81
		890	L447/9T	616	308	246	6	200%	230%	24	3549	64	1.15	95.4	95.4	95.4	0.65	0.75	0.79
		3575	504/5TS	640	320	256	7.0	250%	240%	14	2545	---	1.15	95.4	95.8	95.8	0.86	0.89	0.90
		3580	586/7TS	634	317	254	6.5	150%	220%	35	3382	84.0	1.15	95.0	95.8	95.8	0.87	0.90	0.91
300	220	1780	447/9T	660	330	264	6.5	230%	230%	16	2381	---	1.15	95.8	96.2	96.2	0.77	0.84	0.87
		1790	586/7T	668	334	267	6.8	230%	230%	19	3080	78.0	1.15	95.4	96.2	96.2	0.77	0.84	0.86
		1185	447/9T	694	347	278	6.8	250%	250%	9	2613	---	1.15	95.4	95.8	95.8	0.68	0.78	0.83
		1190	586/7T	712	356	285	6.0	200%	200%	30	3495	77.0	1.15	95.4	95.8	95.8	0.69	0.78	0.81
		895	586/7T	712	356	285	6.5	150%	220%	40	4035	75.0	1.15	95.4	95.8	95.8	0.66	0.77	0.81
		890	L447/9T	742	371	297	6.3	220%	240%	16	3704	64	1	95.4	95.4	95.4	0.62	0.73	0.78
		3575	447/9TS	754	377	302	7.6	240%	250%	10	2701	---	1.15	95.4	96.2	96.2	0.85	0.89	0.90
		3580	586/7TS	746	373	298	6.6	160%	230%	28	3621	84.0	1.15	95.4	96.2	96.2	0.86	0.90	0.91
		1780	447/9T	788	394	315	6.9	250%	240%	14	2675	---	1.15	95.8	96.2	96.2	0.77	0.84	0.86
350	260	1790	586/7T	788	394	315	6.4	200%	200%	23	2675	78.0	1.15	95.8	96.2	96.2	0.78	0.85	0.86
		1190	586/7T	842	421	337	6.3	210%	210%	29	3784	77.0	1.15	95.4	95.8	95.8	0.67	0.77	0.81
		895	586/7T*	852	426	341	6.4	160%	230%	34	4309	75.0	1.15	95.4	95.8	95.8	0.64	0.75	0.80
		1190	L447/9T	830	415	332	6.9	250%	270%	23	3574	71	1.15	95.4	95.8	95.8	0.66	0.77	0.82
		3580	586/7TS	860	430	344	6.5	180%	220%	48	3749	84.0	1.15	95.8	96.2	96.2	0.88	0.90	0.91
		3580	L447/9TS	864	432	346	6.7	220%	250%	25	3157	88	1	95.4	95.8	95.8	0.85	0.9	0.91
		1790	586/7T	910	455	364	6.4	200%	220%	19	3455	78.0	1.15	95.8	96.2	96.2	0.78	0.85	0.86
		1785	L447/9T	890	445	356	6.5	250%	260%	21	3285	79	1.15	95.4	95.8	96.2	0.8	0.85	0.88
		1190	586/7T	966	483	386	6.5	230%	210%	29	4115	77.0	1.15	95.4	95.8	96.2	0.67	0.77	0.81
400	300	1190	L447/9T	954	477	382	6.9	240%	250%	13	3682	71	1	95.4	95.8	95.8	0.68	0.78	0.82
		895	588/9T	996	498	398	6.4	150%	230%	47	4851	75.0	1.15	95.0	95.6	95.7	0.62	0.73	0.79
		3580	586/7TS	946	473	378	6.6	200%	230%	34	3918	84.0	1.15	95.8	96.2	96.2	0.88	0.90	0.91
		3575	L447/9TS	950	475	380	7.2	240%	260%	26	3267	88	1	95.4	95.8	95.8	0.84	0.89	0.91
		1790	586/7T	1002	501	401	6.8	240%	210%	16	3640	78.0	1.15	95.8	96.2	96.2	0.78	0.85	0.86
		1190	586/7T	1064	532	426	6.2	210%	210%	26	4384	77.0	1.15	95.8	96.2	96.2	0.67	0.77	0.81
		1785	L447/9T	1002	501	401	6.9	260%	250%	22	3395	79	1	95.4	96.2	96.2	0.74	0.83	0.86
		895	588/9T	1080	540	432	6.5	160%	230%	46	5281	75.0	1.15	95.2	95.7	95.8	0.63	0.74	0.80
		3580	586/7TS	1060	530	424	6.8	220%	240%	39	4086	84.0	1.15	95.8	96.2	96.2	0.88	0.90	0.91
500	370	1790	586/7T	1110	555	444	6.5	240%	200%	16	3912	78.0	1.15	95.8	96.2	96.2	0.80	0.85	0.87
		1190	586/7T	1206	603	482	6.5	220%	210%	25	4403	77.0	1.15	95.8	96.2	96.2	0.66	0.76	0.80
		1789	L447/9T	1122	561	449	7.5	290%	260%	22	3461	79	1	95.4	96.2	96.2	0.73	0.82	0.86
		1190	588/9T	1322	661	529	6.5	220%	230%	30	4734	77.0	1.15	95.2	96.0	96.1	0.63	0.74	0.79
600	450	3585	588/9TS	1300	650	520	7.4	230%	270%	33	4410	89.0	1.15	96.0	96.5	96.5	0.84	0.89	0.90
		1790	586/7T	1330	665	532	7.1	220%	250%	16	4335	78.0	1.15	96.2	96.4	96.5	0.74	0.82	0.86
		1190	588/9T	1486	743	594	6.5	220%	230%	31	5173	77.0	1.15	95.4	96.1	96.2	0.63	0.74	0.79
650	480	3585	588/9TS	1370	685	548	7.1	200%	240%	56	4635	89.0	1.15	96.1	96.6	96.6	0.86	0.90	0.91
		1790	588/9T	1468	734	587	7.4	250%	270%	22	4395	81.0	1.15	96.0	96.5	96.6	0.71	0.81	0.85
700	515	3585	588/9TS*	1472	736	589	7.2	230%	250%	34	4805	89.0	1.15	96.2	96.6	96.6	0.86	0.90	0.91
		1790	588/9T	1576	788	630	7.0	250%	260%	23	4584	81.0	1.15	96.2	96.5	96.6	0.71	0.81	0.85
750	560	1790	588/9T*	1680	840	672	7.0	240%	250%	29	4952	81.0	1.00	96.3	96.6	96.7	0.70	0.80	0.85

\* Not Division 2

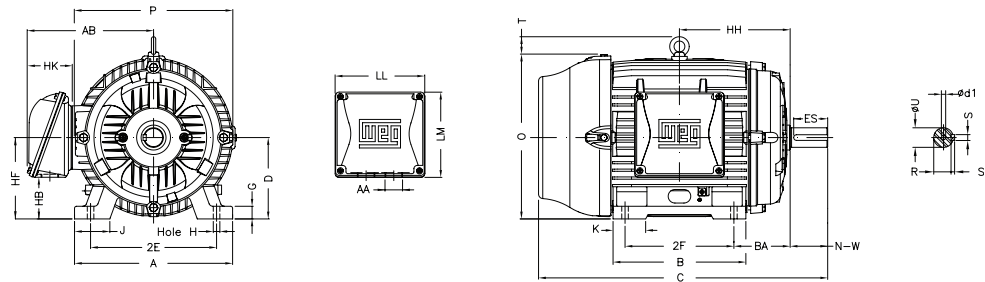
# W22 NEMA Premium Efficiency Motors

TEFC - Severe Duty - Mechanical Data

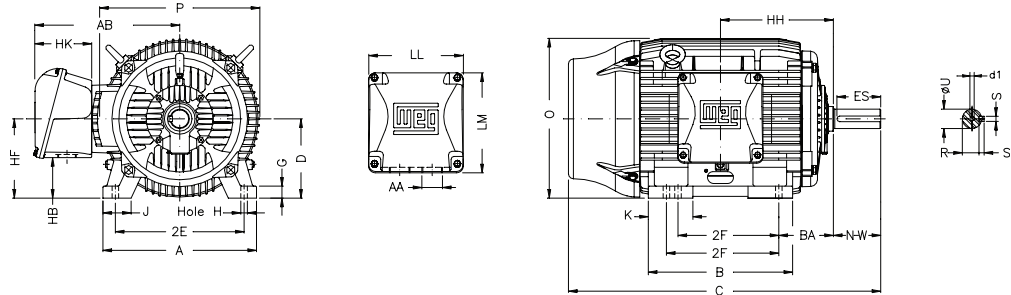
Frames 143T to 184T



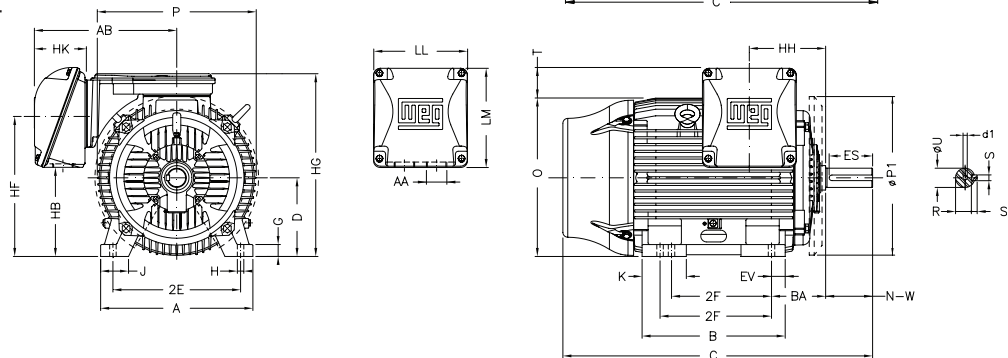
Frames 213T to 326T



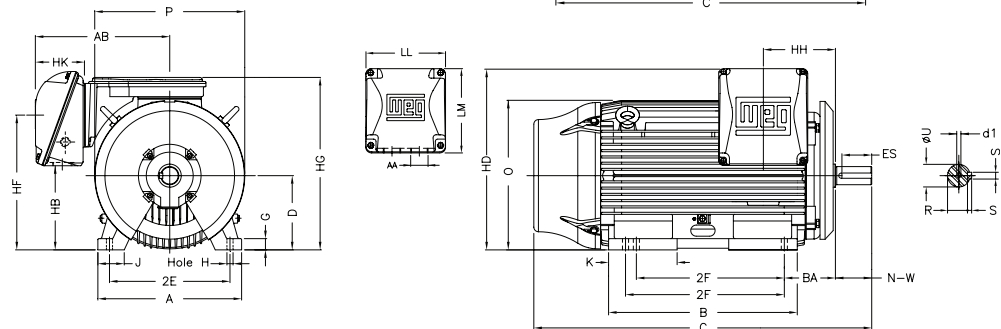
Frames 364 to 444/5T



Frames 445/7T to 586/7T



Frame 588/9T



# W22 NEMA Premium Efficiency Motors

## TEFC - Severe Duty - Mechanical Data

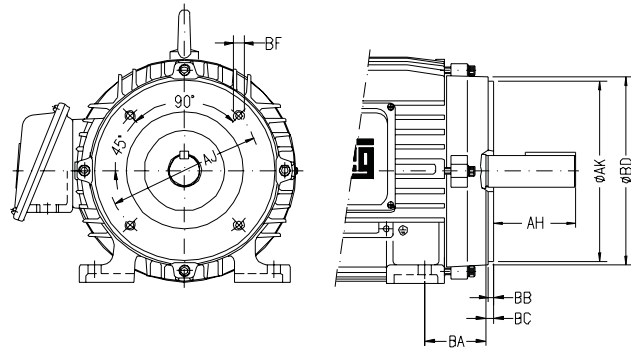
NEMA Frames	MOUNTING				A	B	C	D	G	J	O	K	P	T	KEYWAY			SHAFT EXTENSION		
	2E	2F	H	BA											S	R	ES	N-W	U	
143/ST	5.500	5.000	0.344	2.250	6.457	6.142	13.346	3.500	0.354	1.437	7.122	-	7.047	-	0.187	0.765	1.575	2.250	0.875	
182/4T	7.500	5.500	0.406	2.750	8.661	6.969	15.860	4.500	0.394	1.594	9.343		8.740	1.772	0.250	0.984	1.969	2.750	1.125	
213/5T	8.500	7.000		3.500	9.764	8.858	19.517	5.250		0.827	1.988	10.841	2.165		10.669	0.313	1.203	2.480	3.375	1.375
254/6T	10.000	10.000	0.531	4.250	12.126	11.732	24.945	6.250		2.539	12.598	2.559	12.953	2.087	0.375	1.406	2.756	4.000	1.625	
284/6TS	11.000	11.000		4.750	13.780	13.071	26.557	7.000	1.023	3.110	14.067	2.874	14.173		0.375	1.406	2.480	3.250	1.625	
284/6T			27.929																	1.594
324/6TS	12.500	12.000	0.657	5.250	15.157	14.567	29.616	8.000	1.300	3.189	15.953	3.189	15.827	2.441	0.500	1.594	2.756	3.750	1.875	
324/6T							31.116													
364/5TS	14.016	11.260/12.244	0.660	5.875	17.165	16.220	32.276	9.000	1.480	3.150	17.716	4.921	17.914			1.591	1.968	3.748	1.875	
364/5T							34.251													
404/5TS	15.984	12.244/13.740		6.625	19.921	18.386	36.732	10.000	1.811		19.566	5.669	19.134			0.500	1.842	2.756	4.250	2.125
404/5T							39.730													
444/5TS		14.500/16.500			21.929	20.315	41.443		1.630	3.937	22.795	5.866				0.625	2.021	3.000	4.750	2.375
444/5T							45.193													
445/7TS		16.500/20.000	0.810		21.496	23.897	45.301		1.654							0.625	2.021	3.000	4.750	2.375
445/7T							49.051													
447/9TS	18.000	20.000/25.000		7.500	21.929	31.535	52.588	11.000		4.331		6.692				0.625	2.021	3.000	4.750	2.375
447/9T							56.338													
L447/9TS		20.000/25.000			21.929	31.535	53.431		1.630		23.874	8.780				0.625	2.021	3.000	4.750	2.375
L447/9T							57.181													
504/5TS	20.000	16.000/18.000	1.250	8.500	24.724	24.449	48.215	12.500	2.146	4.724	25.425	7.228				0.625	2.021	3.000	4.750	2.375
504/5T							54.095													
586/7TS		22.000/25.000			29.921	29.528	54.829									0.625	2.021	3.000	4.750	2.375
586/7T							61.704													
588/9TS	23.000	28.000/32.000	1.181	10.000	29.528	37.980	62.506	14.500	2.492	5.512	28.985					0.625	2.021	3.000	4.750	2.375
588/9T							69.381													

NEMA Frames	TERMINAL BOX									d1	BEARINGS	
	AB	HB	HF	HG	HH	HK	LL	LM	AA		D.E.	N.D.E.
143/ST	6.181	1.728	3.500		4.750	2.638	4.527	4.094	NPT3/4"	A 4	6205 ZZ	6204 ZZ
182/4T	7.559	2.236	4.500		5.500	3.110	5.512	5.236	NPT1"		6207 ZZ	6206 ZZ
213/5T	8.583	3.006	5.250		7.000					A 4	6308 ZZ	6207 ZZ
254/6T	10.394	3.061	6.565		9.250						6309 C3	6209 C3
284/6TS	10.984	3.535	7.000		10.250	3.937	7.795	7.402	NPT 1/2"	A 4	6311 C3	6211 C3
284/6T												
324/6TS	12.480	4.811	8.708		11.250	4.645	8.976	8.543	NPT 2"	A 4	6312 C3	6212 C3
324/6T												
364/5TS	16.378	4.055			12.362				NPT 3"	UNC 3/4"-10	6314 C3	6314 C3
364/5T									6.378		9.646	
404/5TS		5.040			14.213					UNC 3/4"-10	6319 C3	6316 C3
404/5T									15.748		5.787	
444/5TS	18.386	5.394								2xNPT 3"	6314 C3	6316 C3
444/5T												
445/7TS	20.670	12.598	20.724	26.850						UNC 3/4"-10	6314 C3	6316 C3
445/7T									11.803		6.968	
447/9TS	23.071	11.417	20.551	28.236						2xNPT 3"	6314 C3	6316 C3
447/9T									11.500		8.464	
L447/9TS	23.071	11.417	20.551	28.236						2xNPT 3"	6314 C3	6316 C3
L447/9T									11.500		8.464	
504/5TS	20.670	15.275	24.291	29.409						UNC 3/4"-10	6314 C3	6316 C3
504/5T									10.394		6.968	
586/7TS	23.977	17.322	26.732							UNC 7/8"-9	6314 C3	6316 C3
586/7T									34.015		13.386	
588/9TS	27.600	8.464	28.346							UNC 7/8"-9	6314 C3	6316 C3
588/9T									34.015		13.386	

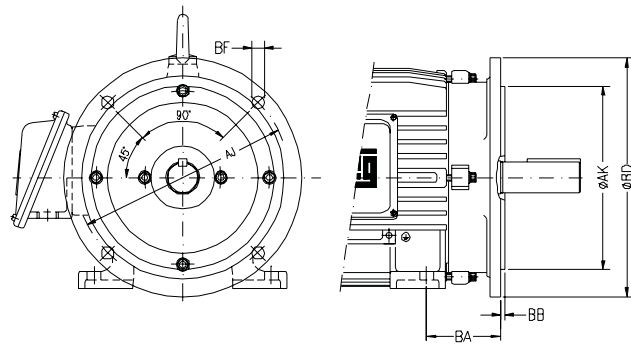
# W22 NEMA Premium Efficiency Motors

## TEFC - Severe Duty - Mechanical Data

"C" FLANGE DIMENSIONS										
NEMA FRAMES	BA	AJ	AK	BD	BF		BB	BC	AH	
					NUMBER	TAP SIZE				
143/5TC	2.250	5.875	4.500	6.500	4	UNC3/8"x16	0.156	0.125	2.125	
182/4TC	2.750					UNC1/2"x13			2.625	
213/5TC	3.500	7.250	8.500	8.875					3.125	
254/6TC	4.250								3.75	
284/6TC	4.750	9.000	10.500	11.031					4.375	
284/6TSC									3.000	
324/6TC	5.250			13.583					5.000	
324/6TSC									3.500	
364/5TC	5.875	11.000	12.500						5.625	
364/5TSC									3.500	
404/5TC	6.625								7.000	
404/5TSC									4.000	
444/5TC					8	UNC5/8"x11	0.250	0.250	8.250	
444/5TSC										4.500
445/7TC										8.250
445/7TSC	7.500	14.000	16.000							4.500
447/9TC										8.250
447/9TSC				17.913						4.500
L447/9TC										8.250
L447/9TSC										4.500
504/5TC	8.500									10.375
504/5TSC		14.500	16.500							4.500
586/7TC	10.000									11.375
586/7TSC										4.500
588/9TC										
588/9TSC										



"D" FLANGE DIMENSIONS													
NEMA FRAMES	BA	AJ	AK	BD	BF		BB						
					NUMBER	TAP SIZE							
143/5TD	2.250	10.000	9.000	11.000	4	0.562	0.203						
182/4TD	2.750												
213/5TD	3.500												
254/6TD	4.250	12.500	11.000	14.000									
284/6TD	4.750												
284/6TSD													
324/6TD	5.250	16.000	14.000	18.000									
324/6TSD													
364/5TD	5.875						17.716						
364/5TSD													
404/5TD	6.625	20.000	18.000	22.000	8	0.828	0.250						
404/5TSD													
444/5TD													
444/5TSD													
445/7TD	7.500									21.653			
445/7TSD													
447/9TD													
447/9TSD													
504/5TD	8.500	22.000	18.000	24.803									
504/5TSD													
586/7TD													
586/7TSD	10.000	30.000	28.000	32.000									
588/9TD													
588/9TSD													



# W22 Super Premium Efficiency Motors

TEFC - Severe Duty

## Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4 & 6 pole, 60Hz
- Voltage: 230/460V, 575V
- Totally Enclosed Fan Cooled -TEFC (IP55) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- Sealing:
  - V Ring sealing up to frame 324/6T.
  - WSeal® (double lipped V Ring with metallic cap) sealing on both endshields from frame 364/5T and up
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft up to frame 364/5T, all 2 pole motors
- 4140 for 404/5T shaft upwards in 4, 6 and 8 pole motors
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- 230/460V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2000V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Insulation System:
  - Dip and Bake Insulation system with class "H" resin up to frame 324/6T
  - CFRI Continuous Flow Resin Impregnation Insulation system with class "H" resin for frame 364/5T and up.
- Insulated end bells from frame L447/9T and up
- NEMA design "A"
- Service Factor:
  - 1.25 up to 100HP
  - 1.15 from 125HP and up
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Re-configurable Terminal Box for frames 445/7T and up
- Stainless steel nameplate with laser etching
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 207A - Frames 143T to 215T
  - 203A - Frames 254T to 586/7T
- Color: RAL 6002 - Green
- Fitted with closed rubber drain breathers
- Regreasable bearings for frames 254/6T and up
- All frames have dual mounting



Class I, Div 2, Groups A, B, C & D  
 Class II, Div 2, Groups F & G  
 Class I, Zone 2, IIC



Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
143/5T - 586/7T ≤ 250HP	All	20:1	1000:1	Any
	All	1000:1*		WEG

\* Can only be achieved by a WEG VFD running in Sensorless Vector  
 See page 7.6 for details

## Optional Features

- 50Hz
- Special voltages
- Special shafts
- Space heaters
- Labyrinth taconite seal available for all ratings
- Thermostats, Thermistors, RTD's (PT100)
- Additional terminal box
- Drip cover (canopy) for shaft down applications
- NEMA C & D flanges and Metric flanges for all ratings
- Roller bearings
- Special paint
- Shaft grounding (Aegis)
- Insulated bearings
- Insulated end bells
- Degree of protection: IP56, IP65, IP66
- Forced ventilation
- Encoders
- No feet



# W22 Super Premium Efficiency Motors

## TEFC - Severe Duty - Purchasing Data

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	List Price with 'D' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM						460V	575V				
1	3600	143/5T	\$1,228	\$1,474	\$1,488	HT000X02SPW22	1.34	1.08	84.0	39.7	13.346	0.875
	1800	L143/5T	\$1,148	\$1,402	\$1,416	HT000X04SPW22	1.33	1.06	87.5	50.7	14.566	0.875
1.5	3600	143/5T	\$1,266	\$1,510	\$1,526	HT001X02SPW22	1.92	1.54	86.5	41.9	13.346	0.875
	1800	L143/5T	\$1,234	\$1,480	\$1,494	HT001X04SPW22	1.93	1.54	88.5	55.1	14.566	0.875
2	3600	143/5T	\$1,326	\$1,572	\$1,586	HT002X02SPW22	2.56	2.05	87.5	50.7	13.346	0.875
	1800	L143/5T	\$1,284	\$1,528	\$1,544	HT002X04SPW22	2.64	2.11	88.5	57.3	14.566	0.875
3	3600	182/4T	\$1,626	\$1,932	\$1,952	HT003X02SPW22	3.67	2.94	88.5	88.2	15.86	1.125
	1800	L182/4T	\$1,626	\$1,932	\$1,952	HT003X04SPW22	3.76	3.01	91.0	92.6	15.86	1.125
	1200	L213/5T	\$2,568	\$2,934	\$2,964	HT003X06SPW22	4.30	3.44	90.2	172	19.517	1.375
5	3600	182/4T	\$1,902	\$2,206	\$2,228	HT005X02SPW22	5.99	4.79	90.2	94.8	15.86	1.125
	1800	L182/4T	\$1,846	\$2,152	\$2,174	HT005X04SPW22	6.40	5.12	91.0	101	17.041	1.125
	1200	L213/5T	\$3,068	\$3,436	\$3,470	HT005X06SPW22	6.83	5.46	91.0	198	20.905	1.375
7.5	3600	213/5T	\$2,488	\$2,854	\$2,884	HT007X02SPW22	8.82	7.06	91.0	141	19.517	1.375
	1800	L213/5T	\$2,446	\$2,812	\$2,840	HT007X04SPW22	8.94	7.15	93.0	172	19.517	1.375
	1200	254/6T	\$4,726	\$5,276	\$5,328	HT007X06SPW22	9.46	7.57	92.4	304	24.945	1.625
10	3600	213/5T	\$2,868	\$3,234	\$3,266	HT010X02SPW22	11.5	9.20	91.7	172	19.517	1.375
	1800	L213/5T	\$2,886	\$3,252	\$3,284	HT010X04SPW22	12.0	9.60	93.0	181	20.905	1.375
	1200	254/6T	\$5,226	\$5,776	\$5,834	HT010X06SPW22	12.7	10.2	92.4	344	24.945	1.625
15	3600	254/6T	\$4,340	\$4,890	\$4,940	HT015X02SPW22	17.4	13.9	92.4	273	24.945	1.625
	1800	254/6T	\$4,156	\$4,708	\$4,754	HT015X04SPW22	17.8	14.2	93.6	280	24.945	1.625
	1200	284/6T	\$7,122	\$7,856	\$7,934	HT015X06SPW22	18.1	14.5	93.0	410	27.929	1.875
20	3600	254/6T	\$5,826	\$6,396	\$6,460	HT020X02SPW22	23.0	18.4	93.0	311	24.945	1.625
	1800	254/6T	\$5,294	\$5,864	\$5,922	HT020X04SPW22	24.7	19.8	94.1	326	24.945	1.625
	1200	284/6T	\$8,990	\$9,750	\$9,848	HT020X06SPW22	24.4	19.5	93.0	474	27.929	1.875
25	3600	284/6TS	\$7,366	\$8,100	\$8,182	HT025X02SPW22	28.5	22.8	93.6	386	27.929	1.875
	1800	284/6T	\$6,424	\$7,158	\$7,230	HT025X04SPW22	30.3	24.2	94.5	406	27.929	1.875
	1200	324/6T	\$11,292	\$12,208	\$12,330	HT025X06SPW22	30.8	24.6	94.1	527	31.116	2.125
30	3600	284/6TS	\$8,502	\$9,262	\$9,354	HT030X02SPW22	33.5	26.8	93.6	437	26.557	1.625
	1800	284/6T	\$7,538	\$8,298	\$8,382	HT030X04SPW22	35.6	28.5	94.5	450	27.929	1.875
	1200	324/6T	\$13,066	\$14,016	\$14,158	HT030X06SPW22	36.7	29.4	94.1	584	31.116	2.125
40	3600	324/6TS	\$10,120	\$10,970	\$11,080	HT040X02SPW22	46.5	37.2	94.1	547	31.116	2.125
	1800	324/6T	\$9,178	\$9,994	\$10,092	HT040X04SPW22	48.9	39.1	95.0	534	31.116	2.125
	1200	364/5T	\$15,834	\$17,464	\$17,640	HT040X06SPW22	48.9	39.1	95.0	875	34.251	2.375
50	3600	324/6TS	\$12,374	\$13,222	\$13,354	HT050X02SPW22	57.1	45.7	94.5	606	29.616	1.875
	1800	324/6T	\$10,840	\$11,688	\$11,806	HT050X04SPW22	60.1	48.1	95.4	597	31.116	2.125
	1200	364/5T	\$19,018	\$20,716	\$20,924	HT050X06SPW22	60.3	48.2	95.0	895	34.251	2.375
60	3600	364/5TS	\$15,878	\$17,508	\$17,684	HT060X02SPW22	66.8	53.4	95.0	926	32.276	1.875
	1800	364/5T	\$16,100	\$17,732	\$17,908	HT060X04SPW22	70.2	56.2	95.8	897	34.251	2.375
	1200	404/5T	\$21,802	\$23,432	\$23,666	HT060X06SPBBW22405T	72.2	57.8	95.4	1111	39.73	2.875
75	3600	364/5TS	\$21,250	\$22,948	\$23,176	HT075X02SPW22	82.6	66.1	95.0	937	32.276	1.875
	1800	364/5T	\$20,026	\$21,724	\$21,942	HT075X04SPW22	86.8	69.4	95.8	919	34.251	2.375
	1200	404/5T	\$24,646	\$26,344	\$26,606	HT075X06SPBBW22405T	89.3	71.4	95.4	1124	39.73	2.875
100	3600	404/5TS	\$27,210	\$28,908	\$29,196	HT100X02SPBBW22405TS	110	88.0	95.4	1179	36.732	2.125
	1800	404/5T	\$24,810	\$26,508	\$26,772	HT100X04SPBBW22405T	116	92.8	96.2	1188	39.73	2.875
	1200	444/5T	\$33,876	\$36,592	\$36,958	HT100X06SPBBW22445T	124	99.2	95.8	1896	44.95	3.375
125	3600	444/5TS	\$35,456	\$38,174	\$38,556	HT125X02SPBBW22445TS	136	109	95.8	1680	41.2	2.375
	1800	444/5T	\$31,772	\$34,490	\$34,834	HT125X04SPBBW22445T	144	115	96.2	1722	44.95	3.375
	1200	444/5T	\$40,580	\$43,410	\$43,844	HT125X06SPBBW22445T	152	122	95.8	1944	44.95	3.375
150	3600	444/5TS	\$45,554	\$48,384	\$48,868	HT150X02SPBBW22445TS	163	130	96.2	1863	41.2	2.375
	1800	444/5T	\$38,338	\$41,168	\$41,580	HT150X04SPBBW22445T	170	136	96.5	1951	44.95	3.375
	1200	447/9T	\$47,338	\$50,168	\$50,670	HT150X06SPBBW22449T	179	143	96.2	2255	56.338	3.375
200	3600	445/7TS	\$55,660	\$58,378	\$58,960	HT200X02SPBBW22447TS	217	174	96.2	2028	44.951	2.375
	1800	447/9T	\$47,078	\$49,908	\$50,406	HT200X04SPBBW22449T	234	187	96.8	2293	56.338	3.375
	1200	447/9T	\$60,322	\$63,152	\$63,784	HT200X06SPBBW22449T	245	196	96.2	2326	56.338	3.375
250	3600	445/7TS	\$62,936	\$65,654	\$66,310	HT250X02SPBBW22447TS	267	214	96.5	2183	44.951	2.375
	1800	447/9T	\$68,672	\$72,916	\$73,646	HT250X04SPBBW22449T	286	229	96.8	2535	56.338	3.375

Flange: Replace 'H' with 'C' for C Flange  
 Replace 'H' with 'D' for D Flange  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V  
 Bearings: Replace 'RB' with 'BB' for Ball Bearings on frame 404/5T and up

# W22 Super Premium Efficiency Motors

## TEFC - Severe Duty - Electrical Data

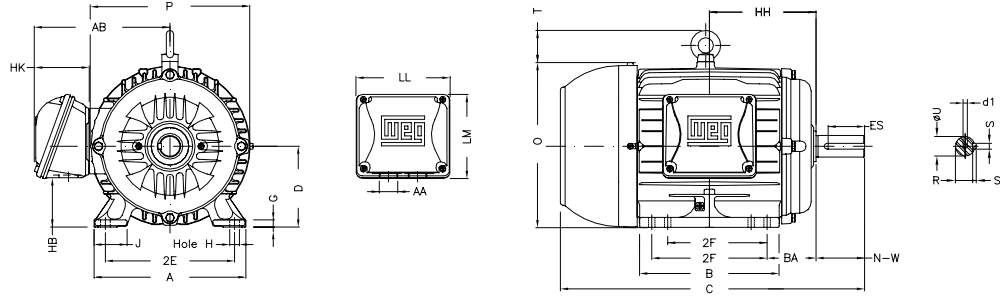
Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (lI/In)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V								50%	75%	100%	50%	75%	100%
1	0.75	3485	143/5T	2.70	1.35	1.08	7.2	250%	300%	36	39.7	68	1.25	81.5	82.5	84.0	0.69	0.79	0.83
		1760	L143/5T	2.66	1.33	1.06	9.0	260%	330%	33	50.7	51	1.25 *	84.0	86.5	87.5	0.59	0.70	0.79
1.5	1.1	3485	143/5T	3.84	1.92	1.54	8.4	300%	350%	29	41.9	68	1.25	84.0	85.5	86.5	0.67	0.78	0.83
		1760	L143/5T	3.86	1.93	1.54	8.8	280%	340%	20	55.1	51	1.25 *	85.5	87.5	88.5	0.62	0.74	0.81
2	1.5	3490	143/5T	5.12	2.56	2.05	8.2	320%	360%	23	50.7	68	1.25	85.5	87.5	87.5	0.69	0.80	0.84
		1760	L143/5T	5.28	2.64	2.11	8.6	290%	360%	14	57.3	51	1.25 *	86.5	87.5	88.5	0.61	0.74	0.81
3	2.2	3520	182/4T	7.34	3.67	2.94	8.5	240%	360%	50	88.2	69	1.25	84.0	86.5	88.5	0.70	0.81	0.85
		1765	L182/4T	7.52	3.76	3.01	7.7	230%	320%	36	92.6	56	1.25	87.5	88.5	91.0	0.63	0.75	0.81
		1175	L213/5T	8.60	4.30	3.44	6.6	180%	290%	90	172	55	1.25	87.5	89.5	90.2	0.51	0.63	0.71
5	3.7	3505	182/4T	12.0	5.99	4.79	8.2	240%	350%	30	94.8	69	1.25	87.5	88.5	90.2	0.73	0.83	0.86
		1755	L182/4T	12.8	6.40	5.12	7.5	230%	310%	20	101	56	1.25 *	88.5	90.2	91.0	0.61	0.73	0.80
		1170	L213/5T	13.7	6.83	5.46	6.5	190%	250%	70	198	55	1.25 *	89.5	91.0	91.0	0.56	0.68	0.75
7.5	5.5	3530	213/5T	17.6	8.82	7.06	7.6	230%	330%	37	141	72	1.25	87.5	89.5	91.0	0.73	0.82	0.86
		1770	L213/5T	17.9	8.94	7.15	8.5	230%	350%	20	172	58	1.25	91.0	92.4	93.0	0.65	0.76	0.83
		1175	254/6T	18.9	9.46	7.57	6.8	250%	310%	50	304	59	1.25	90.2	91.7	92.4	0.60	0.72	0.79
10	7.5	3535	213/5T	23.0	11.5	9.20	8.0	240%	320%	34	172	72	1.25	89.5	91.0	91.7	0.77	0.85	0.89
		1765	L213/5T	24.0	12.0	9.60	8.4	230%	350%	16	181	58	1.25 *	91.7	92.4	93.0	0.66	0.78	0.84
		1180	254/6T	25.4	12.7	10.2	6.8	240%	300%	40	344	59	1.25	91.0	92.4	92.4	0.62	0.74	0.80
15	11	3545	254/6T	34.8	17.4	13.9	7.7	270%	350%	28	273	72	1.25	90.2	91.7	92.4	0.72	0.82	0.86
		1775	254/6T	35.6	17.8	14.2	8.5	280%	330%	20	280	64	1.25	91.7	93.0	93.6	0.66	0.76	0.83
		1180	284/6T	36.2	18.1	14.5	7.1	260%	300%	25	410	59	1.25	91.7	92.4	93.0	0.65	0.76	0.82
20	15	3545	254/6T	46.0	23.0	18.4	7.6	260%	340%	23	311	72	1.25	91.0	92.4	93.0	0.75	0.84	0.88
		1770	254/6T	49.4	24.7	19.8	7.4	260%	300%	30	326	64	1.25	93.0	93.6	94.1	0.63	0.75	0.81
		1180	284/6T	48.8	24.4	19.5	7.4	270%	300%	20	474	59	1.25	91.7	92.4	93.0	0.67	0.78	0.83
25	18.5	3550	284/6T	57.0	28.5	22.8	7.5	240%	330%	20	386	72	1.25	91.7	93.0	93.6	0.75	0.83	0.87
		1775	284/6T	60.6	30.3	24.2	8.3	300%	340%	26	406	64	1.25	93.0	94.1	94.5	0.62	0.74	0.81
		1185	324/6T	61.6	30.8	24.6	7.3	260%	310%	30	527	62	1.25	92.4	93.6	94.1	0.61	0.73	0.80
30	22	3550	284/6T	67.0	33.5	26.8	7.5	240%	330%	19	437	72	1.25	92.4	93.6	93.6	0.76	0.84	0.88
		1775	284/6T	71.2	35.6	28.5	8.0	320%	350%	25	450	64	1.25	93.0	94.1	94.5	0.64	0.76	0.82
		1185	324/6T	73.4	36.7	29.4	7.0	260%	300%	27	584	62	1.25	92.4	93.6	94.1	0.60	0.73	0.80
40	30	3565	324/6T	93.0	46.5	37.2	7.5	280%	300%	27	547	74	1.25	92.4	94.1	94.1	0.74	0.83	0.86
		1780	324/6T	97.8	48.9	39.1	7.4	260%	300%	22	534	66	1.25	93.6	94.5	95.0	0.64	0.75	0.81
		1185	364/5T	97.8	48.9	39.1	8.4	260%	320%	22	875	66	1.25	93.6	94.5	95.0	0.64	0.76	0.81
50	37	3570	324/6T	114.2	57.1	45.7	7.7	300%	300%	25	606	74	1.25	93.0	94.5	94.5	0.74	0.83	0.86
		1780	324/6T	120.2	60.1	48.1	7.4	260%	300%	20	597	66	1.25	94.1	95.0	95.4	0.62	0.73	0.81
		1185	364/5T	120.6	60.3	48.2	8.5	260%	330%	12	895	66	1.25	93.6	94.5	95.0	0.63	0.75	0.81
60	45	3570	364/5T	133.6	66.8	53.4	7.9	240%	320%	25	926	79	1.25	93.0	94.5	95.0	0.79	0.86	0.89
		1780	364/5T	140.4	70.2	56.2	7.6	270%	320%	24	897	67	1.25	94.5	95.4	95.8	0.69	0.80	0.84
		1185	404/5T	144.4	72.2	57.8	7.9	280%	320%	22	1111	68	1.25	94.1	95.0	95.4	0.65	0.77	0.82
75	55	3570	364/5T	165.2	82.6	66.1	8.0	260%	320%	14	937	79	1.25	93.6	95.0	95.0	0.77	0.85	0.88
		1780	364/5T	173.6	86.8	69.4	7.7	280%	320%	16	919	67	1.25	94.5	95.4	95.8	0.68	0.78	0.83
		1190	404/5T	178.6	89.3	71.4	8.0	280%	300%	15	1124	68	1.25	94.1	95.0	95.4	0.64	0.75	0.81
100	75	3565	404/5T	220	110	88.0	8.0	290%	320%	20	1179	79	1.25	94.5	95.4	95.4	0.81	0.87	0.89
		1780	404/5T	232	116	92.8	8.8	270%	310%	12	1188	68	1.25	95.4	95.8	96.2	0.70	0.80	0.84
		1190	444/5T	248	124	99.2	7.6	260%	320%	27	1896	69	1.25	94.5	95.4	95.8	0.60	0.72	0.79
125	90	3580	444/5T	272	136	109	8.2	230%	310%	44	1680	81	1.15	94.1	95.4	95.8	0.76	0.84	0.87
		1785	444/5T	288	144	115	7.2	220%	280%	38	1722	73	1.15	95.0	95.8	96.2	0.68	0.79	0.84
		1190	444/5T	304	152	122	7.2	240%	260%	25	1944	69	1.15	95.0	95.8	95.8	0.62	0.74	0.80
150	110	3580	444/5T	326	163	130	7.9	260%	320%	30	1863	81	1.15	94.5	95.8	96.2	0.77	0.85	0.88
		1785	444/5T	340	170	136	8.9	250%	300%	30	1951	73	1.15	95.4	96.2	96.5	0.68	0.79	0.84
		1190	447/9T	358	179	143	7.5	260%	320%	22	2255	69	1.15	95.0	95.8	96.2	0.62	0.74	0.80
200	150	3575	445/7T	434	217	174	7.3	240%	290%	28	2028	81	1.15	95.4	96.2	96.2	0.83	0.88	0.90
		1785	447/9T	468	234	187	7.7	280%	300%	24	2293	75	1.15	95.8	96.5	96.8	0.66	0.77	0.83
		1190	447/9T	490	245	196	7.5	260%	300%	15	2326	69	1.15	95.4	95.8	96.2	0.60	0.72	0.80
250	185	3575	445/7T	534	267	214	7.9	220%	300%	23	2183	81	1.15	95.8	96.5	96.5	0.82	0.88	0.90
		1785	447/9T	572	286	229	7.5	270%	290%	21	2535	75	1.15	96.2	96.5	96.8	0.68	0.78	0.84

\* 1.00 SF at 208V

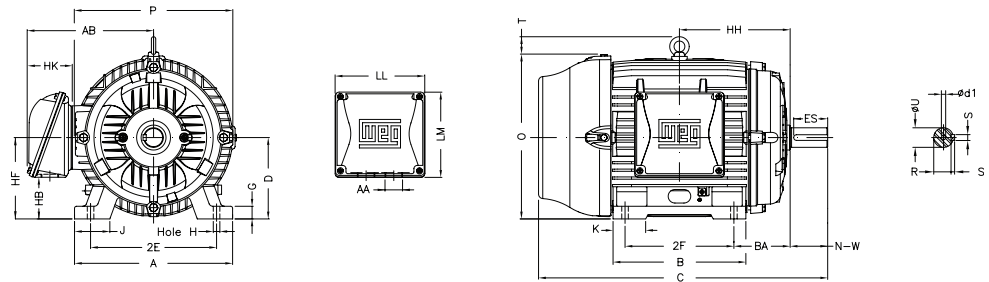
# W22 Super Premium Efficiency Motors

TEFC - Severe Duty - Mechanical Data

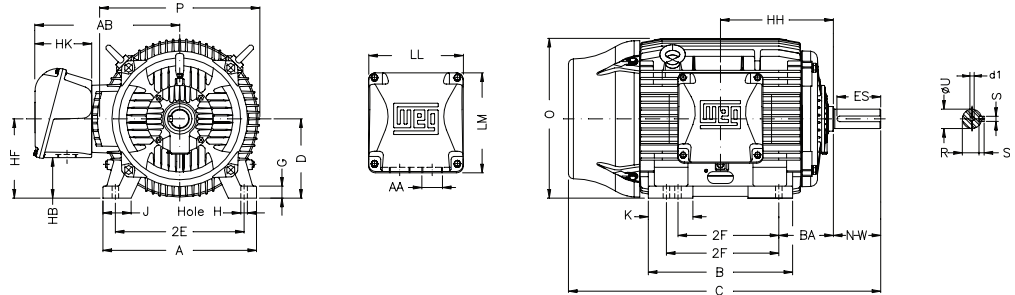
Frames 143T to 184T



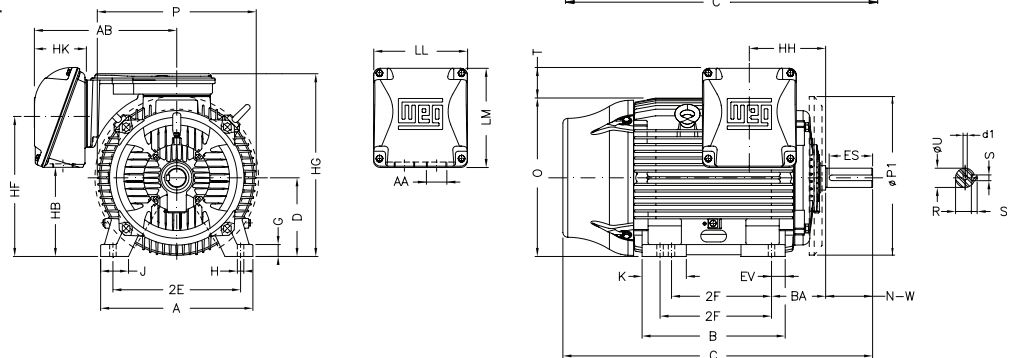
Frames 213T to 326T



Frames 364 to 444/5T



Frames 445/7T to 586/7T



# W22 Super Premium Efficiency Motors

## TEFC - Severe Duty - Mechanical Data

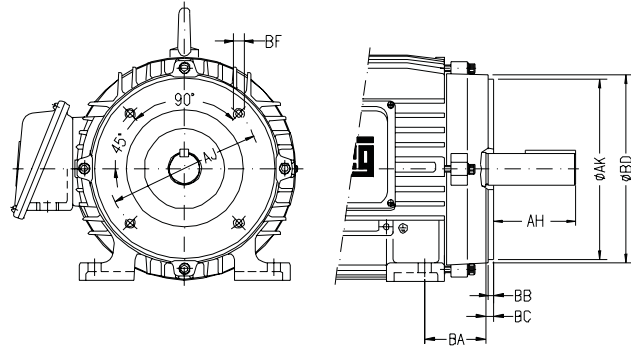
NEMA Frames	MOUNTING				A	B	C	D	G	J	O	K	P	T	KEYWAY			SHAFT EXTENSION	
	2E	2F	H	BA											S	R	ES	N-W	U
143/ST	5.500	4.000/5.000	0.344	2.250	6.457	6.142	13.346	3.500	0.354	1.437	7.122	-	7.047	-	0.187	0.765	1.575	2.250	0.875
L143/ST							14.566												
182/4T	7.500	4.500/5.500	0.406	2.750	8.661	6.969	15.860	4.500	0.394	1.594	9.343	-	8.740	1.772	0.250	0.984	1.969	2.750	1.125
L182/4T							17.041												
213/ST	8.500	5.500/7.000	0.531	3.500	9.764	8.858	19.517	5.250	0.827	1.988	10.841	2.165	10.669	2.087	0.313	1.203	2.480	3.375	1.375
L213/ST							20.461												
254/6T	10.000	8.252/10.000		4.250	12.126	11.732	24.945	6.250		2.539	12.598	2.559	12.953		0.375	1.406	2.756	4.000	1.625
284/6TS	11.000	9.500/11.000	0.660	5.875	17.165	16.220	26.557	7.000	1.023	3.110	14.067	2.874	14.173	2.441	0.375	1.406	2.480	3.250	1.625
284/6T							27.929												
324/6TS	12.500	10.500/12.000	0.657	5.250	15.157	14.567	29.616	8.000	1.300	3.189	15.953	3.189	15.827	2.441	0.500	1.594	2.756	3.750	1.875
324/6T							31.116												
364/5TS	14.016	11.260/12.244	0.660	5.875	17.165	16.220	32.276	9.000	1.480	3.150	17.716	4.921	17.914	2.441	0.625	2.019	4.330	5.874	2.375
364/5T							34.251												
404/5TS	15.984	12.244/13.740	0.810	6.625	19.921	18.386	36.732	10.000	1.811	3.937	19.566	5.669	19.134	2.441	0.500	1.842	2.756	4.250	2.125
404/5T							39.730												
444/5TS	18.000	14.500/16.500	0.810	7.500	21.929	20.315	41.443	11.000	1.630	3.937	22.795	5.866	23.583	2.441	0.625	2.021	3.000	4.750	2.375
444/5T							45.193												
445/7TS	18.000	16.500/20.000	0.810	7.500	21.496	23.897	45.301	11.000	1.654	4.331	25.291	6.692	25.866	2.441	0.625	2.021	3.000	4.750	2.375
445/7T							49.051												
447/9TS	18.000	20.000/25.000	0.810	7.500	21.929	31.535	52.588	11.000	1.630	3.937	23.874	8.780	25.866	2.441	0.625	2.021	3.000	4.750	2.375
447/9T							56.338												
L447/9TS	23.000	22.000/25.000	1.181	10.000	29.528	29.921	53.431	14.500	2.492	5.512	28.985	9.055	28.977	5.590	1.000	3.312	8.661	11.625	3.875
L447/9T							57.181												
586/7T	23.000	22.000/25.000	1.181	10.000	29.528	29.921	61.902	14.500	2.492	5.512	28.985	9.055	28.977	5.590	1.000	3.312	8.661	11.625	3.875

NEMA Frames	TERMINAL BOX									d1	BEARINGS					
	AB	HB	HF	HG	HH	HK	LL	LM	AA		D.E.	N.D.E.				
143/ST	6.181	1.728	3.500		4.750	2.638	4.527	4.094	NPT3/4"	A 4	6205 ZZ	6204 ZZ				
L143/ST					5.500						6207 ZZ	6206 ZZ				
182/4T	7.559	2.236	4.500		7.000	3.110	5.512	5.236	NPT1"	A 4	6308 ZZ	6207 ZZ				
L182/4T					9.250						6309 C3	6209 C3				
213/ST	8.583	3.006	5.250		10.250	3.937	7.795	7.402	NPT 1/2"	A 4	6311 C3	6211 C3				
L213/ST					11.250						6312 C3	6212 C3				
254/6T	10.394	3.061	6.565		12.362	6.378	9.646	10.119	NPT 3"	UNC 3/4"-10	6314 C3	6314 C3				
284/6TS	10.984	3.535	7.000	8.708	14.213						6316 C3					
284/6T					16.378	4.055	-	15.748	5.787	11.811	11.890	2xNPT 3"	6319 C3	6316 C3		
324/6TS	12.480	4.811	8.708		18.386	5.394	12.598	20.724	26.850	11.803	6.968	14.646	15.040	2xNPT 3"	6314 C3	6314 C3
324/6T					18.386										6319 C3	6316 C3
364/5TS	16.378	5.040			20.670	11.803	6.968	14.646	15.040	2xNPT 3"	6314 C3	6314 C3				
364/5T					20.670						6319 C3	6316 C3				
404/5TS	18.386	5.394			23.071	11.417	20.551	28.236	11.500	8.464	15.906	17.244	2xNPT 3"	6314 C3	6314 C3	
404/5T					23.071									6314 C3	6314 C3	
444/5TS	18.386	5.394			23.977	17.322	26.732	34.015	13.386				UNC 7/8"-9	6322 C3	6319 C3	
444/5T					23.977									6322 C3	6319 C3	

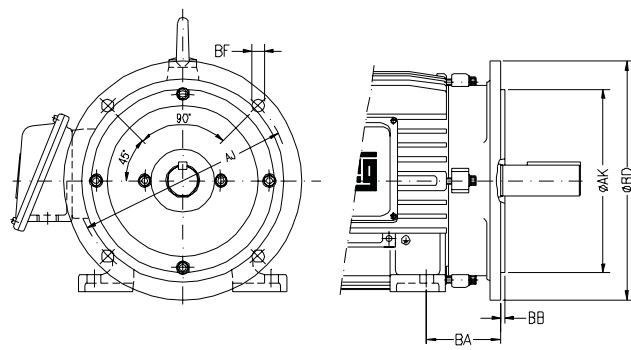
# W22 Super Premium Efficiency Motors

## TEFC - Severe Duty - Mechanical Data

"C" FLANGE DIMENSIONS									
NEMA FRAMES	BA	AJ	AK	BD	BF		BB	BC	AH
					NUMBER	TAP SIZE			
143/5TC	2.250	5.875	4.500	6.500	4	UNC3/8"x16	0.156	0.125	2.125
182/4TC	2.750					UNC1/2"x13			2.625
213/5TC	3.500	7.250	8.500	8.875					3.125
254/6TC	4.250								3.75
284/6TC									4.375
284/6TSC	4.750	9.000	10.500	11.031					3.000
324/6TC									5.000
324/6TSC	5.250								3.500
364/5TC									5.625
364/5TSC	5.875	11.000	12.500						3.500
404/5TC					8	UNC5/8"x11	0.250	0.250	7.000
404/5TSC	6.625								4.000
444/5TC									8.250
444/5TSC									4.500
445/7TC									8.250
445/7TSC									4.500
447/9TC	7.500	14.000	16.000	17.913					8.250
447/9TSC									4.500
L447/9TC									8.250
L447/9TSC									4.500
586/7TC	10.000	14.500	16.500						11.375



"D" FLANGE DIMENSIONS							
NEMA FRAMES	BA	AJ	AK	BD	BF		BB
					NUMBER	TAP SIZE	
143/5TD	2.250	10.000	9.000	11.000	4	0.562	0.203
182/4TD	2.750						
213/5TD	3.500						
254/6TD	4.250	12.500	11.000	14.000			
284/6TD	4.750						
284/6TSD		5.250	14.000	18.000			
324/6TD							
324/6TSD							
364/5TD	5.875	16.000	14.000	17.716			
364/5TSD							
404/5TD							
404/5TSD	6.625	20.000	18.000	22.000	8	0.828	0.250
444/5TD							
444/5TSD							
445/7TD							
445/7TSD	7.500						
447/9TD							
447/9TSD							
586/7T	10.000	30.000	28.000	32.000			

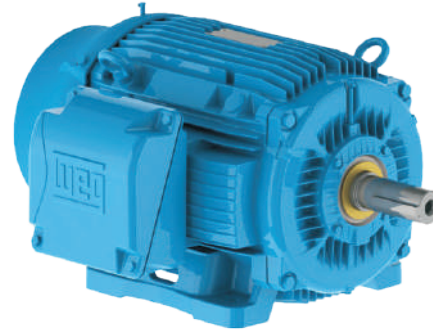


# W22 IEEE 841-2021 Motors

TEFC - Severe Duty

## Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4, 6 and 8 pole, 60Hz
- Voltage: 460V & 575V - 3 Lead only
- Totally Enclosed Fan Cooled - TEFC (IP56) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- Inpro Seal
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft up to frame 364/5T and all 2 pole motors
- 4140 for 404/5T shaft upwards in 4, 6 and 8 pole motors
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- 460V rated motors have Spike Resistant wire.
  - Protects against IGBT voltage spikes up to 2000V.
- Insulation System:
  - Dip and Bake Insulation system with class "H" resin up to frame 324/6T
  - CFRI Continuous Flow Resin Impregnation Insulation system with class "H" resin for frame 364/5T and up.
- Insulated end bells from frame L447/9T and up
- NEMA design "B"
- Service Factor:
  - 1.25 up to 100HP
  - 1.15 from 125HP and up
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Lead separator
- Re-configurable Terminal Box for frames 445/7T and up
- Stainless steel nameplate with laser etching
- Stainless steel drain/breather plug
- All frames have dual mounting
- All cast iron construction: frame, end shields, terminal box and fan cover
- Regreasable ball bearings D.E. and N.D.E.
- Paint plan: C4 Rated - 202E/222E
- Color: RAL 5009 (Blue)
- Corrosion resistant epoxy finish
- Internal epoxy paint
- Oversized rotatable cast iron conduit box



Class I, Div 2, Groups A, B, C & D  
 Class II, Div 2, Groups F & G  
 Class I, Zone 2, IIC

Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
143/5T - 586/7T ≤ 250HP	All	20:1	1000:1	Any
	All	1000:1*		WEG
447/9T - 588/9T > 250 HP	All	6:1		Any
	All	12:1*		WEG

\* Can only be achieved by a WEG VFD running in Sensorless Vector  
 See page 7.6 for details

## Optional Features

- 50 Hz
- Special Voltages
- Specially designed shaft
- Space heaters
- Second shaft end
- Thermistors, Thermostats or RTD's (PT100 - 3 wire)
- Auxiliary terminal box
- Drip cover (canopy) for shaft down applications
- Shaft grounding (Aegis)
- Flange mount
- Bronze fan
- Super premium efficiency



# W22 IEEE 841-2009 Motors

## TEFC - Severe Duty - Purchasing Data

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	List Price with 'D' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM						460V	575V				
1	3600	143/5T	\$1,516	\$1,834	\$1,852	IE000X02W22IS	1.43	1.14	78.5	36.4	13.346	0.875
	1800	143/5T	\$1,472	\$1,788	\$1,806	IE000X04W22IS	1.41	1.13	85.5	40.8	13.346	0.875
	1200	143/5T	\$1,734	\$2,034	\$2,056	IE000X06W22IS	1.73	1.38	82.5	53	13.346	0.875
1.5	900	182/4T	\$2,676	\$3,084	\$3,116	IE000X08W22IS	2.30	1.84	78.5	95	15.86	1.125
	3600	143/5T	\$1,562	\$1,862	\$1,882	IE001X02W22IS	1.91	1.53	84.0	40.8	13.346	0.875
	1800	143/5T	\$1,570	\$1,872	\$1,890	IE001X04W22IS	2.02	1.62	86.5	49	13.346	0.875
2	1200	182/4T	\$2,074	\$2,482	\$2,508	IE001X06W22IS	2.39	1.91	87.5	70.3	15.86	1.125
	900	182/4T	\$3,226	\$3,636	\$3,672	IE001X08W22IS	2.70	2.16	82.5	110.9	15.86	1.125
	3600	143/5T	\$1,622	\$1,922	\$1,942	IE002X02W22IS	2.56	2.05	85.5	51.8	13.346	0.875
3	1800	143/5T	\$1,622	\$1,922	\$1,942	IE002X04W22IS	2.61	2.09	86.5	51	13.346	0.875
	1200	182/4T	\$2,246	\$2,654	\$2,680	IE002X06W22IS	3.23	2.58	88.5	87.5	15.86	1.125
	900	213/5T	\$3,996	\$4,534	\$4,580	IE002X08W22IS	3.39	2.71	85.5	148.8	19.517	1.375
5	3600	182/4T	\$2,048	\$2,456	\$2,480	IE003X02W22IS	3.63	2.90	86.5	88	15.86	1.125
	1800	182/4T	\$2,048	\$2,456	\$2,480	IE003X04W22IS	3.88	3.10	89.5	90	15.86	1.125
	1200	213/5T	\$3,230	\$3,768	\$3,806	IE003X06W22IS	4.42	3.53	89.5	121	19.517	1.375
7.5	900	213/5T	\$4,376	\$4,912	\$4,962	IE003X08W22IS	4.56	3.65	85.5	176	19.517	1.375
	3600	182/4T	\$2,418	\$2,826	\$2,854	IE005X02W22IS	5.90	4.72	88.5	88	15.86	1.125
	1800	182/4T	\$2,232	\$2,642	\$2,668	IE005X04W22IS	6.45	5.16	89.5	95	15.86	1.125
10	1200	213/5T	\$3,854	\$4,392	\$4,436	IE005X06W22IS	6.85	5.48	89.5	162	19.517	1.375
	900	254/6T	\$6,668	\$7,356	\$7,430	IE005X08W22IS	7.60	6.08	87.5	258	24.945	1.625
	3600	213/5T	\$3,450	\$3,988	\$4,028	IE007X02W22IS	8.75	7.00	89.5	139	19.517	1.375
15	1800	213/5T	\$3,062	\$3,600	\$3,636	IE007X04W22IS	9.00	7.20	91.7	154	19.517	1.375
	1200	254/6T	\$6,108	\$6,796	\$6,864	IE007X06W22IS	9.50	7.60	91.0	262	24.945	1.625
	900	254/6T	\$8,062	\$8,750	\$8,838	IE007X08W22IS	11.1	8.88	87.5	284	24.945	1.625
20	3600	213/5T	\$3,888	\$4,426	\$4,470	IE010X02W22IS	11.6	9.28	90.2	163	19.517	1.375
	1800	213/5T	\$3,692	\$4,228	\$4,272	IE010X04W22IS	12.4	9.92	91.7	172	19.517	1.375
	1200	254/6T	\$6,754	\$7,442	\$7,516	IE010X06W22IS	12.9	10.3	91.0	289	24.945	1.625
25	900	284/6T	\$9,478	\$10,294	\$10,398	IE010X08W22IS	13.4	10.7	90.2	373	27.929	1.875
	3600	254/6T	\$4,590	\$5,278	\$5,332	IE015X02W22IS	17.2	13.8	91.0	236	24.945	1.625
	1800	254/6T	\$4,160	\$4,848	\$4,896	IE015X04W22IS	18.0	14.4	92.4	251	24.945	1.625
30	1200	284/6T	\$7,536	\$8,354	\$8,438	IE015X06W22IS	17.9	14.3	91.7	379	27.929	1.875
	900	284/6T	\$10,900	\$11,718	\$11,836	IE015X08W22IS	19.4	15.5	90.2	417	27.929	1.875
	3600	254/6T	\$5,398	\$6,088	\$6,148	IE020X02W22IS	23.2	18.6	91.0	269	24.945	1.625
40	1800	254/6T	\$4,904	\$5,592	\$5,648	IE020X04W22IS	24.1	19.3	93.0	291	24.945	1.625
	1200	284/6T	\$8,328	\$9,146	\$9,238	IE020X06W22IS	24.2	19.4	91.7	425	27.929	1.875
	900	324/6T	\$13,500	\$14,532	\$14,678	IE020X08W22IS	28.3	22.6	91.0	452	31.116	2.125
50	3600	284/6T	\$6,792	\$7,610	\$7,686	IE025X02W22IS	28.5	22.8	91.7	362	26.557	1.625
	1800	284/6T	\$5,928	\$6,746	\$6,812	IE025X04W22IS	29.5	23.6	93.6	388	27.929	1.875
	1200	324/6T	\$11,406	\$11,438	\$11,554	IE025X06W22IS	30.4	24.3	93.0	560	31.116	2.125
60	900	324/6T	\$14,498	\$15,530	\$15,686	IE025X08W22IS	35.9	28.7	91.0	509	31.116	2.125
	3600	284/6T	\$7,442	\$8,260	\$8,342	IE030X02W22IS	33.8	27.0	91.7	392	26.557	1.625
	1800	284/6T	\$6,594	\$7,412	\$7,486	IE030X04W22IS	35.1	28.1	93.6	437	27.929	1.875
75	1200	324/6T	\$11,426	\$12,458	\$12,582	IE030X06W22IS	35.8	28.6	93.0	553	31.116	2.125
	900	364/5T	\$21,854	\$23,316	\$23,550	IE030X08W22IS	37.0	29.6	92.4	802	34.251	2.375
	3600	324/6T	\$9,948	\$10,958	\$11,068	IE040X02W22IS	45.8	36.6	92.4	547	29.616	1.875
100	1800	324/6T	\$9,400	\$10,410	\$10,514	IE040X04W22IS	48.2	38.6	94.1	492	31.116	2.125
	1200	364/5T	\$19,102	\$20,534	\$20,740	IE040X06W22IS	46.5	37.2	94.1	833	34.251	2.375
	900	364/5T	\$23,322	\$24,754	\$25,002	IE040X08W22IS	50.0	40.0	92.4	875	34.251	2.375
150	3600	324/6T	\$12,062	\$13,072	\$13,202	IE050X02W22IS	56.0	44.8	93.0	584	31.116	2.125
	1800	324/6T	\$10,570	\$11,582	\$11,696	IE050X04W22IS	59.0	47.2	94.5	536	31.116	2.125
	1200	364/5T	\$21,828	\$23,260	\$23,492	IE050X06W22IS	57.5	46.0	94.1	869	34.251	2.375
200	900	404/5T	\$31,712	\$33,480	\$33,814	IE050X08W22IS	60.0	48.0	93.0	1012	39.73	2.875
	3600	364/5T	\$18,926	\$20,358	\$20,562	IE060X02W22IS	67.0	53.6	93.6	825	32.276	1.875
	1800	364/5T	\$17,562	\$18,994	\$19,182	IE060X04W22IS	68.5	54.8	95.0	869	34.251	2.375
250	1200	404/5T	\$26,048	\$27,816	\$28,094	IE060X06W22IS	69.5	55.6	94.5	1036	39.73	2.875
	900	404/5T	\$37,316	\$39,086	\$39,476	IE060X08W22IS	73.0	58.4	93.0	1111	39.73	2.875
	3600	364/5T	\$24,396	\$25,828	\$26,086	IE075X02W22IS	82.0	65.6	93.6	847	32.276	1.875
300	1800	364/5T	\$21,692	\$23,124	\$23,356	IE075X04W22IS	84.0	67.2	95.4	919	34.251	2.375
	1200	404/5T	\$28,296	\$30,064	\$30,366	IE075X06W22IS	85.0	68.0	94.5	1089	39.73	2.875
	900	444/5T	\$51,580	\$53,948	\$54,486	IE075X08W22IS	93.0	74.4	93.6	1444	44.95	3.375
400	3600	404/5T	\$30,452	\$32,220	\$32,544	IE100X02W22IS	110	88.0	94.1	1045	36.732	2.125
	1800	404/5T	\$26,212	\$27,980	\$28,260	IE100X04W22IS	111	88.8	95.4	1140	39.73	2.875
	1200	444/5T	\$40,028	\$42,396	\$42,820	IE100X06W22IS	121	96.8	95.0	1576	44.95	3.375
500	900	444/5T	\$48,544	\$50,910	\$51,420	IE100X08W22IS	127	102	94.1	1598	44.95	3.375

Flange: Add 'C' before 'IS' for C Flange  
 Add 'D' before 'IS' for D Flange  
 Voltage: Replace 'X' with '4' for 460V  
 Replace 'X' with '5' for 575V

# W22 IEEE 841-2009 Motors

## TEFC - Severe Duty - Purchasing Data

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	List Price with 'D' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM						460V	575V				
125	3600	444/5TS	\$41,326	\$43,692	\$44,130	IE125X02W22IS	134	107	95.0	1598	41.2	2.375
	1800	444/5T	\$32,832	\$35,198	\$35,550	IE125X04W22IS	139	111	95.4	1590	44.95	3.375
	1200	444/5T	\$44,530	\$46,898	\$47,366	IE125X06W22IS	143	114	95.0	1750	44.95	3.375
	900	445/7T	\$60,450	\$62,816	\$63,444	IE125X08W22447TIS	151	121	94.5	1887	48.701	3.375
	900	504/5T	\$60,450	\$63,478	\$64,112	IE125X08W22505TIS	149	119	94.5	2110	54.095	3.625
150	3600	444/5TS	\$48,132	\$50,498	\$51,002	IE150X02W22IS	161	129	95.0	1709	41.2	2.375
	1800	444/5T	\$37,658	\$40,024	\$40,424	IE150X04W22IS	170	136	95.8	1675	44.95	3.375
	1200	445/7T	\$50,490	\$52,856	\$53,384	IE150X06W22447TIS	176	141	95.8	2041	48.701	3.375
	1200	504/5T	\$50,490	\$53,518	\$54,052	IE150X06W22505TIS	176	141	95.8	2249	54.095	3.625
	900	445/7T	\$70,876	\$73,244	\$73,976	IE150X08W22447TIS	185	148	94.5	2041	48.701	3.375
	900	504/5T	\$70,876	\$73,904	\$74,644	IE150X08W22505TIS	180	144	94.5	2293	54.095	3.625
200	3600	445/7TS	\$59,224	\$61,590	\$62,206	IE200X02W22447TSIS	219	175	95.4	1914	44.951	2.375
	3600	504/5TS	\$58,010	\$59,353	\$62,874	IE200X02W22BB505TSIS	222	178	95.4	2167	48.215	2.375
	1800	444/5T	\$45,900	\$48,266	\$48,748	IE200X04W22447TIS	230	184	96.2	1899	45.157	3.375
	1800	445/7T	\$45,900	\$48,266	\$48,748	IE200X04W22447TIS	230	184	96.2	1899	48.701	3.375
	1800	504/5T	\$45,900	\$48,928	\$49,416	IE200X04W22505TIS	228	182	96.2	2273	54.095	3.625
	1200	445/7T	\$63,418	\$65,786	\$66,442	IE200X06W22447TIS	237	190	95.8	2246	48.701	3.375
	1200	504/5T	\$62,547	\$63,890	\$67,110	IE200X06W22BB505TIS	237	190	95.8	2458	54.095	3.625
	900	L447/9T	\$100,482	\$105,010	\$106,060	IE200X08W22L449TIS	242	194	95.0	3550	57.181	3.375
250	3600	445/7TS	\$62,858	\$65,224	\$65,878	IE250X02W22447TSIS	266	213	95.8	2158	44.951	2.375
	3600	504/5TS	\$61,529	\$62,875	\$66,544	IE250X02W22BB505TSIS	269	215	95.8	2388	48.215	2.375
	1800	445/7T	\$57,034	\$59,400	\$59,994	IE250X04W22447TIS	281	225	96.2	2079	48.701	3.375
	1800	504/5T	\$55,281	\$56,627	\$60,662	IE250X04W22BB505TIS	277	222	96.2	2449	54.095	3.625
	1200	447/9T	\$88,560	\$90,174	\$104,936	IE250X06W22BB449TIS	292	234	95.8	2537	56.338	3.375
	1200	586/7T	\$112,660	\$115,714	\$120,676	IE250X06W22BBIS	299	239	95.8	3205	61.902	3.875
	900	L447/9T	\$111,048	\$115,576	\$116,732	IE250X08W22L449TIS	297	238	95.4	3704	57.181	3.375
	900	586/7T	\$130,693	\$133,747	\$155,544	IE250X08W22BBIS	299	239	95.8	3649	61.902	3.875
300	3600	447/9TS	\$75,782	\$80,310	\$81,112	IE300X02W22449TSIS	320	256	95.8	2544	52.588	2.375
	1800	447/9T	\$74,704	\$79,232	\$80,024	IE300X04W22449TIS	330	264	96.2	2381	56.338	3.375
	1800	586/7T	\$85,414	\$90,700	\$91,606	IE300X04W22587TIS	334	267	96.2	3080	61.902	3.875
	1200	586/7T	\$108,396	\$113,680	\$114,818	IE300X06W22587TIS	356	285	95.8	3494	61.902	3.875
	900	586/7T	\$139,829	\$142,882	\$193,502	IE300X08W22BBIS	426	341	95.8	4309	61.902	3.875
350	3600	L447/9TS	\$98,772	\$104,058	\$105,098	IE350X02W22L449TSIS	374	299	95.8	3470	57.181	3.375
	3600	586/7TS	\$98,772	\$104,058	\$105,098	IE350X02W22587TSIS	373	298	96.2	3620	55.027	2.375
	1800	L447/9T	\$91,942	\$97,226	\$98,200	IE350X04W22L449TIS	394	315	96.2	2867	57.181	3.375
	1800	586/7T	\$104,307	\$107,361	\$117,764	IE350X04W22BBIS	394	315	96.2	2674	61.902	3.875
	1200	586/7T	\$132,492	\$137,778	\$139,156	IE350X06W22587TIS	421	337	95.8	3783	61.902	3.875
	900	586/7T	\$144,325	\$147,379	\$178,304	IE350X08W22BBIS	426	341	95.8	4308	61.902	3.875
400	3600	586/7TS	\$111,882	\$114,936	\$123,602	IE400X02W22BBIS	430	344	96.2	3748	55.027	2.375
	1800	L447/9T	\$96,650	\$98,263	\$108,020	IE400X04W22BBL449TIS	455	364	96.2	3285	57.181	3.375
	1800	586/7T	\$108,082	\$111,136	\$144,196	IE400X04W22BBIS	455	364	96.2	3455	61.902	3.875
	1200	586/7T	P.O.A	P.O.A	P.O.A	IE400X06W22587TIS	483	386	96.2	4114	61.902	3.875
450	900	588/9T	P.O.A	P.O.A	P.O.A	IE400X08W22589TIS	498	398	95.7	4850	69.381	3.875
	3600	586/7TS	P.O.A	P.O.A	P.O.A	IE450X02W22587TSIS	473	378	96.2	3918	55.027	2.375
	1800	586/7T	P.O.A	P.O.A	P.O.A	IE450X04W22587TIS	501	401	96.2	3640	61.902	3.875
500	1200	586/7T	P.O.A	P.O.A	P.O.A	IE450X06W22587TIS	532	426	96.2	4383	61.902	3.875
	3600	586/7TS	P.O.A	P.O.A	P.O.A	IE500X02W22587TSIS	530	424	96.2	4085	55.027	2.375
	1800	586/7T	P.O.A	P.O.A	P.O.A	IE500X04W22587TIS	555	444	96.2	3911	61.902	3.875
	1200	586/7T	P.O.A	P.O.A	P.O.A	IE500X06W22587TIS	603	482	96.2	4403	61.902	3.875

Flange: Add 'C' before 'IS' for C Flange  
 Add 'D' before 'IS' for D Flange  
 Voltage: Replace 'X' with '4' for 460V  
 Replace 'X' with '5' for 575V



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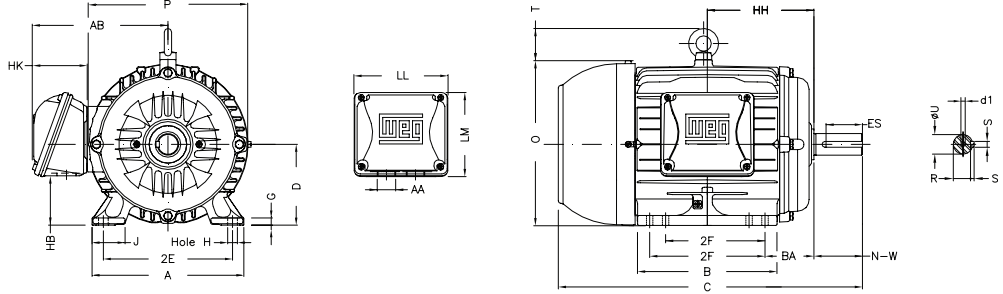
## TEFC - Severe Duty - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (l/l/n)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V								50%	75%	100%	50%	75%	100%
150	110	3570	444/5TS	322	161	129	6.5	180%	240%	22	1709	81	1.15	94.1	95.0	95.0	0.83	0.88	0.90
		1780	444/5T	340	170	136	6.6	200%	250%	27	1676	73	1.15	95.4	95.8	95.8	0.74	0.82	0.85
		1190	445/7T	352	176	141	6.7	240%	290%	20	2042	69	1.15	95.0	95.4	95.8	0.67	0.78	0.82
		1190	504/5T	352	176	141	6.7	230%	250%	29	2249	70	1.15	94.5	95.4	95.8	0.67	0.78	0.82
		890	445/7T	370	185	148	6.0	190%	210%	15	2042	63	1.15	94.5	94.5	94.5	0.64	0.74	0.79
		890	504/5T	360	180	144	5.8	180%	200%	21	2293	66	1.15	94.5	94.5	94.5	0.68	0.77	0.81
200	150	3570	445/7TS	438	219	175	7.2	240%	240%	14	1914	81	1.15	95.0	95.4	95.4	0.86	0.89	0.90
		3575	504/5TS	444	222	178	7.2	200%	270%	17	2168	81	1.15	94.1	95.0	95.4	0.81	0.87	0.89
		1780	445/7T	460	230	184	6.8	240%	250%	16	1899	---	1.15	95.4	96.2	96.2	0.73	0.82	0.85
		1785	504/5T	456	228	182	6.6	220%	220%	22	2273	---	1.15	95.4	96.2	96.2	0.75	0.83	0.86
		1190	445/7T	474	237	190	6.6	230%	240%	15	2247	69	1.15	95.0	95.4	95.8	0.68	0.79	0.83
		1190	504/5T	474	237	190	6.6	220%	230%	21	2459	70	1.15	95.0	95.4	95.8	0.70	0.80	0.83
		895	586/7T	494	247	198	6.3	140%	210%	40	3334	75	1.15	95.0	95.4	95.4	0.65	0.75	0.80
		890	L447/9T	484	242	194	6.1	200%	220%	25	3550	64	1.15	94.6	95.0	95.0	0.70	0.79	0.82
		3570	445/7TS	532	266	213	6.5	230%	220%	18	2159	81	1.15	95.4	95.8	95.8	0.87	0.90	0.91
		3575	504/5TS	538	269	215	7.0	200%	240%	23	2388	81	1.15	95.0	95.8	95.8	0.85	0.89	0.90
250	185	1780	445/7T	562	281	225	6.6	230%	240%	15	2079	73	1.15	95.8	96.2	96.2	0.75	0.83	0.86
		1785	504/5T	554	277	222	6.6	230%	220%	20	2450	75	1.15	95.8	96.2	96.2	0.78	0.85	0.87
		1185	447/9T	584	292	234	6.7	240%	240%	12	2538	---	1.15	95.0	95.4	95.8	0.68	0.79	0.83
		1190	586/7T	598	299	239	6.2	200%	210%	30	3206	77	1.15	95.0	95.4	95.8	0.68	0.77	0.81
		895	586/7T	598	299	239	6.2	140%	210%	40	3649	75	1.15	95.4	95.8	95.8	0.66	0.76	0.81
		890	L447/9T	594	297	238	6.1	200%	220%	25	3704	64	1.15	95.0	95.4	95.4	0.70	0.79	0.82
		3570	447/9TS	640	320	256	7.0	250%	240%	14	2545	---	1.15	95.4	95.8	95.8	0.86	0.89	0.90
		3580	586/7TS	634	317	254	6.5	150%	220%	35	3382	84	1.15	95.0	95.8	95.8	0.87	0.90	0.91
300	220	1780	447/9T	660	330	264	6.5	230%	230%	16	2381	---	1.15	95.8	96.2	96.2	0.77	0.84	0.87
		1790	586/7T	668	334	267	6.8	230%	230%	19	3080	78	1.15	95.4	96.2	96.2	0.77	0.84	0.86
		1190	586/7T	712	356	285	6.0	200%	200%	30	3495	77	1.15	95.4	95.8	95.8	0.69	0.78	0.81
		895	586/7T	712	356	285	6.5	150%	220%	40	4035	75	1.15	95.4	95.8	95.8	0.66	0.77	0.81
		3580	586/7TS	746	373	298	6.6	160%	230%	28	3621	84	1.15	95.4	96.2	96.2	0.86	0.90	0.91
		3578	L447/9TS	748	374	299	6.7	250%	250%	25	3470	88	1.15	95.4	95.4	95.8	0.86	0.9	0.91
		1790	586/7T	788	394	315	6.4	200%	200%	23	2675	78	1.15	95.8	96.2	96.2	0.78	0.85	0.86
		1790	L447/9T	788	394	315	6.9	260%	250%	45	3238	77	1.15	95.8	96.2	96.2	0.76	0.83	0.86
350	260	1190	586/7T	842	421	337	6.3	210%	210%	29	3784	77	1.15	95.4	95.8	95.8	0.67	0.77	0.81
		895	586/7T*	852	426	341	6.4	160%	230%	34	4309	75	1.00	95.4	95.8	95.8	0.64	0.75	0.80
		3580	586/7TS	860	430	344	6.5	180%	220%	48	3749	84	1.15	95.8	96.2	96.2	0.88	0.90	0.91
		1790	586/7T	910	455	364	6.4	200%	220%	19	3455	78	1.15	95.8	96.2	96.2	0.78	0.85	0.86
		1790	L447/9T	910	455	364	7.0	250%	260%	21	3285	79	1.15	95.4	95.8	96.2	0.74	0.82	0.86
		1190	586/7T	966	483	386	6.5	230%	210%	29	4115	77	1.15	95.4	95.8	96.2	0.67	0.77	0.81
		895	588/9T	996	498	398	6.7	150%	240%	25	4851	75	1.00	95.0	95.6	95.7	0.62	0.73	0.79
		3580	586/7TS	946	473	378	6.6	200%	230%	34	3918	84	1.15	95.8	96.2	96.2	0.88	0.90	0.91
400	300	1790	586/7T	1002	501	401	6.8	240%	210%	16	3640	78	1.15	95.8	96.2	96.2	0.78	0.85	0.86
		1190	586/7T	1064	532	426	6.2	210%	210%	26	4384	77	1.00	95.8	96.2	96.2	0.67	0.77	0.81
		3580	586/7TS	1060	530	424	6.8	220%	240%	39	4086	84	1.15	95.8	96.2	96.2	0.88	0.90	0.91
500	370	1790	586/7T	1110	555	444	6.5	240%	200%	16	3912	78	1.00	95.8	96.2	96.2	0.80	0.85	0.87
		1190	586/7T	1206	603	482	6.5	220%	210%	25	4403	77	1.00	95.8	96.2	96.2	0.66	0.76	0.80
		550	588/9T	1322	661	529	6.5	220%	230%	30	4734	77	1.00	95.2	96.0	96.1	0.63	0.74	0.79
600	450	3585	588/9TS	1300	650	520	7.4	230%	270%	33	4410	89	1.00	96.0	96.5	96.5	0.84	0.89	0.90
		1790	586/7T	1330	665	532	7.1	220%	250%	16	4335	78	1.00	96.2	96.4	96.5	0.74	0.82	0.86
650	480	3585	588/9TS	1370	685	548	7.1	200%	240%	56	4635	89	1.00	96.1	96.6	96.6	0.86	0.90	0.91
		1790	588/9T	1468	734	587	7.4	250%	270%	22	4395	81	1.00	96.0	96.5	96.6	0.71	0.81	0.85
700	515	1790	588/9T	1576	788	630	7.0	250%	260%	23	4584	81	1.00	96.2	96.5	96.6	0.71	0.81	0.85

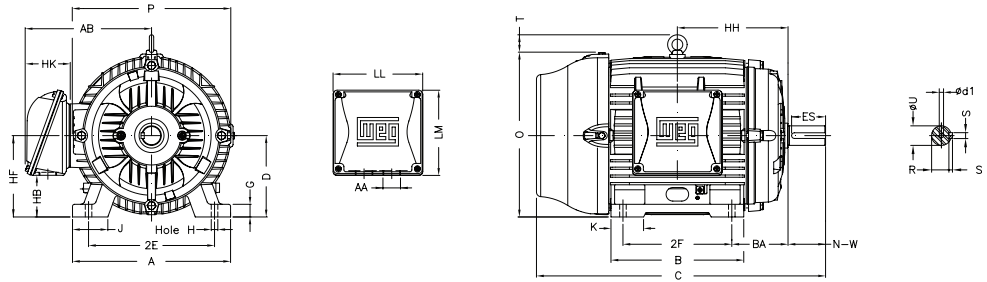
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## TEFC - Severe Duty - Mechanical Data

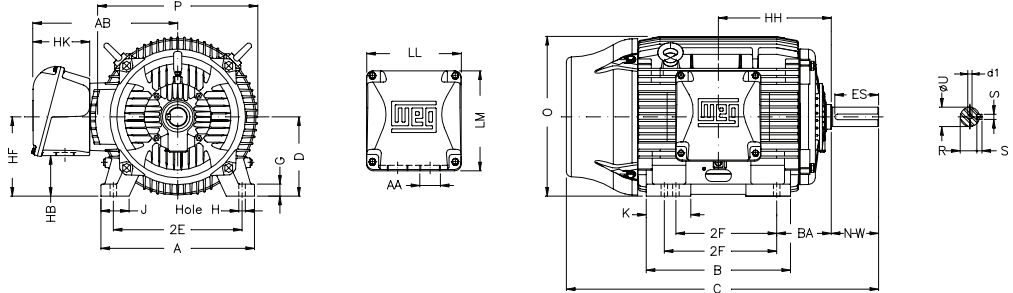
Frames 143T to 184T



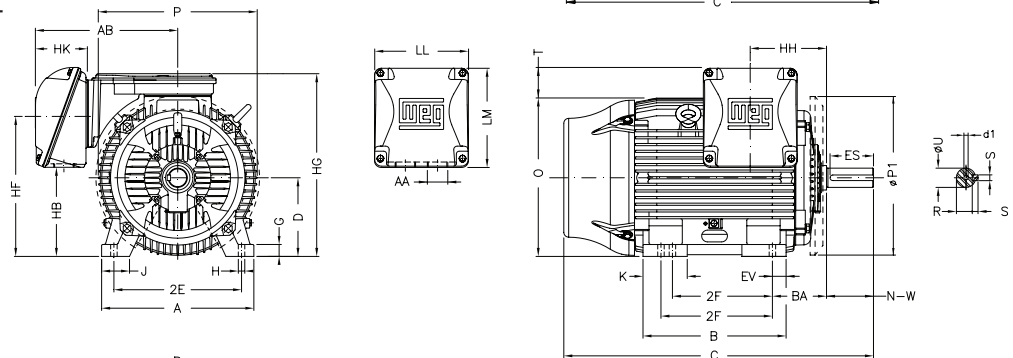
Frames 213T to 326T



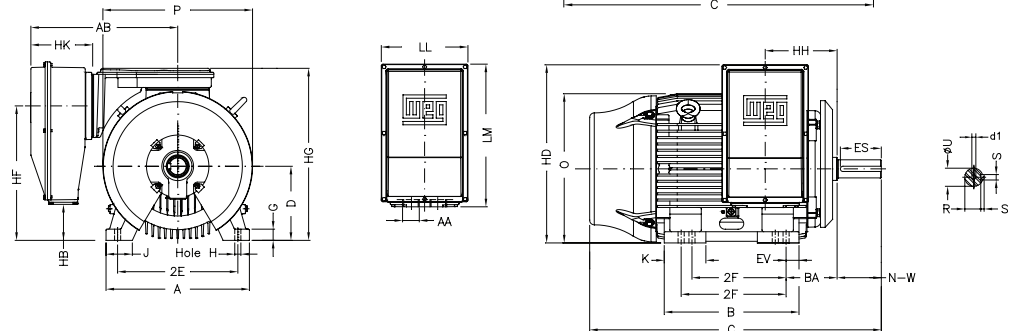
Frames 364 to 444/5T



Frames 445/7T to 586/7T



Frame 588/9T



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## TEFC - Severe Duty - Mechanical Data

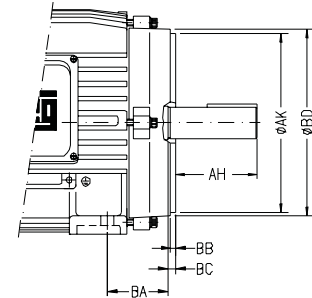
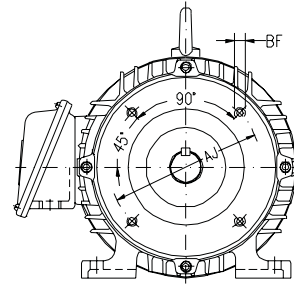
NEMA Frames	MOUNTING				A	B	C	D	G	J	O	K	P	T	KEYWAY			SHAFT EXTENSION		
	2E	2F	H	BA											S	R	ES	N-W	U	
143/5T	5.500	5.000	0.344	2.250	6.457	6.142	13.346	3.500	0.354	1.437	7.122	-	7.047	-	0.187	0.765	1.575	2.250	0.875	
182/4T	7.500	5.500	0.406	2.750	8.661	6.969	15.860	4.500	0.394	1.594	9.343	-	8.740	1.772	0.250	0.984	1.969	2.750	1.125	
213/5T	8.500	7.000		3.500	9.764	8.858	19.517	5.250	0.827	1.988	10.841	2.165	10.669		0.313	1.203	2.480	3.375	1.375	
254/6T	10.000	10.000	0.531	4.250	12.126	11.732	24.945	6.250	2.539	12.598	2.559	12.953	2.087	0.375	1.406	2.756	4.000	1.625		
284/6TS	11.000	11.000		4.750	13.780	13.071	26.557	7.000	1.023	3.110	14.067	2.874		14.173	0.375	1.406	2.480	3.250	1.625	
284/6T			29.616	27.929	1.594	3.149	4.622						1.875							
324/6TS	12.500	12.000	0.657	5.250	15.157	14.567	29.616	8.000	1.300	3.189	15.953	3.189	15.827	2.441	0.500	1.594	2.756	3.750	1.875	
324/6T																31.116	32.276	1.844	3.937	5.250
364/STS	14.016	11.260 / 12.244	0.660	5.875	17.165	16.220	32.276	9.000	1.480	3.150	17.957	4.921	17.914			1.591	1.968	3.748	1.875	
364/5T																34.251	36.732	0.625	2.019	4.330
404/STS	15.984	12.244 / 13.740	0.810	6.625	19.921	18.386	36.732	10.000	1.811		19.566	5.669	19.134			0.500	1.842	2.756	4.250	2.125
404/5T																39.730	41.200	0.750	2.449	5.512
444/STS		14.500 / 16.500	0.810	7.500	21.929	20.315	41.200		1.630	3.937		5.866				0.625	2.021	3.000	4.750	2.375
444/5T																44.950	44.950	0.875	2.880	7.087
445/7TS		16.500 / 20.000	0.810	7.500	21.929	23.897	44.951		1.654		22.795	5.866				0.625	2.021	3.000	4.750	2.375
445/7T																48.701	48.701	0.875	2.880	7.087
447/9TS		20.000 / 25.000	0.810	7.500	21.929	31.535	52.588		1.630		4.331	6.692				0.625	2.021	3.000	4.750	2.375
447/9T																56.338	56.338	0.875	2.880	7.087
L447/9TS		20.000 / 25.000	0.810	7.500	21.929	53.431	57.181		1.630		3.937	23.874	8.780			0.625	2.021	3.000	4.750	2.375
L447/9T																62.506	62.506	0.875	2.880	7.087
504/STS	20.000	16.000 / 18.000	1.250	8.500	24.724	24.449	48.215	12.500	2.146	4.724	25.425	7.228				0.625	2.021	3.000	4.750	2.375
504/5T																54.095	54.095	0.875	3.134	8.661
586/7TS	23.000	22.000 / 25.000	1.181	10.000	29.528	29.921	55.027	14.500	2.492	5.512	28.985	9.055				0.625	2.021	3.000	4.750	2.375
586/7T																61.902	61.902	1.000	3.312	8.661
588/9TS	23.000	28.000 / 32.000	1.181	10.000	29.528	37.980	62.506	14.500	2.492	5.512	28.985	12.795				0.625	2.021	3.000	4.750	2.375
588/9T																69.381	69.381	1.000	3.312	8.661

NEMA Frames	TERMINAL BOX									d1	BEARINGS									
	AB	HB	HF	HG	HH	HK	LL	LM	AA		D.E	N.D.E								
143/5T	6.181	1.728	3.500	-	4.750	2.638	4.527	4.094	NPT3/4"	A 4	6205	6204								
182/4T	7.559	2.236	4.500		5.500	3.110	5.512	5.236	NPT1"		6207	6206								
213/5T	8.583	3.006	5.250		7.000						6308	6207								
254/6T	10.394	3.061	6.565		9.250						6309 C3	6209 C3								
284/6TS	10.984	3.535	7.000		10.250	3.937	7.795	7.402	NPT1 1/2"		6311 C3	6211 C3								
284/6T	10.984	3.535	7.000		11.250	4.645	8.976	8.543	NPT 2"		6312 C3	6212 C3								
324/6TS	12.480	4.811	8.708		-	12.362	6.378	9.646	10.119		NPT 3"	UNC 3/4"-10	6314 C3	6314 C3						
324/6T	12.480	4.811	8.708										14.213		6316 C3					
364/STS	16.378	4.055	-										15.748		5.787	11.811	11.890	2xNPT 3"	6319 C3	6316 C3
364/5T		5.040											6314 C3		6314 C3					
404/STS	18.386	5.394	20.724	26.850						11.803			6.968		14.646	15.040	6319 C3	6316 C3		
404/5T		6314 C3															6314 C3			
444/STS	20.670	12.598	20.724	26.850						11.803			6.968		14.646	15.040	6322 C3	6319 C3		
444/5T																	6314 C3	6314 C3		
445/7TS	23.071	11.417	20.551	28.236						11.500			8.464		15.906	17.244	6314 C3	6314 C3		
445/7T																	6322 C3	6319 C3		
447/9TS	20.670	15.275	24.291	29.409	10.394	6.968	14.646	15.040	6314 C3	6314 C3										
447/9T									6319 C3	6316 C3										
L447/9TS	23.977	17.322	26.182	33.346	13.386	8.464	15.906	17.244	6314 C3	6314 C3										
L447/9T									6322 C3	6319 C3										
504/STS	27.600	6.063	26.182	33.346	13.386	12.519 (side mounted) / 13.977 (top mounted)	17.441	28.740	UNC 7/8"-9	6322 C3	6319 C3									
504/5T									UNC 3/4"-10	6314 C3	6314 C3									
586/7TS	27.600	6.063	26.182	33.346	13.386	12.519 (side mounted) / 13.977 (top mounted)	17.441	28.740	UNC 7/8"-9	6322 C3	6319 C3									
586/7T									6322 C3	6319 C3										
588/9TS	27.600	6.063	26.182	33.346	13.386	12.519 (side mounted) / 13.977 (top mounted)	17.441	28.740	UNC 7/8"-9	6322 C3	6319 C3									
588/9T									6322 C3	6319 C3										

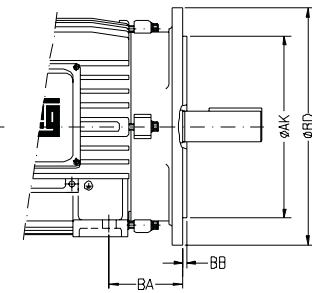
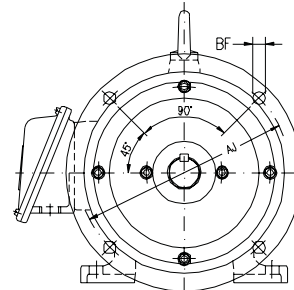
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## TEFC - Severe Duty - Mechanical Data

"C" FLANGE DIMENSIONS									
NEMA FRAMES	BA	AJ	AK	BD	BF		BB	BC	AH
					NUMBER	TAP SIZE			
143/5TC	2.250	5.875	4.500	6.500	4	UNC3/8"x16	0.156	0.125	2.125
182/4TC	2.750					UNC1/2"x13		0.125	2.625
213/5TC	3.500	7.250	8.500	8.875				0.125	3.125
254/6TC	4.250							0.125	3.750
284/6TC	4.750	9.000	10.500	11.031				0.125	4.375
284/6TSC								0.125	3.000
324/6TC	5.250			13.583				0.125	5.000
324/6TSC								0.125	3.500
364/5TC	5.875	11.000	12.500					0.125	5.625
364/5TSC				15.551				0.125	3.500
404/5TC	6.625				8	UNC5/8"x11	0.250	0.250	7.000
404/5TSC						UNC5/8"x11		0.250	4.000
444/5TC								0.250	8.250
444/5TSC								0.250	4.500
445/7TC	7.500	14.000	16.000					0.250	8.250
445/7TSC								0.250	4.500
447/9TC								0.250	8.250
447/9TSC				17.913				0.250	4.500
504/5TC	8.500							0.250	10.375
504/5TSC								0.250	4.500
586/7TC		14.500	16.500			0.250	11.375		
586/7TSC	10.000					0.250	4.500		
588/9TC						0.250	11.375		
588/9TSC						0.250	4.500		



"D" FLANGE DIMENSIONS							
NEMA FRAMES	BA	AJ	AK	BD	BF		BB
					NUMBER	TAP SIZE	
143/5TD	2.250	10.000	9.000	11.000	4	0.562	0.203
182/4TD	2.750						
213/5TD	3.500						
254/6TD	4.250	12.500	11.000	14.000			
284/6TD	4.750						
284/6TSD							
324/6TD	5.250	16.000	14.000	18.000	8	0.828	0.250
324/6TSD							
364/5TD	5.875						
364/5TSD		20.000	18.000	22.000			
404/5TD	6.625						
404/5TSD							
444/5TD		7.500	18.000	21.653	8	0.828	0.250
444/5TSD							
445/7TD							
445/7TSD		22.000	18.000	24.803			
447/9TD							
447/9TSD							
504/5TD	8.500	30.000	28.000	32.000	8	0.828	0.250
504/5TSD							
586/7TD							
586/7TSD	10.000						
588/9TD							
588/9TSD							



# W21X Explosion Proof NEMA Premium Motors

## TEFC

### Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4, 6 and 8 pole, 60Hz
- Voltage: 230/460V, 575V
- Totally Enclosed Fan Cooled -TEFC (IP55) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- Internal Oil/Lip Seal
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft up to frame 364/5T and all 2 pole motors
- 4140 for 404/5T shaft upwards in 4, 6 and 8 pole motors
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
- 460V rated motors have Spike Resistant wire.
  - Protects against IGBT voltage spikes up to 2000V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Insulation System:
  - Dip and Bake Insulation system with class "H" resin up to frame 324/6T
  - CFRI Continuous Flow Resin Impregnation Insulation system with class "H" resin for frame 364/5T and up.
- NEMA design "B"
- Service Factor: 1.15
- Continuous duty (S1)
- Thermostats (N/C 1 per phase/3 in series)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Stainless steel nameplate with laser etching
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 202P/222P - C4 Rated
- Color: RAL 5009 - Blue
- Brass drain/breather plug from frame 254T and up
- Regreasable bearings, positive pressure lubrication system (frames 254T and up)
- 2RS bearings from frame 143T to 215T



### TEMP CODE T3C

CSA / UL: Class I, Div 1 - Groups C and D

CSA: Class II, Div 1 - Groups F and G

CSA: Class I, Zone 1, IIB

TEMP CODE T4 with maximum SF 1.15, not as Inverter Duty, maximum ambient temperature of 40°C.

Inverter Ratings					
Frames	Poles	Constant Torque	Variable Torque	VFD	Certification
143 - 215	All	20:1	1000:1	Any	CSA/UL
254 - 326		6:1			
364 - 587		2:1			
254 - 326		20:1			
364 - 587		6:1			CSA

### Optional Features

- Metric Frames available (Division I - non-ATEX)
- Special voltages
- Special shafts
- Space heaters
- Labyrinth taconite seal available (contact sales)
- Thermistors
- Drip cover (canopy) for shaft down applications
- NEMA C & D flanges and Metric flanges for all ratings
- Roller bearings
- Insulated bearings



# Explosion Proof NEMA Premium Motors

## TEFC - Purchasing Data

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	List Price with 'D' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM						460V	575V				
1	3600	143/5T	\$1,626	\$2,108	\$2,130	HX000X02NPW21X	1.41	1.13	81.5	61.7	13.752	0.875
	1800	143/5T	\$1,630	\$2,112	\$2,134	HX000X04NPW21X	1.43	1.14	85.5	61.7	13.752	0.875
	1200	143/5T	\$1,928	\$2,412	\$2,436	HX000X06NPW21X	1.54	1.23	82.5	52.9	13.752	0.875
1.5	900	182/4T	\$3,044	\$3,702	\$3,740	HX000X08NPW21X	2.30	1.84	78.5	112	15.862	1.125
	3600	143/5T	\$1,796	\$2,280	\$2,302	HX001X02NPW21X	2.05	1.64	84.0	61.7	13.752	0.875
	1800	143/5T	\$1,730	\$2,214	\$2,236	HX001X04NPW21X	2.05	1.64	86.5	70.5	13.752	0.875
2	1200	182/4T	\$2,380	\$3,040	\$3,070	HX001X06NPW21X	2.33	1.86	87.5	117.5	15.862	1.125
	900	182/4T	\$3,348	\$4,006	\$4,046	HX001X08NPW21X	2.70	2.16	82.5	128	15.862	1.125
	3600	143/5T	\$1,894	\$2,376	\$2,400	HX002X02NPW21X	2.69	2.15	85.5	66.1	13.752	0.875
3	1800	143/5T	\$1,774	\$2,258	\$2,280	HX002X04NPW21X	2.73	2.18	86.5	72.8	13.752	0.875
	1200	182/4T	\$2,508	\$3,166	\$3,198	HX002X06NPW21X	3.13	2.50	88.5	128.7	15.862	1.125
	900	213/5T	\$4,230	\$5,020	\$5,070	HX002X08NPW21X	3.45	2.76	84.0	165	19.450	1.375
5	3600	182/4T	\$2,156	\$2,816	\$2,952	HX003X02NPW21X	3.80	3.04	86.5	90.4	15.862	1.125
	1800	182/4T	\$2,134	\$2,794	\$2,822	HX003X04NPW21X	3.91	3.13	89.5	115	15.862	1.125
	1200	213/5T	\$3,320	\$3,944	\$4,200	HX003X06NPW21X	4.41	3.53	89.5	165	19.450	1.375
7.5	900	213/5T	\$4,538	\$5,328	\$5,382	HX003X08NPW21X	4.44	3.55	87.0	201	19.450	1.375
	3600	182/4T	\$2,464	\$3,124	\$3,154	HX005X02NPW21X	6.10	4.88	88.5	106	15.862	1.125
	1800	182/4T	\$2,342	\$3,000	\$3,030	HX005X04NPW21X	6.58	5.26	89.5	130	15.862	1.125
10	1200	213/5T	\$3,658	\$4,450	\$4,494	HX005X06NPW21X	6.83	5.46	89.5	218	19.450	1.375
	900	254T	\$5,280	\$6,422	\$6,486	HX005X08NPW21X	7.93	6.34	87.5	313	23.175	1.625
	3600	213/5T	\$3,176	\$3,966	\$4,006	HX007X02NPW21X	8.98	7.18	89.5	190	19.450	1.375
15	1800	213/5T	\$3,434	\$4,226	\$4,268	HX007X04NPW21X	9.41	7.53	91.7	152	19.450	1.375
	1200	254T	\$4,763	\$5,548	\$5,604	HX007X06NPW21X	9.73	7.78	91.0	309	23.175	1.625
	900	256T	\$6,426	\$7,568	\$7,644	HX007X08NPW21X	11.6	9.28	87.5	353	24.923	1.625
20	3600	213/5T	\$3,742	\$4,534	\$4,578	HX010X02NPW21X	12.0	9.60	90.2	201	19.450	1.375
	1800	L215T	\$3,980	\$4,770	\$4,818	HX010X04NPW21X	12.8	10.2	91.7	207	20.631	1.375
	1200	256T	\$5,492	\$6,554	\$6,620	HX010X06NPW21X	13.3	10.6	91.0	364	24.923	1.625
25	900	284T	\$8,538	\$9,812	\$9,910	HX010X08NPW21X	13.3	10.6	91.0	467	26.407	1.875
	3600	254T	\$4,590	\$5,632	\$5,888	HX015X02NPW21X	16.9	13.5	91.7	317	23.175	1.625
	1800	254T	\$4,722	\$5,824	\$6,080	HX015X04NPW21X	18.4	14.7	92.4	328	23.175	1.625
30	1200	284T	\$7,162	\$8,236	\$8,318	HX015X06NPW21X	17.5	14.0	91.7	463	26.407	1.875
	900	286T	\$10,120	\$11,394	\$11,508	HX015X08NPW21X	19.0	15.2	91.0	507	27.905	1.875
	3600	256T	\$5,610	\$6,788	\$6,856	HX020X02NPW21X	23.1	18.5	91.7	357	24.923	1.625
40	1800	256T	\$5,606	\$6,784	\$7,004	HX020X04NPW21X	25.0	20.0	93.0	364	24.923	1.625
	1200	286T	\$8,276	\$9,550	\$9,644	HX020X06NPW21X	24.3	19.4	91.7	500	27.905	1.875
	900	324T	\$12,342	\$13,848	\$13,986	HX020X08NPW21X	27.5	22.0	92.4	606	29.602	2.125
50	3600	284TS	\$7,250	\$8,564	\$8,648	HX025X02NPW21X	28.6	22.9	92.4	452	25.033	1.625
	1800	284T	\$7,106	\$8,380	\$8,464	HX025X04NPW21X	29.9	23.9	93.6	472	26.407	1.875
	1200	324T	\$9,815	\$11,284	\$11,396	HX025X06NPW21X	30.4	24.3	93.0	639	29.602	2.125
75	900	326T	\$13,960	\$15,466	\$15,620	HX025X08NPW21X	35.4	28.3	92.4	672	31.106	2.125
	3600	286TS	\$8,152	\$9,426	\$9,520	HX030X02NPW21X	33.8	27.0	93.0	529	26.531	1.625
	1800	286T	\$8,016	\$9,250	\$9,628	HX030X04NPW21X	36.0	28.8	93.6	511	27.905	1.875
100	1200	326T	\$11,822	\$13,328	\$13,460	HX030X06NPW21X	36.8	29.4	93.0	694	31.106	2.125
	900	364/5T	\$24,232	\$26,642	\$26,908	HX030X08NP	38.5	30.8	93.0	910	33.701	2.375
	3600	324TS	\$11,068	\$12,214	\$12,336	HX040X02NPW21X	45.8	36.6	93.6	639	28.102	1.875
150	1800	324T	\$10,950	\$11,856	\$11,974	HX040X04NPW21X	48.3	38.6	94.1	650	29.602	2.125
	1200	364/5T	\$18,258	\$20,666	\$20,872	HX040X06NP	47.1	37.7	94.1	1010	33.701	2.375
	900	364/5T	\$24,490	\$26,900	\$27,168	HX040X08NP	52.3	41.8	93.6	1058	33.701	2.375
200	3600	326TS	\$13,150	\$14,656	\$14,804	HX050X02NPW21X	55.5	44.4	94.1	728	29.606	1.875
	1800	326T	\$12,844	\$13,748	\$14,272	HX050X04NPW21X	60.6	48.5	94.5	705	31.106	2.125
	1200	364/5T	\$20,142	\$22,550	\$23,886	HX050X06NP	58.1	46.5	94.1	1036	33.701	2.375
250	900	404/5T	\$31,218	\$33,628	\$33,964	HX050X08NP	68.0	54.4	93.6	1257	38.074	2.875
	3600	364/5TS	\$19,272	\$21,682	\$21,898	HX060X02NP	68.3	54.6	94.1	1016	31.575	1.875
	1800	364/5T	\$19,544	\$21,952	\$22,172	HX060X04NP	68.3	54.6	95.0	1014	33.701	2.375
300	1200	404/5T	\$26,014	\$28,422	\$28,706	HX060X06NP	70.4	56.3	94.5	1213	38.074	2.875
	900	404/5T	\$31,852	\$34,260	\$34,602	HX060X08NP	75.9	60.7	93.0	1279	38.074	2.875
	3600	364/5TS	\$25,124	\$27,532	\$28,904	HX075X02NP	82.4	65.9	94.1	1025	31.575	1.875
400	1800	364/5T	\$22,830	\$25,240	\$25,492	HX075X04NP	83.3	66.6	95.4	937	33.701	2.375
	1200	404/5T	\$29,030	\$31,438	\$31,752	HX075X06NP	87.0	69.6	94.5	1257	38.074	2.875
	900	444/5T	\$46,752	\$50,624	\$51,130	HX075X08NP	92.3	73.8	93.6	1911	43.797	3.375
500	3600	404/5TS	\$32,720	\$35,130	\$35,480	HX100X02NP	110	88.1	95.0	1206	35.074	2.125
	1800	404/5T	\$29,034	\$31,442	\$31,756	HX100X04NP	113	90.4	95.4	1221	38.074	2.875
	1200	444/5T	\$38,158	\$42,030	\$42,450	HX100X06NP	121	96.7	95.0	1896	43.797	3.375
600	900	444/5T	\$49,648	\$53,520	\$54,054	HX100X08NP	125	100	94.1	2052	43.797	3.375

Flange: Replace 'H' with 'C' for C Flange  
 Replace 'H' with 'D' for D Flange  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

# Explosion Proof NEMA Premium Motors

## TEFC - Purchasing Data

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	List Price with 'D' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM						460V	575V				
125	3600	444/5TS	\$43,260	\$47,132	\$47,602	HX125X02NP	138	110	95.0	1940	40.047	2.375
	1800	444/5T	\$40,166	\$44,038	\$44,478	HX125X04NP	143	114	95.4	2026	43.797	3.375
	1200	444/5T	\$50,998	\$54,870	\$57,080	HX125X06NP	150	120	95.0	2293	43.797	3.375
	900	447T	\$64,442	\$68,314	\$68,998	HX125X08NP447T	154	123	94.5	2337	47.339	3.375
	900	504/5T	\$64,442	\$68,530	\$69,214	HX125X08NP	154	123	94.5	2337	49.445	3.625
150	3600	444/5TS	\$50,194	\$54,066	\$54,606	HX150X02NP	161	129	95.4	1984	40.047	2.375
	1800	444/5T	\$45,522	\$49,394	\$49,888	HX150X04NP	170	136	95.8	2094	43.797	3.375
	1200	447T	\$58,016	\$61,886	\$62,506	HX150X06NP447T	174	139	95.8	2540	47.339	3.375
	1200	504/5T	\$58,016	\$62,102	\$62,724	HX150X06NP	174	139	95.8	2540	49.445	3.625
	900	447T	\$74,956	\$78,828	\$79,616	HX150X08NP447T	179	143	94.5	2646	47.339	3.375
900	504/5T	\$74,956	\$79,042	\$79,834	HX150X08NP	179	143	94.5	2646	49.445	3.625	
200	3600	447TS	\$67,450	\$71,320	\$72,034	HX200X02NP447TS	221	177	95.8	2491	45.589	2.375
	3600	504/5TS	\$67,450	\$71,536	\$72,252	HX200X02NP	221	177	95.8	2491	46.875	2.875
	1800	447T	\$57,452	\$61,324	\$61,936	HX200X04NP447T	230	184	96.2	2425	47.339	3.375
	1800	504/5T	\$57,452	\$61,538	\$62,154	HX200X04NP	230	184	96.2	2425	49.445	3.625
	1200	447T	\$68,180	\$72,052	\$72,772	HX200X06NP447T	249	199	95.8	2615	47.339	3.375
	1200	504/5T	\$68,180	\$72,268	\$72,990	HX200X06NP	249	199	95.8	2615	49.445	3.625
	900	449T	\$113,342	\$117,214	\$118,386	HX200X08NP449T	283	226	95.0	3580	54.996	3.375
900	586/7T	\$120,608	P.O.A	P.O.A	HX200X08NP	261	209	95.0	4167	61.389	3.875	
250	3600	447TS	\$71,032	\$74,904	\$75,654	HX250X02NP447TS	269	215	95.8	2491	45.589	2.375
	3600	504/5TS	\$71,032	\$75,120	\$75,870	HX250X02NP	269	215	95.8	2491	46.875	2.875
	1800	447T	\$68,366	\$72,452	\$73,176	HX250X04NP447T	284	227	96.2	2646	47.339	3.375
	1800	504/5T	\$68,366	\$72,452	\$73,176	HX250X04NP	284	227	96.2	2646	49.445	3.625
	1200	449T	\$105,804	\$109,676	\$110,774	HX250X06NP449T	299	239	95.8	3188	54.996	3.375
	1200	586/7T	\$123,270	P.O.A	P.O.A	HX250X06NP	303	242	95.8	3858	61.389	3.875
	900	586/7T	\$132,816	P.O.A	P.O.A	HX250X08NP	316	253	95.4	4409	61.389	3.875
300	3600	449TS	\$103,706	\$107,578	\$108,654	HX300X02NP449TS	320	256	95.8	3307	51.246	2.375
	3600	586/7TS	\$120,354	P.O.A	P.O.A	HX300X02NP	328	262	95.8	4409	54.514	2.375
	1800	449T	\$90,300	\$94,172	\$95,114	HX300X04NP449T	334	267	96.2	3086	54.996	3.375
	1800	586/7T	\$104,416	P.O.A	P.O.A	HX300X04NP	338	270	96.2	4078	61.389	3.875
	1200	449T	\$110,434	\$114,306	\$115,448	HX300X06NP449T	351	281	95.8	3197	54.996	3.375
	1200	586/7T	\$127,534	P.O.A	P.O.A	HX300X06NP	351	281	95.8	4189	61.389	3.875
	900	586/7T	\$155,152	P.O.A	P.O.A	HX300X08NP	376	301	95.4	4817	61.389	3.875
350	3600	449TS	\$119,928	\$123,800	\$125,038	HX350X02NP449TS	379	303	95.8	3638	51.246	2.375
	3600	586/7TS	\$138,448	P.O.A	P.O.A	HX350X02NP	388	310	95.8	4409	54.514	2.375
	1800	449T	\$98,362	\$102,234	\$103,256	HX350X04NP449T	390	312	96.2	3417	54.996	3.375
	1800	586/7T	\$113,582	P.O.A	P.O.A	HX350X04NP	395	316	96.2	4233	61.389	3.875
	1200	586/7T	\$147,198	P.O.A	P.O.A	HX350X06NP	421	337	95.8	4519	61.389	3.875
900	586/7T	\$155,152	P.O.A	P.O.A	HX350X08NP	439	351	95.4	4894	61.389	3.875	
400	1800	586/7T	\$128,394	P.O.A	P.O.A	HX400X04NP	460	368	96.2	4365	61.389	3.875
	1200	586/7T	\$169,886	P.O.A	P.O.A	HX400X06NP	479	383	95.8	4982	61.389	3.875
450	1800	586/7T	\$137,040	P.O.A	P.O.A	HX450X04NP	501	401	96.2	4586	61.389	3.875
500	1800	586/7T	\$148,914	P.O.A	P.O.A	HX500X04NP	568	454	96.2	4828	61.389	3.875

Flange: Replace 'H' with 'C' for C Flange  
 Replace 'H' with 'D' for D Flange  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V



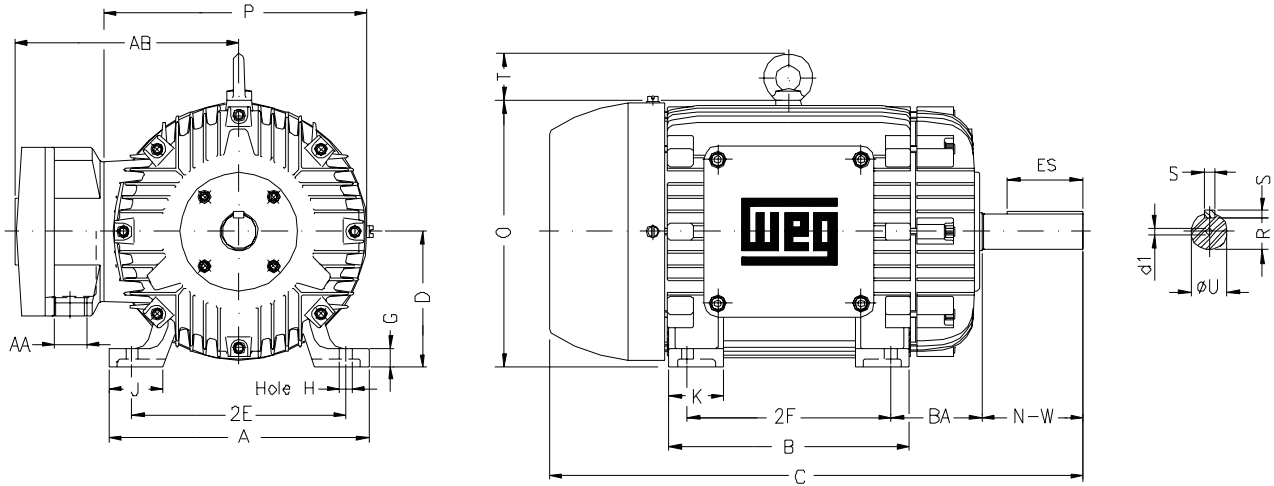
# Explosion Proof NEMA Premium Motors

## TEFC - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (l/l/n)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V								50%	75%	100%	50%	75%	100%
150	110	3570	444/5TS	323	161	129	7.0	200%	250%	31	1984	86	1.15	93.6	95.0	95.4	0.85	0.89	0.90
		1780	444/5T	340	170	136	6.3	220%	250%	22	2094	76	1.15	95.0	95.8	95.8	0.72	0.81	0.85
		1185	447T	348	174	139	7.5	260%	260%	42	2540	73	1.15	95.0	95.8	95.8	0.68	0.78	0.83
		1185	504/5T	348	174	139	7.5	260%	260%	42	2540	73	1.15	95.0	95.8	95.8	0.68	0.78	0.83
		890	447T	358	179	143	6.0	170%	200%	18	2646	66	1.15	94.5	95.0	94.5	0.68	0.77	0.82
		890	504/5T	358	179	143	6.0	170%	200%	18	2646	66	1.15	94.5	95.0	94.5	0.68	0.77	0.82
200	150	3570	447TS	443	221	177	7.3	220%	260%	37	2491	87	1.15	94.1	95.4	95.8	0.84	0.88	0.89
		3570	504/5TS	443	221	177	7.3	220%	260%	37	2491	88	1.15	94.1	95.4	95.8	0.84	0.88	0.89
		1780	447T	460	230	184	6.9	230%	240%	25	2425	82	1.15	95.8	96.2	96.2	0.70	0.80	0.85
		1780	504/5T	460	230	184	6.9	230%	240%	25	2425	82	1.15	95.8	96.2	96.2	0.70	0.80	0.85
		1190	447T	498	249	199	7.8	270%	280%	14	2615	73	1.15	94.5	95.4	95.8	0.60	0.73	0.79
		1190	504/5T	498	249	199	7.8	270%	280%	14	2615	73	1.15	94.5	95.4	95.8	0.60	0.73	0.79
250	185	890	449T	565	283	226	7.5	280%	300%	13	3580	66	1.15	92.4	94.5	95.0	0.52	0.63	0.70
		890	586/7T	523	261	209	5.7	120%	210%	65	4167	75	1.15	94.1	94.5	95.0	0.60	0.71	0.76
		3570	447TS	538	269	215	8.0	240%	280%	18	2491	87	1.15	95.0	95.4	95.8	0.83	0.89	0.90
		3570	504/5TS	538	269	215	8.0	240%	280%	18	2491	88	1.15	95.0	95.4	95.8	0.83	0.89	0.90
		1780	447T	568	284	227	7.0	210%	230%	30	2646	82	1.15	95.4	96.2	96.2	0.72	0.81	0.85
		1780	504/5T	568	284	227	7.0	210%	230%	30	2646	77	1.15	95.4	96.2	96.2	0.72	0.81	0.85
300	220	1190	449T	598	299	239	8.1	280%	300%	10	3188	70	1.15	95.0	95.4	95.8	0.64	0.76	0.81
		1190	586/7T	605	303	242	6.0	180%	210%	33	3858	77	1.15	93.6	95.4	95.8	0.67	0.75	0.80
		890	586/7T	633	316	253	5.8	100%	210%	26	4409	75	1.15	94.1	94.5	95.4	0.60	0.71	0.77
		3575	449TS	640	320	256	8.4	280%	340%	15	3307	84	1.15	94.5	95.4	95.8	0.82	0.88	0.90
		3580	586/7TS	655	328	262	6.6	130%	220%	34	4409	85	1.15	94.5	95.4	95.8	0.86	0.87	0.88
		1785	449T	668	334	267	8.0	280%	290%	14	3086	80	1.15	95.4	95.8	96.2	0.74	0.83	0.86
350	260	1790	586/7T	675	338	270	6.8	180%	210%	50	4078	83	1.15	95.0	95.8	96.2	0.78	0.84	0.85
		1190	449T	702	351	281	7.9	280%	300%	7	3197	70	1.15	95.0	95.4	95.8	0.66	0.77	0.82
		1190	586/7T	703	351	281	6.1	180%	210%	35	4189	77	1.15	93.6	95.4	95.8	0.68	0.75	0.82
		895	586/7T	752	376	301	6.2	140%	210%	24	4817	75	1.15	95.0	95.0	95.4	0.60	0.72	0.77
		3575	449TS	758	379	303	8.7	280%	340%	14	3638	84	1.15	95.0	95.8	95.8	0.82	0.88	0.90
		3580	586/7TS	775	388	310	6.6	130%	220%	35	4409	85	1.15	94.5	95.4	95.8	0.86	0.87	0.88
400	300	1780	449T	808	404	323	8.2	280%	290%	14	3417	80	1.15	95.4	95.8	96.2	0.70	0.80	0.84
		1790	586/7T	790	395	316	7.3	230%	230%	32	4233	83	1.15	95.0	95.8	96.2	0.77	0.84	0.86
		1190	586/7T	842	421	337	6.3	210%	210%	29	4519	77	1.15	95.4	95.8	95.8	0.67	0.77	0.81
		890	586/7T	878	439	351	5.9	110%	200%	25	4894	75	1.00	94.1	94.5	95.4	0.60	0.64	0.78
450	330	1790	586/7T	920	460	368	6.4	180%	200%	18	4365	83	1.15	95.4	96.2	96.2	0.80	0.84	0.85
		1190	586/7T	959	479	383	6.0	200%	200%	71	4982	77	1.15	93.6	95.0	95.8	0.70	0.78	0.82
500	370	1790	586/7T	1002	501	401	6.5	180%	200%	24	4586	83	1.15	95.8	96.2	96.2	0.81	0.85	0.86
		1190	586/7T	1080	540	432	6.0	150%	210%	34	5004	77	1.00	93.6	95.0	95.8	0.69	0.77	0.80
500	370	1790	586/7T	1136	568	454	6.3	210%	230%	25	4828	83	1.00	95.8	96.2	96.2	0.81	0.84	0.85

# Explosion Proof NEMA Premium Motors

## TEFC - Mechanical Data

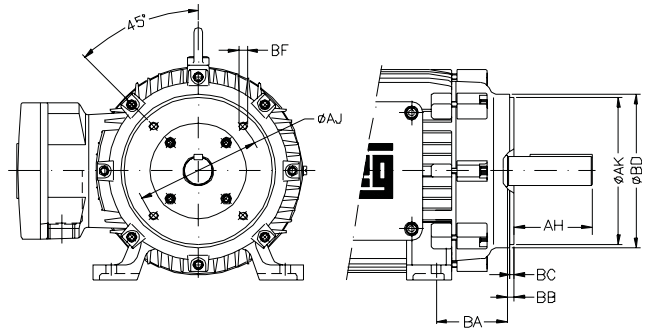


NEMA Frames	Mounting				A	B	C	D	G	J	K	O	P	T	Keyway			Shaft Extension			AB	AA	d1	Bearings	
	2E	2F	H	BA											S	R	ES	N-W	U	D.E.				N.D.E.	
143/5T	5.500	4.000/5.000	0.344	2.250	6.457	5.157	13.752	3.500	0.429	1.496	1.654	7.000	7.000	1.677	0.187	0.771	1.575	2.250	0.875	6.811	NPT 0.75"	A4	6205-2RS	6204-2RS	
145T		5.000			6.142	6205-2RS																	6204-2RS		
182/4T	7.500	4.500/5.500	0.406	2.750	8.661	5.945	15.862	4.500	0.787	1.890	1.969	9.421	8.909		0.250	0.984	1.969	2.750	1.125	8.240	NPT 1"	A4	6307-2RS	6206-2RS	
184T		5.500			6.969	6307-2RS																	6206-2RS		
213/5T	8.500	5.500/7.000	0.409	3.500	9.764	8.898	19.450	5.250	0.877	2.037	3.058	11.156	10.709	1.772	0.313	1.203	2.480	3.375	1.375	9.252	NPT 1"	A4	6308-2RS	6207-2RS	
215T		7.000			10.088	20.631																	6308-2RS	6207-2RS	
L215T		7.000/8.171				10.088	20.631														NPT 1"			6308-2RS	6207-2RS
254T	10.000	8.252		4.250	12.126	10.000	23.175	6.250	0.817	2.520	2.559	12.352	12.224	2.087	0.375	1.416	2.756	4.000	1.625	11.063	NPT 1.5"	A4	6309-C3	6309-C3	
256T		10.000			11.732	24.923	6309-C3																6309-C3		
284T	11.000	9.500	0.531	4.750	13.780	11.575	26.407	7.000	1.024	3.150	2.953	14.362	14.094	2.441	0.500	1.594	3.149	4.622	1.875	11.850	NPT 1.5"	A4	6311-C3	6311-C3	
284TS					25.033	27.905	7.000																1.024	3.150	2.953
286T	11.000	11.000		4.750	13.071	26.531	29.602	7.000	1.024	3.150	2.953	14.362	14.094	2.441	0.500	1.594	3.149	4.622	1.875	11.850	NPT 1.5"	A4	6311-C3	6311-C3	
286TS					29.602	26.531	7.000																1.024	3.150	2.953
324T	12.500	10.500		4.750	13.071	26.531	29.602	7.000	1.024	3.150	2.953	14.362	14.094	2.441	0.500	1.594	3.149	4.622	1.875	11.850	NPT 1.5"	A4	6312-C3	6312-C3	
324TS					29.602	26.531	7.000																1.024	3.150	2.953
326T	12.500	12.000	0.657	4.750	14.567	29.606	31.106	8.000	1.307	3.228	3.346	15.992	15.697	2.795	0.500	1.844	3.937	5.250	2.125	12.961	NPT 2"	A4	6312-C3	6312-C3	
326TS					29.606	29.606	8.000																1.307	3.228	3.346
364/5T	14.000	11.250/12.250		5.250	15.157	28.102	31.106	8.000	1.307	3.228	3.346	15.992	15.697	2.795	0.500	1.594	2.756	3.750	1.875	12.961	NPT 2"	A4	6312-C3	6312-C3	
364/5TS					14.567	29.606	8.000																1.307	3.228	3.346
404/5T	16.000	12.250/13.752		5.250	17.165	33.701	31.575	9.000	1.480	3.150	4.134	18.898	18.583	2.795	0.625	2.019	4.330	5.874	2.375	16.654	NPT 3"	A4	6314-C3	6314-C3	
404/5TS					17.165	33.701	31.575																9.000	1.480	3.150
444/5T	18.000	14.500/16.500	0.807	5.250	19.921	38.074	35.074	10.000	1.812	5.433	19.843	19.843	18.583	2.795	0.750	2.449	5.512	7.250	2.875	16.654	NPT 3"	A4	6217-C3	6314-C3	
444/5TS					19.921	38.074	35.074																10.000	1.812	5.433
447T	18.000	20.000		5.250	21.929	43.797	40.047	11.000	1.630	3.937	5.591	23.622	24.016	3.543	0.875	2.880	7.087	8.500	3.375	20.984	2xNPT 3"	UNC0.75"	6219-C3	6316-C3	
447TS					21.929	43.797	40.047																11.000	1.630	3.937
449T	18.000	25.000		5.250	23.640	47.339	43.589	11.000	1.630	3.937	5.591	23.622	24.016	3.543	0.875	2.880	7.087	8.500	3.375	20.984	2xNPT 3"	UNC0.75"	6314-C3	6314-C3	
449TS					23.640	47.339	43.589																11.000	1.630	3.937
504/5T	20.000	16.000/18.000	1.250	8.500	24.724	49.445	46.875	12.500	2.146	4.724	5.984	25.197	24.212	3.543	0.875	3.134	8.661	10.630	3.625	21.850	NPT 3"	A4	6319-C3	6316-C3	
504/5TS					24.724	49.445	46.875																12.500	2.146	4.724
586/7T	23.000	22.000/25.000	1.181	10.000	29.528	61.389	54.514	14.500	2.492	5.236	7.874	30.428	30.709	4.291	1.000	3.312	8.661	11.625	3.875	25.787	UNC 7/8"	UNC0.75"	6322-C3	6319-C3	
586/7TS					29.528	61.389	54.514																14.500	2.492	5.236

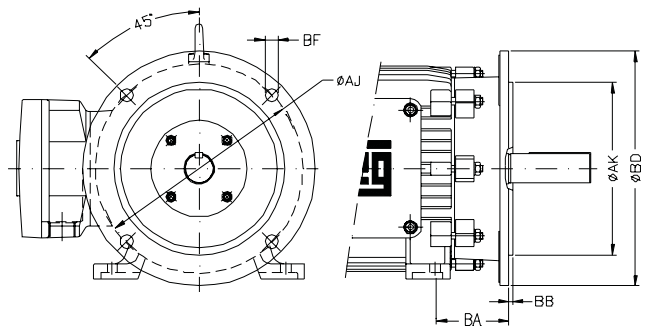
# Explosion Proof NEMA Premium Motors

## TEFC - Mechanical Data

"C" FLANGE DIMENSIONS																
NEMA FRAMES	BA	AJ	AK	BD	BF		BB	BC	AH							
					NUMBER	TAP SIZE										
143/5TC	2.250	5.875	4.500	6.500	4	UNC 3/8"x16	0.156	0.125	2,125							
145TC	2.750								UNC 0.5"x13	0.250	0.250	2,625				
182/4TC												3,500	7.250	8.500	8.875	3,125
184TC																
213/5TC																
215TC																
L215TC																
254TC																
256TC																
284TC																
286TC																
286TSC																
324TC																
324TSC																
326TC	5.250	11.000	12.500	13.583	8	UNC 5/8"x11	0.250	0.250	3,500							
326TSC	5.875								15.562	17.913	4,000					
364/5TC												7.500	14.000	16.000	8,250	
364/5TSC																
404/5TC																
404/5TSC																
444/5TC																
444/5TSC																
447TC																
447TSC																
449TC																
449TSC																
504/5TC	8.500	14.500	16.500	17.913	8	UNC 5/8"x11	0.250	0.250								5,625
504/5TSC	10.000								4,500	8,250	4,500					
586/7TC												10.000	7,000	4,000	8,250	
586/7TSC																4,500



"D" FLANGE DIMENSIONS																					
NEMA FRAMES	BA	AJ	AK	BD	BF		BB	AH													
					NUMBER	TAP SIZE															
143/5TD	2.250	10.000	9.000	11.000	4	0.551	0.203	2,125													
145TD	2.750							14.000	14.000	18.000	8	0.828	0.203	2,625							
182/4TD														3,500	20.000	18.000	21.656	4,500			
213/5TD																					
215TD																					
L215TD																					
254TD																					
256TD																					
284TD																					
284TSD																					
286TD																					
286TSD																					
324TD																					
324TSD																					
326TD																					
326TSD																					
364/5TD	5.875	30.000	28.000	32.000	8	0.828	0.203	5,625													
364/5TSD	6.625							11.375	4,500	8,250											
404/5TD											7.500	20.000	18.000	4,500							
404/5TSD																					
444/5TD																					
444/5TSD																					
447TD																					
447TSD																					
449TD																					
449TSD																					
504/5TD	8.500														10.000	30.000	28.000	8	0.828	0.203	10,375
504/5TSD	11.375																				4,500
586/7TD		11.375	4,500	4,500	4,500																
586/7TSD						4,500															



# W01 Rolled Steel NEMA Premium Motors ODP

## Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4 and 6 pole, 60Hz
- Voltage: 230/460V, 575V
- Open Drip Proof - ODP (IP21)
- Die cast aluminum squirrel cage rotor
- Bearings:
  - ZZ / Normal up to frame 213/5T
  - Z / C3 for frame 254/6T
- 1045 heat treated and stress relieved carbon steel shaft
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
- 460V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2000V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Dip and Bake Insulation system
- NEMA design "B"
- 1.15 Service Factor
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 207N - Frame 143/5T
  - 207A - Frame 182/4T & 213/5T
  - 203A - Frame 254/6T
- Color: Munsell N1 - Flat Black
- All frames have dual mounting



Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
143/5T - 254/6T	2 Pole	3:1	1000:1	Any
	4 Pole	5:1		

See page 7.6 for details

## Optional Features

- 50Hz
- Special voltages
- Special shafts
- Thermostats, Thermistors
- Drip cover (canopy) for shaft down applications
- NEMA C flange for all ratings
- Special paint
- Shaft grounding (Aegis or WEG)
- UL Listed fire pump duty
- No feet



# W01 Rolled Steel NEMA Premium Motors

## ODP - Purchasing & Electrical Data

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM					460V	575V				
1	3600	143/5T	\$652	\$834	DP000X02NPW01	1.38	1.10	80.0	25.4	11.181	0.875
	1800	143/5T	\$656	\$838	DP000X04NPW01	1.51	1.21	85.5	34.4	11.181	0.875
	1200	143/5T	\$860	\$1,042	DP000X06NPW01	1.65	1.32	82.5	35.3	11.181	0.875
1.5	3600	143/5T	\$734	\$914	DP001X02NPW01	1.85	1.48	84.0	29.3	11.181	0.875
	1800	143/5T	\$734	\$914	DP001X04NPW01	2.07	1.66	86.5	41.9	12.362	0.875
	1200	182/4T	\$1,006	\$1,232	DP001X06NPW01	2.25	1.80	86.5	56.0	13.976	1.125
2	3600	143/5T	\$788	\$970	DP002X02NPW01	2.42	1.94	85.5	36.8	11.969	0.875
	1800	143/5T	\$760	\$942	DP002X04NPW01	2.69	2.15	86.5	39.0	12.362	0.875
	1200	182/4T	\$1,136	\$1,364	DP002X06NPW01	2.95	2.36	87.5	66.1	14.764	1.125
3	3600	143/5T	\$942	\$1,124	DP003X02NPW01	3.59	2.87	85.5	39.9	12.362	0.875
	1800	182/4T	\$838	\$1,064	DP003X04NPW01	3.86	3.09	89.5	65.9	15.157	1.125
	1200	213/5T	\$1,572	\$1,844	DP003X06NPW01	4.16	3.33	88.5	98.3	16.575	1.375
5	3600	182/4T	\$1,146	\$1,372	DP005X02NPW01	6.10	4.88	86.5	58.7	14.764	1.125
	1800	182/4T	\$1,078	\$1,304	DP005X04NPW01	6.33	5.06	89.5	79.8	16.339	1.125
	1200	213/5T	\$1,970	\$2,242	DP005X06NPW01	6.74	5.39	89.5	118	16.969	1.375
7.5	3600	182/4T	\$1,480	\$1,708	DP007X02NPW01	8.67	6.94	88.5	69.9	15.157	1.125
	1800	213/5T	\$1,450	\$1,720	DP007X04NPW01	9.25	7.40	91.0	116	16.575	1.375
	1200	254/6T	\$2,662	\$3,070	DP007X06NPW01	10.2	8.16	90.2	187	20.472	1.625
10	3600	213/5T	\$1,924	\$2,196	DP010X02NPW01	12.0	9.60	89.5	117	16.969	1.375
	1800	213/5T	\$1,766	\$2,038	DP010X04NPW01	12.4	9.92	91.7	137	17.756	1.375
	1200	254/6T	\$3,178	\$3,586	DP010X06NPW01	13.9	11.1	91.7	209	20.472	1.625
15	3600	213/5T	\$2,576	\$2,848	DP015X02NPW01	17.2	13.8	90.2	131	17.756	1.375
	1800	254/6T	\$2,390	\$2,798	DP015X04NPW01	18.6	14.9	93.0	175	20.472	1.625
20	3600	254/6T	\$2,970	\$3,378	DP020X02NPW01	23.8	19.0	91.0	151	20.472	1.625
	1800	254/6T	\$3,066	\$3,474	DP020X04NPW01	25.0	20.0	93.0	198	20.472	1.625
25	3600	254/6T	\$3,610	\$4,016	DP025X02NPW01	29.1	23.3	91.7	174	20.472	1.625

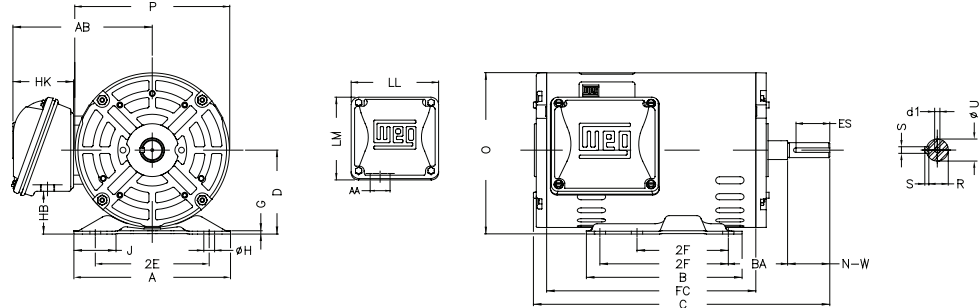
Flange: Replace 'DP' with 'CP' for C Flange  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

Rated Output	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor			
			230V	460V	575V							50%	75%	100%	50%	75%	100%	
1	0.75	3510	143/5T	2.76	1.38	1.10	8.3	210%	330%	22	25.4	1.15	74.0	78.5	80.0	0.66	0.78	0.85
		1760	143/5T	3.02	1.51	1.21	8.0	290%	360%	22	34.4	1.15	81.5	84.0	85.5	0.51	0.65	0.73
		1150	143/5T	3.30	1.65	1.32	6.1	250%	300%	24	35.3	1.15	78.5	81.5	82.5	0.47	0.60	0.69
1.5	1.1	3510	143/5T	3.70	1.85	1.48	8.6	210%	330%	19	29.3	1.15	81.5	84.0	84.0	0.73	0.83	0.89
		1760	143/5T	4.14	2.07	1.66	8.7	280%	330%	15	41.9	1.15	84.0	86.5	86.5	0.56	0.69	0.77
		1165	182/4T	4.50	2.25	1.80	6.5	200%	310%	46	56.0	1.15	84.0	85.5	86.5	0.51	0.63	0.71
2	1.5	3510	143/5T	4.84	2.42	1.94	8.9	220%	330%	14	36.8	1.15	84.0	85.5	85.5	0.77	0.86	0.91
		1740	143/5T	5.38	2.69	2.15	7.7	260%	320%	17	39.0	1.15	85.5	86.5	86.5	0.61	0.74	0.81
		1165	182/4T	5.90	2.95	2.36	6.6	200%	300%	33	66.1	1.15	85.5	86.5	87.5	0.53	0.66	0.73
3	2.2	3480	143/5T	7.18	3.59	2.87	8.0	230%	300%	9	39.9	1.15	84.0	85.5	85.5	0.76	0.86	0.90
		1765	182/4T	7.72	3.86	3.09	8.4	220%	330%	15	65.9	1.15	87.5	88.5	89.5	0.60	0.73	0.80
		1175	213/5T	8.32	4.16	3.33	5.9	210%	260%	39	98.3	1.15	86.5	87.5	88.5	0.56	0.68	0.75
5	3.7	3510	182/4T	12.2	6.10	4.88	7.6	190%	300%	12	58.7	1.15	85.5	86.5	86.5	0.73	0.83	0.88
		1760	182/4T	12.7	6.33	5.06	7.2	200%	310%	12	79.8	1.15	88.5	88.5	89.5	0.63	0.76	0.82
		1175	213/5T	13.5	6.74	5.39	5.9	220%	250%	29	118	1.15	88.5	89.5	89.5	0.58	0.70	0.77
7.5	5.5	3500	182/4T	17.3	8.67	6.94	7.4	180%	290%	10	69.9	1.15	88.5	88.5	88.5	0.76	0.85	0.90
		1770	213/5T	18.5	9.25	7.40	7.3	240%	320%	13	116	1.15	89.5	90.2	91.0	0.65	0.77	0.82
		1175	254/6T	20.4	10.2	8.16	5.1	200%	230%	37	187	1.15	88.5	90.2	90.2	0.56	0.68	0.75
10	7.5	3535	213/5T	24.0	12.0	9.60	6.8	200%	280%	11	117	1.15	88.5	89.5	89.5	0.74	0.84	0.88
		1770	213/5T	24.8	12.4	9.92	7.0	250%	350%	14	137	1.15	90.2	91.0	91.7	0.64	0.77	0.83
		1180	254/6T	27.8	13.9	11.1	5.3	210%	230%	34	209	1.15	91.0	91.7	91.7	0.56	0.68	0.74
15	11	3535	213/5T	34.4	17.2	13.8	6.9	210%	280%	8	131	1.15	90.2	90.2	90.2	0.77	0.86	0.89
		1775	254/6T	37.2	18.6	14.9	6.7	240%	300%	17	175	1.15	91.7	92.4	93.0	0.62	0.73	0.80
20	15	3525	254/6T	47.6	23.8	19.0	6.0	180%	240%	13	151	1.15	90.2	91.0	91.0	0.76	0.83	0.87
		1770	254/6T	50.0	25.0	20.0	6.3	240%	290%	15	198	1.15	92.4	92.4	93.0	0.63	0.74	0.81
25	18.5	3530	254/6T	58.2	29.1	23.3	6.3	180%	290%	9	174	1.15	91.0	91.7	91.7	0.73	0.83	0.87

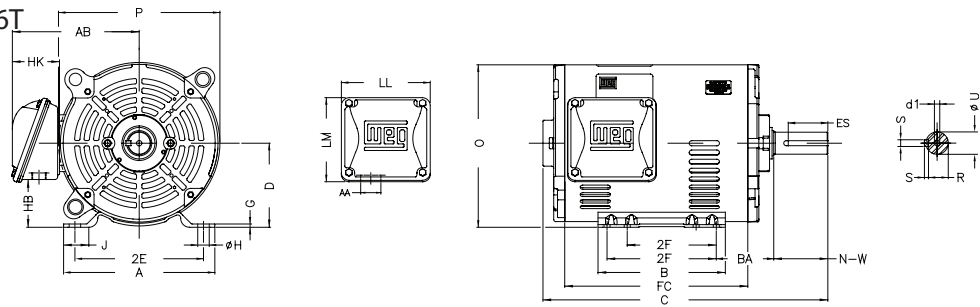
# W01 Rolled Steel NEMA Premium Motors

## ODP - Mechanical Data

### Frame 143/5T



### Frames 182/4T up to 254/6T



NEMA FRAME	MOUNTING					AB	D	HB	HK	Hole H	J	LL	LM	O	P	SHAFT END					BEARINGS		
	2E	2F	A	B	BA											d1	ES	N-W	R	S	U	D.E.	N.D.E.
143/5T	5.500	4.000/5.000	6.535	6.496	2.250	5.873	3.500	1.784	2.629	0.343	1.725	4.563	4.090	6.723	6.456	A 3.15	1.417	2.250	0.766	0.187	0.875	6205 ZZ	6203 ZZ
182/4T	7.500	4.500/5.500	8.661	6.299	2.750	6.696	4.500	2.784	0.406	1.299	1.299	4.563	4.090	8.557	8.114	A 4	1.969	2.750	0.984	0.250	1.125	6206 ZZ	6205 ZZ
213/5T	8.500	5.500/7.000	9.449	7.953	3.500	7.973	5.250	2.982	3.022	0.406	1.575	5.551	5.250	10.144	9.846	A 4	2.480	3.380	1.203	0.313	1.375	6208 ZZ	6206 ZZ
254/6T	10.000	8.252/10.000	11.417	11.417	4.250	9.448	6.250	3.631	3.645	0.530	1.693	6.299	6.017	12.010	11.558	A 4	2.756	4.000	1.406	0.375	1.625	6309 Z-C3	6208 Z-C3

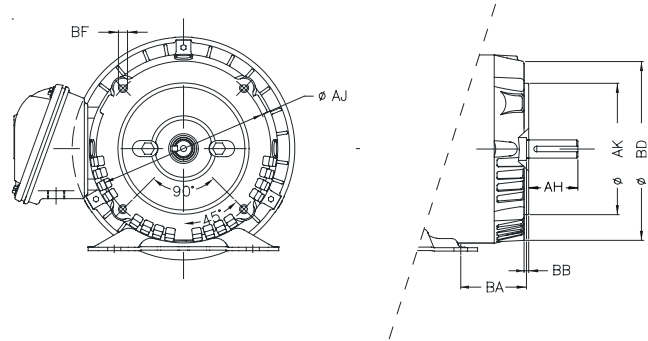
NEMA FRAME	OUTPUT		POLES	C	FC
	HP	kW			
143/5T	1	0.75	2	11.181	7.480
			4		
			6		
182/4T	1.5	1.1	2	12.362	8.661
			4		
			6		
143/5T	2	1.5	2	11.969	8.268
4			12.362	8.661	
6			14.764		
182/4T	3	2.2	2	12.362	9.055
4			15.157		
6			16.575		
213/5T	5	3.7	2	14.764	8.661
4			16.339		
6			16.969		
182/4T	7.5	5.5	2	15.157	9.055
4			16.575		
6			16.969		
213/5T	10	7.5	2	15.157	9.055
4			17.756		
6			20.472		
254/6T	15	11	2	17.756	11.417
4			17.756		
6			20.472		
254/6T	20	15	2	20.472	12.992
			4		
			6		
254/6T	25	18.5	2	20.472	12.992
4					

# W01 Rolled Steel NEMA Premium Motors

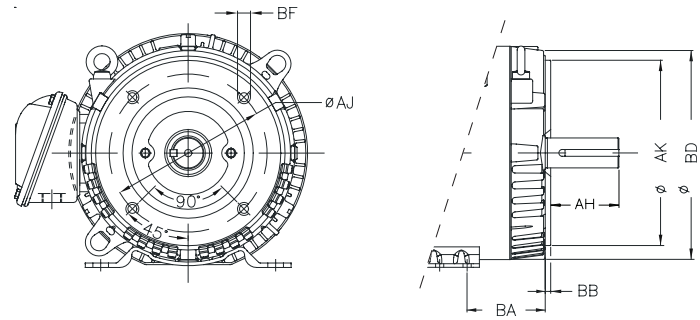
## ODP - Mechanical Data

"C" Flange Dimensions							
Frame	BA	Flange					
		AJ	AK	BB	BD	BF	AH
143/5TC	2.750	5.874	4.500	0.157	6.028	UNC3/8"x16	2.129
182/4TC	3.500	7.250	8.500	0.250	8.858	UNC1/2"x13	2.620
213/5TC	4.309				9.401		3.129
254/6TC	4.750				11.084		3.750

Frame 143/5T



Frames 182/4T up to 254/6T



# W40 NEMA Premium Motors

## ODP

### Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4 and 6 pole, 60Hz
- Voltage: 230/460V, 575V
- Cast Iron Frames
- Cast Iron endshields and terminal box
- Degree of protection:
  - ODP (IP23)
  - WP11 (IP24)
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft up to frame 364/5T, all 2 pole motors
- 4140 for 404/5T shaft upwards in 4 and 6 pole motors
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- 460V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2000V.
- NEMA design "B"
- Service Factor: 1.25 up to 150 HP, 1.15 for 200 HP and above
- Continuous Duty (S1)
- 104°F (40°C) ambient temperature
- Paint Plan: 203A
- Color: RAL 5009 (Blue)
- Paint: Synthetic Enamel alkyd resin base
- Stainless steel nameplate with laser etching
- Cooling system with finned rotor
- Regreasable bearings



Frames 254T to 447/9T:  
Safe Area  
Option for Frames 5010/11 and up:  
Class I, Div 2, Groups A,B,C & D  
Class I, Zone 2, IIC

Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
254T - 326T	All	3:1	1000:1	Any
364T - 449T	All	2:1	1000:1	
5010 and up	All	Contact Sales	Contact Sales	
See page 7.6 for details				

### Optional Features

- 50 Hz
- Special voltages
- NEMA C & D flanges
- Specially designed shaft
- Second shaft end
- Thermistors, Thermostats or RTD's (PT100)
- Auxiliary terminal box
- Roller bearings
- Shaft grounding (Aegis or WEG)
- IEC metric frames (on request) for frames 160M to 280S/M
- F2 and F3 mount
- Drip cover
- UL Listed fire pump duty
- No feet



1.40

General Purpose Three Phase Motors

# W40 NEMA Premium Motors

## ODP - Purchasing Data

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	List Price with 'D' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM						460V	575V				
15	1800	254T	\$2,812	\$3,274	\$3,340	DP015X04NP	18.6	14.9	93.0	254	20.669	1.625
	1200	284T	\$5,236	\$5,806	\$5,924	DP015X06NP	17.8	14.2	91.7	400	23.386	1.875
	3600	254T	\$3,496	\$3,958	\$4,036	DP020X02NP	24.6	19.7	91.0	179	20.669	1.625
20	1800	256T	\$3,604	\$4,066	\$4,148	DP020X04NP	24.8	19.8	93.0	295	22.401	1.625
	1200	286T	\$6,350	\$6,920	\$7,058	DP020X06NP	24.0	19.2	92.4	437	24.882	1.875
	3600	256T	\$4,244	\$4,704	\$4,800	DP025X02NP	29.8	23.8	91.7	243	22.401	1.625
25	1800	284T	\$3,966	\$4,538	\$4,628	DP025X04NP	29.9	23.9	93.6	342	23.386	1.875
	1200	324T	\$6,664	\$7,352	\$7,500	DP025X06NP	30.4	24.3	93.0	509	26.181	2.125
	3600	284TS	\$5,166	\$5,738	\$5,852	DP030X02NP	34.8	27.8	92.4	333	22.000	1.625
30	1800	286T	\$4,772	\$5,344	\$5,450	DP030X04NP	35.4	28.3	94.1	419	24.882	1.875
	1200	326T	\$7,370	\$8,058	\$8,218	DP030X06NP	36.0	28.8	93.6	630	27.667	2.125
	3600	286TS	\$6,222	\$6,792	\$6,928	DP040X02NP	47.1	37.7	93.0	417	23.504	1.625
40	1800	324T	\$6,090	\$6,778	\$6,914	DP040X04NP	48.3	38.6	94.1	529	26.181	2.125
	1200	364/5T	\$11,030	\$12,436	\$12,686	DP040X06NPW40	47.1	37.7	94.1	813	29.65	2.375
	3600	324TS	\$7,308	\$7,962	\$8,122	DP050X02NP	59.1	47.3	93.6	496	24.685	1.875
50	1800	326T	\$6,874	\$7,528	\$7,678	DP050X04NP	59.9	47.9	94.5	573	27.667	2.125
	1200	364/5T	\$11,506	\$12,912	\$13,170	DP050X06NPW40	58.8	47.0	94.1	948	29.65	2.375
	3600	326TS	\$8,642	\$9,296	\$9,482	DP060X02NP	71.0	56.8	93.6	582	26.181	1.875
60	1800	364/5T	\$9,172	\$10,578	\$10,790	DP060X04NPW40	69.9	55.9	95.0	825	29.65	2.375
	1200	404/5T	\$13,726	\$15,132	\$15,434	DP060X06NPW40	70.3	56.2	94.5	1,007	34.020	2.875
	3600	364/5TS	\$12,066	\$13,474	\$13,742	DP075X02NPW40	81.5	65.2	94.1	695	27.52	1.875
75	1800	404/5T	\$11,026	\$12,432	\$12,682	DP075X04NPW40	83.5	66.8	95.0	825	29.65	2.375
	1200	404/5T	\$14,014	\$15,420	\$15,728	DP075X06NPW40	85.9	68.7	94.5	1,188	34.020	2.875
	3600	364/5TS	\$16,752	\$18,158	\$18,522	DP100X02NPW40	111	88.8	94.5	825	27.52	1.875
100	1800	404/5T	\$14,128	\$15,534	\$15,844	DP100X04NPBBW40	113	90.4	95.4	1,052	34.020	2.875
	1200	444/5T	\$25,536	\$27,740	\$28,294	DP100X06NPBBW40	125	100	95.0	1,635	38.108	3.375
	3600	404/5TS	\$20,382	\$21,790	\$22,224	DP125X02NPBBW40	136	109	94.5	986	31.020	2.125
125	1800	404/5T	\$17,534	\$18,942	\$19,320	DP125X04NPBBW40	136	109	95.4	1,144	34.020	2.875
	1200	444/5T	\$25,948	\$29,060	\$29,642	DP125X06NPBBW40	158	126	95.0	1,914	38.108	3.375
	3600	404/5TS	\$26,624	\$28,032	\$28,592	DP150X02NPBBW40	163	130	94.5	1,246	31.020	2.125
150	1800	444/5T	\$24,534	\$26,736	\$27,270	DP150X04NPBBW40	166	133	95.8	1,433	38.108	3.375
	1200	444/5T	\$28,590	\$30,794	\$31,410	DP150X06NPBBW40	183	146	95.4	2,208	38.108	3.375
	3600	444/5TS	\$35,830	\$38,032	\$38,794	DP200X02NPBBW40	223	178	95.0	1,537	34.358	2.375
200	1800	444/5T	\$30,018	\$32,222	\$32,866	DP200X04NPBBW40	229	183	95.8	1,740	38.108	3.375
	1200	444/5TS	P.O.A.	P.O.A.	P.O.A.	DP200X06NPBSW40	229	183	95.8	1,740	34.358	2.375
	3600	447/9T	P.O.A.	P.O.A.	P.O.A.	DP200X06NPBBW40	241	193	95.4	2,205	46.709	3.375
250	1800	444/5TS	\$42,942	\$45,144	\$46,046	DP250X02NPBBW40	273	218	95.0	1,806	34.358	2.375
	1200	444/5T	\$37,030	\$39,234	\$40,018	DP250X04NPBBW40	275	220	95.8	2,029	38.108	3.375
	3600	444/5TS	P.O.A.	P.O.A.	P.O.A.	DP250X06NPBSW40	275	220	95.8	2,029	34.358	2.375
300	1200	447/9T	P.O.A.	P.O.A.	P.O.A.	DP250X06NPBBW40	300	240	95.4	2,426	46.709	3.375
	3600	444/5TS	\$50,422	\$52,624	\$53,678	DP300X02NPBBW40	323	258	95.4	2,007	34.358	2.375
	1800	447/9T	\$46,902	\$47,876	\$48,374	DP300X04NPBBW40	324	259	95.8	2,095	46.709	3.375
350	1200	447/9T	\$50,865	\$51,839	\$52,337	DP300X06NPBBW40	358	286	95.4	2,646	46.709	3.375
	3600	447/9TS	\$52,943	\$53,916	\$54,415	DP350X02NPBBW40	384	307	95.4	1,819	43.00	2.375
	1800	447/9T	\$53,194	\$54,168	\$54,667	DP350X04NPBBW40	393	314	95.8	2,315	46.709	3.375
400	3600	447/9TS	\$54,729	\$55,703	\$56,201	DP400X02NPBBW40	443	354	95.8	1,896	43.00	2.375
	1800	447/9T	\$59,822	\$60,796	\$61,294	DP400X04NPBBW40	453	362	95.8	2,536	46.709	3.375
	3600	447/9TS	\$59,669	\$60,643	\$61,141	DP450X02NPBBW40	478	382	96.2	2,073	43.00	2.375
450	1800	5010/11	P.O.A.	P.O.A.	P.O.A.	DP450X04NPBBW40	507	406	96.2	3,087	62.88	3.625
	3600	447/9TS	\$66,509	\$67,483	\$67,981	DP500X02NPW40	536	429	96.2	2,139	43.00	2.375
	1800	5010/11	P.O.A.	P.O.A.	P.O.A.	DP500X04NPW40	568	454	96.2	3,308	62.88	3.625
550	3600	447/9TS	\$67,748	\$68,721	\$69,220	DP550X02NPW40	580	464	96.2	2,271	43.00	2.375
	1800	5010/11	P.O.A.	P.O.A.	P.O.A.	DP550X04NPW40	600	480	96.2	3,528	62.88	3.625
	3600	447/9TS	\$68,947	\$69,921	\$70,419	DP600X02NPW40	638	510	96.2	2,359	43.00	2.375
600	1800	5010/11	P.O.A.	P.O.A.	P.O.A.	DP600X04NPW40	660	528	96.2	3,749	62.88	3.625
	1200	L5010/11	P.O.A.	P.O.A.	P.O.A.	DP600X04NPW40L5010	692	554	96.2	4,851	65.086	4.375
	3600	5010/11	P.O.A.	P.O.A.	P.O.A.	DP650X02NPW40	715	572	95.8	2,977	57.00	2.625
650	1800	L5010/11	P.O.A.	P.O.A.	P.O.A.	DP650X04NPW40	737	590	96.2	5,292	65.086	4.375
	3600	5010/11	P.O.A.	P.O.A.	P.O.A.	DP700X02NPW40	767	614	95.8	3,418	57.00	2.625
	1800	L5810/11	P.O.A.	P.O.A.	P.O.A.	DP700X04NPW40	789	631	96.4	5,954	70.444	5.125
750	3600	5010/11	P.O.A.	P.O.A.	P.O.A.	DP750X02NPW40	827	662	96.0	3,308	57.00	2.625
	1800	L5010/11	P.O.A.	P.O.A.	P.O.A.	DP750X04NPW40L5010	825	660	96.2	4,190	59.211	3.250
	3600	5010/11	P.O.A.	P.O.A.	P.O.A.	DP750X04NPW40	870	696	96.2	5,954	65.086	4.375
800	1800	L5810/11	P.O.A.	P.O.A.	P.O.A.	DP750X04NPW40L5810	858	686	96.4	6,174	70.444	5.125
	3600	5010/11	P.O.A.	P.O.A.	P.O.A.	DP800X02NPW40	885	708	96.2	3,528	57.00	2.625
	1800	L5010/11	P.O.A.	P.O.A.	P.O.A.	DP800X02NPW40L5010	885	708	96.2	4,410	59.211	3.250
850	3600	L5810/11	P.O.A.	P.O.A.	P.O.A.	DP800X02NPW40L5810	860	688	96.8	4,300	65.57	3.375
	1800	L5010/11	P.O.A.	P.O.A.	P.O.A.	DP800X04NPW40	906	725	96.2	5,954	65.086	4.375
	3600	5010/11	P.O.A.	P.O.A.	P.O.A.	DP850X02NPW40	934	747	96.2	3,638	57.00	2.625
900	1800	L5810/11	P.O.A.	P.O.A.	P.O.A.	DP850X04NPW40	953	762	96.5	6,615	70.444	5.125
	3600	L5010/11	P.O.A.	P.O.A.	P.O.A.	DP900X02NPW40	979	783	96.2	3,749	59.211	3.250
	1800	L5810/11	P.O.A.	P.O.A.	P.O.A.	DP900X04NPW40L5810	962	770	96.8	4,631	65.57	3.375
1000	3600	L5010/11	P.O.A.	P.O.A.	P.O.A.	DP900X04NPW40	1010	808	96.5	7,166	70.444	5.125
	1800	L5810/11	P.O.A.	P.O.A.	P.O.A.	DP1000X02NPW40	1120	896	96.5	5,072	59.211	3.250
	3600	L5810/11	P.O.A.	P.O.A.	P.O.A.	DP1000X02NPW40L5810	1070	856	97.0	5,182	65.57	3.375
1100	1800	L5810/11	P.O.A.	P.O.A.	P.O.A.	DP1000X04NPW40	1150	920	96.5	7,718	70.444	5.125
	3600	L5810/11	P.O.A.	P.O.A.	P.O.A.	DP1100X02NPW40	1160	928	97.0	6,395	65.57	3.375
	1800	L5810/11	P.O.A.	P.O.A.	P.O.A.	DP1100X04NPW40	1220	976	96.5	7,718	70.444	5.125
1250	3600	L5810/11	P.O.A.	P.O.A.	P.O.A.	DP1250X02NPW40	1310	1048	97.0	6,615	65.57	3.375

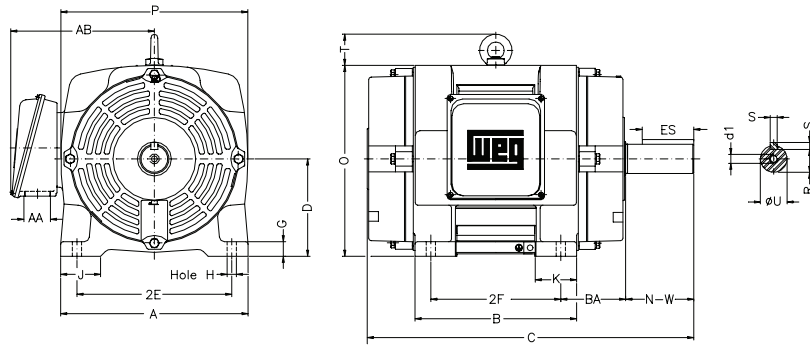
Flange: Replace 'DP' with 'CP' for C Flange  
 Replace 'DP' with 'DD' for D Flange  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V



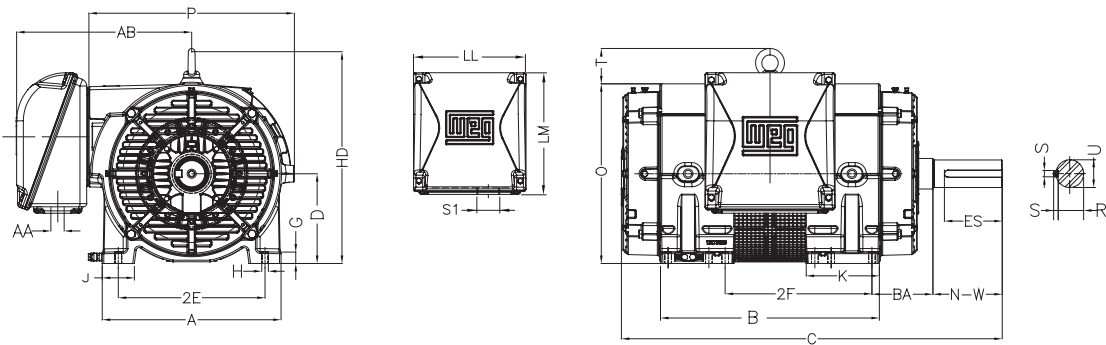
# W40 NEMA Premium Motors

## ODP - Mechanical Data

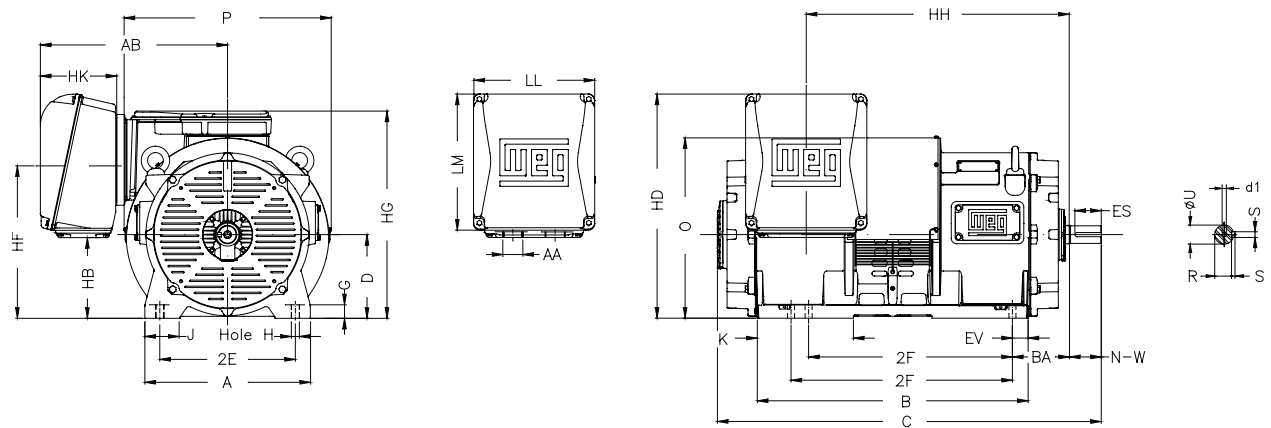
### Frames 254T to 444/5T



### Frame 447/9T



### Frames L5010 to L5810



# W40 NEMA Premium Motors

## ODP - Mechanical Data

NEMA FRAME	2E	J	A	AB	P	2F	K	B	BA	U	d1	N-W	Es	S	R		
254T	10.000	2.520	12.130	10.079	11.812	8.250	2.560	10.100	4.250	1.625	A4	4.000	2.756	0.375	1.406		
256T						10.000		11.732									
284TS	11.000	3.150	13.780	10.886	13.700	2.960	11.574	4.750	1.875			4.622	2.480	0.500	1.594		
284T																9.500	11.574
286TS									11.000			13.070	5.250	2.125	3.750		
286T																10.500	14.566
324TS	12.500	3.230	15.160	11.496	15.118	3.350	13.070	5.250	2.125			3.750	2.756	0.500	1.594		
324T																10.500	14.566
326TS	12.500	3.230	15.160	11.496	15.118	3.350	13.070	5.250	2.125			3.750	2.756	0.500	1.594		
326T																10.500	14.566
364/5TS	14.000	3.520	17.170	15.580	18.500	11.250/12.250	4.850	15.320	5.875	1.875	DUNC 3/4"-10	3.748	1.968	0.625	1.591		
364/5T																11.250/12.250	4.850
404/5TS	16.000	3.940	19.920	15.580	18.500	12.250/13.750	5.650	17.870	6.625	2.125	DUNC 3/4"-10	5.874	4.330	0.625	2.019		
404/5T																12.250/13.750	5.650
444/5TS	18.000	2.940	21.260	18.710	22.470	14.500/16.500	6.820	19.730	7.500	2.875	DUNC 3/4"-10	7.250	5.512	0.750	2.449		
444/5T																14.500/16.500	6.820
447/9TS	18.000	3.940	21.929	21.466	25.197	20.000/25.000	9.000	26.819	7.500	3.375	DUNC 3/4"-10	8.500	7.087	0.875	2.880		
447/9T																20.000/25.000	9.000
5010/11 - 2P	20.000	5.236	24.724	28.812	30.670	32.000/36.000	14.200	40.260	8.504	3.625	DUNC 3/4"-10	4.750	3.000	0.625	2.275		
5010/11																32.000/36.000	14.200
LS010/11 - 2P	20.000	5.140	24.803	34.908	34.095	32.000/36.000	10.685	42.256	8.500	3.250	DUNC 3/4"-10	5.750	4.331	0.750	2.831		
LS010/11																32.000/36.000	10.685
LS810/11 - 2P	23.000	6.710	29.530	34.908	39.976	36.000/40.000	10.810	46.785	10.000	4.375	DUNC 1"-8	11.625	8.661	1.000	3.817		
LS810/11																36.000/40.000	10.810
LS810/11	23.000	6.710	29.530	34.908	39.976	36.000/40.000	10.810	46.785	10.000	5.125	DUNC 1 1/4"	11.625	9.842	1.250	4.423		

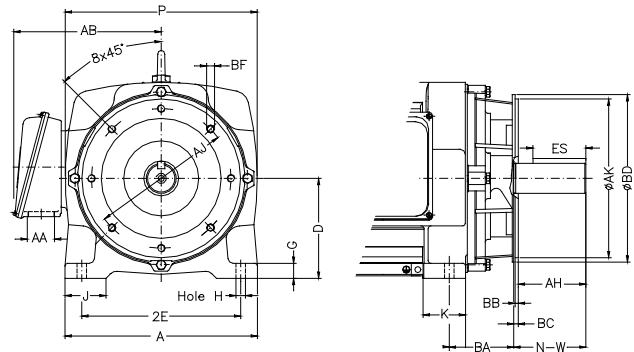
NEMA FRAME	D	G	O	LL	LM	HB	HD	HF	HG	HH	HK	Hole H	C	AA	Bearings	
															Drive end	Non-drive end
254T	6.250	0.787	12.204	6.300	6.693							0.531	20.669	NPT 1 1/2"	6309 Z-C3	6209 Z-C3
256T	6.250															
284TS	7.000	1.102	13.858	6.300	6.693							0.531	22.401	NPT 1 1/2"	6311 Z-C3	6211 Z-C3
284T													22.000			
286TS													23.386			
286T													23.504			
324TS	8.000	1.299	15.551	7.874	8.268							0.656	24.882	NPT 2"	6312 Z-C3	6212 Z-C3
324T													24.882			
326TS	8.000	1.299	15.551	7.874	8.268							0.656	26.181	NPT 2"	6312 Z-C3	6212 Z-C3
326T													26.181			
364/5TS	9.000	1.130	18.410	10.590	11.260	4.26				12		0.657	27.520	NPT 3"	6314 C3	6212-Z-C3
364/5T													27.520			
404/5TS	10.000	1.130	19.410	10.590	11.260	5.26				13.5		0.807	29.650	NPT 3"	6314 C3	6212-Z-C3
404/5T													31.020			
405TS													34.020			
405T													34.020			
444/5TS	11.000	1.130	21.950	14.940	15.060	4.88				15.75		0.807	34.360	2XNPT 3"	6314 C3	6314 C3
444/5T													38.110			
447/9TS	11.000	1.400	22.000	15.905	17.717							0.081	43.000	2XNPT 3"	6314	6314
447/9T													46.709			
5010/11 - 2P	12.500	1.972	27.150	18.090	21.428	13.732	34.850	25.042	32.323	39.331	11.410	1.102	57.000	2xNPT 4"	6314 C3	6314 C3
5010/11													62.880			
LS010/11 - 2P	12.500	1.873	29.527	21.850	32.874	5.510	38.384	21.142	34.754	40.822	18.805	1.181	59.211	2xNPT 4"	6218 C3	6218 C3
LS010/11													65.086			
LS810/11 - 2P	14.500	1.873	34.460	21.850	32.874	9.085	41.959	24.717	38.570	45.830	18.805	1.181	65.570	2xNPT 4"	6220 C3	6220 C3
LS810/11													70.444			

# W40 NEMA Premium Motors

## ODP - Mechanical Data

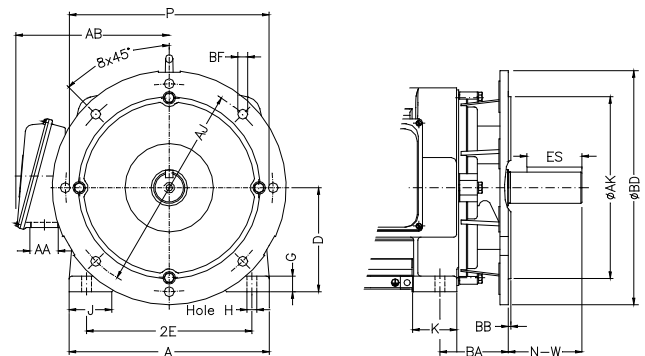
### FC Flange

NEMA FRAME	BA	BC	AJ	AK	BD	S	T	AH	$\alpha$	Nº of holes
254T	4.25	0.250	7.250	8.500	8.875	UNC 1/2"x13	0.250	3.750	45°	4
256T								3.000		
284TS	4.75		7.250	10.500	11.031	UNC 5/8"x11		4.375		
284T								3.000		
286TS	5.25		11.000	12.500	15.562	UNC 5/8"x11		4.375		
286T								3.500		
324TS	5.875		11.000	12.500	15.562	UNC 5/8"x11		5.000		
324T								3.500		
326TS	6.625		14.000	16.000	17.913	UNC 5/8"x11		3.500		
326T								5.000		
364/5TS	7.5	14.000	16.000	17.913	UNC 5/8"x11	3.500				
364/5T						5.625				
404/5TS	7.5	14.000	16.000	17.913	UNC 5/8"x11	4.000				
404/5T						7.000				
444/5TS	7.5	14.000	16.000	17.913	UNC 5/8"x11	4.500				
444/5T						8.250				
447/9TS	7.5	14.000	16.000	17.913	UNC 5/8"x11	8.250				
447/9T						8.250				



### FD Flange

NEMA FRAME	BA	AJ	AK	BD	S	T	AH	$\alpha$	Nº of holes	
254T	4.25	12.500	11.000	14.000	0.828	0.250	3.750	45°	4	
256T							3.000			
284TS	4.75		16.000	14.000		18.000	0.203			4.375
284T										3.000
286TS	5.25		16.000	14.000		18.000	0.203			4.375
286T										3.500
324TS	5.875		20.000	18.000		21.653	0.250			3.500
324T										5.625
326TS	6.625		20.000	18.000		21.653	0.250			4.000
326T										7.000
364/5TS	7.5	20.000	18.000	21.653	0.203	4.500				
364/5T						8.250				
404/5TS	7.5	20.000	18.000	21.653	0.203	8.250				
404/5T						8.250				
444/5TS	7.5	20.000	18.000	21.653	0.203	8.250				
444/5T						8.250				
447/9TS	7.5	20.000	18.000	21.653	0.203	8.250				
447/9T						8.250				



# W22 IEC Tru-Metric - NEMA Premium Efficiency TEFC

## Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4, 6, and 8 poles, 60Hz & 50Hz
- Voltage:
  - 460//220-240/380-415V (frames 63 to 100L)
  - 460//380-415V (frames 112M to 355M/L)
  - 575V
- Totally Enclosed Fan Cooled - TEFC (IP55) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- Sealing:
  - V Ring sealing up to frame 200L
  - WSeal® (double lippered V Ring with metallic cap) sealing on both endshields from frame 225S/M up to 355M/L
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft up to frame 225S/M and all 2 pole motors and frame 250S/M 4140 for 250S/M shaft upwards in 4, 6 and 8 pole motors
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Insulation System:
  - Dip and Bake Insulation system with class "H" resin up to frame 200L
  - CFRI Continuous Flow Resin Impregnation Insulation system with class "H" resin for frame 225S/M and up.
- Insulated endbells from frame 315L and up
- Design "N"
- Service Factor (60Hz only):
  - 1.25 up to frame 315L
  - 1.15 for frame 355M/L
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Metric threaded cable entries on the terminal box
- Re-configurable Terminal Box for frames 225S/M and up
- Stainless steel nameplate with laser etching
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 207A - Frames 63 to 132M
  - 203A - Frames 160M to 355M/L
- Color: RAL 5009 - Blue
- Fitted with closed rubber drain breathers
- Regreasable bearings for frames 160 and up
- Terminal block



Class I, Div 2, Groups A, B, C & D  
Class II, Div 2, Groups F & G  
Class I, Zone 2, IIC

Inverter Ratings FOR 60 HZ ONLY				
Frames	Poles	Constant Torque	Variable Torque	VFD
63 - 355M/L ≤ 250HP	All	20:1	1000:1	Any
	All	1000:1*		WEG
315L - 355M/L > 250 HP	All	6:1	1000:1	Any
	All	12:1*		WEG

\* Can only be achieved by a WEG VFD running in Sensorless Vector  
See page 7.6 for details

## Optional Features

- Special voltages
- Special shafts
- Space heaters
- Labyrinth taconite seal available for all ratings
- Thermostats, Thermistors, RTD's (PT100)
- Additional terminal box
- Drip cover (canopy) for shaft down applications
- NEMA C & D flanges and Metric flanges for all ratings
- Roller bearings
- Special paint
- Shaft grounding (Aegis or WEG). Not for Hazloc.
- Insulated bearings
- Insulated endbells (frame 225 and up)
- Degree of protection: IP56, IP65, IP66
- Forced ventilation
- Encoders
- No feet
- Class 'H' insulation
- Aluminum frames available from frame 63 to 132





# W22 IEC Tru-Metric - NEMA Premium Efficiency TEFC - Purchasing Data

Rated Output			IEC Frame	List Price	w/°C Din' Flange	w/'FF' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "L" Dim. (mm)
kW	HP	RPM						460V	575V			
55	75	3600	250S/M	\$20,550	Not Available	\$22,214	ME075X02W22250S/M	80.3	64.2	94.5	1069	965
		1800	250S/M	\$19,410	Not Available	\$21,074	ME075X04W22250S/M	85.1	68.1	95.4	1118	965
		1200	280S/M	\$29,136	Not Available	\$31,284	ME075X06W22280S/M	90.2	72.2	94.5	1594	1071
		900	315S/M	\$53,026	Not Available	\$56,064	ME075X08W22315S/M	93.7	75.0	94.5	2063	1274
75	100	3600	250S/M	\$24,280	Not Available	\$25,944	ME100X02W22250S/M	109	87.2	95.0	1102	965
		3600	280S/M	\$29,758	Not Available	\$31,906	ME100X02W22280S/M	111	88.8	94.5	1603	1071
		1800	250S/M	\$21,274	Not Available	\$22,938	ME100X04W22250S/M	115	92.0	95.4	1171	965
		1800	280S/M	\$27,140	Not Available	\$29,288	ME100X04W22280S/M	116	92.8	95.4	1607	1071
		1200	315S/M	\$31,052	Not Available	\$34,128	ME100X06W22315S/M	122	97.6	95.0	2121	1274
		900	315S/M	\$55,682	Not Available	\$58,720	ME100X08W22315S/M	127	102	95.0	2313	1274
90	125	3600	280S/M	\$31,874	Not Available	\$34,022	ME125X02W22280S/M	132	106	95.0	1680	1071
		1800	280S/M	\$29,192	Not Available	\$31,340	ME125X04W22280S/M	139	111	95.4	1713	1071
		1200	315S/M	\$38,624	Not Available	\$41,700	ME125X06W22315S/M	146	117	95.4	2310	1274
		900	315S/M	\$58,470	Not Available	\$61,508	ME125X08W22315S/M	152	122	95.0	2533	1274
110	150	3600	280S/M	\$33,648	Not Available	\$35,796	ME150X02W22280S/M	161	129	95.0	1806	1071
		3600	315S/M	\$41,316	Not Available	\$44,354	ME150X02W22315S/M	163	130	95.0	2121	1274
		1800	280S/M	\$33,736	Not Available	\$35,884	ME150X04W22280S/M	170	136	95.8	1949	1071
		1800	315S/M	\$36,752	Not Available	\$39,790	ME150X04W22315S/M	170	136	95.8	2227	1274
		1200	315S/M	\$40,658	Not Available	\$43,734	ME150X06W22315S/M	178	142	95.8	2438	1274
		900	315S/M	\$68,992	Not Available	\$72,030	ME150X08W22315S/M	186	149	95.4	3014	1274
132	175	3600	315S/M	\$46,936	Not Available	\$49,974	ME175X02W22315S/M	193	154	95.4	2310	1274
		1800	315S/M	\$39,070	Not Available	\$42,108	ME175X04W22315S/M	203	162	96.2	2414	1274
		1200	315S/M	\$69,016	Not Available	\$72,054	ME175X06W22315S/M	214	171	95.8	2623	1274
		900	315L	\$113,838	Not Available	\$116,876	ME175X08W22315L	223	178	95.4	3325	1383
150	200	3600	315S/M	\$51,666	Not Available	\$54,704	ME200X02W22315S/M	219	175	95.4	2401	1274
		1800	315S/M	\$40,776	Not Available	\$43,814	ME200X04W22315S/M	228	182	96.2	2478	1274
		1200	315L	\$66,444	Not Available	\$69,482	ME200X06W22315L	240	192	95.8	3009	1383
		1200	315S/M	\$65,160	Not Available	\$68,198	ME200X06W22315S/M	240	192	95.8	3009	1274
160	220	900	355M/L	\$103,076	Not Available	\$109,238	ME200X08W22355M/L	-	-	-	-	1482
		3600	315S/M	\$52,792	Not Available	\$55,830	ME220X02W22315S/M	234	187	95.4	2489	1274
		1800	315S/M	\$44,558	Not Available	\$47,596	ME220X04W22315S/M	246	197	96.2	2540	1274
		1200	315L	\$68,166	Not Available	\$71,204	ME220X06W22315L	259	207	95.8	3192	1383
		1200	355M/L	\$95,194	Not Available	\$100,926	ME220X06W22355M/L	269	215	95.8	3514	1482
		900	355M/L	\$106,672	Not Available	\$112,906	ME220X08W22355M/L	265	212	95.8	3851	1482
185	250	3600	315S/M	\$53,784	Not Available	\$56,822	ME250X02W22315S/M	269	215	95.8	2639	1274
		1800	315S/M	\$48,498	Not Available	\$51,536	ME250X04W22315S/M	284	227	96.2	2694	1274
		1200	355M/L	\$77,812	Not Available	\$83,616	ME250X06W22355M/L	311	249	95.8	3673	1482
		900	355M/L	\$131,972	Not Available	\$137,704	ME250X08W22355M/L	311	249	95.8	4010	1482
200	270	3600	315L	\$70,984	Not Available	\$74,022	ME270X02W22315L	291	233	95.8	2877	1383
		1800	315L	\$62,816	Not Available	\$65,854	ME270X04W22315L	307	246	96.2	2937	1383
		1800	355M/L	\$67,662	Not Available	\$73,752	ME270X04W22355M/L	307	246	96.2	3296	1482
		1200	355M/L	\$82,998	Not Available	\$88,874	ME270X06W22355M/L	332	266	95.8	3834	1482
		900	355M/L	\$132,968	Not Available	\$138,700	ME270X08W22355M/L	332	266	95.8	4169	1482
		3600	315L	\$73,414	Not Available	\$76,452	ME300X02W22315L	315	252	96.2	3020	1383
220	300	3600	355M/L	\$87,360	Not Available	\$93,092	ME300X02W22355M/L	315	252	96.2	3494	1482
		1800	315L	\$65,694	Not Available	\$68,732	ME300X04W22315L	338	270	96.2	3153	1383
		1800	355M/L	\$69,474	Not Available	\$75,564	ME300X04W22355M/L	342	274	96.2	3426	1482
		1200	355M/L	\$83,418	Not Available	\$89,150	ME300X06W22355M/L	370	296	95.8	4087	1482
250	340	3600	315L	\$79,112	Not Available	\$82,188	ME340X02W22315L	358	286	96.2	3161	1383
		3600	355M/L	\$93,300	Not Available	\$99,246	ME340X02W22355M/L	358	286	96.2	3671	1482
		1800	315L	\$71,464	Not Available	\$74,540	ME340X04W22315L	384	307	96.2	3366	1383
		1800	355M/L	\$82,458	Not Available	\$88,906	ME340X04W22355M/L	384	307	96.2	3574	1482
		1200	355M/L	\$95,772	Not Available	\$101,718	ME340X06W22355M/L	419	335	95.9	4343	1482
		3600	355M/L	\$94,566	Not Available	\$101,444	ME350X02W22355M/L	373	298	96.2	3671	1482
260	350	1800	315L	\$77,926	Not Available	\$80,964	ME350X04W22315L	384	307	96.2	3366	1383
		1800	355M/L	\$83,424	Not Available	\$89,872	ME350X04W22355M/L	399	319	96.2	3574	1482
		1200	355M/L	\$97,846	Not Available	\$103,578	ME350X06W22355M/L	436	349	95.9	4343	1482
		3600	355M/L	\$99,470	Not Available	\$106,562	ME380X02W22355M/L	397	318	96.2	3860	1482
280	380	1800	355M/L	\$89,318	Not Available	\$96,196	ME380X04W22355M/L	430	344	96.2	3737	1482
		1200	355M/L	\$101,510	Not Available	\$107,242	ME380X06W22355M/L	469	375	96.0	4343	1482
		3600	355M/L	\$104,126	Not Available	\$111,290	ME430X02W22355M/L	447	358	96.2	4052	1482
315	430	1800	355M/L	\$90,570	Not Available	\$97,162	ME430X04W22355M/L	488	390	96.5	3907	1482
		355	480	1800	355M/L	\$96,808	Not Available	\$103,328	ME480X04W22355M/L	543	434	96.5

Flange: Replace 'E' with 'C' for C or C Din Flange  
 Replace 'E' with 'A' for A (B5) Flange  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V



# W22 IEC Tru-Metric - NEMA Premium Efficiency

TEFC - Electrical Data - 60Hz

Rated Output	Full Load Speed (RPM)	IEC Frame	Full Load Current (A)			Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
			230V	460V	575V								50%	75%	100%	50%	75%	100%
22	30	3555 180M	69.4	34.7	27.8	8.5	280%	410%	17	388	72	1.25	90.2	91.7	92.4	0.71	0.81	0.86
		1775 180L	72.0	36.0	28.8	8.6	350%	390%	19	437	64	1.25	91.0	92.4	93.6	0.65	0.76	0.82
		1180 200L	74.2	37.1	29.7	7.2	280%	330%	23	529	62	1.25	91.7	92.4	93.0	0.62	0.74	0.80
30	40	885 225S/M	75.2	37.6	30.1	6.9	200%	320%	38	886	60	1.25	93.0	93.0	93.0	0.59	0.71	0.79
		3565 200L	94.2	47.1	37.7	8.3	300%	330%	26	538	76	1.25	91.0	92.4	93.0	0.73	0.82	0.86
		1780 200L	98.8	49.4	39.5	8.2	300%	360%	19	536	66	1.25	91.7	93.0	94.1	0.63	0.75	0.81
37	50	1185 225S/M	95.2	47.6	38.1	7.7	270%	330%	30	884	66	1.25	93.0	94.1	94.1	0.67	0.78	0.84
		890 250S/M	102	50.9	40.7	6.6	220%	260%	40	1080	60	1.25	93.0	93.6	93.6	0.60	0.72	0.79
		3565 200L	115	57.7	46.2	8.3	300%	330%	22	584	76	1.25	91.7	93.0	93.6	0.72	0.82	0.86
45	60	1780 200L	121	60.7	48.6	8.1	300%	360%	18	626	66	1.25	93.0	93.6	94.5	0.63	0.75	0.81
		1780 225S/M	117	58.5	46.8	8.6	310%	370%	25	864	67	1.25	93.0	94.1	94.5	0.68	0.79	0.84
		1185 250S/M	118	58.8	47.0	7.8	280%	330%	29	1071	68	1.25	93.6	94.1	94.1	0.69	0.79	0.84
55	75	890 280S/M	128	64.1	51.3	6.7	200%	270%	45	1484	63	1.25	93.0	94.1	94.1	0.59	0.71	0.77
		3565 225S/M	133	66.7	53.4	7.8	240%	340%	29	917	79	1.25	93.0	94.1	94.1	0.80	0.87	0.90
		1780 225S/M	140	69.9	55.9	8.2	320%	370%	24	926	67	1.25	93.6	94.5	95.0	0.69	0.79	0.85
75	100	1190 280S/M	149	74.7	59.8	7.2	260%	340%	48	1495	69	1.25	93.0	94.5	94.5	0.62	0.74	0.80
		890 280S/M	154	77.0	61.6	6.4	190%	260%	42	1634	63	1.25	93.6	94.1	94.1	0.59	0.71	0.78
		3570 250S/M	161	80.3	64.2	8.6	290%	370%	28	1069	79	1.25	93.6	94.5	94.5	0.80	0.87	0.90
90	125	1785 250S/M	170	85.1	68.1	8.2	330%	310%	27	1118	68	1.25	93.6	94.5	95.4	0.67	0.79	0.85
		1190 280S/M	180	90.2	72.2	7.0	260%	330%	46	1594	69	1.25	93.6	94.5	94.5	0.64	0.75	0.81
		890 315S/M	187	93.7	75.0	6.6	190%	260%	63	2063	66	1.25	93.6	94.5	94.5	0.62	0.73	0.78
110	150	3570 250S/M	218	109	87.2	8.3	280%	350%	18	1102	79	1.25	94.1	95.0	95.0	0.83	0.89	0.91
		3580 280S/M	222	111	88.8	7.9	240%	350%	59	1603	81	1.25	92.4	94.1	94.5	0.80	0.87	0.90
		1780 250S/M	230	115	92.0	8.2	320%	300%	20	1171	68	1.25	94.1	95.0	95.4	0.70	0.81	0.86
132	175	1785 280S/M	232	116	92.8	7.9	270%	340%	47	1607	73	1.25	93.0	94.5	95.4	0.72	0.81	0.85
		1190 315S/M	244	122	97.6	7.0	260%	310%	61	2121	70	1.25	94.1	95.0	95.0	0.64	0.75	0.81
		890 315S/M	254	127	102	6.5	200%	260%	60	2313	66	1.25	94.1	95.0	95.0	0.62	0.73	0.78
150	200	3580 280S/M	264	132	106	7.7	230%	330%	52	1680	81	1.25	93.0	94.5	95.0	0.82	0.88	0.90
		1785 280S/M	278	139	111	8.0	270%	340%	41	1713	73	1.25	93.6	95.0	95.4	0.71	0.81	0.85
		1190 315S/M	292	146	117	7.0	260%	310%	61	2310	70	1.25	94.5	95.4	95.4	0.64	0.75	0.81
175	230	890 315S/M	304	152	122	6.8	210%	270%	55	2533	66	1.25	94.5	95.0	95.0	0.61	0.73	0.78
		3580 280S/M	322	161	129	8.2	260%	360%	37	1806	81	1.25	93.6	95.0	95.0	0.81	0.87	0.90
		3585 315S/M	326	163	130	8.4	250%	370%	59	2121	81	1.25	92.4	94.1	95.0	0.78	0.86	0.89
200	260	1785 280S/M	340	170	136	7.9	280%	300%	44	1949	73	1.25	94.5	95.4	95.8	0.72	0.81	0.85
		1790 315S/M	340	170	136	7.8	300%	320%	57	2227	75	1.25	93.6	95.0	95.8	0.71	0.81	0.85
		1190 315S/M	356	178	142	7.0	250%	270%	53	2438	70	1.25	95.0	95.8	95.8	0.64	0.75	0.81
225	300	890 315L	372	186	149	6.7	210%	270%	49	3014	71	1.25	94.5	95.4	95.4	0.60	0.72	0.78
		890 315S/M	372	186	149	6.7	210%	270%	49	3014	66	1.25	94.5	95.4	95.4	0.60	0.72	0.78
		895 355M/L	372	186	149	7.0	120%	290%	103	3272	75	1.15	94.5	95.4	95.4	0.60	0.72	0.78
250	330	3580 315S/M	386	193	154	8.2	250%	340%	54	2310	81	1.25	93.6	94.5	95.4	0.82	0.88	0.90
		1790 315S/M	406	203	162	7.9	310%	330%	57	2414	75	1.25	94.1	95.4	96.2	0.72	0.81	0.85
		1190 315S/M	428	214	171	7.2	290%	320%	46	2623	70	1.25	95.0	95.8	95.8	0.63	0.75	0.81
275	360	895 315L	446	223	178	6.9	230%	270%	47	3325	71	1.25	95.0	95.4	95.4	0.60	0.72	0.78
		895 355M/L	446	223	178	7.1	130%	280%	82	3499	75	1.15	94.5	95.4	95.4	0.61	0.73	0.78
		3580 315S/M	438	219	175	8.5	260%	300%	46	2401	81	1.25	93.6	95.4	95.4	0.79	0.87	0.90
300	400	1790 315S/M	456	228	182	7.8	280%	280%	43	2478	75	1.25	94.5	95.8	96.2	0.72	0.82	0.86
		1190 315L	480	240	192	7.3	280%	300%	41	3009	71	1.25	95.4	95.8	95.8	0.66	0.77	0.82
		1190 315S/M	480	240	192	7.3	280%	300%	25	3009	70	1.25	95.4	95.8	95.8	0.66	0.77	0.82

# W22 IEC Tru-Metric - NEMA Premium Efficiency

## TEFC - Electrical Data - 60 Hz

Rated Output		Full Load Speed (RPM)	IEC Frame	Full Load Current (A)			Locked rotor current (l/l/n)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
kW	HP			230V	460V	575V								50%	75%	100%	50%	75%	100%
160	220	3580	315S/M	468	234	187	8.4	270%	350%	43	2489	81	1.25	94.1	95.0	95.4	0.81	0.88	0.90
		1790	315S/M	492	246	197	7.8	320%	320%	49	2540	75	1.25	94.5	95.4	96.2	0.72	0.82	0.85
		1190	315L	518	259	207	7.4	300%	320%	45	3192	71	1.25	95.4	95.8	95.8	0.64	0.76	0.81
		1195	355M/L	538	269	215	7.0	240%	290%	57	3514	77	1.15	94.5	95.4	95.8	0.60	0.72	0.78
		895	355M/L	530	265	212	7.0	120%	280%	83	3851	75	1.15	95.0	95.8	95.8	0.61	0.73	0.79
185	250	3580	315S/M	538	269	215	8.3	290%	340%	42	2639	81	1.25	94.5	95.4	95.8	0.82	0.88	0.90
		1790	315S/M	568	284	227	7.8	320%	310%	39	2694	75	1.25	95.0	95.8	96.2	0.72	0.81	0.85
		1195	355M/L	622	311	249	7.1	250%	290%	48	3673	77	1.15	94.3	95.4	95.8	0.60	0.72	0.78
		895	355M/L	622	311	249	7.1	140%	280%	64	4010	75	1.15	95.0	95.8	95.8	0.61	0.73	0.78
200	270	3580	315L	582	291	233	7.8	300%	350%	40	2877	82	1.25	94.5	95.4	95.8	0.81	0.88	0.90
		3585	355M/L	570	285	228	7.8	210%	330%	67	3388	84	1.15	94.5	95.4	95.8	0.85	0.90	0.92
		1790	315L	614	307	246	7.8	310%	310%	40	2937	77	1.25	95.0	95.8	96.2	0.72	0.82	0.85
		1790	315S/M	614	307	246	7.8	310%	310%	40	2937	75	1.25	95.0	95.8	96.2	0.72	0.82	0.85
		1790	355M/L	614	307	246	7.9	280%	320%	47	3296	78	1.15	95.0	95.8	96.2	0.71	0.80	0.85
		1195	355M/L	664	332	266	6.9	240%	280%	58	3834	77	1.15	94.2	95.4	95.8	0.62	0.73	0.79
220	300	895	355M/L	664	332	266	6.8	120%	270%	70	4169	75	1.15	95.0	95.8	95.8	0.61	0.73	0.79
		3580	315L	630	315	252	7.9	270%	320%	44	3020	82	1.25	95.4	95.8	96.2	0.84	0.89	0.91
		3585	355M/L	630	315	252	7.8	230%	330%	54	3494	84	1.15	94.5	95.8	96.2	0.84	0.90	0.91
		1790	315L	676	338	270	7.9	340%	330%	40	3153	77	1.25	95.4	95.8	96.2	0.72	0.81	0.85
		1790	355M/L	684	342	274	7.9	270%	320%	46	3426	78	1.15	95.0	96.2	96.2	0.70	0.80	0.84
250	340	1195	355M/L	740	370	296	7.0	260%	290%	50	4087	77	1.15	94.8	95.8	95.8	0.60	0.72	0.78
		3580	315L	716	358	286	7.8	280%	320%	34	3161	82	1.25	95.4	96.2	96.2	0.84	0.90	0.91
		3585	355M/L	716	358	286	7.9	240%	330%	54	3671	84	1.15	94.5	95.8	96.2	0.86	0.90	0.91
		1790	315L	768	384	307	7.9	350%	340%	38	3366	77	1.25	95.4	96.2	96.2	0.71	0.81	0.85
		1790	355M/L	768	384	307	7.8	280%	310%	44	3574	78	1.15	95.0	96.2	96.2	0.72	0.81	0.85
		1195	355M/L	838	419	335	7.0	260%	280%	51	4343	77	1.15	95.1	95.5	95.9	0.61	0.73	0.78
260	350	3585	355M/L	746	373	298	7.9	240%	330%	55	3671	84	1.15	94.5	95.8	96.2	0.86	0.90	0.91
		1790	315L	768	384	307	7.9	350%	340%	38	3366	77	1.25	95.4	96.2	96.2	0.71	0.81	0.85
		1790	355M/L	798	399	319	7.8	280%	310%	44	3574	78	1.15	95.0	96.2	96.2	0.72	0.81	0.85
		1195	355M/L	872	436	349	7.0	260%	280%	51	4343	77	1.15	95.1	95.5	95.9	0.61	0.73	0.78
		3585	355M/L	794	397	318	7.9	230%	300%	41	3860	84	1.15	94.5	95.8	96.2	0.88	0.92	0.92
280	380	1790	355M/L	860	430	344	7.9	290%	320%	42	3737	78	1.15	95.4	96.2	96.2	0.72	0.81	0.85
		1195	355M/L	938	469	375	7.0	240%	270%	38	4343	77	1.15	95.1	95.7	96.0	0.61	0.73	0.78
		3585	355M/L	894	447	358	7.9	250%	310%	45	4052	84	1.15	95.4	96.2	96.2	0.88	0.92	0.92
315	430	1790	355M/L	976	488	390	8.1	310%	350%	41	3907	78	1.15	95.4	96.2	96.5	0.68	0.79	0.84
		355	480	1790	355M/L	1086	543	434	7.8	270%	290%	37	4140	78	1.15	95.8	96.2	96.5	0.74



# W22 IEC Tru-Metric - NEMA Premium Efficiency

## TEFC - Electrical Data - 50 Hz (380V)

Rated Output		Full Load Speed (RPM)	IEC Frame	Full Load Current (A)	Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
kW	HP			380V								50%	75%	100%	50%	75%	100%
18.5	25	2945	160L	34.3	8.4	250%	320%	8	300	67	1.00	92.4	92.9	93.0	0.74	0.83	0.88
		1465	180M	35.9	7.3	240%	270%	20	397	61	1.00	92.5	92.9	93.1	0.68	0.79	0.84
		980	200L	36.3	6.2	190%	250%	19	492	60	1.00	92.2	92.4	92.2	0.69	0.79	0.84
		730	225S/M	36.7	6.5	150%	220%	28	831	56	1.00	93.1	92.8	92.2	0.67	0.78	0.83
22	30	2950	180M	40.7	8.0	220%	290%	11	388	67	1.00	92.7	93.2	93.4	0.77	0.84	0.88
		1465	180L	42.1	7.3	250%	290%	18	437	61	1.00	92.8	93.1	93.4	0.70	0.80	0.85
		980	200L	42.9	6.3	200%	260%	18	529	60	1.00	92.5	92.7	92.7	0.69	0.79	0.84
		730	225S/M	43.5	6.5	160%	220%	22	886	56	1.00	93.1	92.9	92.5	0.67	0.78	0.83
30	40	2960	200L	55.1	7.3	230%	260%	20	538	72	1.00	93.1	94.0	94.0	0.77	0.85	0.88
		1480	200L	57.7	7.3	220%	270%	16	536	63	1.00	93.3	93.8	94.1	0.69	0.79	0.84
		980	225S/M	56.6	7.4	200%	250%	17	884	63	1.00	93.8	93.8	93.6	0.73	0.82	0.86
		730	250S/M	57.8	7.4	160%	250%	18	1080	56	1.00	93.4	93.1	92.7	0.70	0.80	0.85
37	50	2960	200L	67.7	7.3	240%	260%	17	584	72	1.00	93.5	94.0	94.4	0.78	0.85	0.88
		1480	200L	70.9	7.0	230%	270%	14	626	63	1.00	93.7	94.1	94.4	0.69	0.79	0.84
		1475	225S/M	68.5	7.8	240%	270%	14	864	63	1.00	94.1	94.5	94.3	0.76	0.83	0.87
		980	250S/M	69.7	7.4	190%	240%	17	1071	64	1.00	93.8	94.0	93.8	0.74	0.82	0.86
45	60	740	280S/M	73.9	6.0	160%	200%	32	1484	59	1.00	93.9	94.1	93.9	0.67	0.76	0.81
		2965	225S/M	80.1	8.0	210%	290%	12	917	74	1.00	94.6	94.9	94.8	0.79	0.86	0.90
		1475	225S/M	83.9	7.9	250%	270%	13	926	63	1.00	94.3	94.7	94.7	0.77	0.82	0.86
		990	280S/M	85.9	6.8	190%	240%	32	1495	65	1.00	94.2	94.7	94.7	0.69	0.78	0.84
55	75	740	280S/M	90.8	6.0	160%	200%	30	1634	59	1.00	94.1	94.4	94.1	0.67	0.76	0.80
		2960	250S/M	97.6	8.3	230%	260%	14	1069	74	1.00	94.9	95.0	95.1	0.82	0.87	0.89
		1475	250S/M	100	7.9	250%	230%	14	1118	64	1.00	94.7	94.9	95.1	0.75	0.83	0.88
		985	280S/M	106	6.7	190%	240%	28	1594	65	1.00	94.6	94.9	95.0	0.70	0.79	0.83
75	100	740	315S/M	109	6.0	150%	200%	40	2063	62	1.00	94.5	94.7	94.5	0.69	0.77	0.81
		2960	250S/M	133	7.9	230%	230%	11	1102	74	1.00	95.0	95.1	95.1	0.85	0.88	0.90
		2975	280S/M	131	7.6	200%	260%	32	1603	77	1.00	94.6	95.2	95.4	0.84	0.89	0.91
		1475	250S/M	136	8.4	250%	220%	8	1171	64	1.00	95.0	95.0	95.0	0.77	0.86	0.88
90	125	1480	280S/M	136	7.6	200%	250%	26	1607	69	1.00	94.8	95.2	95.4	0.78	0.85	0.88
		990	315S/M	142	6.7	190%	230%	32	2121	67	1.00	95.2	95.6	95.6	0.71	0.80	0.84
		740	315S/M	148	6.0	160%	160%	40	2313	62	1.00	94.7	95.0	94.8	0.69	0.77	0.81
		2975	280S/M	159	7.4	200%	250%	30	1680	77	1.00	94.9	95.5	95.6	0.86	0.90	0.90
110	150	1480	280S/M	164	7.7	200%	250%	25	1713	69	1.00	95.1	95.4	95.6	0.77	0.84	0.87
		990	315S/M	170	6.7	190%	220%	34	2310	67	1.00	95.4	95.8	95.9	0.71	0.80	0.84
		740	315S/M	178	6.0	160%	190%	40	2533	62	1.00	95.1	95.1	95.0	0.69	0.77	0.81
		2975	280S/M	192	7.9	210%	260%	21	1806	77	1.00	94.9	95.6	95.8	0.84	0.89	0.91
132	175	2975	315S/M	193	7.6	190%	270%	30	2121	77	1.00	94.8	95.7	96.0	0.83	0.89	0.90
		1485	280S/M	198	7.6	210%	250%	24	1949	69	1.00	95.5	95.7	95.8	0.77	0.85	0.88
		1490	315S/M	200	7.5	230%	240%	30	2227	71	1.00	95.5	95.9	96.2	0.77	0.85	0.87
		990	315S/M	207	6.8	210%	230%	32	2438	67	1.00	95.6	96.0	96.0	0.71	0.80	0.84
150	200	740	315L	217	6.0	160%	200%	35	3014	68	1.00	95.2	95.3	95.1	0.68	0.77	0.81
		740	315S/M	217	6.0	160%	200%	35	3014	62	1.00	95.2	95.3	95.1	0.68	0.77	0.81
		740	355M/L	217	6.4	130%	200%	41	3272	70	1.00	94.0	95.2	95.1	0.65	0.76	0.81
		2975	315S/M	232	7.5	190%	250%	30	2310	77	1.00	95.3	95.8	96.1	0.85	0.90	0.90
132	175	1490	315S/M	239	7.6	220%	230%	26	2414	71	1.00	95.6	96.0	96.3	0.78	0.85	0.87
		990	315S/M	248	7.2	220%	240%	26	2623	67	1.00	95.8	96.1	96.1	0.71	0.80	0.84
		740	315L	260	6.0	170%	200%	34	3325	68	1.00	95.5	95.6	95.4	0.68	0.77	0.81
		740	355M/L	260	6.5	140%	200%	47	3499	70	1.00	94.5	95.4	95.3	0.66	0.75	0.81
150	200	2980	315S/M	260	7.9	200%	260%	36	2401	77	1.25	95.5	96.1	96.2	0.83	0.89	0.91
		1490	315S/M	273	7.0	220%	220%	37	2478	71	1.25	95.8	96.1	96.1	0.77	0.85	0.87
		990	315L	282	7.1	220%	250%	25	3009	68	1.00	95.8	96.1	96.1	0.70	0.80	0.84
		990	315S/M	282	7.1	220%	250%	25	3009	67	1.00	95.8	96.1	96.1	0.70	0.80	0.84

# W22 IEC Tru-Metric - NEMA Premium Efficiency

## TEFC - Electrical Data - 50 Hz (380V)

Rated Output		Full Load Speed (RPM)	IEC Frame	Full Load Current (A)	Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
kW	HP			380V								50%	75%	100%	50%	75%	100%
160	220	2975	315S/M	274	7.9	210%	250%	24	2489	77	1.00	95.7	96.1	96.4	0.85	0.90	0.92
		1490	315S/M	287	7.6	230%	230%	22	2540	71	1.00	95.8	96.2	96.3	0.78	0.85	0.88
		990	315L	301	7.4	230%	240%	24	3192	68	1.00	95.9	96.2	96.2	0.71	0.80	0.84
		995	355M/L	310	6.2	180%	240%	60	3514	73	1.00	94.6	95.2	95.6	0.67	0.77	0.82
		745	355M/L	309	6.4	110%	210%	56	3851	70	1.00	95.6	95.8	95.9	0.68	0.78	0.82
185	250	2975	315S/M	324	7.8	200%	250%	22	2639	77	1.00	95.4	96.1	96.3	0.85	0.90	0.90
		1485	315S/M	332	7.6	220%	220%	18	2694	71	1.00	95.9	96.3	96.3	0.77	0.85	0.88
		990	355M/L	363	6.6	190%	220%	34	3673	73	1.00	95.4	95.8	95.8	0.68	0.77	0.81
		745	355M/L	357	6.3	110%	210%	56	4010	70	1.00	95.8	96.0	95.9	0.68	0.78	0.82
200	270	2975	315L	346	8.2	230%	250%	17	2877	78	1.00	96.0	96.4	96.5	0.85	0.90	0.91
		2980	355M/L	345	7.2	160%	240%	70	3388	80	1.00	93.9	95.2	95.8	0.90	0.92	0.92
		1485	315L	358	7.6	220%	220%	20	2937	73	1.00	96.2	96.5	96.5	0.77	0.85	0.88
		1485	315S/M	358	7.6	220%	220%	20	2937	71	1.00	96.2	96.5	96.5	0.77	0.85	0.88
		1490	355M/L	366	7.6	230%	220%	22	3296	74	1.00	96.1	96.5	96.6	0.75	0.83	0.86
		995	355M/L	386	6.5	180%	210%	40	3834	73	1.00	95.6	96.1	96.1	0.68	0.78	0.82
220	300	745	355M/L	386	6.2	110%	210%	56	4169	70	1.00	95.8	96.1	96.0	0.69	0.79	0.82
		2975	315L	381	7.7	210%	230%	24	3020	78	1.00	93.1	96.4	96.5	0.86	0.90	0.91
		2985	355M/L	377	8.5	200%	280%	65	3494	80	1.00	95.5	96.2	96.4	0.87	0.91	0.92
		1490	315L	398	7.8	230%	230%	16	3153	73	1.00	96.2	96.6	96.6	0.77	0.85	0.87
		1490	355M/L	402	7.4	220%	220%	20	3426	74	1.00	96.2	96.6	96.7	0.75	0.82	0.86
250	340	995	355M/L	424	6.5	190%	210%	36	4087	73	1.00	95.7	96.1	96.2	0.68	0.78	0.82
		2975	315L	432	7.8	220%	240%	17	3161	78	1.00	96.4	96.5	96.6	0.88	0.91	0.91
		2980	355M/L	424	7.8	150%	230%	65	3671	80	1.00	95.5	96.3	96.4	0.89	0.92	0.93
		1490	315L	451	8.0	240%	230%	16	3366	73	1.00	96.4	96.6	96.8	0.77	0.84	0.87
		1490	355M/L	456	7.3	210%	220%	16	3574	74	1.00	96.3	96.6	96.8	0.76	0.84	0.86
260	350	995	355M/L	482	6.5	200%	220%	38	4343	73	1.00	95.7	96.1	96.2	0.68	0.78	0.82
		2980	355M/L	441	7.8	150%	230%	65	3671	80	1.00	95.5	96.3	96.4	0.89	0.92	0.93
		1490	315L	469	8.0	240%	230%	16	3366	73	1.00	96.4	96.6	96.8	0.77	0.84	0.87
		1490	355M/L	475	7.3	210%	220%	16	3574	74	1.00	96.3	96.6	96.8	0.76	0.84	0.86
		995	355M/L	501	6.5	200%	220%	38	4343	73	1.00	95.7	96.1	96.2	0.68	0.78	0.82
280	380	2975	355M/L	490	7.9	210%	250%	12	3860	80	1.00	95.2	95.5	95.8	0.87	0.90	0.91
		1490	355M/L	505	7.3	210%	210%	20	3737	74	1.00	96.4	96.7	96.8	0.77	0.85	0.87
		995	355M/L	538	6.5	180%	220%	38	4343	73	1.00	95.4	96.2	96.4	0.68	0.78	0.82
315	430	2980	355M/L	543	7.8	190%	230%	23	4052	80	1.00	94.2	95.5	95.8	0.89	0.92	0.92
		1490	355M/L	568	7.3	210%	210%	22	3907	74	1.00	96.5	96.7	96.8	0.77	0.85	0.87
355	480	1490	355M/L	640	7.2	220%	220%	15	4140	74	1.00	96.6	96.8	96.8	0.77	0.85	0.87



# W22 IEC Tru-Metric - NEMA Premium Efficiency

## TEFC - Electrical Data - 50Hz (415V)

Rated Output		Full Load Speed (RPM)	IEC Frame	Full Load Current (A) 380V	Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
kW	HP											50%	75%	100%	50%	75%	100%
18.5	25	2955	160L	32.8	8.4	310%	390%	8	300	67	1.00	91.6	92.8	93.3	0.66	0.77	0.84
		1470	180M	34.4	7.3	290%	330%	20	397	61	1.00	91.8	92.8	93.4	0.61	0.73	0.80
		980	200L	34.7	6.2	240%	300%	19	492	60	1.00	91.2	92.1	92.6	0.61	0.73	0.80
		735	225S/M	34.6	6.5	190%	270%	28	831	56	1.00	92.8	93.0	92.9	0.60	0.73	0.80
22	30	2960	180M	37.9	8.0	270%	360%	11	388	67	1.00	92.3	93.3	93.8	0.70	0.80	0.86
		1470	180L	40.4	7.3	310%	360%	18	437	61	1.00	91.9	92.8	93.6	0.62	0.74	0.81
		980	200L	41.2	6.3	250%	320%	18	529	60	1.00	91.4	92.4	92.9	0.61	0.73	0.80
		735	225S/M	41.6	6.5	200%	270%	22	886	56	1.00	92.8	93.1	93.2	0.60	0.73	0.79
30	40	2970	200L	52.7	7.3	280%	310%	20	538	72	1.00	92.6	93.9	94.2	0.69	0.79	0.84
		1480	200L	55.4	7.3	270%	330%	16	536	63	1.00	92.4	93.4	94.2	0.60	0.72	0.80
		985	225S/M	52.7	7.4	250%	300%	17	884	63	1.00	93.5	94.0	94.2	0.67	0.78	0.84
		735	250S/M	52.6	7.4	210%	310%	18	1080	56	1.00	93.1	93.3	93.4	0.63	0.75	0.85
37	50	2970	200L	64.7	7.3	270%	310%	17	584	72	1.00	93.1	93.9	94.7	0.69	0.79	0.84
		1480	200L	68.1	7.0	280%	330%	14	626	63	1.00	92.9	93.8	94.5	0.60	0.73	0.80
		1480	225S/M	63.9	7.8	300%	330%	14	864	63	1.00	93.8	94.6	94.7	0.69	0.79	0.85
		985	250S/M	64.8	7.4	250%	290%	17	1071	64	1.00	93.8	94.4	94.6	0.69	0.79	0.84
45	60	740	280S/M	70.9	6.0	200%	250%	32	1484	59	1.00	93.4	94.1	94.3	0.60	0.71	0.77
		2970	225S/M	74.6	8.0	260%	340%	12	917	74	1.00	94.5	95.2	95.3	0.75	0.84	0.88
		1480	225S/M	78.6	7.9	310%	330%	13	926	63	1.00	94.0	94.8	94.8	0.67	0.78	0.84
		990	280S/M	81.3	6.8	240%	290%	32	1495	65	1.00	93.9	94.8	95.1	0.62	0.74	0.81
55	75	740	280S/M	84.8	6.0	200%	240%	30	1634	59	1.00	93.8	94.5	94.7	0.60	0.71	0.78
		2965	250S/M	91.0	8.3	270%	310%	14	1069	74	1.00	94.8	95.3	95.5	0.78	0.85	0.87
		1480	250S/M	94.4	7.9	300%	270%	14	1118	64	1.00	94.4	94.9	95.4	0.68	0.79	0.85
		990	280S/M	99.0	6.7	240%	290%	28	1594	65	1.00	94.3	95.0	95.4	0.64	0.75	0.81
75	100	740	315S/M	102	6.0	190%	240%	40	2063	62	1.00	94.0	94.7	94.9	0.62	0.73	0.79
		2965	250S/M	124	7.9	270%	310%	11	1102	74	1.00	94.9	95.4	95.6	0.81	0.86	0.88
		2980	280S/M	121	7.6	250%	310%	32	1603	77	1.00	94.4	95.3	95.7	0.80	0.87	0.90
		1480	250S/M	128	8.4	300%	260%	8	1171	64	1.00	94.4	95.0	95.0	0.70	0.81	0.86
90	125	1485	280S/M	127	7.6	250%	300%	26	1607	69	1.00	94.6	95.2	95.7	0.73	0.82	0.86
		990	315S/M	133	6.7	240%	280%	32	2121	67	1.00	94.8	95.6	95.9	0.64	0.76	0.82
		740	315S/M	139	6.0	200%	240%	40	2313	62	1.00	94.4	95.1	95.2	0.62	0.73	0.79
		2980	280S/M	145	7.4	240%	300%	30	1680	77	1.00	94.7	95.6	95.9	0.82	0.88	0.90
110	150	1485	280S/M	154	7.7	250%	300%	25	1713	69	1.00	94.9	95.5	95.9	0.72	0.81	0.85
		990	315S/M	159	6.7	240%	270%	34	2310	67	1.00	95.2	95.8	96.2	0.64	0.76	0.82
		740	315S/M	166	6.0	210%	240%	40	2533	62	1.00	94.7	95.1	95.4	0.62	0.73	0.79
		2980	280S/M	177	7.9	250%	310%	21	1806	77	1.00	94.7	95.7	96.1	0.80	0.87	0.90
132	175	2980	315S/M	181	7.6	230%	320%	30	2121	77	1.00	94.6	95.7	96.1	0.78	0.86	0.88
		1485	280S/M	185	7.6	260%	300%	24	1949	69	1.00	95.3	95.8	96.1	0.72	0.82	0.86
		1490	315S/M	187	7.5	280%	290%	30	2227	71	1.00	95.2	95.8	96.3	0.71	0.81	0.85
		990	315S/M	194	6.8	260%	280%	32	2438	67	1.00	95.3	96.0	96.3	0.64	0.76	0.82
150	200	740	315L	205	6.0	210%	240%	35	3014	68	1.00	94.8	95.3	95.5	0.61	0.72	0.78
		740	315S/M	205	6.0	210%	240%	35	3014	62	1.00	94.8	95.3	95.5	0.61	0.72	0.78
		745	355M/L	209	6.4	170%	240%	41	3272	70	1.00	93.0	95.2	95.2	0.59	0.77	0.77
		2980	315S/M	212	7.5	230%	300%	30	2310	77	1.00	95.1	95.9	96.4	0.81	0.88	0.90
150	200	1490	315S/M	224	7.6	270%	280%	26	2414	71	1.00	95.3	95.9	96.4	0.72	0.81	0.85
		990	315S/M	235	7.2	270%	290%	26	2623	67	1.00	95.4	96.0	96.3	0.64	0.75	0.81
		740	315L	246	6.0	220%	250%	34	3325	68	1.00	95.1	95.6	95.8	0.61	0.72	0.78
		745	355M/L	250	6.5	180%	240%	47	3499	70	1.00	93.5	95.4	95.4	0.60	0.71	0.77
150	200	2980	315S/M	241	7.9	240%	310%	43	2401	77	1.00	95.3	96.1	96.4	0.79	0.87	0.90
		1490	315S/M	255	7.0	260%	280%	44	2478	71	1.00	95.5	96.2	96.3	0.72	0.81	0.85
		990	315L	264	7.1	270%	300%	25	3009	68	1.00	95.5	96.1	96.4	0.64	0.76	0.82
		990	315S/M	264	7.1	270%	300%	25	3009	67	1.00	95.5	96.1	96.4	0.64	0.76	0.82

# W22 IEC Tru-Metric - NEMA Premium Efficiency

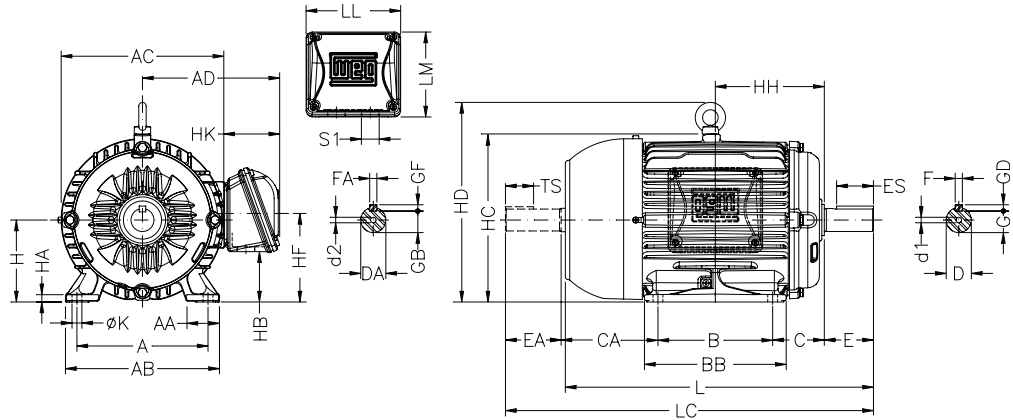
## TEFC - Electrical Data - 50Hz (415V)

Rated Output		Full Load Speed (RPM)	IEC Frame	Full Load Current (A)	Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
kW	HP			380V								50%	75%	100%	50%	75%	100%
160	220	2980	315S/M	253	7.9	250%	300%	24	2489	77	1.00	95.5	96.2	96.7	0.81	0.88	0.91
		1490	315S/M	268	7.6	280%	280%	22	2540	71	1.00	95.5	96.2	96.6	0.72	0.81	0.86
		990	315L	282	7.4	280%	290%	24	3192	68	1.00	95.5	96.1	96.4	0.64	0.76	0.82
		995	355M/L	294	6.2	220%	280%	60	3514	73	1.00	94.1	95.1	95.7	0.60	0.72	0.79
		745	355M/L	297	6.4	140%	250%	56	3851	70	1.00	95.1	95.7	96.0	0.61	0.73	0.78
185	250	2980	315S/M	296	7.8	260%	290%	22	2639	77	1.00	95.6	96.4	96.7	0.81	0.88	0.90
		1490	315S/M	310	7.6	270%	270%	18	2694	71	1.00	95.6	96.3	96.5	0.71	0.81	0.86
		990	355M/L	349	6.6	240%	260%	34	3673	73	1.00	94.5	95.5	95.8	0.61	0.72	0.77
		745	355M/L	344	6.3	140%	250%	56	4010	70	1.00	95.2	95.7	96.0	0.60	0.72	0.78
200	270	2980	315L	319	8.2	280%	280%	17	2877	78	1.00	95.9	96.5	96.8	0.81	0.88	0.90
		2985	355M/L	319	7.2	200%	280%	70	3388	80	1.00	93.5	95.1	95.8	0.88	0.90	0.91
		1490	315L	335	7.6	270%	270%	20	2937	73	1.00	95.9	96.5	96.7	0.71	0.81	0.86
		1490	315S/M	335	7.6	270%	270%	20	2937	71	1.00	95.9	96.5	96.7	0.71	0.81	0.86
		1490	355M/L	343	7.6	260%	270%	22	3296	74	1.00	95.7	96.4	96.7	0.69	0.79	0.84
		995	355M/L	366	6.5	230%	250%	40	3834	73	1.00	95.2	95.9	96.2	0.61	0.73	0.79
220	300	745	355M/L	371	6.2	140%	250%	56	4169	70	1.00	95.3	96.0	96.1	0.61	0.73	0.78
		2980	315L	347	7.7	260%	280%	24	3020	78	1.00	96.1	96.5	96.8	0.83	0.88	0.91
		2990	355M/L	349	8.5	240%	320%	65	3494	80	1.00	95.0	96.0	96.3	0.83	0.89	0.91
		1490	315L	372	7.8	280%	280%	16	3153	73	1.00	95.9	96.5	96.7	0.71	0.81	0.85
		1490	355M/L	376	7.4	260%	270%	20	3426	74	1.00	95.8	96.5	96.8	0.69	0.78	0.84
		995	355M/L	402	6.5	240%	250%	36	4087	73	1.00	95.3	96.0	96.3	0.61	0.73	0.79
250	340	2980	315L	394	7.8	270%	290%	17	3161	78	1.00	96.4	96.7	96.9	0.85	0.89	0.91
		2985	355M/L	392	7.8	190%	270%	65	3671	80	1.00	95.4	96.3	96.4	0.86	0.91	0.92
		1490	315L	422	8.0	290%	280%	16	3366	73	1.00	96.0	96.5	96.9	0.70	0.80	0.85
		1490	355M/L	427	7.3	250%	260%	16	3574	74	1.00	96.0	96.6	96.9	0.70	0.80	0.84
		995	355M/L	457	6.5	250%	240%	38	4343	73	1.00	95.3	96.0	96.3	0.61	0.73	0.79
260	350	2985	355M/L	408	7.8	190%	270%	65	3671	80	1.00	95.4	96.3	96.4	0.86	0.91	0.92
		1490	315L	439	8.0	290%	280%	16	3366	73	1.00	96.0	96.5	96.9	0.70	0.80	0.85
		1490	355M/L	444	7.3	250%	260%	16	3574	74	1.00	96.0	96.6	96.9	0.70	0.80	0.84
		995	355M/L	475	6.5	250%	240%	38	4343	73	1.00	95.3	96.0	96.3	0.61	0.73	0.79
280	380	2980	355M/L	447	7.9	250%	300%	12	3860	80	1.00	95.2	95.6	95.8	0.83	0.88	0.91
		1490	355M/L	472	7.3	250%	260%	20	3737	74	1.00	96.2	96.7	97.0	0.71	0.81	0.85
		995	355M/L	518	5.5	220%	260%	38	4343	73	1.00	94.9	96.1	96.5	0.61	0.73	0.78
315	430	2985	355M/L	497	7.8	230%	280%	23	4052	80	1.00	95.2	95.6	95.8	0.86	0.90	0.92
		1490	355M/L	532	7.3	250%	260%	22	3907	74	1.00	96.3	96.7	97.0	0.71	0.81	0.85
355	480	1490	355M/L	599	7.2	260%	270%	15	4140	74	1.00	96.4	96.8	97.0	0.72	0.82	0.85

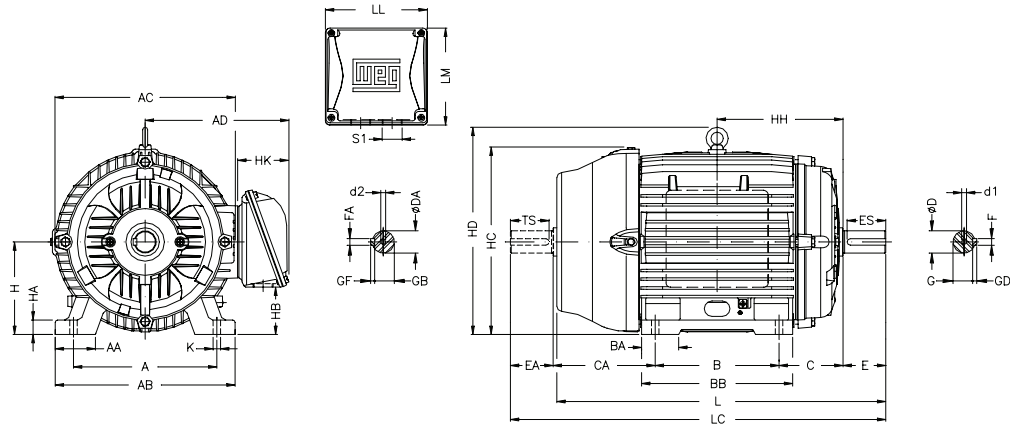
# W22 IEC Tru-Metric - NEMA Premium Efficiency

## TEFC - Mechanical Data

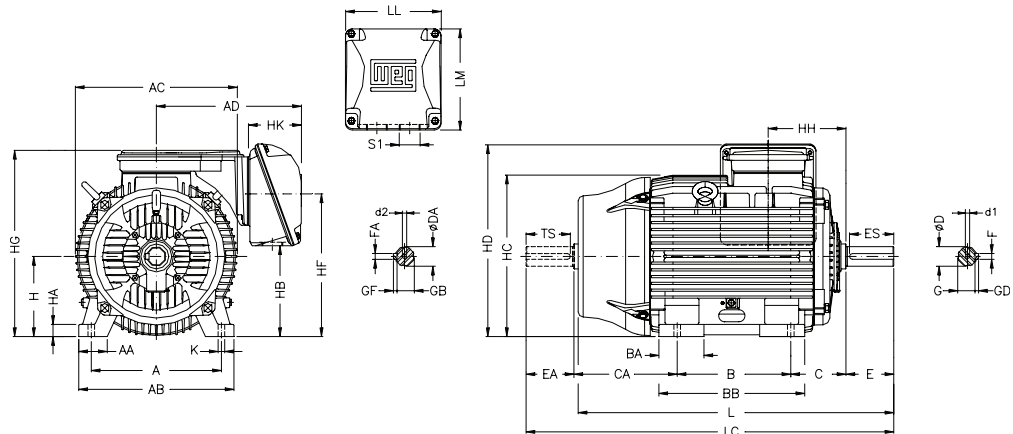
Frames 63 to 112



Frames 132 to 200



Frames 225 to 355 M/L



# W22 IEC Tru-Metric - NEMA Premium Efficiency

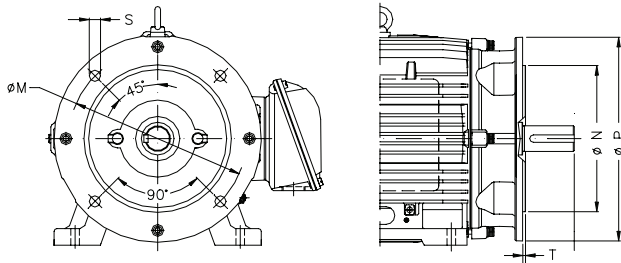
## TEFC - Mechanical Data

IEC FRAME	A	AA	AB	AC	AD	B	BA	BB	C	CA	SHAFT END											
											D	DA	E	EA	ES	F	FA	G	GB	GD	GF	TS
63	100	25.5	116	125	123	80		95	40	78	11j6	9j6	23	20	14	4	3	8.5	7.2	4	3	12
71	112	28.5	132	141	131	90		113.5	45	88	14j6	11j6	30	23	18	5	4	11	8.5	5	4	14
80	125	30.5	149	159	140	100		125.5	50	93	19j6	14j6	40	30	28	6		15.5	11	6		18
90L	140	36.5	164	179	159	125	-	156	56	104	24j6	16j6	50	40	36	8	5	20	13	7	5	28
90S						100																
100L						140																
L100L	160	40	188	199	169			173	63	118	28j6	22j6	60	50	45		6	24	18.5	7	6	36
112M	190	40.5	220	222	192	140		177	70	128		24j6						20				
132S	216	45	248	272	220	178	55	187	89	150	38k6	28j6	80	60	63	10	8	33	24	8	7	45
132M								225														
160M	254	64	308	329	266	210	63	254	108	174	42k6	42k6	110	110	80	12	12	37	37	8	8	80
160L						254																
180M	279	78	350	360	281	241	70	294	121	200	48k6	48k6	110	110	80	14	14	42.5	42.5	9	9	80
180L						279																
200L	318	82	385	402	319	305	82	370	133	222	55m6							16	49	10		
225S/M	356	80	436	455	410	286/311	124	412	149	319/294	60m6							53	53	11		
250S/M	406	100	506	486		311/349	146	467	168	354/316	65m6	60m6	140	140	125	18		58				
280S/M	457		557	599	445	368/419	151	517	190	385/334	75m6	65m6				20	18	67.5		12	11	125
315S/M	508	120	630	657	525	406/457	184	621	216	494/443	80m6	65m6	170	170	160	22	22	71	58	14	14	160
315L					589	508	219	752		502												
355M/L	610	140	750	736	609	560/630	230	760	254	483/413	100m6	80m6	210	170	200	28	22	90	71	16	14	160

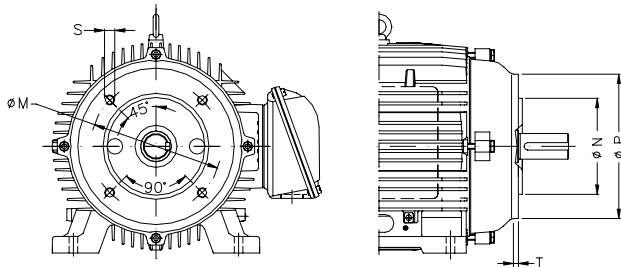
IEC FRAME	H	HA	HC	HD	K	L	LC	S1	d1	d2	BEARINGS	
											D.E.	N.D.E.
63	63	7	130	-	7	216	241	2xM20x1.5	EM4	EM3	6201 ZZ	6201 ZZ
71	71		145			248	276		DM5	EM4	6202 ZZ	6202 ZZ
80	80		163			276	313		DM6	DM4	6204 ZZ	6203 ZZ
90L	90	9	182	244	10	329	375	2xM25x1.5	DM8	DM6	6205 ZZ	6204 ZZ
90S						304	350					
100L						376	431					
L100L	100	10	205			420	475		DM10	DM8	6206 ZZ	6205 ZZ
112M	112		235	280	12	393	448				6207-ZZ	6206-ZZ
132S	132	16	274	319		452	519	2xM32x1.5	DM12	DM10	6308-ZZ	6207-ZZ
132M						490	557					
160M	160	22	331	374	14.5	598	712	2xM40x1.5	DM16	DM16	6309-C3	6209-Z-C3
160L						642	756					
180M						664	782					
180L	180	28	366	413		702	820				6311-C3	6211-Z-C3
200L	200	30	407	464	18.5	767	880	2xM50x1.5	DM20	DM20	6312-C3	6212-Z-C3
225S/M	225	34	453	541		886	1034					
250S/M	250	43	493	583	24	965	1113	2xM63x1.5	DM20	DM20	6314-C3	6314-C3
280S/M	280	42	580	700			1071				1223	
315S/M	315	48	644	768	28	1274	1426				6319-C3	6316-C3
315L				774		1383	1536					
355M/L	355	50	723	898		1482	1677		DM24		6322-C3	6319-C3

# W22 IEC Tru-Metric - NEMA Premium Efficiency TEFC - Mechanical Data

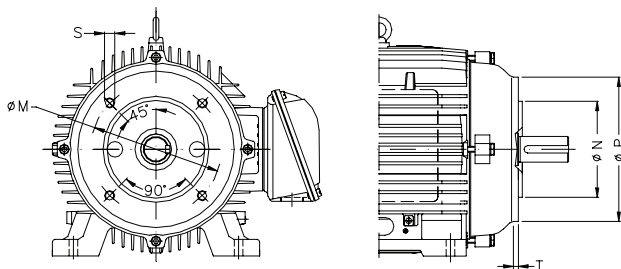
Flange "FF" Dimensions								
IEC FRAME	FLANGE	M	N	P	S	T	$\alpha$	N° of holes
63	FF-115	115	95	140	10	3	45°	4
71	FF-130	130	110	160				
80	FF-165	165	130	200	12	3.5		
90								
100	FF-215	215	180	250	15	4		
112								
132	FF-265	265	230	300	19	5		
160	FF-300	300	250	350				
180								
200	FF-350	350	300	400				
225	FF-400	400	350	450	19	5	22°30'	8
250	FF-500	500	450	550				
280								
315	FF-600	600	550	660	24	6		
355	FF-740	740	680	800				



"C-DIN" Flange Dimensions								
IEC FRAME	FLANGE	M	N	P	S	T	$\alpha$	N° of holes
63	C-90	75	60	90	M5	2.5	45°	4
71	C-105	85	70	105	M6			
80	C-120	100	80	120		M8		
90	C-140	115	95	140				
100	C-160	130	110	160	M8	3.5		
112								
132	C-200	165	130	200	M10	6.3		
160	C-250	215	180	249	M12x1.75			



NEMA "C" Flange Dimensions										
IEC FRAME	FLANGE	M	N	P	S	T	$\alpha$	N° of holes		
63	FC-95	95.2	76.2	143	UNC 1/4"x20	4	45°	4		
71										
80										
90										
100	FC-149	149.2	114.3	165	UNC 3/8"x16	6.3				
112										
132	FC-184	184.2	215.9	225	UNC 1/2"x13	6.3				
160										
180	FC-228	228.6	266.7	280	UNC 5/8"x11	6.3			22°30'	8
200										
225	FC-279	279.4	317.5	395	UNC 5/8"x11	6.3				
250	FC-355	355.6	406.4	455						
280										
315	FC-368	368.3	419.1							
355										



# W22 NEMA Premium Efficiency Motors

## TENV – Vector Duty

### Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 4 pole, 60Hz
- Voltage: 208-230/460V, 575V
- Totally Enclosed Non Ventilated - TENV (IP55) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- Sealing: V'Ring
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft
- Class "H" insulation for all frames. Temperature rise limited to Class "F" (105K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Insulation System: Dip and Bake Insulation system with class "H" resin
- NEMA design "B"
- Service Factor: 1.0
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Stainless steel nameplate with laser etching
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 207A - Frames 143T to 215T
  - 203A - Frames 254/6T
- Color: RAL 5009 - Blue
- Fitted with closed rubber drain breathers
- Regreasable bearings for frames 254/6T
- All frames have dual mounting
- NC Thermostat (1 per phase)
- Constant torque operation from 0 to base speed (1000:1) on PWM Vector Drive
- Constant Horsepower operation up to 150% base speed
- Ready for encoder mount
- Special nameplate data for easy drive set-up
- Ready for C-face brake, limited to 10 lb-ft braking torque



Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
143/5T - 254/6T	All	1000:1	1000:1	Any
	All	1000:1		WEG

### Optional Features

- Special voltages
- Special shafts
- Space heaters
- Labyrinth taconite seal available for all ratings
- Thermostats, Thermistors, RTD's (PT100)
- Additional terminal box
- Drip cover (canopy) for shaft down applications
- NEMA C & D flanges and Metric flanges for all ratings
- Special paint
- Shaft grounding (Aegis or WEG). Not for Hazloc.
- Degree of protection: IP56, IP65, IP66
- Encoders
- No feet



# W22 NEMA Premium Efficiency Motors

## TENV – Purchasing and Electrical Data

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM				460V	575V				
1	1800	143/5TC	\$2,402	CT000X04NPW22VD	1.41	1.13	85.5	53	14.678	.875
1.5	1800	143/5TC	\$2,616	CT001X04NPW22VD	2.0	1.60	86.5	56	14.678	.875
2	1800	143/5TC	\$2,880	CT002X04NPW22VD	2.65	2.12	86.5	61	14.678	.875
3	1800	182/4TC	\$3,708	CT003X04NPW22VD	3.91	3.13	89.5	101	16.569	1.125
5	1800	182/4TC	\$4,264	CT005X04NPW22VD	7.11	5.69	89.5	110	16.569	1.125
7.5	1800	213/5TC	\$6,276	CT007X04NPW22VD	9.1	7.28	91.7	171	20.041	1.375
10	1800	213/5TC	\$7,140	CT010X04NPW22VD	13.3	10.64	91.7	198	20.041	1.375
15	1800	254/6TC	\$9,030	CT015X04NPW22VD	19.4	15.52	92.4	324	25.569	1.625
20	1800	254/6TC	\$10,292	CT020X04NPW22VD	26.6	21.28	93	356	25.569	1.625

Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

For mechanical data and dimensions please contact us

# W01 Rolled Steel 56 Frame Single Phase Motors

TEFC - Standard Efficiency

## Standard Features

- Single Phase, 2, 4 & 6 pole, 60Hz
- Voltage: 115/208-230V
- Totally Enclosed Fan Cooled
- Degree of Protection: IP55
- Die cast aluminum squirrel cage rotor
- Start capacitor/Run capacitor
- Ball bearings
- Continuous duty, 40°C ambient
- High starting torque
- Service factor: 1.15
- Class "F" insulation
- Paint: Munsell N1 – Flat Black
- WEG paint plan: 207N
- V rings



## Optional Features

- Flange mounted (C Flange)
- Special voltages
- Specially designed shaft
- Second shaft end
- Stainless steel shaft
- Footless
- Automatic or manual thermal overload protection
- Oil Seal (D.E.)
- Other mounting configurations



# W01 NEMA 56 Frame Single Phase Motors

## TEFC - Purchasing Data - Standard Efficiency

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM					115V	230V		
0.25	3600	W56	\$442	\$548	TF.25102W01	4.20	2.10	16.3	10.713
	1800	W56	\$538	\$654	TF.25104W01	4.60	2.30	17.0	11.106
0.33	3600	W56	\$462	\$566	TF.33102W01	5.20	2.60	19.1	11.106
	1800	W56	\$540	\$646	TF.33104W01	6.00	3.00	18.3	11.500
0.5	3600	W56	\$512	\$616	TF.50102W01	7.00	3.50	21.5	11.500
	1800	W56	\$614	\$720	TF.50104W01	8.00	4.00	21.3	11.894
	1200	56	\$698	\$804	TF.50106W01	6.40	3.20	30.9	13.508
0.75	3600	56	\$554	\$660	TF.75102W01	8.00	4.00	26.5	12.721
	1800	56	\$754	\$860	TF.75104W01	10.6	5.30	28.7	13.114
	1200	56H	\$888	\$994	TF.75106W01	9.40	4.70	35.3	14.295
1	3600	56	\$660	\$764	TF000102W01	10.2	5.10	28.7	13.114
	1800	56	\$806	\$912	TF000104W01	13.6	6.80	33.1	13.902
	1200	56H	\$1,094	\$1,200	TF000106W01	11.0	5.50	43.0	15.083
1.5	3600	56	\$854	\$960	TF001102W01	13.2	6.60	32.0	13.902
	1800	56H	\$984	\$1,088	TF001104W01	14.96	7.48	43.0	15.083
2	3600	56H	\$1,028	\$1,134	TF002102W01	17.4	8.70	35.3	14.295
	1800	56H	\$1,132	\$1,236	TF002104W01	20.0	10.0	46.3	15.870
3	3600	56H	\$1,368	\$1,474	TF003102W01	25.4	12.7	45.2	15.476

Flange: For C Flange change 'TF' to 'FC'

## TEFC - Purchasing Data - Premium Efficiency

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM					115V	230V		
0.25	3600	W56	\$480	\$586	TF.25102W01DOE	2.52	1.26	22.9	-
	1800	W56	\$570	\$688	TF.25104W01DOE	2.90	1.45	20.4	11.500
0.33	3600	W56	\$502	\$644	TF.33102W01DOE	3.18	1.59	24.0	-
	1800	W56	\$570	\$688	TF.33104W01DOE	3.76	1.88	25.0	12.287
0.5	3600	W56	\$556	\$660	TF.50102W01DOE	4.78	2.39	24.1	-
	1800	W56	\$688	\$794	TF.50104W01DOE	5.22	2.61	36.5	12.681
0.75	3600	56	\$594	\$688	TF.75102W01DOE	6.54	3.27	30.5	-
	1800	56	\$884	\$990	TF.75104W01DOE	7.00	3.50	35.1	14.295
1	3600	56	\$704	\$810	TF000102W01DOE	8.74	4.37	35.2	13.902
	1800	56	\$936	\$1,042	TF000104W01DOE	9.38	4.69	44.0	15.083
1.5	3600	56	\$906	\$1,012	TF001102W01DOE	12.4	6.18	38.6	14.295
	1800	56H	\$1,142	\$1,246	TF001104W01DOE	13.8	6.90	48.2	15.083
2	3600	56H	\$1,104	\$1,210	TF002102W01DOE	16.6	8.32	43.7	14.689
	1800	56H	\$1,386	\$1,492	TF002104W01DOE	18.8	9.41	57.1	15.870
3	3600	56H	\$1,442	\$1,548	TF003102W01DOE	25.0	12.5	52.3	15.476

Flange: For C Flange change 'TF' to 'FC'

# W01 NEMA 56 Frame Single Phase Motors

## TEFC - Electrical Data - Standard Efficiency

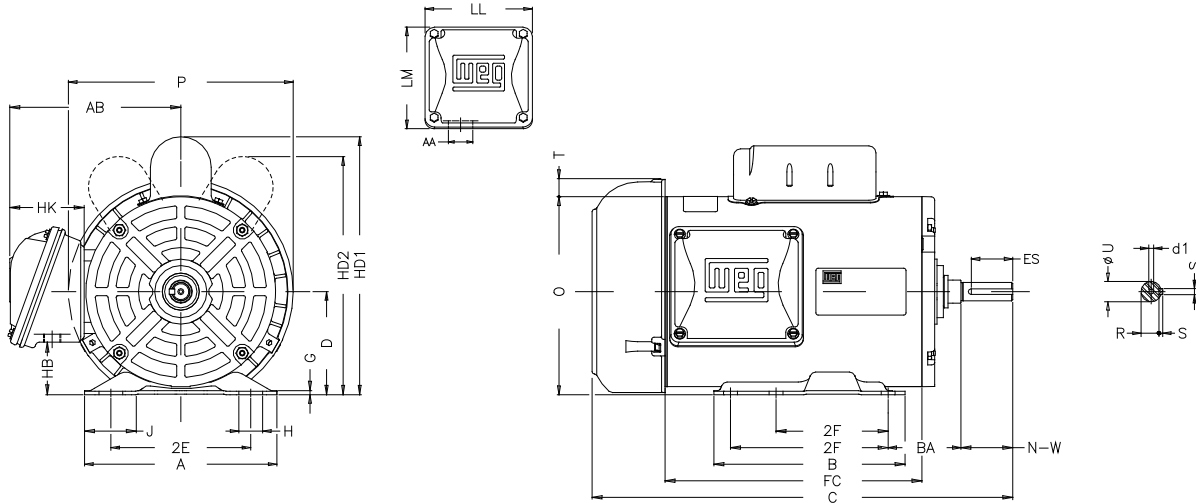
Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor torque	Breakdown torque	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			115V	230V					50%	75%	100%	50%	75%	100%
0.25	0.18	3485	W56	4.20	2.10	290%	300%	18	1.15	35.0	44.0	50.0	0.60	0.68	0.74
		1735	W56	4.60	2.30	310%	280%	17	1.15	43.0	52.0	57.0	0.43	0.52	0.60
0.33	0.25	3490	W56	5.20	2.60	290%	290%	19	1.15	42.0	50.0	54.0	0.61	0.69	0.76
		1735	W56	6.00	3.00	320%	280%	19	1.15	46.0	55.0	61.0	0.42	0.51	0.59
0.5	0.37	3500	W56	7.00	3.50	290%	300%	21	1.15	50.0	58.0	60.0	0.59	0.69	0.76
		1730	W56	8.00	4.00	320%	270%	21	1.15	52.0	59.0	64.0	0.44	0.54	0.63
		1170	56	6.40	3.20	240%	260%	31	1.15	54.0	63.0	67.0	0.58	0.67	0.72
0.75	0.55	3500	56	8.00	4.00	280%	290%	27	1.15	52.0	62.0	66.0	0.81	0.87	0.91
		1745	56	10.6	5.30	300%	270%	29	1.15	57.0	65.0	68.5	0.47	0.58	0.67
		1170	56H	9.40	4.70	220%	240%	36	1.15	59.0	67.0	70.0	0.58	0.67	0.73
1	0.75	3500	56	10.1	5.06	280%	280%	29	1.15	55.0	64.0	70.0	0.82	0.88	0.92
		1745	56	13.6	5.80	280%	270%	34	1.15	62.0	68.0	71.0	0.48	0.60	0.68
		1165	56H	11.0	5.50	180%	200%	43	1.15	64.0	71.0	73.0	0.68	0.77	0.81
1.5	1.1	3500	56	13.2	6.60	240%	250%	32	1.15	66.0	73.0	75.0	0.92	0.95	0.97
		1750	56H	15.8	7.88	300%	310%	43	1.15	67.0	74.0	77.0	0.62	0.72	0.79
2	1.5	3495	56H	17.5	8.73	220%	250%	36	1.15	70.0	75.0	77.0	0.94	0.97	0.97
		1745	56H	20.0	10.0	260%	260%	47	1.15	70.0	76.0	78.5	0.66	0.76	0.82
3	2.2	3490	56H	25.4	12.7	210%	250%	45	1.15	76.0	79.0	80.0	0.86	0.92	0.94

## TEFC - Electrical Data - Premium Efficiency

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor torque	Breakdown torque	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			115V	230V					50%	75%	100%	50%	75%	100%
0.25	0.18	3510	W56	2.52	1.26	290%	300%	22	1.15	50.0	59.5	68.0	0.87	0.89	0.91
		1745	W56	2.90	1.45	280%	290%	20	1.15	57.5	64.0	70.0	0.64	0.71	0.77
0.33	0.25	3505	W56	3.18	1.59	290%	320%	22	1.15	55.0	68.0	72.0	0.94	0.94	0.95
		1745	W56	3.76	1.88	300%	290%	22	1.15	64.0	68.0	74.0	0.66	0.72	0.78
0.5	0.37	3510	W56	4.78	2.39	260%	300%	23	1.15	64.0	70.0	74.0	0.85	0.88	0.91
		1740	W56	5.22	2.61	300%	270%	25	1.15	68.0	72.0	77.0	0.67	0.71	0.80
0.75	0.55	3510	56	6.5	3.27	290%	300%	26	1.15	64.0	72.0	77.0	0.94	0.94	0.95
		1750	56	7.0	3.50	280%	250%	28	1.15	74.0	78.5	78.5	0.78	0.83	0.87
1	0.75	3505	56	8.7	4.37	270%	290%	32	1.15	64.0	72.0	78.5	0.95	0.94	0.95
		1750	56	9.4	4.69	270%	250%	34	1.15	75.5	80.0	80.0	0.79	0.84	0.87
1.5	1.1	3500	56	12.4	6.18	250%	270%	35	1.15	68.0	75.5	81.5	0.95	0.95	0.95
		1745	56H	13.8	6.90	280%	260%	47	1.15	77.0	81.5	81.5	0.75	0.81	0.85
2	1.5	3500	56H	16.6	8.3	240%	270%	44	1.15	74.0	80.0	82.5	0.93	0.94	0.95
		1735	56H	18.8	9.4	290%	250%	50	1.15	80.0	82.5	82.5	0.71	0.79	0.84
3	2.2	3500	56H	25.0	12.5	220%	280%	51	1.15	81.5	84.0	84.0	0.83	0.88	0.91

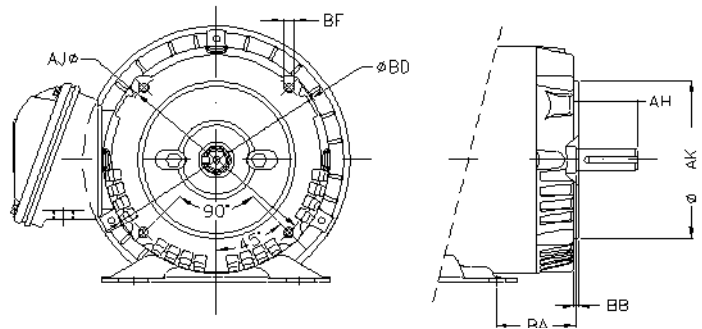
# NEMA 56 Frame Single Phase Motors

TEFC - Mechanical Data



NEMA FRAMES	2E	2F	A	AB	B	BA	D	AA	HB	HK	Hole H	H1	O	P	HD1	SHAFT END					BEARINGS	
																ES	N-W	R	S	U	D.E.	N.D.E.
W56				5.520					2.056	2.650			6.330	6.693	8.189						6203-ZZ	
56	4.874	3.000	6.563	5.873	4.016	2.75	3.500	0.881*	1.784	2.629	0.343	1.220	6.723	7.638	8.618	1.417	1.874	0.517	1.187	0.625	6303ZZ up to 0.75HP 6204ZZ from 1HP and up	6202ZZ
56H		3.000/5.000		6.496																	6204ZZ	

"C" FLANGE DIMENSIONS						
NEMA FRAMES	Flange					
	AJ	AK	BB	BD	BF	AH
W56C				6.468		
56C	5.874	4.500	0.157	6.450	UNC 3/8" x 16	2.062
56HC				6.450		



# W01 Rolled Steel 56 Frame Three Phase Motors

## TEFC

### Standard Features

- Three-phase, 2, 4 and 6 pole, 60Hz
- Voltage: 230/460V & 575V
- Totally Enclosed Fan Cooled - TEFC (IP55) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- V'Ring sealing
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Dip and Bake Insulation system
- NEMA design "A"
- 1.15 Service Factor
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Color: Munsell N1 - Flat Black



Class I, Div 2, Groups A,B,C & D  
Class I, Zone 2, IIC



Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
56 - 56H < 1HP	All	10:1	1000:1	Any
56 - 56H ≥ 1HP	All	5:1		

See page 7.6 for details

### Optional Features

- 50Hz
- Special voltages
- Special shafts
- Oil Seal, Lip Seal
- Thermostats, Thermistors
- Drip cover (canopy) for shaft down applications
- NEMA C Flange for all ratings
- Special paint
- Degree of protection: IP56
- No feet



# W01 Rolled Steel 56 Frame Three Phase Motors

## TEFC - Purchasing Data - Standard Efficiency

Rated Output		NEMAFrame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	OverallLength "C" Dim. (in.)	FC Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM					460V	575V					
0.25	3600	56	\$530	\$648	TF.25X02W01	0.46	0.37	57.5	17.2	11.142	5.512	0.625
	1800	56	\$530	\$648	TF.25X04W01	0.52	0.42	70.0	18.1	11.142	5.512	0.625
	1200	56	\$556	\$674	TF.25X06W01	0.55	0.44	68.0	19.0	11.535	5.906	0.625
0.33	3600	56	\$538	\$656	TF.33X02W01	0.60	0.48	62.0	17.2	11.142	5.512	0.625
	1800	56	\$538	\$656	TF.33X04W01	0.62	0.50	74.0	19.4	11.535	5.906	0.625
	1200	56	\$574	\$632	TF.33X06W01	0.72	0.58	70.0	21.8	11.929	6.299	0.625
0.5	3600	56	\$548	\$666	TF.50X02W01	0.84	0.67	68.0	19.0	11.535	5.906	0.625
	1800	56	\$600	\$718	TF.50X04W01	0.86	0.69	77.0	20.9	11.535	5.906	0.625
	1200	56	\$668	\$786	TF.50X06W01	0.99	0.79	72.0	24.7	12.323	6.693	0.625
0.75	3600	56	\$632	\$752	TF.75X02W01	1.13	0.90	72.0	20.3	11.535	5.906	0.625
	1800	56	\$654	\$772	TF.75X04W01	1.22	0.98	78.5	22.5	11.929	6.299	0.625
	1200	56H	\$692	\$810	TF.75X06W01	1.34	1.07	75.5	29.5	12.717	7.087	0.625

Flange: Replace 'TF' with 'FC' for C Flange  
Voltage: Replace 'X' with '4' for 208-230/460V  
Replace 'X' with '5' for 575V

## TEFC - Purchasing Data - Premium Efficiency

Rated Output		NEMAFrame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	OverallLength "C" Dim. (in.)	FC Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM					460V	575V					
0.25	3600	W56	\$570	\$688	TF.25X02W01DOE	0.46	0.37	66.0	15	10.319	5.512	0.625
	1800	W56	\$568	\$686	TF.25X04W01DOE	0.48	0.39	70.0	18.5	10.319	5.512	0.625
	1200	56	\$588	\$706	TF.25X06W01DOE	0.52	0.42	72.0	25.6	11.535	5.906	0.625
0.33	3600	W56	\$570	\$688	TF.33X02W01DOE	.59	0.47	70.0	17.5	10.319	5.512	0.625
	1800	W56	\$580	\$698	TF.33X04W01DOE	0.62	0.50	74.0	19.5	10.713	5.906	0.625
	1200	56	\$568	\$686	TF.33X06W01DOE	0.72	0.58	72.0	28.2	11.929	6.299	0.625
0.5	3600	W56	\$582	\$700	TF.50X02W01DOE	0.79	0.63	74.0	19.4	10.713	5.906	0.625
	1800	W56	\$650	\$768	TF.50X04W01DOE	0.78	0.63	78.5	20.9	11.500	6.693	0.625
	1200	56	\$746	\$864	TF.50X06W01DOE	0.98	0.79	75.5	30.9	12.323	6.693	0.625
0.75	3600	W56	\$678	\$796	TF.75X02W01DOE	1.12	0.90	77.0	20.5	10.713	5.906	0.625
	1800	56	\$722	\$840	TF.75X04W01DOE	1.19	0.96	81.5	30.2	12.323	6.693	0.625
	1200	56H	\$824	\$944	TF.75X06W01DOE	1.29	1.03	82.5	36.2	13.110	7.480	0.625
1	3600	W56	\$762	\$882	TF000X02W01DOE	1.50	1.20	78.5	20.5	11.106	6.300	0.625
	1800	56	\$828	\$946	TF000X04W01DOE	1.47	1.18	85.5	37.9	13.504	7.874	0.625
	1200	56H	\$996	\$1,114	TF000X06W01DOE	1.58	1.26	82.5	38.6	13.504	7.874	0.625
1.5	3600	56H	\$870	\$988	TF001X02W01DOE	1.87	1.50	84	34.2	13.109	7.480	0.625
	1800	56H	\$922	\$1,040	TF001X04W01DOE	2.02	1.62	86.5	37.9	13.504	7.874	0.625
2	3600	56H	\$878	\$996	TF002X02W01DOE	2.47	1.98	85.5	40.1	13.898	8.268	0.625
	1800	56H	\$1,012	\$1,130	TF002X04W01DOE	2.72	2.18	86.5	42.3	13.898	8.268	0.625
3	3600	56H	\$1,150	\$1,268	TF003X02W01DOE	3.51	2.81	86.5	48.1	15.079	9.449	0.625

Flange: Replace 'TF' with 'FC' for C Flange  
Voltage: Replace 'X' with '4' for 208-230/460V  
Replace 'X' with '5' for 575V

# W01 Rolled Steel 56 Frame Three Phase Motors

## TEFC - Electrical Data - Standard Efficiency

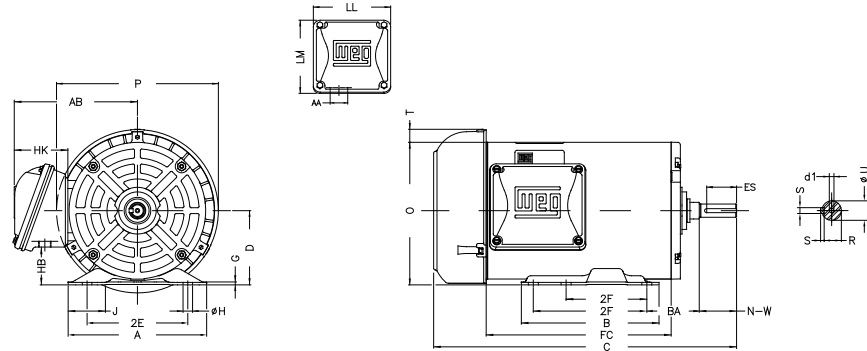
Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (l/l/n)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V							50%	75%	100%	50%	75%	100%
0.25	0.18	3475	56	0.91	0.46	0.37	6.4	250%	300%	60	17.2	1.15	46.0	52.5	57.5	0.75	0.82	0.86
		1765	56	1.04	0.52	0.42	6.3	240%	300%	38	18.1	1.15	57.5	66.0	70.0	0.43	0.54	0.62
		1160	56	1.09	0.55	0.44	5.1	230%	300%	46	19.0	1.15	55.0	64.0	68.0	0.41	0.52	0.61
0.33	0.25	3485	56	1.20	0.60	0.48	6.4	250%	300%	40	17.2	1.15	48.0	57.5	62.0	0.72	0.79	0.84
		1765	56	1.25	0.62	0.50	7.1	230%	300%	31	19.4	1.15	64.0	72.0	74.0	0.47	0.58	0.68
		1160	56	1.45	0.72	0.58	5.5	240%	300%	36	21.8	1.15	59.5	68.0	70.0	0.42	0.53	0.62
0.5	0.37	3500	56	1.69	0.84	0.67	7.0	260%	300%	35	19.0	1.15	55.0	62.0	68.0	0.67	0.75	0.81
		1760	56	1.72	0.86	0.69	7.0	240%	300%	20	20.9	1.15	68.0	74.0	77.0	0.48	0.61	0.70
		1160	56	1.98	0.99	0.79	5.4	210%	300%	22	24.7	1.15	64.0	70.0	72.0	0.44	0.56	0.65
0.75	0.55	3475	56	2.26	1.13	0.90	7.0	250%	290%	23	20.3	1.15	62.0	68.0	72.0	0.70	0.79	0.85
		1755	56	2.44	1.22	0.98	6.9	240%	300%	17	22.5	1.15	72.0	77.0	78.5	0.48	0.61	0.72
		1155	56H	2.68	1.34	1.07	5.8	230%	300%	21	29.5	1.15	70.0	74.0	75.5	0.46	0.59	0.68

## TEFC - Electrical Data - Premium Efficiency

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (l/l/n)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V							50%	75%	100%	50%	75%	100%
0.25	0.18	3460	W56	0.91	0.46	0.36	7.4	350%	400%	30	15.0	1.15	55.0	62.0	66.0	0.60	0.70	0.75
		1740	W56	0.96	0.48	0.38	5.6	240%	320%	28	14.6	1.15	59.5	66.0	68.0	0.48	0.60	0.69
		1160	56	1.07	0.54	0.43	4.7	190%	300%	40	25.6	1.15	59.5	66.0	68.0	0.42	0.53	0.62
0.33	0.25	3450	W56	1.18	0.59	0.47	7.1	320%	370%	28	15.0	1.15	59.5	66.0	70.0	0.61	0.71	0.76
		1740	W56	1.25	0.62	0.50	6.2	260%	350%	22	16.5	1.15	66.0	72.0	74.0	0.46	0.58	0.68
		1160	56	1.43	0.71	0.57	5.3	220%	330%	30	28.2	1.15	64.0	70.0	72.0	0.41	0.52	0.61
0.5	0.37	3435	W56	1.57	0.78	0.63	7.7	330%	360%	18	17.4	1.15	68.0	72.0	74.0	0.64	0.75	0.80
		1730	W56	1.56	0.78	0.62	6.4	230%	310%	20	20.9	1.15	74.0	77.0	78.5	0.54	0.67	0.76
		1160	56	1.95	0.98	0.78	5.6	240%	330%	26	30.9	1.15	68.0	74.0	75.5	0.41	0.53	0.63
0.75	0.55	3440	W56	2.24	1.12	0.90	8.1	350%	360%	16	18.3	1.15	70.0	75.5	77.0	0.62	0.74	0.80
		1760	56	2.38	1.19	0.95	7.7	240%	360%	16	30.2	1.15	75.5	80.0	81.5	0.49	0.71	1.19
		1160	56H	2.58	1.29	1.03	6.5	290%	370%	40	36.2	1.15	77.0	81.5	82.5	0.43	0.50	0.65
1	0.75	3435	W56	3.00	1.50	1.20	8.8	360%	380%	10	20.5	1.15	74.0	77.0	78.5	0.63	0.75	0.80
		1765	56	2.94	1.47	1.18	8.6	280%	300%	19	37.9	1.15	82.5	84.0	85.5	0.52	0.66	0.75
		1145	56H	3.16	1.58	1.26	5.8	230%	280%	31	38.6	1.15	80.0	82.5	82.5	0.50	0.63	0.72
1.5	1.1	3520	56H	3.74	1.87	1.50	9.1	230%	300%	17	34.2	1.15	80.0	82.5	84.0	0.71	0.82	0.88
		1750	56H	4.04	2.02	1.62	8.2	270%	300%	21	37.9	1.15	85.5	86.5	86.5	0.59	0.72	0.79
2	1.5	3520	56H	4.94	2.47	1.98	9.9	250%	300%	13	40.1	1.15	82.5	85.5	85.5	0.73	0.83	0.89
		1750	56H	4.04	2.02	1.62	8.2	270%	300%	21	39.7	1.15	85.5	86.5	86.5	0.59	0.72	0.79
3	2.2	3500	56H	7.02	3.51	2.81	9.5	300%	380%	10	48.1	1.15	84.0	86.5	86.8	0.78	0.87	0.91

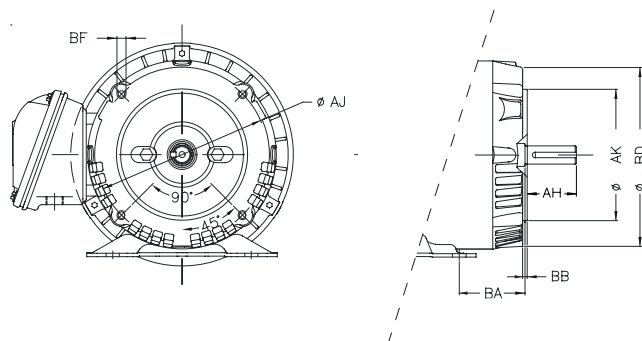
# W01 Rolled Steel 56 Frame Three Phase Motors

## TEFC - Mechanical Data



NEMA Frame	2E	2F	A	AB	B	BA	D	HB	HK	Hole H	J	LL	LM	O	P	T	Shaft end						Bearings		
																	d1	ES	N-W	R	S	U	D.E.	N.D.E.	
W56		3.000		5.520	4.016			2.056	2.650		1.620	3.835	3.697	6.330	6.693	0.524							6203ZZ		
56	4.874		6.535	5.873		2.750	3.500	1.784	2.629	0.343	1.734	4.563	4.090	6.723	7.638	0.604	A	3.15	1.417	1.874	0.517	0.187	0.625	6303ZZ up to 0.75HP 6204ZZ from 1HP and up	6202ZZ
56H		3.000/5.000		6.496							1.593														

"C" Flange Dimensions							
Frame	BA	Flange					
		AJ	AK	BB	BD	BF	AH
W56C					6.468		
56C	2.750	5.874	4.500	0.157	6.450	UNC3/8"x16	2.062
56HC					6.450		



# W01 Rolled Steel 56 Frame Three Phase Motors ODP

## Standard Features

- Standard Efficiency & Premium Efficiency (DOE)
- Three-phase, 2, 4 and 6 pole, 60Hz
- Voltage: 230/460V & 575V
- Open Drip Proof - ODP (IP21)
- Die cast aluminum squirrel cage rotor
- ZZ Bearings
- 1045 heat treated and stress relieved carbon steel shaft
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Dip and Bake Insulation system
- NEMA design "B"
- 1.15 Service Factor
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Paint: Synthetic enamel alkyd resin base
- Color: Munsell N1 - Flat Black



## Optional Features

- 50Hz
- Special voltages
- Special shafts
- Thermostats, Thermistors
- Drip cover (canopy) for shaft down applications
- NEMA C flange for all ratings
- Special paint
- No feet

Inverter Ratings - Standard Efficiency				
Frames	Poles	Constant Torque	Variable Torque	VFD
56 - 56H < 1HP	All	4:1	1000:1	Any
56 - 56H ≥ 1HP	All	2:1		
See page 7.6 for details				

Inverter Ratings - Premium Efficiency (DOE)				
Frames	Poles	Constant Torque	Variable Torque	VFD
56 - 56H < 1HP	2 Pole	5:1	1000:1	Any
56 - 56H ≥ 1HP	2 Pole	3:1		
56 - 56H	4 Pole	5:1		
See page 7.6 for details				



# W01 Rolled Steel 56 Frame Three Phase Motors

## ODP - Standard Efficiency - Purchasing Data

Rated Output		NEMAFrame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	OverallLength "C" Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM					460V	575V				
0.25	3600	56	\$412	\$530	OF.25X02W01	0.49	0.39	64.0	16.1	10.315	0.625
	1800	56	\$412	\$530	OF.25X04W01	0.57	0.46	66.0	15.7	9.921	0.625
	1200	56	\$542	\$660	OF.25X06W01	0.60	0.48	64.0	17.0	10.315	0.625
0.33	3600	56	\$420	\$538	OF.33X02W01	0.66	0.53	66.0	16.1	10.315	0.625
	1800	56	\$420	\$538	OF.33X04W01	0.72	0.58	68.0	15.7	9.921	0.625
	1200	56	\$550	\$668	OF.33X06W01	0.76	0.60	68.0	18.3	10.315	0.625
0.5	3600	56	\$440	\$558	OF.50X02W01	0.95	0.76	68.0	16.3	10.315	0.625
	1800	56	\$482	\$600	OF.50X04W01	0.98	0.78	72.0	17.4	10.315	0.625
	1200	56	\$612	\$730	OF.50X06W01	0.99	0.79	72.0	21.2	10.709	0.625
0.75	3600	56	\$482	\$600	OF.75X02W01	1.26	1.01	72.0	18.3	10.709	0.625
	1800	56	\$518	\$636	OF.75X04W01	1.34	1.07	75.5	20.3	10.709	0.625
	1200	56H	\$666	\$784	OF.75X06W01	1.29	1.03	75.5	25.6	11.496	0.625

Flange: Replace 'F' with 'C' for C Flange  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

## ODP - Premium Efficiency (DOE) - Purchasing Data

Rated Output		NEMAFrame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	OverallLength "C" Dim. (in.)	Shaft Diameter "U" Dim. (in.)
HP	RPM					460V	575V				
0.25	3600	56	\$432	\$550	OF.25X02W01DOE	0.46	0.37	65.6	16.1	10.315	0.625
	1800	56	\$432	\$550	OF.25X04W01DOE	0.53	0.43	69.5	15.7	9.921	0.625
	1200	56	\$568	\$686	OF.25X06W01DOE	0.55	0.44	67.5	17.0	10.315	0.625
0.33	3600	56	\$440	\$558	OF.33X02W01DOE	0.61	0.49	69.5	16.3	10.315	0.625
	1800	56	\$440	\$558	OF.33X04W01DOE	0.67	0.53	73.4	17.4	10.315	0.625
	1200	56	\$580	\$698	OF.33X06W01DOE	0.70	0.56	71.4	18.3	10.315	0.625
0.5	3600	56	\$464	\$582	OF.50X02W01DOE	0.81	0.65	73.4	16.5	10.315	0.625
	1800	56	\$514	\$632	OF.50X04W01DOE	0.86	0.69	78.2	20.3	10.709	0.625
	1200	56	\$644	\$762	OF.50X06W01DOE	0.93	0.75	75.3	21.2	10.709	0.625
0.75	3600	56	\$536	\$654	OF.75X02W01DOE	1.14	0.91	76.8	18.3	10.709	0.625
	1800	56	\$556	\$674	OF.75X04W01DOE	1.15	0.92	81.1	23.4	11.102	0.625
	1200	56H	\$698	\$816	OF.75X06W01DOE	1.26	1.01	81.7	34.4	12.677	0.625
1	3600	56	\$542	\$660	OF000X02W01DOE	1.51	1.21	77.0	19.6	10.709	0.625
	1800	56	\$564	\$684	OF000X04W01DOE	1.57	1.26	83.5	26.2	11.495	0.625
	1200	56H	\$748	\$866	OF000X06W01DOE	1.68	1.34	82.5	38.8	13.071	0.625
1.5	3600	56	\$606	\$724	OF001X02W01DOE	1.85	1.47	84.0	29.3	11.889	0.625
	1800	56H	\$668	\$786	OF001X04W01DOE	2.10	1.68	86.5	36.8	13.071	0.625
2	3600	56H	\$650	\$768	OF002X02W01DOE	2.42	1.94	85.5	36.8	12.677	0.625
	1800	56H	\$742	\$860	OF002X04W01DOE	2.69	2.15	86.5	35.5	12.283	0.625
3	3600	56H	\$894	\$1,012	OF003X02W01DOE	3.59	2.87	85.5	39.9	13.071	0.625
	1800	56H	\$1,254	\$1,372	OF003X04W01DOE	3.97	3.18	86.9	43.0	13.071	0.625

Flange: Replace 'F' with 'C' for C Flange  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

# W01 Rolled Steel 56 Frame Three Phase Motors

## ODP - Standard Efficiency - Electrical Data

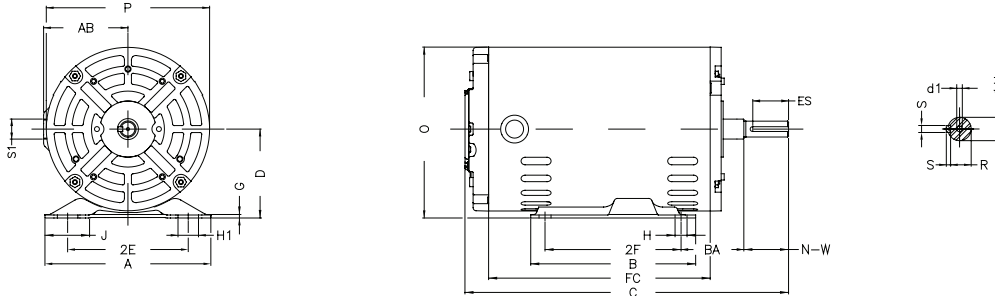
Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V							50%	75%	100%	50%	75%	100%
0.25	0.18	3520	56	0.98	0.49	0.39	7.0	280%	360%	48	16.1	1.35	52.5	62.0	64.0	0.53	0.64	0.72
		1760	56	1.14	0.57	0.46	5.9	230%	350%	33	15.7	1.35	55.0	62.0	66.0	0.41	0.51	0.60
		1160	56	1.20	0.60	0.48	4.5	210%	300%	37	17.0	1.35	52.5	60.0	64.0	0.41	0.51	0.59
0.33	0.25	3515	56	1.32	0.66	0.53	6.5	250%	330%	38	16.1	1.35	55.0	62.0	66.0	0.52	0.63	0.72
		1755	56	1.44	0.72	0.58	5.5	200%	310%	29	15.7	1.35	57.5	64.0	68.0	0.43	0.54	0.64
		1160	56	1.51	0.76	0.60	5.1	220%	310%	30	18.3	1.35	59.5	64.0	68.0	0.41	0.52	0.61
0.5	0.37	3495	56	1.90	0.95	0.76	6.0	240%	280%	34	16.3	1.25	57.5	64.0	68.0	0.49	0.62	0.72
		1755	56	1.95	0.98	0.78	6.0	220%	290%	23	17.4	1.25	64.0	70.0	72.0	0.43	0.56	0.66
		1155	56	1.98	0.99	0.79	5.3	220%	300%	23	21.2	1.25	64.0	70.0	72.0	0.43	0.55	0.65
0.75	0.55	3480	56	2.52	1.26	1.01	6.2	230%	260%	31	18.3	1.25	64.0	70.0	72.0	0.53	0.67	0.76
		1755	56	2.68	1.34	1.07	6.3	230%	300%	13	20.3	1.25	66.0	72.0	75.5	0.45	0.58	0.68
		1150	56H	2.58	1.29	1.03	5.4	200%	270%	20	25.6	1.15	70.0	74.0	75.5	0.48	0.61	0.71

## ODP - Premium Efficiency (DOE) - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V							50%	75%	100%	50%	75%	100%
0.25	0.18	3525	56	0.92	0.46	0.37	6.9	240%	330%	-	16.1	1.35	55.0	64.0	65.6	0.56	0.66	0.75
		1765	56	1.07	0.53	0.43	5.9	230%	330%	-	15.7	1.35	57.5	64.0	69.5	0.41	0.52	0.61
		1160	56	1.10	0.55	0.44	4.8	210%	280%	-	17.0	1.35	55.0	64.0	67.5	0.41	0.52	0.61
0.33	0.25	3520	56	1.22	0.61	0.49	6.7	250%	320%	-	16.3	1.35	57.5	66.0	69.5	0.54	0.65	0.74
		1765	56	1.34	0.67	0.53	6.2	230%	330%	-	17.4	1.35	62.0	70.0	73.4	0.44	0.55	0.64
		1160	56	1.40	0.70	0.56	5.0	210%	280%	-	18.3	1.35	59.5	66.0	71.4	0.42	0.53	0.63
0.5	0.37	3490	56	1.62	0.81	0.65	6.2	230%	280%	-	16.5	1.25	64.0	70.0	73.4	0.57	0.69	0.78
		1765	56	1.72	0.86	0.69	7.2	240%	330%	-	20.3	1.25	70.0	75.5	78.2	0.47	0.60	0.69
		1155	56	1.87	0.93	0.75	5.1	200%	260%	-	21.2	1.25	68.0	74.0	75.3	0.43	0.56	0.66
0.75	0.55	3485	56	2.28	1.14	0.91	6.5	240%	280%	-	18.3	1.25	68.0	74.0	76.8	0.57	0.70	0.79
		1760	56	2.30	1.15	0.92	7.3	250%	300%	-	23.4	1.25	74.0	78.5	81.1	0.52	0.65	0.74
		1160	56H	2.52	1.26	1.01	5.9	220%	280%	-	34.4	1.15	75.5	80.0	81.7	0.45	0.58	0.67
1	0.75	3470	56	3.02	1.51	1.21	6.4	230%	260%	-	19.6	1.25	70.0	75.5	77.0	0.60	0.73	0.81
		1760	56	3.14	1.57	1.26	7.6	280%	320%	-	26.2	1.15	78.5	82.5	83.5	0.49	0.63	0.72
		1160	56H	3.36	1.68	1.34	6.2	240%	300%	-	38.8	1.15	77.0	81.5	82.5	0.45	0.58	0.68
1.5	1.1	3510	56	3.70	1.85	1.48	8.6	210%	330%	19	29.3	1.15	81.5	84.0	84.0	0.73	0.83	0.89
		1760	56H	4.20	2.10	1.68	8.8	290%	350%	-	36.8	1.15	84.0	85.5	86.5	0.53	0.66	0.76
2	1.5	3510	56H	4.84	2.42	1.94	8.9	220%	330%	14	36.8	1.15	84.0	85.5	85.5	0.77	0.86	0.91
		1740	56H	5.38	2.69	2.15	7.7	260%	320%	17	35.5	1.15	85.5	86.5	86.5	0.61	0.74	0.81
3	2.2	3480	56H	7.18	3.59	2.87	8.0	230%	300%	9	39.9	1.15	84.0	85.5	85.5	0.76	0.86	0.90
		1735	56H	7.94	3.97	3.18	7.6	270%	300%	-	43.0	1.15	86.5	86.5	86.9	0.59	0.72	0.80

# W01 Rolled Steel 56 Frame Three Phase Motors

## ODP - Electrical Data



NEMA Frame	2E	2F	A	AB	B	BA	D	HK	Hole H	J	LM	P	T	Shaft end						Bearings	
														d1	ES	N-W	R	S	U	D.E.	N.D.E.
56	4.874	3.000	6.535	3.323	4.016	2.750	3.500	0.118	0.343	1.734	NPT 1/2"	6.723	6.456	A 3.15	1.417	1.874	0.517	0.187	0.625	6303ZZ up to 0.75HP	6202ZZ
56H		3.000/5.000			6.496					1.593										6204ZZ	

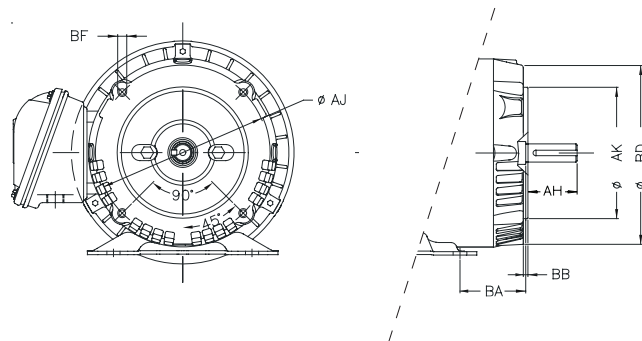
### Standard Efficiency

NEMA Frame	Output		Poles	C	FC
	HP	kW			
56	0.25	0.18	2	10.315	6.299
			4	9.921	5.906
			6	10.315	6.299
	0.33	0.25	2	10.315	6.299
			4	9.921	5.906
			6	10.315	6.299
	0.5	0.37	2	10.315	6.299
			4	10.709	6.693
			6	11.496	7.480
	0.75	0.55	2	10.709	6.693
			4	11.496	7.480
	56H			6	11.496

### Premium Efficiency (DOE)

NEMA Frame	Output		Poles	C	FC
	HP	kW			
56	0.25	0.18	2	10.315	6.299
			4	9.921	5.906
			6	10.315	6.299
	0.33	0.25	2	10.315	6.299
			4	10.315	6.299
			6	10.709	6.693
	0.5	0.37	2	11.102	7.087
			4	11.102	7.087
			6	12.677	8.661
	0.75	0.55	2	10.709	6.693
			4	11.495	7.480
	56H			6	13.071
56	1	0.75	2	11.889	7.874
			4	13.071	9.055
			6	13.071	9.055
56H	1.5	1.1	2	12.677	8.661
			4	12.283	8.268
			6	13.071	9.055
56H	2	1.5	2	13.071	9.055
			4	13.071	9.055
			6	13.071	9.055
56H	3	2.2	2	13.071	9.055
			4	13.071	9.055

"C" Flange Dimensions							
Frame	BA	Flange					
		AJ	AK	BB	BD	BF	AH
56C	2.750	5.874	4.500	0.157	6.028	UNC3/8"x16	2.062
56HC							



# W01 Rolled Steel NEMA 56 Frame Single Phase Motors

## Standard Features

- Single Phase, 2 & 4 pole, 60Hz
- Voltage: 115/208-230V
- Open Drip Proof, fan cooled
- Die cast aluminum squirrel cage rotor
- Start Capacitor
- Ball bearings
- High starting torque
- Class "F" insulation ( $\Delta t$  80°C)
- Paint: Munsell N1 – Flat Black
- WEG paint plan: 207N



## Optional Features

- Flange mounted (C Flange)
- Special voltages
- Specially dimensioned shaft
- Second shaft end
- Stainless steel shaft
- Footless
- Automatic or manual thermal overload protection
- Other mounting configurations



# W01 NEMA 48 & 56 Frame Single Phase Motors

## ODP - Purchasing Data - Standard Efficiency

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM					115V	230V		
0.25	3600	W56	\$466	\$602	OF.25102W01	4.00	2.00	15.4	9.472
	1800	W56	\$522	\$646	OF.25104W01	4.66	2.33	15.4	9.472
0.33	3600	W56	\$466	\$590	OF.33102W01	5.00	2.50	16.1	9.866
	1800	W56	\$518	\$642	OF.33104W01	6.24	3.12	16.8	9.866
0.5	3600	W56	\$552	\$676	OF.50102W01	6.68	3.34	18.7	10.260
	1800	W56	\$602	\$726	OF.50104W01	8.24	4.12	18.7	10.260
0.75	3600	W56	\$508	\$726	OF.75102W01	9.64	4.82	20.9	10.654
	1800	56	\$766	\$890	OF.75104W01	10.5	5.25	26.5	11.496
1	3600	56	\$674	\$798	OF000102W01	12.8	6.39	26.5	11.496
	1800	56	\$850	\$974	OF000104W01	13.5	6.75	30.9	11.890
1.5	3600	56	\$916	\$1,040	OF001102W01	17.2	8.60	30.9	11.890
	1800	56H	\$1,048	\$1,172	OF001104W01	19.0	9.49	40.1	13.071
2	3600	56H	\$1,086	\$1,210	OF002102W01	21.8	10.9	36.4	12.678
	1800	56H	\$1,154	\$1,278	OF002104W01	21.0	10.5	42.3	13.858
3	3600	56H	\$1,330	\$1,454	OF003102W01	26.4	13.2	41.2	13.465

Flange: For C Flange replace 'F' with 'C'

## ODP - Purchasing Data - Premium Efficiency

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM					115V	230V		
0.25	3600	W56	\$422	\$528	OF.25102W01DOE	2.50	1.25	17.2	9.866
	1800	W56	\$468	\$574	OF.25104W01DOE	3.20	1.60	16.5	9.866
0.33	3600	W56	\$422	\$602	OF.33102W01DOE	3.20	1.60	19.4	10.260
	1800	W56	\$462	\$568	OF.33104W01DOE	4.20	2.10	17.6	10.260
0.5	3600	W56	\$500	\$604	OF.50102W01DOE	4.80	2.40	19.4	10.260
	1800	W56	\$540	\$646	OF.50104W01DOE	5.50	2.75	19.8	10.654
0.75	3600	56	\$546	\$654	OF.75102W01DOE	6.80	3.40	25.4	11.890
	1800	56	\$804	\$908	OF.75104W01DOE	6.80	3.40	30.9	11.890
1	3600	56	\$612	\$716	OF000102W01DOE	8.60	4.30	29.8	11.890
	1800	56	\$894	\$998	OF000104W01DOE	9.00	4.50	36.4	12.677
1.5	3600	56	\$828	\$934	OF001102W01DOE	13.3	6.65	32.0	12.284
	1800	56H	\$1,102	\$1,206	OF001104W01DOE	13.6	6.80	40.1	13.071
2	3600	56H	\$984	\$1,088	OF002102W01DOE	16.8	8.40	36.4	13.465
	1800	56H	\$1,210	\$1,316	OF002104W01DOE	18.6	9.30	45.2	13.858
3	3600	56H	\$1,204	\$1,308	OF003102W01DOE	24.4	12.20	42.3	13.858

Flange: For C Flange replace 'F' with 'C'

# W01 NEMA 48 & 56 Frame Single Phase Motors

## ODP - Electrical Data - Standard Efficiency

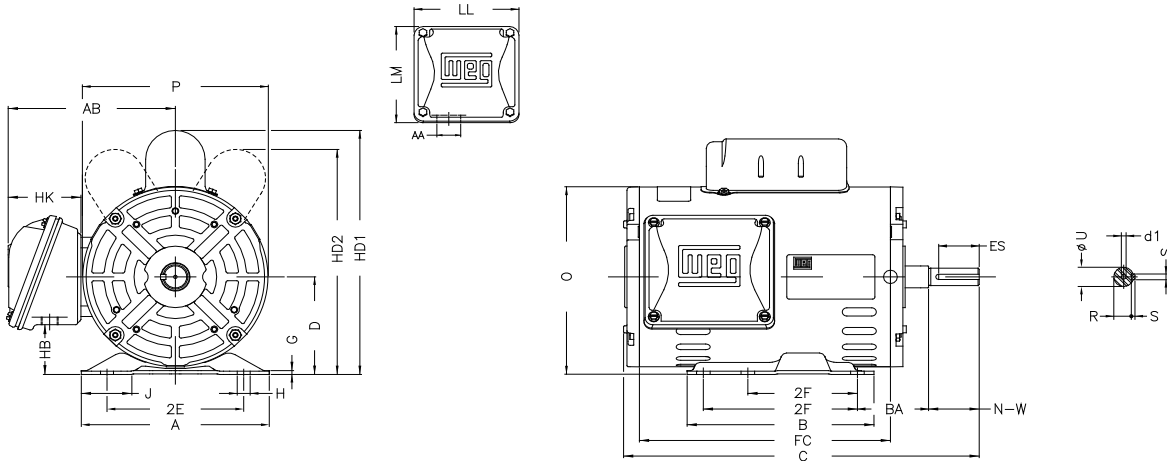
Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (I/In)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			115V	230V							50%	75%	100%	50%	75%	100%
0.25	0.18	3500	W56	4.00	2.00	7.2	300%	300%	10	15.4	1.35	43.0	50.0	55.0	0.55	0.64	0.71
		1735	W56	4.66	2.33	5.3	310%	180%	14	15.4	1.35	46.0	54.0	57.0	0.41	0.51	0.59
0.33	0.25	3500	W56	5.00	2.50	7.4	300%	300%	8	16.1	1.35	49.0	56.0	59.0	0.57	0.66	0.74
		1735	W56	6.24	3.12	5.6	330%	280%	12	16.8	1.35	49.0	57.0	60.0	0.41	0.50	0.58
0.5	0.37	3500	W56	6.68	3.34	8.2	280%	300%	6	18.7	1.25	54.0	61.0	65.0	0.55	0.66	0.74
		1735	W56	8.24	4.12	5.8	320%	270%	10	18.7	1.25	54.0	61.0	63.0	0.43	0.53	0.62
0.75	0.55	3500	W56	9.64	4.82	8.0	260%	300%	6	20.9	1.25	56.0	63.0	67.0	0.54	0.66	0.74
		1745	56	10.50	5.25	6.5	280%	270%	10	26.5	1.25	60.0	66.0	69.0	0.46	0.57	0.66
1	0.75	3500	56	12.78	6.39	6.9	260%	280%	8	26.5	1.25	60.0	65.0	68.0	0.55	0.67	0.75
		1745	56	13.50	6.75	6.7	270%	270%	7	30.9	1.15	43.0	68.0	71.0	0.48	0.60	0.68
1.5	1.1	3500	56	17.20	8.60	7.3	250%	270%	6	30.9	1.15	65.0	70.0	72.0	0.57	0.69	0.77
		1745	56H	18.98	9.49	6.9	270%	270%	7	40.1	1.15	66.0	72.0	73.0	0.48	0.60	0.69
2	1.5	3490	56H	21.80	10.90	7.8	250%	260%	6	36.4	1.15	69.0	72.0	75.0	0.60	0.72	0.80
		1740	56H	21.00	10.50	7.5	240%	260%	6	42.3	1.15	70.0	75.0	78.0	0.62	0.73	0.80
3	2.2	3485	56H	26.40	13.20	8.0	200%	250%	6	41.2	1.15	71.0	76.0	78.0	0.85	0.91	0.93

## ODP - Electrical Data - Premium Efficiency

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (I/In)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			115V	230V							50%	75%	100%	50%	75%	100%
0.25	0.18	3510	W56	2.50	1.25	8.8	280%	310%	18	17.2	1.35	50.0	59.0	66.6	0.91	0.93	0.94
		1745	W56	3.20	1.60	7.5	290%	300%	20	16.5	1.35	53.0	62.0	68.5	0.56	0.65	0.71
0.33	0.25	3510	W56	3.20	1.60	8.8	180%	300%	15	19.4	1.35	56.0	64.0	70.5	0.97	0.97	0.97
		1745	W56	4.20	2.10	8.0	320%	320%	17	17.6	1.35	57.0	66.0	72.4	0.57	0.67	0.73
0.5	0.37	3510	W56	4.80	2.40	8.8	270%	300%	9	19.4	1.25	60.0	68.0	72.4	0.90	0.93	0.94
		1745	W56	5.50	2.75	7.7	310%	300%	15	19.8	1.25	63.0	71.0	76.2	0.60	0.70	0.77
0.75	0.55	3510	56	6.80	3.40	8.6	300%	300%	18	25.4	1.25	64.0	71.0	76.2	0.88	0.92	0.93
		1750	56	6.80	3.40	8.0	260%	250%	20	30.9	1.25	74.0	79.0	81.8	0.74	0.82	0.86
1	0.75	3510	56	8.60	4.30	8.4	290%	300%	16	29.8	1.25	69.0	76.0	80.4	0.89	0.93	0.94
		1750	56	9.00	4.50	8.4	260%	250%	15	36.4	1.15	75.0	80.0	82.6	0.75	0.83	0.87
1.5	1.1	3500	56	13.30	6.65	8.2	260%	270%	10	32.0	1.15	73.0	79.0	81.5	0.92	0.95	0.95
		1745	56H	13.60	6.80	8.0	260%	250%	22	40.1	1.15	76.0	81.0	83.8	0.72	0.81	0.84
2	1.5	3500	56H	16.80	8.40	8.6	250%	280%	8	36.4	1.15	76.0	81.0	82.9	0.90	0.94	0.94
		1740	56H	18.60	9.30	7.6	260%	250%	18	45.2	1.15	77.0	82.0	84.5	0.68	0.78	0.83
3	2.2	3500	56H	24.40	12.20	8.2	220%	280%	6	42.3	1.15	76.0	81.0	84.1	0.87	0.92	0.93

# W01 NEMA 56 Frame Single Phase Motors

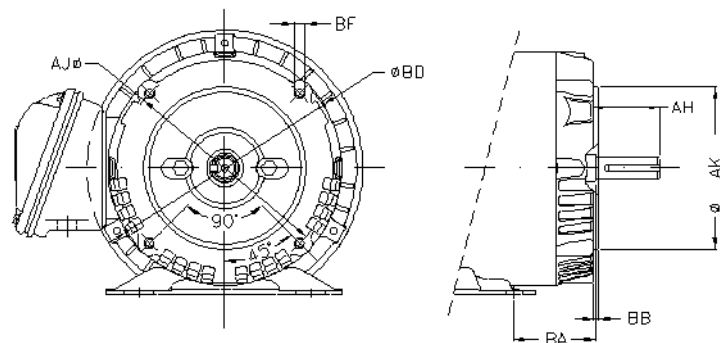
## ODP - Mechanical Data



NEMA FRAMES	MOUNTING			A	B	D	O	P	HD1	KEYWAY			SHAFT EXTENSION		BEARINGS	
	2E	2F	BA							S	R	ES	N-W	U	D.E.	N.D.E.
W56							6.330	5.709	8.189						6203ZZ	
56	4.874	3.000	2.750	6.535	4.016	3.500	6.723	6.456	8.618	0.187	0.517	1.417	1.874	0.6250	6303ZZ up to 0.75HP 6204ZZ from 1HP and up	6202ZZ
56H		3.000 / 5.000			6.496										6204ZZ	

\* The shaft of NEMA 48 frame motors shows a flat Chanfer with 0.291" of width instead of the keyway.  
\*\* NEMA 56H is provided with a double holed base - DIMENSION B: 3" AND 5"

NEMA FRAMES	"C" FLANGE DIMENSIONS						
	AJ	AK	BD	BF		BB	AH
				NUMBER	TAP SIZE		
W56			6.468				
56	5.874	4.500	6.450	4	UNC3/8"x16	0.157	2.062
56H			6.450				



# W22 Frame and up Single Phase Motors

## TEFC

### Standard Features

- Single Phase, 2, 4 & 6 pole, 60Hz
- Voltage: 1HP - 3HP: 115/208-230V or 208-230/460V
- Voltage: 5HP and up: 230V or 208-230/460V
- Totally Enclosed Fan Cooled (IP55)
- Steel plate frames (143/5T)
- Cast iron frames (182T up to 215T)
- Automatic drain plugs
- V-ring slingers on both endshields
- Capacitor Start
- Service Factor: 1.15
- Die cast aluminum squirrel cage rotor
- Ball bearings
- High starting torque
- Continuous Duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000 m)
- 1045 carbon steel shaft
- F1 mounting T-box
- Stainless steel nameplate from 182T frame and up
- Colour: RAL 7022 - Dark Gray
- WEG Paint plan: 207A



### Optional Features

- C Flange
- D Flange from 182/4T
- Special voltages
- Specially dimensioned shaft
- Second shaft end
- Stainless steel shaft
- Drip cover (canopy) for shaft down applications



# W22 Frame and up Single Phase Motors

## TEFC - Purchasing Data

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	List Price with 'D' Flange	Part Number	Full Load Current	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM						230V		
1	3600	F143/5T	\$1,134	\$1,352	---	TS000102	6.3	30	14.488
	1800	F143/5T	\$1,170	\$1,388	---	TS000104	7.0	34	14.488
	1200	G143/5T	\$2,092	\$2,310	---	TS000106	5.8	43	14.882
1.5	3600	F143/5T	\$1,296	\$1,466	---	TS001102	8.5	34	14.488
	1800	G143/5T	\$1,332	\$1,550	---	TS001104	9.0	46	14.882
	1200	182/4T	\$2,376	\$2,622	\$2,640	TS001106W22	8.5	132	17.012
2	3600	G143/5T	\$1,400	\$1,618	---	TS002102	10.2	42	14.882
	1800	G143/5T	\$1,580	\$1,798	---	TS002104	10.8	51	14.882
	1800	182/4T	\$1,884	\$2,130	\$2,148	TS002104W22182/4T	8.4	94	17.012
	1200	182/4T	\$2,944	P.O.A	P.O.A	TS002106W22	10.0	132	17.012
	1200	213/5T	\$2,858	\$3,138	\$3,154	TS002106W22213/5T	9.1	135	20.100
3	3600	G143/5T	\$2,196	\$2,414	---	TS003102	13.5	49	14.882
	3600	182/4T	\$2,284	\$2,532	\$2,548	TS003102W22182/4T	11.6	95	17.012
	1800	182/4T	\$2,510	\$2,614	P.O.A	TS003104W22	15.1	104	17.012
	1200	213/5T	\$3,042	\$3,322	\$3,336	TS003106W22	15.5	135	20.100
5	3600	182/4T	\$3,162	\$3,294	P.O.A	TS005102W22	19.0	108	17.012
	1800	182/4T	\$3,094	\$3,223	P.O.A	TS005104W22	21.4	116	17.012
	1800	213/5T	\$3,302	\$3,440	P.O.A	TS005104W22213/5T	21.4	148	20.100
	1200	213/5T	\$3,430	\$3,710	\$3,724	TS005106W22	20.7	169	20.100
7.5	3600	182/4T	\$3,646	\$3,926	\$3,940	TS007102W22182/4T	28.2	115	17.012
	3600	213/5T	\$3,646	\$3,926	\$3,940	TS007102W22	28.0	165	20.100
	1800	213/5T	\$3,474	\$3,754	\$3,768	TS007104W22S	30.6	176	20.100
	1800	213/5TZ	\$3,474	\$3,754	\$3,768	TS007104W22	30.6	176	19.470
10	3600	213/5T	\$4,364	\$4,644	\$4,658	TS010102W22	38.8	165	20.100
	1800	213/5T	\$4,210	\$4,490	\$4,506	TS010104W22	40.8	191	20.100
12.5	3600	213/5T	\$4,800	\$5,080	\$5,096	TS012102W22	46	183	20.100
	1800	213/5T	\$4,632	\$4,912	\$4,944	TS012104W22	54.4	205	20.100

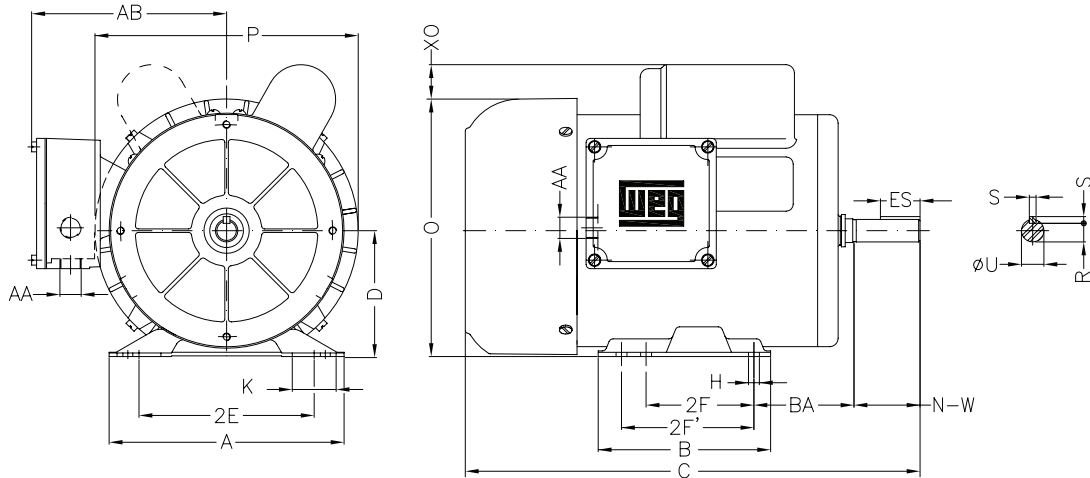
D Flange Not Available in frames 143/5T

## TEFC - Electrical Data

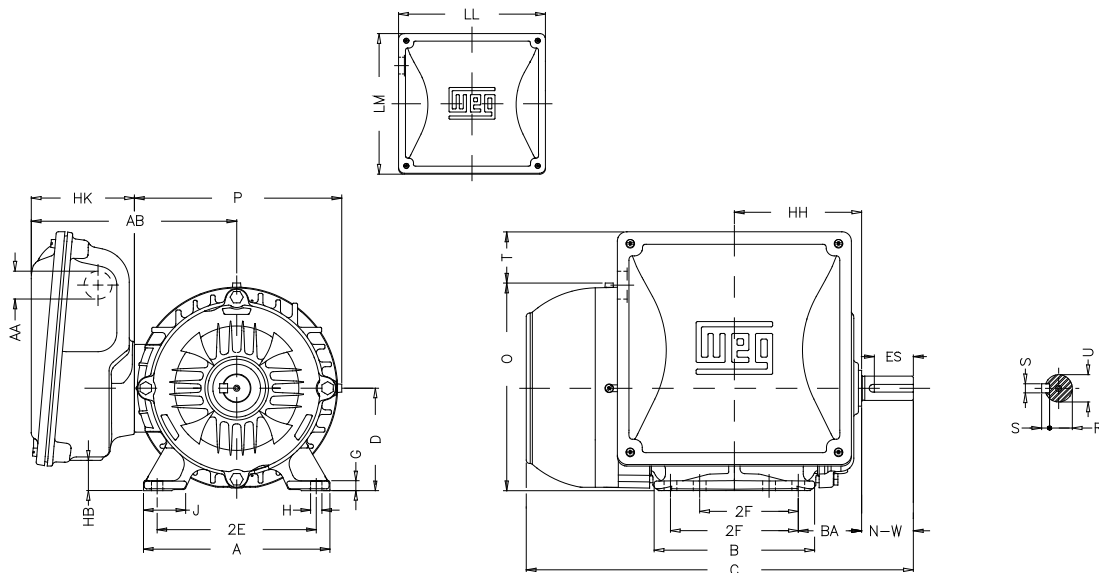
Rated Output	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)	Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
										50%	75%	100%	50%	75%	100%
1.00	3500	F143/5T	6.40	7.0	320%	280%	6	37.0	1.15	55.0	63.0	67.0	0.56	0.67	0.75
	1750	F143/5T	7.00	6.5	320%	270%	6	39.0	1.15	60.0	67.0	70.3	0.45	0.56	0.65
	1160	G143/5T	-	-	-	-	-	-	-	-	-	-	-	-	-
1.50	3480	F143/5T	8.55	6.8	250%	250%	6	34.8	1.15	62.0	69.0	70.0	0.61	0.72	0.80
	1750	G143/5T	8.70	6.5	280%	260%	6	48.0	1.15	70.0	75.0	76.5	0.52	0.64	0.72
	1185	182/4T	8.50	8.2	250%	320%	10	132.0	1.15	58.4	67.3	72.0	0.62	0.72	0.78
2.0	3470	G143/5T	10.00	7.0	250%	240%	6	49.0	1.15	69.0	73.0	74.0	0.72	0.81	0.87
	1750	G143/5T	10.50	6.9	280%	250%	6	55.0	1.15	74.0	78.0	78.1	0.60	0.71	0.78
	1740	182/4T	8.40	7.4	290%	230%	8	94.0	1.15	69.0	76.5	80.0	0.96	0.97	0.97
	1180	182/4T	10.00	8.0	240%	270%	14	132.0	1.15	65.2	73.0	77.0	0.72	0.81	0.85
3.00	1175	213/5T	9.10	8.1	185%	230%	6	135.0	1.15	65.5	74.0	77.0	0.85	0.91	0.93
	3480	G143/5T	13.00	7.8	250%	250%	6	56.0	1.15	75.0	79.0	80.0	0.82	0.90	0.93
	3520	182/4T	11.60	7.7	250%	260%	9	95.0	1.15	80.0	83.0	84.0	0.97	0.98	0.98
	1745	182/4T	15.10	6.9	290%	270%	8	104.0	1.15	65.0	74.0	77.0	0.74	0.80	0.82
5	1160	213/5T	15.50	5.3	155%	160%	6	135.0	1.00	60.7	68.8	70.6	0.81	0.88	0.90
	3515	182/4T	19.00	7.1	280%	250%	7	106.0	1.15	80.0	84.0	85.5	0.96	0.99	0.99
	1730	182/4T	21.40	6.5	330%	235%	7	116.0	1.15	72.5	78.5	80.0	0.89	0.93	0.94
	1745	213/5T	21.40	6.7	330%	260%	7	148.0	1.15	72.5	78.5	80.0	0.90	0.93	0.94
7.5	1175	213/5T	20.70	8.4	220%	250%	14	169.0	1.15	78.9	83.9	82.5	0.91	0.94	0.94
	3505	182/4T	28.20	7.5	280%	260%	9	115.0	1.15	79.0	83.5	85.5	0.99	0.99	0.99
	3510	213/5T	28.20	7.2	280%	290%	7	163.0	1.15	78.5	84.0	85.5	0.99	0.99	0.99
	1740	213/5T	30.60	7.0	330%	250%	7	176.0	1.15	76.0	81.0	82.5	0.89	0.93	0.95
10	1740	213/5TZ	30.50	7.0	330%	250%	7	176.0	1.15	76.0	81.0	82.5	0.89	0.93	0.95
	3515	213/5T	38.80	7.0	230%	290%	8	163.0	1.15	82.0	85.5	86.5	0.96	0.97	0.97
12.5	1740	213/5T	40.80	6.7	260%	250%	13	191.0	1.15	78.0	82.0	82.5	0.90	0.95	0.97
	3510	213/5T	46.00	7.3	210%	280%	8	183.0	1.15	86.0	88.0	88.5	0.98	0.98	0.98
12.5	1740	213/5T	54.40	8.0	220%	240%	6	205.0	1.15	77.0	81.5	82.5	0.75	0.84	0.89

# 140T Frame and up Single Phase Motors

## TEFC - Mechanical Data



NEMA FRAMES	MOUNTING					A	B	C	D	O	P	XO	KEYWAY			SHAFT EXTENSION		AB	AA	BEARINGS	
	2E	2F	H	H1	BA								S	R	ES	N-W	U			D.E.	N.D.E.
F143T	5.500	5.000	0.343	-	2.250	6.535	6.498	14.834	3.500	7.165	7.323	1.064	0.187	0.766	1.417	2.250	0.875	5.433	NPT0.75"	6205-ZZ	6203-ZZ
G145T								15.228													

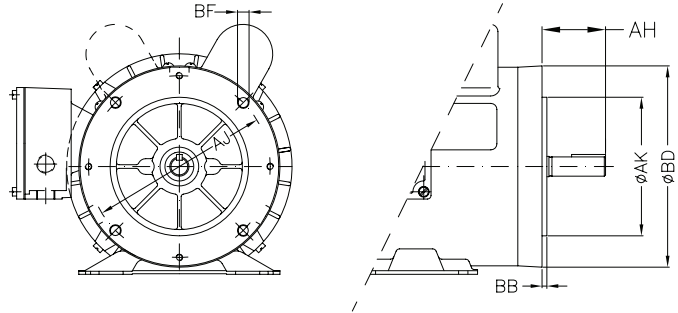


NEMA Frames	Mounting					A	B	C	D	G	J	O	P	T	Keyway			Shaft Extension		AB	AA	Bearings	
	2E	2F	H	BA	S										R	ES	N-W	U	D.E.			N.D.E.	
182/4T	7.500	4.500/5.500	0.410	2.750	8.661	6.969	17.012	4.500	0.394	1.614	8.897	8.937	2.128	0.250	0.984	1.969	2.750	1.125	8.110	NPT 1"	6207-ZZ	6206-ZZ	
213/5T	8.500	5.500/7.000	0.410	3.500	9.764	8.858	20.100	5.250	0.669	1.791	10.840	10.787	1.720	0.313	1.203	2.480	3.375	1.375	9.244	NPT 1"	6308-ZZ	6206-ZZ	
213/5TZ	8.500	5.500/7.000	0.410	3.500	9.764	8.858	19.470	5.250	0.669	1.791	10.840	10.787	1.720	0.250	0.984	1.969	2.750	1.125	9.212	NPT 1"	6308-ZZ	6206-ZZ	

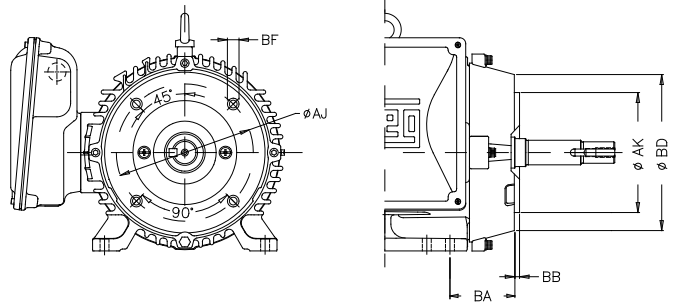
# 140T Frame and up Single Phase Motors

## TEFC - Mechanical Data

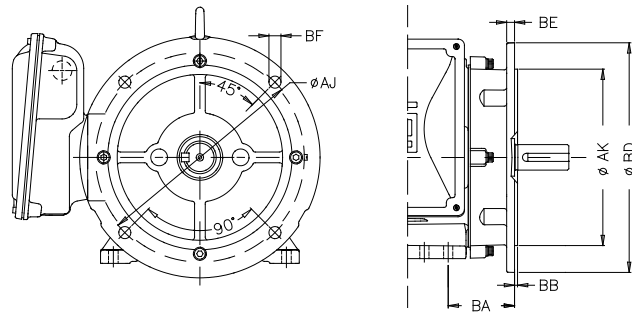
"C" FLANGE DIMENSIONS							
NEMA FRAMES	AJ	AK	BD	BF		BB	AH
				NUMBER	TAP SIZE		
F143/ST	5.875	4.500	6.535	4	16	0.157	2.125
G143/ST							



"C" FLANGE DIMENSIONS						
NEMA FRAMES	AJ	AK	BD	BF		BB
				NUMBER	TAP SIZE	
182/4T	7.250	8.500	8.875	4	UNC 1/2"x13	0.250
213/5T						



"D" FLANGE DIMENSIONS						
NEMA FRAMES	AJ	AK	BD	BF		BB
				NUMBER	TAP SIZE	
182/4T	10.000	9.000	11.000	4	0.551	0.197
213/5T						



# 180T Frame and up Single Phase Motors ODP

## Standard Features

- Single Phase, 2 & 4 pole, 60Hz
- Voltage: 208-230V or 115/208-230V & 460V (5HP and up)
- Open Drip Proof (IP22), fan cooled
- Service Factor: 1.15
- Die cast aluminum squirrel cage rotor
- Ball bearings
- High starting torque
- Continuous Duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000 m)
- 1045 carbon steel shaft
- F1 mounting T-box
- Colour: RAL 7022 - Dark Gray
- WEG Paint plan: 207A



## Optional Features

- C Flange
- Special voltages
- Specially dimensioned shaft
- Second shaft end
- Stainless steel shaft
- Drip cover (canopy) for shaft down applications



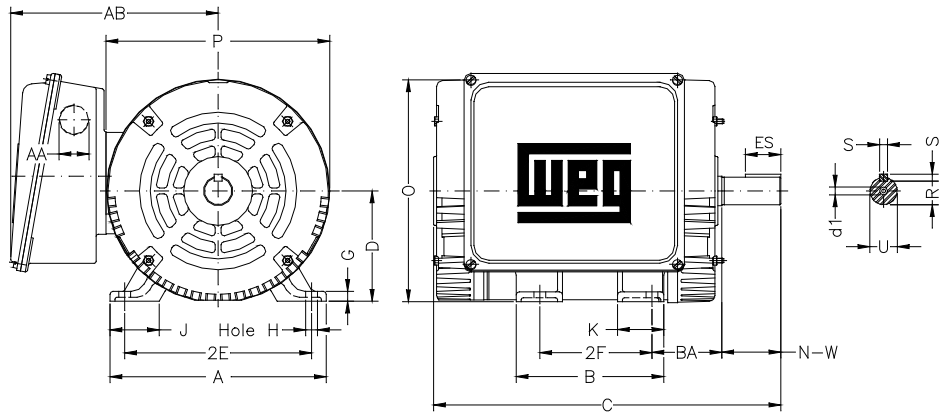
# 180T Frame and up Single Phase Motors

## ODP - Purchasing and Mechanical Data

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	Part Number	Full Load Current 230V	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM							
3	3600	182T	\$1,676	\$1,896	DP003102	15.0	89	14.448
	1800	184T	\$1,676	\$1,896	DP003104	17.5	100	14.870
5	3600	184T	\$1,840	---	DP005102*	21.0	91	14.870
	1800	184T	\$1,840	---	DP005104S*	23.3	115	14.870
7.5	3600	184T	\$2,400	\$2,622	DP007102	30.0	115	14.870
	1800	215T	P.O.A	P.O.A	DP007104	-	147	19.500

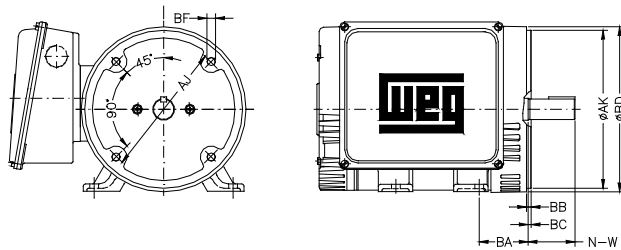
Flange: For C Flange replace 'DP' with 'CP'

Rated Output	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)	Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
										50%	75%	100%	50%	75%	100%
3.00	3520	182T	15.00	6.4	230%	260%	6	89.0	1.25	78.0	81.0	81.5	0.60	0.71	0.79
	1750	184T	17.50	6.5	210%	200%	6	100.0	1.25	71.0	74.0	75.0	0.56	0.68	0.75
5.00	3500	184T	21.00	6.5	260%	200%	6	91.0	1.25	80.0	81.5	81.5	0.85	0.91	0.92
	1750	184T	23.20	6.8	220%	200%	6	115.0	1.25	79.5	80.0	81.5	0.70	0.75	0.80
7.5	3500	184T	30.00	7.2	240%	230%	6	115.0	1.25	82.0	84.0	85.0	0.90	0.93	0.95
	1760	215T	32.30	7.9	220%	250.0	6	147.0	1.15	77.0	81.5	82.5	0.80	0.85	0.90



NEMA FRAMES	Mounting					A	B	C	D	G	J	K	O	P	T	Keyway			Shaft Extension		AB	AA	d1	Bearings	
	2E	2F	2F1	H	BA											S	R	ES	N-W	U				D.E.	N.D.E.
182T	7.500	4.500	5.500	0.406	2.750	8.661	6.299	13.504	4.500	0.187	1.171	1.988	8.307	7.637	0.250	0.984	1.771	2.750	1.125	8.346	NPT0.75"	A4	6206-ZZ	6205-ZZ	
184T								14.291																	
213T	8.500	5.500	7.000		3.488	9.448	7.952	17.165	5.250		1.063	2.567	9.842	8.779	1.378	0.312	1.203	2.480	3.375	1.375			6208-ZZ	6206-ZZ	
215T																									

NEMA FRAMES	"C" FLANGE DIMENSIONS								
	BA	AJ	AK	BD	BF		BB	BC	AH
					NUMBER	TAP SIZE			
182/4T	2.750	7.250	8.500	8.875	4	UNC0.5"x16	0.250	0.125	2.625
213/5T	3.500							0.250	3.125



# NEMA 56 Frame Explosion Proof Motors

## TEFC

### Standard Features

- Single and Three Phase, 4 pole, 60 Hz
- Voltage:
  - Single Phase 115/208-230V
  - Three Phase 208-230/460 or 575V
- Totally Enclosed Fan Cooled (IP44)
- Die cast aluminum squirrel cage rotor
- Ball bearings
- Overload protection:
  - Single Phase: Automatic Thermostats
  - Three Phase: Thermostats
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2200V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Continuous Duty
- 40°C ambient
- High starting torque
- Service Factor: 1.15
- Insulation class 'B' ( $\Delta t$  80°C)
- Paint: RAL 7022 (Grey)
- WEG Paint Plan: 207N
- Terminal box included



TEMP CODE T3C  
 Class I, Div 1, Groups C & D  
 Class II, Div 1, Groups F & G

### Optional Features

- C Flange
- Special voltages
- Specially dimensioned shaft
- Second shaft end
- Stainless steel shaft
- Footless
- Other mounting configurations



# NEMA 56 Frame Explosion Proof Motors

## TEFC - Purchasing & Electrical Data

Single Phase

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM					115V	230V		
0.33	1800	A56EX	\$1,454	\$1,626	XF.33104	6.50	3.25	32.6	11.41
0.5	1800	B56EX	\$1,566	\$1,738	XF.50104	7.40	3.70	36.8	12.204
0.75	1800	D56EX	\$1,730	\$1,902	XF.75104	11.0	5.50	41.9	13.385
1	1800	D56EX	\$1,890	\$2,060	XF000104	11.4	5.70	43.7	13.385

Flange: For "C" flange replace 'F' with 'C'

Three Phase

Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM					460V	575V		
0.33	1800	A56EX	\$1,482	\$1,644	XF.33X04	0.65	0.52	29.5	11.41
0.5	1800	B56EX	\$1,550	\$1,712	XF.50X04	0.81	0.65	33.1	12.204
0.75	1800	B56EX	\$1,614	\$1,778	XF.75X04	1.16	0.93	36.2	12.204

Flange: For "C" flange replace 'F' with 'C'  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

Single Phase

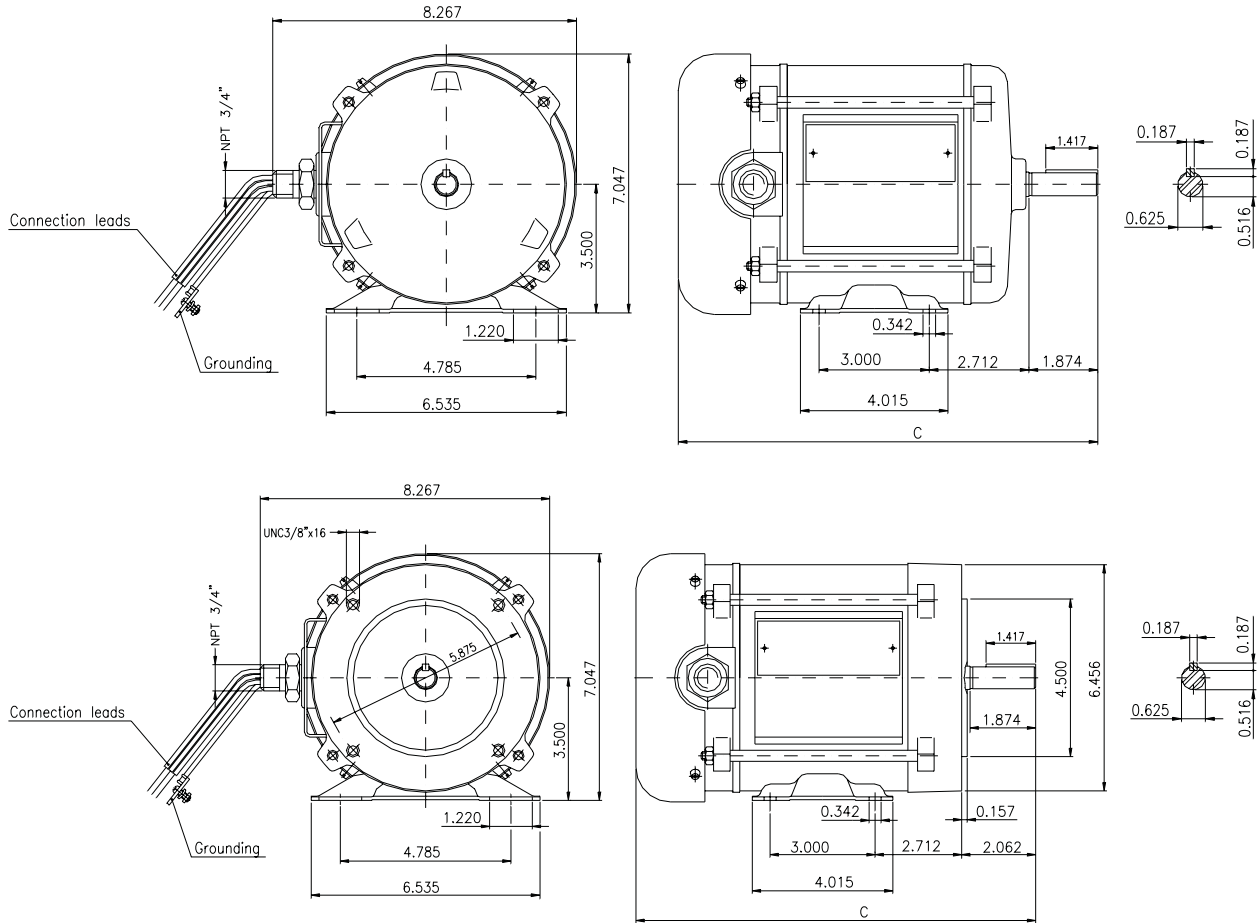
Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (I <sub>L</sub> /I <sub>N</sub> )	Locked rotor torque	Breakdown torque	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			115V	230V						50%	75%	100%	50%	75%	100%
0.33	0.25	1755	A56EX	6.50	3.25	5.4	310%	290%	32.6	1.15	46.5	55.2	60.2	0.39	0.48	0.54
0.5	0.37	1750	B56EX	7.40	3.70	6.0	280%	220%	36.8	1.15	57.0	64.0	68.6	0.44	0.55	0.63
0.75	0.55	1760	D56EX	11.0	5.50	6.4	320%	300%	41.9	1.15	57.0	65.0	71.5	0.42	0.53	0.61
1	0.75	1740	D56EX	11.4	5.70	5.4	190%	210%	43.7	1.15	72.1	74.7	74.9	0.56	0.68	0.75

Three Phase

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (I <sub>L</sub> /I <sub>N</sub> )	Locked rotor torque	Breakdown torque	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			460V	575V						50%	75%	100%	50%	75%	100%
0.33	0.25	1750	A56EX	0.65	0.52	5.2	240%	300%	29.5	1.15	66.0	72.0	74.0	0.43	0.50	0.65
0.5	0.37	1755	B56EX	0.81	0.65	6.8	220%	330%	33.1	1.15	70.0	75.5	77.5	0.52	0.64	0.73
0.75	0.55	1730	B56EX	1.16	0.93	5.7	240%	280%	36.2	1.15	77.0	80.0	81.5	0.53	0.66	0.74

# NEMA 56 Frame Explosion Proof Motors

## TEFC - Mechanical Data



NEMA FRAMES	C	BEARINGS	
		D.E	N.D.E.
A56	11.410	6203-ZZ	
B56	12.204		
D56	13.385		

# W01 Compressor Duty Motors

## ODP

### Standard Features

- Single Phase, 2 and 4 poles, 60 Hz
- Voltage:
  - 115/208-230V up to 3HP
  - 208-230V for 5HP
- Open Drip Proof (IP21)
- Die cast aluminum squirrel cage rotor
- Capacitor start
- Insulation class 'F'
- Ball bearings
- Manual overload
- High starting torque
- Service Factor: 1.0
- Paint: Munsell N1 - Matte (Black)
- WEG Paint Plan: 207N



### Optional Features

- C Flange
- Special voltages
- Specially dimensioned shaft
- Second shaft end
- Stainless steel shaft
- Footless
- Other mounting configurations



# W01 Compressor Duty Motors

## ODP - Purchasing & Electrical Data

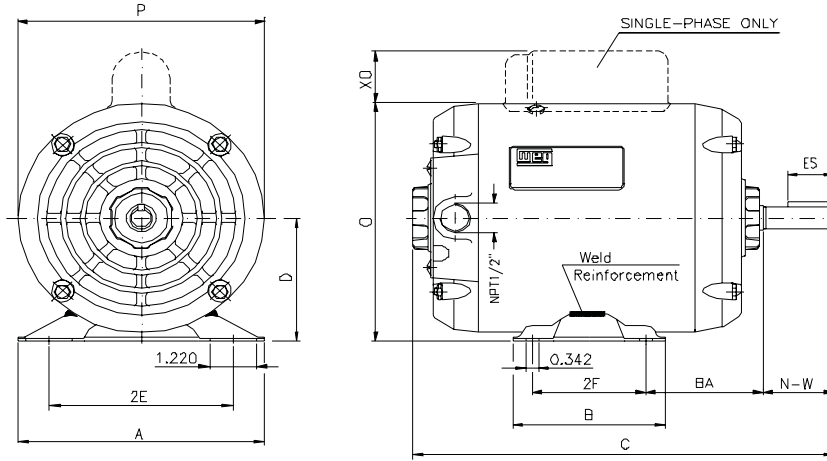
Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM					115V	230V		
0.5	3600	W56	\$690	\$770	CD.50102W01	7.34	3.67	22.7	10.240
0.75	3600	W56	\$724	\$850	CD.75102W01	11.3	5.67	23.8	10.634
1	3600	W56	\$800	\$942	CD000102W01	14.0	7.01	23.3	11.028
1.5	3600	56	\$860	\$956	CD001102W01	16.2	8.10	26.7	11.815
2	3600	56H	\$896	\$1,036	CD002102W01	19.8	9.88	30.1	12.209
3	3600	56H	\$1,000	\$1,098	CD003102W01	27.8	13.9	35.9	12.996
5	3600	56H	\$1,066	\$1,296	CD005102W01	--	20.5	49.2	14.571

Flange: For "C" flange add 'C' to end of Part Number

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			115V	230V						50%	75%	100%	50%	75%	100%
0.5	0.37	3460	W56	7.34	3.67	6.0	180%	210%	22.7	1.00	51.7	59.5	60.0	0.52	0.63	0.73
0.75	0.55	3455	W56	11.3	5.67	5.8	180%	230%	23.8	1.00	52.0	60.0	63.0	0.47	0.58	0.67
1	0.75	3445	W56	14.0	7.01	5.3	180%	210%	23.3	1.00	56.0	62.8	65.5	0.51	0.63	0.71
1.5	1.1	3480	56	16.2	8.10	6.2	200%	230%	26.7	1.00	57.0	65.4	72.0	0.63	0.74	0.82
2	1.5	3480	56H	19.8	9.88	6.2	180%	220%	30.1	1.00	60.0	69.8	75.0	0.67	0.78	0.86
3	2.2	3470	56H	27.8	13.9	6.4	180%	210%	35.9	1.00	70.0	75.5	79.0	0.70	0.80	0.87
5	3.7	3455	56H	--	20.5	6.5	210%	200%	49.2	1.00	74.6	78.5	80.0	0.96	0.97	0.98

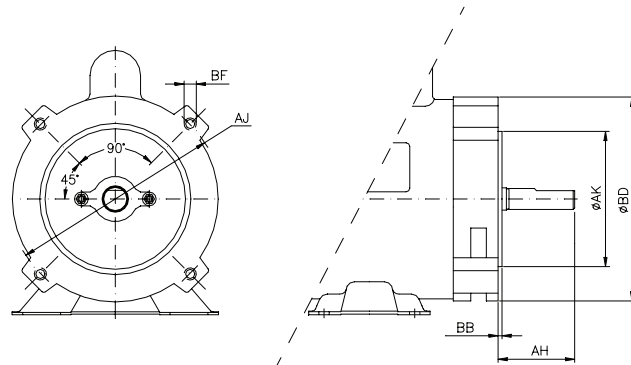
# Compressor Duty Motors

## ODP - Mechanical Data



NEMA FRAMES	MOUNTING			A	B	C	D	O	P	XO	KEYWAY			SHAFT EXTENSION		BEARINGS	
	2E	2F	BA								S	R	ES	N-W	U	D.E.	N.D.E.
W56	4.874	3.000	2.750	6.535	4.016	11.815	3.500	6.335	5.669	1.889	0.187	0.517	1.417	1.874	0.625	6203-ZZ	6202-ZZ
56					13.39	6.728		6.457	1.382	6204-ZZ							
56H					6.496	14.571		1.819									

"C" FLANGE DIMENSIONS						
NEMA FRAMES	AJ	AK	BD	BF		AH
				NUMBER	TAP SIZE	
FC-95	3.748	3.000	5.629	4	UNC0.25"	1.689
FC-149	5.874	4.500	6.496		UNC3/8"	2.063

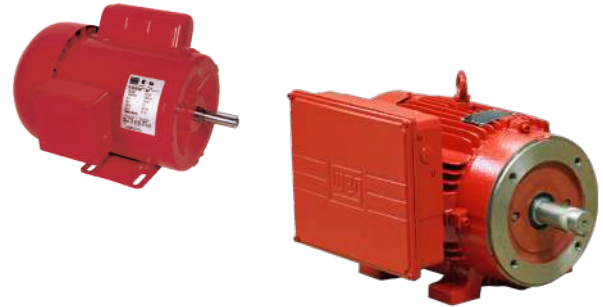


# Farm Duty Motors

## TEFC

### Standard Features

- Single Phase, 4 pole, 60 Hz
- Voltage:
  - 115/230V up to frame G145T
  - 230V above frame G145T
- Totally Enclosed Fan Cooled (IP55)
- Die cast aluminum squirrel cage rotor
- Capacitor start
- Run capacitor for 2HP and up
- V Ring in both endshields
- Manual thermal overload protection
- High starting torque
- Insulation class:
  - 'B' up to frame G145T
  - 'F' for frame W182/4T and up
- Ball bearings
- Service Factor: 1.15
- Continuous Duty (S1), 40°C ambient
- Paint: RAL 3002 (Red)
- WEG paint plan: 207A



### Optional Features

- Class 'F' insulation (up to frame G145T)
- Class 'H' insulation (frames W182/4T and up)
- C Flange
- D Flange (frame W182/4T and up)
- Special voltages
- Specially dimensioned shaft
- Second shaft end
- Stainless steel shaft



# Farm Duty Motors

## TEFC - Purchasing & Electrical Data

Single Phase

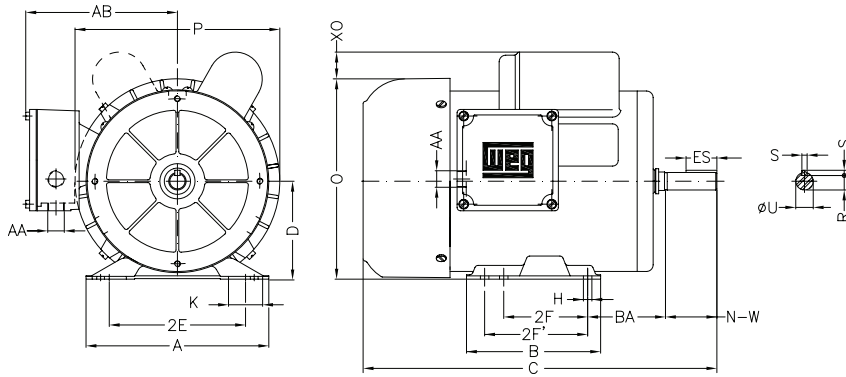
Rated Output		NEMA Frame	List Price	List Price with 'C' Flange	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM					115V	230V		
0.33	1800	W56	\$576	\$700	FD.33104W01	5.60	2.80	21.6	11.102
0.5	1800	W56	\$602	\$726	FD.50104W01	7.40	3.70	24.5	11.102
0.75	1800	56	\$748	\$872	FD.75104W01	10.6	5.30	27.8	11.102
1	1800	56	\$756	\$880	FD000104W01	14.0	7.00	37.9	12.283
	1800	143/5T	\$796	\$1,028	FD000104SW01	14.0	7.00	37.5	14.488
1.5	1800	56H	\$884	\$1,008	FD001104W01	17.4	8.70	50.3	13.464
	1800	143/5T	\$924	\$1,156	FD001104SW01	17.4	8.70	50.0	14.882
2	1800	56H	\$1,128	\$1,226	FD002104W01	21.0	10.5	50.7	13.858
	1800	143/5T	\$1,222	\$1,310	FD002104SW01	21.0	10.5	52.9	14.882
	1800	182/4T	\$1,912	POA	FD002104W01182T	20.0	10.0	81.8	17.240
3	1800	182/4T	\$1,634	\$1,962	FD003104W01	29.0	14.5	88.2	17.240
5	1800	182/4T	\$1,912	\$2,134	FD005104W01	--	19.9	115	--
	1800	213/5T	\$2,342	\$2,634	FD005104SW01	--	21.4	126	21.000
7.5	1800	213/5T	\$2,862	\$3,154	FD007104W01	--	33.0	157	19.500
	1800	213/5T	\$2,862	\$3,154	FD007104S	--	33.0	157	19.500
10	1800	213/5T	\$3,392	\$3,818	FD010104W22	--	40.0	176	19.500
12.5	1800	213/5T	\$4,274	\$4,566	FD012104W22	--	48.0	191	19.500

Flange: For "C" flange add 'C' to end of Part Number

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			115V	230V						50%	75%	100%	50%	75%	100%
0.33	0.25	1750	B56	5.60	2.80	5.8	340%	280%	21.6	1.15	49.0	58.0	61.0	0.44	0.53	0.62
0.5	0.37	1750	B56	7.40	3.70	5.8	290%	270%	24.5	1.15	56.0	64.0	66.5	0.46	0.57	0.65
0.75	0.55	1745	B56	10.6	5.30	6.2	300%	250%	27.8	1.15	58.5	66.0	68.5	0.47	0.58	0.66
1	0.75	1750	D56	14.0	7.00	6.5	320%	270%	37.9	1.15	60.0	67.0	70.3	0.45	0.56	0.65
		1750	F143T	14.0	7.00	6.5	320%	270%	37.5	1.15	60.0	67.0	70.3	0.45	0.56	0.65
1.5	1.1	1750	F56H	17.4	8.70	6.5	280%	260%	50.3	1.15	70.0	75.0	76.5	0.52	0.64	0.72
		1750	G145T	17.4	8.70	6.5	280%	260%	50.0	1.15	70.0	75.0	76.5	0.52	0.64	0.72
2	1.5	1750	G145T	21.0	10.5	6.9	280%	250%	52.9	1.15	74.0	78.0	78.1	0.60	0.71	0.78
		1750	G56H	21.0	10.5	6.9	280%	250%	50.7	1.15	74.0	78.0	78.1	0.60	0.71	0.78
		1725	W182/4T	20.0	10.0	6.0	250%	240%	81.8	1.15	76.0	80.0	81.0	0.77	0.83	0.88
3	2.2	1740	W182/4T	29.0	14.5	6.0	260%	220%	88.2	1.15	80.0	80.5	81.0	0.73	0.81	0.86
5	3.7	1730	184T	--	21.4	8.0	370%	270%	112	1.15	72.0	78.0	79.0	0.86	0.92	0.95
		1730	182/4T	--	19.9	6.0	320%	300%	115	1.15	74.0	81.5	84.0	0.93	0.95	0.96
		1730	W213/5T	--	21.4	8.0	370%	270%	126	1.15	72.0	78.0	79.0	0.86	0.92	0.95
7.5	5.5	1730	215T	--	33.0	7.5	400%	260%	157	1.15	77.0	81.0	83.0	0.71	0.81	0.90
10	7.5	1720	215T	--	40.0	6.2	280%	210%	176	1.15	80.0	82.5	83.0	0.92	0.95	0.96
12.5	9.2	1730	215T	--	48.0	7.0	220%	200%	191	1.00	80.0	83.5	84.0	0.96	0.98	0.97

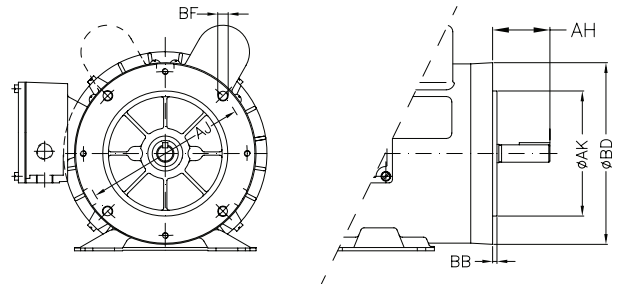
# Farm Duty Motors

## TEFC - Mechanical Data



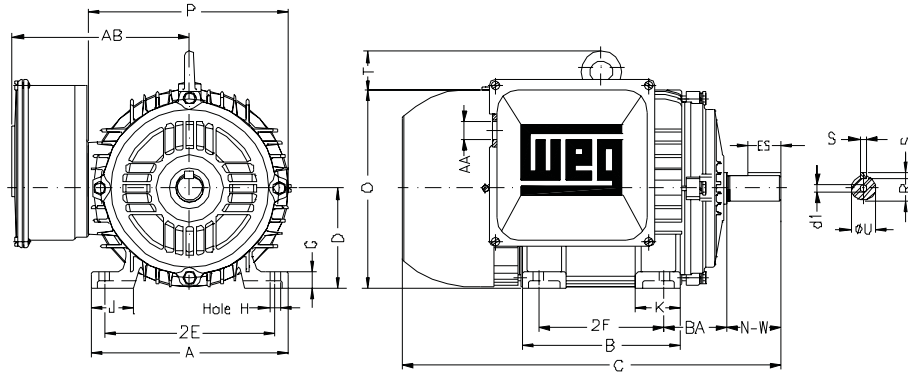
NEMA Frames	Mounting					A	B	C	D	O	P	XO	Keyway			Shaft Extension		AB	AA	Bearings	
	2E	2F	H	H1	BA								S	R	ES	N-W	U			D.E.	N.D.E.
B56	4.875	3.000	0.343	1.220	2.750	6.535	4.016	11.102	3.500	7.165	7.323	1.064	0.187	0.517	1.102	1.874	0.625	5.433	NPT0.5"	6203-ZZ	6202-ZZ
D56							12.283	6204-ZZ													
F56H							13.464														
G56H							13.858														
F143T	5.500	5.000			2.250		6.498	14.488												6205-ZZ	6203-ZZ
G145T							14.882	NPT0.75"													

"C" Flange Dimensions							
NEMA Frames	AJ	AK	BD	BF		BB	AH
				Number	Tap Size		
B56	5.875	4.500	6.535	4	UNC3/8"x16	0.157	2.063
D56							
F56H							2.125
G56H							
F143T							
G145T							



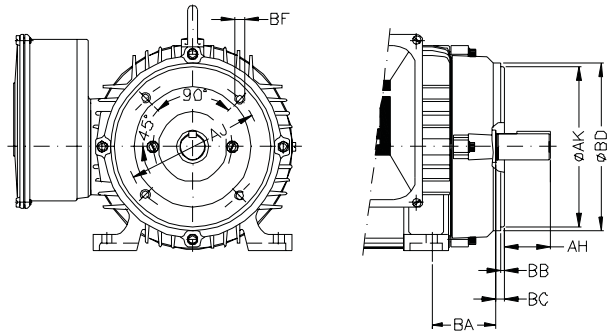
# Farm Duty Motors

## TEFC - Mechanical Data



NEMA Frames	Mounting				A	B	C	D	G	J	K	O	P	T	Keyway			ShaftExtension		AB	AA	d1	Bearings	
	2E	2F	H	BA											S	R	ES	N-W	U				D.E.	N.D.E.
W182/4T	7.500	4.500	0.406	2.750	8.661	6.968	17.240	4.500	0.630	1.890	2.441	8.267	7.800	1.851	0.250	1.234	1.771	2.750	1.125	7.362	NPT0.75"	A4	6206-ZZ	6206-ZZ
184T		5.500					17.050				1.968												7.835	
W213/5T	8.500	7.000	0.406	3.500	9.765	8.875	21.000	5.250	0.830	2.000	3.343	9.610	8.820	1.890	0.312	1.516	2.480	3.375	1.375	7.953	NPT1"	A4	6307-ZZ	6206-ZZ
215T							19.500				2.165												10.630	

"C" Flange Dimensions								
NEMA Frames	AJ	AK	BD	BF		BB	BC	AH
				Number	Tap Size			
W182/4T	7.250	8.500	8.860	4	UNC0.5"x13	0.250	0.250	3.120
184T								
W213/5T								
215T								



# Farm Duty Motors - Grain Dryer

TEAO

## Standard Features

- Single Phase, 2 pole, 60 Hz
- Voltage:
  - 230V
- Totally Enclosed Air Over
- Die cast aluminum squirrel cage rotor
- Capacitor start
- Run capacitor for 1.5HP and up
- V Ring in both endshields
- High starting torque
- Ball bearings
- Service Factor: 1.0
- 40°C ambient
- Paint: RAL 7031
- WEG paint plan: 207N
- Designed for air over direct coupling crop dryer vane axial fans
- Capable of continuous duty operation
- Class F insulation
- Normally-closed thermostats (one per phase)
- 30 inch extended leads
- Longer than NEMA shaft end
- Low profile lifting lugs
- Drive End with locked bearing and threaded center hole
- Spare nameplate and IP55 ingress protection



# Farm Duty Motors - Grain Dryer

## TEAO - Purchasing & Electrical Data

Single Phase

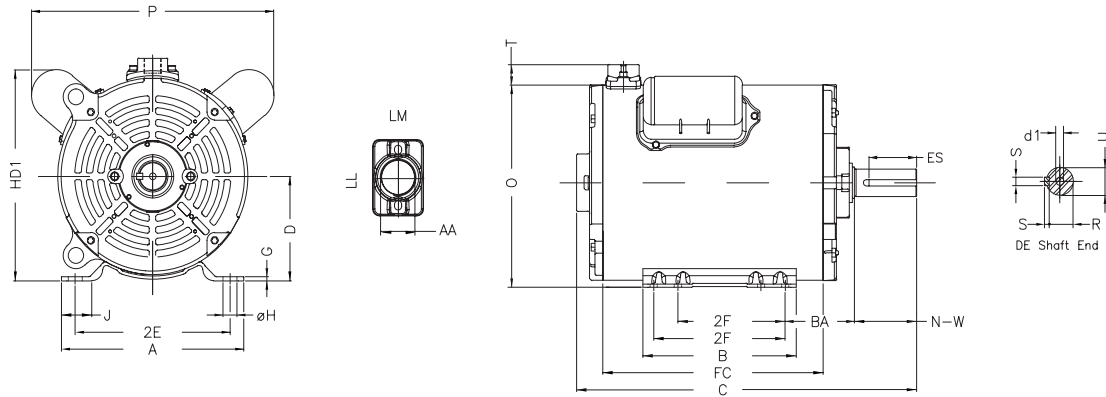
Rated Output		NEMA Frame	List Price	Part Number	Full Load Content	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				230V		
1.5-3	3600	143/5TZ	\$1,580	FDGD003102W01	12.4	40.9	13.555
3-4.5	3600	143/5TZ	TBC	FDGD005102W01	17.9	57.6	15.130
5-7.5	3600	182/4TZ	\$2,224	FDGD007102W01	29.1	82.9	17.070
7.5-10	3600	182/4TZ	\$2,624	FDGD010102W01	39.5	99.2	17.858
10-15	3600	213/5TZ	\$4,042	FDGD015102W01	55.5	181	19.720

Flange: For "C" flange add 'C' to end of Part Number

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (ll/in)	Locked rotor torque	Breakdown torque	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			115V	230V						50%	75%	100%	50%	75%	100%
1.5-3	3600	3476	143/5TZ	5.60	2.80	7.4	250%	250%	40.9	1.0	72.2	78.5	80.6	0.87	0.94	0.96
3-4.5	3600	3460	143/5TZ	7.40	3.70	7.0	160%	240%	57.6	1.0	75.5	81.5	82.5	0.9	0.95	0.97
5-7.5	3600	3508	182/4TZ	10.6	5.30	7.7	200%	260%	82.9	1.0	79.3	83.2	83.9	0.97	0.98	0.98
7.5-10	3600	3490	182/4TZ	14.0	7.00	8.0	190%	340%	99.2	1.0	78	83	85	0.94	0.96	0.97
10-15	3600	3510	213/5TZ	14.0	7.00	7.3	160%	290%	181	1.0	86	88	88	0.9	0.96	0.65

# Farm Duty Motors - Grain Dryer

## TEAO - Mechanical Data

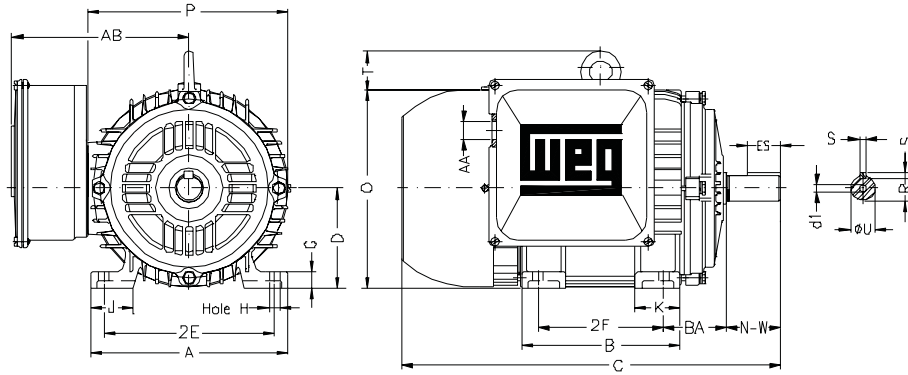


NEMA Frames	2E	J	A	P	2F	B	BA	Shaft End					
								U	d1	N-W	ES	R	S
143/5TZ	5.500	1.732	6.535	10.665	4.000/5.0000	6.496	2.250	0.875	EUNC 1/4" - 20	3.000	1.417	0.771	0.187
182/4TZ	7.500	1.299	8.661	12.36	4.000/5.5000	6.299	2.750	1.125	EUNC 1/4" - 20	3.500	1.969	0.984	0.250
213/5TZ	8.500	1.575	9.449	13.291	5.500/7.000	7.953	3.500	1.125	EUNC 1/4" - 20	3.750	1.969	0.984	0.250

NEMA Frames	D	G	O	Hole H	HD1	AA
143/5TZ	3.500	0.120	6.732	0.343	7.614	NPT 3/4"
182/4TZ	4.500	0.167	8.557	0.406	8.976	
213/5TZ	5.250	0.167	10.157	0.406	11.215	NPT 1"

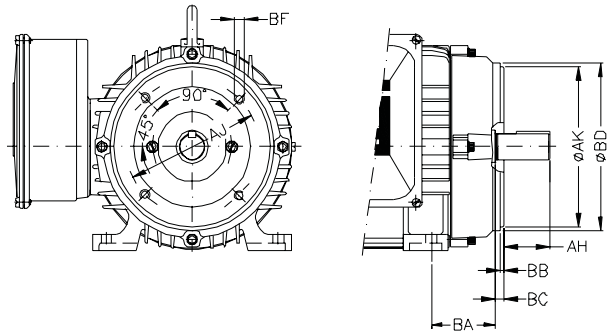
# Farm Duty Motors

## TEFC - Mechanical Data



NEMA Frames	Mounting				A	B	C	D	G	J	K	O	P	T	Keyway			ShaftExtension		AB	AA	d1	Bearings	
	2E	2F	H	BA											S	R	ES	N-W	U				D.E.	N.D.E.
W182/4T	7.500	4.500	0.406	2.750	8.661	6.968	17.240	4.500	0.630	1.890	2.441	8.267	7.800	1.851	0.250	1.234	1.771	2.750	1.125	7.362	NPT0.75"	A4	6206-ZZ	6206-ZZ
184T		5.500					17.050																1.968	
W213/5T	8.500	7.000	0.406	3.500	9.765	8.875	21.000	5.250	0.830	2.000	3.343	9.610	8.820	1.890	0.312	1.516	2.480	3.375	1.375	7.953	NPT1"	A4	6308-ZZ	6206-ZZ
215T							19.500																2.165	

"C" Flange Dimensions								
NEMA Frames	AJ	AK	BD	BF		BB	BC	AH
				Number	Tap Size			
W182/4T	7.250	8.500	8.860	4	UNC0.5"x13	0.250	0.250	3.120
184T								
W213/5T								
215T								



# W01 Jet Pump Motors - Three Phase

## TEFC

### Standard Features

- Three-phase, 2, 4 and 6 pole, 60Hz
- Voltage: 230/460V & 575V
- Totally Enclosed Fan Cooled - TEFC (IP55) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- V'Ring sealing/slinger
- Ball bearings
- Stainless steel shadt end
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Dip and Bake Insulation system
- Keyed or Threaded shaft
- Rotation:
  - Non-reversible
- NEMA design "A"
- 1.15 Service Factor
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Paint Plan: 207N
- Color: Munsell N1 - Flat Black



Class I, Div 2, Groups A,B,C & D  
Class I, Zone 2, IIC



Inverter Ratings for Safe Area				
Frames	Poles	Constant Torque	Variable Torque	VFD
W56J - 56J - 56HJ < 1HP	All	10:1	1000:1	Any
W56J - 56J - 56HJ ≥ 1HP	All	5:1		
See page 7.6 for details				

### Optional Features

- 50Hz
- Special voltages
- Special shafts
- Oil Seal, Lip Seal
- Thermostats, Thermistors
- Drip cover (canopy) for shaft down applications
- Special paint
- With feet



# W01 Jet Pump Motors - Three Phase

## TEFC - Purchasing Data

Three Phase - Threaded Shaft

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				460V	575V		
0.33	3600	W56J	\$508	JT.33X02W01	.66	0.53	13.5	10.425
	1800	W56J	\$542	JT.33X04W01	.66	0.53	15.2	10.819
0.5	3600	W56J	\$598	JT.50X02W01	.86	0.69	14.3	10.819
	1800	W56J	\$638	JT.50X04W01	.90	0.72	17.0	11.213
0.75	3600	W56J	\$728	JT.75X02W01	1.16	0.93	15.2	10.819
	1800	W56J	\$762	JT.75X04W01	1.22	0.98	18.7	11.606

Three Phase - Keyed Shaft

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				460V	575V		
0.33	3600	W56C	\$508	KT.33X02W01	.66	0.53	13.5	9.925
	1800	W56C	\$542	KT.33X04W01	.66	0.53	15.2	10.319
0.5	3600	W56C	\$598	KT.50X02W01	.86	0.69	14.3	10.319
	1800	W56C	\$638	KT.50X04W01	.90	0.72	17.0	10.713
0.75	3600	W56C	\$728	KT.75X02W01	1.16	0.93	15.2	10.319
	1800	W56C	\$762	KT.75X04W01	1.22	0.98	18.7	11.106

Three Phase - Threaded Shaft - Premium Efficiency

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				460V	575V		
0.33	3600	W56J	\$548	JT.33X02W01DOE	0.58	0.46	15.0	10.319
	1800	W56J	\$592	JT.33X04W01DOE	0.63	0.50	16.5	11.213
0.5	3600	W56J	\$642	JT.50X02W01DOE	0.79	0.63	17.4	11.213
	1800	W56J	\$778	JT.50X04W01DOE	0.78	0.63	20.9	12.000
0.75	3600	W56J	\$780	JT.75X02W01DOE	1.12	0.90	18.3	11.123
	1800	56J	\$846	JT.75X04W01DOE	1.19	0.96	30.2	12.835
1	3600	W56J	\$920	JT000X02W01DOE	1.5	1.20	20.5	11.606
	1800	56J	\$1,012	JT000X04W01DOE	1.47	1.18	37.9	14.016
1.5	3600	56J	\$996	JT001X02W01DOE	1.87	1.50	34.2	13.622
	1800	56HJ	\$1,168	JT001X04W01DOE	2.02	1.62	37.9	14.016
2	3600	56HJ	\$1,168	JT002X02W01DOE	2.47	1.98	40.1	14.409
	1800	56HJ	\$1,472	JT002X04W01DOE	2.72	2.18	42.3	14.409
3	3600	56HJ	\$1,538	JT003X02W01DOE	3.51	2.81	48.1	15.591

Three Phase - Keyed Shaft - Premium Efficiency

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				460V	575V		
0.33	3600	W56C	\$548	KT.33X02W01DOE	0.58	0.46	15.0	10.319
	1800	W56C	\$592	KT.33X04W01DOE	0.63	0.50	16.5	10.713
0.5	3600	W56C	\$642	KT.50X02W01DOE	0.79	0.63	17.4	10.713
	1800	W56C	\$778	KT.50X04W01DOE	0.78	0.63	20.9	11.500
0.75	3600	W56C	\$780	KT.75X02W01DOE	1.12	0.90	18.3	10.713
	1800	56C	\$846	KT.75X04W01DOE	1.19	0.96	30.2	12.323
1	3600	W56C	\$920	KT000X02W01DOE	1.5	1.20	20.5	11.106
	1800	56C	\$1,012	KT000X04W01DOE	1.47	1.18	37.9	13.508
1.5	3600	56C	\$996	KT001X02W01DOE	1.87	1.50	34.2	13.114
	1800	56HC	\$1,168	KT001X04W01DOE	2.02	1.62	37.9	13.504
2	3600	56HC	\$1,168	KT002X02W01DOE	2.47	1.98	40.1	13.898
	1800	56HC	\$1,472	KT002X04W01DOE	2.72	2.18	42.3	13.898
3	3600	56HC	\$1,538	KT003X02W01DOE	3.51	2.81	48.1	15.079

# W01 Jet Pump Motors - Three Phase

## TEFC - Electrical Data

Three Phase - Keyed or Threaded Shaft - Standard Efficiency

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (lI/in)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V							50%	75%	100%	50%	75%	100%
0.33	0.25	3425	W56J or W56C	1.32	0.66	0.53	6.1	290%	300%	28	13.5	1.15	52.5	59.5	62.0	0.60	0.70	0.77
		1730	W56J or W56C	1.32	0.66	0.53	5.4	230%	270%	21	15.2	1.15	57.5	64.0	68.0	0.48	0.60	0.70
0.5	0.37	3400	W56J or W56C	1.72	0.86	0.69	6.3	290%	290%	20	14.3	1.15	59.5	66.0	68.0	0.61	0.73	0.80
		1730	W56J or W56C	1.80	0.90	0.72	6.0	260%	280%	16	17.0	1.15	62.0	70.0	72.0	0.49	0.62	0.72
0.75	0.55	3400	W56J or W56C	2.32	1.16	0.93	6.9	300%	300%	14	15.2	1.15	66.0	70.0	72.0	0.64	0.76	0.83
		1730	W56J or W56C	2.44	1.22	0.98	6.5	270%	290%	12	18.7	1.15	68.0	74.0	75.5	0.52	0.65	0.75

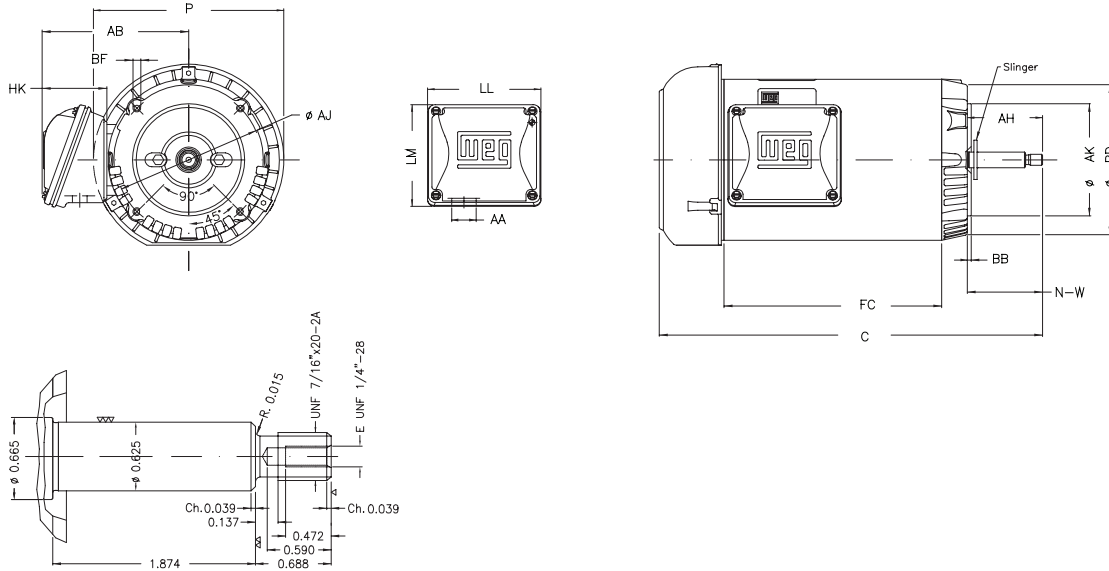
Three Phase - Keyed or Threaded Shaft - Premium Efficiency

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (lI/in)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V							50%	75%	100%	50%	75%	100%
0.33	0.25	3450	W56J or W56C	1.16	0.58	0.46	7.1	320%	370%	28	15.0	1.15	59.5	66.0	72.0	0.61	0.71	0.76
		1740	W56J or W56C	1.26	0.63	0.50	6.2	260%	350%	22	16.5	1.15	66.0	72.0	74.0	0.46	0.58	0.68
0.5	0.37	3435	W56J or W56C	1.58	0.79	0.63	7.7	330%	360%	18	17.4	1.15	68.0	72.0	74.0	0.64	0.75	0.80
		1730	W56J or W56C	1.56	0.78	0.62	6.4	230%	310%	20	20.9	1.15	74.0	77.0	78.5	0.54	0.67	0.76
0.75	0.55	3440	W56J or W56C	2.24	1.12	0.90	8.1	350%	360%	16	18.3	1.15	70.0	75.5	77.0	0.62	0.74	0.80
		1760	56J or 56C	2.38	1.19	0.95	7.7	240%	360%	16	30.2	1.15	75.5	80.0	81.5	0.49	0.62	0.71
1.00	0.75	3435	W56J or W56C	3.00	1.50	1.20	8.8	360%	380%	10	20.5	1.15	74.0	77.0	78.5	0.63	0.75	0.80
		1765	56J or 56C	2.94	1.47	1.18	8.6	280%	300%	19	37.9	1.15	82.5	84.0	85.5	0.52	0.66	0.75
1.50	1.10	3520	56J or 56C	3.74	1.87	1.50	9.1	230%	300%	17	34.2	1.15	80.0	82.5	84.0	0.71	0.82	0.88
		1750	56HJ or 56HC	4.04	2.02	1.62	8.2	270%	300%	21	37.9	1.15	85.5	86.5	86.5	0.59	0.72	0.79
2.00	1.50	3520	56HJ or 56HC	4.94	2.47	1.98	9.9	250%	300%	13	40.1	1.15	82.5	85.5	85.5	0.73	0.83	0.89
		1745	56HJ or 56HC	5.44	2.72	2.18	8.2	270%	300%	15	42.3	1.15	85.5	87.5	86.5	0.60	0.73	0.80
3.00	2.20	3500	56HJ or 56HC	7.02	3.51	2.81	9.5	300%	380%	10	48.1	1.15	84.0	86.5	86.5	0.78	0.87	0.91

# W01 Jet Pump Motors - Three Phase

## TEFC - Mechanical Data

### Form J - Threaded Shaft



NEMA Frames	AA	AB	HK	LL	LM	P	Flange				Bearings		
							AJ	AK	BB	BD	BF	DE	NDE
W56J	0.881"	5.520	2.650	3.835	3.697	6.693	5.874	4.500	0.157	6.468	UNC 3/8"x16	6203 ZZ	6202 ZZ
56J		5.873	2.629	4.563	4.090	7.638				6.450			
56HJ		5.873	2.629	4.563	4.090	7.638				6.450			

#### Three Phase - Threaded Shaft - Standard Efficiency

HP	RPM	NEMA Frame	Overall Length "C" Dim. (in.)	"FC" Dim (in.)
0.33	3600	W56J	10.425	5.118
	1800	W56J	10.819	5.512
0.5	3600	W56J	10.819	5.512
	1800	W56J	11.213	5.906
0.75	3600	W56J	10.819	5.512
	1800	W56J	11.606	6.300

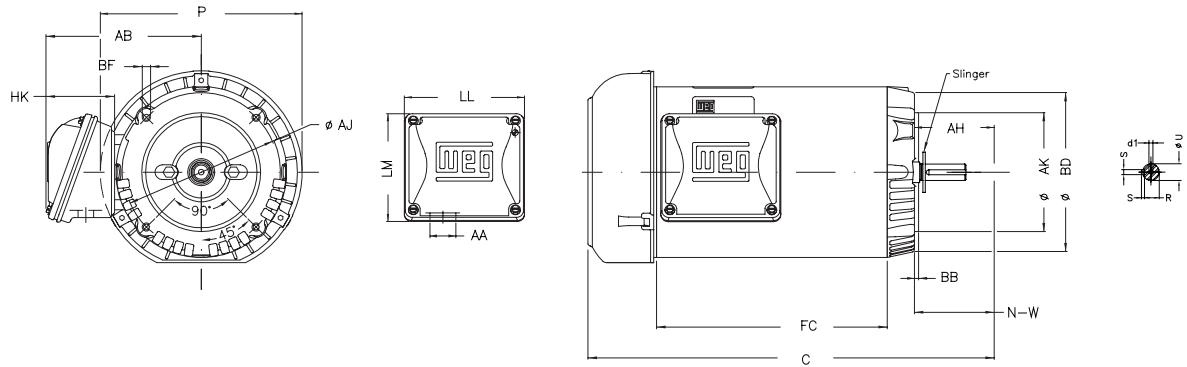
#### Three Phase - Threaded Shaft - Premium Efficiency

HP	RPM	NEMA Frame	Overall Length "C" Dim. (in.)	"FC" Dim (in.)
0.33	3600	W56J	10.319	5.512
	1800	W56J	11.213	5.906
0.5	3600	W56J	11.213	5.906
	1800	W56J	12.000	6.693
0.75	3600	W56J	11.123	5.906
	1800	56J	12.835	6.693
1	3600	W56J	11.606	6.300
	1800	56J	14.016	7.874
1.5	3600	56J	13.622	7.480
	1800	56HJ	14.016	7.874
2	3600	56HJ	14.409	8.268
	1800	56HJ	14.409	8.268
3	3600	56HJ	15.591	9.448

# W01 Jet Pump Motors - Three Phase

## TEFC - Mechanical Data

### Form C - Keyed Shaft



NEMA Frames	AA	AB	HK	LL	LM	P	Flange					Shaft end						Bearings						
							AJ	AK	BB	BD	BF	AH	d1	ES	N-W	R	S	U	DE	NDE				
W56C		5.520	2.650	3.835	3.697	6.693				6.468														
56C	0.881"	5.873	2.629	4.563	4.090	7.638	5.874	4.500	0.157	6.450	UNC 3/8"x16	2.062	A 3.15	1.417	1.874	0.517	0.187	0.625	6203 ZZ	6202 ZZ				
56HC		5.873	2.629	4.563	4.090	7.638				6.450														

#### Three Phase - Threaded Shaft - Standard Efficiency

HP	RPM	NEMA Frame	Overall Length "C" Dim. (in.)	"FC" Dim (in.)
0.33	3600	W56C	9.925	5.118
	1800	W56C	10.319	5.512
0.5	3600	W56C	10.319	5.512
	1800	W56C	10.713	5.906
0.75	3600	W56C	10.319	5.512
	1800	W56C	11.106	6.300

#### Three Phase - Threaded Shaft - Premium Efficiency

HP	RPM	NEMA Frame	Overall Length "C" Dim. (in.)	"FC" Dim (in.)
0.33	3600	W56C	10.319	5.512
	1800	W56C	10.713	5.906
0.5	3600	W56C	10.713	5.906
	1800	W56C	11.500	6.693
0.75	3600	W56C	10.713	5.906
	1800	56C	12.323	6.693
1	3600	W56C	11.106	6.300
	1800	56C	13.508	7.874
1.5	3600	56C	13.114	7.480
	1800	56HC	13.504	7.874
2	3600	56HC	13.898	8.268
	1800	56HC	13.898	8.268
3	3600	56HC	15.079	9.448

# W01 Jet Pump Motors - Three Phase ODP

## Standard Features

- Three-phase, 2, 4 and 6 pole, 60Hz
- Voltage: 230/460V & 575V
- Open Drip Proof - ODP (IP21)
- Die cast aluminum squirrel cage rotor
- shaft slinger
- ZZ bearings
- Stainless steel shaft end
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Dip and Bake Insulation system
- Keyed or Threaded shaft
- Rotation:
  - Non-reversible
- NEMA design "B"
- 1.15 Service Factor
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Paint plan: 207N
- Color: Munsell N1 - Flat Black



Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
W56J - 56J < 1HP	All	4:1	1000:1	Any
W56J - 56J ≥ 1HP	All	2:1		
See page 7.6 for details				

## Optional Features

- 50Hz
- Special voltages
- Special shafts
- Thermostats, Thermistors
- Drip cover (canopy) for shaft down applications
- Special paint
- With feet



# W01 Jet Pump Motors - Three Phase

## ODP - Purchasing Data

### Three Phase - Threaded Shaft

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				460V	575V		
0.33	3600	W56J	\$440	JO.33X02W01	0.68	0.55	13.0	9.972
0.5	3600	W56J	\$520	JO.50X02W01	0.97	0.77	13.9	10.555
0.75	3600	W56J	\$630	JO.75X02W01	1.35	1.08	15.0	10.555

Voltage: Replace 'X' with '4' for 208-230/460V  
Replace 'X' with '5' for 575V

### Three Phase - Keyed Shaft

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				460V	575V		
0.33	3600	W56C	\$440	KO.33X02W01	0.68	0.55	13.0	9.472
0.5	3600	W56C	\$520	KO.50X02W01	0.97	0.77	13.9	9.866
0.75	3600	W56C	\$630	KO.75X02W01	1.35	1.08	15.0	9.866

Voltage: Replace 'X' with '4' for 208-230/460V  
Replace 'X' with '5' for 575V

### Three Phase - Threaded Shaft - Premium Efficiency

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				460V	575V		
0.33	3600	W56J	\$462	JO.33X02W01DOE	0.62	0.50	13.0	9.972
0.5	3600	W56J	\$546	JO.50X02W01DOE	0.88	0.71	13.9	10.555
0.75	3600	W56J	\$662	JO.75X02W01DOE	1.18	0.95	16.1	10.949
1	3600	W56J	\$770	JO000X02W01DOE	1.63	1.30	18.3	11.343
1.5	3600	W56J	\$844	JO001X02W01DOE	2.11	1.69	23.8	11.941
2	3600	56J	\$986	JO002X02W01DOE	2.42	1.94	36.8	13.189
3	3600	56J	\$1,300	JO003X02W01DOE	3.59	2.87	43.7	13.583

Voltage: Replace 'X' with '4' for 208-230/460V  
Replace 'X' with '5' for 575V

### Three Phase - Keyed Shaft - Premium Efficiency

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				460V	575V		
0.33	3600	W56C	\$462	KO.33X02W01DOE	0.62	0.50	13.0	9.472
0.5	3600	W56C	\$546	KO.50X02W01DOE	0.88	0.71	13.9	9.866
0.75	3600	W56C	\$662	KO.75X02W01DOE	1.18	0.95	16.1	10.260
1	3600	W56C	\$770	KO000X02W01DOE	1.63	1.30	18.3	10.654
1.5	3600	W56C	\$844	KO001X02W01DOE	2.11	1.69	23.8	11.441
2	3600	56C	\$986	KO002X02W01DOE	2.42	1.94	36.8	12.677
3	3600	56C	\$1,300	KO003X02W01DOE	3.59	2.87	43.7	13.071

Voltage: Replace 'X' with '4' for 208-230/460V  
Replace 'X' with '5' for 575V

# W01 Jet Pump Motors - Three Phase

## ODP - Electrical Data

Three Phase - Keyed or Threaded Shaft - Standard Efficiency

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (l/l/n)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V							50%	75%	100%	50%	75%	100%
0.33	0.25	3470	W56J or W56C	1.36	0.68	0.55	6.8	330%	400%	34	13.0	1.75	57.0	63.0	67.0	0.49	0.60	0.69
0.5	0.37	3470	W56J or W56C	1.94	0.97	0.77	6.7	330%	360%	19	13.9	1.60	62.0	68.0	70.0	0.47	0.60	0.69
0.75	0.55	3455	W56J or W56C	2.70	1.35	1.08	6.7	330%	350%	14	15.0	1.50	64.0	70.0	72.0	0.48	0.61	0.71

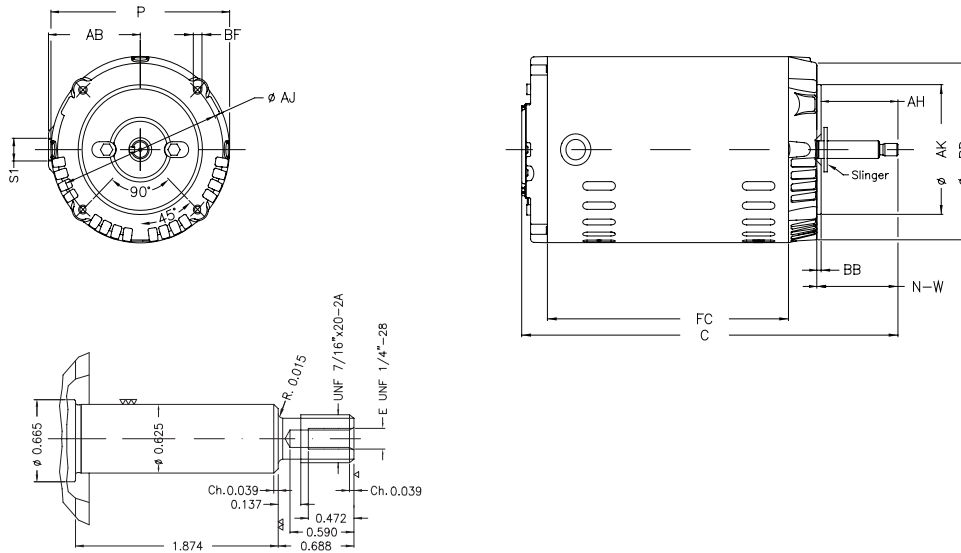
Three Phase - Keyed or Threaded Shaft - Premium Efficiency

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (l/l/n)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V							50%	75%	100%	50%	75%	100%
0.33	0.25	3450	W56J or W56C	1.24	0.62	0.50	7.0	330%	380%	35	13.0	1.75	57.5	64.0	69.5	0.56	0.67	0.73
0.5	0.37	3450	W56J or W56C	1.76	0.88	0.71	7.3	370%	400%	24	13.9	1.60	62.0	68.0	73.4	0.53	0.65	0.72
0.75	0.55	3450	W56J or W56C	2.36	1.18	0.95	7.8	370%	400%	18	16.1	1.50	68.0	72.0	76.8	0.57	0.69	0.76
1.00	0.75	3450	W56J or W56C	3.26	1.63	1.30	8.3	400%	410%	13	18.3	1.40	70.0	75.5	77.0	0.55	0.68	0.75
1.50	1.10	3450	W56J or W56C	4.22	2.11	1.69	8.8	400%	430%	13	23.8	1.30	78.5	82.5	84.0	0.59	0.72	0.78
2.00	1.50	3485	56J or 56C	4.84	2.42	1.94	8.5	260%	300%	14	36.8	1.20	82.5	84.0	85.5	0.76	0.85	0.88
3.00	2.20	3480	56J or 56C	7.18	3.59	2.87	8.5	260%	300%	9	43.7	1.15	84.0	85.5	85.5	0.76	0.86	0.90

# W01 Jet Pump Motors - Three Phase

## ODP - Mechanical Data

### Form J - Threaded Shaft



NEMA Frames	P	Flange					Bearings	
		AJ	AK	BB	BD	BF	D E	N D E
56J	5.709	5.874	4.500	0.157	6.468	UNC 3/8"x16	6203 ZZ	6202 ZZ
56HJ	6.456				6.450			

#### Three Phase - Threaded Shaft - Standard Efficiency

HP	RPM	NEMA Frame	Overall Length "C" Dim. (in.)	"FC" Dim (in.)
0.33	3600	W56J	9.972	5.906
0.5	3600	W56J	10.555	6.300
0.75	3600	W56J	10.555	6.300

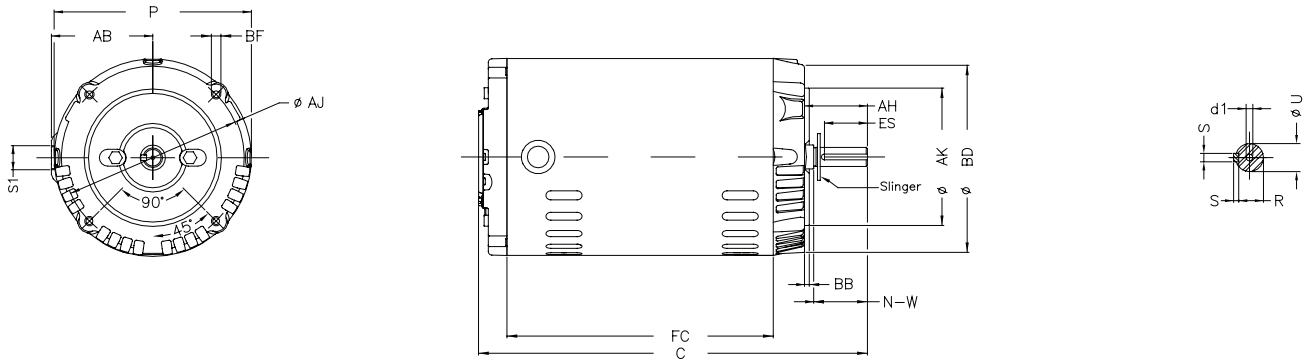
#### Three Phase - Threaded Shaft - Premium Efficiency

HP	RPM	NEMA Frame	Overall Length "C" Dim. (in.)	"FC" Dim (in.)
0.33	3600	W56J	9.972	5.906
0.5	3600	W56J	10.555	6.300
0.75	3600	W56J	10.949	6.693
1	3600	W56J	11.343	7.087
1.5	3600	W56J	11.941	7.874
2	3600	56J	13.189	8.661
3	3600	56J	13.583	9.055

# W01 Jet Pump Motors - Three Phase

## ODP - Mechanical Data

### Form C - Keyed Shaft



NEMA Frames	P	Flange					Shaft end							Bearings	
		AJ	AK	BB	BD	BF	AH	d1	ES	N-W	R	S	U	DE	NDE
W56C	5.709	5.874	4.500	0.157	6.468	UNC 3/8"x16	2.062	A 3.15	1.417	1.874	0.517	0.187	0.625	6203 ZZ	6202 ZZ
56C	6.456				6.450										

#### Three Phase - Threaded Shaft - Standard Efficiency

HP	RPM	NEMA Frame	Overall Length "C" Dim. (in.)	"FC" Dim (in.)
0.33	3600	W56C	9.472	5.906
0.5	3600	W56C	9.866	6.300
0.75	3600	W56C	9.866	6.300

#### Three Phase - Threaded Shaft - Premium Efficiency

HP	RPM	NEMA Frame	Overall Length "C" Dim. (in.)	"FC" Dim (in.)
0.33	3600	W56C	9.472	5.906
0.5	3600	W56C	9.866	6.300
0.75	3600	W56C	10.260	6.693
1	3600	W56C	10.654	7.087
1.5	3600	W56C	11.441	7.874
2	3600	56C	12.677	8.661
3	3600	56C	13.071	9.055

# W01 Jet Pump Motors - Single Phase

## TEFC

### Standard Features

- Single phase, 2 & 4 pole, 60Hz
- Voltage:
  - Single Phase - 115/208-230V 3hp 230V only
- Start capacitor
- Die cast aluminum squirrel cage rotor
- Totally Enclosed Fan Cooled (IP55)
- Insulation class "F" ( $\Delta t$  80°C)
- Continuous duty (S1), 40°C ambient
- Automatic thermal overload protection
- Keyed or Threaded shaft
- Rotation:
  - Non-reversible
- Stainless steel shaft end
- WEG paint plan: 207N
- Color: Munsell N1 - Flat Black



### Optional Features

- Special voltages
- Manual thermal overload protection
- Other mounting configurations
- With feet



# Jet Pump Motors

## TEFC - Purchasing Data

### Single Phase - Threaded Shaft

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				115V	230V		
0.33	3600	W56J	\$534	JT.33102W01	5.20	2.60	19.1	11.606
	1800	W56J	\$556	JT.33104W01	6.00	3.00	18.3	12.000
0.5	3600	W56J	\$570	JT.50102W01	7.0	3.5	20.2	12.000
	1800	W56J	\$586	JT.50104W01	8.0	4.0	20.3	12.394
0.75	3600	56J	\$694	JT.75102W01	8.0	4.0	24.7	14.402
	1800	56J	\$710	JT.75104W01	10.6	5.3	27.0	14.795
1	3600	56J	\$818	JT000102W01	10.2	5.10	27.9	14.795
	1800	56J	\$958	JT000104W01	13.6	6.8	32.8	15.189
1.5	3600	56J	\$888	JT001102W01	13.2	6.6	32.6	15.583
	1800	56HJ	\$1,110	JT001104W01	14.96	7.48	43.0	16.370
2	3600	56HJ	\$1,070	JT002102W01	17.4	8.70	36.9	15.583
	1800	56HJ	\$1,204	JT002104W01	20.0	10.0	46.3	17.157
3	3600	56HJ	\$1,340	JT003102W01	---	13.2	42.6	16.764

### Single Phase - Keyed Shaft - Standard Efficiency

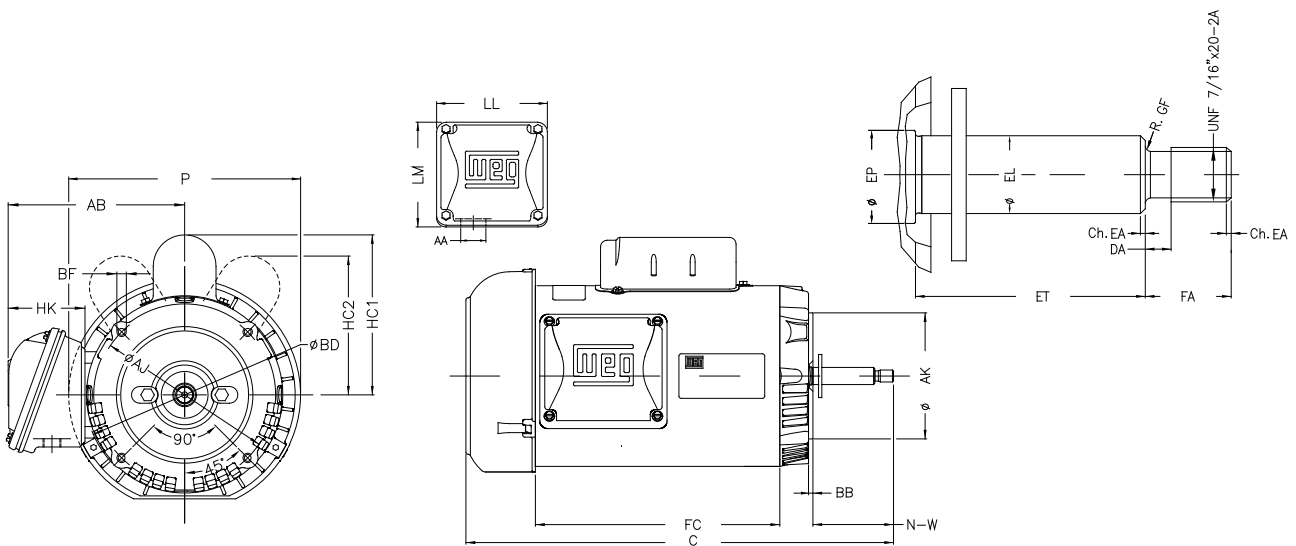
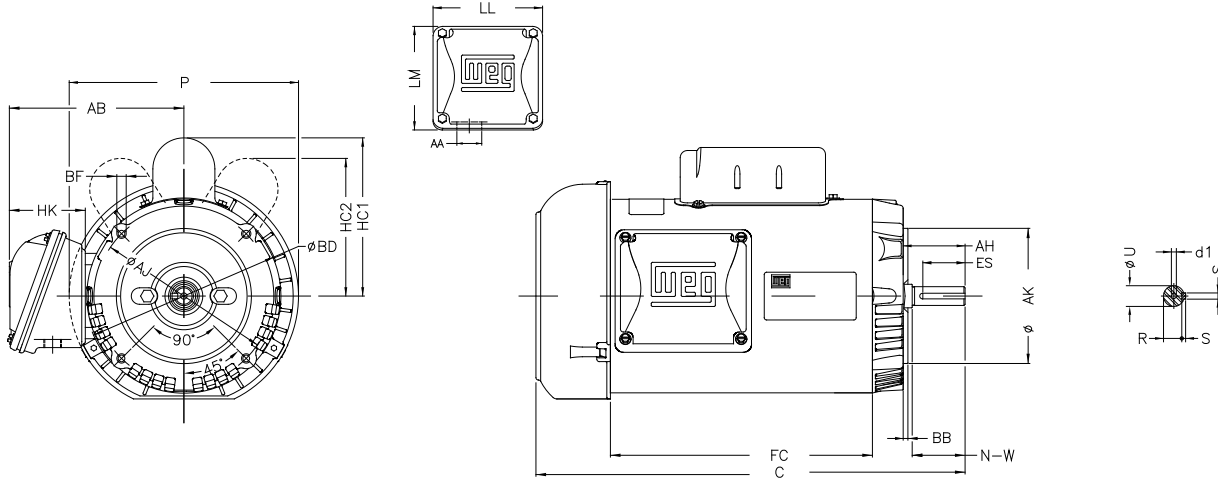
Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				115V	230V		
0.33	3600	W56C	\$534	KT.33102W01	5.20	2.60	19.1	11.106
	1800	W56C	\$556	KT.33104W01	6.00	3.00	18.3	11.500
0.5	3600	W56C	\$570	KT.50102W01	7.0	3.5	20.2	11.500
	1800	W56C	\$586	KT.50104W01	8.0	4.0	20.3	11.894
0.75	3600	56C	\$694	KT.75102W01	8.0	4.0	24.7	12.720
	1800	56C	\$710	KT.75104W01	10.6	5.3	27.0	13.114
1	3600	56C	\$818	KT000102W01	10.2	5.10	28.0	13.144
	1800	56C	\$958	KT000104W01	13.6	6.8	32.8	13.901
1.5	3600	56C	\$888	KT001102W01	13.2	6.6	32.6	14.296
	1800	56HC	\$1,110	KT001104W01	14.96	7.48	43.0	15.083
2	3600	56HC	\$1,070	KT002102W01	17.4	8.70	36.9	14.296
	1800	56HC	\$1,204	KT002104W01	20.0	10.0	46.3	15.870
3	3600	56HC	\$1,340	KT003102W01	---	12.7	47.1	15.477

# Jet Pump Motors

## TEFC - Electrical Data

Single Phase - Keyed or Threaded Shaft

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (I/In)	Locked rotor torque	Breakdown torque	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			115V	230V						50%	75%	100%	50%	75%	100%
0.33	0.25	3490	W56J	5.20	2.60	7.00	290%	290%	19.1	1.15	42.0	50.0	54.0	0.61	0.69	0.76
		1735	W56J	6.00	3.00	5.60	320%	280%	18.3	1.15	46.0	55.0	61.0	0.42	0.51	0.59
0.5	0.37	3500	W56J	7.00	3.50	8.00	290%	300%	20.2	1.15	50.0	58.0	60.0	0.59	0.69	0.76
		1730	W56J	8.00	4.00	5.70	320%	270%	20.3	1.15	52.0	29.0	64.0	0.44	0.54	0.63
0.75	0.55	3500	56J	8.00	4.00	8.00	280%	290%	24.7	1.15	52.0	62.0	66.0	0.81	0.87	0.91
		1745	56J	10.6	5.30	6.40	280%	270%	27.0	1.15	57.0	65.0	68.5	0.47	0.58	0.67
1	0.75	3500	56J	10.1	5.06	8.40	280%	280%	27.9	1.15	55.0	64.0	70.0	0.82	0.88	0.92
		1745	56J	13.6	6.80	6.70	280%	270%	32.8	1.15	62.0	68.0	71.0	0.48	0.60	0.68
1.5	1.1	3500	56J	13.2	6.60	8.00	240%	250%	32.6	1.15	66.0	73.0	75.0	0.92	0.95	0.97
		1745	56HJ	15.8	7.88	8.00	250%	270%	43.0	1.15	69.0	75.0	77.0	0.68	0.78	0.83
2	1.5	3495	56HJ	17.5	8.73	7.80	220%	250%	36.9	1.15	70.0	75.0	77.0	0.94	0.97	0.97
		1745	56HJ	20.0	10.00	8.00	240%	260%	46.3	1.15	70.0	76.0	78.5	0.66	0.76	0.82
3	2.2	3490	56HJ	26.4	13.20	8.00	210%	250%	42.6	1.15	72.0	77.0	80.0	0.87	0.92	0.94





Pump Motors

# W01 Jet Pump Motors

## ODP - Purchasing Data

Single Phase - Threaded Shaft - Standard Efficiency

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				115V	230V		
0.33	3600	W56J	\$452	JO.33102W01	5.0	2.5	16.6	10.366
0.5	3600	W56J	\$528	JO.50102W01	6.6	3.3	19.2	10.760
0.75	3600	W56J	\$580	JO.75102W01	9.6	4.8	21.6	11.154
1	3600	56J	\$688	JO000102W01	12.8	6.4	25.9	11.496
1.5	3600	56J	\$750	JO001102W01	17.3	8.63	30.4	11.890
2	3600	56HJ	\$946	JO002102W01	21.8	10.9	37.7	12.678
3*	3600	56HJ	\$1,194	JO003102W01	---	13.2	42.5	13.465

Note: \* Only available in 230V

Single Phase - Threaded Shaft - Premium Efficiency

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				115V	230V		
0.33	3600	W56J	\$476	JO.33102W01DOE	3.2	1.60	19.4	9.866
0.5	3600	W56J	\$554	JO.50102W01DOE	4.8	2.40	19.4	10.260
0.75	3600	56J	\$610	JO.75102W01DOE	6.8	3.40	25.4	10.654
1	3600	56J	\$724	JO000102W01DOE	8.6	4.30	29.8	11.496
1.5	3600	56J	\$788	JO001102W01DOE	12.4	6.20	32.0	11.890
2	3600	56J	\$994	JO002102W01DOE	16.8	8.40	36.4	12.678
3*	3600	56HJ	\$1,254	JO003102W01DOE	24.4	12.20	42.3	13.465

Note: \* Only available in 230V

Single Phase - Keyed Shaft - Standard Efficiency

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				115V	230V		
0.33	3600	W56C	\$452	KO.33102W01	5.0	2.5	16.6	9.866
0.5	3600	W56C	\$528	KO.50102W01	6.6	3.3	19.2	10.260
0.75	3600	W56C	\$580	KO.75102W01	9.6	4.8	21.6	10.654
1	3600	56C	\$688	KO000102W01	12.8	6.4	25.9	11.496
1.5	3600	56C	\$750	KO001102W01	17.3	8.63	30.4	11.890
2	3600	56HC	\$946	KO002102W01	21.8	10.9	37.7	12.678
3*	3600	56HC	\$1,194	KO003102W01	---	13.2	42.5	13.465

Note: \* Only available in 230V

Single Phase - Keyed Shaft - Premium Efficiency

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				115V	230V		
0.33	3600	W56J	\$476	KO.33102W01DOE	3.2	1.6	19.4	10.260
0.5	3600	W56J	\$554	KO.50102W01DOE	4.8	2.4	19.4	10.260
0.75	3600	W56J	\$610	KO.75102W01DOE	6.8	3.4	25.4	11.102
1	3600	56J	\$724	KO000102W01DOE	8.6	4.3	29.8	11.890
1.5	3600	56J	\$788	KO001102W01DOE	12.4	6.2	32.0	12.283
2	3600	56J	\$994	KO002102W01DOE	16.8	8.4	36.4	12.677
3*	3600	56J	\$1,254	KO003102W01DOE	24.4	12.2	42.3	13.858

Note: \* Only available in 230V

# W01 Jet Pump Motors

## ODP - Electrical Data

Single Phase - Keyed or Threaded Shaft - Standard Efficiency

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			115V	230V						50%	75%	100%	50%	75%	100%
0.33	0.25	3500	W56J	5.00	2.5	7.40	300%	300%	16.6	1.75	49.0	56.0	59.0	0.57	0.66	0.74
0.5	0.37	3500	W56J	6.60	3.3	8.20	280%	300%	19.2	1.60	54.0	61.0	65.0	0.55	0.66	0.74
0.75	0.55	3500	W56J	9.6	4.8	8.00	260%	300%	21.6	1.50	56.0	63.0	67.0	0.54	0.66	0.74
1	0.75	3500	56J	12.8	6.4	6.90	260%	280%	25.9	1.40	60.0	65.0	68.0	0.55	0.67	0.75
1.5	1.1	3500	56J	17.3	8.6	7.3	250%	270%	30.4	1.30	65.0	70.0	72.0	0.57	0.69	0.77
2	1.5	3490	56J	21.8	10.9	7.8	250%	260%	37.7	1.20	69.0	72.0	75.0	0.60	0.72	0.80
3	2.2	3485	56J	---	13.2	8.0	200%	250%	42.5	1.15	71.0	76.0	78.0	0.85	0.91	0.93





# W22 JM & JP Pump Motors - Single Phase

## TEFC - Purchasing & Electrical Data

### Single Phase - Threaded Shaft

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current			Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				115V	230V	460V		
1	3600	143/5JM	\$1,678	JM000102W22	9.6	4.8	---	51	16.811
	1800	143/5JM	\$1,690	JM000104W22	10.7	5.33	---	51	16.811
	1200	143/5JM	\$2,146	JM000106W22	11.2	5.6	---	110	16.811
1.5	3600	143/5JM	\$1,916	JM001102W22	13.6	6.8	---	53	16.811
	1800	143/5JM	\$1,954	JM001104W22	13.5	6.75	---	71	16.811
	1200	182/4JM	\$3,744	JM001106W22	---	8.5	4.25	132	18.543
2	3600	143/5JM	\$2,022	JM002102W22	18	9	---	56	16.811
	1800	143/5JM	\$2,010	JM002104W22	18.3	9.13	---	71	16.811
	1200	182/4JM	\$3,892	JM002106W22	---	10.0	5.0	132	18.543
3	3600	143/5JM	\$2,194	JM003102W22	25	12.5	---	73	16.811
	1800	182/4JM	\$2,696	JM003104W22	27.6	13.8	---	105	18.543
	1200	213/5JM	\$4,330	JM003106W22	---	13.4	6.68	135	24.212
5	3600	182/4JM	\$3,188	JM005102W22	---	19.0	9.5	108	18.543
	1800	182/4JM	\$3,282	JM005104W22	---	21.4	10.7	118	18.543
	1200	213/5JM	\$4,842	JM005106W22	---	20.7	10.4	169	24.212
7.5	3600	213/5JM	\$4,830	JM007102W22	---	28.3	14.1	168	24.212
	3600	182/4JM	\$4,330	JM007102W22184	---	28.2	14.1	115	18.543
	1800	213/5JM	\$4,650	JM007104W22	---	30.5	15.2	180	24.212
10	3600	213/5JM	\$5,050	JM010102W22	---	38.8	19.4	165	24.212
	1800	213/5JM	\$4,936	JM010104W22	---	40.8	20.4	191	24.212

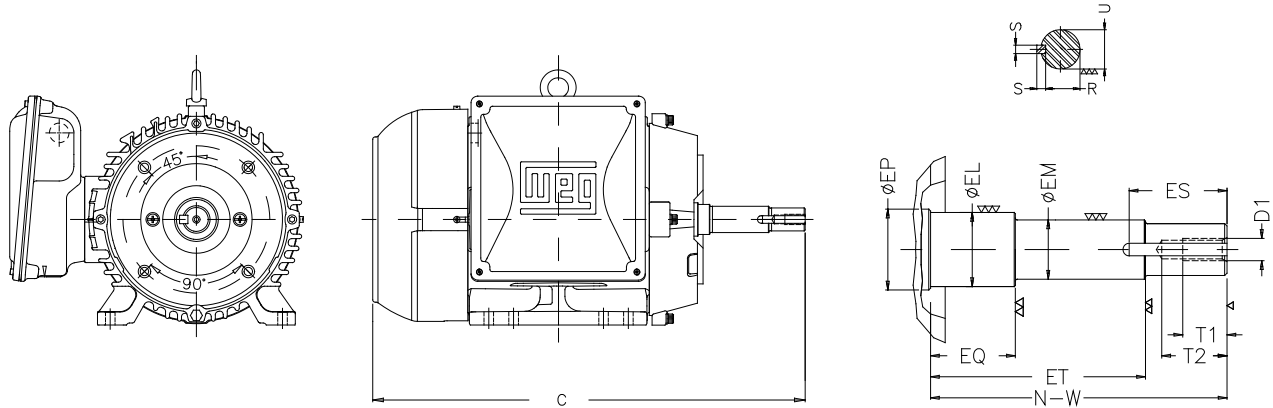
Flange: For JP Type Replace 'JM' with 'JP'

### Three Phase - Keyed or Threaded Shaft

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor Current (l/l/n)	Locked rotor torque	Breakdown torque	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			115V	230V	460V						50%	75%	100%	50%	75%	100%
1	0.75	3540	143/5JM	9.6	4.8	---	8.5	230%	270%	51	1.15	58.0	67.0	70.0	0.95	0.96	0.97
		1665	143/5JM	10.7	5.33	---	8.4	270%	300%	51	1.15	59.0	68.0	72.0	0.69	0.79	0.85
		1170	143/5JM	11.2	5.6	---	6.3	200%	240%	110	1.15	59.6	68.2	70.0	0.70	0.78	0.83
1.5	1.1	3520	143/5JM	13.6	6.8	---	7.3	230%	240%	53	1.15	67.0	72.0	74.0	0.91	0.94	0.95
		1755	143/5JM	13.5	6.75	---	8.0	260%	230%	71	1.15	65.0	73.0	77.0	0.90	0.92	0.92
		1185	182/4JM	---	8.5	4.25	8.2	250%	320%	132	1.15	58.4	67.3	72.0	0.62	0.72	0.78
2	1.5	3530	143/5JM	18	9	---	8.0	240%	280%	56	1.15	66.0	74.0	77.0	0.87	0.92	0.94
		1745	143/5JM	18.3	9.13	---	7.4	270%	240%	71	1.15	68.5	75.5	78.5	0.81	0.87	0.91
		1180	182/4JM	---	10	5	8.0	240%	270%	132	1.15	65.2	73.0	77.0	0.72	0.81	0.85
3	2.2	3510	143/5JM	25	12.5	---	7.2	220%	240%	73	1.15	72.5	76.0	78.5	0.96	0.97	0.97
		1745	182/4JM	27.6	13.8	---	7.7	290%	270%	105	1.15	65.0	74.0	77.0	0.79	0.87	0.90
		1170	213/5JM	---	13.4	6.68	7.5	210%	210%	135	1.15	69.3	76.7	80.0	0.93	0.96	0.96
5	3.7	3515	182/4JM	---	19	9.5	7.1	280%	250%	108	1.15	80.0	84.0	85.5	0.96	0.99	0.99
		1730	182/4JM	---	21.4	10.7	6.5	300%	240%	118	1.15	72.5	78.5	80.0	0.89	0.93	0.94
		1175	213/5JM	---	20.7	10.4	8.4	220%	250%	169	1.15	78.9	83.9	82.5	0.91	0.94	0.94
7.5	5.5	3510	213/5JM	---	28.3	14.1	7.2	280%	290%	168	1.15	81.5	85.5	86.5	0.99	0.99	0.99
		3505	182/4JM	---	28.2	14.1	7.5	280%	260%	115	1.15	79.0	83.5	85.5	0.99	0.99	0.99
		1740	213/5JM	---	30.5	15.2	7.0	330%	250%	180	1.15	76.0	81.0	82.5	0.89	0.93	0.95
10	7.5	3515	213/5JM	---	38.8	19.4	7.0	230%	290%	165	1.15	82.0	85.5	86.5	0.96	0.97	0.97
		1740	213/5JM	---	40.8	20.4	6.7	260%	250%	191	1.15	78.0	82.0	82.5	0.90	0.95	0.97

# W22 JM & JP Pump Motors - Single Phase

TEFC - Mechanical Data



NEMA Frames	Mounting				A	B	D	G	J	O	P	AB	AA	Bearings		NEMA "C" Flange					
	2E	2F	H	BA										D.E.	N.D.E.	AJ	AK	BB	BD	BF	
																				Qty.	Tap Size
143JM	5.500	4.000	0.340	2.250	6.457	6.142	3.500	0.354	1.457	7.122	7.244	7.126	NPT 0.75"	6205-ZZ	6203-ZZ	5.875	4.500	0.157	6.496	4	UNC 3/8"x16
145JM	7.500	4.500	0.410	2.750	8.661	6.969	4.500	0.394	1.614	8.897	8.937	8.110	NPT 1"	6207-ZZ	6206-ZZ	7.250	8.500	0.250	8.858		UNC 0.5"x13
182JM	8.500	5.500/7.000		3.500	9.764	8.858	5.250	0.669	1.791	10.840	10.787	9.244		6308-ZZ							UNC 0.5"x13

## JM Type

NEMA FRAMES	LENGTHS			DIAMETERS				KEYWAY			THREADED HOLE			C
	N-W	EQ	ET	U	EM	EL	EP	S	R	ES	d1	T1	T2	
143/5JM	4.258	0.630	2.880	0.875	1.000	1.156	1.179	0.187	0.766	1.575	EUNC 3/8"x16	0.748	1.102	16.811
182/4JM				0.874		1.250	1.376		0.767					18.543
213/5JM				0.874		1.770	1.770		0.768					24.212

## JP Type

NEMA FRAMES	LENGTHS			DIAMETERS				KEYWAY			THREADED HOLE			C
	N-W	EQ	ET	U	EM	EL	EP	S	R	ES	d1 (UNC)	T1	T2	
143/5JP	7.319	1.563	5.941	0.875	1.000	1.156	1.179	0.187	0.766	1.575	EUNC 3/8"x16	0.748	1.102	19.882
182/4JP				0.874		1.250	1.376		0.767					21.614
213/5JP				1.249		1.375	1.750		1.770					0.984

# W01 JM & JP Rolled Steel - NEMA Premium TEFC

## Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4 and 6 pole, 60Hz
- Voltage: 230/460V, 575V
- Totally Enclosed Fan Cooled -TEFC (IP55) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- V'Ring sealing
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Dip and Bake Insulation system
- NEMA design "B"
- 1.15 Service Factor
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 207N - Frame 143/5JM
  - 207A - Frame 182/4JM & 213/5JM
  - 203A - Frame 254/6JM
- Color: Munsell N1 - Flat Black
- All frames have dual mounting



Class I, Div 2, Groups A,B,C & D  
Class I, Zone 2, IIC



Inverter Ratings for Safe Area				
Frames	Poles	Constant Torque	Variable Torque	VFD
143/5JM or JP - 254/6JM or JP	2 Pole	10:1	1000:1	Any
	4 Pole	4:1		

See page 7.6 for details

## Optional Features

- 50Hz
- Special voltages
- Special shafts
- Oil Seal, Lip Seal
- Thermostats, Thermistors
- Drip cover (canopy) for shaft down applications
- Special paint
- Forced ventilation
- No feet



# W01 JM & JP Rolled Steel - NEMA Premium

## TEFC - Purchasing Data

Rated Output		NEMA Frame	List Price JM Type	List Price JP Type	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	"Overall Length "C" Dim. (in.) JM Type"	"Overall Length "C" Dim. (in.) JP Type"
HP	RPM					460V	575V				
1	3600	143/5 JM or JP	\$920	\$938	JM000X02NPW01	1.44	1.15	78.5	26.2	15.709	18.780
	1800	143/5 JM or JP	\$902	\$920	JM000X04NPW01	1.47	1.18	85.5	37.9	16.102	19.173
	1200	143/5 JM or JP	\$1,078	\$1,100	JM000X06NPW01	1.66	1.26	80.0	35.9	15.709	19.173
1.5	3600	143/5 JM or JP	\$1,028	\$1,048	JM001X02NPW01	1.87	1.50	84.0	34.2	15.709	18.780
	1800	143/5 JM or JP	\$1,014	\$1,034	JM001X04NPW01	2.02	1.62	86.5	37.9	16.102	19.173
	1200	182/4 JM or JP	\$1,382	\$1,408	JM001X06NPW01	2.27	1.78	85.5	71.0	18.622	20.906
2	3600	143/5 JM or JP	\$1,124	\$1,146	JM002X02NPW01	2.47	1.98	85.5	40.1	16.496	19.567
	1800	143/5 JM or JP	\$1,050	\$1,072	JM002X04NPW01	2.72	2.18	86.5	42.3	16.496	19.567
	1200	182/4 JM or JP	\$1,536	\$1,566	JM002X06NPW01	3.15	2.40	86.5	80.5	19.409	21.693
3	3600	143/5 JM or JP	\$1,150	\$1,174	JM003X02NPW01145JM	3.51	2.81	86.5	48.1	16.496	19.567
	3600	182/4 JM or JP	\$1,272	\$1,298	JM003X02NPW01	3.67	2.94	86.5	63.5	17.835	20.906
	1800	182/4 JM or JP	\$1,264	\$1,288	JM003X04NPW01	3.81	3.05	89.5	80.3	19.409	22.480
	1200	213/5 JM or JP	\$2,078	\$2,120	JM003X06NPW01	4.26	3.34	87.5	101	20.039	24.291
5	3600	182/4 JM or JP	\$1,408	\$1,436	JM005X02NPW01	5.90	4.72	88.5	78.5	19.409	22.480
	1800	182/4 JM or JP	\$1,394	\$1,422	JM005X04NPW01	6.49	5.19	89.5	71.4	19.409	22.480
	1200	213/5 JM or JP	\$2,576	\$2,628	JM005X06NPW01	7.08	5.39	87.5	122	20.433	25.079
7.5	3600	182/4 JM or JP	\$1,834	\$1,870	JM007X02NPW01184JM	8.57	6.86	89.5	79.4	18.622	21.693
	3600	213/5 JM or JP	\$2,106	\$2,148	JM007X02NPW01	8.67	6.94	89.5	133	21.220	25.079
	1800	213/5 JM or JP	\$1,952	\$1,990	JM007X04NPW01	9.07	7.26	91.7	120	20.039	23.898
	1200	254/6 JM or JP	\$3,836	\$3,912	JM007X06NPW01	10.4	7.98	89.5	179	24.055	26.929
10	3600	213/5 JM or JP	\$2,378	\$2,424	JM010X02NPW01	11.5	9.20	90.2	161	22.795	26.654
	1800	213/5 JM or JP	\$2,354	\$2,402	JM010X04NPW01	12.2	9.76	91.7	130	20.433	24.291
	1200	254/6 JM or JP	\$4,184	\$4,268	JM010X06NPW01	14.0	11.0	89.5	196	24.055	27.717
15	3600	213/5 JM or JP	\$2,830	\$2,886	JM015X02NPW01215JM	17.0	13.6	91.0	154	22.795	26.654
	3600	254/6 JM or JP	\$3,400	\$3,468	JM015X02NPW01	17.4	13.9	91.0	175	24.055	26.929
	1800	254/6 JM or JP	\$3,338	\$3,404	JM015X04NPW01	18.2	14.6	92.4	197	24.055	26.929
20	3600	254/6 JM or JP	\$4,156	\$4,240	JM020X02NPW01	22.7	18.2	91.0	211	24.843	27.717
	1800	254/6 JM or JP	\$3,898	\$3,976	JM020X04NPW01	24.7	19.8	93.0	227	24.843	27.717
25	3600	254/6 JM or JP	\$4,904	\$5,002	JM025X02NPW01	28.5	22.8	91.7	221	24.843	27.717

Type: For JP Type Replace 'JM' with 'JP'  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

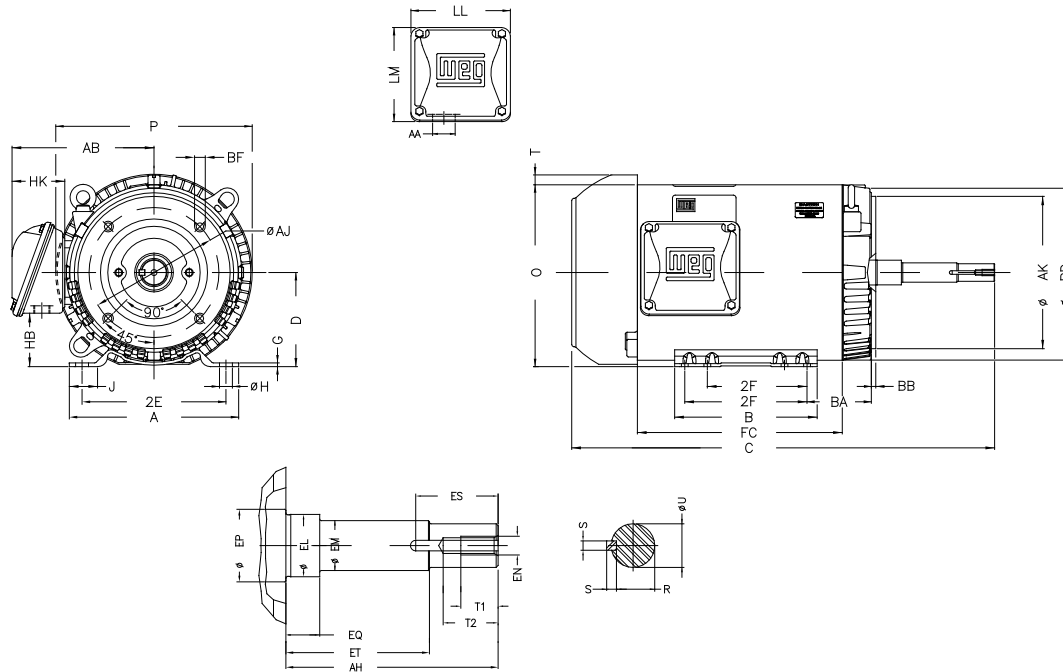
# W01 JM & JP Rolled Steel - NEMA Premium

## TEFC - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V							50%	75%	100%	50%	75%	100%
1	0.75	3510	143/5 JM	2.88	1.44	1.15	7.8	200%	300%	22	26.2	1.15	72.0	77.0	78.5	0.65	0.76	0.83
		1765	143/5 JM	2.94	1.47	1.18	8.6	280%	300%	19	37.9	1.15	82.5	84.0	85.5	0.52	0.66	0.75
		1145	143/5 JM	3.16	1.66	1.26	6.3	270%	320%	31	35.9	1.15	77.0	80.0	80.0	0.49	0.62	0.71
1.5	1.1	3520	143/5 JM	3.74	1.87	1.50	9.1	230%	300%	17	34.2	1.15	80.0	82.5	84.0	0.71	0.82	0.88
		1750	143/5 JM	4.04	2.02	1.62	8.2	270%	300%	21	37.9	1.15	85.5	86.5	86.5	0.59	0.72	0.79
		1170	182/4 JM	4.44	2.27	1.78	6.9	210%	320%	32	71.0	1.15	81.5	84.0	85.5	0.50	0.62	0.71
2	1.5	3520	143/5 JM	4.94	2.47	1.98	9.9	250%	300%	13	40.1	1.15	82.5	85.5	85.5	0.73	0.83	0.89
		1745	143/5 JM	5.44	2.72	2.18	8.2	270%	300%	15	42.3	1.15	85.5	87.5	86.5	0.60	0.73	0.80
		1170	182/4 JM	6.00	3.15	2.40	8.4	260%	370%	20	80.5	1.15	82.5	85.5	86.5	0.47	0.60	0.69
3	2.2	3500	143/5 JM	7.02	3.51	2.81	9.5	300%	380%	10	48.1	1.15	84.0	86.5	86.5	0.78	0.87	0.91
		3515	182/4 JM	7.34	3.67	2.94	8.8	220%	300%	22	63.5	1.15	84.0	86.5	86.5	0.71	0.82	0.87
		1765	182/4 JM	7.62	3.81	3.05	8.8	220%	300%	18	80.3	1.15	87.5	88.5	89.5	0.61	0.74	0.81
5	3.7	1175	213/5 JM	8.34	4.26	3.34	6.2	230%	280%	36	101	1.15	85.5	87.5	87.5	0.53	0.66	0.74
		3500	182/4 JM	11.8	5.90	4.72	7.8	220%	300%	17	78.5	1.15	87.5	88.5	88.5	0.76	0.85	0.89
		1750	182/4 JM	13.0	6.49	5.19	7.0	220%	300%	16	71.4	1.15	88.5	89.5	89.5	0.60	0.73	0.80
7.5	5.5	1175	213/5 JM	13.5	7.08	5.39	6.4	250%	280%	20	122	1.15	86.5	87.5	89.5	0.55	0.68	0.75
		3480	182/4 JM	17.1	8.57	6.86	6.0	270%	360%	19	79.4	1.15	88.5	89.5	89.5	0.77	0.86	0.90
		3530	213/5 JM	17.3	8.67	6.94	7.6	260%	300%	15	133	1.15	87.5	88.5	89.5	0.76	0.85	0.89
10	7.5	1770	213/5 JM	18.1	9.07	7.26	7.3	260%	300%	22	120	1.15	90.2	91.0	91.7	0.64	0.76	0.82
		1175	254/6 JM	20.0	10.4	7.98	5.5	220%	240%	27	179	1.15	87.5	89.5	89.5	0.55	0.67	0.74
		3530	213/5 JM	23.0	11.5	9.20	7.5	260%	300%	12	161	1.15	89.5	90.2	90.2	0.80	0.88	0.91
15	11	1760	213/5 JM	24.4	12.2	9.76	7.0	250%	300%	15	130	1.15	91.0	91.0	91.7	0.67	0.78	0.84
		1175	254/6 JM	27.6	14.0	11.0	5.5	220%	240%	20	196	1.15	88.5	89.5	89.5	0.56	0.68	0.75
		3525	254/6 JM	34.8	17.0	13.9	8.2	280%	330%	11	154	1.15	90.2	91.0	91.0	0.76	0.85	0.89
20	15	3520	213/5 JM	34.0	17.4	13.6	7.0	200%	300%	14	175	1.15	89.5	91.0	91.0	0.73	0.83	0.87
		1770	254/6 JM	36.4	18.2	14.6	6.6	250%	300%	19	197	1.15	91.0	92.4	92.4	0.64	0.76	0.82
		3515	254/6 JM	45.4	22.7	18.2	6.6	200%	290%	12	211	1.15	90.0	91.0	91.0	0.81	0.88	0.91
25	18.5	1765	254/6 JM	49.4	24.7	19.8	6.7	270%	300%	16	227	1.15	91.7	92.4	93.0	0.66	0.77	0.82
25	18.5	3530	254/6 JM	57.0	28.5	22.8	8.3	240%	340%	8	221	1.15	91.0	91.7	91.7	0.77	0.85	0.89

# W01 JM & JP Rolled Steel - NEMA Premium

## TEFC - Mechanical Data



### JM Type

Frame	2E	2F	A	AA	AB	B	BA	D	G	HB	HK	Hole H	J	LL
143/5JM	5.500	4.000/5.000	6.535	1.118	5.873	6.496	2.750	3.500	0.118	1.784	2.629	0.343	1.725	4.563
182/4JM	7.500	4.500/5.500	8.661		6.696	6.299	3.500	4.500		2.784			1.299	
213/5JM	8.500	5.500/7.000	9.449	1.377	7.973	7.953	4.250	5.250	0.167	2.982	3.022	0.406	1.575	5.551
254/6JM	10.000	8.252/10.000	11.417	1.732	9.448	11.417	4.750	6.250	0.187	3.631	3.645		0.530	1.693

Frame	LM	O	P	T	Shaft end						Bearings	
					d1	ES	Width	R	S	U	D.E.	N.D.E.
143/5JM	4.090	6.723	7.638	0.604	EUNC 3/8"-16	1.575	0.187	0.768	0.187	0.874	6206 ZZ	6203 ZZ
182/4JM		8.557	9.435	0.661							6207 ZZ	6205 ZZ
213/5JM	5.250	10.144	11.306	0.761	EUNC 1/2"-13	2.559	0.250	1.110	0.250	1.249	6209 ZZ	6206 ZZ
254/6JM	6.017	12.010	13.180	0.830							6309 Z-C3	6208 Z-C3

### JP Type

Frame	2E	2F	A	AA	AB	B	BA	D	G	HB	HK	Hole H	J	LL
143/5JM	5.500	4.000/5.000	6.535	1.118	5.873	6.496	2.750	3.500	0.118	1.784	2.629	0.343	1.725	4.563
182/4JM	7.500	4.500/5.500	8.661		6.696	6.299	3.500	4.500		2.784	2.629		1.299	
213/5JM	8.500	5.500/7.000	9.449	1.377	7.973	7.953	4.250	5.250	0.167	2.982	3.022	0.406	1.575	5.551
254/6JM	10.000	8.252/10.000	11.417	1.732	9.448	11.417	4.750	6.250	0.187	3.631	3.645		0.530	1.693

Frame	LM	O	P	T	Shaft end						Bearings	
					d1	ES	Width	R	S	U	D.E.	N.D.E.
143/5JM	4.090	6.723	7.638	0.604	EUNC 3/8"-16	1.654	0.187	0.768	0.187	0.874	6206 ZZ	6203 ZZ
182/4JM		8.557	9.435	0.661							6207 ZZ	6205 ZZ
213/5JM	5.250	10.144	11.306	0.761	EUNC 1/2"-13	2.560	0.250	1.110	0.250	1.250	6209 ZZ	6206 ZZ
254/6JM	6.017	12.010	13.180	0.830							2.559	6309 Z-C3

# W22 JM & JP Pump Motors - NEMA Premium TEFC

## Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4 and 6 pole, 60Hz
- Voltage: 230/460V, 575V
- Totally Enclosed Fan Cooled - TEFC (IP55) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- Sealing: V'Ring
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Insulation System:
  - Dip and Bake Insulation system with class "H" resin up to frame 324/6JM
  - CFRI Continuous Flow Resin Impregnation Insulation system with class "H" resin for frame 364/5JM and up.
- NEMA design "B"
- Service Factor:
  - 1.25
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Stainless steel nameplate with laser etching
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 207A - Frames 143/5JM to 213/5JM
  - 203A - Frames 254/6JM to 364/5JM
- Color: RAL 5009 - Blue
- Fitted with closed rubber drain breathers
- Regreasable bearings for frames 254/6JM and up



Class I, Div 2, Groups A,B,C & D  
Class II, Div 2, Groups F & G  
Class I, Zone 2, IIC



Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
143/5JM or JP - 404/5JM or JP	All	20:1	1000:1	Any
	All	1000:1*		WEG

\* Can only be achieved by a WEG VFD running in Sensorless Vector  
See page 7.6 for details

## Optional Features

- 50Hz
- Special voltages
- Special shafts
- Space heaters
- Labyrinth taconite seal available for all ratings
- Thermostats, Thermistors, RTD's (PT100)
- Additional terminal box
- Special paint
- Insulated endbells available for 364/5JM
- Degree of protection: IP56, IP65, IP66
- UL Listed fire pump duty
- No feet



# W22 JM & JP Pump Motors - NEMA Premium

## TEFC - Purchasing Data

Rated Output		NEMA Frame	List Price JM Type	List Price JP Type	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.) JM Type	Overall Length "C" Dim. (in.) JP Type
HP	RPM					460V	575V				
1	3600	143/5 JM or JP	\$1,146	\$1,168	JM000X02NPW22	1.44	1.15	81.5	36.4	15.304	18.365
	1800	143/5 JM or JP	\$1,100	\$1,122	JM000X04NPW22	1.41	1.13	85.5	40.8	15.304	18.365
	1200	143/5 JM or JP	\$1,232	\$1,266	JM000X06NPW22	1.73	1.38	82.5	52.9	15.304	18.365
1.5	3600	143/5 JM or JP	\$1,190	\$1,206	JM001X02NPW22	1.96	1.57	84.0	40.8	15.304	18.365
	1800	143/5 JM or JP	\$1,190	\$1,214	JM001X04NPW22	2.03	1.62	86.5	48.5	15.304	18.365
	1200	182/4 JM or JP	\$1,734	\$1,784	JM001X06NPW22	2.54	2.03	87.5	70.3	17.020	20.395
2	3600	143/5 JM or JP	\$1,246	\$1,276	JM002X02NPW22	2.56	2.05	85.5	51.8	15.304	18.365
	1800	143/5 JM or JP	\$1,246	\$1,270	JM002X04NPW22	2.61	2.09	86.5	50.7	15.304	18.365
	1200	182/4 JM or JP	\$2,070	\$1,872	JM002X06NPW22	3.23	2.58	88.5	87.5	17.020	20.395
3	3600	143/5 JM or JP	\$1,494	\$1,528	JM003X02NPW22145JM	3.71	2.97	86.5	51.8	15.304	18.365
	3600	182/4 JM or JP	\$1,716	\$1,754	JM003X02NPW22	3.63	2.90	86.5	88.2	17.020	20.395
	1800	182/4 JM or JP	\$1,604	\$1,636	JM003X04NPW22	3.88	3.10	89.5	90.4	17.020	20.395
	1200	213/5 JM or JP	\$2,526	\$2,596	JM003X06NPW22	4.41	3.53	89.5	121	20.174	24.046
5	3600	182/4 JM or JP	\$1,776	\$1,810	JM005X02NPW22	5.90	4.72	88.5	88.2	17.020	20.395
	1800	182/4 JM or JP	\$1,870	\$1,908	JM005X04NPW22	6.45	5.16	89.5	94.8	17.020	20.395
	1200	213/5 JM or JP	\$3,062	\$3,152	JM005X06NPW22	6.83	5.46	89.5	162	20.174	24.046
7.5	3600	182/4 JM or JP	\$2,418	\$2,466	JM007X02NPW22184JM	8.76	7.01	89.5	92.6	17.020	20.395
	3600	213/5 JM or JP	\$2,748	\$2,748	JM007X02NPW22	8.76	7.01	89.5	139	20.174	24.046
	1800	213/5 JM or JP	\$2,346	\$2,392	JM007X04NPW22	9.00	7.20	91.7	154	20.174	24.046
	1200	254/6 JM or JP	\$4,428	\$4,578	JM007X06NPW22	9.48	7.58	91.0	262	26.102	28.376
10	3600	213/5 JM or JP	\$2,890	\$2,946	JM010X02NPW22	11.6	9.28	90.2	163	20.174	24.046
	1800	213/5 JM or JP	\$2,748	\$2,804	JM010X04NPW22	12.4	9.92	91.7	172	20.174	24.046
	1200	254/6 JM or JP	\$5,036	\$5,136	JM010X06NPW22	12.9	10.3	91.0	289	26.102	28.376
15	3600	213/5 JM or JP	\$4,040	\$4,122	JM015X02NPW22215JM	17.0	13.6	91.0	163	20.174	24.046
	3600	254/6 JM or JP	\$4,814	\$4,910	JM015X02NPW22	17.3	13.8	91.0	236	26.102	28.376
	1800	254/6 JM or JP	\$4,220	\$4,304	JM015X04NPW22	18.0	14.4	92.4	251	26.102	28.376
	1200	284/6 JM or JP	\$7,616	\$7,854	JM015X06NPW22	17.9	14.3	91.7	379	28.700	31.575
20	3600	254/6 JM or JP	\$5,502	\$5,612	JM020X02NPW22	23.3	18.6	91.0	269	26.102	28.376
	1800	254/6 JM or JP	\$5,012	\$5,114	JM020X04NPW22	24.1	19.3	93.0	291	26.102	28.376
	1200	284/6 JM or JP	\$8,892	\$9,210	JM020X06NPW22	24.3	19.4	91.7	425	28.700	31.575
25	3600	254/6 JM or JP	\$6,394	\$6,518	JM025X02NPW22256JM	28.5	22.5	91.7	326	26.102	28.376
	3600	284/6 JM or JP	\$7,100	\$7,242	JM025X02NPW22	28.5	22.8	91.7	362	28.700	31.575
	1800	284/6 JM or JP	\$6,126	\$6,250	JM025X04NPW22	29.5	23.6	93.6	388	28.700	31.575
	1200	324/6 JM or JP	P.O.A	P.O.A	JM025X06NPW22	30.4	24.3	93.0	560	29.645	34.021
30	3600	284/6 JM or JP	\$7,558	\$7,708	JM030X02NPW22	33.8	27.0	91.7	392	28.700	31.575
	1800	284/6 JM or JP	\$6,810	\$6,946	JM030X04NPW22	35.1	28.1	93.6	437	28.700	31.575
	1200	324/6 JM or JP	P.O.A	P.O.A	JM030X06NPW22	35.8	28.6	93.0	553	29.645	34.021
40	3600	284/6 JM or JP	\$9,554	\$9,766	JM040X02NPW22286JM	45.8	36.6	92.4	437	28.700	31.575
	3600	324/6 JM or JP	\$10,746	\$10,960	JM040X02NPW22	45.8	36.6	92.4	547	29.645	34.021
	1800	324/6 JM or JP	\$9,496	\$9,686	JM040X04NPW22	48.3	38.6	94.1	492	29.645	34.021
	1200	364/5 JM or JP	P.O.A	P.O.A	JM040X06NPW22	46.5	37.2	94.1	833	33.031	35.916
50	3600	324/6 JM or JP	\$12,204	\$12,448	JM050X02NPW22	56.1	44.9	93.0	584	29.645	34.021
	1800	324/6 JM or JP	\$10,570	\$10,780	JM050X04NPW22	59.3	47.4	94.5	536	29.645	34.021
	1200	364/5 JM or JP	P.O.A	P.O.A	JM050X06NPW22	57.4	45.9	94.1	869	33.031	35.916
60	3600	324/6 JM or JP	\$13,472	\$14,316	JM060X02NPW22326JM	70.2	56.1	93.6	584	29.645	34.021
	3600	364/5 JM or JP	\$19,136	\$20,666	JM060X02NPW22	67.0	53.6	93.6	825	33.031	35.916
	1800	364/5 JM or JP	\$16,470	\$18,864	JM060X04NPW22	68.3	54.6	95.0	869	33.031	35.916
75	3600	364/5 JM or JP	\$20,440	\$20,850	JM075X02NPW22	81.9	65.5	93.6	847	33.031	35.916
	1800	364/5 JM or JP	\$18,702	\$19,076	JM075X04NPW22	84.1	67.3	95.4	919	33.031	35.916

Flange: For JP Type Replace 'JM' with 'JP'  
Voltage: Replace 'X' with '4' for 208-230/460V  
Replace 'X' with '5' for 575V

# W22 JM & JP Pump Motors - NEMA Premium

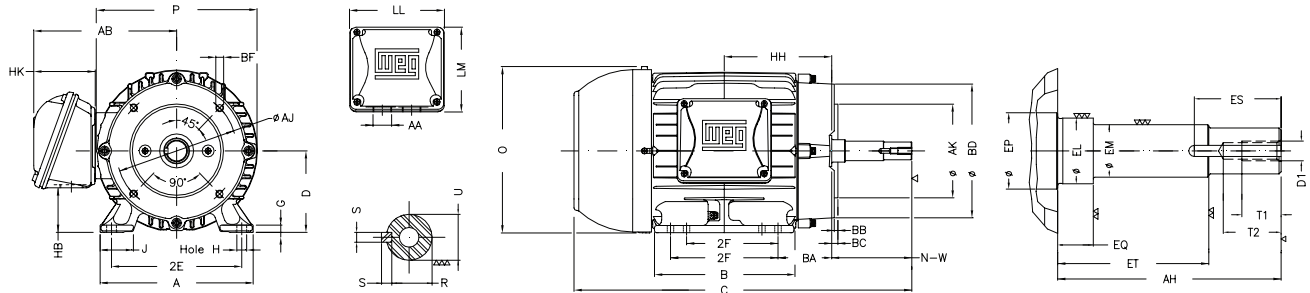
## TEFC - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V								50%	75%	100%	50%	75%	100%
1	0.75	3480	143/5JM	2.85	1.43	1.14	8.2	280%	340%	22	36.4	68	1.25	74.0	77.0	78.5	0.69	0.79	0.84
		1770	143/5JM	2.83	1.41	1.13	8.4	280%	350%	18	40.8	51	1.25	80.0	84.0	85.5	0.60	0.70	0.78
		1150	143/5JM	3.45	1.73	1.38	6.2	300%	300%	28	52.9	49	1.25	77.0	82.0	82.5	0.45	0.57	0.66
1.5	1.1	3455	143/5JM	3.93	1.96	1.57	8.9	350%	380%	21	40.8	68	1.25	81.5	84.0	84.0	0.70	0.80	0.84
		1760	143/5JM	4.05	2.03	1.62	8.3	250%	340%	14	48.5	51	1.25	82.5	85.5	86.5	0.60	0.70	0.79
		1160	182/4JM	5.08	2.54	2.03	8.0	320%	400%	16	70.3	52	1.25	84.0	86.5	87.5	0.45	0.54	0.62
2	1.5	3450	143/5JM	5.13	2.56	2.05	8.9	350%	380%	17	51.8	68	1.25	82.5	85.5	85.5	0.71	0.80	0.86
		1755	143/5JM	5.23	2.61	2.09	7.5	240%	300%	11	50.7	51	1.25	84.0	86.5	86.5	0.66	0.78	0.84
		1160	182/4JM	6.45	3.23	2.58	7.5	300%	300%	31	87.5	52	1.25	86.5	88.5	88.5	0.46	0.58	0.66
3	2.2	3450	143/5JM	7.43	3.71	2.97	8.1	330%	360%	14	51.8	68	1.25	85.5	86.5	86.5	0.70	0.81	0.86
		3500	182/4JM	7.25	3.63	2.90	8.3	240%	380%	41	88.2	69	1.25	82.5	86.5	86.5	0.75	0.84	0.88
		1760	182/4JM	7.75	3.88	3.10	8.1	230%	340%	23	90.4	56	1.25	86.5	88.5	89.5	0.61	0.73	0.79
5	3.7	1170	213/5JM	8.83	4.41	3.53	7.0	200%	280%	58	121	55	1.25	86.5	88.5	89.5	0.50	0.63	0.70
		3490	182/4JM	11.8	5.90	4.72	7.5	230%	350%	25	88.2	69	1.25	86.5	88.5	88.5	0.76	0.85	0.89
		1750	182/4JM	12.9	6.45	5.16	7.5	230%	320%	15	94.8	56	1.25	88.5	89.5	89.5	0.62	0.74	0.80
7.5	5.5	1165	213/5JM	13.7	6.83	5.46	6.6	190%	240%	57	162	55	1.25	88.5	89.5	89.5	0.58	0.70	0.76
		3470	182/4JM	17.5	8.76	7.01	8.2	270%	330%	17	92.6	69	1.25	88.5	89.5	89.5	0.75	0.84	0.88
		3510	213/5JM	17.5	8.76	7.01	7.2	210%	300%	27	139	72	1.25	87.5	89.5	89.5	0.75	0.84	0.88
10	7.5	1755	213/5JM	18.0	9.00	7.20	7.1	220%	310%	20	154	58	1.25	89.5	91.0	91.7	0.67	0.78	0.84
		1175	254/6JM	19.0	9.48	7.58	6.8	250%	300%	30	262	59	1.25	89.5	90.2	91.0	0.63	0.74	0.80
		3510	213/5JM	23.2	11.6	9.28	7.2	210%	290%	24	163	72	1.25	89.5	90.2	90.2	0.79	0.87	0.90
15	11	1755	213/5JM	24.8	12.4	9.92	6.4	200%	300%	17	172	58	1.25	90.2	91.7	91.7	0.66	0.77	0.83
		1170	254/6JM	25.8	12.9	10.3	6.5	230%	280%	26	289	59	1.25	90.2	91.0	91.0	0.63	0.74	0.80
		3490	213/5JM	34.0	17.0	13.6	7.6	240%	280%	14	163	72	1.25	90.2	91.0	91.0	0.76	0.85	0.89
20	15	3520	254/6JM	34.5	17.3	13.8	6.8	220%	270%	25	236	72	1.25	89.5	91.0	91.0	0.77	0.85	0.88
		1765	254/6JM	36.0	18.0	14.4	6.5	230%	270%	17	251	64	1.25	91.0	91.7	92.4	0.68	0.78	0.83
		1175	284/6JM	35.8	17.9	14.3	6.6	230%	270%	20	379	59	1.25	91.0	91.7	91.7	0.69	0.80	0.84
25	18.5	3520	254/6JM	46.5	23.3	18.6	6.1	200%	240%	21	269	72	1.25	91.0	91.7	91.0	0.82	0.87	0.89
		1760	254/6JM	48.3	24.1	19.3	6.5	230%	270%	15	291	64	1.25	91.7	92.4	93.0	0.68	0.79	0.84
		1175	284/6JM	48.5	24.3	19.4	6.2	230%	260%	16	425	59	1.25	91.0	91.7	91.7	0.70	0.80	0.85
30	22	3530	284/6JM	57.0	28.5	22.8	6.3	200%	250%	17	362	72	1.25	91.0	91.7	91.7	0.82	0.87	0.89
		1760	284/6JM	59.0	29.5	23.6	6.2	240%	270%	24	388	64	1.25	92.4	93.0	93.6	0.70	0.80	0.84
		1175	324/6JM	60.8	30.4	24.3	6.2	210%	260%	26	560	62	1.25	91.7	93.0	93.0	0.65	0.77	0.82
40	30	3530	284/6JM	67.5	33.8	27.0	6.3	200%	250%	15	392	72	1.25	91.7	91.7	91.7	0.82	0.87	0.89
		1760	284/6JM	70.3	35.1	28.1	6.1	240%	240%	20	437	64	1.25	93.0	93.0	93.6	0.70	0.80	0.84
		1175	324/6JM	71.5	35.8	28.6	6.2	230%	260%	21	553	62	1.25	91.7	93.0	93.0	0.65	0.77	0.83
50	37	3550	324/6JM	91.5	45.8	36.6	6.4	230%	240%	22	547	78	1.25	91.7	92.4	92.4	0.82	0.87	0.89
		1770	324/6JM	96.5	48.3	38.6	6.2	220%	260%	20	492	66	1.25	93.0	94.1	94.1	0.67	0.78	0.83
		1180	364/5JM	93.0	46.5	37.2	6.4	200%	240%	21	833	66	1.25	93.6	93.6	94.1	0.73	0.82	0.86
60	45	3555	324/6JM	112	56.1	44.9	6.2	220%	230%	23	584	78	1.25	93.0	93.0	93.0	0.83	0.87	0.89
		1770	324/6JM	119	59.3	47.4	6.2	230%	270%	15	536	66	1.25	93.0	94.1	94.5	0.66	0.77	0.83
		1180	364/5JM	115	57.4	45.9	6.4	200%	240%	18	869	66	1.25	93.6	94.1	94.1	0.74	0.83	0.86
75	55	3550	364/5JM	134	67.0	53.6	6.6	200%	260%	14	825	79	1.25	91.7	93.0	93.6	0.81	0.88	0.90
		1770	364/5JM	137	68.3	54.6	6.6	240%	260%	15	869	67	1.25	94.1	94.5	95.0	0.75	0.83	0.87
		3550	364/5JM	164	81.9	65.5	6.6	200%	260%	10	847	79	1.25	92.4	93.6	93.6	0.83	0.88	0.90
		1770	364/5JM	168	84.1	67.3	6.4	240%	260%	14	919	67	1.25	94.5	95.0	95.4	0.73	0.82	0.86

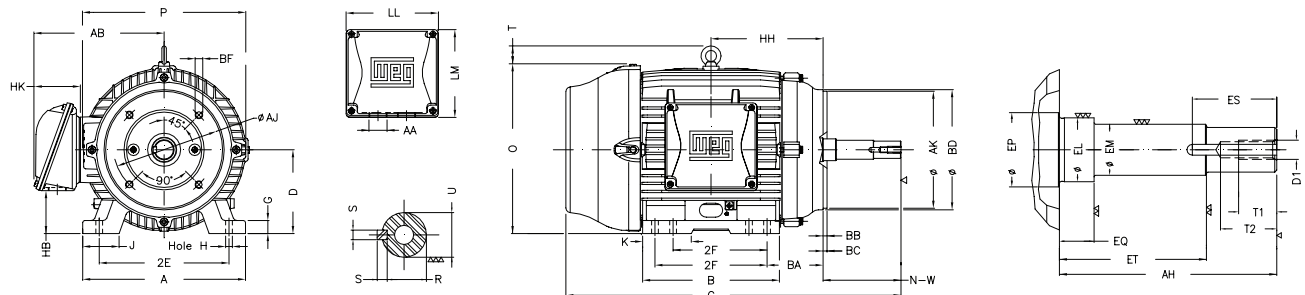
# W22 JM & JP Pump Motors - NEMA Premium

TEFC - Mechanical Data

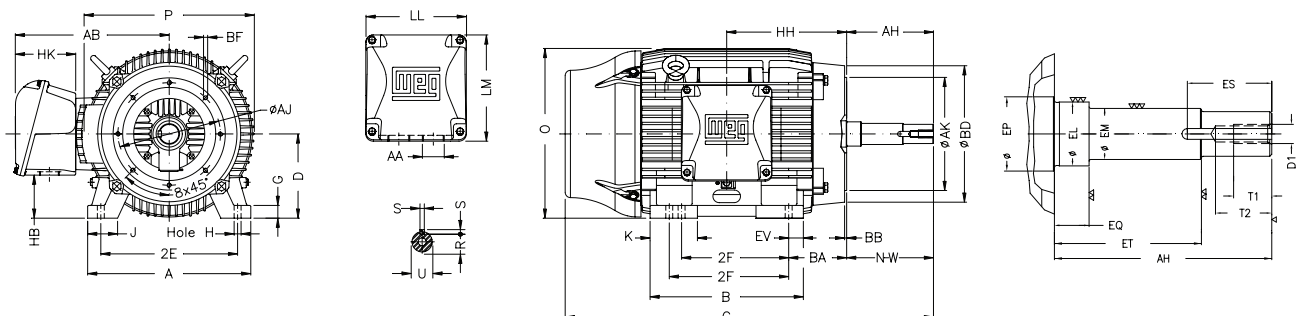
Frames 143/5JM or JP to 213/5JM or JP



Frames 254/6JM or JP to 324/6JM or JP



Frames 364/5JM or JP to 404/5JP



# W22 JM & JP Pump Motors - NEMA Premium

## TEFC - Mechanical Data

### JM Type

Frame	BA	AJ	AK	BB	BD	BF TAP	BF NUMBER	C	AH	EQ	ET	U	EM	EL	S	R	ES	d1	T1	T2	DE BRG	N.D.E.BRG
143/5JM	2.250	5.874	4.500	0.156	6.496	UNC 3/8"x16	4	15.304	4.258	0.630	2.880	0.874	1.000	1.156	0.187	0.768	1.575	UNC 3/8"-16	0.748	1.102	6206 ZZ	6204 ZZ
182/4JM	2.750							17.020						1.250							6307 ZZ	6206 ZZ
213/5JM	3.500	20.174	6309 C3	6207 ZZ																		
254/6JM	4.250	7.252	8.500	0.250	8.858	UNC 1/2"x13	4	26.102	5.250	0.630	3.006	1.249	1.375	1.750	0.250	1.110	2.480	UNC 1/2"-13	0.984	1.496	6309 C3	6209 C3
284/6JM	4.750							28.700													6311 C3	6211 C3
324/6JM	5.250	11.000	12.500	13.593	UNC 5/8"x11	29.645		6312 C3													6212 C3	
364/5JM	5.875			15.562			8	33.031													6314 C3	6314 C3

### JP Type

Frame	BA	AJ	AK	BB	BD	BF TAP	BF NUMBER	C	AH	EQ	ET	U	EM	EL	S	R	ES	d1	T1	T2	DE BRG	N.D.E.BRG
143/5JP	2.250	5.874	4.500	0.156	6.496	UNC 3/8"x16	4	18.365	7.319	1.563	5.941	0.874	1.000	1.156	0.187	0.768	1.575	UNC 3/8"-16	0.748	1.102	6206 ZZ	6204 ZZ
182/4JP	2.750	5.874						20.395						1.250							6307 ZZ	6206 ZZ
213/5JP	3.500	7.252	8.500	24.046	6309 ZZ-C3	6207 ZZ																
254/6JP	4.500	7.252	0.250	8.858	UNC 1/2"x13	4	28.736	8.130	2.382	5.886	1.249	1.375	1.750	0.250	1.110	2.480	UNC 1/2"-13	0.984	1.496	6309 C3	6209 C3	
284/6JP	5.000	11.000					13.593													31.575	6311 C3	6211 C3
324/6JP	5.500	11.000	12.500	32.525	6312 C3		6212 C3															
364/5JP	5.875	11.000	0.250	8.858	UNC 1/2"x13	4	35.916	8.130	2.382	5.886	1.249	1.375	1.750	0.250	1.110	2.480	UNC 1/2"-13	0.984	1.496	6314 C3	6314 C3	
404/5JP	6.625	11.000					15.562													38.911	6314 C3	6314 C3

# W01 JM & JP Rolled Steel - High Efficiency ODP

## Standard Features

- Three-phase, 2, 4 and 6 pole, 60Hz
- Voltage: 230/460V, 575V
- Open Drip Proof - ODP (IP21)
- Die cast aluminum squirrel cage rotor
- Bearings:
  - ZZ / Normal up to frame 213/5JM
  - Z / C3 for frame 254/6JM
- 1045 heat treated and stress relieved carbon steel shaft
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Dip and Bake Insulation system
- NEMA design "B"
- 1.15 Service Factor
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 207N - Frame 143/5JM
  - 207A - Frame 182/4JM & 213/5JM
  - 203A - Frame 254/6JM
- Color: Munsell N1 - Flat Black
- All frames have dual mounting



Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
143/5JM or JP - 254/6TJM or JP	All	2:1	1000:1	Any
See page 7.6 for details				

Mechanical & Electrical Data is available upon request

**Fire Pump Duty**  **LISTED**  
 Motor also certified for fire pump application with SF 1.15  
**68YN**  
 FIRE PUMP MOTOR  
 EX5990

## Optional Features

- 50Hz
- Special voltages
- Special shafts
- Thermostats, Thermistors
- Drip cover (canopy) for shaft down applications
- Special paint
- No feet



# W01 JM & JP Rolled Steel - High Efficiency

## ODP - Vertical - Purchasing Data

Rated Output		NEMA Frame	List Price JM Type	List Price JP Type	Part Number	Full Load Current		Full Load Efficiency	ShippingWeight (lbs.)
HP	RPM					460V	575V		
1	3600	143/5 JM or JP	\$1,188	\$1,212	JM000X02DPSW01	1.35	1.08	80.0	25.4
	1800	143/5 JM or JP	\$1,136	\$1,160	JM000X04DPSW01	1.63	1.30	82.5	30.0
	1200	143/5 JM or JP	\$1,568	\$1,600	JM000X06DPSW01	1.71	1.37	80.0	38.1
1.5	3600	143/5 JM or JP	\$1,200	\$1,228	JM001X02DPSW01	1.88	1.50	82.5	29.3
	1800	143/5 JM or JP	\$1,212	\$1,236	JM001X04DPSW01	2.19	1.75	84.0	35.9
	1200	182/4 JM or JP	\$1,768	\$1,794	JM001X06DPSW01	2.31	1.85	84.0	61.5
2	3600	143/5 JM or JP	\$1,306	\$1,334	JM002X02DPSW01	2.52	2.02	84.0	34.0
	1800	143/5 JM or JP	\$1,278	\$1,302	JM002X04DPSW01	2.91	2.33	84.0	39.0
	1200	182/4 JM or JP	\$2,016	\$2,050	JM002X06DPSW01	3.06	2.45	85.5	71.0
3	3600	143/5 JM or JP	\$1,414	\$1,440	JM003X02DPSW01	3.69	2.95	84.0	37.0
	1800	182/4 JM or JP	\$1,648	\$1,680	JM003X04DPSW01	4.04	3.23	86.5	50.7
	1200	213/5 JM or JP	\$2,510	\$2,560	JM003X06DPSW01	4.31	3.45	86.5	107
5	3600	182/4 JM or JP	\$1,852	\$1,890	JM005X02DPSW01	6.24	4.99	85.5	53.4
	1800	182/4 JM or JP	\$1,874	\$1,914	JM005X04DPSW01	6.47	5.18	87.5	66.4
	1200	213/5 JM or JP	\$2,894	\$2,946	JM005X06DPSW01	6.89	5.51	87.5	109
7.5	3600	182/4 JM or JP	\$2,214	\$2,260	JM007X02DPSW01	8.86	7.09	87.5	62.8
	1800	213/5 JM or JP	\$2,472	\$2,522	JM007X04DPSW01	9.29	7.43	88.5	101
	1200	254/6 JM or JP	\$4,024	\$4,104	JM007X06DPSW01	10.8	8.64	88.5	157
10	3600	213/5 JM or JP	\$2,730	\$2,786	JM010X02DPSW01	12.2	9.76	88.5	103
	1800	213/5 JM or JP	\$2,730	\$2,786	JM010X04DPSW01	12.4	9.92	89.5	116
	1200	254/6 JM or JP	\$4,782	\$4,862	JM010X06DPSW01	14.3	11.4	90.2	184
15	3600	213/5 JM or JP	\$3,528	\$3,596	JM015X02DPSW01	17.5	14.0	89.5	117
	1800	254/6 JM or JP	\$3,992	\$4,072	JM015X04DPSW01	18.5	14.8	91.0	152
	1200	254/6 JM or JP	\$4,252	\$4,338	JM020X02DPSW01	23.7	19.0	90.2	151
20	1800	254/6 JM or JP	\$4,684	\$4,778	JM020X04DPSW01	25.5	20.4	91.0	166
	3600	254/6 JM or JP	\$5,086	\$5,186	JM025X02DPSW01	29.0	23.2	91.0	169

Type: For JP Type Replace 'JM' with 'JP'  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

## ODP - Horizontal - Purchasing Data

Rated Output		NEMA Frame	List Price JM Type	List Price JP Type	Part Number	Full Load Current		Full Load Efficiency	ShippingWeight (lbs.)	Overall Length "C" Dim. (in.) JM Type	Overall Length "C" Dim. (in.) JP Type
HP	RPM					460V	575V				
1	3600	143/5 JM or JP	\$1,018	\$1,038	JM000X02DPW01	1.35	1.08	80.0	25.4	13.701	16.772
	1800	143/5 JM or JP	\$984	\$1,006	JM000X04DPW01	1.63	1.30	82.5	30.0	13.701	16.772
	1200	143/5 JM or JP	\$1,312	\$1,334	JM000X06DPW01	1.71	1.37	80.0	38.1	14.488	16.772
1.5	3600	143/5 JM or JP	\$1,050	\$1,070	JM001X02DPW01	1.88	1.50	82.5	29.3	13.701	17.165
	1800	143/5 JM or JP	\$1,062	\$1,082	JM001X04DPW01	2.19	1.75	84.0	35.9	14.094	18.543
	1200	182/4 JM or JP	\$1,512	\$1,540	JM001X06DPW01	2.31	1.85	84.0	61.5	16.260	19.331
2	3600	143/5 JM or JP	\$1,156	\$1,180	JM002X02DPW01	2.52	2.02	84.0	34.0	13.701	21.575
	1800	143/5 JM or JP	\$1,126	\$1,148	JM002X04DPW01	2.91	2.33	84.0	39.0	14.488	21.969
	1200	182/4 JM or JP	\$1,780	\$1,810	JM002X06DPW01	3.06	2.45	85.5	71.0	17.047	24.843
3	3600	143/5 JM or JP	\$1,262	\$1,286	JM003X02DPW01	3.69	2.95	84.0	37.0	14.094	24.843
	1800	182/4 JM or JP	\$1,458	\$1,488	JM003X04DPW01	4.04	3.23	86.5	50.7	15.472	16.772
	1200	213/5 JM or JP	\$2,298	\$2,342	JM003X06DPW01	4.31	3.45	86.5	107	17.717	17.165
5	3600	182/4 JM or JP	\$1,664	\$1,698	JM005X02DPW01	6.24	4.99	85.5	53.4	15.472	17.559
	1800	182/4 JM or JP	\$1,686	\$1,718	JM005X04DPW01	6.47	5.18	87.5	66.4	16.654	18.543
	1200	213/5 JM or JP	\$2,718	\$2,762	JM005X06DPW01	6.89	5.51	87.5	109	17.717	19.724
7.5	3600	182/4 JM or JP	\$2,026	\$2,066	JM007X02DPW01	8.86	7.09	87.5	62.8	16.260	21.575
	1800	213/5 JM or JP	\$2,282	\$2,328	JM007X04DPW01	9.29	7.43	88.5	101	17.717	21.575
	1200	254/6 JM or JP	\$3,722	\$3,800	JM007X06DPW01	10.8	8.64	88.5	157	21.969	24.843
10	3600	213/5 JM or JP	\$2,528	\$2,578	JM010X02DPW01	12.2	9.76	88.5	103	17.717	24.843
	1800	213/5 JM or JP	\$2,528	\$2,578	JM010X04DPW01	12.4	9.92	89.5	116	17.717	17.165
	1200	254/6 JM or JP	\$4,598	\$4,674	JM010X06DPW01	14.3	11.4	90.2	184	21.969	19.331
15	3600	213/5 JM or JP	\$3,326	\$3,392	JM015X02DPW01	17.5	14.0	89.5	117	18.110	20.118
	1800	254/6 JM or JP	\$3,714	\$3,790	JM015X04DPW01	18.5	14.8	91.0	152	21.969	21.575
	1200	254/6 JM or JP	\$4,028	\$4,110	JM020X02DPW01	23.7	19.0	90.2	151	21.969	21.575
20	1800	254/6 JM or JP	\$4,432	\$4,522	JM020X04DPW01	25.5	20.4	91.0	166	21.969	24.843
	3600	254/6 JM or JP	\$4,812	\$4,906	JM025X02DPW01	29.0	23.2	91.0	169	21.969	24.843

Type: For JP Type Replace 'JM' with 'JP'  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

# W01 JM & JP Rolled Steel - NEMA Premium ODP

## Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4 and 6 pole, 60Hz
- Voltage: 230/460V, 575V
- Open Drip Proof - ODP (IP21)
- Die cast aluminum squirrel cage rotor
- V'Ring sealing
- Bearings:
  - ZZ / Normal up to frame 213/5JM
  - Z / C3 for frame 254/6JM
- 1045 heat treated and stress relieved carbon steel shaft
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Dip and Bake Insulation system
- NEMA design "B"
- 1.15 Service Factor
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 207N - Frame 143/5JM
  - 207A - Frame 182/4JM & 213/5JM
  - 203A - Frame 254/6JM
- Color: Munsell N1 - Flat Black
- All frames have dual mounting



Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
143/5JM or JP - 254/6JM or JP	2 Pole	3:1	1000:1	Any
	4 Pole	5:1		

See page 7.6 for details

## Optional Features

- 50Hz
- Special voltages
- Special shafts
- Thermostats, Thermistors
- Drip cover (canopy) for shaft down applications
- Special paint
- No feet



# W01 JM & JP Rolled Steel - NEMA Premium

## ODP - Vertical - Purchasing Data

Rated Output		NEMA Frame	List Price JM Type	List Price JP Type	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.) JM Type	Overall Length "C" Dim. (in.) JP Type
HP	RPM					460V	575V				
1	3600	143/5 JM or JP	\$1,360	\$1,386	JM000X02DPNPSW01	1.38	1.10	80.0	25.4	15.078	18.149
	1800	143/5 JM or JP	\$924	\$1,390	JM000X04DPNPSW01	1.51	1.21	85.5	34.4	15.078	18.149
	1200	143/5 JM or JP	P.O.A	P.O.A	JM000X06DPNPSW01	1.65	1.32	82.5	35.3	15.078	18.149
1.5	3600	143/5 JM or JP	\$1,444	\$1,470	JM001X02DPNPSW01	1.85	1.48	84.0	29.3	15.078	18.149
	1800	143/5 JM or JP	\$1,002	\$1,484	JM001X04DPNPSW01	2.07	1.66	86.5	41.9	16.259	19.33
	1200	182/4 JM or JP	P.O.A	P.O.A	JM001X06DPNPSW01	2.25	1.80	86.5	56	16.849	19.92
2	3600	143/5 JM or JP	\$1,568	\$1,600	JM002X02DPNPSW01	2.42	1.94	85.5	36.8	15.471	18.542
	1800	143/5 JM or JP	\$1,030	\$1,564	JM002X04DPNPSW01	2.69	2.15	86.5	39	16.259	19.33
	1200	182/4 JM or JP	P.O.A	P.O.A	JM002X06DPNPSW01	2.95	2.36	87.5	66.1	17.637	20.708
3	3600	143/5 JM or JP	\$1,062	\$1,730	JM003X02DPNPSW01	3.59	2.87	85.5	39.9	15.865	18.936
	1800	182/4 JM or JP	\$1,300	\$2,016	JM003X04DPNPSW01	3.86	3.09	89.5	65.9	18.031	21.101
	1200	213/5 JM or JP	\$2,306	P.O.A	JM003X06DPNPSW01	4.16	3.33	88.5	98.3	19.646	23.504
5	3600	182/4 JM or JP	\$1,448	\$2,268	JM005X02DPNPSW01	6.10	4.88	86.5	58.7	17.637	20.708
	1800	182/4 JM or JP	\$1,474	\$2,294	JM005X04DPNPSW01	6.33	5.06	89.5	79.8	19.212	22.283
	1200	213/5 JM or JP	P.O.A	P.O.A	JM005X06DPNPSW01	6.74	5.39	89.5	118	20.039	23.898
7.5	3600	182/4 JM or JP	\$1,756	\$2,708	JM007X02DPNPSW01	8.67	6.94	88.5	69.9	18.031	21.101
	1800	213/5 JM or JP	\$2,406	\$3,024	JM007X04DPNPSW01	9.25	7.40	91.0	116	19.646	23.504
	1200	254/6 JM or JP	P.O.A	P.O.A	JM007X06DPNPSW01	10.2	8.16	90.2	187	23.898	26.772
10	3600	213/5 JM or JP	\$2,326	\$3,342	JM010X02DPNPSW01	12.0	9.60	89.5	117	20.039	23.898
	1800	213/5 JM or JP	\$2,370	\$3,342	JM010X04DPNPSW01	12.4	9.92	91.7	137	19.646	23.504
	1200	254/6 JM or JP	\$3,722	P.O.A	JM010X06DPNPSW01	13.9	11.1	91.7	209	23.898	26.772
15	3600	213/5 JM or JP	\$2,746	\$4,314	JM015X02DPNPSW01	17.2	13.8	90.2	131	20.827	24.685
	1800	254/6 JM or JP	\$3,460	\$4,884	JM015X04DPNPSW01	18.6	14.9	93.0	175	23.898	26.772
	3600	254/6 JM or JP	\$3,786	\$5,204	JM020X02DPNPSW01	23.8	19.0	91.0	151	23.898	26.772
20	3600	254/6 JM or JP	\$3,934	\$5,736	JM020X04DPNPSW01	25.0	20.0	93.0	198	23.898	26.772
	3600	254/6 JM or JP	\$4,556	\$6,224	JM025X02DPNPSW01	29.1	23.3	91.7	174	23.898	26.772

Type: For JP Type Replace 'JM' with 'JP'  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

## ODP - Horizontal - Purchasing Data

Rated Output		NEMA Frame	List Price JM Type	List Price JP Type	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.) JM Type	Overall Length "C" Dim. (in.) JP Type
HP	RPM					460V	575V				
1	3600	143/5 JM or JP	\$880	\$898	JM000X02DPNPW01	1.38	1.10	80.0	25.4	13.701	16.772
	1800	143/5 JM or JP	\$888	\$906	JM000X04DPNPW01	1.51	1.21	85.5	34.4	13.701	16.772
	1200	143/5 JM or JP	\$1,032	P.O.A	JM000X06DPNPW01	1.65	1.32	82.5	35.3	13.701	16.772
1.5	3600	143/5 JM or JP	\$944	\$964	JM001X02DPNPW01	1.85	1.48	84.0	29.3	13.701	16.772
	1800	143/5 JM or JP	\$962	\$982	JM001X04DPNPW01	2.07	1.66	86.5	41.9	14.882	17.953
	1200	182/4 JM or JP	\$1,229	P.O.A	JM001X06DPNPW01	2.25	1.80	86.5	56	15.472	18.543
2	3600	143/5 JM or JP	\$974	\$992	JM002X02DPNPW01	2.42	1.94	85.5	36.8	14.094	17.165
	1800	143/5 JM or JP	\$990	\$1,010	JM002X04DPNPW01	2.69	2.15	86.5	39	14.882	17.953
	1200	182/4 JM or JP	\$1,372	P.O.A	JM002X06DPNPW01	2.95	2.36	87.5	66.1	16.260	19.331
3	3600	143/5 JM or JP	\$1,020	\$1,040	JM003X02DPNPW01	3.59	2.87	85.5	39.9	14.488	17.559
	1800	182/4 JM or JP	\$1,248	\$1,274	JM003X04DPNPW01	3.86	3.09	89.5	65.9	16.654	19.724
	1200	213/5 JM or JP	\$1,865	P.O.A	JM003X06DPNPW01	4.16	3.33	88.5	98.3	17.717	21.575
5	3600	182/4 JM or JP	\$1,390	\$1,418	JM005X02DPNPW01	6.10	4.88	86.5	58.7	16.26	19.331
	1800	182/4 JM or JP	\$1,416	\$1,444	JM005X04DPNPW01	6.33	5.06	89.5	79.8	17.835	20.906
	1200	213/5 JM or JP	\$2,303	P.O.A	JM005X06DPNPW01	6.74	5.39	89.5	118	18.110	21.969
7.5	3600	182/4 JM or JP	\$1,686	\$1,720	JM007X02DPNPW01	8.67	6.94	88.5	69.9	16.654	19.724
	1800	213/5 JM or JP	\$1,964	\$2,002	JM007X04DPNPW01	9.25	7.40	91.0	116	17.717	21.575
	1200	254/6 JM or JP	\$3,120	P.O.A	JM007X06DPNPW01	10.2	8.16	90.2	187	21.969	24.843
10	3600	213/5 JM or JP	\$2,234	\$2,278	JM010X02DPNPW01	12.0	9.60	89.5	117	18.110	21.969
	1800	213/5 JM or JP	\$2,276	\$2,276	JM010X04DPNPW01	12.4	9.92	91.7	137	17.717	21.575
	1200	254/6 JM or JP	\$3,687	P.O.A	JM010X06DPNPW01	13.9	11.1	91.7	209	21.969	24.843
15	3600	213/5 JM or JP	\$2,636	\$2,690	JM015X02DPNPW01	17.2	13.8	90.2	131	18.898	22.756
	1800	254/6 JM or JP	\$3,322	\$3,388	JM015X04DPNPW01	18.6	14.9	93.0	175	21.969	24.843
	3600	254/6 JM or JP	\$3,636	\$3,708	JM020X02DPNPW01	23.8	19.0	91.0	151	21.969	24.843
20	3600	254/6 JM or JP	\$3,778	\$3,854	JM020X04DPNPW01	25.0	20.0	93.0	198	21.969	24.843
	3600	254/6 JM or JP	\$4,374	\$4,462	JM025X02DPNPW01	29.1	23.3	91.7	174	21.969	24.843

Type: For JP Type Replace 'JM' with 'JP'  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

# W01 JM & JP Rolled Steel - NEMA Premium

## ODP - Vertical and Horizontal - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V							50%	75%	100%	50%	75%	100%
1	0.75	3510	143/5JM	2.76	1.38	1.10	8.3	210%	330%	22	25.4	1.15	74.0	78.5	80.0	0.66	0.78	0.85
		1760	143/5JM	3.02	1.51	1.21	8.0	290%	360%	22	34.4	1.15	81.5	84.0	85.5	0.51	0.65	0.73
		1150	143/5JM	3.30	1.65	1.32	6.1	250%	300%	24	35.3	1.15	78.5	81.5	82.5	0.47	0.60	0.69
1.5	1.1	3510	143/5JM	3.70	1.85	1.48	8.6	210%	330%	19	29.3	1.15	81.5	84.0	84.0	0.73	0.83	0.89
		1760	143/5JM	4.14	2.07	1.66	8.7	280%	330%	15	41.9	1.15	84.0	86.5	86.5	0.56	0.69	0.77
		1165	182/4JM	4.50	2.25	1.80	6.5	200%	310%	46	56.0	1.15	84.0	85.5	86.5	0.51	0.63	0.71
2	1.5	3510	143/5JM	4.84	2.42	1.94	8.9	220%	330%	14	36.8	1.15	84.0	85.5	85.5	0.77	0.86	0.91
		1740	143/5JM	5.38	2.69	2.15	7.7	260%	320%	17	39.0	1.15	85.5	86.5	86.5	0.61	0.74	0.81
		1165	182/4JM	5.90	2.95	2.36	6.6	200%	300%	33	66.1	1.15	85.5	86.5	87.5	0.53	0.66	0.73
3	2.2	3480	143/5JM	7.18	3.59	2.87	8.0	230%	300%	9	39.9	1.15	84.0	85.5	85.5	0.76	0.86	0.90
		1765	182/4JM	7.72	3.86	3.09	8.4	220%	330%	15	65.9	1.15	87.5	88.5	89.5	0.60	0.73	0.80
		1175	213/5JM	8.32	4.16	3.33	5.9	210%	260%	39	98.3	1.15	86.5	87.5	88.5	0.56	0.68	0.75
5	3.7	3510	182/4JM	12.2	6.10	4.88	7.6	190%	300%	12	58.7	1.15	85.5	86.5	86.5	0.73	0.83	0.88
		1760	182/4JM	12.7	6.33	5.06	7.2	200%	310%	12	79.8	1.15	88.5	88.5	89.5	0.63	0.76	0.82
		1175	213/5JM	13.5	6.74	5.39	5.9	220%	250%	29	118	1.15	88.5	89.5	89.5	0.58	0.70	0.77
7.5	5.5	3500	182/4JM	17.3	8.67	6.94	7.4	180%	290%	10	69.9	1.15	88.5	88.5	88.5	0.76	0.85	0.90
		1770	213/5JM	18.5	9.25	7.40	7.3	240%	320%	13	116	1.15	89.5	90.2	91.0	0.65	0.77	0.82
		1175	254/6JM	20.4	10.2	8.16	5.1	200%	230%	37	187	1.15	88.5	90.2	90.2	0.56	0.68	0.75
10	7.5	3535	213/5JM	24.0	12.0	9.60	6.8	200%	280%	11	117	1.15	88.5	89.5	89.5	0.74	0.84	0.88
		1770	213/5JM	24.8	12.4	9.92	7.0	250%	350%	14	137	1.15	90.2	91.0	91.7	0.64	0.77	0.83
		1180	254/6JM	27.8	13.9	11.1	5.3	210%	230%	34	209	1.15	91.0	91.7	91.7	0.56	0.68	0.74
15	11	3535	213/5JM	34.4	17.2	13.8	6.9	210%	280%	8	131	1.15	90.2	90.2	90.2	0.77	0.86	0.89
		1775	254/6JM	37.2	18.6	14.9	6.7	240%	300%	17	175	1.15	91.7	92.4	93.0	0.62	0.73	0.80
20	15	3525	254/6JM	47.6	23.8	19.0	6.0	180%	240%	13	151	1.15	90.2	91.0	91.0	0.76	0.83	0.87
		1770	254/6JM	50.0	25.0	20.0	6.3	240%	290%	15	198	1.15	92.4	92.4	93.0	0.63	0.74	0.81
25	18.5	3530	254/6JM	58.2	29.1	23.3	6.3	180%	290%	9	174	1.15	91.0	91.7	91.7	0.73	0.83	0.87

# W01 JM & JP Pump Motors - NEMA Premium Efficiency ODP - Mechanical Data

## JM Type

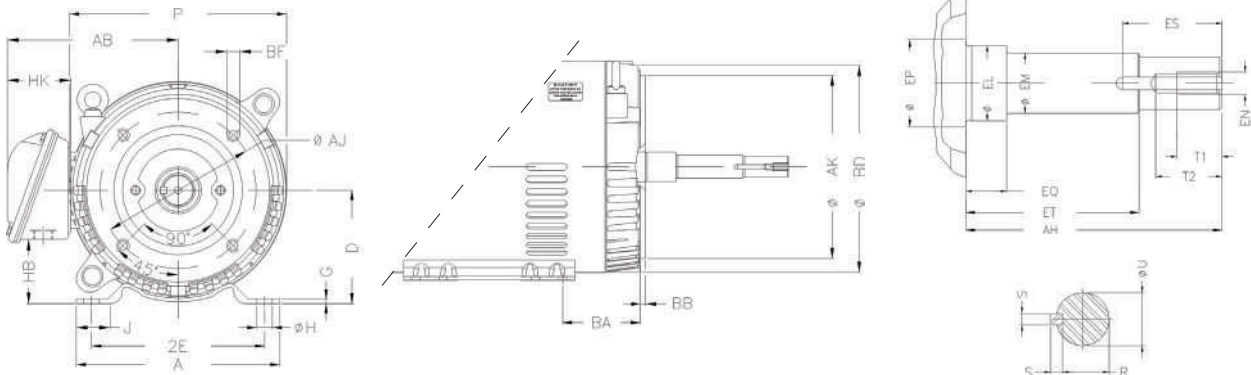
Frame	MOUNTING				A	B	D	NEMA C FLANGE					
	2E	2F	H	BA				AJ	AK	BB	BD	BF TAP	BF NUMBER
143/5JM	5.500	4.000/5.000	0.343	2.250	6.535	6.496	3.500	5.874	4.500	0.157	6.028	UNC 3/8"X16	4
182/4JM	7.500	4.500/5.500	0.406	2.750	8.661	6.299	4.500			0.138	6.496		
213/5JM	8.500	5.500/7.000		3.500	9.449	7.953	5.250	7.250	8.500	0.250	9.401	UNC 1/2"X13	
254/6JM	10.000	8.252/10.000	4.250	11.417	11.417	6.250	11.084						

Frame	SHAFT END											BEARINGS			
	AH	EQ	ET	U	EM	EL	EP	S	R	ES	d1	T1	T2	D.E.	N.D.E.
143/5JM	4.267	0.630	2.880	0.874	1.000	1.156	1.179	0.187	0.768	1.575	3/8"X16	0.787	1.102	6206-ZZ	6203-ZZ
182/4JM	4.258					1.250	1.376			1.653		0.748	1.102	6207-ZZ	6205-ZZ
213/5JM	5.250					1.769	1.575			1.102		1.102	6209-ZZ	6206-ZZ	
254/6JM	5.250	3.006	1.249	1.375	1.750	0.250	1.110	2.559	1/2"X13	1.024	1.496	6309-Z-C3	6208-Z-C3		

## JP Type

Frame	MOUNTING				A	B	D	NEMA C FLANGE					
	2E	2F	H	BA				AJ	AK	BB	BD	BF TAP	BF NUMBER
143/5JP	5.500	4.000/5.000	0.343	2.250	6.535	6.496	3.500	5.874	4.500	0.157	6.028	UNC 3/8"X16	4
182/4JP	7.500	4.500/5.500	0.406	2.750	8.661	6.299	4.500			0.138	6.496		
213/5JP	8.500	5.500/7.000		3.500	9.449	7.953	5.250	7.250	8.500	0.250	9.401	UNC 1/2"X13	
254/6JP	10.000	8.252/10.000	4.250	11.417	11.417	6.250	11.084						

Frame	SHAFT END											BEARINGS			
	AH	EQ	ET	U	EM	EL	EP	S	R	ES	d1	T1	T2	D.E.	N.D.E.
143/5JP	7.319	1.563	5.941	0.874	1.000	1.156	1.179	0.187	0.768	1.654	3/8"X16	0.787	1.102	6206-ZZ	6203-ZZ
182/4JP						1.250	1.376					0.748		1.102	6207-ZZ
213/5JP	8.130	2.374	5.886	1.250	1.375	1.750	1.769	0.250	1.110	2.560	1/2"X13	0.984	1.496	6209-ZZ	6206-ZZ
254/6JP		2.382		1.249						2.559		1.024	1.496	6309-Z-C3	6208-Z-C3



# W40 JM & JP Pump Motors - NEMA Premium Efficiency ODP

## Standard Features

- Three phase, 2, 4 and 6 pole, 60Hz
- Voltage: 208-230/460V, 460V or 575V
- Die cast aluminum squirrel cage rotor
- Class "F" insulation
- Temperature rise: Class "B" (80°C)
- 104°F (40°C) ambient temperature
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Continuous Duty (S1)
- NEMA dimensions
- Open drip proof
- Service Factor: 1.15
- Stainless steel nameplate
- 1045 carbon steel shaft
- F1 mount (with cast iron 'C' Flange)
- Paint: Enamel alkyd resin base
- Color: RAL 5007 (Blue)
- Weg paint plan: 207A
- Drip cover for all vertical motors
- Cast iron frames
- Cast iron endshields and terminal box
- Cooling system with finned rotor
- Regreasable bearings system (frame 254JP and up)
- Degree of protection: IP23



Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
254/6JM - 405JM or JP	All	10:1	100:1	Any
See page 7.6 for details				

## Optional Features

- Special voltages
- Thermistors, Thermostats or RTD's (PT100)
- UL Listed fire pump duty



# W40 JM & JP Pump Motors - NEMA Premium Efficiency

## ODP - Vertical - Purchasing Data

Rated Output		NEMA Frame	List Price JM Type	List Price JP Type	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.) JM Type	Overall Length "C" Dim. (in.) JP Type
HP	RPM					460V	575V				
7.5	1200	254JM or JP	P.O.A.	P.O.A.	JM007X06DPNPS	9.69	7.75	90.2	231	24.098	26.978
10	1200	256JM or JP	P.O.A.	P.O.A.	JM010X06DPNPS	12.8	10.2	91.7	251	25.831	28.711
15	1800	254JM or JP	\$5,636	\$5,748	JM015X04DPNPS	18.6	14.9	93.0	220	24.098	26.978
	1200	284JM or JP	P.O.A.	P.O.A.	JM015X06DPNPS	17.7	14.2	91.7	353	26.584	29.464
20	3600	254JM or JP	\$6,002	\$6,124	JM020X02DPNPS	24.6	19.7	91.0	179	24.098	26.978
	1800	256JM or JP	\$6,614	\$6,748	JM020X04DPNPS	24.7	19.8	93.0	251	25.831	28.711
	1200	286JM or JP	P.O.A.	P.O.A.	JM020X06DPNPS	24.0	19.2	92.4	388	28.077	30.957
25	3600	256JM or JP	\$7,182	\$7,324	JM025X02DPNPS	29.8	23.8	91.7	225	25.831	28.711
	1800	284JM or JP	\$7,578	\$7,730	JM025X04DPNPS	29.9	23.9	93.6	271	26.584	29.464
	1200	324JM or JP	P.O.A.	P.O.A.	JM025X06DPNPS	30.4	24.3	93.0	450	29.147	32.027
30	3600	284JM or JP	\$8,948	\$9,128	JM030X02DPNPS	34.7	27.8	92.4	333	26.584	29.464
	1800	286JM or JP	\$8,800	\$8,978	JM030X04DPNPS	35.4	28.3	94.1	357	28.077	30.957
	1200	326JM or JP	P.O.A.	P.O.A.	JM030X06DPNPS	36.0	28.8	93.6	560	30.643	33.523
40	3600	286JM or JP	\$10,180	\$10,384	JM040X02DPNPS	47.1	37.7	93.0	417	28.077	30.957
	1800	324JM or JP	\$11,296	\$11,520	JM040X04DPNPS	48.2	38.6	94.1	450	29.147	32.027
	1200	364/5JM or JP	P.O.A.	P.O.A.	JM040X06DPNPSW40	47.1	37.7	94.1	787	32.328	35.208
50	3600	324JM or JP	\$12,718	\$12,972	JM050X02DPNPS	59.1	47.3	93.6	478	29.147	32.027
	1800	326JM or JP	\$12,720	\$12,976	JM050X04DPNPS	59.9	47.9	94.5	538	30.643	33.523
	1200	364/5JM or JP	P.O.A.	P.O.A.	JM050X06DPNPSW40	58.1	46.5	94.1	820	32.328	35.208
60	3600	326JM or JP	\$14,554	\$14,848	JM060X02DPNPS	71.0	56.8	93.6	564	30.643	33.523
	1800	364/5JM or JP	\$16,214	\$16,536	JM060X04DPNPSW40	69.9	56.0	95.0	785	32.328	35.208
75	3600	364/5JM or JP	\$19,796	\$20,194	JM075X02DPNPSW40	84.8	67.9	93.6	736	32.328	35.208
	1800	364/5JM or JP	\$18,360	\$18,726	JM075X04DPNPSW40	85.5	68.4	95.0	811	32.328	35.208
100	3600	364/5JM or JP	\$23,254	\$23,718	JM100X02DPNPSW40	116.0	92.8	93.6	774	32.328	35.208

Flange: For JP Type Replace 'JM' with 'JP'  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

\*"C" Dimension does not include drip cover. Call 1 877 PAMENSKY for specifications.

# W40 JM & JP Pump Motors - NEMA Premium Efficiency

## ODP - Horizontal - Purchasing Data

Rated Output		NEMA Frame	List Price JM Type	List Price JP Type	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.) JM Type	Overall Length "C" Dim. (in.) JP Type
HP	RPM					460V	575V				
7.5	1200	254JM or JP	P.O.A.	P.O.A.	JM007X06DPNP	9.69	7.75	90.2	231	22.169	25.049
10	1200	256JM or JP	P.O.A.	P.O.A.	JM010X06DPNP	12.8	10.2	91.7	251	23.902	26.782
15	1800	254JM or JP	\$5,246	\$5,350	JM015X04DPNP	18.6	14.9	93.0	220	22.169	25.049
	1200	284JM or JP	P.O.A.	P.O.A.	JM015X06DPNP	17.7	14.2	91.7	353	24.261	27.141
20	3600	254JM or JP	\$5,684	\$5,798	JM020X02DPNP	24.6	19.7	91.0	179	22.169	25.049
	1800	256JM or JP	\$6,260	\$6,384	JM020X04DPNP	24.7	19.8	93.0	251	23.902	26.782
	1200	286JM or JP	P.O.A.	P.O.A.	JM020X06DPNP	24.0	19.2	92.4	388	25.754	28.634
25	3600	256JM or JP	\$6,792	\$6,928	JM025X02DPNP	29.8	23.8	91.7	225	23.902	26.782
	1800	284JM or JP	\$7,068	\$7,210	JM025X04DPNP	29.9	23.9	93.6	271	24.261	27.141
	1200	324JM or JP	P.O.A.	P.O.A.	JM025X06DPNP	30.4	24.3	93.0	450	26.431	29.311
30	3600	284JM or JP	\$8,440	\$8,608	JM030X02DPNP	34.7	27.8	92.4	333	24.261	27.141
	1800	286JM or JP	\$8,288	\$8,454	JM030X04DPNP	35.4	28.3	94.1	357	25.754	28.634
	1200	326JM or JP	P.O.A.	P.O.A.	JM030X06DPNP	36.0	28.8	93.6	560	27.927	30.807
40	3600	286JM or JP	\$9,670	\$9,862	JM040X02DPNP	47.1	37.7	93.0	417	25.754	28.634
	1800	324JM or JP	\$10,714	\$10,926	JM040X04DPNP	48.2	38.6	94.1	450	26.431	29.311
	1200	364/5JM or JP	P.O.A.	P.O.A.	JM040X06DPNPW40	47.1	37.7	94.1	787	29.270	32.150
50	3600	324JM or JP	\$12,136	\$12,378	JM050X02DPNP	59.1	47.3	93.6	478	26.431	29.311
	1800	326JM or JP	\$12,210	\$12,454	JM050X04DPNP	59.9	47.9	94.5	538	27.927	30.807
	1200	364/5JM or JP	P.O.A.	P.O.A.	JM050X06DPNPW40	58.1	46.5	94.1	820	29.270	32.150
60	3600	326JM or JP	\$14,010	\$14,288	JM060X02DPNP	71.0	56.8	93.6	564	27.927	30.807
	1800	364/5JM or JP	\$15,456	\$15,766	JM060X04DPNPW40	69.9	56.0	95.0	785	29.270	32.150
75	3600	364/5JM or JP	\$19,034	\$19,416	JM075X02DPNPW40	84.8	67.9	93.6	736	29.270	32.150
	1800	364/5JM or JP	\$17,596	\$17,948	JM075X04DPNPW40	85.5	68.4	95.0	811	29.270	32.150
100	3600	364/5JM or JP	\$22,490	\$22,940	JM100X02DPNPW40	116.0	92.8	93.6	774	29.270	32.150

Flange: For JP Type Replace 'JM' with 'JP'  
 Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

# W40 JM & JP Pump Motors - NEMA Premium Efficiency

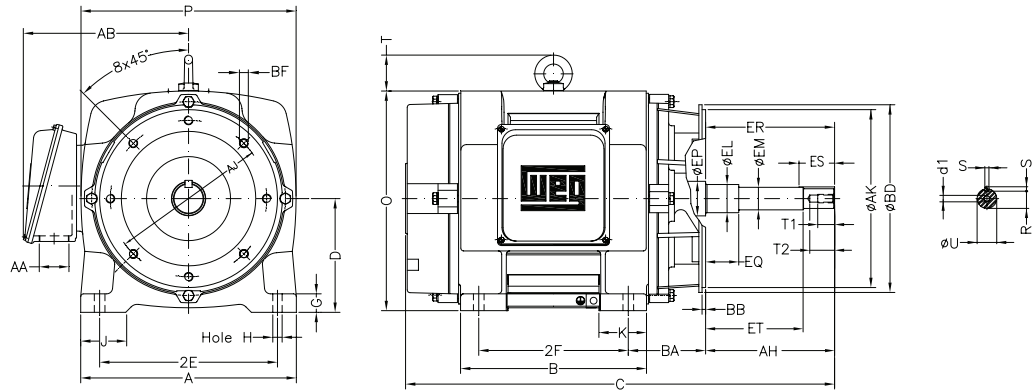
## ODP - Horizontal & Vertical - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (lI/l <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V								50%	75%	100%	50%	75%	100%
7.5	5.5	1175	254JM	19.3	9.63	7.70	6.3	210%	250%	12	231	56	1.15	87.5	88.5	88.5	0.61	0.74	0.81
10	7.5	1175	256JM	25.8	12.9	10.3	6.2	200%	250%	12	251	57	1.15	89.5	90.2	90.2	0.62	0.74	0.81
15	11	1765	254JM	37.5	18.8	15.0	6.0	230%	250%	17	220	59	1.15	89.5	91.0	91.0	0.63	0.75	0.81
		1180	284JM	36.0	18.0	14.4	6.2	190%	230%	12	353	58	1.15	89.5	90.2	90.2	0.72	0.81	0.85
20	15	3540	254JM	48.5	24.3	19.4	5.8	190%	250%	10	179	66	1.15	89.5	90.2	90.2	0.74	0.83	0.86
		1765	256JM	51.0	25.5	20.4	5.6	230%	250%	12	251	60	1.15	90.2	91.0	91.0	0.64	0.75	0.81
		1175	286JM	48.5	24.3	19.4	5.8	220%	230%	18	388	58	1.15	91.0	91.7	91.0	0.73	0.81	0.85
25	18.5	3530	256JM	58.5	29.3	23.4	6.0	200%	250%	10	225	67	1.15	90.2	91.0	91.0	0.76	0.84	0.87
		1765	284JM	60.3	30.1	24.1	6.0	220%	250%	13	271	62	1.15	91.0	91.7	91.7	0.70	0.79	0.84
		1180	324JM	61.8	30.9	24.7	5.9	200%	230%	18	450	60	1.15	91.0	91.7	91.7	0.65	0.77	0.82
30	22	3540	284JM	69.0	34.5	27.6	6.2	200%	270%	12	333	72	1.15	91.0	91.0	91.0	0.80	0.86	0.88
		1770	286JM	71.3	35.6	28.5	6.1	250%	270%	13	357	63	1.15	91.7	92.4	92.4	0.72	0.81	0.84
		1180	326JM	73.8	36.9	29.5	5.8	200%	220%	17	560	60	1.15	91.7	92.4	92.4	0.65	0.76	0.81
40	30	3535	286JM	92.3	46.1	36.9	5.9	190%	260%	16	417	73	1.15	91.7	91.7	91.7	0.81	0.87	0.89
		1775	324JM	98.8	49.4	39.5	5.8	210%	220%	24	450	64	1.15	92.4	93.0	93.0	0.67	0.77	0.82
		1185	364/5JM	94.2	47.1	37.7	6.4	200%	230%	22	787	65	1.15	93.6	94.1	94.1	0.74	0.82	0.85
50	37	3560	324JM	117	58.4	46.7	6.2	220%	240%	28	478	74	1.15	91.0	92.4	92.4	0.75	0.83	0.86
		1770	326JM	121	60.3	48.2	5.6	200%	210%	18	538	65	1.15	92.4	93.0	93.0	0.70	0.80	0.83
		1185	364/5JM	116	58.1	46.5	6.7	220%	240%	15	820	65	1.15	93.6	94.1	94.1	0.74	0.82	0.85
60	45	3555	326JM	141	70.6	56.5	6.0	230%	250%	17	564	75	1.15	92.4	93.0	93.0	0.77	0.84	0.86
		1780	364/5JM	140	69.9	55.9	6.5	200%	240%	19	785	67	1.15	94.5	95.0	95.0	0.73	0.82	0.85
75	55	3560	364/5JM	170	84.8	67.8	6.6	200%	250%	19	736	82	1.15	91.7	93.0	93.6	0.77	0.84	0.87
		1780	364/5JM	171	85.5	68.4	6.8	220%	260%	14	811	67	1.15	94.5	95.0	95.0	0.73	0.82	0.85
100	75	3555	364/5JM	232	116	92.8	6.6	180%	230%	13	774	82	1.15	92.4	93.6	93.6	0.77	0.84	0.87

# JM & JP Pump Motors - NEMA Premium Efficiency

## ODP - Mechanical Data

Frames 254JM/JP to 364/5JM/JP



### JM Type

Frame	MOUNTING				A	B	C	D	NEMA C FLANGE					
	2E	2F	H	BA					AJ	AK	BB	BD	BFTAP	BF NUMBER
254JM	10.000	8.250	0.531	4.500	12.130	10.100	22.169	6.220	7.250	8.500	0.250	8.585	UNC 1/2"x13	4
256JM		10.000				11.732	23.902							
284JM	11.000	9.500		4.750	13.780	11.574	24.261	7.000	11.000	12.500		14.000		
286JM		11.000				25.754								
324JM	12.500	10.500	0.657	5.250	15.160	13.070	26.431	8.000	11.000	12.500	13.189	UNC 5/8"x11	8	
326JM		12.000				14.566	27.927							
364/5JM	14.000	11.250/12.250	0.660	0.5880	17.170	15.322	29.270	9.000			14.000			

Frame	SHAFT END												BEARINGS			
	AH	ER	EQ	ET	U	EM	EL	EP	S	R	ES	d1	T1	T2	D.E.	N.D.E.
254 JM	5.250	5.250	0.630	3.006	1.249	1.375	1.750	1.750	0.250	1.110	2.480	1/2"X13	0.984	1.496	6309-Z-C3	6209-Z-C3
256 JM								2.163							6311-Z-C3	6211-Z-C3
284 JM								2.360							6312-Z-C3	6212-Z-C3
286 JM								2.753							6314-Z-C3	
324 JM																
326 JM																
364/5 JM																

### JP Type

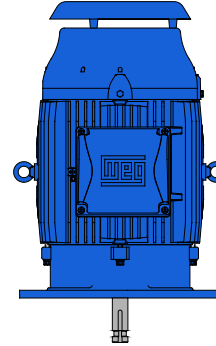
Frame	MOUNTING				A	B	C	D	NEMA C FLANGE					
	2E	2F	H	BA					AJ	AK	BB	BD	BFTAP	BF NUMBER
254 JP	10.000	8.250	0.531	4.500	12.130	10.100	25.049	6.220	7.250	8.500	0.250	8.585	UNC 1/2"x13	4
256 JP		10.000				11.732	26.782							
284 JP	11.000	9.500		4.750	13.780	11.574	27.141	7.000	11.000	12.500		14.000		
286 JP		11.000				28.634								
324 JP	12.500	10.500	0.657	5.250	15.160	13.070	29.311	8.000	11.000	12.500	14.000	UNC 5/8"x11	8	
326 JP		12.000				14.566	30.807							
364/5 JP	14.000	11.250/12.250	0.660	5.880	17.170	15.322	32.150	9.000						

Frame	SHAFT END												BEARINGS			
	AH	ER	EQ	ET	U	EM	EL	EP	S	R	ES	d1	T1	T2	D.E.	N.D.E.
254 JP	8.130	8.130	2.382	5.886	1.249	1.375	1.750	1.770	0.250	1.110	2.480	1/2"X13	0.984	1.496	6309-Z-C3	6209-Z-C3
256 JP								2.163							6311-Z-C3	6211-Z-C3
284 JP								2.360							6312-Z-C3	6212-Z-C3
286 JP								2.753							6314-C3	
324 JP																
326 JP																
364/5 JP					1.624	1.750	2.125	2.753	0.377	1.413						

# W22 P-Base Motors - NEMA Premium TEFC

## Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4, 6 and 8 pole, 60Hz
- Voltage: 208-230/460V, 575V
- Totally Enclosed Fan Cooled -TEFC (IP55) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- Sealing: V'Ring
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Insulation System:
  - Dip and Bake Insulation system with class "H" resin up to frame 324/6HP
  - CFRI Continuous Flow Resin Impregnation Insulation system with class "H" resin for frame 364/5HP and up.
- NEMA design "B"
- Service Factor:
  - 1.25 up to 100HP
  - 1.15 from 125HP and up
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Stainless steel nameplate with laser etching
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 207A - Frames 143HP to 215HP
  - 203A - Frames 254HP to 444/5HP
- Color: RAL 5009 - Blue
- Fitted with closed rubber drain breathers
- Regreasable bearings for frames 254/6HP and up
- Drip Cover



Class I, Div 2, Groups A,B,C & D  
Class II, Div 2, Groups F & G  
Class I, Zone 2, IIC

Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
143HP - 444/5HP	All	20:1	1000:1	Any
	All	1000:1*		WEG

\* Can only be achieved by a WEG VFD running in Sensorless Vector  
See page 7.6 for details

## Optional Features

- 50Hz
- Special voltages
- Special shafts
- Space heaters
- Labyrinth taconite seal available for all ratings
- Thermostats, Thermistors, RTD's (PT100)
- Additional terminal box
- Special paint
- Shaft grounding (Aegis or WEG). Not for Hazloc.
- Insulated endbells available from 364/5HP and up
- Degree of protection: IP56, IP65, IP66
- UL Listed fire pump duty
- With feet



# W22 P-Base Motors - NEMA Premium TEFC

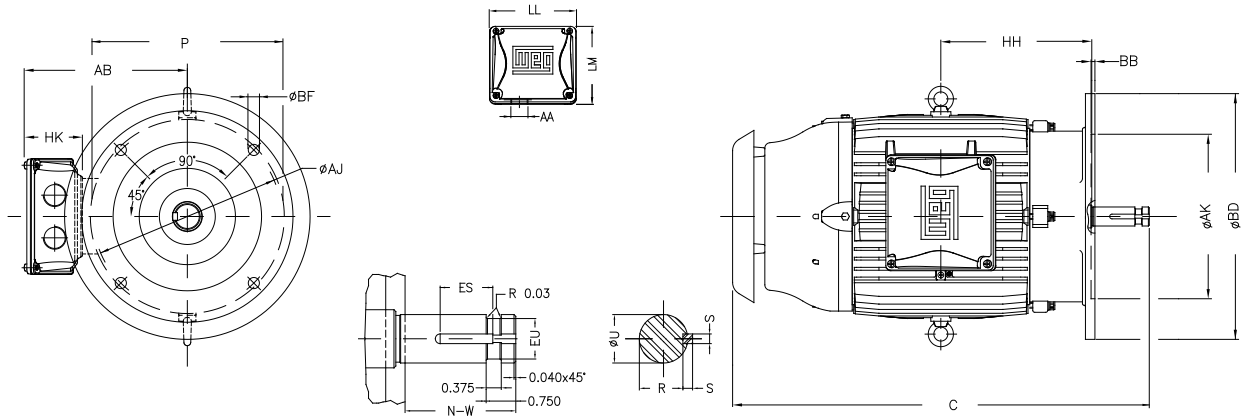
Rated Output		NEMA Frame	List Price	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				460V	575V			
1	1800	143HP	\$1,822	PB000X04NPW22	1.41	1.13	85.5	40.8	13.421
	1200	145HP	\$2,214	PB000X06NPW22	1.73	1.38	82.5	52.9	14.397
1.5	3600	143HP	\$1,966	PB001X02NPW22	1.96	1.57	84.0	40.8	13.421
	1800	145HP	\$1,966	PB001X04NPW22	2.02	1.62	86.5	48.5	14.397
	1200	182HP	\$2,538	PB001X06NPW22	2.54	2.03	87.5	70.3	15.504
2	3600	145HP	\$2,056	PB002X02NPW22	2.56	2.05	85.5	51.8	14.397
	1800	145HP	\$2,014	PB002X04NPW22	2.69	2.15	86.5	50.7	14.397
	1200	184HP	\$2,744	PB002X06NPW22	3.23	2.58	88.5	87.5	16.504
3	3600	182HP	\$2,474	PB003X02NPW22	3.63	2.90	86.5	88.2	15.504
	1800	182HP	\$2,448	PB003X04NPW22	3.91	3.13	89.5	90.4	15.504
	1200	213HP	P.O.A	PB003X06NPW22	4.41	3.53	89.5	121	18.630
5	3600	184HP	\$2,954	PB005X02NPW22	5.90	4.72	88.5	88.2	16.504
	1800	184HP	\$2,916	PB005X04NPW22	6.45	5.16	89.5	94.8	16.504
	1200	215HP	\$4,658	PB005X06NPW22	6.83	5.46	89.5	162	20.126
7.5	3600	213HP	\$4,182	PB007X02NPW22	8.76	7.01	89.5	139	18.630
	1800	213HP	\$3,916	PB007X04NPW22	9.18	7.34	91.7	154	18.630
	1200	254HP	\$6,032	PB007X06NPW22	9.48	7.58	91.0	262	23.723
10	3600	215HP	\$5,122	PB010X02NPW22	11.6	9.28	90.2	163	20.126
	1800	215HP	\$4,942	PB010X04NPW22	12.4	9.92	91.7	172	20.126
	1200	256HP	\$7,856	PB010X06NPW22	12.9	10.3	91.0	289	25.455
15	3600	254HP	\$6,700	PB015X02NPW22	17.2	13.8	91.0	236	23.723
	1800	254HP	\$6,324	PB015X04NPW22	18.0	14.4	92.4	251	23.723
	1200	284HP	\$8,503	PB015X06NPW22	17.9	14.3	91.7	379	26.350
20	1200	284HPH	P.O.A	PB015X06NPW22HHPH	17.9	14.3	91.7	379	28.100
	3600	256HP	\$7,150	PB020X02NPW22	23.2	18.6	91.0	269	25.455
	1800	256HP	\$6,904	PB020X04NPW22	24.1	19.3	93.0	291	25.455
25	1200	286HP	\$13,548	PB020X06NPW22HP	24.2	19.4	91.7	426	27.845
	1200	286HPH	\$13,548	PB020X06NPW22HHPH	24.2	19.4	91.7	426	29.595
	3600	284HP	\$9,790	PB025X02NPW22HP	28.5	22.8	91.7	362	26.350
30	3600	284HPH	\$9,790	PB025X02NPW22HHPH	28.5	22.8	91.7	362	28.100
	1800	284HP	\$9,726	PB025X04NPW22HP	29.5	23.6	93.6	388	26.350
	1800	284HPH	\$9,726	PB025X04NPW22HHPH	29.5	23.6	93.6	388	28.100
40	1200	324HP	P.O.A	PB025X06NPW22	30.4	24.3	93.0	560	30.403
	3600	286HP	\$11,154	PB030X02NPW22HP	33.8	27.0	91.7	392	27.845
	3600	286HPH	\$11,154	PB030X02NPW22HHPH	33.8	27.0	91.7	392	29.595
50	1800	286HP	\$10,358	PB030X04NPW22HP	35.1	28.1	93.6	437	27.845
	1800	286HPH	\$10,358	PB030X04NPW22HHPH	35.1	28.1	93.6	437	29.595
	1200	326HP	P.O.A	PB030X06NPW22	35.8	28.6	93.0	628	31.897
60	3600	324HP	\$14,196	PB040X02NPW22	45.8	36.6	92.4	547	30.403
	1800	324HP	\$13,596	PB040X04NPW22	47.1	37.7	94.1	492	30.403
	1200	364/5HP	P.O.A	PB040X06NPW22	46.5	37.2	94.1	833	34.830
75	3600	326HP	\$17,910	PB050X02NPW22	56.1	44.9	93.0	584	31.897
	1800	326HP	\$17,204	PB050X04NPW22	59.2	47.4	94.5	536	31.897
	1200	364/5HP	\$30,040	PB050X06NPW22	57.4	45.9	94.1	869	34.830
100	3600	364/5HP	\$23,668	PB060X02NPW22	67.0	53.6	93.6	825	34.830
	1800	364/5HP	\$23,206	PB060X04NPW22	68.3	54.6	95.0	869	34.830
	1200	404/5HP	P.O.A	PB060X06NPW22HP	69.5	55.6	94.5	1036	38.230
125	1200	404/5HPH	P.O.A	PB060X06NPW22HHPH	69.5	55.6	94.5	1036	38.230
	3600	364/5HP	\$23,936	PB075X02NPW22	81.9	65.5	93.6	847	34.830
	1800	364/5HP	\$23,824	PB075X04NPW22	84.1	67.3	95.4	919	34.830
150	1200	404/5HP	P.O.A	PB075X06NPW22HP	84.9	67.9	94.5	1089	38.230
	1200	404/5HPH	P.O.A	PB075X06NPW22HHPH	84.9	67.9	94.5	1089	38.230
	3600	404/5HP	\$29,605	PB100X02NPW22HP	110	88.0	94.1	1045	38.230
200	3600	404/5HPH	\$29,605	PB100X02NPW22HHPH	110	88.0	94.1	1045	38.230
	1800	404/5HP	\$30,223	PB100X04NPW22HP	111	88.8	95.4	1140	38.230
	1800	404/5HPH	\$30,223	PB100X04NPW22HHPH	111	88.8	95.4	1140	38.230
250	1200	444/5HP	\$43,885	PB100X06NPW22HP	121	96.8	95.0	1577	41.350
	1200	444/5HPH	\$43,885	PB100X06NPW22HHPH	121	96.8	95.0	1577	41.350
	3600	444/5HP	P.O.A	PB125X02NPW22	134	107	95.0	1599	41.350
300	1800	444/5HP	P.O.A	PB125X04NPW22	139	111	95.4	1590	41.350
	1200	444/5HP	P.O.A	PB125X06NPW22	143	114	95.0	1751	41.350

Voltage: Replace 'X' with '4' for 208-230/460V  
Replace 'X' with '5' for 575V



# W22 P-Base Motors - NEMA Premium

## TEFC - Mechanical Data

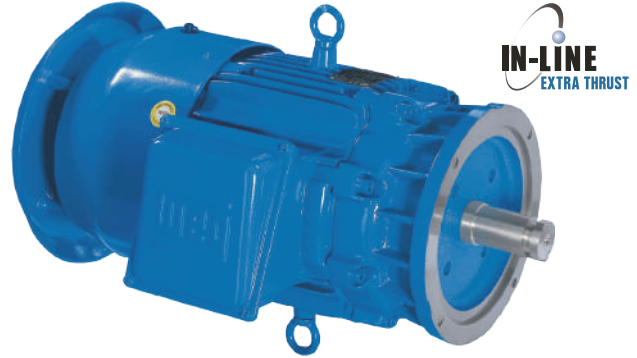


NEMA FRAMES	# of Poles	P	AB	AH	U	N-W	ES	EU	S	R	HH	HK	C	LL	LM	AA	Bearing		Flange				
																	D.E.	N.D.E.	AJ	AK	BD	BF	BB
143HP	2	7.047	6.260	2.750	0.875	2.874	1.250	0.687	0.187	0.765	4.250	2.638	13.421	4.528	4.094	NPT 3/4"	6307 ZZ	6204 ZZ					
143HP	4/6/8																						
145HP	2																						
145HP	4/6/8	8.740	7.565								5.000					NPT 1"	6308 ZZ	6206 ZZ	9.125	8.250	10.000	0.433	0.196
182HP	2																						
182HP	4/6/8																						
184HP	2	10.630	8.583	2.750	1.125	2.953	1.250	0.875	0.250	0.984	7.000					NPT 1 1/2"	6309 ZZ	6207 ZZ					
184HP	4/6/8																						
213HP	2																						
213HP	4/6/8	12.283	10.483								8.376					NPT 1 1/2"	6311 C3	6209 C3					
215HP	2																						
215HP	4/6/8																						
254HP	2	14.094	11.073	4.500	1.625	4.764	3.150	1.250	0.375	1.415	9.500	3.976	28.100	7.815	7.480	NPT 1 1/2"	6312 C3		14.750	13.500	16.500	0.687	0.250
254HP	4/6/8																						
256HP	2																						
256HP	4/6/8	15.591	12.575	2.750	1.125	2.953	1.250	0.875	0.250	0.984	10.250					NPT 2"	6314 C3	6211 C3	9.125	8.250	10.000	0.433	0.196
284HP	2																						
284HP	4/6/8																						
284HPH	2	17.794		4.500		4.764	3.150				10.500	4.705	30.403	9.055	8.661	NPT 2"	6314 C3	6212 C3	14.750	13.500	16.500	0.687	0.250
284HPH	4/6/8																						
286HP	2																						
286HP	4/6/8	19.134	16.016	2.750	1.125	2.953	1.250	0.875	0.250	0.984	10.250					NPT 3"	6316 C3	6314 C3					
286HPH	2																						
286HPH	4/6/8																						
324HP	2	23.583	18.570	4.500	1.625	4.764	3.150	1.250	0.375	1.415	11.250	31.897	10.591	11.267		2xNPT 3"	6319 C3	6316 C3					
324HP	4/6/8																						
326HP	2																						
326HP	4/6/8	19.134	16.016	2.750	1.125	2.953	1.250	0.875	0.250	0.984	10.250					NPT 3"	6316 C3	6314 C3					
364/5HP	2																						
364/5HP	4/6/8																						
404/5HP	2	23.583	18.570	4.500	1.625	4.764	3.150	1.250	0.375	1.415	11.250	31.897	10.591	11.267		2xNPT 3"	6319 C3	6316 C3					
404/5HP	4/6/8																						
404/5HPH	2																						
404/5HPH	4/6/8	23.583	18.570	4.500	1.625	4.764	3.150	1.250	0.375	1.415	11.250	31.897	10.591	11.267		2xNPT 3"	6319 C3	6316 C3					
444/5HP	2																						
444/5HP	4/6/8																						

# In-Line Extra Thrust Motors - LP and LPH - Nema Premium TEFC

## Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase 2, 4, 6 and 8 poles - 60Hz
- Voltage: 208-230/460V or 575V
- Die cast aluminum squirrel cage rotor
- Totally Enclosed Fan Cooled (IP55)
- Insulation Class "F"
- 104°F (40°C) ambient temperature
- Temperature rise: Class 'B' (80°C)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Run out according to API 610, section III (3.1.8) 0.025 mm
- Concentricity according to API 610, section III (3.1.8) 0.1 mm
- Perpendicularity according to API 610, section III (3.1.8) 0.025 mm
- Axial float according to API 610, section III (3.1.8) 0.125 mm
- Dual 7300 series bearings on N.D.E. supports axial thrust
- D.E. Ball Bearings with normal clearance
- Altitude: 3300 ft (1000 m)
- 1045 carbon steel shaft
- Usual mounting: V1 footless
- Cast iron frame
- Aluminum Canopy
- Three eyebolt (frame 254LP and up)
- Automatic drain plugs
- Service factor: 1.25 up to 100HP
  - 1.15 above 100HP
- Paint: Enamel alkyd resin base
- Color: Blue - RAL 5009
- WEG paint plan: 207A



Class I, Div 2, Groups B,C & D  
Class II, Div 2, Groups F  
Class I, Zone 2, IIC



Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
182LP - 444/5LP	All	12:1	1000:1	Any
		100:1*		WEG

\*Can only be achieved with a WEG VFD running in Sensorless Vector  
See page 7.6 for details



## Optional Features

- Special voltages
- Painting Plans
- Thermistors, Thermostats or RTD's (PT100)
- Space heaters
- Auxiliary terminal box
- Class "H" insulation
- Special grease for high or low temperatures
- Degree of Protection: IP56
- NEMA Premium Efficiency



# In-Line Extra Thrust Motors - LP and LPH

## NEMA Premium

### TEFC - Purchasing Data

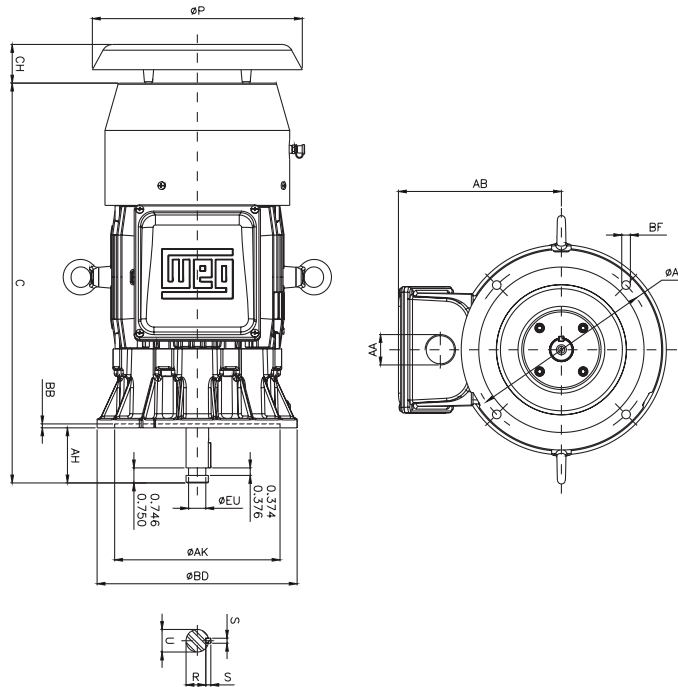
Rated Output		NEMA Frame	List Price	Part Number	Overall Length "C" Dim. (in.)
HP	RPM				
1	900	182LP	\$5,658	LP00X08NP	19.350
1.5	1200	182LP	\$5,506	LP001X06NP	19.350
	900	184LP	\$6,074	LP001X08NP	20.350
2	1200	184LP	\$5,924	LP002X06NP	20.350
	900	213LP	\$7,076	LP002X08NP	21.670
3	3600	182LP	\$5,492	LP003X02NP	19.350
	1800	182LP	\$5,744	LP003X04NP	19.350
	1200	213LP	\$7,244	LP003X06NP	21.670
	900	215LP	\$7,674	LP003X08NP	23.160
5	3600	184LP	\$6,086	LP005X02NP	20.350
	1800	184LP	\$5,788	LP005X04NP	20.350
	1200	215LP	\$7,386	LP005X06NP	23.160
	900	254LP	\$9,944	LP005X08NP	26.710
7.5	3600	213LP	\$7,334	LP007X02NP	21.670
	1800	213LP	\$7,164	LP007X04NP	21.670
	1200	254LP	\$9,332	LP007X06NP	26.710
	900	256LP	\$10,396	LP007X08NP	28.440
10	3600	215LP	\$7,652	LP010X02NP	23.160
	1800	215LP	\$8,062	LP010X04NP	23.160
	1200	256LP	\$9,878	LP010X06NP	28.440
	900	284LP	\$11,198	LP010X08NP	29.410
15	3600	254LP	\$9,246	LP015X02NP	26.710
	1800	254LP	\$9,640	LP015X04NP	26.710
	1200	284LP	\$11,966	LP015X06NP	29.410
	900	286LP	\$13,732	LP015X08NP	30.910
20	3600	256LP	\$11,850	LP020X02NP	28.440
	1800	256LP	\$11,558	LP020X04NP	28.440
	1200	286LP	\$14,796	LP020X06NP	30.910
	900	324LP	\$16,252	LP020X08NP	32.320
25	3600	284LP	\$13,382	LP025X02NP	29.410
	1800	284LP	\$12,586	LP025X04NP	29.410
	1200	324LP	\$16,584	LP025X06NP	32.320
	900	326LP	\$19,376	LP025X08NP	33.820
30	3600	286LP	\$13,748	LP030X02NP	30.910
	1800	286LP	\$14,446	LP030X04NP	30.910
	1200	326LP	\$19,532	LP030X06NP	33.820
	900	364/5LP	\$27,034	LP030X08NP	35.930
40	3600	324LP	\$17,658	LP040X02NP	32.320
	1800	324LP	\$16,934	LP040X04NP	32.320
	1200	364/5LP	\$27,014	LP040X06NP	35.930
	900	364/5LP	\$27,768	LP040X08NP	35.930
50	3600	326LP	\$20,030	LP050X02NP	33.820
	1800	326LP	\$20,314	LP050X04NP	33.820
	1200	364/5LP	\$27,962	LP050X06NP	35.930
	900	404/5LP	\$36,046	LP050X08NP	38.920
60	3600	364/5LP	\$26,762	LP060X02NP	35.930
	1800	364/5LP	\$29,404	LP060X04NP	35.930
	1200	404/5LP	\$37,726	LP060X06NP	38.920
	900	404/5LP	\$39,384	LP060X08NP	38.920
75	3600	364/5LP	\$30,274	LP075X02NP	35.930
	1800	364/5LP	\$31,250	LP075X04NP	35.930
	1200	404/5LP	\$39,212	LP075X06NP	38.920
	900	444/5LP	\$47,910	LP075X08NP	41.410
100	3600	404/5LP	\$35,692	LP100X02NP	38.920
	1800	404/5LP	\$40,286	LP100X04NP	38.920
	1200	444/5LP	\$48,574	LP100X06NP	41.410
	900	444/5LP	\$53,510	LP100X08NP	41.410
125	3600	444/5LP	\$51,294	LP125X02NP	41.410
	1800	444/5LP	\$49,788	LP125X04NP	41.410
	1200	444/5LP	\$52,954	LP125X06NP	41.410
150	3600	444/5LP	\$53,476	LP150X02NP	41.410
	1800	444/5LP	\$53,986	LP150X04NP	41.410

Voltage: Replace 'X' with '4' for 208-230/460V  
 Replace 'X' with '5' for 575V

Electrical Data is available upon request

# In-Line Extra Thrust Motors - LP and LPH

## TEFC - Mechanical Data



NEMA FRAMES	AH	AK	AJ	BD	BB	BF	EU	ES	U	S	R	P	AB	C	CH	AA	BEARINGS	
																	D.E.	N.D.E.
182 LP	2.750	8.250	9.125	10.000	0.196	0.440	0.875	1.280	1.125	0.250	0.984	10.472	8.228	19.350	1.929	NPT1"	6206	2x7306
184 LP														20.354				
213 LP							21.665	2.323	6309	2x7309								
215 LP							23.161											
254 LP							26.705		NPT1.05"	6212	2x7310							
256 LP							28.437											
284 LP	4.500	13.500	14.750	16.500	0.250	0.687	1.750	3.150	2.125	0.500	1.845	14.961	10.787	29.409	2.716	NPT2"	6212	2x7310
286 LP														30.906				
324 LP							17.087	11.732	32.323	3.189	NPT2"	6212	2x7310					
326 LP														33.819				
364/5 LP														35.925	NPT3"	6314	2x7311	
404/5 LP - 2P														21.417				16.693
404/5 LP	26.850	19.843	41.909	3.583	2xNPT3"	6314	2x7315											
444/5 LP - 2P								2x7311										
444/5 LP	2x7315																	

# W22 Oil Well Pumping Motors - Triple Rated TEFC

## Standard Features

- Three-phase 6 pole - 60Hz
- Voltage: 460V
- Triple rated
- High starting and breakdown torque  
NEMA Design 'D' 5 - 8% slip
- F2 Mount
- Die cast aluminum squirrel cage rotor
- Sealing:
  - V'Ring sealing up to frame 324/6T.
  - WSeal®(doublelippedV'Ringwithmetalliccap)sealing on both endshields from frame 364/5T up to 504/5T
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft up to frame 364/5T
- 4140 for frame 404/5T
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- Insulation System:
  - Dip and Bake Insulation system with class "H" resin up to frame 324/6T
  - CFRI Continuous Flow Resin Impregnation Insulation system with class "H" resin for frame 364/5T and up.
- Service Factor:
  - 1.15
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Stainless steel nameplate with laser etching
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 207A
- Color: RAL 7022 - Grey
- Fitted with closed rubber drain breathers
- Regreasable bearings for frames 254/6T and up
- All frames have dual mounting



Class I, Div 2, Groups A,B,C & D  
Class II, Div 2, Groups F & G  
Class I, Zone 2, IIC



Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
254/6T - 444/5T	All	20:1	1000:1	Any
	All	1000:1*		WEG

\* Can only be achieved by a WEG VFD running in Sensorless Vector  
See page 7.6 for details

## Optional Features

- 50 Hz
- Special voltages
- 4 poles
- Special paint
- Thermistors, Thermostats or RTD's (PT100)
- Space heaters
- Auxiliary terminal box
- Class "H" insulation
- Special grease for high or low temperatures
- F1 mount
- Degree of protection: IP56, IP65, IP66



# W22 Oil Well Pumping Motors - Triple Rated

## TEFC - Purchasing Data

Rated Output		NEMA Frame	List Price	Part Number	Full Load Current	Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				460V			
10 - 7.5 - 5	1200	254/6T	\$5,696	OT010406W22	13.6 - 10.3 - 6.70	82.5 - 80.0 - 81.5	243	24.945
15 - 10 - 7.5	1200	284/6T	\$7,452	OT015406W22	18.3 - 12.5 - 9.30	85.0 - 84.0 - 82.5	397	27.929
20 - 15 - 10	1200	284/6T	\$9,060	OT020406W22	25.2 - 18.6 - 12.6	84.0 - 82.5 - 84.0	448	27.929
25 - 20 - 15	1200	324/6T	\$11,822	OT025406W22	30.2 - 24.7 - 18.1	87.5 - 85.5 - 85.5	562	31.116
30 - 25 - 20	1200	324/6T	\$13,752	OT030406W22	35.5 - 30.2 - 24.9	88.5 - 85.5 - 84.0	601	31.116
40 - 30 - 25	1200	364/5T	\$17,970	OT040406W22	50.1 - 36.7 - 31.4	88.5 - 85.5 - 84.0	816	34.251
50 - 40 - 30	1200	404/5T	\$22,280	OT050406W22	59.0 - 50.0 - 37.4	89.5 - 85.5 - 84.0	1,065	39.730
60 - 50 - 40	1200	404/5T	P.O.A	OT060406W222405T	76.0 - 61.7 - 50.0	88.5 - 86.5 - 85.5	1,205	39.730
	1200	444/5T	\$35,318	OT060406W22	73.4 - 61.0 - 50.4	88.5 - 86.5 - 84.0	1,435	45.193
75 - 60 - 50	1200	444/5T	\$47,268	OT075406W22	87.6 - 71.7 - 62.1	88.5 - 87.5 - 84.0	1,551	45.193
100 - 75 - 60	1200	444/5T	\$55,268	OT100406W22	120 - 89.7 - 72.5	90.2 - 88.5 - 87.5	1,863	45.193

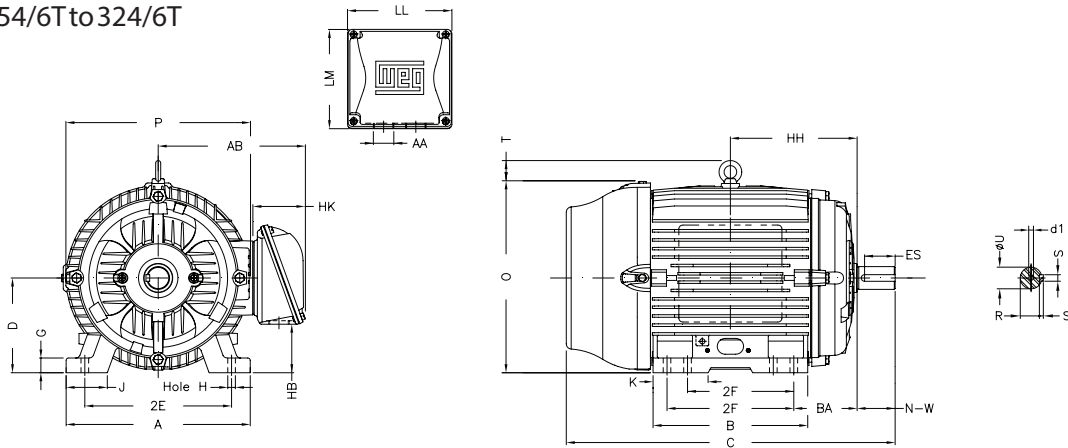
## TEFC - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A) 460V	Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Locked rotor time (s)	Weight (lb)	Service Factor	Efficiency (%)	Power factor
HP	kW									100%	100%
10 - 7.5 - 5	7.5 - 5.5 - 3.7	1125 - 1115 - 1120	254/6T	13.6 - 10.3 - 6.70	6.4 - 5.3 - 4.8	300% - 210% - 170%	12 - 25 - 40	243	1.15	82.5 - 80.0 - 81.5	0.84 - 0.84 - 0.85
15 - 10 - 7.5	11 - 7.5 - 5.5	1115 - 1110 - 1100	284/6T	18.3 - 12.5 - 9.30	6.3 - 5.8 - 5.0	310% - 260% - 210%	18 - 40 - 50	397	1.15	85.0 - 84.0 - 82.5	0.89 - 0.90 - 0.90
20 - 15 - 10	15 - 11 - 7.5	1105 - 1095 - 1110	284/6T	25.2 - 18.6 - 12.6	6.7 - 5.3	310% - 240% - 240%	13 - 25 - 40	448	1.15	84.0 - 82.5 - 84.0	0.89 - 0.90 - 0.89
25 - 20 - 15	18.5 - 15 - 11	1125 - 1110 - 1105	324/6T	30.2 - 24.7 - 18.1	6.6 - 5.3 - 4.7	290% - 210% - 180%	25 - 40 - 50	562	1.15	87.5 - 85.5 - 85.5	0.88 - 0.89 - 0.89
30 - 25 - 20	22 - 18.5 - 15	1130 - 1110 - 1090	324/6T	35.5 - 30.2 - 24.9	6.9 - 5.2 - 4.3	300% - 210% - 170%	15 - 40 - 50	601	1.15	88.5 - 85.5 - 84.0	0.88 - 0.90 - 0.90
40 - 30 - 25	30 - 22 - 18.5	1155 - 1150 - 1140	364/5T	50.1 - 36.7 - 31.4	7.6 - 5.2 - 4.1	300% - 230% - 170%	25 - 40 - 50	816	1.15	88.5 - 85.5 - 84.0	0.85 - 0.88 - 0.88
50 - 40 - 30	37 - 30 - 22	1135 - 1120 - 1110	404/5T	59.0 - 50.0 - 37.4	6.8 - 4.9 - 4.2	310% - 230% - 190%	20 - 40 - 50	1,065	1.15	89.5 - 85.5 - 84.0	0.88 - 0.88 - 0.88
		1125 - 1115 - 1095	404/5T	76.0 - 61.7 - 50.0	7.5 - 6.4 - 5.3	330% - 230% - 170%	15 - 40 - 60	1,205	1.00	88.5 - 86.5 - 85.5	0.84 - 0.87 - 0.88
60 - 50 - 40	45 - 37 - 30	1135 - 1120 - 1100	444/5T	73.4 - 61.0 - 50.4	6.3 - 5.0 - 4.0	290% - 210% - 160%	20 - 40 - 50	1,435	1.15	88.5 - 86.5 - 84.0	0.87 - 0.88 - 0.89
		1135 - 1120 - 1100	444/5T	87.6 - 71.7 - 62.1	6.9 - 5.5 - 4.2	300% - 220% - 160%	15 - 30 - 50	1,551	1.15	88.5 - 87.5 - 84.0	0.89 - 0.90 - 0.89
100 - 75 - 60	75 - 55 - 45	1135 - 1130 - 1110	444/5T	120 - 89.7 - 72.5	6.8 - 6.0 - 5.0	300% - 250% - 200%	26 - 30 - 50	1,863	1.15	90.2 - 88.5 - 87.5	0.87 - 0.87 - 0.89

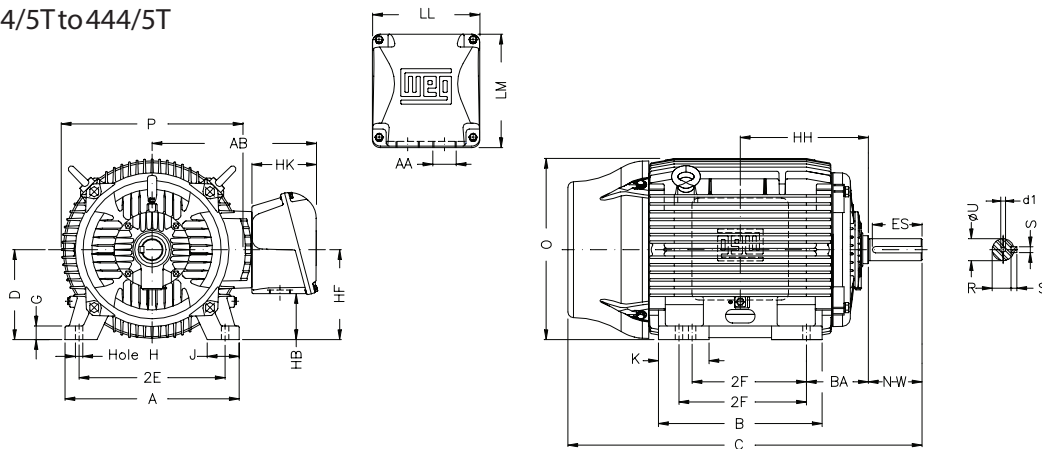
# W22 Oil Well Pumping Motors - Triple Rated

TEFC - Mechanical Data

Frames 254/6T to 324/6T



Frames 364/5T to 444/5T



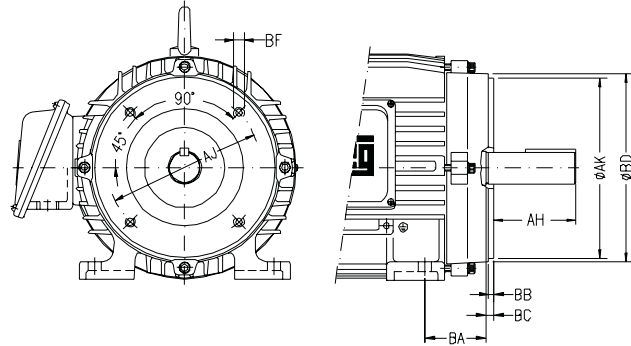
NEMA Frames	MOUNTING				A	B	C	D	G	J	O	K	P	T	KEYWAY			SHAFT EXTENSION	
	2E	2F	H	BA											S	R	ES	N-W	U
254/6T	10.000	10.000	0.531	4.250	12.126	11.732	24.945	6.250	0.827	2.539	12.598	2.559	12.953	2.087	0.375	1.406	2.756	4.000	1.625
284/6T	11.000	11.000		4.750	13.780	13.071	27.929	7.000	1.023	3.110	14.067	2.874	14.173			1.594	3.149	4.622	1.875
324/6T	12.500	12.000	0.657	5.250	15.157	14.567	31.116	8.000	1.300	3.189	15.953	3.189	15.827	2.441	0.500	1.844	3.937	5.250	2.125
364/5T	14.016	11.260 12.244	0.660	5.875	17.165	16.220	34.251	9.000	1.480	3.150	17.716	4.921	17.914	-		0.625	2.019	4.330	5.874
404/5T	15.984	12.244 13.740	0.810	6.625	19.921	18.386	39.730	10.000	1.811	3.937	19.566	5.669	19.134	-	0.750	2.449	5.512	7.250	2.875
444/5T	18.000	14.500 16.500		7.500	21.929	20.315	45.193	11.000	1.630		22.795	5.866	23.583	-	0.875	2.880	7.087	8.500	3.375

NEMA Frames	TERMINAL BOX									d1	BEARINGS	
	AB	HB	HF	HG	HH	HK	LL	LM	AA		D.E.	N.D.E.
254/6T	10.394	3.061	6.565		9.250	3.937	7.795	7.402	NPT 1/2"	A 4	6309 C3	6209 C3
284/6T	10.984	3.535	7.000		10.250		8.543	NPT 2"	6311 C3		6211 C3	
324/6T	12.480	4.811	8.708		11.250		8.976	8.543	NPT 2"		6312 C3	6212 C3
364/5T	16.378	4.055	-	-	12.362	6.378	9.646	10.119	NPT 3"	UNC 3/4"-10	6314 C3	6314 C3
404/5T		5.040			14.213		6314 C3	6314 C3				
444/5T		5.394			15.748		5.787	11.811	11.890		2xNPT 3"	6319 C3

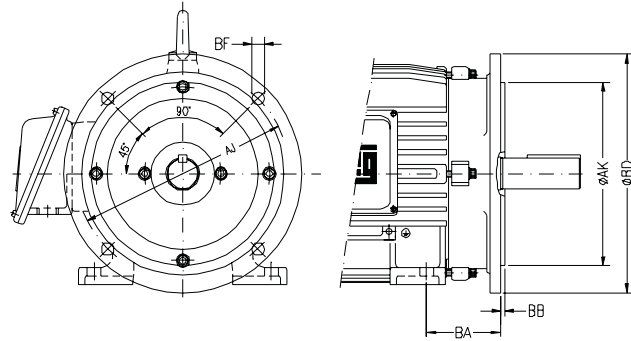
# W22 Oil Well Pumping Motors - Triple Rated

## TEFC - Mechanical Data

"C" FLANGE DIMENSIONS									
NEMA FRAMES	BA	AJ	AK	BD	BF		BB	BC	AH
					NUMBER	TAP SIZE			
254/6TC	4.250	7.250	8.500	8.875	4	UNC1/2"x13	0.250	0.250	3.750
284/6TC	4.750	9.000	10.500	11.031					4.375
324/6TC	5.250	11.000	12.500	13.583					5.000
364/5TC	5.875			5.625					
404/5TC	6.625	14.000	16.000	15.551	7.000				
444/5TC	7.500			8.250					



"D" FLANGE DIMENSIONS								
NEMA FRAMES	BA	AJ	AK	BD	BF		BB	BC
					NUMBER	TAP SIZE		
254/6TD	4.250	12.500	11.000	14.000	4	0.828	0.203	0.203
284/6TD	4.750							
324/6TD	5.250							
364/5TD	5.875	16.000	14.000	17.716	8	0.828	0.203	0.203
404/5TD	6.625			22.000				
444/5TD	7.500	20.000	18.000	21.653	8	0.828	0.203	0.203



# W22 NEMA Brake Motors - NEMA Premium TEFC

## Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4, 6 and 8 pole, 60Hz
- Voltage: 208-230/460V, 575V
- Brake power supply: 220/230/240/460/575V
- Totally Enclosed Fan Cooled - TEFC (IP55) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- Sealing (Drive End):
  - V Ring sealing up to frame 324/6T.
  - WSeal® (double lipped V Ring with a metallic cap) for frame 364/5T and 404/5T.
- Sealing (Non Drive End):
  - Lip Seal
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft up to frame 364/5T and all 2 pole motors.
- 4140 for 404/5T in 4, 6 and 8 pole motors.
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Insulation System:
  - Dip and Bake Insulation system with class "H" resin up to frame 324/6T
  - CFRI Continuous Flow Resin Impregnation Insulation system with class "H" resin for frame 364/5T and 404/5T.
- NEMA design "B"
- Service Factor: 1.25
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Stainless steel nameplate with laser etching
- Paint: Synthetic enamel alkyd resin base
- Paint Plan:
  - 207A - Frames 143T to 215T
  - 203A - Frames 254T to 404/5T
- Color: RAL 5009 - Blue
- Fitted with closed rubber drain breathers
- Regreasable bearings for frames 254/6T and up
- All frames have dual mounting
- Normally closed brake
- Manual brake release up to frame 324/6T



Inverter Ratings				
Frames	Poles	Constant Torque	Variable Torque	VFD
143/5T - 404/5T	All	20:1	1000:1	Any
	All	1000:1*		WEG

\* Can only be achieved by a WEG VFD running in Sensorless Vector  
See page 7.6 for details

## Optional Features

- 50Hz
- Special voltages
- Special brake power supply voltages
- Special shafts
- Space heaters
- Labyrinth taconite seal available for all ratings
- Thermostats, Thermistors, RTD's (PT100)
- Additional terminal box
- Drip cover (canopy) for shaft down applications
- NEMA C & D flanges and Metric flanges for all ratings
- Roller bearings
- Special paint
- Microswitch to monitor the air gap or brake opening (from frame 182T and up)
- Degree of protection: IP56, IP65, IP66
- Forced ventilation
- Encoders
- No feet

Super Premium Efficiency available upon request



# W22 NEMA Brake Motors - NEMA Premium

## TEFC - Purchasing Data

Rated Output		NEMAFrame	List Price	ListPricewith 'C' Flange	ListPricewith 'D' Flange	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Brake	
HP	RPM						460V	575V			Torque (ft.lb)	Size
1	3600	143/5T	\$2,436	\$2,656	\$2,904	BM000X02NPW22	1.43	1.14	78.5	41.9	12	10
	1800	143/5T	\$2,602	\$2,820	\$3,070	BM000X04NPW22	1.41	1.13	85.5	46.3	12	10
	1200	143/5T	\$3,368	\$3,586	\$3,836	BM000X06NPW22	1.73	1.38	82.5	58.4	12	10
1.5	900	182/4T	\$4,006	\$4,256	\$4,522	BM000X08NPW22	2.30	1.84	78.5	108	44	14
	3600	143/5T	\$2,676	\$2,894	\$3,144	BM001X02NPW22	1.96	1.57	84.0	46.3	12	10
	1800	143/5T	\$2,774	\$2,992	\$3,240	BM001X04NPW22	2.02	1.62	86.5	54	12	10
2	1200	182/4T	\$3,870	\$4,120	\$4,386	BM001X06NPW22	2.54	2.03	87.5	83.6	44	14
	900	182/4T	\$4,278	\$4,528	\$4,794	BM001X08NPW22	2.70	2.16	82.5	124	44	14
	3600	143/5T	\$2,794	\$3,014	\$3,262	BM002X02NPW22	2.56	2.05	85.5	57.3	12	10
2.5	1800	143/5T	\$2,894	\$3,114	\$3,362	BM002X04NPW22	2.69	2.15	86.5	56.2	12	10
	1200	182/4T	\$4,370	\$4,618	\$4,884	BM002X06NPW22	3.23	2.58	88.5	101	44	14
	900	213/5T	\$6,292	\$6,574	\$6,870	BM002X08NPW22	3.39	2.71	85.5	169	59	16
3	3600	182/4T	\$3,960	\$4,208	\$4,474	BM003X02NPW22	3.63	2.90	86.5	101	44	14
	1800	182/4T	\$4,120	\$4,368	\$4,634	BM003X04NPW22	3.91	3.13	89.5	104	44	14
	1200	213/5T	\$5,542	\$5,822	\$6,118	BM003X06NPW22	4.41	3.53	89.5	141	59	16
4	900	213/5T	\$7,590	\$7,872	\$8,168	BM003X08NPW22	4.56	3.65	85.5	196	59	16
	3600	182/4T	\$4,380	\$4,628	\$4,894	BM005X02NPW22	5.90	4.72	88.5	101	44	14
	1800	182/4T	\$4,738	\$4,986	\$5,252	BM005X04NPW22	6.45	5.16	89.5	108	44	14
5	1200	213/5T	\$6,718	\$7,000	\$7,294	BM005X06NPW22	6.83	5.46	89.5	182	59	16
	900	254/6T	\$9,912	\$10,458	\$11,098	BM005X08NPW22	7.58	6.06	87.5	300	111	18
	3600	213/5T	\$5,574	\$5,854	\$6,150	BM007X02NPW22	8.76	7.01	89.5	159	59	16
7.5	1800	213/5T	\$6,014	\$6,296	\$6,592	BM007X04NPW22	9.00	7.20	91.7	154	59	16
	1200	254/6T	\$8,660	\$9,208	\$9,846	BM007X06NPW22	9.48	7.58	91.0	304	111	18
	900	254/6T	\$12,940	\$13,486	\$14,126	BM007X08NPW22	11.1	8.88	87.5	326	111	18
10	3600	213/5T	\$8,010	\$8,292	\$8,588	BM010X02NPW22	11.6	9.28	90.2	183	59	16
	1800	213/5T	\$6,920	\$7,200	\$7,496	BM010X04NPW22	12.4	9.92	91.7	192	59	16
	1200	254/6T	\$10,864	\$11,410	\$12,050	BM010X06NPW22	12.9	10.3	91.0	331	111	18
15	900	284/6T	\$17,070	\$17,742	\$18,570	BM010X08NPW22	13.4	10.7	90.2	437	192	20
	3600	254/6T	\$9,740	\$10,288	\$10,926	BM015X02NPW22	17.2	13.8	91.0	278	111	18
	1800	254/6T	\$9,640	\$10,186	\$10,826	BM015X04NPW22	18.0	14.4	92.4	293	111	18
20	1200	284/6T	\$16,612	\$17,284	\$18,112	BM015X06NPW22	17.9	14.3	91.7	443	192	20
	900	284/6T	\$19,774	\$20,444	\$21,272	BM015X08NPW22	19.4	15.5	90.2	481	192	20
	3600	254/6T	\$11,364	\$11,910	\$12,550	BM020X02NPW22	23.2	18.6	91.0	311	111	18
25	1800	254/6T	\$10,714	\$11,260	\$11,898	BM020X04NPW22	24.1	19.3	93.0	333	111	18
	1200	284/6T	\$18,948	\$19,620	\$20,448	BM020X06NPW22	24.2	19.4	91.7	490	192	20
	900	324/6T	\$23,366	\$24,176	\$25,144	BM020X08NPW22	28.3	22.6	91.0	542	295	25
30	3600	284/6TS	\$13,560	\$14,232	\$15,060	BM025X02NPW22	28.5	22.8	91.7	426	192	20
	1800	284/6T	\$12,920	\$13,590	\$14,418	BM025X04NPW22	29.5	23.6	93.6	452	192	20
	1200	324/6T	\$18,596	\$19,406	\$20,374	BM025X06NPW22	30.4	24.3	93.0	650	295	25
40	900	324/6T	\$24,078	\$24,888	\$25,856	BM025X08NPW22	35.9	28.7	91.0	600	295	25
	3600	284/6TS	\$14,862	\$15,534	\$16,360	BM030X02NPW22	33.8	27.0	91.7	456	192	20
	1800	284/6T	\$13,514	\$14,184	\$15,012	BM030X04NPW22	35.1	28.1	93.6	501	192	20
50	1200	324/6T	\$20,944	\$21,754	\$22,722	BM030X06NPW22	35.8	28.6	93.0	644	295	25
	900	364/5T	\$36,066	\$37,814	\$40,014	BM030X08NPW22	37.0	29.6	92.4	902	391	25
	3600	324/6TS	\$18,596	\$19,406	\$20,374	BM040X02NPW22	45.8	36.6	92.4	547	295	25
60	1800	324/6T	\$16,594	\$17,404	\$18,372	BM040X04NPW22	47.1	37.7	94.1	582	295	25
	1200	364/5T	\$29,248	\$30,996	\$33,196	BM040X06NPW22	46.5	37.2	94.1	933	391	25
	900	364/5T	\$36,552	\$38,298	\$40,498	BM040X08NPW22	50.0	40.0	92.4	975	391	25
75	3600	324/6TS	\$20,284	\$21,096	\$22,062	BM050X02NPW22	56.1	44.9	93.0	584	295	25
	1800	324/6T	\$17,976	\$18,786	\$19,752	BM050X04NPW22	59.2	47.4	94.5	626	295	25
	1200	364/5T	\$32,068	\$33,816	\$36,016	BM050X06NPW22	57.4	45.9	94.1	968	391	25
100	900	404/5T	\$49,984	\$51,732	\$53,932	BM050X08NPW22	60.0	48.0	93.0	1,118	391	25
	3600	364/5TS	\$30,838	\$32,586	\$34,786	BM060X02NPW22	67.0	53.6	93.6	825	391	25
	1800	364/5T	\$29,342	\$31,090	\$33,290	BM060X04NPW22	68.3	54.6	95.0	968	391	25
150	1200	404/5T	\$40,074	\$41,820	\$44,020	BM060X06NPW22	69.5	55.6	94.5	1,142	391	25
	900	404/5T	\$58,814	\$60,562	\$62,762	BM060X08NPW22	73.0	58.4	93.0	1,217	391	25
	3600	364/5TS	\$35,700	\$37,448	\$39,648	BM075X02NPW22	81.9	65.5	93.6	847	391	25
200	1800	364/5T	\$32,648	\$34,396	\$36,596	BM075X04NPW22	84.1	67.3	95.4	1,019	391	25
	1200	404/5T	\$42,740	\$44,488	\$46,688	BM075X06NPW22	84.9	67.9	94.5	1,195	391	25
	3600	404/5TS	\$44,092	\$45,840	\$48,040	BM100X02NPW22	110	88.0	94.1	1,045	391	25
250	1800	404/5T	\$41,388	\$43,136	\$45,336	BM100X04NPW22	111	88.8	95.4	1,246	391	25

Flange:      Replace 'M' with 'C' for C Flange  
              Replace 'M' with 'D' for D Flange  
Voltage:     Replace 'X' with '4' for 208-230/460V  
              Replace 'X' with '5' for 575V

# W22 NEMA Brake Motors - NEMA Premium

## TEFC - Motor Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (lI/lIn)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			230V	460V	575V								50%	75%	100%	50%	75%	100%
1	0.75	3495	143/5T	2.86	1.43	1.14	8.2	280%	340%	22	41.9	68	1.25	74.0	77.0	78.5	0.69	0.79	0.84
		1760	143/5T	2.82	1.41	1.13	8.4	280%	350%	18	46.3	51	1.25	80.0	84.0	85.5	0.60	0.70	0.78
		1150	143/5T	3.46	1.73	1.38	6.2	300%	300%	28	58.4	49	1.25	77.0	82.0	82.5	0.45	0.57	0.66
1.5	1.1	875	182/4T	4.60	2.30	1.84	6.0	300%	350%	22	108	50	1.25	74.0	77.0	78.5	0.32	0.42	0.52
		3490	143/5T	3.92	1.96	1.57	8.9	350%	380%	21	46.3	68	1.25	81.5	84.0	84.0	0.70	0.80	0.84
		1755	143/5T	4.04	2.02	1.62	8.3	250%	340%	14	54	51	1.25	82.5	85.5	86.5	0.60	0.70	0.79
2	1.5	1165	182/4T	5.08	2.54	2.03	8.0	320%	400%	16	83.6	52	1.25	84.0	86.5	87.5	0.45	0.54	0.62
		860	182/4T	5.40	2.70	2.16	5.5	250%	260%	17	124	50	1.25	80.0	82.5	82.5	0.43	0.54	0.62
		3480	143/5T	5.12	2.56	2.05	8.9	350%	380%	17	57.3	68	1.25	82.5	85.5	85.5	0.71	0.80	0.86
3	2.2	1750	143/5T	5.38	2.69	2.15	8.0	260%	300%	11	56.2	51	1.25	85.5	86.5	86.5	0.62	0.74	0.81
		1165	182/4T	6.46	3.23	2.58	7.5	300%	300%	31	101	52	1.25	86.5	88.5	88.5	0.46	0.58	0.66
		870	213/5T	6.78	3.39	2.71	7.6	240%	290%	39	169	52	1.25	82.5	84.0	85.5	0.45	0.55	0.65
5	3.7	3510	182/4T	7.26	3.63	2.90	8.3	240%	380%	41	101	69	1.25	82.5	86.5	86.5	0.75	0.84	0.88
		1760	182/4T	7.82	3.91	3.13	8.1	230%	340%	23	104	56	1.25	87.5	88.5	89.5	0.61	0.73	0.79
		1170	213/5T	8.82	4.41	3.53	7.0	200%	280%	58	141	55	1.25	86.5	88.5	89.5	0.50	0.63	0.70
7.5	5.5	865	213/5T	9.12	4.56	3.65	6.8	230%	280%	44	196	52	1.25	84.0	85.5	85.5	0.50	0.63	0.71
		3500	182/4T	11.8	5.90	4.72	7.5	230%	350%	25	101	69	1.25	86.5	88.5	88.5	0.76	0.85	0.89
		1755	182/4T	12.9	6.45	5.16	7.2	230%	320%	15	108	56	1.25	88.5	89.5	89.5	0.62	0.74	0.80
10	7.5	1170	213/5T	13.7	6.83	5.46	6.6	190%	240%	57	182	55	1.25	88.5	89.5	89.5	0.58	0.70	0.76
		880	254/6T	15.2	7.58	6.06	5.3	190%	250%	44	300	54	1.25	85.5	87.5	87.5	0.49	0.62	0.70
		3520	213/5T	17.5	8.76	7.01	7.2	210%	300%	27	159	72	1.25	87.5	89.5	89.5	0.75	0.84	0.88
15	11	1765	213/5T	18.0	9.00	7.20	7.1	220%	310%	20	154	58	1.25	89.5	91.0	91.7	0.67	0.78	0.84
		1175	254/6T	19.0	9.48	7.58	6.8	250%	300%	30	304	59	1.25	89.5	90.2	91.0	0.63	0.74	0.80
		880	254/6T	22.2	11.1	8.88	5.3	200%	250%	33	326	54	1.25	85.5	87.5	87.5	0.50	0.63	0.71
20	15	3515	213/5T	23.2	11.6	9.28	7.2	210%	290%	24	183	72	1.25	89.5	90.2	90.2	0.79	0.87	0.90
		1760	213/5T	24.8	12.4	9.92	6.4	200%	300%	17	192	58	1.25	90.2	91.7	91.7	0.66	0.77	0.83
		1175	254/6T	25.8	12.9	10.3	6.5	230%	280%	26	331	59	1.25	90.2	91.0	91.0	0.63	0.74	0.80
25	18.5	880	284/6T	26.8	13.4	10.7	5.6	200%	240%	32	437	54	1.25	89.5	90.2	90.2	0.61	0.72	0.78
		3530	254/6T	34.4	17.2	13.8	6.7	220%	270%	25	278	72	1.25	89.5	91.0	91.0	0.77	0.85	0.88
		1765	254/6T	36.0	18.0	14.4	6.5	230%	270%	17	293	64	1.25	91.0	91.7	92.4	0.68	0.78	0.83
30	22	1175	284/6T	35.8	17.9	14.3	6.7	230%	270%	20	443	59	1.25	91.0	91.7	91.7	0.69	0.80	0.84
		880	284/6T	38.8	19.4	15.5	5.5	200%	230%	25	481	54	1.25	90.2	91.0	90.2	0.62	0.73	0.79
		3520	254/6T	46.4	23.2	18.6	6.1	200%	240%	21	311	72	1.25	91.0	91.7	91.0	0.82	0.87	0.89
40	30	1765	284/6T	48.2	24.1	19.3	6.5	230%	270%	15	333	64	1.25	91.7	92.4	93.0	0.68	0.79	0.84
		1175	284/6T	48.4	24.2	19.4	6.2	230%	260%	16	490	59	1.25	91.0	91.7	91.7	0.70	0.80	0.85
		880	324/6T	56.6	28.3	22.6	5.0	190%	220%	27	542	56	1.25	89.5	91.0	91.0	0.54	0.66	0.73
50	37	3535	284/6TS	57.0	28.5	22.8	6.3	200%	250%	17	426	72	1.25	91.0	91.7	91.7	0.82	0.87	0.89
		1765	284/6T	59.0	29.5	23.6	6.2	240%	270%	24	452	64	1.25	92.4	93.0	93.6	0.70	0.80	0.84
		1180	324/6T	60.8	30.4	24.3	6.2	210%	260%	26	650	62	1.25	91.7	93.0	93.0	0.65	0.77	0.82
60	45	880	324/6T	71.8	35.9	28.7	5.2	200%	230%	23	600	56	1.25	89.5	91.0	91.0	0.51	0.64	0.71
		3535	284/6TS	67.6	33.8	27.0	6.3	200%	250%	15	456	72	1.25	91.7	91.7	91.7	0.82	0.87	0.89
		1765	284/6T	70.2	35.1	28.1	6.1	240%	240%	20	501	64	1.25	93.0	93.0	93.6	0.70	0.80	0.84
75	55	1180	324/6T	71.6	35.8	28.6	6.2	230%	260%	21	644	62	1.25	91.7	93.0	93.0	0.65	0.77	0.83
		880	364/5T	74.0	37.0	29.6	6.2	170%	240%	20	902	60	1.25	92.4	92.4	92.4	0.63	0.74	0.80
		3555	324/6TS	91.6	45.8	36.6	6.4	230%	240%	22	547	74	1.25	91.7	92.4	92.4	0.82	0.87	0.89
100	75	1770	324/6T	94.2	47.1	37.7	6.1	220%	240%	20	582	66	1.25	93.6	94.1	94.1	0.72	0.80	0.85
		1180	364/5T	93.0	46.5	37.2	6.4	200%	240%	21	933	66	1.25	93.6	93.6	94.1	0.73	0.82	0.86
		880	364/5T	100	50.0	40.0	6.0	170%	230%	18	975	60	1.25	92.4	93.0	92.4	0.66	0.76	0.81
100	75	3550	324/6TS	112	56.1	44.9	6.2	220%	230%	23	584	74	1.25	93.0	93.0	93.0	0.83	0.87	0.89
		1775	324/6T	118	59.2	47.4	6.2	230%	270%	15	626	66	1.25	93.0	94.1	94.5	0.66	0.77	0.83
		1180	364/5T	115	57.4	45.9	6.4	200%	240%	18	968	66	1.25	93.6	94.1	94.1	0.74	0.83	0.86
100	75	880	404/5T	120	60.0	48.0	6.8	170%	260%	15	1,118	60	1.25	93.0	93.0	93.0	0.68	0.78	0.83
		3560	364/5TS	134	67.0	53.6	6.6	200%	260%	14	825	79	1.25	91.7	93.0	93.6	0.81	0.88	0.90
		1775	364/5T	137	68.3	54.6	6.6	240%	260%	15	968	67	1.25	94.1	94.5	95.0	0.75	0.83	0.87
100	75	1180	404/5T	139	69.5	55.6	6.4	200%	230%	20	1,142	68	1.25	94.1	94.5	94.5	0.74	0.82	0.86
		880	404/5T	146	73.0	58.4	6.5	180%	270%	13	1,217	60	1.25	93.0	93.0	93.0	0.68	0.78	0.83
		3555	364/5TS	164	81.9	65.5	6.6	200%	260%	10	847	79	1.25	92.4	93.6	93.6	0.83	0.88	0.90
100	75	1775	364/5T	168	84.1	67.3	6.4	240%	260%	14	1,019	67	1.25	94.5	95.0	95.4	0.73	0.82	0.86
		1180	404/5T	170	84.9	67.9	6.4	200%	230%	17	1,195	68	1.25	94.1	94.5	94.5	0.74	0.83	0.86
		3555	404/5TS	220	110	88.0	6.5	200%	240%	14	1,045	79	1.25	93.0	94.1	94.1	0.85	0.90	0.91
100	75	1775	404/5T	222	111	88.8	7.3	240%	260%	13	1,246	68	1.25	95.0	95.0	95.4	0.77	0.84	0.88

# W22 NEMA Brake Motors - NEMA Premium

## TEFC - Brake Electrical Data

The W22 brake motor can be supplied with full, half wave or special bridge rectifiers.

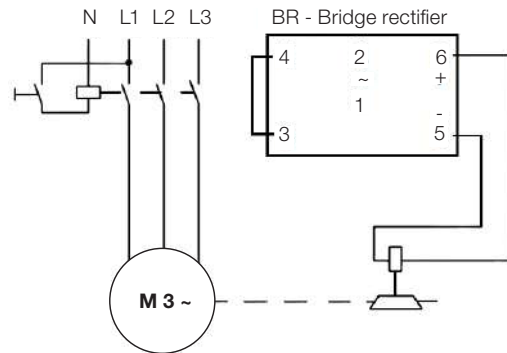
Rated voltage $V_{RMS}$ [Vca]	Brake size	Brake coil voltage [Vcc]	Wave form
110	10 to 25	103	Full
220-240		205	
380-415		180	Half wave
440-480		205	
525-575		250	

### Braking system

The W22 brake motor allows two braking system: normal braking or fast braking.

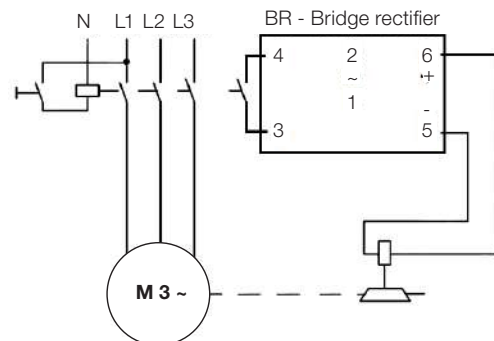
#### Normal braking

The bridge rectifier of the brake coil can be supplied directly from the motor terminals, without interruption.



#### Fast braking

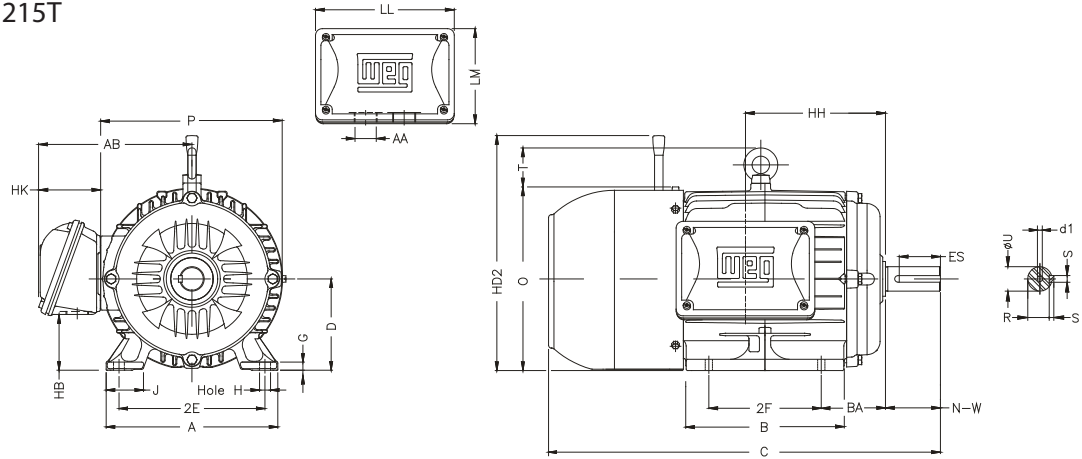
For fast braking, the bridge rectifier must be connected as shown.



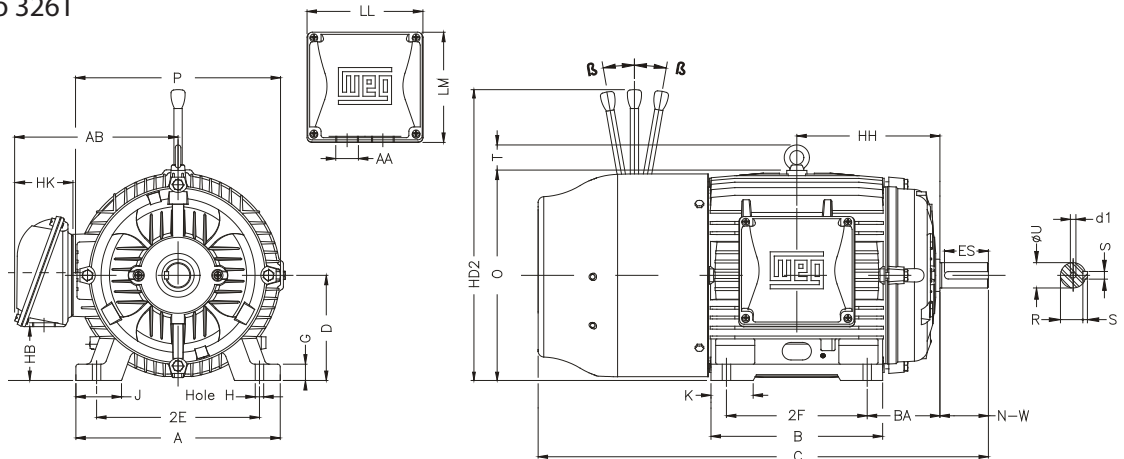
# W22 NEMA Brake Motors - NEMA Premium

## TEFC - Mechanical Data

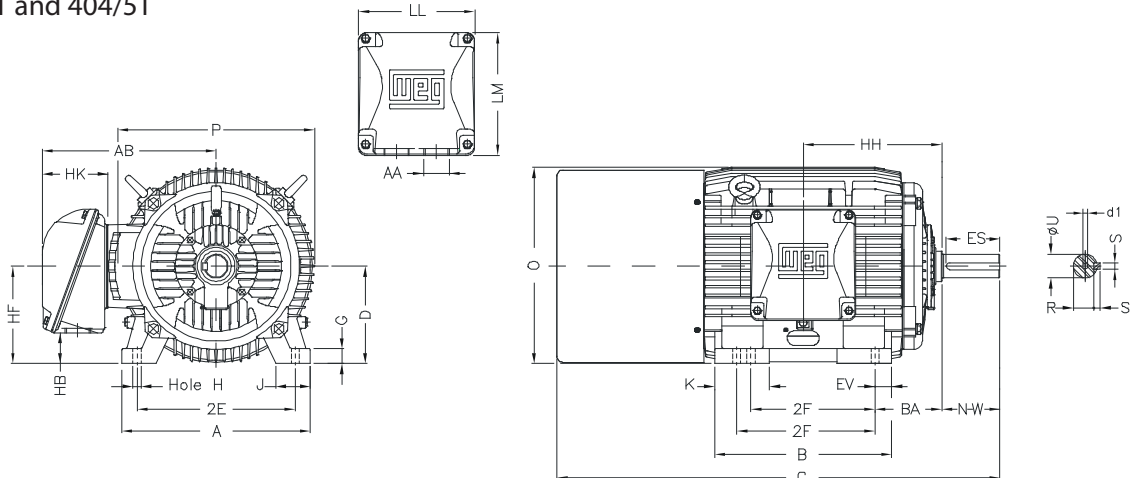
### Frames 143T to 215T



### Frames 254T to 326T



### Frame 364/5T and 404/5T



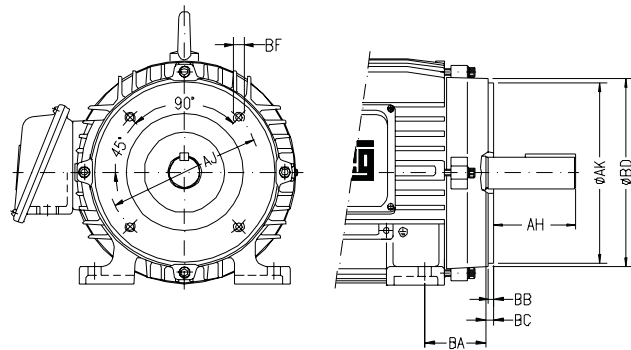
# W22 NEMA Brake Motors - NEMA Premium

## TEFC - Mechanical Data

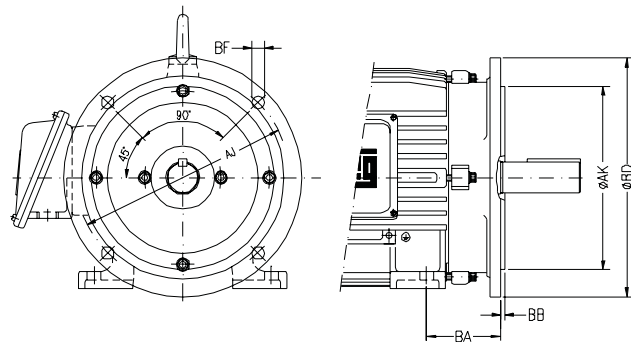
Frame	A	AA	AB	B	BA	C	D	EV	G	Shaft				
										U	N-W	ES	R	S
143/5T	6.457	NPT 3/4"	6.263	6.142	2.250	13.346	3.500		0.354	0.875	2.250	1.575	0.765	0.187
182/4T	8.661	NPT 1"	7.513	6.969	2.750	15.860	4.500		0.394	1.125	2.750	1.969	0.984	0.250
213/5T	9.764		8.609	8.858	3.500	19.517	5.250		0.669	1.375	3.375	2.480	1.203	0.313
254/6T	12.126	NPT 1 1/2"	10.483	11.732	4.250	24.945	6.250		0.827	1.625	4.000	2.756	1.406	0.375
284/6TS	13.780		11.073	13.071	4.750	26.557	7.000		1.023	1.625	3.250	2.480	1.406	0.375
284/6T					27.929				1.023	1.875	4.622	3.149	1.594	
324/6TS	15.157	NPT 2"	12.575	14.567	5.250	29.616	8.000		1.300	1.875	3.750	2.756	1.594	0.500
324/6T						31.116		2.125		5.250	3.937	1.844		
364/5TS	17.165	NPT 3"	16.016	15.760	5.875	32.276	9.000	1.654	1.480	1.875	3.748	1.968	1.591	
364/5T				15.512		34.251				2.375	5.874	4.330	2.019	0.625
404/5T	19.921		18.386	6.625	6.625	48.545	10.000	2.323	1.811	2.874	7.250	5.512	2.449	0.750

Frame	Hole H	HB	HH	HK	J	K	LL	LM	O	P	2E	2F	d1	Bearings		Manual release	
														D.E.	N.D.E.	HD2	β
143/5T	0.344	1.727	4.750	2.733	1.437	-	5.961	4.215	7.122	7.047	5.500	4.000/5.000	A4	6205-ZZ	6204-ZZ	8.697	9°
182/4T	0.406	2.216	5.500	3.117	1.614		6.575	5.246	9.343	8.740	7.500	4.500/5.500		6207-ZZ	6206-ZZ	12.138	
213/5T		2.966	7.000		1.772	2.165			10.841	10.669	8.500	5.500/7.000	6308-ZZ	6207-ZZ	14.659	10°	
254/6T	0.531	3.061	9.250	3.976	2.539	2.559	7.815	7.480	12.598	12.953	10.000	8.252/10.000	A4	6309-C3	6209-Z-C3	17.195	9°
284/6TS		3.535	10.250		3.110	2.874			14.067	14.173	11.000	9.500/11.000		6311-C3	6211-Z-C3	19.563	
284/6T	0.657	4.811	11.250	4.705	3.189	3.189	9.055	8.661	15.953	15.827	12.500	10.500/12.000	A4	6312-C3	6212-Z-C3	25.48	10°
324/6TS														0.660	4.251	12.362	
364/5T	0.810	5.252	14.213	3.937	5.669	19.566	19.134	15.984	12.244/13.740	6316-C3							

"C" FLANGE DIMENSIONS									
NEMA FRAMES	BA	AJ	AK	BD	BF		BB	BC	AH
					NUMBER	TAP SIZE			
143/5TC	2.250	5.875	4.500	6.500	4	UNC 3/8"x16	0.156	0.125	2.125
182/4TC	2.750								2.625
213/5TC	3.500	7.250	8.500	8.875					3.125
254/6TC	4.250								3.75
284/6TC	4.750	9.000	10.500	11.031	4	UNC 1/2"x13	0.250	0.250	4.375
284/6TSC									
324/6TC	5.250			13.583					5.000
324/6TSC									3.500
364/5TC	5.875	11.000	12.500	15.551	8	UNC 5/8"x11			5.625
364/5TSC									
404/5TC	6.625								7.000
404/5TSC									



"D" FLANGE DIMENSIONS							
NEMA FRAMES	BA	AJ	AK	BD	BF		BB
					NUMBER	TAP SIZE	
143/5TD	2.250	10.000	9.000	11.000	4	0.562	0.203
182/4TD	2.750						
213/5TD	3.500						
254/6TD	4.250						
284/6TD	4.750	12.500	11.000	14.000	4	0.828	0.203
284/6TSD							
324/6TD	5.250			18.000			
324/6TSD							
364/5TD	5.875	16.000	14.000	17.716	8		
364/5TSD							
404/5TD	6.625	20.000	18.000	22.000			
404/5TSD							



# Saw Arbor Motors

## TEFC

### Standard Features

- Three-phase, 2 and 4 pole, 60Hz
- Voltage:
  - 208-230/460 V
  - 575 V
- 80S-MS up to 90L-MS - IEC metric frames
- Die cast aluminum squirrel cage rotor
- Totally Enclosed Fan Cooled (IP54 according to IEC 34-5 standard)
- Class 'F' insulation
- 104°F (40°C) ambient temperature
- 575V rated motors have Spike Resistant WISE wire.
  - Protects against IGBT voltage spikes up to 2400V.
  - Exceeds NEMA MG1 Part 31.4.4.2
- Duty S6 (50%ED)
- Altitude: 3300 ft (1000 m)
- 1045 carbon steel shaft
- Ball bearings
- F1 mount
- Service factor: 1.0
- Stainless steel nameplate
- Cast iron frame
- Dimensions according to IEC 72
- NPT threaded terminal box conduit hole
- LH or RH thread on shaft
- Paint: Enamel alkyd resin base
- Color: RAL 7022 (Dark Gray)
- WEG paint plan: 207A



### Optional Features

- Special voltages
- Specially dimensioned shaft
- Terminal Box with metric threaded cable entries
- Stainless steel shaft
- Double shaft
- F2 mount



# Saw Arbor Motors

## TEFC - Purchasing Data

Rated Output		IEC Frame	List Price	Part Number	Full Load Current		Full Load Efficiency	Shipping Weight (lbs.)	Overall Length "C" Dim. (in.)
HP	RPM				460V	575V			
3	3600	80S	\$2,966	SR003X0256	4.29	3.43	80.5	85	18.543
5	3600	80M	\$3,954	SR005X0256	6.65	5.32	85.0	100	20.512
	1800	90L	\$5,474	SR005X0456	7.03	5.62	84.5	143	26.476
7.5	3600	80L	\$4,958	SR007X0256	9.76	7.81	87.4	122	22.48
	1800	90L	\$6,106	SR007X0456	10.1	8.08	85.3	165	26.476
10	3600	90L	\$6,916	SR010X0256	12.3	9.84	85.0	166	26.476
	1800	90L	\$7,724	SR010X0456	14.1	11.3	85.5	178	26.476

Shaft: Replace 'R' with 'L' for left side shaft  
Voltage: Replace 'X' with '4' for 208-230/460V  
Replace 'X' with '5' for 575V

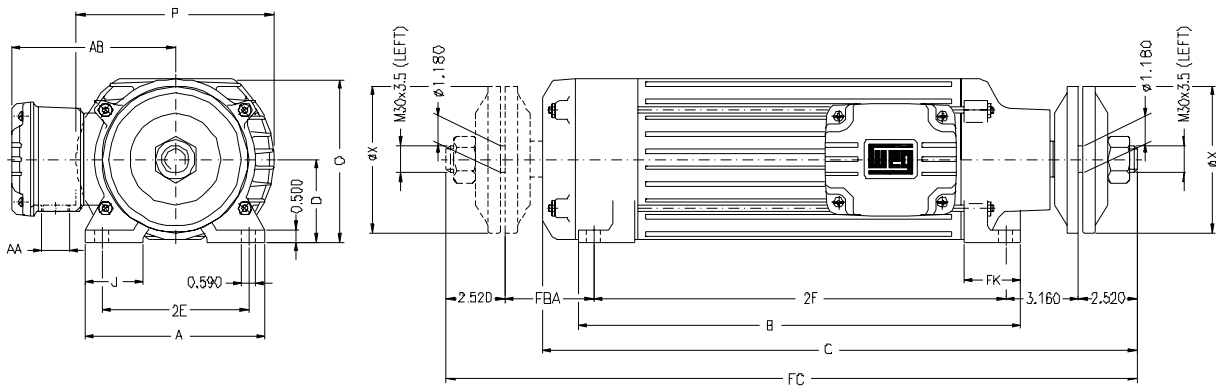
# Saw Arbor Motors

## TEFC - Electrical Data

Rated Output	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)			Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor			
			230V	460V	575V								50%	75%	100%	50%	75%	100%	
3	2.2	3500	80S	8.58	4.29	3.43	7.3	330%	370%	9	85	62	1.0	76.0	79.5	80.5	0.65	0.75	0.80
		3470	80M	13.3	6.65	5.32	8	340%	410%	7	100	62	1.0	82.0	84.5	85.0	0.66	0.77	0.82
5	3.7	1740	90L	14.1	7.03	5.62	8	380%	410%	8	143	51	1.0	82.0	84.0	84.5	0.58	0.71	0.78
		3490	80L	19.5	9.76	7.81	9.2	400%	460%	5	122	62	1.0	85.2	87.0	87.4	0.64	0.75	0.81
7.5	5.5	1730	90L	20.2	10.1	8.08	8.2	370%	400%	7	165	51	1.0	83.5	85.0	85.3	0.60	0.74	0.80
		3480	90L	24.6	12.3	9.84	8.5	400%	420%	7	166	68	1.0	82.0	84.5	85.0	0.77	0.86	0.90
10	7.5	1720	90L	28.2	14.1	11.3	8	400%	400%	6	178	51	1.0	84.5	85.5	85.5	0.57	0.71	0.78

# Saw Arbor Motors

## TEFC - Mechanical Data



IEC FRAMES	2E	J	A	P	AB	2F	FK	FK1	B	FBA	D	O	C	FC	AA	X	BEARINGS	
																	D.E.	N.D.E.
80S						10.236			12.008				18.543	22.440				
80M	7.480	1.378	8.858	7.480	5.984	12.205	1.772	1.772	13.976	3.150	3.150	6.063	20.512	24.409	NPT0.75"	4.724	6307-ZZ	6207-ZZ
80L						14.173			15.949				22.480	26.377				
90L	6.299	2.500	7.756	8.189	6.575	20.079	2.441	4.960	21.378	3.150	3.543	6.968	26.476	29.842	NPT1"	6.299	6308-ZZ	6208-ZZ

# W22 Medium Voltage Motors

TEFC - Severe Duty

## Standard Features

- Three-phase, 2, 4, 6 and 8 pole, 60Hz
- Voltage: 1200V, 2300V, 2400V, 3300V, 4000V, 4160V & 6600V
- Totally Enclosed Fan Cooled - TEFC (IP55) waterproof as per NEMA MG1 1.26.6 "Waterproof Machine"
- Die cast aluminum squirrel cage rotor
- WSeal® (double lipped V-Ring with a metallic cap) sealing on both endshields
- Ball bearings
- 4140 steel shaft
- Class "F" (DT 80K) insulation for all frames
- VPI Impregnation Insulation system
- Insulated endbells from frame L447/9T and up
- Temperature rise limited to Class "B" (80K)
- Service Factor: 1.15 unless otherwise indicated
- Continuous duty (S1)
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000m)
- Double Gasketed terminal box
- Re-configurable Terminal Box
- Stainless steel nameplate with laser etching
- Paint: Synthetic enamel alkyd resin base
- Paint Plan: 203A
- Color: RAL 5009 - Blue
- Fitted with closed rubber drain breathers
- Regreasable bearings
- 2 x RTD (PT100) per phase - 3 wire
- Plastic fan for 2 pole motors up to frame 588/9TS
- Aluminum fan for 4, 6, & 8 pole motors



## Optional Features

- 50Hz
- Special voltages
- Special shafts
- Labyrinth taconite seal available for all ratings
- Thermostats, Thermistors
- Additional terminal box
- Drip cover (canopy) for shaft down applications
- NEMA C & D flanges for all ratings
- Roller bearings available
- Special epoxy painting



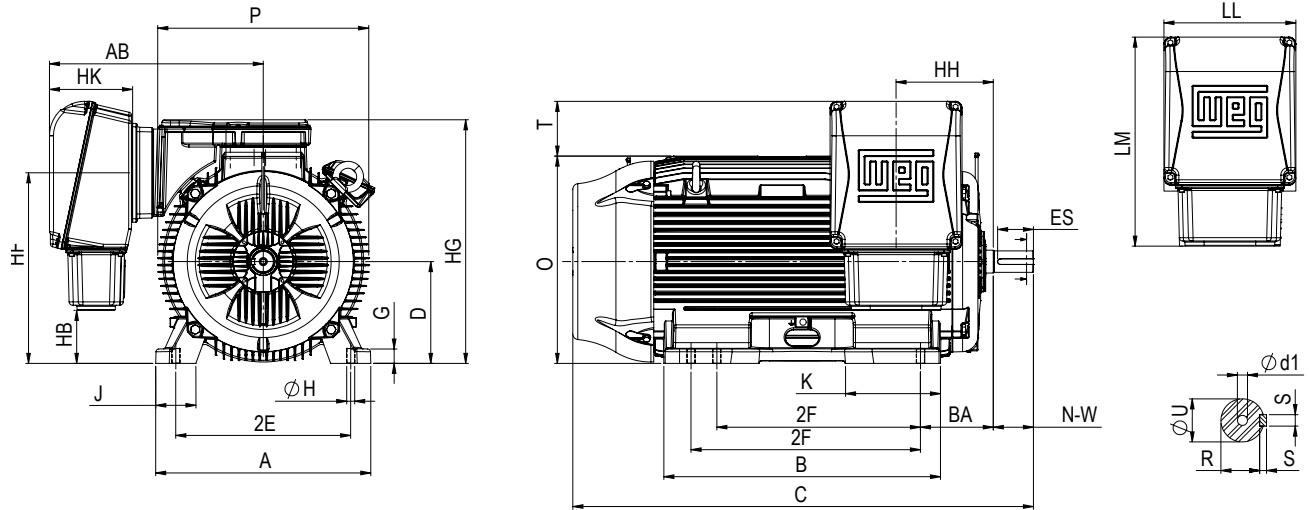
# W22 Medium Voltage Motors

## TEFC - Severe Duty - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)					Locked rotor current (lI/in)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			2300V	2400V	3300V	4000V	4160V								50%	75%	100%	50%	75%	100%
125	90	3576	L447/9TS	28.8	27.6	20.1	16.6	15.9	7.3	140%	270%	20	2315	88	1.15	90.2	91.7	92.4	0.72	0.81	0.85
		1183	L447/9T	30.4	29.1	21.2	17.5	16.8	6.4	130%	210%	16	2535	71	1.15	92.5	92.7	92.7	0.64	0.75	0.80
		892	L447/9T	34.7	33.3	24.2	20.0	19.2	6.3	180%	210%	15	2866	66	1.15	91.8	92.9	93.0	0.51	0.63	0.70
150	110	3576	L447/9TS	34.9	33.4	24.3	20.1	19.3	7.3	140%	270%	20	2425	88	1.15	91.7	92.4	93.0	0.72	0.81	0.85
		1786	L447/9T	35.6	34.1	24.8	20.5	19.7	6.6	160%	230%	20	2425	79	1.15	91.5	92.7	93.3	0.69	0.78	0.83
		1182	L447/9T	36.7	35.2	25.6	21.1	20.3	6.4	130%	210%	17	2756	71	1.15	92.8	92.9	92.9	0.67	0.77	0.81
175	132	892	L447/9T	42.3	40.5	29.5	24.3	23.4	6.5	200%	250%	14	3086	66	1.15	92.2	93.0	93.1	0.51	0.63	0.70
		3576	L447/9TS	41.6	39.9	29.0	23.9	23.0	7.3	140%	270%	20	2557	88	1.15	91.7	93.0	93.6	0.72	0.81	0.85
		1786	L447/9T	42.1	40.3	29.3	24.2	23.3	6.6	160%	230%	20	2535	79	1.15	92.0	93.2	93.8	0.71	0.80	0.84
200	150	1182	L447/9T	43.8	42.0	30.5	25.2	24.2	6.4	130%	210%	14	2866	71	1.15	93.0	93.2	93.3	0.67	0.77	0.81
		891	L447/9T	51.5	49.4	35.9	29.6	28.5	6.3	180%	220%	11	3197	66	1.15	92.5	93.4	93.3	0.49	0.62	0.69
		3576	L447/9TS	47.0	45.0	32.8	27.0	26.0	7.3	140%	270%	20	2756	88	1.15	92.4	93.6	94.1	0.72	0.82	0.85
250	185	1786	L447/9T	47.7	45.7	33.2	27.4	26.4	6.8	160%	230%	20	2646	79	1.15	92.6	93.8	93.8	0.71	0.80	0.84
		1182	L447/9T	49.7	47.6	34.6	28.6	27.5	6.6	130%	210%	14	2910	71	1.15	93.2	93.6	93.6	0.66	0.77	0.81
		891	L447/9T	58.4	56.0	40.7	33.6	32.3	6.3	180%	220%	11	3197	66	1.00	92.6	93.4	93.5	0.49	0.62	0.69
300	220	3578	L447/9TS	57.2	54.8	39.9	32.9	31.6	7.3	140%	270%	15	2976	88	1.15	93.2	94.2	94.6	0.74	0.83	0.86
		1786	L447/9T	58.4	56.0	40.7	33.6	32.3	6.8	160%	230%	20	2822	79	1.15	93.4	94.3	94.5	0.71	0.80	0.84
		1190	L447/9T	64.8	62.1	45.2	37.3	35.8	7.5	190%	260%	12	2976	71	1.00	94.0	94.2	94.3	0.57	0.69	0.76
350	260	893	586/7T	67.5	64.7	47.0	38.8	37.3	6.7	180%	240%	21	4189	75	1.15	93.0	94.0	94.2	0.53	0.65	0.73
		3578	L447/9TS	67.8	65.0	47.3	39.0	37.5	7.6	150%	270%	12	3219	88	1.00	93.6	94.5	94.7	0.73	0.82	0.86
		1786	L447/9T	69.5	66.6	48.4	40.0	38.4	7.1	180%	270%	18	2976	79	1.15	93.8	94.6	94.7	0.71	0.80	0.84
400	300	1191	586/7T	76.0	72.8	53.0	43.7	42.0	7.2	170%	230%	19	4078	77	1.15	93.2	94.2	94.5	0.60	0.71	0.77
		893	588/9T	80.1	76.8	55.8	46.1	44.3	6.6	180%	270%	18	4630	75	1.15	93.6	94.4	94.5	0.53	0.65	0.73
		3580	586/7TS	78.0	74.8	54.4	44.9	43.1	7.5	140%	300%	20	3858	89	1.15	94.1	94.5	95.1	0.78	0.85	0.88
450	330	1789	586/7T	83.7	80.2	58.3	48.1	46.3	7.6	210%	270%	25	3968	81	1.15	93.6	94.6	95.1	0.66	0.77	0.82
		1191	588/9T	89.5	85.8	62.4	51.5	49.5	7	170%	230%	15	4409	77	1.15	93.7	94.6	94.6	0.60	0.71	0.77
		893	588/9T	95.5	91.5	66.6	54.9	52.8	6.8	200%	290%	17	4850	75	1.00	94.2	94.8	94.9	0.52	0.65	0.72
500	370	3582	588/9TS	89.7	86.0	62.5	51.6	49.6	7.8	160%	250%	20	4409	89	1.15	94.5	95.0	95.4	0.80	0.86	0.88
		1789	588/9T	94.2	90.3	65.7	54.2	52.1	7.6	210%	270%	25	4630	81	1.15	94.0	95.0	95.1	0.70	0.80	0.84
		1191	588/9T	103	98.7	71.8	59.2	56.9	7.2	180%	240%	18	4850	77	1.15	94.0	94.9	95.0	0.59	0.71	0.77
550	400	891	588/9T	107	103	74.6	61.5	59.2	6.2	170%	250%	12	5071	75	1.00	94.4	94.9	95.0	0.55	0.67	0.74
		3582	588/9TS	98.8	94.7	68.9	56.8	54.6	7.8	160%	250%	20	4806	89	1.15	94.5	95.4	95.4	0.80	0.86	0.88
		1789	588/9T	103	98.7	71.8	59.2	56.9	7.6	210%	270%	25	4740	81	1.15	94.3	95.0	95.4	0.70	0.80	0.84
600	450	1190	588/9T	112	107	78.1	64.4	61.9	6.8	150%	210%	12	4960	77	1.15	94.3	95.0	95.1	0.62	0.73	0.78
		3582	588/9TS	110	105	76.7	63.3	60.8	7.8	160%	250%	15	5071	89	1.15	95.0	95.8	95.8	0.80	0.86	0.88
		1789	588/9T	116	111	80.8	66.7	64.1	7.6	210%	270%	25	4960	81	1.15	94.7	95.2	95.6	0.70	0.80	0.84
650	500	1190	588/9T	125	120	87.1	71.9	69.1	6.8	150%	210%	12	5071	77	1.00	94.3	95.0	95.1	0.61	0.72	0.78
		3582	588/9TS	119	114	82.9	68.4	65.8	7.8	160%	250%	15	5291	89	1.15	95.4	95.8	95.8	0.80	0.86	0.88
		1789	588/9T	125	120	87.1	71.9	69.1	8	220%	280%	20	5071	81	1.00	94.8	95.4	95.6	0.70	0.80	0.84
700	550	3582	588/9TS	132	127	92.0	75.9	73.0	8.1	170%	250%	15	5291	89	1.00	95.4	95.8	96.2	0.78	0.85	0.87
		1788	588/9T	137	131	95.5	78.8	75.7	7.6	210%	270%	20	5071	81	1.00	95.0	95.5	95.7	0.70	0.80	0.84

# W22 Medium Voltage Motors

TEFC - Severe Duty - Mechanical Data



NEMA Frames	MOUNTING				A	B	C	D	G	J	K	O	P	T	KEYWAY			SHAFT EXTENSION	
	2E	2F	H	BA											S	R	ES	N-W	U
L447/9T	18.000	20.000	0.810	7.500	21.929	31.535	57.780	11.000	1.630	3.937	8.780	23.970	25.866	6.739	0.875	2.880	7.087	8.500	3.375
L447/9TS		25.000					54.030								8.117*	0.625	2.021	3.000	4.750
586/7T	23.000	22.000	1.181	10.000	29.528	29.921	61.704	14.500	2.492	5.512	9.055	28.985	28.977	7.559	1.000	3.312	8.661	11.625	3.875
586/7TS		25.000					54.829								0.625	2.021	3.000	4.750	2.375
588/9T		28.000				69.381	1.000				3.312				8.661	11.625	3.875		
588/9TS		32.000				62.506	0.625				2.021				3.000	4.750	2.375		

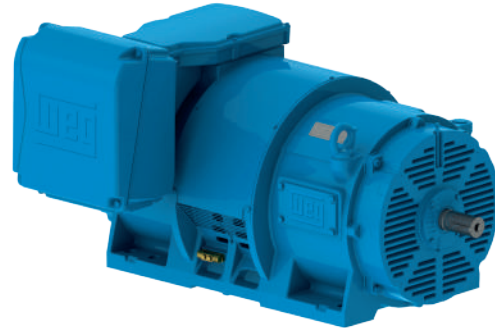
NEMA Frames	TERMINAL BOX								BEARINGS			
	AB	HB	HF	HG	HH	HK	LL	LM	D.E.	N.D.E.		
L447/9T	28.543	2.008	20.905	28.189	12.606				6322-C3	6319-C3		
L447/9TS	28.740*	3.386*	22.283*	29.567*					6314-C3			
586/7T	29.330	7.807	27.177	33.988	13.386	11.417	18.110	28.740	6322-C3	6319-C3		
586/7TS									9.185*	28.673*	35.366*	6314-C3
588/9T									6322-C3	6319-C3		
588/9TS									6314-C3			

# W40 Medium Voltage Motors

ODP & WP-II / WP-II

## Standard Features

- Motors are compliant with DOE and NRCAN
- Three-phase, 2, 4 and 6 pole, 60Hz
- Voltage: 2300V, 2400V, 3300V, 4000V, 4160V (Special voltages up to 6.6kV, please call for details)
- Cast Iron Frames
- Cast Iron endshields and terminal box
- Degree of protection:
  - ODP (IP23) for frames 5010/11 to L5810/11
  - WPI (IP24) for frame size L6808/09
- Ball bearings
- 1045 heat treated and stress relieved carbon steel shaft for 2 pole motors
- 4140 for 4 pole motors
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- NEMA design "B"
- Service Factor: 1.15
- Continuous Duty (S1)
- 104°F (40°C) ambient temperature
- Paint Plan: 203A
- Color: RAL 5009 (Blue)
- Paint: Synthetic Enamel alkyd resin base
- Stainless steel nameplate with laser etching
- Cooling system with finned rotor
- Regreasable bearings



## Optional Features

- 50 Hz
- Special voltages
- NEMA C & D flanges
- Specially designed shaft
- Second shaft end
- Thermistors, Thermostats or RTD's (PT100)
- Auxiliary terminal box
- Roller bearings
- Degree of protection: WP-I (IP24), WP-II (IPW24)
- Shaft grounding (Aegis or WEG)
- IEC metric frames (on request) for frames 160M to 280S/M
- F2 and F3 mount
- Drip cover
- No feet



# W40 Medium Voltage Motors

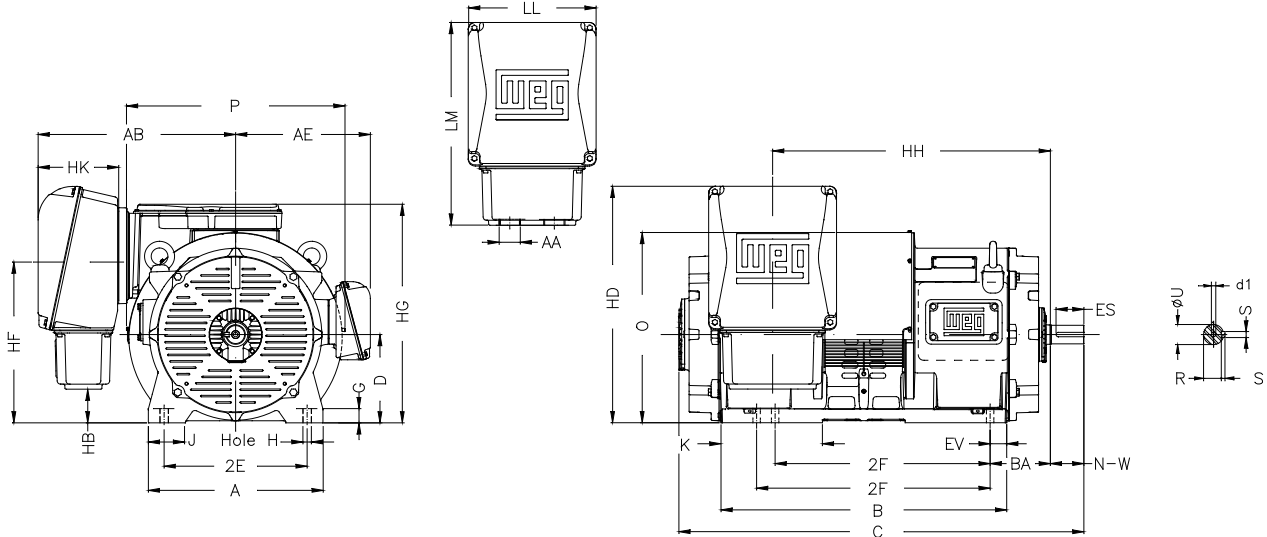
## ODP - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)					Locked rotor current (ll/in)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			2300V	2400V	3300V	4000V	4160V								50%	75%	100%	50%	75%	100%
350	260	3567 5010/11	79.4	76.1	55.3	45.7	43.9	7.5	140%	270%	12	2756	91	1.15	93.5	94.5	94.5	0.75	0.84	0.87	
		1781 5010/11	81.8	78.3	57.0	47.0	45.2	6.0	100%	220%	20	2867	89	1.15	93.5	94.0	94.0	0.75	0.83	0.85	
400	300	3567 5010/11	91.5	87.7	63.8	52.6	50.6	7.5	140%	270%	10	2867	91	1.15	93.7	94.7	94.7	0.75	0.84	0.87	
		1781 5010/11	94.1	90.1	65.6	54.1	52.0	6.0	100%	220%	15	3087	89	1.15	93.7	94.2	94.2	0.75	0.83	0.85	
450	330	3567 5010/11	100	96.2	70.0	57.7	55.5	7.5	140%	270%	10	2977	91	1.15	94.1	94.8	94.8	0.75	0.84	0.87	
		1781 5010/11	103	99.0	72.0	59.4	57.1	6.0	100%	220%	15	3308	89	1.15	93.8	94.3	94.3	0.75	0.83	0.85	
500	370	3567 5010/11	112	108	78.3	64.6	62.1	7.5	140%	270%	10	3087	91	1.15	94.3	95.0	95.0	0.75	0.84	0.87	
		1781 5010/11	116	111	80.6	66.5	63.9	6.0	100%	220%	15	3528	89	1.15	94.0	94.5	94.5	0.75	0.83	0.85	
550	400	3567 5010/11	121	116	84.5	69.7	67.0	7.5	140%	270%	10	3197	91	1.15	94.6	95.2	95.2	0.75	0.84	0.87	
		1782 5010/11	124	119	86.6	71.4	68.7	6.0	100%	220%	15	3749	89	1.15	94.5	95.0	95.0	0.75	0.83	0.85	
600	440	3567 5010/11	133	128	92.8	76.5	73.6	7.5	140%	270%	10	3308	91	1.15	94.9	95.4	95.4	0.75	0.84	0.87	
		1782 5010/11	137	131	95.4	78.7	75.7	6.0	100%	220%	15	3749	89	1.00	94.5	95.0	95.0	0.75	0.83	0.85	
650	480	1780 L5010/11	138	133	96.4	79.6	76.5	4.8	100%	170%	30	4520	80	1.15	94.5	95.0	95.0	0.80	0.83	0.84	
		3567 5010/11	145	139	101	83.4	80.2	7.8	150%	280%	8	3418	91	1.15	95.0	95.5	95.5	0.75	0.84	0.87	
700	515	1780 L5010/11	151	145	105	86.8	83.5	4.8	100%	170%	25	4675	80	1.15	94.5	95.0	95.0	0.80	0.83	0.84	
		3567 5010/11	156	149	108	89.4	86.0	7.8	150%	280%	8	3528	91	1.15	95.0	95.6	95.6	0.75	0.84	0.87	
750	550	1785 L5810/11	153	146	106	87.8	84.4	7.1	110%	240%	15	4410	94	1.15	95.0	96.2	96.2	0.80	0.85	0.88	
		3567 5010/11	161	155	112	92.8	89.2	4.8	100%	170%	25	4961	80	1.15	95.0	95.0	95.4	0.80	0.83	0.84	
800	590	1785 L5810/11	162	155	113	93.1	89.5	6.1	80%	220%	17	4410	94	1.15	95.8	96.2	96.2	0.73	0.81	0.83	
		3567 5010/11	166	159	116	95.4	91.7	7.8	150%	280%	8	3638	91	1.00	95.1	95.7	95.7	0.75	0.84	0.87	
850	630	1780 L5010/11	165	158	115	94.8	91.2	6.2	70%	200%	20	4520	89	1.15	95.4	95.8	95.8	0.85	0.88	0.89	
		3567 5010/11	175	168	122	101	97.0	4.8	100%	170%	25	4961	80	1.15	95.0	95.0	95.4	0.80	0.83	0.84	
900	660	1785 L5810/11	180	172	125	103	99.4	7.8	150%	280%	8	3749	91	1.00	95.2	95.8	95.8	0.73	0.83	0.86	
		3580 L5810/11	175	168	122	101	96.7	7.1	110%	240%	15	4631	94	1.15	95.2	96.2	96.2	0.80	0.85	0.88	
950	700	1780 L5010/11	184	177	129	106	102	4.8	100%	170%	25	5072	80	1.00	95.0	95.4	95.4	0.80	0.83	0.84	
		3567 5010/11	186	179	130	107	103	6.1	80%	220%	17	4741	94	1.15	95.8	96.2	96.2	0.73	0.81	0.83	
1000	750	3575 L5010/11	194	185	135	111	107	6.2	70%	210%	20	4741	89	1.15	95.4	95.8	95.8	0.85	0.88	0.89	
		3580 L5810/11	195	187	136	112	108	7.1	110%	240%	15	4851	94	1.15	95.2	96.2	96.2	0.80	0.85	0.88	
1050	810	1785 L5810/11	206	198	144	119	114	6.2	80%	220%	17	4961	94	1.15	96.2	96.5	96.5	0.73	0.82	0.83	
		3570 L5010/11	221	211	154	127	122	6.2	70%	220%	20	4851	89	1.15	95.4	95.8	95.8	0.85	0.88	0.89	
1100	870	3580 L5810/11	222	213	155	128	123	7.2	110%	240%	15	5072	94	1.15	95.2	96.5	96.5	0.80	0.86	0.88	
		1785 L5810/11	232	222	161	133	128	6.2	80%	220%	15	5292	94	1.15	96.2	96.5	96.5	0.74	0.83	0.84	
1150	930	3570 L5010/11	264	253	184	152	146	6.2	70%	220%	10	5182	89	1.00	95.8	96.2	96.2	0.85	0.88	0.89	
		1785 L5810/11	279	267	194	160	154	6.2	80%	220%	15	5843	94	1.00	96.2	96.5	96.5	0.74	0.83	0.84	
1200	1000	3580 L5810/11	320	307	223	184	177	7.3	120%	250%	12	5954	94	1.00	96.2	96.8	96.8	0.81	0.86	0.89	
		1785 L5810/11	336	322	234	193	186	6.2	80%	220%	15	6615	94	1.00	96.2	96.5	96.8	0.75	0.83	0.85	
1250	1050	1790 L6808/09	340	326	237	196	188	6.3	90%	220%	12	8600	89	1.15	96.2	96.5	96.6	0.74	0.80	0.84	
		3580 L5810/11	385	369	269	222	213	7.5	120%	250%	12	6615	94	1.00	96.5	96.8	96.8	0.81	0.87	0.89	
1300	1110	3580 L6808/09	385	369	269	222	213	6.3	60%	220%	15	7718	89	1.15	95.8	96.5	96.5	0.85	0.88	0.89	
		1790 L6808/09	409	392	285	235	226	6.3	90%	220%	12	9041	89	1.00	96.4	96.6	96.7	0.74	0.81	0.84	
1350	1170	3575 L6808/09	409	392	285	235	226	6.0	60%	220%	15	8489	89	1.15	96.2	96.5	96.5	0.85	0.88	0.89	
		3580 L5810/11	427	409	298	245	236	6.5	60%	270%	15	8820	89	1.15	96.1	96.8	96.8	0.86	0.90	0.91	
1400	1230	3580 L6808/09	463	444	323	266	256	6.3	90%	220%	12	9482	89	1.00	96.6	96.8	96.8	0.74	0.81	0.84	
		1790 L6808/09	481	461	335	277	266	5.8	60%	200%	15	8820	89	1.00	96.5	96.8	96.8	0.86	0.88	0.89	
1450	1290	3575 L6808/09	525	503	366	302	290	5.5	60%	200%	14	9041	89	1.00	96.5	96.8	96.8	0.87	0.88	0.89	

# W40 Medium Voltage Motors

## ODP - Mechanical Data

### IP23 Frames 5010/11 to L5810/11

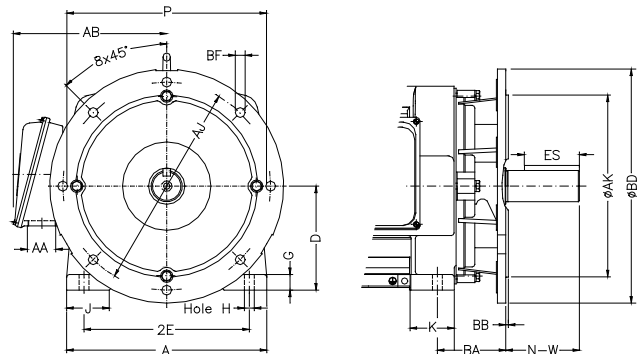


Frame	2E	J	A	AB	AE	P	2F	K	B	BA	U	d1	N-W	ES	S	R	
5010/11 - 2P	20.000	5.236	24.724	28.543	18.121	30.670	32.000/36.000	14.200	40.260	8.504	2.625	DUNC 3/4"-10	4.750	3.000	0.625	2.275	
5010/11											3.625						10.630
L5010/11 - 2P		5.140	24.803	34.908	19.900	34.095		36.000/40.000	10.685	42.256	8.500	3.250	DUNC 1"-8	5.750	4.331	0.750	2.831
L5010/11												4.375					
L5810/11 - 2P	23.000	6.710	29.530	34.908	21.864	39.976	10.810		46.785	10.000	3.375	DUNC 7/8"-9	6.750	5.512	0.875	2.880	
L5810/11											5.125						11.625

Frame	D	G	O	LL	LM	HB	HD	HF	HG	HH	HK	Hole H	C	AA	Bearings	
															Drive end	Non-drive end
5010/11 - 2P	12.500	1.972	27.150	18.090	28.700	6.150	34.850	25.042	32.323	39.331	11.410	1.102	57.000	NPT 4"	6314 C3	6314 C3
5010/11							41.510								6319 C3	
L5010/11 - 2P		1.873	29.527	21.850	32.874	5.510	38.384	21.142	34.754	40.822	18.805	1.181	59.211		6218 C3	
L5010/11							51.145								6224 C3	
L5810/11 - 2P	14.500	34.460	9.085	41.959	24.717	38.570	45.830	70.444	65.570	6220 C3	6228 C3					
L5810/11												54.723	6220 C3			

### FD Flange

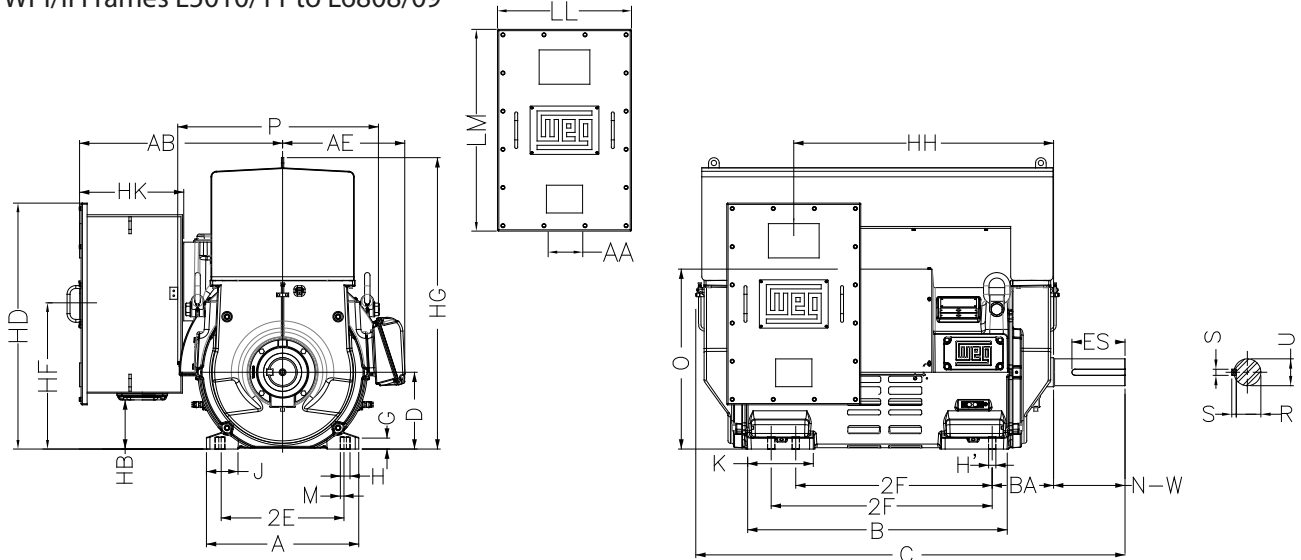
Frame	Flange	AJ	AK	BD	S	T	AH	$\alpha$	Nº of holes
5010/11TS	FD-558	22.000	18.000	24.000	0.828	0.250	4.500	45°	8
5010/11T							10.380		
L5010/11TS							5.500		
L5010/11T							11.375		
L5810/11TS	FD-762	30.000	28.000	32.000	1.000	0.250	6.500	45°	8
L5810/11T							11.375		
L6808/09TS	FD-895	35.250	33.250	37.250	1.000	0.250	6.500	45°	8
L6808/09T							11.375		



# W40 Medium Voltage Motors

## WP-I / WP-II - Mechanical Data

### WPI/II Frames L5010/11 to L6808/09

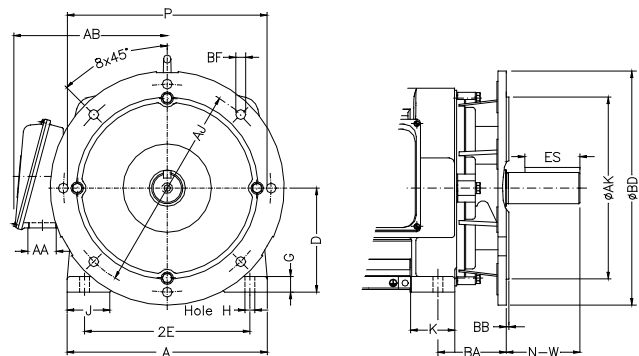


Frame	2E	J	A	AB	AE	P	2F	K	B	BA	U	d1	N-W	ES	S	R
L5010/11 - 2P L5010/11	20.000	5.140	24.803	34.908	19.900	34.095	32.000/36.000	10.685	42.256	10.000	3.250 4.375	DUNC 3/4"-10 DUNC 1"-8	5.750 11.625	4.331 8.661	0.750 1.000	2.831 3.817
L5810/11 - 2P L5810/11	23.000	6.710	29.530		21.864	39.976	36.000/40.000	10.810	47.785	12.500	3.375 5.125	DUNC 7/8"-9 DUNC 1 1/4"-7	6.750 11.625	5.512 9.842	0.875 1.250	2.880 4.423
L6808/09 - 2P L6808/09	27.000	7.470	33.070	39.041	24.620	48.800					3.750 5.125	DUNC 7/8"-9 DUNC 1 1/4"-7	6.750 11.625	5.512 9.842	0.875 1.250	3.261 4.423

Frame	D	G	O	LL	LM	HB	HD	HF	HG	HH	HK	Hole H	C	AA	Bearings	
															Drive end	Non-drive end
L5010/11 - 2P L5010/11	12.500	1.873	29.527	21.850	32.874	5.510	38.384	21.142	47.436	42.322	18.805	1.181	64.037 69.912	NPT 4"	6218 C3 6224 C3	6218 C3
L5810/11 - 2P L5810/11	14.500		34.460			9.085	41.959	24.717	51.482	48.326			72.537 77.412		6220 C3 6228 C3	
L6808/09 - 2P L6808/09	17.000	1.973	39.524	21.850	32.874	14.695	47.569	30.327	57.214	48.720	18.805	1.417	72.537 77.412	NPT 4"	6220 C3 6228 C3	6220 C3

### FD Flange

Frame	Flange	AJ	AK	BD	S	T	AH	$\alpha$	N° of holes
5010/11TS 5010/11T	FD-558	22.000	18.000	24.000	0.828	0.250	4.500	45°	8
L5010/11TS L5010/11T							10.380 5.500		
L5810/11TS L5810/11T	FD-762	30.000	28.000	32.000	0.828	0.250	6.500	45°	8
L5810/11TS L5810/11T							11.375		
L6808/09TS L6808/09T	FD-895	35.250	33.250	37.250	1.000	0.250	6.500	45°	8
L6808/09TS L6808/09T							11.375		



# HGF Low Voltage Motors

TEFC

## Standard Features

- Rated Output: 125HP to 1500HP
- Sinusoidal power supply up to 690V
- Motors manufactured in 2 to 12 poles
- Cast iron frame 5000 to 7000
- Internal and external self-ventilated enclosed cooling system
- Service Factor: 1.0
- Class of insulation: F
- Temperature rise: 80°C
- Ambient temperature: 40°C
- Altitude: 1000 m
- Mounting: F1 or F2
- Vertical Jacking Provisions
- Provisions for vibration devices 2 per bearing
- Starting method: DOL
- Degree of Protection: IP55
- Service duty: (S1)
- Temperature detector: Pt100
  - 2 per phase with 3 wires
  - 1 per bearing with 3 wires
- 06 loose connection leads inside the terminal box (without terminal block)
- Labyrinth taconite in grease lubricated bearings
- Grease lubricated bearings
- Electrically insulated non-drive end bearing
- Paint Plan:
  - 214P - Frames up to 6800
  - 212P - Frames 7000
- RAL 5009 - Blue
- Two accessory terminal boxes, one for temperature detectors and one for space heaters
- Single phase space heater
- Stainless steel nameplate
- Grounding lug on the frame and terminal box
- Aluminum fan

## Optional Features

- Service Factor: 1.15
- Insulation Class: H
- Temperature rise: 105°K for class F, 125°K for class H
- Ambient temperature above 40°C
- Altitude above 1000 m
- Degree of Protection IPW55 and above
- Special balance
- Base: rail, sliding base, extended feet, rebuilt feet, anchorage plate
- Steel welded t-box in different sizes
- Power factor correction capacitors
- Non-reversion ratchet



- PT100, Thermistor (PTC or NTC), Thermostat (Bimetallic)
- Two energized power terminal boxes
- Shaft: Special dimensions, double shaft end, tapered, hollow, special steel
- Encoder
- Sleeve bearing
- Oil lubricated bearing
- Special bearing (overdesigned) for axial or radial thrust
- Special painting
- Stainless steel fasteners
- Terminal block
- Cable gland in the terminal box entrance
- Protection against voltage surge
- Aluminum, copper or brass rotor
- Vibration detector
- Noise suppressor in the air inlet and outlet
- Tachogenerator
- CT for differential and integral protection
- Bearing thermometer with gauge with/without contacts
- Signal transducer
- One or more accessory terminal boxes
- Indep. hydraulic oil circulation system for sleeve bearing
- Electrically insulated non-drive end bearing for all frame sizes when driven by frequency drive
- Both bearings electrically insulated
- Shaft grounding (Aegis or WEG). Not for Hazloc.
- Independent cooling
- Inpro Seal
- VFD Duty
- Class 1 Division 2, CSA
- API 541
- EX 'n' (Zone 2) ATEX or IECEx



# HGF Low Voltage Motors

## TEFC - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (I <sub>L</sub> /I <sub>N</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			460V	575V								50%	75%	100%	50%	75%	100%
125	90	710	5006/7/8T	173	139	5.5	150%	200%	15	3417	80.0	1.00	91.8	93.0	93.0	0.51	0.63	0.70
150	110	710	5006/7/8T	211	169	5.5	150%	200%	15	3638	80.0	1.00	92.2	93.3	93.3	0.51	0.63	0.70
175	132	710	5009/10/11T	253	202	5.5	150%	200%	15	4079	80.0	1.00	92.6	93.6	93.6	0.51	0.63	0.70
		593	5807/8/9T	262	210	4.5	120%	170%	20	5247	82.0	1.00	93.8	94.3	94.3	0.50	0.61	0.67
200	150	889	5009/10/11T	242	194	5.5	120%	240%	24	3814	75.0	1.00	94.1	94.7	94.7	0.68	0.78	0.82
		710	5009/10/11T	286	229	5.8	160%	200%	15	4365	80.0	1.00	92.8	93.9	93.9	0.51	0.63	0.70
		593	5807/8/9T	298	239	4.5	120%	170%	20	5335	82.0	1.00	93.8	94.3	94.3	0.50	0.61	0.67
250	185	1186	5009/10/11T	284	227	6.1	120%	250%	17	3649	77.0	1.00	94.3	94.8	94.9	0.75	0.84	0.86
		888	5009/10/11T	297	238	5.5	120%	230%	26	4112	75.0	1.00	94.5	95.1	95.1	0.70	0.78	0.82
		713	5807/8/9T	368	295	5.5	130%	220%	20	5071	82.0	1.00	93.0	94.0	94.2	0.48	0.60	0.67
		592	5810/11/12T	363	290	4.5	120%	170%	20	6217	82.0	1.00	93.9	94.3	94.3	0.50	0.62	0.68
300	220	3581	5009/10/11TS	321	257	6.5	90%	250%	28	3527	79.0	1.00	94.4	95.3	95.6	0.84	0.89	0.90
		1186	5009/10/11T	334	267	6.1	130%	250%	16	3902	77.0	1.00	94.7	95.2	95.1	0.77	0.84	0.87
		889	5009/10/11T	353	282	5.5	120%	250%	21	4420	75.0	1.00	94.9	95.3	95.3	0.68	0.78	0.82
		713	5810/11/12T	429	344	5.5	130%	220%	20	5952	82.0	1.00	93.3	94.3	94.5	0.49	0.61	0.68
		592	6806/7/8T	385	308	5.0	100%	200%	20	7628	82.0	1.00	94.0	94.3	94.5	0.57	0.69	0.76
350	260	3579	5009/10/11TS	375	300	6.5	90%	250%	24	3726	79.0	1.00	94.8	95.5	95.7	0.85	0.89	0.91
		1784	5009/10/11T	396	317	7.0	120%	240%	22	3748	79.0	1.00	94.7	95.5	95.8	0.75	0.83	0.86
		1186	5009/10/11T	393	315	6.1	130%	250%	16	4101	77.0	1.00	94.9	95.4	95.4	0.77	0.85	0.87
		892	5807/8/9T	417	334	5.5	120%	230%	21	4960	79.0	1.00	95.0	95.5	95.5	0.68	0.78	0.82
		713	5810/11/12T	506	405	5.5	130%	220%	20	6614	82.0	1.00	93.6	94.6	94.8	0.49	0.61	0.68
		592	6806/7/8T	452	362	5.5	100%	200%	20	8014	82.0	1.00	94.0	94.9	95.0	0.57	0.69	0.76
400	300	3577	5009/10/11TS	435	348	6.5	100%	250%	24	3902	79.0	1.00	95.2	96.0	96.1	0.86	0.89	0.90
		1784	5009/10/11T	456	365	7.0	130%	250%	20	3968	79.0	1.00	95.0	95.7	96.0	0.75	0.83	0.86
		1188	5807/8/9T	462	370	6.1	120%	250%	26	4861	81.0	1.00	95.2	95.9	95.8	0.74	0.83	0.85
		891	5807/8/9T	480	384	5.5	120%	230%	23	5181	79.0	1.00	95.3	95.8	95.7	0.68	0.78	0.82
		714	6806/7/8T	505	404	5.5	100%	220%	22	7363	82.0	1.00	94.9	95.6	95.6	0.60	0.72	0.78
		593	6809/10/11T	521	417	5.5	90%	200%	20	9568	82.0	1.00	94.4	94.9	95.1	0.59	0.69	0.76
		3575	5009/10/11TS	473	378	6.8	100%	250%	24	4145	79.0	1.00	95.6	96.2	96.3	0.85	0.89	0.91
		1784	5009/10/11T	501	401	7.0	130%	250%	19	4123	79.0	1.00	95.2	95.8	96.1	0.75	0.83	0.86
		1188	5807/8/9T	508	406	6.1	120%	250%	26	5071	81.0	1.00	95.4	95.9	95.9	0.75	0.83	0.85
450	330	892	5810/11/12T	527	422	5.7	120%	230%	17	6217	79.0	1.00	95.4	96.0	95.9	0.68	0.78	0.82
		714	6806/7/8T	554	443	5.5	100%	220%	22	7893	82.0	1.00	95.1	95.8	95.8	0.60	0.72	0.78
		595	7006/10	563	451	5.5	80%	190%	40	10042	82.0	1.00	95.3	95.5	95.5	0.61	0.71	0.77
		3573	5810/11/12TS	536	429	6.0	90%	240%	45	5291	86.0	1.00	95.6	96.2	96.3	0.86	0.89	0.90
		1784	5009/10/11T	561	449	6.8	130%	250%	19	4233	79.0	1.00	95.4	96.0	96.1	0.76	0.84	0.86
		1188	5810/11/12T	561	449	6.2	130%	250%	26	5952	81.0	1.00	95.5	96.2	96.2	0.75	0.83	0.86
500	370	892	5810/11/12T	590	472	6.3	130%	240%	17	6548	79.0	1.00	95.4	96.0	96.0	0.67	0.77	0.82
		714	6806/7/8T	620	496	5.5	100%	220%	22	8135	82.0	1.00	95.3	96.0	96.0	0.60	0.72	0.78
		595	7006/10	631	505	5.5	80%	190%	40	10251	82.0	1.00	95.4	95.6	95.6	0.61	0.71	0.77
		714	6806/7/8T	669	535	5.5	100%	220%	22	8664	82.0	1.00	95.5	96.2	96.2	0.60	0.72	0.78
		595	7006/10	681	545	5.5	80%	190%	40	10560	82.0	1.00	95.5	95.7	95.7	0.61	0.71	0.77
		600	440	3577	5810/11/12TS	628	503	6.5	90%	220%	36	5710	86.0	1.00	95.7	96.4	96.5	0.87
1783	5009/10/11T			659	527	7.0	140%	250%	16	4542	79.0	1.00	95.5	96.1	96.3	0.77	0.84	0.87
1188	5810/11/12T			667	533	6.1	130%	250%	25	6393	81.0	1.00	95.6	96.3	96.3	0.75	0.83	0.86
893	6806/7/8T			701	561	6.6	110%	230%	22	7937	79.0	1.00	95.1	95.8	96.1	0.67	0.78	0.82
714	6806/7/8T			735	588	5.5	100%	220%	22	8929	82.0	1.00	95.7	96.4	96.4	0.60	0.72	0.78
595	7006/10			749	599	5.5	80%	190%	40	11133	82.0	1.00	95.6	95.8	95.8	0.61	0.71	0.77
714	7006/10			774	619	6.2	80%	220%	25	10516	82.0	1.00	95.6	96.1	96.1	0.67	0.77	0.81
595	7006/10			805	644	5.5	80%	190%	40	11464	82.0	1.00	95.7	95.9	95.9	0.62	0.72	0.78
700	515			3576	5810/11/12TS	727	582	6.5	90%	230%	45	5952	86.0	1.00	96.0	96.7	96.6	0.88
		1788	5810/11/12T	769	615	6.5	150%	230%	33	6393	83.0	1.00	95.9	96.5	96.6	0.79	0.85	0.87
		1192	6806/7/8T	788	631	6.3	130%	250%	18	7970	81.0	1.00	96.1	96.5	96.5	0.71	0.81	0.85
		893	6806/7/8T	820	656	6.6	110%	230%	22	8378	79.0	1.00	95.2	95.9	96.2	0.67	0.78	0.82
		714	7006/10	829	663	6.2	80%	220%	25	10803	82.0	1.00	95.7	96.2	96.2	0.67	0.77	0.81
		595	7006/10	863	690	5.5	80%	190%	40	11707	82.0	1.00	95.8	96.0	96.0	0.62	0.72	0.78
750	560	714	7006/10	902	722	6.2	80%	220%	25	11067	82.0	1.00	95.7	96.2	96.2	0.67	0.77	0.81
		595	7006/10	937	750	5.5	80%	190%	40	12390	82.0	1.00	95.9	96.1	96.1	0.62	0.72	0.78
		3580	6806/7/8TS	844	675	6.7	130%	240%	26	7540	89.0	1.00	95.5	96.3	96.5	0.84	0.90	0.91
800	590	1788	6806/7/8T	899	719	7.3	120%	210%	17	7826	83.0	1.00	96.0	96.7	96.9	0.74	0.82	0.85
		1192	6806/7/8T	913	731	6.3	130%	220%	20	8378	81.0	1.00	96.1	96.5	96.5	0.69	0.80	0.84
		893	6809/10/11T	936	749	6.6	110%	230%	22	10229	79.0	1.00	95.4	96.1	96.4	0.67	0.78	0.82
		714	7006/10	948	758	6.2	80%	220%	25	11354	82.0	1.00	95.8	96.4	96.4	0.67	0.77	0.81
850	630	895	7006/10	976	781	5.9	70%	210%	26	12291	82.0	1.00	96.1	96.5	96.5	0.70	0.80	0.84
		714	7006/10	1014	811	6.2	80%	220%	25	11696	82.0	1.00	95.8	96.4	96.4	0.67	0.77	0.81
900	660	3580	6806/7/8TS	942	754	6.9	130%	240%	26	7826	89.0	1.00	95.7	96.4	96.6	0.85	0.90	0.91
		1788	6806/7/8T	1004	803	7.3	150%	220%	16	8267	83.0	1.00	96.0	96.8	97.0	0.76	0.82	0.85
		1192	6809/10/11T	1023	819	6.5	140%	240%	20	10009	81.0	1.00	96.2	96.6	96.6	0.69	0.80	0.84
		895	7006/10	1023	819	5.9	70%	210%	26	12617	82.0	1.00	96.1	96.5	96.5	0.70	0.80	0.84

# HGF Low Voltage Motors

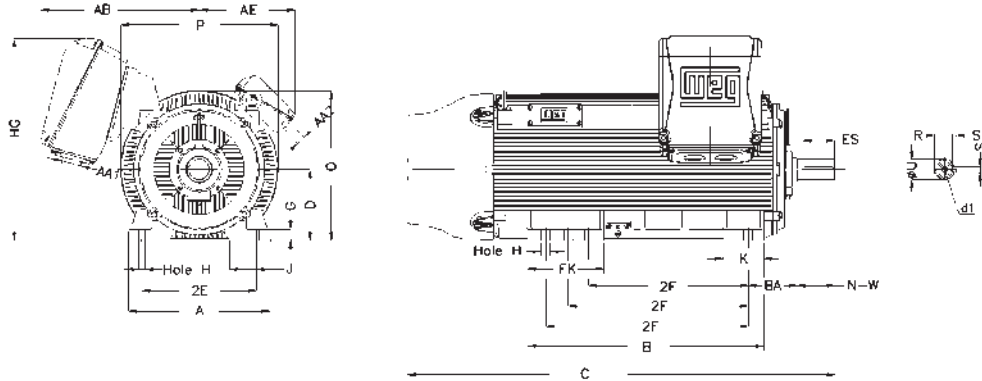
## TEFC - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			460V	575V								50%	75%	100%	50%	75%	100%
1000	750	3580	6806/7/8TS	1071	857	7.4	140%	250%	26	8157	89.0	1.00	95.9	96.5	96.7	0.85	0.90	0.91
		1788	6809/10/11T	1129	903	7.3	150%	210%	18	9766	83.0	1.00	96.3	97.0	97.0	0.76	0.83	0.86
		1193	7006/10	1119	895	6.5	70%	230%	20	11956	88.0	1.00	96.6	96.8	96.8	0.78	0.84	0.87
		895	7006/10	1148	918	5.9	70%	210%	26	13415	82.0	1.00	96.3	96.6	96.6	0.72	0.81	0.85
1100	800	1790	6809/10/11T	1215	972	7.8	150%	210%	18	9921	83.0	1.00	96.3	97.0	97.0	0.74	0.82	0.85
		1194	7006/10	1196	957	6.5	70%	230%	20	12291	88.0	1.00	96.6	96.8	96.8	0.78	0.84	0.87
1250	900	1792	7006/10	1349	1079	7.0	70%	240%	20	11299	90.0	1.00	95.8	96.5	96.6	0.76	0.84	0.87
		1194	7006/10	1358	1087	6.7	70%	230%	20	12952	88.0	1.00	96.7	96.9	96.9	0.76	0.84	0.86
1350	1000	1792	7006/10	1492	1194	7.3	70%	240%	20	11960	90.0	1.00	96.0	96.7	96.8	0.76	0.84	0.87
		1194	7006/10	1502	1201	6.5	70%	230%	20	12952	88.0	1.00	96.8	97.0	97.0	0.76	0.84	0.86
1500	1100	1792	7006/10	1636	1309	7.0	70%	240%	20	12291	90.0	1.00	96.1	96.8	96.9	0.76	0.84	0.87

# HGF Low Voltage Motors

## TEFC - Mechanical Data

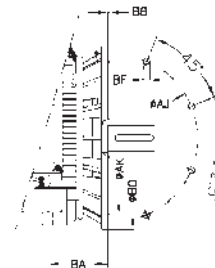
### Frame 5006/7/8T to 6809/10/11T



Frame	2E	J	A	P	AB**	AE	2F	K	FK	B	BA	Shaft Extension				
												U	N-W	ES	S	R
5006/7/8T (TS*)	20.000	7.087	24.725	26.575	27.756	15.945	20.000	7.087	10.237	30.315	8.500	2.375*	4,75*	4,33*	0,625*	2,021*
							22.000					3.625	10.625	9.055	0.875	3.134
							25.000					2.375*	4,75*	4,33*	0,625*	2,021*
5009/10/11T (TS*)							28.000		13.386	41.339		3.625	10.625	9.055	0.875	3.134
							32.000					2.375*	4,75*	4,33*	0,625*	2,021*
							36.000					3.625	10.625	9.055	0.875	3.134
5807/8/9T (TS*)	23.000	9.055	29.528	30.118	28.937	16.929	25.000	7.874	14.961	39.370	10.000	2.375*	4,75*	4,33*	0,625*	2,021*
							28.000					3.875	11.625	9.842	1.000	3.309
							32.000					2.375*	4,75*	4,33*	0,625*	2,021*
5810/11/12T (TS*)							36.000			51.181		2.375*	4,75*	4,33*	0,625*	2,021*
							40.000					3.875	11.625	9.842	1.000	3.309
							45.000					2.375*	4,75*	4,33*	0,625*	2,021*
6806/7/8T (TS*)	27.000	8.583	33.071	34.449	30.512	18.504	28.000	8.661	14.173	42.126	11.500	2.750*	5,75*	4,33*	0,625*	2,402*
							32.000					4.375	11.625	9.842	1.000	3.817
							36.000					2.750*	5,75*	4,33*	0,625*	2,402*
6809/10/11T (TS*)							40.000		16.338	56.102		2.750*	5,75*	4,33*	0,625*	2,402*
							45.000					4.375	11.625	9.842	1.000	3.817
							50.000					2.750*	5,75*	4,33*	0,625*	2,402*

Frame	D	G	O	HG**	H	H'	C	d1	AA1	AA2	Bearings			
											HGF Standard		HGF API 541	
											D.E.	N.D.E.	D.E.	N.D.E.
5006/7/8T	12.500	1.968	25.886	34.941	1.181	1.575	61.049	UNC 3/4"	2xNPT3"	3xNPT3/4"	6314	6314	6314	6314
5006/7/8T							66.924	UNC 7/8"			6320	6316	6320	6320
5009/10/11T							72.860	UNC 3/4"			6314	6314	6314	6314
5009/10/11T							78.735	UNC 7/8"			6320	6316	6320	6320
5807/8/9T							69.120	UNC 3/4"			6314	6314	6314	6314
5807/8/9T	14.500	2.492	29.657	37.925	1.968	1.968	75.995	UNC 7/8"	2xNPT3"	3xNPT3/4"	6322	6320	6322	6322
5810/11/12T							80.931	UNC 3/4"			6314	6314	6314	6314
5810/11/12T							87.806	UNC 7/8"			6322	6320	6322	6322
6806/7/8T							83.589	UNC 3/4"			6315	6315	6315	6315
6806/7/8T							89.464	UNC 1"			NU224	6320	6324	6324
6809/10/11T	17.000	3.220	34.323	42.000	1.417	2.205	95.400	UNC 3/4"	2xNPT3"	3xNPT3/4"	6315	6315	6315	6315
6809/10/11T							101.275	UNC 1"			NU224	6320	6324	6324

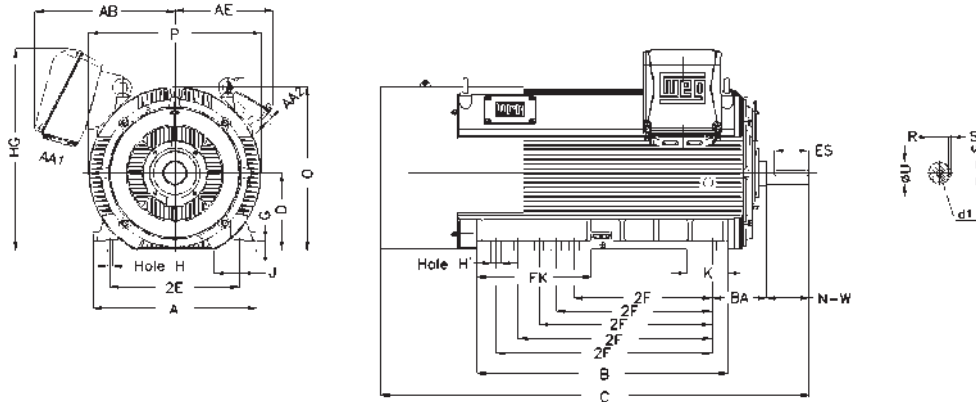
Frame	Flange Dimensions							
	Flange	BA	ØAJ	ØAK	ØBD	ØBF	BB	No. Holes
5006/7/8T	D 558	8.5	22.000	18.000	24.000	1.000	0.250	8
5009/10/11T								
5807/8/9T	D 762	10.000	30.000	28.000	32.000	1.000	0.250	8
5810/11/12T								
6806/7/8T	D 895	11.500	35.250	33.250	37.250	1.000	0.250	8
6809/10/11T								



# HGF Low Voltage Motors

## TEFC - Mechanical Data

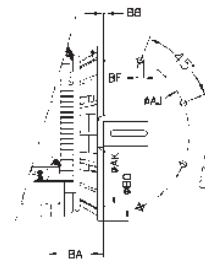
### Frame 7006/10T



Frame	2E	J	A	P	AB**	AE	2F	K	FK	B	BA	Shaft Extension				
												U	N-W	ES	S	R
7006/10	30	9.961	37.402	39.370	32.087	21.260	32.000	9.134	26.063	57.087	12.402	3,375*	6,75*	5,512*	0,875*	2,88*
							36.000					5.125	11.625	9.842	1.250	4.423
							40.000									
							45.000									
							50.000									

Frame	D	G	O	HG**	H	H'	C	d1	AA1	AA2	Bearings			
											HGF Standard		HGF API 541	
											D.E.	N.D.E.	D.E.	N.D.E.
7006/10	17.5	2.165	37.185	45.256	1.417	2.205	104,585	UNC7/8*	2XNPT3"	3XNPT3/4	6220	6220	6220	6220
							99,617	UNC1 1/4			6328	6324	6328	6328

Frame	Flange Dimensions							
	Flange	BA	ØAJ	ØAK	ØBD	ØBF	BB	No. Holes
7006/10	FF 1080	12.402	42.520	39.370	45.275	1.102	0.236	8



# HGF Medium Voltage Motors

## TEFC

### Standard Features

- Rated Output: 150HP to 3800HP
- Sinusoidal power supply up to 11kV
- Motors manufactured in 2 to 12 poles
- Cast iron frame 5000 to 9600
- Internal and external self-ventilated enclosed cooling system
- Service Factor: 1.0
- Class of insulation: F
- Temperature rise: 80°C
- Ambient temperature: 40°C
- Altitude: 1000 m
- Mounting: F1 or F2
- Vertical Jacking Provisions
- Provisions for vibration devices 2 per bearing
- Starting method: DOL
- Degree of Protection: IP55
- Service duty: (S1)
- Temperature detector: Pt100
  - 2 per phase with 3 wires
  - 1 per bearing with 3 wires
- Loose connection leads inside the terminal box (without terminal block)
- Labyrinth taconite in grease lubricated bearings
- Grease lubricated bearings for the following frame sizes:
  - For 2 pole motors in the following frame sizes:
    - Up to frame 6800 (inclusive) for 60 Hz
    - Up to frame 7000 (inclusive) for 50 Hz
  - For 4 pole motors in the following frame sizes:
    - Up to frame 8800 (inclusive) for 60 and 50 Hz
- Grease lubricated bearings for 6 pole motors and above
- Sleeve bearings for the following frame sizes:
  - For 2 pole motors:
    - Frame 7000 and above for 60 Hz
    - Frame 8000 and above for 50 Hz
  - For 4 pole motors in frame 9600
- Electrically insulated non-drive end bearing
- Paint Plan:
  - 214P - Frames up to 6800
  - 212P - Frames 7000 and up
- RAL 5009 - Blue
- Two accessory terminal boxes, one for temperature detectors and one for space heaters
- Single phase space heater
- Stainless steel nameplate
- Grounding lug on the frame and terminal box
- Aluminum fan



### Optional Features

- Service Factor: 1.15
- Insulation Class: H
- Temperature rise: 105°K for class F, 125°K for class H
- Ambient temperature above 40°C

- Altitude above 1000 m
- Degree of Protection IPW55 and above
- Special balance
- Base: rail, sliding base, extended feet, rebuilt feet, anchorage plate
- Steel welded t-box in different sizes
- Power factor correction capacitors
- Non-reversion ratchet
- PT100, Thermistor (PTC or NTC), Thermostat (Bimetallic)
- Two energized power terminal boxes
- Shaft: Special dimensions, double shaft end, tapered, hollow, special steel
- Encoder
- Sleeve bearing
- Oil lubricated bearing
- Special bearing (overdesigned) for axial or radial thrust
- Special painting
- Stainless steel fasteners
- Terminal block
- Cable gland in the terminal box entrance
- Protection against voltage surge
- Copper or brass rotor
- Vibration detector
- Noise suppressor in the air inlet and outlet
- Tachogenerator
- CT for differential and integral protection
- Bearing thermometer with gauge with/without contacts
- Signal transducer
- One or more accessory terminal boxes
- Indep. hydraulic oil circulation system for sleeve bearing
- Both bearings electrically insulated
- Shaft grounding (Aegis - up to 7000 frame or WEG). Not for Hazloc.
- Independent cooling
- Inpro Seal
- VFD Duty
- Class 1 Division 2, CSA
- API 541
- EX 'n' (Zone 2) ATEX or IECEx



# HGF Medium Voltage Motors

## TEFC - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A) 4160V	Locked rotor current (ll/in)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW											50%	75%	100%	50%	75%	100%
150	110	1780	5006/7/8T	19.8	6.0	120%	210%	15	3086	79	1	91.1	92.5	92.7	0.70	0.78	0.83
		888	5009/10/11T	26.0	5.8	120%	250%	12	3616	75	1	92.2	92.7	92.7	0.58	0.69	0.76
		710	5807/8/9T	31.4	5.5	120%	220%	11	5291	82	1	91.3	92.5	92.7	0.43	0.55	0.63
175	132	594	6806/7/8T	27.6	5.5	110%	230%	25	5952	82	1	91.9	93.4	93.4	0.51	0.64	0.71
		1782	5009/10/11T	26.2	6.0	140%	210%	15	3153	79	1	92.4	93.6	93.6	0.74	0.82	0.85
200	150	1181	5009/10/11T	27.0	6.0	160%	200%	14	3549	77	1	92.8	93.1	93.0	0.71	0.80	0.83
		889	5009/10/11T	29.8	5.9	120%	250%	12	3814	75	1	92.4	93.0	93.0	0.56	0.68	0.75
		710	5810/11/12T	35.5	5.5	120%	220%	11	5589	82	1	91.6	92.8	93.0	0.43	0.55	0.63
		594	6806/7/8T	31.3	5.5	110%	230%	25	6217	82	1	92.2	93.6	93.6	0.51	0.64	0.71
		1782	5009/10/11T	32.1	6.1	140%	210%	15	3351	79	1	93.4	94.0	94.0	0.74	0.82	0.85
250	185	1181	5009/10/11T	33.1	6.2	160%	200%	12	3836	77	1	93.2	93.5	93.5	0.71	0.80	0.83
		889	5009/10/11T	36.3	6.1	130%	250%	12	4079	75	1	92.5	93.0	93.0	0.58	0.69	0.76
		710	5810/11/12T	43.0	5.5	120%	220%	11	5886	82	1	91.8	93.0	93.2	0.44	0.56	0.64
		594	6806/7/8T	38.6	5.5	110%	230%	25	6482	82	1	92.5	93.8	93.8	0.51	0.64	0.71
		3573	5009/10/11TS	36.4	6.5	100%	210%	20	3748	79	1	93.3	94.2	94.2	0.83	0.88	0.89
300	220	1782	5009/10/11T	37.6	6.0	140%	210%	15	3461	79	1	93.7	94.4	94.5	0.74	0.82	0.86
		1182	5009/10/11T	39.2	6.2	160%	200%	12	4123	77	1	93.4	93.8	93.8	0.71	0.80	0.83
		889	5009/10/11T	43.0	6.1	130%	250%	12	4497	75	1	92.9	93.4	93.4	0.57	0.68	0.76
		710	5810/11/12T	51.0	5.5	120%	220%	11	6559	82	1	92.1	93.3	93.5	0.44	0.56	0.64
		594	6806/7/8T	45.7	5.5	110%	230%	25	7077	82	1	92.8	94.2	94.2	0.51	0.64	0.71
350	260	3575	5009/10/11TS	42.8	6.5	100%	210%	18	3968	79	1	93.8	94.7	94.7	0.83	0.88	0.89
		1782	5009/10/11T	44.3	6.2	150%	210%	15	3858	79	1	93.8	94.6	94.8	0.75	0.83	0.86
		1184	5009/10/11T	46.3	7.0	180%	220%	10	4277	77	1	93.6	94.0	94.0	0.69	0.79	0.83
		891	5807/8/9T	49.5	6.0	130%	220%	22	5291	79	1	94.2	94.7	94.7	0.60	0.71	0.77
		713	6806/7/8T	51.5	5.5	90%	200%	28	6471	82	1	93.9	94.6	94.6	0.58	0.69	0.74
400	300	594	6806/7/8T	53.8	5.5	110%	230%	25	7419	82	1	93.1	94.4	94.4	0.51	0.64	0.71
		3575	5009/10/11TS	49.2	6.5	110%	220%	15	4200	79	1	94.2	95.0	95.0	0.83	0.88	0.89
		1783	5009/10/11T	51.1	6.5	160%	220%	15	4255	79	1	94.2	94.7	94.8	0.73	0.83	0.86
		1189	5807/8/9T	54.2	6.0	120%	200%	18	4872	81	1	94.4	94.8	94.8	0.67	0.77	0.81
		891	5810/11/12T	55.6	6.0	130%	220%	22	6217	79	1	94.4	94.8	94.8	0.63	0.74	0.79
450	330	713	6806/7/8T	59.4	5.5	90%	200%	28	6757	82	1	94.1	94.8	94.8	0.58	0.69	0.74
		593	7006/10	65.6	5.5	100%	200%	50	10097	82	1	93.9	94.8	94.8	0.48	0.60	0.67
		3575	5009/10/11TS	54.1	6.5	110%	220%	15	4365	79	1	94.6	95.1	95.1	0.83	0.88	0.89
		1784	5009/10/11T	56.0	6.5	160%	220%	15	4299	79	1	94.3	94.9	95.1	0.73	0.82	0.86
		1189	5807/8/9T	59.5	6.0	120%	200%	18	5247	81	1	94.4	94.9	95.0	0.67	0.77	0.81
500	370	890	5810/11/12T	61.1	6.0	130%	220%	22	6724	79	1	94.7	94.9	94.9	0.64	0.75	0.79
		713	6806/7/8T	64.3	5.5	90%	200%	28	7088	82	1	94.3	95.0	95.0	0.59	0.70	0.75
		593	7006/10	72.0	5.5	100%	200%	50	10615	82	1	94.1	95.0	95.0	0.48	0.60	0.67
		3574	5810/11/12TS	60.8	6.4	100%	220%	20	5600	86	1	93.8	94.8	94.9	0.83	0.88	0.89
		1783	5009/10/11T	62.7	7.0	160%	220%	14	4542	79	1	94.5	94.9	95.3	0.74	0.82	0.86
550	400	1189	5810/11/12T	65.8	6.0	120%	210%	18	6041	81	1	94.8	95.0	95.1	0.69	0.78	0.82
		891	6806/7/8T	65.8	6.4	100%	230%	22	7716	79	1	95.0	95.2	95.2	0.70	0.79	0.82
		713	6806/7/8T	71.9	5.5	90%	200%	28	7463	82	1	94.5	95.2	95.2	0.59	0.70	0.75
		593	7006/10	80.5	5.5	100%	200%	50	11211	82	1	94.3	95.2	95.2	0.48	0.60	0.67
		713	6806/7/8T	76.6	5.5	90%	200%	28	7893	82	1	94.7	95.4	95.4	0.60	0.71	0.76
600	440	593	7006/10	86.9	5.5	100%	200%	50	11872	82	1	94.5	95.4	95.4	0.48	0.60	0.67
		3574	5810/11/12TS	72.1	6.5	100%	220%	20	5886	86	1	94.3	95.1	95.2	0.83	0.88	0.89
		1787	5810/11/12T	74.3	6.6	150%	220%	16	6052	83	1	94.8	95.5	95.6	0.75	0.83	0.86
		1190	5810/11/12T	79.2	6.7	130%	230%	18	6504	81	1	94.8	95.2	95.2	0.66	0.76	0.81
		891	6806/7/8T	78.1	6.4	100%	230%	22	7937	79	1	95.2	95.4	95.4	0.70	0.79	0.82
650	480	713	7006/10	80.0	5.5	90%	200%	31	10395	82	1	95.1	95.4	95.4	0.66	0.76	0.80
		713	7006/10	87.2	5.5	90%	200%	31	10648	82	1	95.2	95.5	95.5	0.66	0.76	0.80
		1788	5810/11/12T	86.8	6.8	150%	220%	20	6393	83	1	94.9	95.6	95.7	0.75	0.83	0.86
		1190	6806/7/8T	90.1	6.8	140%	240%	20	7716	81	1	94.9	95.5	95.6	0.69	0.79	0.83
		892	6809/10/11T	92.3	6.6	120%	250%	22	9789	79	1	95.4	95.6	95.6	0.68	0.78	0.81
700	515	713	7006/10	93.5	5.5	90%	200%	31	10880	82	1	95.3	95.6	95.6	0.66	0.76	0.80
		713	7006/10	101	5.5	90%	200%	31	11475	82	1	95.5	95.8	95.8	0.66	0.76	0.80
		3578	6806/7/8TS	97.4	6.6	130%	250%	20	7496	89	1	94.5	95.4	95.5	0.80	0.86	0.88
		1790	6806/7/8T	101	7.0	150%	240%	20	7716	83	1	94.8	95.7	95.8	0.73	0.82	0.85
		1190	6806/7/8T	102	6.9	140%	240%	20	8157	81	1	95.2	95.6	95.8	0.71	0.80	0.84
750	560	892	6809/10/11T	106	6.6	120%	250%	22	10229	79	1	95.6	95.8	95.8	0.68	0.78	0.81
		713	7006/10	107	5.5	90%	200%	31	11905	82	1	95.6	95.9	95.9	0.66	0.76	0.80
		713	7006/10	114	5.5	90%	200%	31	12170	82	1	95.7	96.0	96.0	0.66	0.76	0.80
		3580	6806/7/8TS	109	7.2	140%	250%	20	7606	89	1	95.0	95.6	95.7	0.80	0.85	0.88
		1790	6806/7/8T	112	7.1	150%	240%	20	8157	83	1	95.0	95.9	96.0	0.73	0.82	0.85
800	590	1190	6809/10/11T	114	7.0	140%	240%	20	9789	81	1	95.4	95.8	96.0	0.71	0.80	0.84
		892	6809/10/11T*	118	6.6	120%	250%	22	10560	79	1	95.7	96.0	96.0	0.67	0.77	0.81
		895	7006/10	123	6.1	70%	220%	30	12291	82	1	95.7	96.0	96.0	0.69	0.79	0.82

# HGF Medium Voltage Motors

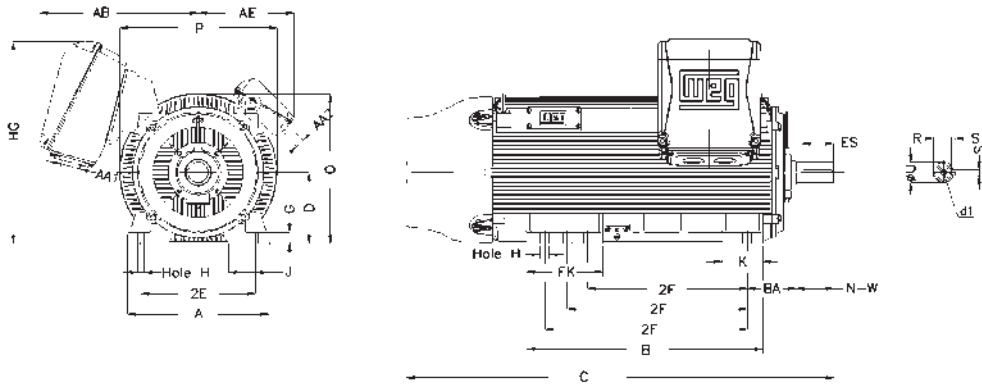
## TEFC - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)	Locked rotor current (ll/in)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			4160V								50%	75%	100%	50%	75%	100%
1000	750	3580	6809/10/11TS	123	7.2	140%	250%	20	9925	89	1.00	95.4	95.4	95.8	0.81	0.86	0.88
		1790	6809/10/11T	127	7.2	150%	240%	20	9546	82	1.00	95.0	95.8	95.8	0.73	0.82	0.85
		1190	6809/10/11T	129	6.8	140%	240%	20	10229	78	1.00	95.4	95.8	95.8	0.71	0.80	0.84
		894	7006/10T	132	6.1	70%	220%	30	12621	82	1.00	95.8	95.8	95.8	0.69	0.79	0.82
		595	8806/10T	138	6.0	80%	250%	25	19092	85	1.00	94.7	95.2	95.2	0.63	0.74	0.79
1100	800	3580	6809/10/11TS	131	8.2	150%	270%	20	10476	89	1.00	95.4	95.8	96.2	0.81	0.86	0.88
		1192	7006/10T	134	5.9	80%	240%	23	11294	85	1.00	95.8	96.2	96.2	0.77	0.84	0.86
		894	7006/10T	141	6.2	70%	220%	30	12952	82	1.00	95.8	96.2	96.2	0.70	0.79	0.82
		715	8006/10T	142	6.0	80%	230%	20	14881	81	1.00	95.5	95.6	95.6	0.71	0.80	0.82
		595	8806/10T	147	6.0	80%	250%	25	19577	85	1.00	94.7	95.3	95.3	0.63	0.74	0.79
1250	900	1790	6809/10/11T	139	7.8	150%	240%	20	9788	82	1.00	95.0	95.8	95.8	0.71	0.80	0.84
		3580	6809/10/11TS	147	8.2	150%	250%	20	10752	89	1.00	95.8	96.2	96.2	0.81	0.86	0.88
		3588	7006/10T	144	7.5	70%	230%	20	11955	90	1.00	95.0	95.8	96.2	0.84	0.89	0.90
		1790	6809/10/11T	154	7.5	150%	240%	20	10009	82	1.00	95.4	96.2	96.2	0.71	0.80	0.84
		1193	7006/10T	151	6.1	80%	240%	23	11955	85	1.00	95.8	96.2	96.2	0.76	0.83	0.86
1350	1000	894	7006/10T	158	6.2	70%	220%	30	13448	82	1.00	95.8	96.2	96.2	0.70	0.79	0.82
		895	8006/10T	157	6.5	70%	240%	30	14947	82	1.00	95.4	95.8	95.8	0.72	0.81	0.83
		715	8806/10T	159	6.5	80%	250%	25	20359	85	1.00	95.6	95.9	95.9	0.68	0.77	0.82
		596	9606/10T	159	6.3	80%	240%	25	28968	85	1.00	95.9	96.0	96.0	0.69	0.78	0.82
		3588	7006/10T	160	7.5	70%	230%	20	11955	90	1.00	95.0	95.8	96.2	0.84	0.89	0.90
1500	1100	1791	7006/10T	165	6.5	70%	240%	20	11739	89	1.00	95.4	96.2	96.2	0.79	0.85	0.87
		1193	7006/10T	167	6.3	80%	240%	23	12291	85	1.00	95.8	96.5	96.5	0.75	0.83	0.86
		895	8006/10T	175	6.5	70%	240%	30	15256	82	1.00	95.4	95.8	95.8	0.72	0.81	0.83
		715	8806/10T	176	6.5	80%	250%	25	21010	85	1.00	95.7	95.9	95.9	0.68	0.77	0.82
		596	9606/10T	176	6.3	80%	240%	25	29872	85	1.00	96.0	96.1	96.1	0.70	0.79	0.82
1700	1250	3588	7006/10T	176	7.5	70%	240%	20	12286	90	1.00	95.4	96.2	96.2	0.84	0.89	0.90
		1791	7006/10T	182	6.5	70%	240%	20	11960	89	1.00	95.4	96.2	96.5	0.79	0.85	0.87
		1194	7006/10T	188	6.8	80%	240%	17	12621	85	1.00	95.8	96.5	96.5	0.74	0.80	0.84
		895	8006/10T	190	6.5	70%	240%	30	16314	82	1.00	95.8	95.8	95.8	0.73	0.81	0.84
		715	8806/10T	194	6.5	80%	250%	25	21759	85	1.00	95.8	96.0	96.0	0.69	0.78	0.82
1900	1400	596	9606/10T	191	6.3	80%	240%	25	30754	85	1.00	96.1	96.2	96.2	0.70	0.79	0.83
		3588	7006/10T	200	7.5	70%	240%	20	12286	90	1.00	95.4	96.2	96.5	0.84	0.89	0.90
		3588	8006/10T	206	7.0	60%	220%	20	16733	92	1.00	94.1	95.4	95.7	0.85	0.88	0.88
		1791	7006/10T	207	6.5	70%	240%	20	12617	89	1.00	95.8	96.5	96.5	0.79	0.85	0.87
		1194	8006/10T	210	7.0	80%	250%	20	16689	85	1.00	95.4	96.2	96.2	0.75	0.83	0.86
2200	1600	895	8806/10T	216	6.8	80%	250%	20	20481	82	1.00	95.4	95.8	95.8	0.73	0.81	0.84
		716	9606/10T	214	6.5	70%	250%	25	29056	85	1.00	96.2	96.4	96.4	0.72	0.80	0.84
		3588	8006/10T	230	7.0	60%	220%	20	17394	92	1.00	94.5	95.4	95.8	0.85	0.88	0.88
		1791	7006/10T	231	6.5	70%	240%	20	12952	89	1.00	95.8	96.5	96.8	0.79	0.85	0.87
		1194	8006/10T	235	7.0	80%	250%	20	17372	85	1.00	95.8	96.2	96.2	0.75	0.83	0.86
2500	1800	895	8806/10T	238	6.8	80%	250%	20	21892	82	1.00	95.4	96.2	96.2	0.74	0.81	0.85
		716	9606/10T	240	6.5	70%	250%	25	30004	85	1.00	96.3	96.5	96.5	0.72	0.80	0.84
		3588	8006/10T	263	7.0	60%	220%	20	17989	92	1.00	94.9	95.8	96.1	0.85	0.88	0.88
		1793	8006/10T	262	7.4	80%	250%	18	16490	92	1.00	95.6	96.3	96.4	0.80	0.85	0.88
		1195	8806/10T	262	7.0	70%	250%	30	19907	90	1.00	95.8	96.2	96.2	0.79	0.86	0.88
2700	2000	897	9606/10T	264	7.5	80%	280%	25	30952	82	1.00	96.2	96.5	96.5	0.74	0.83	0.87
		3587	8006/10T	292	7.0	60%	220%	20	17989	92	1.00	95.0	95.8	96.0	0.86	0.89	0.89
		1793	8006/10T	294	7.4	80%	250%	15	17019	90	1.00	95.8	96.5	96.5	0.80	0.85	0.88
		1195	8806/10T	294	7.0	70%	250%	30	20679	90	1.00	95.8	96.5	96.5	0.79	0.86	0.88
		897	9606/10T	297	7.5	80%	280%	25	31768	82	1.00	96.5	96.8	96.8	0.74	0.83	0.87
3000	2250	1793	8806/10T	326	7.4	80%	250%	20	22906	95	1.00	96.2	96.8	96.8	0.81	0.86	0.88
		1197	9606/10T	323	7.0	60%	250%	25	30622	90	1.00	95.4	96.2	96.5	0.80	0.86	0.89
		1796	9606/10T	361	7.3	60%	270%	25	30864	95	1.00	94.5	95.8	96.2	0.83	0.88	0.90
		1197	9606/10T	362	7.0	60%	250%	25	32429	90	1.00	95.8	96.5	96.8	0.81	0.87	0.89
		3400	2500	1796	9606/10T	399	7.3	60%	270%	25	32672	95	1.00	95.0	96.2	96.5	0.84

# HGF Medium Voltage Motors

TEFC - Mechanical Data

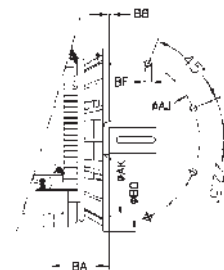
Frame 5006/7/8T to 6809/10/11T



Frame	2E	J	A	P	AB**	AE	2F	K	FK	B	BA	Shaft Extension				
												U	N-W	ES	S	R
5006/7/8T (TS*)	20.000	7.087	24.725	26.575	27.756	15.945	20.000	7.087	10.237	30.315	8.500	2.375*	4.75*	4.33*	0.625*	2.021*
22.000							3.625					10.625	9.055	0.875	3.134	
25.000							2.375*					4.75*	4.33*	0.625*	2.021*	
28.000							3.625					10.625	9.055	0.875	3.134	
5009/10/11T (TS*)	23.000	9.055	29.528	30.118	28.937	16.929	32.000	7.874	14.961	39.370	10.000	2.375*	4.75*	4.33*	0.625*	2.021*
36.000							3.875					11.625	9.842	1.000	3.309	
40.000							2.375*					4.75*	4.33*	0.625*	2.021*	
45.000							3.875					11.625	9.842	1.000	3.309	
5807/8/9T (TS*)	27.000	8.583	33.071	34.449	30.512	18.504	28.000	8.661	14.173	42.126	11.500	2.750*	5.75*	4.33*	0.625*	2.402*
32.000							4.375					11.625	9.842	1.000	3.817	
36.000							2.750*					5.75*	4.33*	0.625*	2.402*	
40.000							4.375					11.625	9.842	1.000	3.817	
6806/7/8T (TS*)	27.000	8.583	33.071	34.449	30.512	18.504	45.000	8.661	16.338	56.102	11.500	2.750*	5.75*	4.33*	0.625*	2.402*
50.000							4.375					11.625	9.842	1.000	3.817	
							2.750*					5.75*	4.33*	0.625*	2.402*	
							4.375					11.625	9.842	1.000	3.817	

Frame	D	G	O	HG**	H	H'	C	d1	AA1	AA2	Bearings			
											HGF Standard		HGF API 541	
											D.E.	N.D.E.	D.E.	N.D.E.
5006/7/8T	12.500	1.968	25.886	34.941	1.181	1.575	61.049	UNC 3/4"	2xNPT3"	3xNPT3/4"	6314	6314	6314	6314
5006/7/8T							66.924	UNC 7/8"			6320	6316	6320	6320
5009/10/11T							72.860	UNC 3/4"			6314	6314	6314	6314
5009/10/11T							78.735	UNC 7/8"			6320	6316	6320	6320
5807/8/9T	14.500	2.492	29.657	37.925	1.968	1.968	69.120	UNC 3/4"	2xNPT3"	3xNPT3/4"	6314	6314	6314	6314
5807/8/9T							75.995	UNC 7/8"			6322	6320	6322	6322
5810/11/12T							80.931	UNC 3/4"			6314	6314	6314	6314
5810/11/12T							87.806	UNC 7/8"			6322	6320	6322	6322
6806/7/8T	17.000	3.220	34.323	42.000	1.417	2.205	83.589	UNC 3/4"	2xNPT3"	3xNPT3/4"	6315	6315	6315	6315
6806/7/8T							89.464	UNC 1"			NU224	6320	6324	6324
6809/10/11T							95.400	UNC 3/4"			6315	6315	6315	6315
6809/10/11T							101.275	UNC 1"			NU224	6320	6324	6324

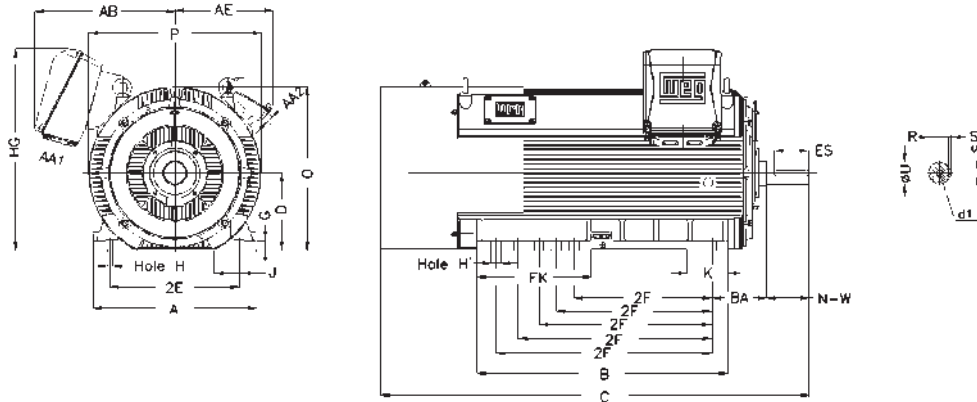
Frame	Flange Dimensions							
	Flange	BA	ØAJ	ØAK	ØBD	ØBF	BB	No. Holes
5006/7/8T	D 558	8.5	22.000	18.000	24.000	1.000	0.250	8
5009/10/11T								
5807/8/9T	D 762	10.000	30.000	28.000	32.000	1.000	0.250	8
5810/11/12T								
6806/7/8T	D 895	11.500	35.250	33.250	37.250	1.000	0.250	8
6809/10/11T								



# HGF Medium Voltage Motors

## TEFC - Mechanical Data

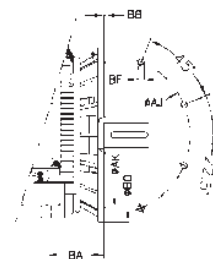
Frame 7006/10T to 9606/10T



Frame	2E	J	A	P	AB**	AE	2F	K	FK	B	BA	Shaft Extension				
												U	N-W	ES	S	R
7006/10	30	9.961	37.402	39.370	32.087	21.260	32.000	9.134	26.063	57.087	12.402	3,375*	6,75*	5,512*	0,875*	2,88*
							36.000									
							40.000									
							45.000									
							50.000									
8006/10	34	11.000	41.500	43.500	43.700	21.500	36.000	12.000	17.800	66.000	14.000	4.750	11.625	-	1.250	4.041
							40.000									
							45.000									
							50.000									
							56.000									
8806/10	38	12.600	47.200	48.000	45.000	24.500	40.000	15.700	19.700	74.800	15.000	5.125	11.625	-	1.250	4.423
							45.000									
							50.000									
							56.000									
							63.000									
9606/10	49	12.600	60.000	54.300	48.400	24.500	36.000	15.700	19.700	74.600	17.500	6.000	11.625	-	1.500	5.155
							40.000									
							45.000									
							50.000									
							56.000									

Frame	D	G	O	HG**	H	H'	C	d1	AA1	AA2	Bearings			
											HGF Standard		HGF API 541	
											D.E.	N.D.E.	D.E.	N.D.E.
7006/10	17.5	2.165	37.185	45.256	1.417	2.205	104,585	UNC7/8*	2XNPT3"	3XNPT3/4	6220	6220	6220	6220
							99.617	UNC1 1/4			6328	6324	6328	6328
8006/10	20	2.900	41.500	52.500	1.700	-	108.5	UNC 1			6330	6324	6330	6330
8806/10	22	2.700	46.000	57.800	1.700	-	114	UNC 1 1/4			NU228+6228	NU224	-	-
9606/10	24	3.100	51.200	53.000	1.700	-	126.9	UNC 1 1/4			Nu232+6232	NU224	-	-

Frame	Flange Dimensions							
	Flange	BA	ØAJ	ØAK	ØBD	ØBF	BB	No. Holes
7006/10	FF 1080	12.402	42.520	39.370	45.275	1.102	0.236	8
8006/10	FF - 1180	14.764	46.457	44.094	43.307	1.102		
8806/10	-	-	-	-	-	-		
9606/10	-	-	-	-	-	-		



# W50 Low Voltage Motors

## TEFC

### Standard Features

- Rated output: 125HP to 1500HP
- Number of poles: 2 to 12
- Frame sizes: 5009/10 to 7008/09
- Frequency: 60 Hz
- Voltage: 380 to 690V
- Service factor: 1,00
- Class of insulation: F
- Temperature rise: 80°C
- Ambient temperature: 40°C
- Altitude: 1000 m
- Starting method: DOL
- Degree of Protection: IP55
- Service duty: (S1)
- Mounting: F1 or F2
- Vertical Jacking Provisions
- Provisions for vibration devices 2 per bearing
- Main Terminal Box field reversible (F1 or F2)
- Cooling method: TEFC – Totally enclosed fan cooled (IC411)
- Frame, endshields, fan cover and terminal box material: FC-200 cast iron
- Shaft material: AISI 4140
- Thermal protection:
  - Windings: Pt-100 3 wire, 2 per phase
  - Bearings: Pt-100 3 wire, 1 per bearing
- Grease lubricated ball bearings
- Bearing seal: Taconite labyrinth
- Vibration Level: Grade A according IEC 60034-14
- Lubrication: Mobil Polyrex EM Grease
- Paint plan:
  - 214P - Frames up to 6800
  - 212P - Frame 7000
- Color: RAL 5009 (Blue)
- Dual Voltage Space Heaters
- Automatic drain plug
- Aluminum fan
- Copper bar rotor:
  - 2, 4, 6 and 8 poles 7008/09 frame and above
  - 10 and 12 poles 6806/07 frame and above
- Stiff shaft design
- Electrically insulated non-drive end bearing



### Optional Features

- 50Hz
- Degree of Protection: IP56, IP65, IP66
- Cooling method: TEBC – Totally enclosed blower cooled (IC416)
- Service factor: 1.15
- Sleeve bearings
- Insulated drive end bearing for inverter duty applications
- Cylindrical roller bearing
- Bearing design for vertical mounting normal and high thrust applications
- Seal: INPRO/SEAL®
- Vibration level: Grade B according IEC 60034-14
- Bearing and winding thermal protection: thermistors or thermostats
- Cable glands
- Drip proof canopy for shaft down applications
- Internal tropicalized painting
- Encoder
- Suitable for VFD applications
- Main terminal box in welded steel
- Additional terminal box: For “Y” connection with access to the neutral terminal
- Shaft grounding (Aegis or WEG). Not for Hazloc.
- Stainless steel fasteners
- Steel welded t-box in different sizes
- Encoder
- Copper bar rotor
- Vibration detector
- Protection against voltage surge
- CT for differential and integral protection
- Bearing thermometer with gauge with/without contacts
- Class 1 Division 2, CSA
- EX ‘n’ (Zone 2) ATEX or IECEx



# W50 Low Voltage Motors

## TEFC - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (ll/in)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			460V	575V								50%	75%	100%	50%	75%	100%
125	90	710	5009/10	173	138	5.5	150%	200%	15	2903	75	1.00	91.7	93.0	93.0	0.51	0.63	0.70
150	110	710	5009/10	212	170	5.5	150%	200%	15	3091	75	1.00	92.4	93.0	93.0	0.51	0.63	0.70
175	132	710	5009/10	253	202	5.5	150%	200%	15	3466	75	1.00	92.4	93.6	93.6	0.51	0.63	0.70
		593	5809/10	263	210	4.5	120%	170%	20	4460	82	1.00	93.6	94.1	94.1	0.50	0.61	0.67
200	150	710	5009/10	286	229	5.8	160%	200%	15	3710	75	1.00	92.4	93.6	94.1	0.51	0.63	0.70
		593	5809/10	298	238	4.5	120%	170%	20	4535	82	1.00	93.6	94.1	94.1	0.50	0.61	0.67
250	185	888	5009/10	298	238	5.5	120%	230%	26	3494	75	1.00	94.5	95.0	95.0	0.70	0.78	0.82
		713	5809/10	368	294	5.5	130%	220%	20	4310	75	1.00	93.0	93.6	94.1	0.48	0.60	0.67
		592	5809/10	363	290	4.5	120%	170%	20	5284	82	1.00	93.6	94.1	94.1	0.50	0.62	0.68
		1182	5009/10	331	265	6.4	130%	210%	16	3316	77	1.00	94.5	95.0	95.8	0.77	0.84	0.87
300	220	889	5009/10	355	284	5.5	120%	250%	21	3759	75	1.00	94.5	95.0	95.0	0.68	0.78	0.82
		710	5809/10	429	343	5.6	160%	190%	20	5060	75	1.00	93.0	94.1	94.5	0.49	0.61	0.68
		592	6808/09	385	308	5.0	100%	200%	20	6484	82	1.00	94.1	94.1	94.5	0.57	0.69	0.76
		3579	5009/10	379	303	6.5	90%	250%	24	3373	79	1.00	94.5	95.4	95.8	0.84	0.88	0.90
350	260	1182	5009/10	391	313	6.4	130%	210%	16	3485	77	1.00	94.5	95.4	95.8	0.77	0.85	0.87
		892	5809/10	419	335	5.5	120%	230%	21	4215	75	1.00	94.5	95.0	95.0	0.68	0.78	0.82
		713	5809/10	508	406	6.0	130%	220%	20	5622	75	1.00	93.6	94.5	94.5	0.49	0.61	0.68
		592	6808/09	452	362	5.5	100%	200%	20	6812	82	1.00	94.1	94.5	95.0	0.57	0.69	0.76
		3577	5009/10	437	350	6.5	100%	250%	24	3521	79	1.00	95.0	95.8	95.8	0.86	0.89	0.90
		1784	5009/10	455	364	7.0	130%	250%	20	3373	79	1.00	95.0	95.8	96.2	0.75	0.83	0.86
400	300	1188	5809/10	462	370	6.3	120%	250%	26	4131	77	1.00	95.0	95.8	95.8	0.74	0.83	0.85
		891	5809/10	483	386	5.5	120%	230%	23	4403	75	1.00	95.0	95.4	95.0	0.68	0.78	0.82
		714	6806/07	506	405	5.5	100%	220%	22	6259	79	1.00	94.1	95.0	95.4	0.60	0.72	0.78
		593	6808/09	521	417	5.5	90%	200%	20	8133	82	1.00	94.1	94.5	95.0	0.59	0.69	0.76
		3575	5009/10	475	380	6.8	100%	250%	24	3726	79	1.00	95.4	95.8	95.8	0.85	0.89	0.91
		1784	5009/10	500	400	7.0	130%	250%	19	3505	79	1.00	95.0	95.8	96.2	0.75	0.83	0.86
450	330	1188	5809/10	509	407	6.3	120%	250%	26	4310	77	1.00	95.4	95.8	95.8	0.75	0.83	0.85
		892	5809/10	532	426	5.7	120%	230%	17	5284	75	1.00	95.0	95.4	95.0	0.68	0.78	0.82
		714	6806/07	557	446	5.5	100%	220%	22	6709	79	1.00	94.5	95.4	95.4	0.60	0.72	0.78
		595	7008/09	566	453	5.5	80%	190%	40	8534	82	1.00	94.5	95.0	95.0	0.61	0.71	0.77
		3573	5809/10	537	430	6.3	90%	240%	45	4830	82	1.00	95.4	95.8	96.2	0.86	0.89	0.90
		1784	5009/10	561	449	7.1	130%	250%	19	3598	79	1.00	95.4	95.8	96.2	0.76	0.84	0.86
500	370	1188	5809/10	563	450	6.3	130%	250%	26	5060	77	1.00	95.4	95.8	95.8	0.75	0.83	0.86
		893	6806/07	594	475	6.6	110%	230%	22	6349	79	1.00	95.0	95.4	95.4	0.67	0.78	0.82
		714	6808/09	622	498	5.5	100%	220%	22	6914	79	1.00	95.0	95.4	95.8	0.60	0.72	0.78
		595	7008/09	632	506	5.5	80%	190%	40	8713	82	1.00	94.5	95.0	95.4	0.61	0.71	0.77
550	400	714	6808/09	671	537	5.5	100%	220%	22	7363	79	1.00	95.4	95.8	95.8	0.60	0.72	0.78
		595	7008/09	681	545	5.5	80%	190%	40	8975	82	1.00	95.0	95.4	95.8	0.61	0.71	0.77
		3583	5809/10	645	516	6.7	90%	220%	36	5185	82	1.00	95.4	96.2	96.2	0.81	0.88	0.89
		1788	5809/10	661	529	6.5	150%	230%	33	5434	82	1.00	95.6	96.0	96.0	0.79	0.85	0.87
600	440	1188	5809/10	671	537	6.4	130%	250%	25	5434	77	1.00	95.4	95.8	95.8	0.75	0.83	0.86
		893	6806/07	703	562	6.6	110%	230%	22	6746	79	1.00	95.0	95.8	95.8	0.67	0.78	0.82
		714	6808/09	736	589	5.5	100%	220%	22	7588	79	1.00	95.4	96.2	96.2	0.60	0.72	0.78
		595	7008/09	749	599	5.5	80%	190%	40	9462	82	1.00	95.4	95.4	95.8	0.61	0.71	0.77
650	480	714	7008/09	773	618	6.2	80%	220%	25	8937	79	1.00	95.4	95.8	96.2	0.67	0.77	0.81
		595	7008/09	806	645	5.5	80%	190%	40	9744	82	1.00	95.4	95.4	95.8	0.62	0.72	0.78
		3576	5809/10	738	590	6.5	90%	230%	45	5392	82	1.00	95.8	96.2	96.2	0.86	0.90	0.91
		1788	5809/10	772	618	6.5	150%	230%	33	5434	82	1.00	95.8	96.2	96.2	0.79	0.85	0.87
700	515	1192	6806/07	790	632	6.3	130%	250%	18	6772	81	1.00	95.4	95.8	96.2	0.71	0.81	0.85
		893	6808/09	823	658	6.6	110%	230%	22	7121	79	1.00	95.0	95.8	95.8	0.67	0.78	0.82
		714	7008/09	829	663	6.2	80%	220%	25	9182	79	1.00	95.7	95.8	96.2	0.67	0.77	0.81
		595	7008/09	865	692	5.5	80%	190%	40	9949	82	1.00	95.4	95.8	95.8	0.62	0.72	0.78
750	560	714	7008/09	902	722	6.2	80%	220%	25	9407	79	1.00	95.7	95.8	96.2	0.67	0.77	0.81
		595	7008/09	936	749	5.5	80%	190%	40	10531	82	1.00	95.4	95.8	96.2	0.62	0.72	0.78
		3580	6808/09	844	675	6.7	130%	240%	26	6814	82	1.00	95.4	95.8	96.5	0.84	0.90	0.91
		1788	6806/07	903	722	7.3	120%	210%	17	6651	82	1.00	95.8	96.2	96.5	0.74	0.82	0.85
800	590	1192	6808/09	916	733	6.3	130%	220%	20	7121	81	1.00	95.8	96.2	96.2	0.69	0.80	0.84
		895	7008/09	918	734	5.9	70%	210%	26	10445	79	1.00	95.6	96.0	96.0	0.70	0.80	0.84
		714	7008/09	951	761	6.2	80%	220%	25	9649	79	1.00	95.7	96.2	96.2	0.67	0.77	0.81
		895	7008/09	976	781	5.9	70%	210%	26	10445	79	1.00	95.8	96.2	96.2	0.70	0.80	0.84
850	630	714	7008/09	1014	811	6.2	80%	220%	25	9940	82	1.00	95.7	96.2	96.4	0.67	0.77	0.81
		3580	6808/09	957	766	6.9	100%	240%	26	7057	82	1.00	95.4	96.2	96.5	0.84	0.89	0.90
		1788	6808/09	1014	811	7.3	150%	220%	16	7026	82	1.00	95.8	96.5	96.5	0.76	0.82	0.85
		1192	6808/09	1023	818	6.5	140%	240%	20	8507	81	1.00	95.8	96.2	96.2	0.69	0.80	0.84
900	660	895	7008/09	1023	818	5.9	70%	210%	26	10723	79	1.00	95.8	96.2	96.2	0.70	0.80	0.84

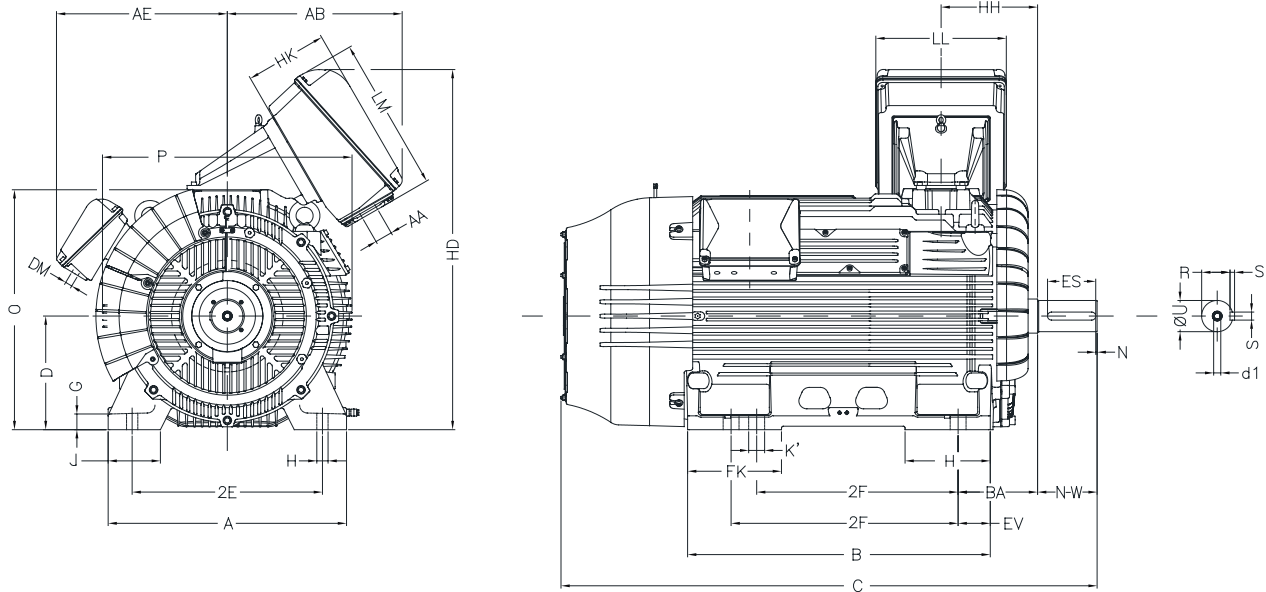
# W50 Low Voltage Motors

## TEFC - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			460V	575V								50%	75%	100%	50%	75%	100%
950	700	1193	7008/09	1052	842	6.5	70%	230%	20	10165	81	1.00	95.8	96.2	96.2	0.78	0.84	0.87
		895	7008/09	1081	865	5.9	70%	210%	26	11007	79	1.00	95.8	96.2	96.5	0.70	0.80	0.84
1000	750	3580	6808/09	1071	857	7.4	140%	250%	26	7339	82	1.00	95.8	96.2	96.5	0.85	0.90	0.91
		1790	6808/09	1138	910	7.3	150%	210%	18	8300	82	1.00	96.2	96.5	96.5	0.76	0.83	0.86
		1193	7008/09	1119	895	6.5	70%	230%	20	10163	81	1.00	95.8	96.2	96.5	0.78	0.84	0.87
1100	800	895	7008/09	1148	918	5.9	70%	210%	26	11402	79	1.00	95.8	96.2	96.5	0.72	0.81	0.85
		1792	7008/09	1196	957	7.0	70%	240%	20	9603	82	1.00	95.6	96.3	96.3	0.76	0.84	0.87
		1194	7008/09	1196	957	6.5	70%	230%	20	10445	81	1.00	95.8	96.5	96.5	0.78	0.84	0.87
1250	900	1792	7008/09	1349	1079	7.0	70%	240%	20	9603	82	1.00	95.8	96.5	96.5	0.76	0.84	0.87
		1194	7008/09	1358	1086	6.7	70%	230%	20	11007	81	1.00	96.2	96.5	96.5	0.76	0.84	0.86
1350	1000	1792	7008/09	1492	1194	7.3	70%	240%	20	10165	82	1.00	95.8	96.8	96.8	0.76	0.84	0.87
		1194	7008/09	1511	1209	6.5	70%	230%	20	11007	81	1.00	96.2	96.8	96.8	0.76	0.84	0.86
1500	1100	1792	7008/09	1636	1309	7.0	70%	240%	20	10445	82	1.00	95.8	96.8	96.8	0.76	0.84	0.87

# W50 Low Voltage Motors

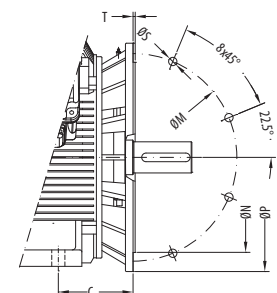
## TEFC - Mechanical Data



Frame	# of Poles	2E	J	A	P	AB	AE	2F	K	B	FK	EV	H	SHAFT END					
														U	N-W	ES	N	S	R
5009/10	2	20.000	5.276	24.724	27.795		21.339	28.000/	11.120	32.677	11.120	3.150	1.181	2.375	4.750	4.331	0.197	0.625	2.020
	32.000/							3.625						10.625	9.055	0.875		3.134	
5809/10	2	23.000	5.793	29.528	31.102		22.402	32.000/	11.596	42.415	11.596	3.583	1.181	2.375	4.750	4.331	0.197	0.625	2.020
	36.000/							3.875						11.625	9.843	1.000		3.307	
6806/07	2	27.000	7.064	33.071	34.646	24.378	23.697	28.000/	11.740	42.226	12.921	4.575	2.205	3.250	5.750	4.331	0.197	0.750	2.831
	32.000/		4.375					11.625						9.843	1.000	3.817			
6808/09	2	27.000	7.015	33.071	34.646	24.378	23.697	36.000/	11.737	48.126	11.737	5.157	2.205	3.250	5.750	4.331	0.197	0.750	2.831
	40.000/		4.735					11.625						9.843	1.000	3.817			
7006/07	2	30.000	8.145	37.008	38.740		24.095	32.000/	13.841	48.728	15.219	5.157	2.205	3.375	6.750	5.512	0.197	0.875	2.880
	36.000/							5.125						11.625	9.843	1.250		4.423	
7008/09	2	30.000	8.145	37.008	38.740		24.095	40.000/	13.841	54.633	13.841	5.157	2.205	3.375	6.750	5.512	0.197	0.875	2.880
	45.000/							5.125						11.625	9.843	1.250		4.423	

Frame	# of Poles	C	D	G	O	HD	HH	HK	H	K'	BA	LL	LM	d1	AA	DM	BEARINGS	
																	D.E.	N.D.E.
5009/10	2	64.159	12.500	2.073	26.083	42.733	12.628		1.181	1.575	8.504			UNC3/4"	2xNPT 3"		6314 C3	6314 C3
	4/6/8	70.035												UNC7/8"			6320 C3	6316 C3
5809/10	2	71.089	14.500	1.974	30.051	46.701	13.740		1.181	1.890	10.000			UNC3/4"	2xNPT 3"		6314 C3	6314 C3
	4/6/8	77.964												UNC7/8"			6322 C3	6319 C3
6806/07	2	72.348	17.000	1.967	34.520	51.170	13.862	11.410	1.417	2.205	11.500	18.110	21.429	UNC3/4"	2xNPT 4"	3xNPT 3/4"	6218 C3	6218 C3
	4/6/8	78.224		UNC1"										6324 C3			6319 C3	
6808/09	2	78.254	17.000	1.974	34.520	51.170	13.862	11.410	1.417	2.205	11.500	18.110	21.429	UNC3/4"	2xNPT 4"	3xNPT 3/4"	6218 C3	6218 C3
	4/6/8	84.129		UNC1"										6324 C3			6319 C3	
7006/07	2	79.742	17.500	2.467	36.870	53.517	13.780		1.417	2.205	11.500	18.110	21.429	UNC7/8"	2xNPT 4"	3xNPT 3/4"	6220 C3	6220 C3
	4/6/8	84.617												UNC1 1/4"			6328 C3	6322 C3
7008/09	2	85.648	17.500	2.467	36.870	53.517	13.780		1.417	2.205	11.500	18.110	21.429	UNC7/8"	2xNPT 4"	3xNPT 3/4"	6220 C3	6220 C3
	4/6/8	90.523												UNC1 1/4"			6328 C3	6322 C3

Frame	Flange	C	M	N	P	S	T	N° holes
5009/10	FF-600	8.504	23.622	21.653	25.984	0.945		
5809/10	FF-740	10.000	29.134	26.772	31.496			
6806/07	FF-940	11.024	37.008	34.650	39.370	1.102	0.236	0.315
6808/09								
7006/07	FF-1080	11.500	42.520	39.370	45.276	1.102	0.236	0.315
7008/09								



# W50 Medium Voltage Motors

## TEFC

### Standard Features

- Rated output: 175HP to 1500HP
- Number of poles: 2 to 12
- Frame sizes: 5009/10 to 7008/09
- Frequency: 60 Hz
- Voltage: 1.2kV to 6.6kV
- Service factor: 1,00
- Class of insulation: F
- Temperature rise: 80°C
- Ambient temperature: 40°C
- Altitude: 1000 m
- Starting method: DOL
- Degree of Protection: IP55
- Service duty: (S1)
- Mounting: F1 or F2
- Vertical Jacking Provisions
- Provisions for vibration devices 2 per bearing
- Main Terminal Box field reversible (F1 or F2)
- Cooling method: TEFC – Totally enclosed fan cooled (IC411)
- Frame, endshields, fan cover and terminal box material: FC-200 cast iron
- Shaft material: AISI 4140
- Thermal protection:
  - Windings: Pt-100 3 wire, 2 per phase
  - Bearings: Pt-100 3 wire, 1 per bearing
- Grease lubricated ball bearings
- Bearing seal: Taconite labyrinth
- Vibration Level: Grade A according IEC 60034-14
- Lubrication: Mobil Polyrex EM Grease
- Paint plan:
  - 214P - Frames up to 6800
  - 212P - Frame 7000
- Color: RAL 5009 (Blue)
- Dual Voltage Space Heaters
- Automatic drain plug
- Aluminum fan
- Copper bar rotor:
  - 2, 4, 6 and 8 poles 7008/09 frame and above
  - 10 and 12 poles 6806/07 frame and above
- Stiff shaft design
- Electrically insulated non-drive end bearing



### Optional Features

- 50Hz
- Degree of Protection: IP56, IP65, IP66
- Cooling method: TEBC – Totally enclosed blower cooled (IC416)
- Service factor: 1.15
- Sleeve bearings
- Insulated drive end bearing for inverter duty applications
- Cylindrical roller bearing
- Shaft grounding brush
- Bearing design for vertical mounting normal and high thrust applications
- Seal: INPRO/SEAL®
- Vibration level: Grade B according IEC 60034-14
- Bearing and winding thermal protection: thermistors or thermostats
- Cable glands
- Drip proof canopy for shaft down applications
- Internal tropicalized painting
- Encoder
- Suitable for VFD applications
- Main terminal box in welded steel
- Additional terminal box: For “Y” connection with access to the neutral terminal
- Shaft grounding (Aegis or WEG). Not for Hazloc.
- Stainless steel fasteners
- Steel welded t-box in different sizes
- Encoder
- Copper bar rotor
- Vibration detector
- Protection against voltage surge
- CT for differential and integral protection
- Bearing thermometer with gauge with/without contacts
- Class 1 Division 2, CSA
- EX ‘n’ (Zone 2) ATEX or IECEx





# W50 Medium Voltage Motors

## TEFC - Electrical Data

Rated Output	Full Load Speed (RPM)		NEMA Frame	Full Load Current (A)				Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
	HP	kW		2300V	4000V	4160V	6600V								50%	75%	100%	50%	75%	100%
175	132	888	5009/10	47.0	27.0	26.0	16.4	5.8	120%	250%	12	3197	75	1.00	92.2	92.7	92.7	0.58	0.69	0.76
		710	5809/10	56.8	32.7	31.4	19.8	5.5	120%	220%	11	4519	75	1.00	91.3	92.5	92.7	0.43	0.55	0.63
		3576	5009/10	45.8	26.3	25.3	15.9	6.5	110%	220%	20	3395	79	1.00	91.4	92.7	93.6	0.83	0.87	0.88
200	150	889	5009/10	53.9	31.0	29.8	18.8	5.9	120%	250%	12	3307	75	1.00	92.4	93.0	93.0	0.56	0.68	0.75
		710	5809/10	64.2	36.9	35.5	22.4	5.5	190%	220%	11	4828	75	1.00	91.6	92.8	93.0	0.43	0.55	0.63
		3576	5009/10	55.0	31.6	30.4	19.2	6.5	110%	220%	20	3483	79	1.00	92.4	93.6	95.0	0.83	0.87	0.89
250	185	1781	5009/10	58.2	33.5	32.2	20.3	6.2	110%	200%	20	3395	79	1.00	93.0	94.1	95.0	0.70	0.81	0.84
		1189	5009/10	61.9	35.6	34.2	21.6	6.5	110%	240%	21	3880	77	1.00	93.6	94.1	95.0	0.64	0.74	0.79
		889	5009/10	65.7	37.8	36.3	22.9	6.1	130%	250%	12	3527	75	1.00	92.5	93.0	93.0	0.58	0.69	0.76
		710	5809/10	77.8	44.7	43.0	27.1	5.5	170%	220%	11	5115	75	1.00	91.8	93.0	93.2	0.44	0.56	0.64
		3577	5009/10	65.3	37.5	36.1	22.8	6.5	110%	220%	18	3593	79	1.00	93.6	94.1	95.0	0.83	0.88	0.89
300	220	3570	5809/10	64.6	37.1	35.7	22.5	6.5	100%	240%	25	4431	82	1.00	93.6	94.5	95.0	0.86	0.89	0.90
		1782	5009/10	69.3	39.8	38.3	24.1	6.2	110%	210%	19	3505	79	1.00	93.0	94.1	95.0	0.71	0.81	0.84
		1190	5009/10	73.6	42.3	40.7	25.7	6.5	110%	240%	24	4056	77	1.00	93.6	94.1	95.0	0.64	0.74	0.79
		1185	5809/10	72.7	41.8	40.2	25.3	6.5	130%	240%	18	5004	77	1.00	93.6	94.1	95.0	0.65	0.78	0.80
		889	5009/10	77.8	44.7	43.0	27.1	6.1	130%	250%	12	3946	75	1.00	92.9	93.4	93.4	0.57	0.68	0.76
		710	5809/10	92.2	53.0	51.0	32.1	5.5	170%	220%	11	5842	75	1.00	92.1	93.3	93.5	0.44	0.56	0.64
350	260	3577	5009/10	76.5	44.0	42.3	26.7	6.5	110%	220%	17	3682	79	1.00	93.6	94.5	95.0	0.84	0.88	0.90
		3570	5809/10	76.3	43.9	42.2	26.6	6.5	100%	240%	25	4762	82	1.00	93.6	94.5	95.0	0.86	0.89	0.90
		1782	5009/10	81.8	47.0	45.2	28.5	6.2	110%	210%	19	3704	79	1.00	93.7	94.5	95.0	0.71	0.81	0.84
		1786	5809/10	81.8	47.0	45.2	28.5	6.2	140%	220%	30	4916	82	1.00	93.6	94.5	95.0	0.75	0.80	0.84
		1189	5009/10	87.0	50.0	48.1	30.3	6.5	110%	240%	23	4211	77	1.00	93.6	94.1	95.0	0.64	0.74	0.79
		1185	5809/10	85.9	49.4	47.5	29.9	6.5	130%	240%	18	5203	77	1.00	93.6	94.1	95.0	0.65	0.78	0.80
		891	5809/10	89.5	51.5	49.5	31.2	6	130%	220%	22	4519	75	1.00	94.2	94.7	94.7	0.60	0.71	0.77
		713	6806/07	93.1	53.6	51.5	32.5	5.5	90%	200%	28	5368	79	1.00	93.9	94.6	94.6	0.58	0.69	0.74
		3577	5009/10	87.9	50.5	48.6	30.6	6.5	110%	220%	17	3858	79	1.00	94.1	94.5	95.0	0.84	0.88	0.90
400	300	3570	5809/10	88.1	50.6	48.7	30.7	6.5	100%	240%	25	4960	82	1.00	93.6	94.5	95.0	0.86	0.89	0.90
		3577	6806/07	88.6	51.0	49.0	30.9	6.5	90%	240%	20	6019	82	1.00	94.5	95.0	95.4	0.85	0.88	0.89
		1785	5009/10	94.4	54.3	52.2	32.9	6.2	120%	230%	18	4012	79	1.00	94.1	94.5	95.0	0.73	0.81	0.84
		1786	5809/10	94.4	54.3	52.2	32.9	6.2	140%	220%	30	5093	82	1.00	93.6	94.5	95.0	0.75	0.80	0.84
		1187	5809/10	99.1	57.0	54.8	34.5	6.5	150%	240%	18	5269	77	1.00	94.1	94.5	95.0	0.65	0.78	0.80
		891	5809/10	100.4	57.7	55.5	35.0	6	130%	220%	22	5401	75	1.00	94.1	94.5	95.0	0.63	0.74	0.79
		713	6806/07	107.4	61.8	59.4	37.4	5.5	90%	200%	28	5655	79	1.00	94.1	94.8	94.8	0.58	0.69	0.74
		593	7006/07	118.7	68.2	65.6	41.3	5.5	100%	200%	50	8598	79	1.00	93.9	94.8	94.8	0.48	0.60	0.67
		3577	5009/10	96.9	55.7	53.6	33.8	6.6	110%	220%	16	3946	79	1.00	94.5	95.0	95.0	0.84	0.89	0.90
450	330	3570	5809/10	96.4	55.4	53.3	33.6	6.6	100%	240%	20	4850	82	1.00	94.5	95.0	95.4	0.87	0.89	0.90
		1785	5009/10	103.8	59.7	57.4	36.2	6.2	120%	230%	17	4167	79	1.00	94.5	94.5	95.0	0.75	0.81	0.84
		1787	5809/10	103.8	59.7	57.4	36.2	6.2	140%	220%	30	5269	82	1.00	94.1	95.0	95.0	0.75	0.80	0.84
		1186	5809/10	109.1	62.7	60.3	38.0	6.5	150%	240%	18	5379	77	1.00	94.1	94.5	95.0	0.65	0.78	0.80
		890	5809/10	110.3	63.4	61.0	38.4	6	180%	220%	22	5952	75	1.00	94.5	94.5	95.0	0.64	0.75	0.79
		713	6806/07	116.3	66.9	64.3	40.5	5.5	90%	200%	28	5974	79	1.00	94.3	95.0	95.0	0.59	0.70	0.75
		593	7006/07	130.2	74.9	72.0	45.4	5.5	100%	200%	50	9149	79	1.00	94.1	95.0	95.0	0.48	0.60	0.67
		3570	5809/10	108.2	62.2	59.8	37.7	6.5	100%	240%	20	5181	82	1.00	94.5	95.0	95.4	0.87	0.89	0.90
		3577	6806/07	109.4	62.9	60.5	38.1	6.5	90%	240%	20	6195	82	1.00	94.5	95.0	95.4	0.85	0.88	0.89
500	370	1787	5809/10	115.9	66.7	64.1	40.4	6.2	140%	220%	25	5423	82	1.00	94.1	95.0	95.4	0.75	0.80	0.84
		1188	5809/10	122.3	70.3	67.6	42.6	6.5	130%	240%	18	5578	77	1.00	94.1	94.5	95.0	0.65	0.78	0.80
		891	6806/07	119.2	68.5	65.9	41.5	6.4	100%	230%	22	6944	79	1.00	95.0	95.0	95.0	0.70	0.79	0.82
		713	6808/09	130.0	74.8	71.9	45.3	5.5	90%	200%	28	6371	79	1.00	94.5	95.2	95.2	0.59	0.70	0.75
		593	7006/07	145.6	83.7	80.5	50.7	5.5	100%	200%	50	9700	79	1.00	94.3	95.2	95.2	0.48	0.60	0.67
550	400	3570	5809/10	116.5	67.0	64.4	40.6	6.6	100%	240%	20	5379	82	1.00	95.0	95.4	95.8	0.87	0.89	0.90
		3577	6806/07	117.0	67.3	64.7	40.8	6.6	90%	250%	20	6305	82	1.00	94.5	95.4	95.4	0.86	0.89	0.90
		1788	5809/10	125.3	72.1	69.3	43.7	6.3	150%	230%	25	5600	82	1.00	94.1	95.0	95.4	0.74	0.80	0.84
		1188	5809/10	132.0	75.9	73.0	46.0	6.5	130%	240%	18	5754	77	1.00	94.1	94.5	95.0	0.64	0.78	0.80
		1193	6806/07	126.8	72.9	70.1	44.2	6.5	100%	240%	25	6371	81	1.00	94.5	95.0	95.4	0.70	0.75	0.83
		713	6808/09	138.5	79.7	76.6	48.3	5.5	90%	200%	28	6790	79	1.00	94.7	95.4	95.4	0.60	0.71	0.76
600	440	593	7006/07	157.2	90.4	86.9	54.8	5.5	100%	200%	50	10362	79	1.00	94.5	95.4	95.4	0.48	0.60	0.67
		3577	6806/07	128.1	73.6	70.8	44.6	6.7	90%	240%	20	6327	82	1.00	95.0	95.4	95.8	0.86	0.89	0.90
		1788	5809/10	137.8	79.2	76.2	48.0	6.2	150%	220%	25	5644	82	1.00	95.0	95.4	95.4	0.74	0.80	0.84
		1788	6806/07	136.2	78.3	75.3	47.5	6.2	100%	230%	25	6173	82	1.00	94.5	95.4	95.4	0.73	0.82	0.85
		1190	5809/10	145.2	83.5	80.3	50.6	6.5	130%	240%	18	5930	77	1.00	94.1	94.5	95.0	0.64	0.75	0.80
		1192	6806/07	137.8	79.2	76.2														

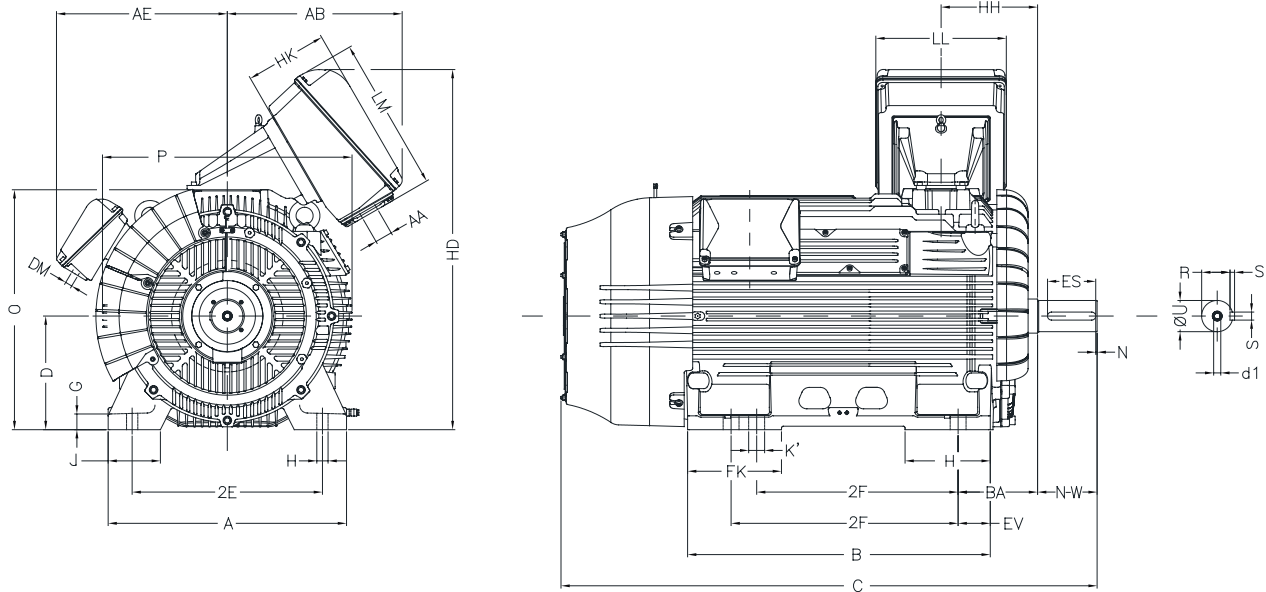
# W50 Medium Voltage Motors

## TEFC - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)				Locked rotor current (I <sub>L</sub> /I <sub>N</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
HP	kW			2300V	4000V	4160V	6600V								50%	75%	100%	50%	75%	100%
700	515	3577	6808/09	149.9	86.2	82.9	52.3	6.6	90%	240%	20	6878	82	1.00	95.0	95.4	95.8	0.87	0.89	0.90
		1788	6806/07	158.8	91.3	87.8	55.3	6.2	100%	230%	25	6526	82	1.00	94.5	95.4	95.8	0.75	0.82	0.85
		1192	6806/07	160.6	92.4	88.8	56.0	6.5	100%	230%	20	6614	81	1.00	95.0	95.4	95.8	0.73	0.81	0.84
		892	6808/09	167.3	96.2	92.5	58.3	6.6	90%	250%	22	9039	79	1.00	95.4	95.4	95.4	0.68	0.78	0.81
		713	7006/07	169.1	97.2	93.5	58.9	5.5	90%	200%	31	9369	79	1.00	95.3	95.6	95.6	0.66	0.76	0.80
750	560	3577	6808/09	163.0	93.7	90.1	56.8	6.5	90%	240%	20	6989	82	1.00	95.4	95.8	95.8	0.87	0.89	0.90
		1790	6806/07	174.7	100.5	96.6	60.9	6.2	110%	230%	25	7033	82	1.00	94.5	95.4	95.8	0.73	0.81	0.84
		1192	6808/09	174.7	100.5	96.6	60.9	6.5	100%	230%	20	6856	81	1.00	95.0	95.4	95.8	0.73	0.81	0.84
		713	7006/07	182.7	105.0	101.0	63.7	5.5	90%	200%	31	9921	79	1.00	95.5	95.8	95.8	0.66	0.76	0.80
		3577	6808/09	171.8	98.8	95.0	59.9	6.6	90%	240%	20	7099	82	1.00	95.4	95.8	95.8	0.88	0.89	0.90
800	590	1790	6808/09	184.5	106.1	102.0	64.3	6.2	120%	240%	20	7231	82	1.00	95.0	95.4	95.8	0.72	0.80	0.84
		1790	7006/07	177.6	102.1	98.2	61.9	6.2	90%	250%	25	8223	82	1.00	94.5	95.4	95.8	0.78	0.84	0.87
		1192	6808/09	186.3	107.1	103.0	64.9	6.5	100%	230%	20	7143	81	1.00	95.0	95.8	95.8	0.73	0.81	0.83
		1192	7006/07	180.9	104.0	100.0	63.0	6.5	100%	240%	25	9105	81	1.00	95.4	95.8	96.2	0.73	0.81	0.85
		892	6808/09	191.7	110.2	106.0	66.8	6.6	90%	250%	22	9480	79	1.00	95.4	95.8	95.8	0.68	0.78	0.81
850	630	1192	7006/07	193.5	111.3	107.0	67.4	5.5	90%	200%	31	10362	79	1.00	95.6	95.9	95.9	0.66	0.76	0.80
		3577	6808/09	182.7	105.0	101.0	63.7	6.7	90%	240%	20	7253	82	1.00	95.4	95.8	95.8	0.88	0.89	0.90
		3585	7006/07	186.3	107.1	103.0	64.9	6.7	90%	230%	25	8907	82	1.00	95.0	95.4	95.8	0.87	0.89	0.89
		1791	6808/09	197.1	113.4	109.0	68.7	6.2	120%	240%	20	7628	82	1.00	95.0	95.4	95.8	0.72	0.80	0.84
		1790	7006/07	189.9	109.2	105.0	66.2	6.2	90%	250%	25	8223	82	1.00	94.5	95.4	95.8	0.78	0.84	0.87
900	660	1192	6808/09	199.0	114.4	110.0	69.3	6.5	100%	230%	18	7385	81	1.00	95.4	95.8	95.8	0.73	0.81	0.83
		1192	7006/07	193.5	111.3	107.0	67.4	6.5	100%	240%	25	9105	81	1.00	95.4	95.8	96.2	0.73	0.81	0.85
		713	7006/07	206.2	118.6	114.0	71.9	5.5	90%	200%	31	10582	79	1.00	95.7	96.0	96.0	0.66	0.76	0.80
		3577	6808/09	191.7	110.2	106.0	66.8	6.6	90%	240%	20	7385	82	1.00	95.4	95.8	96.2	0.88	0.89	0.90
		3586	7006/07	191.7	110.2	106.0	66.8	6.7	90%	240%	25	9215	82	1.00	95.4	95.8	95.8	0.87	0.89	0.90
950	700	1791	6808/09	206.2	118.6	114.0	71.9	6.2	120%	240%	20	7782	82	1.00	95.0	95.4	95.8	0.72	0.80	0.84
		1790	7006/07	199.0	114.4	110.0	69.3	6.2	90%	250%	25	8510	82	1.00	95.0	95.4	95.8	0.77	0.84	0.87
		1192	6808/09	208.0	119.6	115.0	72.5	6.5	100%	230%	18	7385	81	1.00	95.4	95.8	95.8	0.73	0.80	0.83
		1192	7006/07	204.4	117.5	113.0	71.2	6.5	100%	240%	25	9436	81	1.00	95.4	95.8	96.2	0.73	0.81	0.84
		895	7008/09	211.6	121.7	117.0	73.7	6.1	70%	220%	26	10802	79	1.00	95.4	95.8	95.8	0.69	0.79	0.82
950	700	3577	6808/09	202.6	116.5	112.0	70.6	6.7	90%	240%	20	7451	82	1.00	95.8	96.2	96.2	0.88	0.89	0.90
		3585	7008/09	204.4	117.5	113.0	71.2	6.7	90%	240%	25	9700	82	1.00	95.4	95.8	95.8	0.87	0.89	0.90
		1791	6808/09	218.9	125.8	121.0	76.3	6.2	120%	250%	20	7804	82	1.00	95.0	95.8	95.8	0.72	0.80	0.84
		1791	7006/07	211.6	121.7	117.0	73.7	6.2	90%	250%	25	8884	82	1.00	95.0	95.8	95.8	0.77	0.84	0.87
		1192	7008/09	217.0	124.8	120.0	75.6	6.3	100%	240%	25	9921	81	1.00	95.8	96.2	96.2	0.73	0.81	0.84
1000	750	895	7008/09	224.3	129.0	124.0	78.2	6.1	70%	220%	30	11574	79	1.00	95.4	95.8	95.8	0.69	0.79	0.82
		3578	6808/09	217.0	124.8	120.0	75.6	6.5	90%	240%	20	7540	82	1.00	95.8	96.2	96.2	0.88	0.89	0.90
		3584	7008/09	218.9	125.8	121.0	76.3	6.7	90%	250%	25	10009	82	1.00	95.4	95.8	95.8	0.88	0.89	0.90
		1790	7006/07	224.3	129.0	124.0	78.2	6.2	90%	250%	25	8884	82	1.00	95.0	95.8	96.2	0.77	0.84	0.87
		1192	7008/09	233.3	134.2	129.0	81.3	6.3	100%	240%	25	10273	81	1.00	95.8	96.2	96.2	0.73	0.80	0.84
1100	800	894	7008/09	240.6	138.3	133.0	83.8	6.1	70%	220%	30	11850	79	1.00	95.8	95.8	95.8	0.69	0.79	0.82
		3584	7008/09	231.5	133.1	128.0	80.7	6.7	80%	250%	25	10317	82	1.00	95.8	95.8	96.2	0.89	0.90	0.90
		1790	7008/09	240.6	138.3	133.0	83.8	6.2	90%	250%	25	9193	82	1.00	95.4	95.8	96.2	0.77	0.84	0.87
		1193	7008/09	247.8	142.5	137.0	86.4	6.5	100%	240%	25	10582	81	1.00	95.8	96.2	96.2	0.72	0.80	0.84
		894	7008/09	255.0	146.6	141.0	88.9	6.2	70%	220%	30	12180	79	1.00	95.8	96.2	96.2	0.70	0.79	0.82
1250	900	3584	7008/09	260.5	149.8	144.0	90.8	6.7	80%	250%	20	10648	82	1.00	95.8	95.8	96.2	0.89	0.90	0.90
		1790	7008/09	269.5	155.0	149.0	93.9	6.4	80%	250%	25	10009	82	1.00	95.4	96.2	96.2	0.75	0.84	0.87
		1193	7008/09	282.2	162.2	156.0	98.3	6.5	100%	240%	20	10560	81	1.00	95.8	96.2	96.5	0.70	0.78	0.83
		894	7008/09	285.8	164.3	158.0	99.6	6.2	70%	220%	30	12676	79	1.00	95.8	96.2	96.2	0.70	0.79	0.82
		3585	7008/09	289.4	166.4	160.0	100.8	6.7	80%	250%	20	10979	82	1.00	95.8	96.2	96.2	0.88	0.89	0.90
1350	1000	1791	7008/09	300.2	172.6	166.0	104.6	6.4	80%	250%	20	10317	82	1.00	95.8	96.2	96.2	0.75	0.84	0.87
		1193	7008/09	312.9	179.9	173.0	109.0	6.5	100%	240%	20	11310	81	1.00	95.8	96.2	96.5	0.73	0.78	0.83
		1792	7008/09	334.6	192.4	185.0	116.6	6.4	80%	250%	20	10317	82	1.00	95.8	96.2	96.2	0.74	0.83	0.86
1700	1250	1791	7008/09	379.8	218.4	210.0	132.4	6.4	80%	250%	20	11089	82	1.00	95.8	96.2	96.2	0.74	0.83	0.86

# W50 Medium Voltage Motors

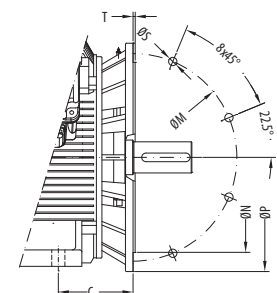
## TEFC - Mechanical Data



Frame	# of Poles	2E	J	A	P	AB	AE	2F	K	B	FK	EV	H	SHAFT END					
														U	N-W	ES	N	S	R
5009/10	2	20.000	5.276	24.724	27.795		21.339	28.000/	11.120	32.677	11.120	3.150	1.181	2.375	4.750	4.331	0.197	0.625	2.020
	4/6/8							32.000/						3.625	10.625	9.055		0.875	3.134
5809/10	2	23.000	5.793	29.528	31.102		22.402	32.000/	11.596	42.415	11.596	3.583	1.181	2.375	4.750	4.331	0.197	0.625	2.020
	4/6/8							36.000/						3.875	11.625	9.843		1.000	3.307
6806/07	2	27.000	7.064	33.071	34.646	24.378	23.697	28.000/	11.740	42.226	12.921	4.575	2.205	3.250	5.750	4.331	0.197	0.750	2.831
	4/6/8		32.000/					4.375						11.625	9.843	1.000		3.817	
6808/09	2	27.000	7.015	33.071	34.646	24.378	23.697	36.000/	11.737	48.126	11.737	4.575	2.205	3.250	5.750	4.331	0.197	0.750	2.831
	4/6/8							40.000/						4.735	11.625	9.843		1.000	3.817
7006/07	2	30.000	8.145	37.008	38.740		24.095	32.000/	13.841	48.728	15.219	5.157	2.205	3.375	6.750	5.512	0.197	0.875	2.880
	4/6/8							36.000/						5.125	11.625	9.843		1.250	4.423
7008/09	2	30.000	8.145	37.008	38.740		24.095	40.000/	13.841	54.633	13.841	5.157	2.205	3.375	6.750	5.512	0.197	0.875	2.880
	4/6/8							45.000/						5.125	11.625	9.843		1.250	4.423

Frame	# of Poles	C	D	G	O	HD	HH	HK	H	K'	BA	LL	LM	d1	AA	DM	BEARINGS	
																	D.E.	N.D.E.
5009/10	2	64.159	12.500	2.073	26.083	42.733	12.628		1.181	1.575	8.504			UNC3/4"	2xNPT 3"		6314 C3	6314 C3
	4/6/8	70.035												UNC7/8"			6320 C3	6316 C3
5809/10	2	71.089	14.500	1.974	30.051	46.701	13.740		1.181	1.890	10.000			UNC3/4"	2xNPT 3"		6314 C3	6314 C3
	4/6/8	77.964												UNC7/8"			6322 C3	6319 C3
6806/07	2	72.348	17.000	1.967	34.520	51.170	13.862	11.410	1.417	2.205	11.500	18.110	21.429	UNC3/4"	2xNPT 4"	3xNPT 3/4"	6218 C3	6218 C3
	4/6/8	78.224		UNC1"										6324 C3			6319 C3	
6808/09	2	78.254	17.000	1.974	34.520	51.170	13.862	11.410	1.417	2.205	11.500	18.110	21.429	UNC3/4"	2xNPT 4"	3xNPT 3/4"	6218 C3	6218 C3
	4/6/8	84.129		UNC1"										6324 C3			6319 C3	
7006/07	2	79.742	17.500	2.467	36.870	53.517	13.780		1.417	2.205	11.500	18.110	21.429	UNC7/8"	2xNPT 4"	3xNPT 3/4"	6220 C3	6220 C3
	4/6/8	84.617												UNC1 1/4"			6328 C3	6322 C3
7008/09	2	85.648	17.500	2.467	36.870	53.517	13.780		1.417	2.205	11.500	18.110	21.429	UNC7/8"	2xNPT 4"	3xNPT 3/4"	6220 C3	6220 C3
	4/6/8	90.523												UNC1 1/4"			6328 C3	6322 C3

Frame	Flange	C	M	N	P	S	T	N° holes
5009/10	FF-600	8.504	23.622	21.653	25.984	0.945		
5809/10	FF-740	10.000	29.134	26.772	31.496			
6806/07	FF-940	11.024	37.008	34.650	39.370	1.102	0.236	0.315
6808/09								
7006/07	FF-1080	11.500	42.520	39.370	45.276	1.102	0.236	0.315
7008/09								



# M Line Low Voltage Motors

## Standard Features

- Rated output: 150HP to 2375HP
- Three-phase, 2, 4, 6, 8, 10 and 12 pole, 60Hz
- Voltage: 220 to 690 V
- Cast iron frames 4400 to 8800 and welded steel plates for frame 10400 and above
- Cooling methods used:
  - Open self-ventilated
  - Self-ventilated by ducts, air inlet and outlet
  - Forced ventilated, air inlet and outlet by ducts
  - Forced ventilation, cooling on top of motor
  - Self-ventilated with air-to-air heat exchanger, heat exchanger on top of motor
  - Self-ventilated with air-to-air heat exchanger, heat exchanger around the stator
  - Forced ventilation in the air internal and external circuit, air-to-air heat exchanger
  - Air-to-water heat exchanger
  - Air-to-water heat exchanger, forced ventilation in the air internal circuit
- Degree of Protection: IP23 to IP55
- Service duty: (S1)
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- Service Factor: 1.00
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000 m)
- Temperature detector: PT100, 1 per bearing with 3 wires
- Temperature detector: PT100, 2 per phase with 3 wires
- Two accessory terminal boxes, one for signal accessories and the other for those accessories requiring power (space heater)
- Single phase space heater
- Labyrinth tachonite in grease lubricated bearings
- Grease lubricated bearings:
  - For 2 pole motors in the following frame sizes:
    - Up to frame 400 (inclusive)
  - For 4 pole motors in the following frames:
    - Up to frame 560 (inclusive)
    - Grease lubricated bearings for 6 pole motors and above
- Sleeve bearings:
  - For 2 pole motors in frame 630
  - Frame 450 and above for
  - For 4 pole motors in frame size 630
- Electrically insulated non-drive end bearing for frames 450 and above, when connected directly to the power supply
- Painting: Acrylic polyurethane Polyamide epoxy (Final coat: Blue RAL5007)
- Stainless steel nameplate
- Grounding lug on the frame and terminal box
- Grounding brush on drive end shaft for frame size 450 and above
- Stainless steel slip rings
- 6 loose power connection leads (without terminal block)



## Optional Features

- 50Hz
- VFD application
- Service Factor: 1.15
- Class of insulation: H
- Temperature rise: 105°K for class F
- Temperature rise: 125°K for class H
- Ambient temperature above 40 °C
- Altitude above 1000 m
- Mountings: B5, B35, V1, V3, V5, V6, V18, V19, V36
- Degree of Protection IPW55 and above
- Classified area application: Ex-n, Ex-e, Ex-p
- Special balance
- Base: rail, sliding base, extended feet, rebuilt feet, anchorage plate
- Steel welded terminal box in different sizes, based on internal available space
- Power factor correction capacitors
- Non-reversion ratchet
- Centrifugal switch
- Thermistor (PTC or NTC), Thermostat (Bimetallic)
- Two energized power terminal boxes
- One or more accessory terminal boxes
- Shaft: Special dimensions, double shaft end, tapered, hollow, special steel
- Sleeve bearing
- Oil lubricated bearing
- Special bearing (overdesigned) for axial or radial thrust
- Special painting
- Terminal block for low voltage
- Cable gland in the terminal box entrance
- Protection against voltage surge: Lighting arrestors and Capacitors
- Aluminum, copper or brass rotor
- Vibration detector
- Noise suppressor in the air inlet and outlet
- Encoder
- Tachogenerator
- CT for differential and integral protection
- Bearing thermometer with gauge with/without contacts
- Signal transducer
- Independent hydraulic oil circulation system for sleeve bearing
- Electrically insulated non-drive end bearing for all frames sizes with driven by frequency drive
- Both bearings are electrically insulated
- Grounding brush on drive end bearing for all frames when driven by frequency converter (except for classified area)

M-Line Machines are also available as ODP Slip Ring, TEAAC Slip Ring, ODP Squirrel Cage and WPII.



# M Line Low Voltage Motors

MGF TEAAC 60Hz - Electrical Data

Rated Output HP	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (l/l/n)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
			460V	575V								50%	75%	100%	50%	75%	100%
150	889	4411	191	153	6.5	120%	250%	22	3990	78	1.00	92.4	93.2	93.0	0.61	0.73	0.79
175	889	4411	223	178	6.5	120%	250%	22	4116	78	1.00	92.6	93.4	93.2	0.61	0.73	0.79
200	1779	4410	224	179	6.5	130%	240%	13	3719	82	1.00	93.9	94.2	93.8	0.82	0.88	0.89
	1181	4411	233	186	6.7	130%	250%	11	3900	80	1.00	93.6	93.5	92.7	0.77	0.85	0.87
	889	4411	254	203	6.5	120%	250%	22	4255	78	1.00	92.8	93.6	93.4	0.61	0.73	0.79
	592	5810	288	230	5.0	70%	200%	36	7141	80	1.00	93.2	93.5	93.0	0.53	0.64	0.70
225	1779	4410	253	202	6.5	130%	240%	13	3840	82	1.00	94.0	94.3	93.9	0.82	0.88	0.89
	1181	4411	261	209	6.7	130%	250%	11	4041	80	1.00	93.8	93.7	92.9	0.77	0.85	0.87
	889	5011	288	230	6.0	110%	250%	25	5194	80	1.00	94.0	94.3	93.8	0.60	0.72	0.78
	592	5811	323	258	5.0	70%	200%	36	7421	80	1.00	93.4	93.7	93.2	0.53	0.64	0.70
250	3557	4410	274	219	6.3	80%	220%	12	3600	85	1.00	92.9	93.3	92.8	0.91	0.92	0.92
	1779	4411	280	224	6.5	130%	240%	13	3959	82	1.00	94.1	94.4	94.0	0.82	0.88	0.89
	1181	4411	288	230	6.7	130%	250%	11	4184	80	1.00	94.4	94.3	93.5	0.77	0.85	0.87
	889	5011	319	255	6.0	110%	250%	25	5375	80	1.00	94.2	94.5	94.0	0.60	0.72	0.78
	592	5812	358	286	5.0	70%	200%	36	7694	80	1.00	93.6	93.9	93.4	0.53	0.64	0.70
275	3557	4411	301	241	6.3	80%	220%	12	3686	85	1.00	93.1	93.5	93.0	0.91	0.92	0.92
	1779	4411	308	246	6.5	130%	240%	13	4081	82	1.00	94.2	94.5	94.1	0.82	0.88	0.89
	1187	5009	315	252	6.3	110%	240%	14	4945	82	1.00	94.5	94.4	93.8	0.76	0.84	0.87
	889	5011	350	280	6.0	110%	250%	25	5556	80	1.00	94.4	94.7	94.2	0.60	0.72	0.78
	709	5810	378	302	5.0	70%	170%	33	7255	80	1.00	94.3	94.2	93.3	0.58	0.69	0.73
	594	6808	405	324	5.0	70%	230%	42	9184	82	1.00	93.0	93.6	93.4	0.48	0.60	0.68
	3557	4411	328	262	6.3	80%	220%	12	3790	85	1.00	93.3	93.7	93.2	0.91	0.92	0.92
300	1779	4411	335	268	6.5	130%	240%	13	4231	82	1.00	94.3	94.6	94.2	0.82	0.88	0.89
	1187	5010	344	275	6.3	110%	240%	14	5106	82	1.00	94.7	94.6	94.0	0.76	0.84	0.87
	889	5810	379	303	6.3	120%	250%	19	6955	80	1.00	94.1	94.4	93.9	0.61	0.73	0.79
	709	5811	411	329	5.0	70%	170%	33	7520	80	1.00	94.5	94.4	93.5	0.58	0.69	0.73
	594	6810	441	353	5.0	70%	230%	42	9511	82	1.00	93.2	93.8	93.6	0.48	0.60	0.68
	3557	4411	381	305	6.3	80%	220%	12	3896	85	1.00	93.5	93.9	93.4	0.91	0.92	0.92
	1778	5010	403	322	6.5	130%	250%	9	4826	85	1.00	93.9	94.2	93.7	0.77	0.84	0.87
350	1187	5010	400	320	6.3	110%	240%	14	5265	82	1.00	94.9	94.8	94.2	0.76	0.84	0.87
	889	5810	441	353	6.3	120%	250%	19	7160	80	1.00	94.3	94.6	94.1	0.61	0.73	0.79
	709	5812	479	383	5.0	70%	170%	33	7780	80	1.00	94.7	94.6	93.7	0.58	0.69	0.73
	594	6810	514	411	5.0	70%	230%	42	9835	82	1.00	93.4	94.0	93.8	0.48	0.60	0.68
	3557	4411	403	322	6.3	80%	220%	12	4019	85	1.00	93.7	94.1	93.6	0.91	0.92	0.92
	1778	5010	425	340	6.5	130%	250%	9	4960	85	1.00	94.0	94.3	93.8	0.77	0.84	0.87
	1187	5010	421	337	6.3	110%	240%	14	5461	82	1.00	95.1	95.0	94.4	0.76	0.84	0.87
370	889	5811	465	372	6.3	120%	250%	19	7405	80	1.00	94.5	94.8	94.3	0.61	0.73	0.79
	711	6810	479	383	5.7	110%	200%	24	9270	82	1.00	94.1	94.4	93.9	0.61	0.72	0.77
	594	6810	543	434	5.0	70%	230%	42	10225	82	1.00	93.6	94.2	94.0	0.48	0.60	0.68
	3567	5009	433	346	6.1	90%	220%	12	4780	88	1.00	94.0	94.3	94.0	0.91	0.92	0.92
	1778	5011	459	367	6.5	130%	250%	9	5119	85	1.00	94.1	94.4	93.9	0.77	0.84	0.87
	1186	5810	469	375	6.1	130%	250%	14	6799	82	1.00	93.9	94.4	94.1	0.73	0.81	0.85
	889	5812	501	401	6.3	120%	250%	19	7690	80	1.00	94.7	95.0	94.5	0.61	0.73	0.79
400	711	6810	518	414	5.7	110%	200%	24	9590	82	1.00	94.3	94.6	94.1	0.61	0.72	0.77
	592	7009	571	457	5.0	60%	170%	46	11290	85	1.00	94.1	94.2	93.7	0.55	0.65	0.70
	3567	5010	486	389	6.1	90%	220%	12	4925	88	1.00	94.2	94.5	94.2	0.91	0.92	0.92
	1778	5011	515	412	6.5	130%	250%	9	5300	85	1.00	94.2	94.5	94.0	0.77	0.84	0.87
	1186	5810	526	421	6.1	130%	250%	14	7030	82	1.00	94.1	94.6	94.3	0.73	0.81	0.85
	892	6808	549	439	6.1	70%	250%	24	9180	82	1.00	94.7	95.0	94.7	0.66	0.76	0.81
	711	6811	580	464	5.7	110%	200%	24	9956	82	1.00	94.5	94.8	94.3	0.61	0.72	0.77
	592	7009	641	513	5.0	60%	170%	46	11680	85	1.00	94.3	94.4	93.9	0.55	0.65	0.70
450	3567	5010	539	431	6.1	90%	220%	12	5086	88	1.00	94.4	94.7	94.4	0.91	0.92	0.92
	1778	5011	571	457	6.5	130%	250%	9	5505	85	1.00	94.3	94.6	94.1	0.77	0.84	0.87
	1186	5811	583	466	6.1	130%	250%	14	7291	82	1.00	94.3	94.8	94.5	0.73	0.81	0.85
	892	6808	609	487	6.1	70%	250%	24	9495	82	1.00	94.9	95.2	94.9	0.66	0.76	0.81
	711	6811	644	515	5.7	110%	200%	24	10366	82	1.00	94.7	95.0	94.5	0.61	0.72	0.77
	592	7009	711	569	5.0	60%	170%	46	12121	85	1.00	94.5	94.6	94.1	0.55	0.65	0.70
	3567	5011	645	516	6.1	90%	220%	12	5265	88	1.00	94.6	94.9	94.6	0.91	0.92	0.92
	1786	5811	674	539	5.8	90%	210%	15	7114	85	1.00	94.3	95.0	94.8	0.79	0.86	0.88
600	1186	5811	698	558	6.1	130%	250%	14	7579	82	1.00	94.5	95.0	94.7	0.73	0.81	0.85
	892	6810	729	583	6.1	70%	250%	24	9846	82	1.00	95.1	95.4	95.1	0.66	0.76	0.81
	714	7008	790	632	6.3	110%	250%	20	11186	85	1.00	94.5	95.0	94.8	0.55	0.68	0.75
	592	7009	851	681	5.0	60%	170%	46	12610	85	1.00	94.7	94.8	94.3	0.55	0.65	0.70
	3567	5011	751	601	6.1	90%	220%	12	5445	88	1.00	94.8	95.1	94.8	0.91	0.92	0.92
	1786	5811	785	628	5.8	90%	210%	15	7346	85	1.00	94.4	95.1	94.9	0.79	0.86	0.88
700	1191	6809	813	650	6.0	70%	250%	20	9101	85	1.00	94.9	95.2	94.9	0.73	0.81	0.85
	892	6810	849	679	6.1	70%	250%	24	10194	82	1.00	95.3	95.6	95.3	0.66	0.76	0.81
	714	7009	920	736	6.3	110%	250%	20	11545	85	1.00	94.7	95.2	95.0	0.55	0.68	0.75
	592	7010	991	793	5.0	60%	170%	46	13100	85	1.00	94.9	95.0	94.5	0.55	0.65	0.70

# M Line Low Voltage Motors

## MGF TEAAC 60Hz - Electrical Data

Rated Output HP	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (l/l/n)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
			460V	575V								50%	75%	100%	50%	75%	100%
750	3569	5812	804	643	6.7	90%	230%	9	6951	88	1.00	95.0	95.4	95.0	0.89	0.91	0.92
	1786	5812	840	672	5.8	90%	210%	15	7619	85	1.00	94.5	95.2	95.0	0.79	0.86	0.88
	1191	6810	869	695	6.0	70%	250%	20	9396	85	1.00	95.1	95.4	95.1	0.73	0.81	0.85
	892	6811	908	726	6.1	70%	250%	24	10619	82	1.00	95.5	95.8	95.5	0.66	0.76	0.81
	714	7009	984	787	6.3	110%	250%	20	11980	85	1.00	94.9	95.4	95.2	0.55	0.68	0.75
	595	8009	1021	817	5.9	100%	240%	26	15430	85	1.00	93.6	94.3	94.2	0.54	0.67	0.73
800	3569	5812	855	684	6.7	90%	230%	9	7196	88	1.00	95.2	95.6	95.2	0.89	0.91	0.92
	1786	5812	895	716	5.8	90%	210%	15	7941	85	1.00	94.6	95.3	95.1	0.79	0.86	0.88
	1191	6810	925	740	6.0	70%	250%	20	9735	85	1.00	95.3	95.6	95.3	0.73	0.81	0.85
	889	7009	920	736	5.7	80%	220%	20	12231	85	1.00	95.2	95.3	94.7	0.77	0.84	0.86
	714	7009	1048	838	6.3	110%	250%	20	12485	85	1.00	95.1	95.6	95.4	0.55	0.68	0.75
	595	8009	1088	870	5.9	100%	240%	26	15939	85	1.00	93.8	94.5	94.4	0.54	0.67	0.73
900	3569	5812	960	768	6.7	90%	230%	9	7480	88	1.00	95.4	95.8	95.4	0.89	0.91	0.92
	1783	6809	985	788	5.5	70%	200%	14	9279	88	1.00	95.0	95.4	95.1	0.85	0.89	0.90
	1191	6811	1038	830	6.0	70%	250%	20	10130	85	1.00	95.5	95.8	95.5	0.73	0.81	0.85
	889	7009	1033	826	5.7	80%	220%	20	12749	85	1.00	95.4	95.5	94.9	0.77	0.84	0.86
	712	8010	1158	926	5.7	110%	230%	18	16160	85	1.00	94.3	94.8	94.5	0.60	0.71	0.77
	595	8010	1220	976	5.9	100%	240%	26	16526	85	1.00	94.0	94.7	94.6	0.54	0.67	0.73
1000	3576	6810	1066	853	6.5	90%	230%	10	9429	90	1.00	95.5	95.8	95.5	0.87	0.91	0.92
	1783	6810	1093	874	5.5	70%	200%	14	9621	88	1.00	95.1	95.5	95.2	0.85	0.89	0.90
	1191	6811	1151	921	6.0	70%	250%	20	10571	85	1.00	95.7	96.0	95.7	0.73	0.81	0.85
	889	7010	1145	916	5.7	80%	220%	20	13340	85	1.00	95.6	95.7	95.1	0.77	0.84	0.86
	712	8010	1284	1027	5.7	110%	230%	18	16739	85	1.00	94.5	95.0	94.7	0.60	0.71	0.77
	595	8010	1353	1082	5.9	100%	240%	26	17180	85	1.00	94.2	94.9	94.8	0.54	0.67	0.73
1250	3576	6810	1329	1063	6.5	90%	230%	10	9784	90	1.00	95.7	96.0	95.7	0.87	0.91	0.92
	1783	6810	1365	1092	5.5	70%	200%	14	9996	88	1.00	95.2	95.6	95.3	0.85	0.89	0.90
	1190	7009	1399	1119	5.5	80%	220%	20	11356	88	1.00	95.4	95.6	95.1	0.81	0.86	0.88
	894	8008	1451	1161	6.2	100%	220%	21	15666	85	1.00	94.9	95.2	94.9	0.76	0.83	0.85
	712	8011	1601	1281	5.7	110%	230%	18	17390	85	1.00	94.7	95.2	94.9	0.60	0.71	0.77
	596	8809	1599	1279	5.4	80%	200%	43	20414	85	1.00	94.6	95.2	95.1	0.62	0.72	0.77
1350	3576	6811	1433	1146	6.5	90%	230%	10	10146	90	1.00	95.9	96.2	95.9	0.87	0.91	0.92
	1783	6811	1473	1178	5.5	70%	200%	14	10370	88	1.00	95.3	95.7	95.4	0.85	0.89	0.90
	1190	7009	1508	1206	5.5	80%	220%	20	11746	88	1.00	95.6	95.8	95.3	0.81	0.86	0.88
	894	8008	1564	1251	6.2	100%	220%	21	16186	85	1.00	95.1	95.4	95.1	0.76	0.83	0.85
	712	8011	1726	1381	5.7	110%	230%	18	18036	85	1.00	94.9	95.4	95.1	0.60	0.71	0.77
	596	8809	1723	1378	5.4	80%	200%	43	21155	85	1.00	94.8	95.4	95.3	0.62	0.72	0.77
1500	3581	7009	1603	1282	6.3	60%	210%	13	11656	92	1.00	95.0	95.5	95.3	0.90	0.92	0.92
	1788	7010	1630	1304	5.8	70%	210%	15	11925	90	1.00	95.6	96.0	95.7	0.84	0.89	0.90
	1190	7009	1671	1337	5.5	80%	220%	20	12209	88	1.00	95.8	96.0	95.5	0.81	0.86	0.88
	894	8009	1734	1387	6.2	100%	220%	21	16810	85	1.00	95.3	95.6	95.3	0.76	0.83	0.85
	596	8809	1910	1528	5.4	80%	200%	43	22046	85	1.00	95.0	95.6	95.5	0.62	0.72	0.77
	3581	7009	1865	1492	6.3	60%	210%	13	12079	92	1.00	95.2	95.7	95.5	0.90	0.92	0.92
1750	1788	7011	1900	1520	5.8	70%	210%	15	12366	90	1.00	95.7	96.1	95.8	0.84	0.89	0.90
	1190	7009	1945	1556	5.5	80%	220%	20	12720	88	1.00	96.0	96.2	95.7	0.81	0.86	0.88
	894	8009	2019	1615	6.2	100%	220%	21	17489	85	1.00	95.5	95.8	95.5	0.76	0.83	0.85
	2000	1788	7011	2170	1736	5.8	70%	210%	15	12870	90	1.00	95.8	96.2	95.9	0.84	0.89

# M Line Low Voltage Motors

## MGP WP-II 60Hz - Electrical Data

Rated Output HP	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (ll/ln)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
			460V	575V								50%	75%	100%	50%	75%	100%
150	888	4411	190	152	6.5	120%	250%	17	3135	78	1.00	92.6	93.1	92.7	0.63	0.74	0.80
175	888	4411	220	176	6.5	120%	250%	17	3230	78	1.00	92.8	93.3	92.9	0.63	0.74	0.80
200	1181	4410	233	186	6.5	110%	250%	9	3084	80	1.00	93.7	93.5	92.7	0.75	0.83	0.87
	888	4411	251	201	6.5	120%	250%	17	3340	78	1.00	93.0	93.5	93.1	0.63	0.74	0.80
225	592	5810	294	235	5.0	80%	210%	26	5910	78	1.00	92.7	93.0	92.5	0.49	0.62	0.69
	1181	4411	261	209	6.5	110%	250%	9	3201	80	1.00	93.9	93.7	92.9	0.75	0.83	0.87
250	888	4411	283	226	6.5	120%	250%	17	3490	78	1.00	93.2	93.7	93.3	0.63	0.74	0.80
	592	5810	330	264	5.0	80%	210%	26	6131	78	1.00	92.9	93.2	92.7	0.49	0.62	0.69
275	1780	4409	294	235	6.6	120%	220%	10	3146	84	1.00	93.6	94.0	93.6	0.74	0.82	0.85
	1181	4411	289	231	6.5	110%	250%	9	3316	80	1.00	94.1	93.9	93.1	0.75	0.83	0.87
300	888	4411	313	250	6.5	120%	250%	17	3640	78	1.00	93.4	93.9	93.5	0.63	0.74	0.80
	592	5811	365	292	5.0	80%	210%	26	6356	78	1.00	93.1	93.4	92.9	0.49	0.62	0.69
325	1780	4409	324	259	6.6	120%	220%	10	3245	84	1.00	93.7	94.1	93.7	0.74	0.82	0.85
	1181	4411	318	254	6.5	110%	250%	9	3430	80	1.00	94.3	94.1	93.3	0.75	0.83	0.87
350	888	5011	361	289	5.8	120%	250%	19	4480	78	1.00	94.0	94.2	93.7	0.57	0.69	0.76
	711	5810	385	308	5.0	70%	170%	25	5985	78	1.00	94.0	93.9	93.0	0.56	0.67	0.72
375	592	5811	401	321	5.0	80%	210%	26	6574	78	1.00	93.3	93.6	93.1	0.49	0.62	0.69
	3559	4410	326	261	6.7	90%	230%	8	3000	85	1.00	93.9	94.1	93.5	0.90	0.92	0.92
400	1780	4410	353	282	6.6	120%	220%	10	3364	84	1.00	93.8	94.2	93.8	0.74	0.82	0.85
	1181	4411	345	276	6.5	110%	250%	9	3569	80	1.00	94.5	94.3	93.5	0.75	0.83	0.87
425	888	5011	394	315	5.8	120%	250%	19	4660	78	1.00	94.2	94.4	93.9	0.57	0.69	0.76
	711	5810	419	335	5.0	70%	170%	25	6195	78	1.00	94.2	94.1	93.2	0.56	0.67	0.72
450	592	5812	436	349	5.0	80%	210%	26	6850	78	1.00	93.5	93.8	93.3	0.49	0.62	0.69
	3559	4411	380	304	6.7	90%	230%	8	3084	85	1.00	94.1	94.3	93.7	0.90	0.92	0.92
475	1780	4411	410	328	6.6	120%	220%	10	3485	84	1.00	93.9	94.3	93.9	0.74	0.82	0.85
	1185	5009	401	321	5.8	100%	220%	11	4224	80	1.00	95.1	94.7	93.9	0.76	0.84	0.87
500	888	5011	459	367	5.8	120%	250%	19	4839	78	1.00	94.4	94.6	94.1	0.57	0.69	0.76
	711	5810	488	390	5.0	70%	170%	25	6400	78	1.00	94.4	94.3	93.4	0.56	0.67	0.72
525	592	6808	494	395	5.0	60%	200%	37	7961	78	1.00	94.1	94.2	93.5	0.53	0.65	0.71
	3559	4411	401	321	6.7	90%	230%	8	3186	85	1.00	94.3	94.5	93.9	0.90	0.92	0.92
550	1780	4411	434	347	6.6	120%	220%	10	3631	84	1.00	94.0	94.4	94.0	0.74	0.82	0.85
	1185	5010	424	339	5.8	100%	220%	11	4376	80	1.00	95.3	94.9	94.1	0.76	0.84	0.87
575	887	5810	473	378	5.9	120%	250%	15	6116	78	1.00	94.4	94.5	93.9	0.60	0.72	0.78
	711	5811	514	411	5.0	70%	170%	25	6649	78	1.00	94.6	94.5	93.6	0.56	0.67	0.72
600	592	6810	521	417	5.0	60%	200%	37	8254	78	1.00	94.3	94.4	93.7	0.53	0.65	0.71
	3559	4411	433	346	6.7	90%	230%	8	3300	85	1.00	94.5	94.7	94.1	0.90	0.92	0.92
625	1779	5009	458	366	6.1	100%	220%	11	4290	84	1.00	94.4	94.7	94.2	0.79	0.85	0.87
	1185	5010	456	365	5.8	100%	220%	11	4555	80	1.00	95.5	95.1	94.3	0.76	0.84	0.87
650	887	5810	510	408	5.9	120%	250%	15	6340	78	1.00	94.6	94.7	94.1	0.60	0.72	0.78
	711	5812	555	444	5.0	70%	170%	25	6940	78	1.00	94.8	94.7	93.8	0.56	0.67	0.72
675	592	6810	561	449	5.0	60%	200%	37	8600	78	1.00	94.5	94.6	93.9	0.53	0.65	0.71
	3559	4411	486	389	6.7	90%	230%	8	3435	85	1.00	94.7	94.9	94.3	0.90	0.92	0.92
700	1779	5009	514	411	6.1	100%	220%	11	4455	84	1.00	94.5	94.8	94.3	0.79	0.85	0.87
	1185	5010	513	410	5.8	100%	220%	11	4755	80	1.00	95.7	95.3	94.5	0.76	0.84	0.87
725	887	5811	573	458	5.9	120%	250%	15	6594	78	1.00	94.8	94.9	94.3	0.60	0.72	0.78
	711	6810	580	464	5.4	110%	190%	20	8194	78	1.00	94.9	95.0	94.4	0.60	0.71	0.77
750	592	6810	630	504	5.0	60%	200%	37	8995	78	1.00	94.7	94.8	94.1	0.53	0.65	0.71
	3567	5009	539	431	6.2	90%	230%	10	4101	85	1.00	95.0	95.0	94.5	0.89	0.91	0.92
775	1779	5010	570	456	6.1	100%	220%	11	4641	84	1.00	94.6	94.9	94.4	0.79	0.85	0.87
	1189	5810	589	471	6.4	110%	250%	14	6021	80	1.00	94.6	95.0	94.6	0.70	0.80	0.84
800	887	5812	635	508	5.9	120%	250%	15	6885	78	1.00	95.0	95.1	94.5	0.60	0.72	0.78
	711	6810	643	514	5.4	110%	190%	20	8525	78	1.00	95.1	95.2	94.6	0.60	0.71	0.77
825	591	7009	703	562	5.0	50%	150%	46	10150	78	1.00	94.7	94.6	93.8	0.58	0.67	0.71
	3567	5010	645	516	6.2	90%	230%	10	4246	85	1.00	95.2	95.2	94.7	0.89	0.91	0.92
850	1779	5011	684	547	6.1	100%	220%	11	4839	84	1.00	94.7	95.0	94.5	0.79	0.85	0.87
	1189	5811	705	564	6.4	110%	250%	14	6250	80	1.00	94.8	95.2	94.8	0.70	0.80	0.84
875	889	6808	698	558	5.5	80%	210%	21	8415	78	1.00	95.6	95.4	94.7	0.76	0.83	0.85
	711	6811	770	616	5.4	110%	190%	20	8884	78	1.00	95.3	95.4	94.8	0.60	0.71	0.77
900	591	7009	841	673	5.0	50%	150%	46	10591	78	1.00	94.9	94.8	94.0	0.58	0.67	0.71
	3567	5010	751	601	6.2	90%	230%	10	4385	85	1.00	95.4	95.4	94.9	0.89	0.91	0.92
925	1779	5011	796	637	6.1	100%	220%	11	5044	84	1.00	94.8	95.1	94.6	0.79	0.85	0.87
	1189	5811	821	657	6.4	110%	250%	14	6479	80	1.00	95.0	95.4	95.0	0.70	0.80	0.84
950	889	6810	813	650	5.5	80%	210%	21	8730	78	1.00	95.8	95.6	94.9	0.76	0.83	0.85
	711	6811	896	717	5.4	110%	190%	20	9250	78	1.00	95.5	95.6	95.0	0.60	0.71	0.77
975	591	7009	980	784	5.0	50%	150%	46	11025	78	1.00	95.1	95.0	94.2	0.58	0.67	0.71
	3567	5011	803	642	6.2	90%	230%	10	4555	85	1.00	95.6	95.6	95.1	0.89	0.91	0.92
1000	1781	5811	860	688	6.1	80%	210%	13	6085	85	1.00	95.3	95.2	94.9	0.79	0.84	0.86
	1189	5811	878	702	6.4	110%	250%	14	6759	80	1.00	95.2	95.6	95.2	0.70	0.80	0.84
1025	889	6810	869	695	5.5	80%	210%	21	9105	78	1.00	96.0	95.8	95.1	0.76	0.83	0.85
	713	7009	973	778	6.4	120%	250%	16	9985	78	1.00	94.9	95.3	95.0	0.57	0.70	0.76
1050	591	7010	1048	838	5.0	50%	150%	46	11550	78	1.00	95.3	95.2	94.4	0.58	0.67	0.71

# M Line Low Voltage Motors

## MGP WP-II 60Hz - Electrical Data

Rated Output HP	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)		Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
			460V	575V								50%	75%	100%	50%	75%	100%
800	3567	5011	854	683	6.2	90%	230%	10	4751	85	1.00	95.8	95.8	95.3	0.89	0.91	0.92
	1781	5811	916	733	6.1	80%	210%	13	6310	85	1.00	95.4	95.3	95.0	0.79	0.84	0.86
	1190	6808	916	733	6.7	100%	250%	11	8049	80	1.00	95.6	95.6	95.1	0.75	0.83	0.86
	889	6811	925	740	5.5	80%	210%	21	9539	78	1.00	96.2	96.0	95.3	0.76	0.83	0.85
	713	7009	1035	828	6.4	120%	250%	16	10434	78	1.00	95.1	95.5	95.2	0.57	0.70	0.76
	593	8009	1136	909	5.0	70%	190%	36	13790	85	1.00	94.2	94.6	94.2	0.54	0.65	0.70
900	3566	5811	964	771	6.1	90%	220%	8	6014	85	1.00	95.4	95.5	95.0	0.87	0.91	0.92
	1781	5812	1030	824	6.1	80%	210%	13	6570	85	1.00	95.5	95.4	95.1	0.79	0.84	0.86
	1190	6808	1029	823	6.7	100%	250%	11	8364	80	1.00	95.8	95.8	95.3	0.75	0.83	0.86
	891	7009	1093	874	7.0	120%	250%	9	10505	78	1.00	95.5	95.6	95.2	0.63	0.75	0.81
	713	7009	1163	930	6.4	120%	250%	16	10946	78	1.00	95.3	95.7	95.4	0.57	0.70	0.76
	593	8010	1275	1020	5.0	70%	190%	36	14330	85	1.00	94.4	94.8	94.4	0.54	0.65	0.70
1000	3566	5811	1069	855	6.1	90%	220%	8	6246	85	1.00	95.6	95.7	95.2	0.87	0.91	0.92
	1781	5812	1144	915	6.1	80%	210%	13	6861	85	1.00	95.6	95.5	95.2	0.79	0.84	0.86
	1190	6810	1140	912	6.7	100%	250%	11	8719	80	1.00	96.0	96.0	95.5	0.75	0.83	0.86
	891	7009	1211	969	7.0	120%	250%	9	11025	78	1.00	95.7	95.8	95.4	0.63	0.75	0.81
	711	8010	1270	1016	5.2	100%	210%	18	14369	85	1.00	94.8	95.0	94.5	0.64	0.74	0.78
	593	8010	1414	1131	5.0	70%	190%	36	14945	85	1.00	94.6	95.0	94.6	0.54	0.65	0.70
1250	3566	5812	1334	1067	6.1	90%	220%	8	6499	85	1.00	95.8	95.9	95.4	0.87	0.91	0.92
	1789	6810	1411	1129	7.4	80%	220%	8	8620	85	1.00	95.7	95.6	95.3	0.77	0.85	0.87
	1190	6810	1423	1138	6.7	100%	250%	11	9109	80	1.00	96.2	96.2	95.7	0.75	0.83	0.86
	891	7009	1511	1209	7.0	120%	250%	9	11609	78	1.00	95.9	96.0	95.6	0.63	0.75	0.81
	711	8010	1585	1268	5.2	100%	210%	18	14949	85	1.00	95.0	95.2	94.7	0.64	0.74	0.78
	594	8010	1645	1316	5.4	90%	220%	26	15340	85	1.00	94.8	95.2	94.9	0.58	0.69	0.75
1350	3574	6810	1438	1150	6.4	70%	230%	11	8351	85	1.00	96.0	96.1	95.6	0.89	0.91	0.92
	1789	6810	1523	1218	7.4	80%	220%	8	8959	85	1.00	95.8	95.7	95.4	0.77	0.85	0.87
	1190	6811	1533	1226	6.7	100%	250%	11	9500	80	1.00	96.4	96.4	95.9	0.75	0.83	0.86
	894	8007	1621	1297	6.1	90%	220%	17	13194	85	1.00	95.0	95.4	95.1	0.69	0.78	0.82
	711	8011	1708	1366	5.2	100%	210%	18	15525	85	1.00	95.2	95.4	94.9	0.64	0.74	0.78
	595	8809	1704	1363	5.0	70%	180%	43	18190	85	1.00	95.1	95.4	95.1	0.65	0.74	0.78
1500	3574	6810	1594	1275	6.4	70%	230%	11	8690	85	1.00	96.2	96.3	95.8	0.89	0.91	0.92
	1789	6810	1690	1352	7.4	80%	220%	8	9369	85	1.00	95.9	95.8	95.5	0.77	0.85	0.87
	1191	7009	1729	1383	6.2	100%	250%	13	9764	80	1.00	96.1	96.1	95.6	0.72	0.81	0.85
	894	8008	1798	1438	6.1	90%	220%	17	13679	85	1.00	95.2	95.6	95.3	0.69	0.78	0.82
	711	8011	1894	1515	5.2	100%	210%	18	16219	85	1.00	95.4	95.6	95.1	0.64	0.74	0.78
	595	8809	1890	1512	5.0	70%	180%	43	18986	85	1.00	95.3	95.6	95.3	0.65	0.74	0.78
1750	3574	6811	1855	1484	6.4	70%	230%	11	9061	85	1.00	96.4	96.5	96.0	0.89	0.91	0.92
	1789	6811	1970	1576	7.4	80%	220%	8	9810	85	1.00	96.0	95.9	95.6	0.77	0.85	0.87
	1191	7009	2013	1610	6.2	100%	250%	13	10161	80	1.00	96.3	96.3	95.8	0.72	0.81	0.85
	894	8008	2093	1674	6.1	90%	220%	17	14204	85	1.00	95.4	95.8	95.5	0.69	0.78	0.82
	595	8809	2200	1760	5.0	70%	180%	43	19846	85	1.00	95.5	95.8	95.5	0.65	0.74	0.78
	3577	7009	2155	1724	6.6	60%	210%	8	10015	85	1.00	95.8	95.9	95.5	0.87	0.90	0.91
2000	1789	7009	2251	1801	6.3	70%	210%	14	11085	88	1.00	95.9	95.9	95.6	0.79	0.86	0.87
	1191	7009	2295	1836	6.2	100%	250%	13	10619	80	1.00	96.5	96.5	96.0	0.72	0.81	0.85
	894	8009	2386	1909	6.1	90%	220%	17	14810	85	1.00	95.6	96.0	95.7	0.69	0.78	0.82
	3577	7009	2419	1935	6.6	60%	210%	8	10509	85	1.00	96.0	96.1	95.7	0.87	0.90	0.91
2250	1789	7010	2530	2024	6.3	70%	210%	14	11731	88	1.00	96.0	96.0	95.7	0.79	0.86	0.87
	1191	7009	2576	2061	6.2	100%	250%	13	11230	80	1.00	96.7	96.7	96.2	0.72	0.81	0.85
	894	8009	2679	2143	6.1	90%	220%	17	15615	85	1.00	95.8	96.2	95.9	0.69	0.78	0.82
	2500	1789	7010	2809	2247	6.3	70%	210%	14	12381	88	1.00	96.1	96.1	95.8	0.79	0.86

# M Line Medium Voltage Motors

## Standard Features

- Rated output: 300HP to 27,000HP
- Three-phase, 2, 4, 6, 8, 10 and 12 pole, 60Hz
- Voltage: 2,300 V to 13.8 kV
- Cast iron frames 4400 to 8800 and welded steel plates for frame 10400 to above
- Cooling methods used:
  - Open self-ventilated
  - Self-ventilated by ducts, air inlet and outlet
  - Forced ventilated, air inlet and outlet by ducts
  - Forced ventilation, cooling on top of motor
  - Self-ventilated with air-to-air heat exchanger, heat exchanger on top of motor
  - Self-ventilated with air-to-air heat exchanger, heat exchanger around the stator
  - Forced ventilation in the air internal and external circuit, air-to-air heat exchanger
  - Air-to-water heat exchanger
  - Air-to-water heat exchanger, forced ventilation in the air internal circuit
- Degree of Protection: IP23 to IP55
- Service duty: (S1)
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- Service Factor: 1.00
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000 m)
- Temperature detector: PT100, 1 per bearing with 3 wires
- Temperature detector: PT100, 2 per phase with 3 wires
- Two accessory terminal boxes, one for signal accessories and the other for those accessories requiring power (space heater)
- Single phase space heater
- Labyrinth tachonite in grease lubricated bearings
- Grease lubricated bearings:
  - For 2 pole motors in the following frame sizes:
    - Up to frame 400 (inclusive)
  - For 4 pole motors in the following frames:
    - Up to frame 560 (inclusive)
    - Grease lubricated bearings for 6 pole motors and above
- Sleeve bearings:
  - For 2 pole motors in frame 630
  - Frame 450 and above for
  - For 4 pole motors in frame size 630
- Electrically insulated non-drive end bearing for frames 450 and above, when connected directly to the power supply
- Painting: Acrylic polyurethane Polyamide epoxy (Final coat: Blue RAL5007)
- Stainless steel nameplate
- Grounding lug on the frame and terminal box
- Grounding brush on drive end shaft for frame size 450 and above
- Stainless steel slip rings
- 3 connection terminals in the power terminal box (with terminal block)

M-Line Machines are also available as ODP Slip Ring, TEA ACS Slip Ring, ODP Squirrel Cage and WPIL.



## Optional Features

- 50Hz
- VFD application
- Service Factor: 1.15
- Class of insulation: H
- Temperature rise: 105°K for class F
- Temperature rise: 125°K for class H
- Ambient temperature above 40 °C
- Altitude above 1000 m
- Mountings: B5, B35, V1, V3, V5, V6, V18, V19, V36
- Degree of Protection IPW55 and above
- Classified area application: Ex-n, Ex-e, Ex-p
- Special balance
- Base: rail, sliding base, extended feet, rebuilt feet, anchorage plate
- Steel welded terminal box in different sizes, based on internal available space
- Power factor correction capacitors
- Non-reversion ratchet
- Centrifugal switch
- Thermistor (PTC or NTC), Thermostat (Bimetallic)
- Two energized power terminal boxes
- One or more accessory terminal boxes
- Shaft: Special dimensions, double shaft end, tapered, hollow, special steel
- Sleeve bearing
- Oil lubricated bearing
- Special bearing (overdesigned) for axial or radial thrust
- Special painting
- Terminal block for low voltage
- Cable gland in the terminal box entrance
- Protection against voltage surge: Lighting arrestors and Capacitors
- Aluminum, copper or brass rotor
- Vibration detector
- Noise suppressor in the air inlet and outlet
- Encoder
- Tachogenerator
- CT for differential and integral protection
- Bearing thermometer with gauge with/without contacts
- Signal transducer
- Independent hydraulic oil circulation system for sleeve bearing
- Electrically insulated non-drive end bearing for all frame sizes with driven by frequency drive
- Both bearings are electrically insulated
- Grounding brush on drive end bearing for all frames when driven by frequency converter (except for classified area)



# M Line Medium Voltage Motors

## MGF TEAAC 60Hz 4160V - Electrical Data

Rated Output HP	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A) 4160V	Locked rotor current (ll/ln)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
											50%	75%	100%	50%	75%	100%
250	1185	5009	35.3	5.8	100%	250%	16	5055	82	1.00	92.9	93.3	92.9	0.65	0.75	0.79
275	1185	5010	38.7	5.8	100%	250%	16	5205	82	1.00	93.1	93.5	93.1	0.65	0.75	0.79
300	1185	5010	42.1	5.8	100%	250%	16	5390	82	1.00	93.3	93.7	93.3	0.65	0.75	0.79
	887	5811	45.7	5.8	120%	250%	19	7220	80	1.00	92.9	93.5	93.2	0.55	0.67	0.73
350	3566	5010	42.1	6.4	80%	250%	9	4649	88	1.00	93.8	94.0	93.5	0.88	0.91	0.92
	1779	5009	44.1	6.3	100%	250%	17	4881	85	1.00	93.1	93.7	93.4	0.79	0.85	0.88
	1185	5011	49.1	5.8	100%	250%	16	5575	82	1.00	93.5	93.9	93.5	0.65	0.75	0.79
	887	5812	53.1	5.8	120%	250%	19	7456	80	1.00	93.1	93.7	93.4	0.55	0.67	0.73
370	3566	5011	44.4	6.4	80%	250%	9	4771	88	1.00	94.0	94.2	93.7	0.88	0.91	0.92
	1779	5009	46.6	6.3	100%	250%	17	5020	85	1.00	93.2	93.8	93.5	0.79	0.85	0.88
	1185	5011	51.8	5.8	100%	250%	16	5796	82	1.00	93.7	94.1	93.7	0.65	0.75	0.79
	887	5812	56.1	5.8	120%	250%	19	7736	80	1.00	93.3	93.9	93.6	0.55	0.67	0.73
400	3566	5011	47.9	6.4	80%	250%	9	4910	88	1.00	94.2	94.4	93.9	0.88	0.91	0.92
	1779	5010	50.3	6.3	100%	250%	17	5185	85	1.00	93.3	93.9	93.6	0.79	0.85	0.88
	1187	5810	55.1	5.5	100%	210%	13	6900	82	1.00	93.6	94.2	93.9	0.66	0.75	0.80
	888	6808	53.7	6.0	100%	250%	18	8774	82	1.00	93.2	93.5	93.0	0.72	0.80	0.83
450	3566	5011	53.8	6.4	80%	250%	9	5071	88	1.00	94.4	94.6	94.1	0.88	0.91	0.92
	1779	5011	56.5	6.3	100%	250%	17	5375	85	1.00	93.4	94.0	93.7	0.79	0.85	0.88
	1187	5811	61.9	5.5	100%	210%	13	7130	82	1.00	93.8	94.4	94.1	0.66	0.75	0.80
	888	6809	60.2	6.0	100%	250%	18	9041	82	1.00	93.4	93.7	93.2	0.72	0.80	0.83
	708	6810	67.6	5.0	100%	180%	26	9491	82	1.00	93.7	93.9	93.2	0.61	0.70	0.74
500	3566	5011	59.7	6.4	80%	250%	9	5249	88	1.00	94.6	94.8	94.3	0.88	0.91	0.92
	1779	5011	62.7	6.3	100%	250%	17	5591	85	1.00	93.5	94.1	93.8	0.79	0.85	0.88
	1187	5811	68.6	5.5	100%	210%	13	7390	82	1.00	94.0	94.6	94.3	0.66	0.75	0.80
	888	6809	66.8	6.0	100%	250%	18	9341	82	1.00	93.6	93.9	93.4	0.72	0.80	0.83
	708	6810	74.9	5.0	100%	180%	26	9859	82	1.00	93.9	94.1	93.4	0.61	0.70	0.74
	593	7010	82.9	5.0	80%	200%	32	11821	85	1.00	92.9	93.5	93.2	0.50	0.61	0.67
600	3571	5811	72.4	6.6	60%	250%	11	6415	88	1.00	94.4	94.7	94.3	0.86	0.89	0.91
	1784	5811	75.5	6.3	120%	230%	14	7156	85	1.00	94.1	94.8	94.6	0.79	0.85	0.87
	1187	5812	82.2	5.5	100%	210%	13	7674	82	1.00	94.2	94.8	94.5	0.66	0.75	0.80
	888	6810	80	6.0	100%	250%	18	9669	82	1.00	93.8	94.1	93.6	0.72	0.80	0.83
	713	7009	89.3	5.9	120%	210%	18	11605	85	1.00	93.5	94.1	94.0	0.56	0.68	0.74
	593	7010	99.3	5.0	80%	200%	32	12255	85	1.00	93.1	93.7	93.4	0.50	0.61	0.67
	3571	5811	84.3	6.6	60%	250%	11	6574	88	1.00	94.6	94.9	94.5	0.86	0.89	0.91
700	1784	5811	88	6.3	120%	230%	14	7385	85	1.00	94.2	94.9	94.7	0.79	0.85	0.87
	1188	6809	90.5	6.3	100%	240%	15	9160	85	1.00	94.2	94.5	94.2	0.74	0.82	0.85
	888	6810	93.1	6.0	100%	250%	18	10004	82	1.00	94.0	94.3	93.8	0.72	0.80	0.83
	713	7010	104	5.9	120%	210%	18	11971	85	1.00	93.7	94.3	94.2	0.56	0.68	0.74
	593	7011	116	5.0	80%	200%	32	12690	85	1.00	93.3	93.9	93.6	0.50	0.61	0.67
750	3571	5812	90.1	6.6	60%	250%	11	6766	88	1.00	94.8	95.1	94.7	0.86	0.89	0.91
	1784	5812	94.1	6.3	120%	230%	14	7670	85	1.00	94.3	95.0	94.8	0.79	0.85	0.87
	1188	6810	96.8	6.3	100%	240%	15	9460	85	1.00	94.4	94.7	94.4	0.74	0.82	0.85
	888	6811	99.5	6.0	100%	250%	18	10399	82	1.00	94.2	94.5	94.0	0.72	0.80	0.83
	713	7010	111	5.9	120%	210%	18	12414	85	1.00	93.9	94.5	94.4	0.56	0.68	0.74
	593	7011	124	5.0	80%	200%	32	13214	85	1.00	93.5	94.1	93.8	0.50	0.61	0.67
800	3571	5812	95.9	6.6	60%	250%	11	6991	88	1.00	95.0	95.3	94.9	0.86	0.89	0.91
	1784	5812	100	6.3	120%	230%	14	7996	85	1.00	94.4	95.1	94.9	0.79	0.85	0.87
	1188	6810	103	6.3	100%	240%	15	9810	85	1.00	94.6	94.9	94.6	0.74	0.82	0.85
	888	6811	106	6.0	100%	250%	18	10864	82	1.00	94.4	94.7	94.2	0.72	0.80	0.83
	713	7011	118	5.9	120%	210%	18	12930	85	1.00	94.1	94.7	94.6	0.56	0.68	0.74
	592	8009	122	5.0	60%	180%	42	15670	85	1.00	94.3	94.5	94.0	0.58	0.68	0.72
	3571	5812	108	6.6	60%	250%	11	7251	88	1.00	95.2	95.5	95.1	0.86	0.89	0.91
900	1785	6810	116	6.1	130%	220%	6	9041	88	1.00	93.8	94.6	94.5	0.76	0.83	0.85
	1188	6811	116	6.3	100%	240%	15	10209	85	1.00	94.8	95.1	94.8	0.74	0.82	0.85
	890	7009	117	5.0	60%	210%	31	12284	85	1.00	94.6	94.9	94.5	0.75	0.82	0.84
	713	7011	133	5.9	120%	210%	18	13525	85	1.00	94.3	94.9	94.8	0.56	0.68	0.74
	592	8010	137	5.0	60%	180%	42	16219	85	1.00	94.5	94.7	94.2	0.58	0.68	0.72
1000	3573	6810	123	6.3	70%	240%	9	9184	90	1.00	94.8	95.2	94.9	0.85	0.88	0.89
	1785	6810	129	6.1	130%	220%	6	9345	88	1.00	93.9	94.7	94.6	0.76	0.83	0.85
	1188	6811	128	6.3	100%	240%	15	10659	85	1.00	95.0	95.3	95.0	0.74	0.82	0.85
	890	7010	130	5.0	60%	210%	31	12815	85	1.00	94.8	95.1	94.7	0.75	0.82	0.84
	712	8010	145	5.7	110%	200%	14	15639	85	1.00	94.4	94.7	94.3	0.58	0.70	0.76
	592	8010	152	5.0	60%	180%	42	16841	85	1.00	94.7	94.9	94.4	0.58	0.68	0.72
1250	3573	6811	153	6.3	70%	240%	9	9515	90	1.00	95.0	95.4	95.1	0.85	0.88	0.89
	1785	6810	161	6.1	130%	220%	6	9685	88	1.00	94.0	94.8	94.7	0.76	0.83	0.85
	1189	7010	159	5.5	90%	190%	16	12284	88	1.00	94.8	95.1	94.8	0.80	0.85	0.86
	890	7010	162	5.0	60%	210%	31	13399	85	1.00	95.0	95.3	94.9	0.75	0.82	0.84
	712	8010	180	5.7	110%	200%	14	16151	85	1.00	94.6	94.9	94.5	0.58	0.70	0.76
	593	8010	177	5.0	80%	190%	34	17235	85	1.00	94.9	95.2	94.8	0.62	0.73	0.77
1500	3573	6811	183	6.3	70%	240%	9	10236	90	1.00	95.4	95.8	95.5	0.85	0.88	0.89
	1785	6811	193	6.1	130%	220%	6	10434	88	1.00	94.2	95.0	94.9	0.76	0.83	0.85
	1189	7010	190	5.5	90%	190%	16	13289	88	1.00	95.2	95.5	95.2	0.80	0.85	0.86
	892	8009	197	5.7	70%	240%	21	15750	85	1.00	95.3	95.5	95.1	0.71	0.80	0.83
	712	8011	215	5.7	110%	200%	14	17271	85	1.00	95.0	95.3	94.9	0.58	0.70	0.76
	595	8809	215	5.6	90%	210%	24	20829	85	1.00	94.9	95.3	95.1	0.59	0.71	0.76

# M Line Medium Voltage Motors

## MGF TEAAC 60Hz 4160V - Electrical Data

Rated Output HP	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A) 4160V	Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
											50%	75%	100%	50%	75%	100%
1750	3580	7010	209	6.4	60%	250%	15	11779	92	1.00	95.5	95.8	95.5	0.88	0.91	0.91
	1789	7010	218	6.2	80%	250%	16	11960	90	1.00	95.2	95.7	95.5	0.78	0.84	0.87
	1189	7011	221	5.5	90%	190%	16	13880	88	1.00	95.4	95.7	95.4	0.80	0.85	0.86
	892	8010	229	5.7	70%	240%	21	16305	85	1.00	95.5	95.7	95.3	0.71	0.80	0.83
	712	8011	251	5.7	110%	200%	14	17934	85	1.00	95.2	95.5	95.1	0.58	0.70	0.76
	595	8809	250	5.6	90%	210%	24	21649	85	1.00	95.1	95.5	95.3	0.59	0.71	0.76
2000	3580	7010	238	6.4	60%	250%	15	12189	92	1.00	95.7	96.0	95.7	0.88	0.91	0.91
	1789	7010	249	6.2	80%	250%	16	12429	90	1.00	95.3	95.8	95.6	0.78	0.84	0.87
	1192	8010	255	6.2	100%	250%	17	15580	88	1.00	95.3	95.7	95.6	0.74	0.82	0.85
	892	8010	261	5.7	70%	240%	21	16944	85	1.00	95.7	95.9	95.5	0.71	0.80	0.83
	715	8807	264	5.8	80%	200%	24	20060	85	1.00	95.6	95.8	95.5	0.69	0.78	0.82
	595	8809	285	5.6	90%	210%	24	22599	85	1.00	95.3	95.7	95.5	0.59	0.71	0.76
2250	3580	7011	267	6.4	60%	250%	15	12740	92	1.00	95.9	96.2	95.9	0.88	0.91	0.91
	1789	7010	280	6.2	80%	250%	16	13060	90	1.00	95.4	95.9	95.7	0.78	0.84	0.87
	1192	8010	286	6.2	100%	250%	17	16290	88	1.00	95.5	95.9	95.8	0.74	0.82	0.85
	894	8010	297	5.8	80%	240%	18	17414	85	1.00	95.5	95.9	95.7	0.68	0.78	0.82
	715	8808	297	5.8	80%	200%	24	21060	85	1.00	95.8	96.0	95.7	0.69	0.78	0.82
	596	10407	297	6.0	90%	220%	24	24034	85	1.00	95.6	95.8	95.6	0.69	0.78	0.82
2500	3580	7011	296	6.4	60%	250%	15	13285	92	1.00	96.1	96.4	96.1	0.88	0.91	0.91
	1790	7010	307	6.3	80%	230%	15	13876	90	1.00	95.7	96.1	95.9	0.82	0.87	0.88
	1192	8011	317	6.2	100%	250%	17	17000	88	1.00	95.7	96.1	96.0	0.74	0.82	0.85
	895	8807	318	6.0	90%	230%	19	19956	85	1.00	95.5	95.9	95.8	0.76	0.83	0.85
	715	8808	329	5.8	80%	200%	24	22055	85	1.00	96.0	96.2	95.9	0.69	0.78	0.82
	596	10408	330	6.0	90%	220%	24	25090	85	1.00	95.8	96.0	95.8	0.69	0.78	0.82
2750	3580	8011	326	6.4	60%	250%	14	16821	92	1.00	95.8	96.2	96.1	0.88	0.90	0.91
	1790	8010	336	6.0	70%	240%	17	16936	90	1.00	95.9	96.3	96.4	0.80	0.86	0.88
	1192	8011	348	6.2	100%	250%	17	17709	88	1.00	95.9	96.3	96.2	0.74	0.82	0.85
	895	8807	349	6.0	90%	230%	19	20725	85	1.00	95.7	96.1	96.0	0.76	0.83	0.85
	716	10407	350	5.7	70%	210%	30	24400	85	1.00	95.7	96.0	95.8	0.74	0.82	0.85
	596	10408	362	6.0	90%	220%	24	26151	85	1.00	96.0	96.2	96.0	0.69	0.78	0.82
3000	3580	8011	354	6.4	60%	250%	14	17555	92	1.00	96.0	96.4	96.3	0.88	0.90	0.91
	1790	8011	366	6.0	70%	240%	17	17729	90	1.00	96.0	96.4	96.5	0.80	0.86	0.88
	1194	8011	379	6.0	80%	220%	17	18891	88	1.00	96.1	96.5	96.5	0.76	0.83	0.85
	895	8808	380	6.0	90%	230%	19	21684	85	1.00	95.9	96.3	96.2	0.76	0.83	0.85
	716	10408	381	5.7	70%	210%	30	25505	85	1.00	95.9	96.2	96.0	0.74	0.82	0.85
	596	10408	394	6.0	90%	220%	24	27469	85	1.00	96.2	96.4	96.2	0.69	0.78	0.82
3500	3580	8011	413	6.4	60%	250%	14	18296	92	1.00	96.2	96.6	96.5	0.88	0.90	0.91
	1790	8011	426	6.0	70%	240%	17	18521	90	1.00	96.1	96.5	96.6	0.80	0.86	0.88
	1193	8807	454	6.0	70%	250%	17	20880	88	1.00	95.9	96.2	96.2	0.73	0.80	0.83
	895	8808	442	6.0	90%	230%	19	22650	85	1.00	96.1	96.5	96.4	0.76	0.83	0.85
	716	10408	443	5.7	70%	210%	30	26616	85	1.00	96.1	96.4	96.2	0.74	0.82	0.85
	596	12007	449	5.7	70%	200%	26	32004	88	1.00	96.1	96.2	96.0	0.76	0.82	0.84
3700	3585	8011	445	6.2	50%	230%	15	18821	92	1.00	96.4	96.7	96.7	0.86	0.89	0.89
	1791	8011	445	5.9	70%	210%	19	19590	90	1.00	96.5	96.8	96.7	0.84	0.88	0.89
	1193	8808	479	6.0	70%	250%	17	21825	88	1.00	96.1	96.4	96.4	0.73	0.80	0.83
	895	10407	458	5.9	70%	220%	23	25335	85	1.00	96.0	96.2	96.1	0.81	0.86	0.87
	716	10408	468	5.7	70%	210%	30	27945	85	1.00	96.3	96.6	96.4	0.74	0.82	0.85
	596	12007	474	5.7	70%	200%	26	33589	88	1.00	96.3	96.4	96.2	0.76	0.82	0.84
4000	3582	8809	473	6.0	40%	240%	15	21190	92	1.00	95.8	96.3	96.3	0.89	0.91	0.91
	1790	8809	488	6.4	80%	250%	11	21581	90	1.00	95.9	96.4	96.4	0.79	0.85	0.88
	1193	8808	517	6.0	70%	250%	17	22930	88	1.00	96.3	96.6	96.6	0.73	0.80	0.83
	895	10408	494	5.9	70%	220%	23	26565	85	1.00	96.2	96.4	96.3	0.81	0.86	0.87
	716	12007	514	5.8	70%	220%	21	33309	88	1.00	95.8	96.1	96.0	0.75	0.82	0.84
	596	12007	511	5.7	70%	200%	26	35434	88	1.00	96.5	96.6	96.4	0.76	0.82	0.84
4500	3582	8809	531	6.0	40%	240%	15	22251	92	1.00	96.0	96.5	96.5	0.89	0.91	0.91
	1790	8809	549	6.4	80%	250%	11	22736	90	1.00	96.0	96.5	96.5	0.79	0.85	0.88
	1193	8808	561	5.8	70%	220%	15	23620	88	1.00	96.5	96.7	96.6	0.79	0.85	0.86
	895	10408	555	5.9	70%	220%	23	27970	85	1.00	96.4	96.6	96.5	0.81	0.86	0.87
	716	12007	577	5.8	70%	220%	21	35064	88	1.00	96.0	96.3	96.2	0.75	0.82	0.84
	597	12806	576	6.0	60%	230%	29	45035	88	1.00	96.2	96.4	96.3	0.73	0.81	0.84
5000	3586	8809	603	5.9	40%	220%	13	22654	92	1.00	95.9	96.4	96.4	0.87	0.90	0.89
	1792	8809	608	6.2	70%	230%	12	22985	90	1.00	96.4	96.7	96.7	0.81	0.86	0.88
	1194	10406	610	6.0	80%	210%	14	25481	88	1.00	96.3	96.5	96.4	0.84	0.87	0.88
	895	10408	615	5.9	70%	220%	23	29555	85	1.00	96.6	96.8	96.7	0.81	0.86	0.87
	716	12008	639	5.8	70%	220%	21	37039	88	1.00	96.2	96.5	96.4	0.75	0.82	0.84
	597	12807	639	6.0	60%	230%	29	47035	88	1.00	96.4	96.6	96.5	0.73	0.81	0.84
6000	3586	8809	723	5.9	40%	220%	13	23876	92	1.00	96.1	96.6	96.6	0.87	0.90	0.89
	1792	8809	729	6.2	70%	230%	12	24295	90	1.00	96.5	96.8	96.8	0.81	0.86	0.88
	1194	10407	731	6.0	80%	210%	14	26821	88	1.00	96.5	96.7	96.6	0.84	0.87	0.88
	896	12007	739	5.9	60%	230%	21	33836	88	1.00	96.6	96.7	96.6	0.80	0.85	0.87
	716	12008	766	5.8	70%	220%	21	39235	88	1.00	96.4	96.7	96.6	0.75	0.82	0.84
	597	12807	765	6.0	60%	230%	29	49259	88	1.00	96.6	96.8	96.7	0.73	0.81	0.84

# M Line Medium Voltage Motors

## MGF TEAAC 60Hz 4160V - Electrical Data

Rated Output HP	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)	Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
			4160V								50%	75%	100%	50%	75%	100%
7000	3585	10408	829	6.2	50%	230%	10	27000	92	1.00	95.7	96.1	96.1	0.90	0.92	0.91
	1793	10409	832	6.3	70%	230%	17	28675	90	1.00	96.5	96.8	96.8	0.86	0.89	0.90
	1194	10407	851	6.0	80%	210%	14	28159	88	1.00	96.7	96.9	96.8	0.84	0.87	0.88
	896	12007	861	5.9	60%	230%	21	35434	88	1.00	96.8	96.9	96.8	0.80	0.85	0.87
	717	12806	892	5.6	50%	210%	29	48534	88	1.00	96.5	96.7	96.7	0.75	0.82	0.84
	597	12807	890	6.0	60%	230%	29	51486	88	1.00	96.8	97.0	96.9	0.73	0.81	0.84
7500	3585	10408	886	6.2	50%	230%	10	28316	92	1.00	95.9	96.3	96.3	0.90	0.92	0.91
	1793	10409	890	6.3	70%	230%	17	30190	90	1.00	96.6	96.9	96.9	0.86	0.89	0.90
	1194	12007	915	5.9	70%	220%	13	32555	90	1.00	96.2	96.5	96.4	0.83	0.87	0.88
	896	12008	920	5.9	60%	230%	21	37359	88	1.00	97.0	97.1	97.0	0.80	0.85	0.87
	717	12807	954	5.6	50%	210%	29	50860	88	1.00	96.7	96.9	96.9	0.75	0.82	0.84
	597	14406	981	5.4	50%	200%	29	59054	90	1.00	96.6	96.7	96.5	0.71	0.79	0.82
8000	3585	10408	943	6.2	50%	230%	10	29850	92	1.00	96.1	96.5	96.5	0.90	0.92	0.91
	1793	10409	949	6.3	70%	230%	17	31955	90	1.00	96.7	97.0	97.0	0.86	0.89	0.90
	1194	12008	974	5.9	70%	220%	13	34204	90	1.00	96.4	96.7	96.6	0.83	0.87	0.88
	896	12008	980	5.9	60%	230%	21	39601	88	1.00	97.2	97.3	97.2	0.80	0.85	0.87
	717	12807	1016	5.6	50%	210%	29	53569	88	1.00	96.9	97.1	97.1	0.75	0.82	0.84
	597	14406	1045	5.4	50%	200%	29	61545	90	1.00	96.8	96.9	96.7	0.71	0.79	0.82
9000	1794	12008	1070	6.1	60%	220%	16	35280	92	1.00	96.6	96.8	96.8	0.88	0.90	0.90
	1194	12008	1094	5.9	70%	220%	13	36089	90	1.00	96.6	96.9	96.8	0.83	0.87	0.88
	897	12806	1159	5.8	60%	210%	12	48241	88	1.00	96.7	96.9	96.9	0.69	0.79	0.83
	717	14406	1118	5.8	60%	230%	18	63494	90	1.00	96.8	96.9	96.9	0.77	0.84	0.86
	597	14406	1173	5.4	50%	200%	29	64396	90	1.00	97.0	97.1	96.9	0.71	0.79	0.82
	1794	12009	1187	6.1	60%	220%	16	37220	92	1.00	96.7	96.9	96.9	0.88	0.90	0.90
10000	1194	12008	1213	5.9	70%	220%	13	38210	90	1.00	96.8	97.1	97.0	0.83	0.87	0.88
	897	12806	1285	5.8	60%	210%	12	50776	88	1.00	96.9	97.1	97.1	0.69	0.79	0.83
	717	14407	1240	5.8	60%	230%	18	66594	90	1.00	97.0	97.1	97.1	0.77	0.84	0.86
	597	14407	1300	5.4	50%	200%	29	67595	90	1.00	97.2	97.3	97.1	0.71	0.79	0.82
	1794	12009	1483	6.1	60%	220%	16	39369	92	1.00	96.8	97.0	97.0	0.88	0.90	0.90
	1196	12807	1518	6.1	60%	230%	11	50106	90	1.00	96.7	96.9	96.9	0.81	0.86	0.88
12500	897	12806	1603	5.8	60%	210%	12	53596	88	1.00	97.1	97.3	97.3	0.69	0.79	0.83
	717	14407	1547	5.8	60%	230%	18	70044	90	1.00	97.2	97.3	97.3	0.77	0.84	0.86
	597	14407	1622	5.4	50%	200%	29	71155	90	1.00	97.4	97.5	97.3	0.71	0.79	0.82
	1794	12009	1599	6.1	60%	220%	16	41519	92	1.00	96.9	97.1	97.1	0.88	0.90	0.90
	1196	12807	1636	6.1	60%	230%	11	52445	90	1.00	96.9	97.1	97.1	0.81	0.86	0.88
	897	14406	1695	5.7	50%	220%	22	68205	90	1.00	97.1	97.1	97.0	0.76	0.83	0.85
13500	718	16007	1714	5.7	50%	230%	24	86301	90	1.00	96.9	97.1	97.1	0.75	0.82	0.84
	597	16007	1712	5.8	60%	210%	14	86254	90	1.00	97.3	97.3	97.2	0.73	0.81	0.84
	1794	12807	1799	6.3	60%	230%	9	52326	92	1.00	96.7	97.0	97.0	0.85	0.89	0.89
	1196	12807	1814	6.1	60%	230%	11	55249	90	1.00	97.1	97.3	97.3	0.81	0.86	0.88
	897	14407	1880	5.7	50%	220%	22	71715	90	1.00	97.3	97.3	97.2	0.76	0.83	0.85
	718	16007	1900	5.7	50%	230%	24	90761	90	1.00	97.1	97.3	97.3	0.75	0.82	0.84
15000	1794	12807	2097	6.3	60%	230%	9	55035	92	1.00	96.8	97.1	97.1	0.85	0.89	0.89
	1195	14407	2120	5.8	60%	220%	15	66821	92	1.00	97.3	97.3	97.1	0.85	0.87	0.88
	897	14407	2189	5.7	50%	220%	22	75520	90	1.00	97.5	97.5	97.4	0.76	0.83	0.85
	1794	12807	2394	6.3	60%	230%	9	58159	92	1.00	96.9	97.2	97.2	0.85	0.89	0.89
	1195	14407	2418	5.8	60%	220%	15	70174	92	1.00	97.5	97.5	97.3	0.85	0.87	0.88
	897	16006	2441	5.8	50%	230%	15	82961	90	1.00	97.6	97.7	97.5	0.79	0.85	0.87
22500	1794	14407	2663	5.9	60%	220%	11	73234	94	1.00	97.0	97.3	97.2	0.87	0.90	0.90
	1196	16006	2718	5.5	50%	210%	15	79290	92	1.00	97.5	97.5	97.4	0.84	0.87	0.88

# M Line Medium Voltage Motors

## MGP WP-II 60Hz 4160V - Electrical Data

Rated Output HP	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A) 4160V	Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
											50%	75%	100%	50%	75%	100%
300	1180	5009	41.3	5.5	90%	200%	16	4334	80	1.00	93.9	93.7	92.8	0.71	0.79	0.81
	883	5811	43.6	5.2	120%	210%	16	5970	78	1.00	93.5	93.4	92.6	0.62	0.72	0.77
350	1180	5010	48.1	5.5	90%	200%	16	4484	80	1.00	94.1	93.9	93.0	0.71	0.79	0.81
	883	5811	50.7	5.2	120%	210%	16	6155	78	1.00	93.7	93.6	92.8	0.62	0.72	0.77
370	1180	5010	50.7	5.5	90%	200%	16	4660	80	1.00	94.3	94.1	93.2	0.71	0.79	0.81
	883	5811	53.5	5.2	120%	210%	16	6376	78	1.00	93.9	93.8	93.0	0.62	0.72	0.77
400	3565	5010	48.0	6.4	60%	230%	8	3979	85	1.00	94.4	94.4	93.7	0.89	0.91	0.92
	1775	5009	51.4	5.5	110%	220%	9	4094	82	1.00	93.9	94.2	93.7	0.75	0.83	0.86
	1180	5011	54.7	5.5	90%	200%	16	4859	80	1.00	94.5	94.3	93.4	0.71	0.79	0.81
	883	5811	57.7	5.2	120%	210%	16	6636	78	1.00	94.1	94.0	93.2	0.62	0.72	0.77
450	3565	5011	53.9	6.4	60%	230%	8	4109	85	1.00	94.6	94.6	93.9	0.89	0.91	0.92
	1775	5010	57.8	5.5	110%	220%	9	4231	82	1.00	94.0	94.3	93.8	0.75	0.83	0.86
	1180	5011	61.5	5.5	90%	200%	16	5095	80	1.00	94.7	94.5	93.6	0.71	0.79	0.81
	883	5812	64.8	5.2	120%	210%	16	6929	78	1.00	94.3	94.2	93.4	0.62	0.72	0.77
500	710	6810	70.2	5.2	120%	190%	20	8071	78	1.00	93.4	93.9	93.5	0.55	0.66	0.71
	3565	5011	59.8	6.4	60%	230%	8	4255	85	1.00	94.8	94.8	94.1	0.89	0.91	0.92
	1775	5010	64.1	5.5	110%	220%	9	4385	82	1.00	94.1	94.4	93.9	0.75	0.83	0.86
	1188	5810	66.0	6.2	90%	230%	16	6155	80	1.00	94.7	94.9	94.5	0.71	0.80	0.83
	890	6809	66.5	5.8	90%	240%	21	7961	78	1.00	94.1	94.3	93.8	0.71	0.79	0.83
	710	6810	77.8	5.2	120%	190%	20	8399	78	1.00	93.6	94.1	93.7	0.55	0.66	0.71
600	591	7009	80.7	5.0	70%	170%	33	9760	78	1.00	93.3	93.6	93.0	0.53	0.64	0.69
	3565	5011	71.6	6.4	60%	230%	8	4416	85	1.00	95.0	95.0	94.3	0.89	0.91	0.92
	1775	5011	76.8	5.5	110%	220%	9	4555	82	1.00	94.2	94.5	94.0	0.75	0.83	0.86
	1188	5811	79.0	6.2	90%	230%	16	6384	80	1.00	94.9	95.1	94.7	0.71	0.80	0.83
	890	6809	79.6	5.8	90%	240%	21	8254	78	1.00	94.3	94.5	94.0	0.71	0.79	0.83
	710	6810	93.2	5.2	120%	190%	20	8765	78	1.00	93.8	94.3	93.9	0.55	0.66	0.71
	591	7009	96.6	5.0	70%	170%	33	10146	78	1.00	93.5	93.8	93.2	0.53	0.64	0.69
700	3565	5011	83.4	6.4	60%	230%	8	4575	85	1.00	95.2	95.2	94.5	0.89	0.91	0.92
	1775	5011	89.6	5.5	110%	220%	9	4731	82	1.00	94.3	94.6	94.1	0.75	0.83	0.86
	1188	5811	92.0	6.2	90%	230%	16	6620	80	1.00	95.1	95.3	94.9	0.71	0.80	0.83
	890	6810	92.7	5.8	90%	240%	21	8549	78	1.00	94.5	94.7	94.2	0.71	0.79	0.83
	712	7009	101	6.0	120%	200%	17	10024	78	1.00	94.1	94.4	94.1	0.59	0.71	0.76
	591	7009	113	5.0	70%	170%	33	10536	78	1.00	93.7	94.0	93.4	0.53	0.64	0.69
750	3569	5811	91.4	6.3	60%	230%	8	5595	85	1.00	95.0	95.0	94.4	0.85	0.89	0.90
	1781	5811	94.1	5.6	110%	190%	13	6325	82	1.00	95.1	95.3	94.9	0.80	0.85	0.87
	1188	5812	98.4	6.2	90%	230%	16	6900	80	1.00	95.3	95.5	95.1	0.71	0.80	0.83
	890	6810	99.1	5.8	90%	240%	21	8900	78	1.00	94.7	94.9	94.4	0.71	0.79	0.83
	712	7010	108	6.0	120%	200%	17	10421	78	1.00	94.3	94.6	94.3	0.59	0.71	0.76
	591	7010	120	5.0	70%	170%	33	11001	78	1.00	93.9	94.2	93.6	0.53	0.64	0.69
800	3569	5811	97.3	6.3	60%	230%	8	5769	85	1.00	95.2	95.2	94.6	0.85	0.89	0.90
	1781	5811	100	5.6	110%	190%	13	6581	82	1.00	95.2	95.4	95.0	0.80	0.85	0.87
	1187	6809	103	6.1	90%	220%	12	8119	80	1.00	94.9	95.0	94.5	0.75	0.82	0.85
	890	6811	106	5.8	90%	240%	21	9314	78	1.00	94.9	95.1	94.6	0.71	0.79	0.83
	712	7010	115	6.0	120%	200%	17	10875	78	1.00	94.5	94.8	94.5	0.59	0.71	0.76
	591	7010	128	5.0	70%	170%	33	11545	78	1.00	94.1	94.4	93.8	0.53	0.64	0.69
900	3569	5812	109	6.3	60%	230%	8	5970	85	1.00	95.4	95.4	94.8	0.85	0.89	0.90
	1781	5812	113	5.6	110%	190%	13	6876	82	1.00	95.3	95.5	95.1	0.80	0.85	0.87
	1187	6810	116	6.1	90%	220%	12	8439	80	1.00	95.1	95.2	94.7	0.75	0.82	0.85
	890	6811	118	5.8	90%	240%	21	9784	78	1.00	95.1	95.3	94.8	0.71	0.79	0.83
	712	7011	130	6.0	120%	200%	17	11400	78	1.00	94.7	95.0	94.7	0.59	0.71	0.76
	593	8009	141	5.0	70%	190%	32	13845	85	1.00	94.4	94.7	94.3	0.53	0.64	0.70
1000	3569	5812	121	6.3	60%	230%	8	6195	85	1.00	95.6	95.6	95.0	0.85	0.89	0.90
	1781	5812	125	5.6	110%	190%	13	7200	82	1.00	95.4	95.6	95.2	0.80	0.85	0.87
	1187	6810	128	6.1	90%	220%	12	8805	80	1.00	95.3	95.4	94.9	0.75	0.82	0.85
	894	7009	133	5.8	90%	220%	19	10765	78	1.00	95.3	95.5	95.1	0.70	0.79	0.82
	712	7011	144	6.0	120%	200%	17	11991	78	1.00	94.9	95.2	94.9	0.59	0.71	0.76
	593	8010	157	5.0	70%	190%	32	14396	85	1.00	94.6	94.9	94.5	0.53	0.64	0.70
1250	3569	5812	151	6.3	60%	230%	8	6440	85	1.00	95.8	95.8	95.2	0.85	0.89	0.90
	1786	6809	154	6.3	90%	250%	15	8170	82	1.00	95.7	95.8	95.5	0.79	0.86	0.88
	1187	6811	160	6.1	90%	220%	12	9204	80	1.00	95.5	95.6	95.1	0.75	0.82	0.85
	894	7010	166	5.8	90%	220%	19	11285	78	1.00	95.5	95.7	95.3	0.70	0.79	0.82
	714	8008	182	6.1	90%	210%	19	13860	85	1.00	94.6	95.0	94.8	0.57	0.69	0.75
	593	8010	195	5.0	70%	190%	32	15011	85	1.00	94.8	95.1	94.7	0.53	0.64	0.70
1350	3570	6810	163	6.3	60%	220%	9	8150	85	1.00	95.7	95.7	95.2	0.87	0.90	0.90
	1786	6810	166	6.3	90%	250%	15	8459	82	1.00	95.8	95.9	95.6	0.79	0.86	0.88
	1187	6811	173	6.1	90%	220%	12	9610	80	1.00	95.7	95.8	95.3	0.75	0.82	0.85
	894	7010	179	5.8	90%	220%	19	11799	78	1.00	95.7	95.9	95.5	0.70	0.79	0.82
	714	8009	196	6.1	90%	210%	19	14345	85	1.00	94.8	95.2	95.0	0.57	0.69	0.75
	593	8010	189	5.0	70%	170%	32	15359	85	1.00	95.3	95.3	94.7	0.65	0.75	0.78
1500	3570	6811	181	6.3	60%	220%	9	8470	85	1.00	95.9	95.9	95.4	0.87	0.90	0.90
	1786	6810	184	6.3	90%	250%	15	8805	82	1.00	95.9	96.0	95.7	0.79	0.86	0.88
	1189	7010	190	5.7	90%	200%	16	10690	80	1.00	95.6	95.7	95.2	0.79	0.85	0.86
	892	8009	199	5.9	80%	250%	17	13671	85	1.00	95.3	95.5	95.1	0.68	0.77	0.82
	714	8009	218	6.1	90%	210%	19	14929	85	1.00	95.0	95.4	95.2	0.57	0.69	0.75
	594	8808	213	5.0	80%	180%	24	17749	85	1.00	95.1	95.3	94.8	0.64	0.73	0.77

# M Line Medium Voltage Motors

## MGP WP-II 60Hz 4160V - Electrical Data

Rated Output HP	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A) 4160V	Locked rotor current (ll/ln)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
											50%	75%	100%	50%	75%	100%
1750	3570	6811	211	6.3	60%	220%	9	8810	85	1.00	96.1	96.1	95.6	0.87	0.90	0.90
	1786	6811	215	6.3	90%	250%	15	9180	82	1.00	96.0	96.1	95.8	0.79	0.86	0.88
	1189	7010	221	5.7	90%	200%	16	11151	80	1.00	95.8	95.9	95.4	0.79	0.85	0.86
	892	8009	232	5.9	80%	250%	17	14160	85	1.00	95.5	95.7	95.3	0.68	0.77	0.82
	714	8010	253	6.1	90%	210%	19	15564	85	1.00	95.2	95.6	95.4	0.57	0.69	0.75
	594	8809	248	5.0	80%	180%	24	18470	85	1.00	95.3	95.5	95.0	0.64	0.73	0.77
2000	3570	6811	240	6.3	60%	220%	9	9204	85	1.00	96.3	96.3	95.8	0.87	0.90	0.90
	1786	6811	245	6.3	90%	250%	15	9614	82	1.00	96.1	96.2	95.9	0.79	0.86	0.88
	1189	7010	252	5.7	90%	200%	16	11684	80	1.00	96.0	96.1	95.6	0.79	0.85	0.86
	892	8010	264	5.9	80%	250%	17	14731	85	1.00	95.7	95.9	95.5	0.68	0.77	0.82
	714	8010	289	6.1	90%	210%	19	16294	85	1.00	95.4	95.8	95.6	0.57	0.69	0.75
	594	8809	283	5.0	80%	180%	24	19295	85	1.00	95.5	95.7	95.2	0.64	0.73	0.77
2250	3578	7010	267	6.4	60%	220%	9	10351	85	1.00	96.0	96.0	95.8	0.89	0.91	0.91
	1787	7010	278	5.9	80%	220%	14	10829	82	1.00	96.2	96.4	96.2	0.80	0.86	0.87
	1189	7011	283	5.7	90%	200%	16	12394	80	1.00	96.2	96.3	95.8	0.79	0.85	0.86
	892	8010	297	5.9	80%	250%	17	15481	85	1.00	95.9	96.1	95.7	0.68	0.77	0.82
	715	8807	293	5.5	80%	200%	24	18194	85	1.00	96.0	96.1	95.8	0.72	0.80	0.83
	594	8809	317	5.0	80%	180%	24	20399	85	1.00	95.7	95.9	95.4	0.64	0.73	0.77
2500	3578	7010	296	6.4	60%	220%	9	10780	85	1.00	96.2	96.2	96.0	0.89	0.91	0.91
	1787	7010	309	5.9	80%	220%	14	11365	82	1.00	96.3	96.5	96.3	0.80	0.86	0.87
	1191	8009	321	6.1	90%	230%	16	13664	85	1.00	96.1	96.2	96.0	0.72	0.81	0.84
	893	8010	325	5.7	90%	210%	13	15875	85	1.00	96.2	96.3	95.9	0.72	0.80	0.83
	715	8808	325	5.5	80%	200%	24	19094	85	1.00	96.2	96.3	96.0	0.72	0.80	0.83
	596	10407	326	5.4	80%	190%	24	21384	85	1.00	95.9	95.9	95.6	0.72	0.80	0.83
2750	3578	7011	325	6.4	60%	220%	9	11210	85	1.00	96.4	96.4	96.2	0.89	0.91	0.91
	1787	7010	340	5.9	80%	220%	14	11900	82	1.00	96.4	96.6	96.4	0.80	0.86	0.87
	1191	8009	352	6.1	90%	230%	16	14231	85	1.00	96.3	96.4	96.2	0.72	0.81	0.84
	894	8807	345	5.6	80%	200%	19	17866	85	1.00	96.1	96.2	95.9	0.78	0.84	0.86
	715	8808	357	5.5	80%	200%	24	19989	85	1.00	96.4	96.5	96.2	0.72	0.80	0.83
	596	10408	358	5.4	80%	190%	24	22335	85	1.00	96.1	96.1	95.8	0.72	0.80	0.83
3000	3578	7011	354	6.4	60%	220%	9	11750	85	1.00	96.6	96.6	96.4	0.89	0.91	0.91
	1789	7010	365	6.3	90%	230%	11	12401	82	1.00	96.6	96.7	96.6	0.81	0.86	0.88
	1191	8010	384	6.1	90%	230%	16	14940	85	1.00	96.5	96.6	96.4	0.72	0.81	0.84
	894	8807	376	5.6	80%	200%	19	18726	85	1.00	96.3	96.4	96.1	0.78	0.84	0.86
	716	10407	386	5.6	70%	210%	27	21629	85	1.00	96.1	96.2	95.9	0.73	0.81	0.84
	596	10408	390	5.4	80%	190%	24	23521	85	1.00	96.3	96.3	96.0	0.72	0.80	0.83
3500	3581	8011	417	6.4	50%	230%	14	15425	90	1.00	96.7	96.8	96.6	0.87	0.90	0.90
	1789	8010	431	6.0	80%	240%	12	14969	88	1.00	96.9	96.9	96.7	0.78	0.85	0.87
	1191	8010	447	6.1	90%	230%	16	15646	85	1.00	96.7	96.8	96.6	0.72	0.81	0.84
	894	8808	438	5.6	80%	200%	19	19586	85	1.00	96.5	96.6	96.3	0.78	0.84	0.86
	716	10408	449	5.6	70%	210%	27	22610	85	1.00	96.3	96.4	96.1	0.73	0.81	0.84
	596	10408	454	5.4	80%	190%	24	24709	85	1.00	96.5	96.5	96.2	0.72	0.80	0.83
3700	3581	8011	440	6.4	50%	230%	14	16175	90	1.00	96.9	97.0	96.8	0.87	0.90	0.90
	1789	8011	455	6.0	80%	240%	12	15710	88	1.00	97.0	97.0	96.8	0.78	0.85	0.87
	1192	8011	461	6.0	80%	220%	15	17004	85	1.00	96.9	96.9	96.7	0.78	0.84	0.86
	894	8808	462	5.6	80%	200%	19	20615	85	1.00	96.7	96.8	96.5	0.78	0.84	0.86
	716	10408	474	5.6	70%	210%	27	23790	85	1.00	96.5	96.6	96.3	0.73	0.81	0.84
	596	12007	470	5.6	70%	190%	23	28580	85	1.00	96.1	96.1	95.9	0.79	0.84	0.85
4000	3581	8011	476	6.3	60%	220%	7	16301	90	1.00	96.8	96.9	96.7	0.87	0.90	0.90
	1789	8011	491	6.0	80%	240%	12	16570	88	1.00	97.1	97.1	96.9	0.78	0.85	0.87
	1192	8807	517	5.5	70%	210%	16	18924	85	1.00	96.8	96.7	96.5	0.73	0.80	0.83
	894	10407	495	5.8	70%	210%	16	22425	85	1.00	96.4	96.4	96.2	0.80	0.85	0.87
	716	10408	511	5.6	70%	210%	27	25161	85	1.00	96.7	96.8	96.5	0.73	0.81	0.84
	596	12007	507	5.6	70%	190%	23	30220	85	1.00	96.3	96.3	96.1	0.79	0.84	0.85
4500	3581	8011	534	6.3	60%	220%	7	17205	90	1.00	97.0	97.1	96.9	0.87	0.90	0.90
	1787	8011	541	5.9	80%	220%	10	17606	88	1.00	97.2	97.1	96.8	0.84	0.88	0.89
	1192	8808	581	5.5	70%	210%	16	19936	85	1.00	97.0	96.9	96.7	0.73	0.80	0.83
	894	10408	556	5.8	70%	210%	16	23651	85	1.00	96.6	96.6	96.4	0.80	0.85	0.87
	716	12007	570	5.8	70%	200%	20	30086	85	1.00	96.1	96.2	96.1	0.77	0.83	0.85
	596	12007	569	5.6	70%	190%	23	32094	85	1.00	96.5	96.5	96.3	0.79	0.84	0.85
5000	3582	8809	595	6.2	40%	240%	15	19365	90	1.00	96.5	96.7	96.6	0.86	0.89	0.90
	1789	8809	607	6.0	70%	240%	10	19515	88	1.00	97.1	97.2	97.0	0.80	0.86	0.88
	1192	8808	644	5.5	70%	210%	16	21069	85	1.00	97.2	97.1	96.9	0.73	0.80	0.83
	894	10408	616	5.8	70%	210%	16	25031	85	1.00	96.8	96.8	96.6	0.80	0.85	0.87
	716	12008	632	5.8	70%	200%	20	31865	85	1.00	96.3	96.4	96.3	0.77	0.83	0.85
	596	12806	633	5.6	60%	200%	20	40011	85	1.00	96.5	96.5	96.2	0.76	0.83	0.85
6000	3582	8809	713	6.2	40%	240%	15	20434	90	1.00	96.7	96.9	96.8	0.86	0.89	0.90
	1789	8809	727	6.0	70%	240%	10	20659	88	1.00	97.2	97.3	97.1	0.80	0.86	0.88
	1192	8808	754	5.6	70%	220%	12	21565	85	1.00	97.2	97.2	96.9	0.76	0.83	0.85
	894	10408	738	5.8	70%	210%	16	26565	85	1.00	97.0	97.0	96.8	0.80	0.85	0.87
	716	12008	757	5.8	70%	200%	20	33840	85	1.00	96.5	96.6	96.5	0.77	0.83	0.85
	596	12807	758	5.6	60%	200%	20	41975	85	1.00	96.7	96.7	96.4	0.76	0.83	0.85

# M Line Medium Voltage Motors

## MGP WP-II 60Hz 4160V - Electrical Data

Rated Output HP	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)	Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Service Factor	Efficiency (%)			Power factor		
			4160V								50%	75%	100%	50%	75%	100%
7000	3584	8809	832	6.2	40%	220%	11	20485	90	1.00	96.8	97.0	96.8	0.87	0.90	0.90
	1790	8809	829	5.6	70%	210%	10	20970	88	1.00	97.4	97.3	97.1	0.87	0.90	0.90
	1193	10408	853	5.8	70%	210%	11	23399	85	1.00	97.0	96.9	96.6	0.84	0.88	0.88
	896	12007	862	5.5	60%	200%	21	30229	85	1.00	97.0	96.9	96.6	0.82	0.86	0.87
	716	12008	882	5.8	70%	200%	20	35820	85	1.00	96.7	96.8	96.7	0.77	0.83	0.85
	596	12807	883	5.6	60%	200%	20	43940	85	1.00	96.9	96.9	96.6	0.76	0.83	0.85
7500	3584	8809	890	6.2	40%	220%	11	21649	90	1.00	97.0	97.2	97.0	0.87	0.90	0.90
	1790	8809	888	5.6	70%	210%	10	22240	88	1.00	97.5	97.4	97.2	0.87	0.90	0.90
	1193	10408	912	5.8	70%	210%	11	24680	85	1.00	97.2	97.1	96.8	0.84	0.88	0.88
	896	12007	922	5.5	60%	200%	21	31936	85	1.00	97.2	97.1	96.8	0.82	0.86	0.87
	717	12806	978	6.0	50%	210%	23	43589	85	1.00	96.7	96.9	96.8	0.71	0.79	0.82
	596	12807	944	5.6	60%	200%	20	46301	85	1.00	97.1	97.1	96.8	0.76	0.83	0.85
8000	3587	10408	961	6.4	40%	230%	8	24266	90	1.00	96.7	96.9	96.8	0.85	0.89	0.89
	1793	10409	948	6.2	70%	230%	16	25851	88	1.00	97.3	97.3	97.1	0.88	0.89	0.90
	1193	10408	970	5.8	70%	210%	11	26171	85	1.00	97.4	97.3	97.0	0.84	0.88	0.88
	896	12008	982	5.5	60%	200%	21	33924	85	1.00	97.4	97.3	97.0	0.82	0.86	0.87
	717	12807	1041	6.0	50%	210%	23	46010	85	1.00	96.9	97.1	97.0	0.71	0.79	0.82
	597	14406	1024	5.3	60%	190%	17	51625	88	1.00	96.6	96.5	96.3	0.76	0.82	0.84
9000	3587	10408	1079	6.4	40%	230%	8	25650	90	1.00	96.9	97.1	97.0	0.85	0.89	0.89
	1793	10409	1065	6.2	70%	230%	16	27445	88	1.00	97.4	97.4	97.2	0.88	0.89	0.90
	1194	12007	1096	5.8	60%	220%	11	29184	88	1.00	96.9	96.9	96.6	0.81	0.86	0.88
	896	12008	1102	5.5	60%	200%	21	36199	85	1.00	97.6	97.5	97.2	0.82	0.86	0.87
	717	12807	1169	6.0	50%	210%	23	48774	85	1.00	97.1	97.3	97.2	0.71	0.79	0.82
	597	14406	1150	5.3	60%	190%	17	54184	88	1.00	96.8	96.7	96.5	0.76	0.82	0.84
10000	3587	10408	1197	6.4	40%	230%	8	27205	90	1.00	97.1	97.3	97.2	0.85	0.89	0.89
	1793	10409	1182	6.2	70%	230%	16	29246	88	1.00	97.5	97.5	97.3	0.88	0.89	0.90
	1194	12008	1215	5.8	60%	220%	11	30860	88	1.00	97.1	97.1	96.8	0.81	0.86	0.88
	896	12805	1229	5.7	60%	210%	11	41495	85	1.00	97.1	97.0	96.8	0.79	0.85	0.87
	716	14405	1245	5.0	50%	180%	18	51869	88	1.00	97.0	96.9	96.7	0.81	0.85	0.86
	597	14406	1275	5.3	60%	190%	17	57066	88	1.00	97.0	96.9	96.7	0.76	0.82	0.84
12500	1793	12008	1481	5.5	60%	200%	14	33064	90	1.00	97.4	97.3	97.1	0.89	0.90	0.90
	1194	12008	1516	5.8	60%	220%	11	32720	88	1.00	97.3	97.3	97.0	0.81	0.86	0.88
	896	12806	1534	5.7	60%	210%	11	43765	85	1.00	97.3	97.2	97.0	0.79	0.85	0.87
	716	14406	1553	5.0	50%	180%	18	54546	88	1.00	97.2	97.1	96.9	0.81	0.85	0.86
	597	14407	1590	5.3	60%	190%	17	60269	88	1.00	97.2	97.1	96.9	0.76	0.82	0.84
	1793	12009	1598	5.5	60%	200%	14	34901	90	1.00	97.5	97.4	97.2	0.89	0.90	0.90
13500	1194	12008	1634	5.8	60%	220%	11	34579	88	1.00	97.5	97.5	97.2	0.81	0.86	0.88
	896	12806	1653	5.7	60%	210%	11	46030	85	1.00	97.5	97.4	97.2	0.79	0.85	0.87
	716	14406	1674	5.0	50%	180%	18	57224	88	1.00	97.4	97.3	97.1	0.81	0.85	0.86
	597	14407	1714	5.3	60%	190%	17	63470	88	1.00	97.4	97.3	97.1	0.76	0.82	0.84
	1793	12009	1774	5.5	60%	200%	14	37101	90	1.00	97.6	97.5	97.3	0.89	0.90	0.90
	1196	12807	1818	6.5	70%	240%	11	45990	88	1.00	97.2	97.2	97.1	0.80	0.86	0.88
15000	896	12806	1833	5.7	60%	210%	11	48750	85	1.00	97.7	97.6	97.4	0.79	0.85	0.87
	716	14406	1856	5.0	50%	180%	18	60434	88	1.00	97.6	97.5	97.3	0.81	0.85	0.86
	597	16007	1904	5.4	60%	190%	14	76210	88	1.00	97.5	97.4	97.1	0.75	0.82	0.84
	1793	12009	2067	5.5	60%	200%	14	39484	90	1.00	97.7	97.6	97.4	0.89	0.90	0.90
	1196	12807	2116	6.5	70%	240%	11	48521	88	1.00	97.4	97.4	97.3	0.80	0.86	0.88
	896	14406	2172	5.0	40%	190%	20	59874	88	1.00	97.5	97.3	97.0	0.79	0.85	0.86
17500	717	16007	2193	5.0	40%	180%	24	76636	88	1.00	97.5	97.5	97.2	0.80	0.84	0.85
	1794	12806	2365	5.7	60%	210%	11	46629	90	1.00	97.6	97.5	97.3	0.87	0.89	0.90
	1196	12807	2413	6.5	70%	240%	11	51435	88	1.00	97.6	97.6	97.5	0.80	0.86	0.88
	896	14407	2477	5.0	40%	190%	20	63296	88	1.00	97.7	97.5	97.2	0.79	0.85	0.86
	717	16007	2501	5.0	40%	180%	24	81096	88	1.00	97.7	97.7	97.4	0.80	0.84	0.85
	1794	12807	2658	5.7	60%	210%	11	49839	90	1.00	97.7	97.6	97.4	0.87	0.89	0.90
22500	1196	14407	2718	6.4	60%	240%	11	59026	90	1.00	97.6	97.5	97.4	0.82	0.87	0.88
	896	14407	2781	5.0	40%	190%	20	67859	88	1.00	97.9	97.7	97.4	0.79	0.85	0.86
	1794	12807	2950	5.7	60%	210%	11	53049	90	1.00	97.8	97.7	97.5	0.87	0.89	0.90
	1196	14407	3014	6.4	60%	240%	11	62489	90	1.00	97.8	97.7	97.6	0.82	0.87	0.88
	897	16006	3048	5.5	50%	210%	15	79400	88	1.00	97.9	97.8	97.6	0.81	0.85	0.87
	1794	14407	3189	5.5	50%	200%	11	66190	92	1.00	97.7	97.7	97.4	0.88	0.90	0.90
27000	1196	16006	3255	6.0	50%	240%	13	74826	90	1.00	97.7	97.7	97.6	0.79	0.85	0.88

# W60 Medium Voltage Motors

## Standard Features

- Rated output: 550 to 21,250HP
- Three-phase, 2, 4, 6, 8, 10 and 12 poles, 60Hz
- Voltage: 2,300 V to 13.8 kV
- Cast iron frames 7000 to 8800 and welded steel plates for 10400 to 16000
- Cooling methods used:
  - IC611 & IP55 / TEAAC
  - OC01 & IP24 / WP-II
  - IC81W & IP55 / TEWAC
- Degree of Protection: IP24 to IP55
- Service duty: (S1)
- Class "F" insulation for all frames. Temperature rise limited to Class "B" (80K)
- Service Factor: 1.00
- 104°F (40°C) ambient temperature
- Altitude: 3300 ft (1000 m)
- Temperature detector: PT100, 1 per bearing with 3 wires
- Temperature detector: PT100, 2 per phase with 3 wires
- Split Accessory terminal box (for signal accessories and for those accessories requiring power - space heater)
- Single phase space heater
- Labyrinth tachonite in grease lubricated bearings
- Grease lubricated bearings:
  - From frame 7004 to 8804
  - Frame 8806 for 4 Poles and above
  - Frame 10406 for 6 Poles and above
  - Frame 12006 for 8 Poles and above
  - Frame 14400 for 8 Poles and above
- Other ratings and larger frames may be built with Sleeve bearings self-lubricated or forced lubricated, call for details
- Electrically insulated non-drive end bearing, when connected directly to the power supply
- Painting: Acrylic polyurethane Polyamide epoxy (Final coat: Blue RAL 5007)
- Stainless steel nameplate
- Grounding lug 2 on the frame and 1 on main terminal box
- 3 connection terminals in the power terminal box (with terminal block)
- Nema II Steel fabricated Main Conduit Box
- Copper bar rotor



## Optional Features

- 50Hz
- VFD application
- Service Factor: 1.15
- Class of insulation: H
- Temperature rise: 105°K for class F
- Temperature rise: 125°K for class H
- Ambient temperature above 40 °C
- Altitude above 1000 m
- Degree of Protection IPW55 and above
- Classified area application: Ex-n, Ex-e, Ex-p
- Special balance
- Base: rail, sliding base, extended feet, rebuilt feet, anchorage plate
- Steel welded terminal box in different sizes, based on internal available space
- Power factor correction capacitors
- Thermistor (PTC or NTC), Thermostat (Bimetallic)
- Two energized power terminal boxes
- One or more accessory terminal boxes
- Shaft: Special dimensions, double shaft end, tapered, special steel
- Sleeve bearing
- Special painting
- Cable gland in the terminal box entrance
- Protection against voltage surge: Lighting arrestors and Capacitors
- Vibration detector
- Encoder
- Tachogenerator
- CT for differential and integral protection
- Bearing thermometer with gauge with/without contacts
- Signal transducer
- Independent hydraulic oil circulation system for sleeve bearing
- Both bearings are electrically insulated
- Grounding brush on drive end (except for classified area)



# W60 Medium Voltage Motors

## TEAAC 60Hz 4160V - Electrical Data

Rated Output HP	kW	Full Load Speed (RPM)	NEMA Frame	Full Load Current (A)	Locked rotor current (lI/lN)	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Efficiency (%)			Power factor		
				4160V							50%	75%	100%	50%	75%	100%
950	710	1188	70	124	5.9	100%	210%	12	10450	77	94.3	95.1	95.0	0.76	0.82	0.85
1000	750	1189	70	128	6.0	100%	200%	11	10478	77	94.4	95.1	95.0	0.76	0.82	0.85
1050	800	1189	70	141	5.7	100%	200%	11	10530	77	94.5	95.2	95.1	0.76	0.82	0.85
1150	850	1191	70	147	6.1	90%	200%	15	10801	77	94.7	95.4	95.4	0.76	0.83	0.85
1250	900	1191	70	159	5.8	90%	200%	15	10855	77	94.8	95.5	95.5	0.76	0.83	0.85
1300	950	1193	70	164	6.4	70%	220%	16	11687	77	95.1	95.8	95.7	0.77	0.84	0.86
1350	1000	1193	70	170	6.0	70%	220%	16	11745	77	95.2	95.9	95.8	0.77	0.84	0.86
1400	1060	1785	70	170	6.1	80%	220%	13	10339	77	94.8	95.4	95.3	0.83	0.88	0.89
		1191	80	179	5.8	80%	200%	12	12208	79	94.9	95.4	95.4	0.75	0.82	0.85
1500	1120	1785	70	180	5.8	80%	220%	13	10390	77	94.9	95.5	95.4	0.83	0.88	0.89
		1191	80	191	5.8	80%	200%	12	12269	79	95.0	95.5	95.5	0.75	0.82	0.85
1575	1180	1784	70	192	5.7	80%	200%	12	10807	77	95.2	95.5	95.3	0.86	0.89	0.89
		1191	80	201	5.5	80%	200%	12	12330	79	95.1	95.6	95.6	0.75	0.82	0.85
1625	1250	3573	70	199	5.9	60%	210%	11	10000	80	95.0	95.4	95.3	0.87	0.90	0.90
		1784	70	201	5.7	80%	200%	12	10861	77	95.3	95.6	95.4	0.86	0.89	0.89
		1192	80	207	6.1	80%	210%	13	13373	79	95.2	95.8	95.8	0.76	0.83	0.86
1750	1320	3576	70	211	6.4	60%	210%	14	10324	80	95.3	95.7	95.6	0.87	0.90	0.90
		1784	70	212	5.4	80%	200%	12	10915	77	95.4	95.7	95.5	0.86	0.89	0.89
		1192	80	220	5.8	80%	210%	13	13440	79	95.3	95.9	95.9	0.76	0.83	0.86
1900	1400	3576	70	228	6.0	60%	210%	14	10375	80	95.4	95.8	95.7	0.87	0.90	0.90
		1785	70	224	5.9	80%	200%	11	11110	77	95.5	95.7	95.6	0.85	0.89	0.90
		1192	80	239	5.9	70%	200%	13	14125	79	95.4	96.0	95.9	0.78	0.84	0.86
2000	1500	3577	70	241	6.6	60%	220%	12	10552	83	95.2	95.7	95.6	0.86	0.90	0.90
		1785	70	240	5.6	80%	200%	11	11165	77	95.6	95.8	95.7	0.85	0.89	0.90
		1192	80	251	5.6	70%	200%	13	14195	79	95.5	96.1	96.0	0.78	0.84	0.86
2125	1600	3577	70	255	6.2	60%	220%	12	10605	83	95.3	95.8	95.7	0.86	0.90	0.90
		1785	70	256	6.0	80%	210%	10	11478	77	95.7	96.0	95.8	0.85	0.89	0.89
		1192	80	267	5.8	60%	210%	14	14463	79	95.5	96.0	95.9	0.77	0.84	0.86
2250	1700	3576	70	267	6.3	50%	220%	12	11154	83	95.6	95.9	95.8	0.87	0.91	0.91
		1785	70	271	5.7	80%	210%	10	11535	77	95.8	96.1	95.9	0.85	0.89	0.89
		1192	80	282	5.5	60%	210%	14	14535	79	95.6	96.1	96.0	0.77	0.84	0.86
2375	1800	3576	70	282	5.9	50%	220%	12	11210	83	95.7	96.0	95.9	0.87	0.91	0.91
		1790	80	293	6.3	80%	240%	10	12570	79	95.5	96.1	96.1	0.75	0.83	0.86
		1191	88	295	5.4	70%	200%	11	15990	82	95.8	96.1	95.9	0.80	0.86	0.87
2500	1900	3578	80	303	5.8	50%	200%	15	12025	83	95.3	95.7	95.9	0.85	0.89	0.89
		1789	80	303	6.1	70%	220%	11	13184	79	95.8	96.1	96.3	0.82	0.87	0.89
		1191	88	309	5.5	60%	190%	11	16468	82	95.9	96.1	96.3	0.78	0.85	0.87
2750	2000	3578	80	327	5.5	50%	200%	15	12085	83	95.4	95.8	96.0	0.85	0.89	0.89
		1789	80	319	5.8	70%	220%	11	13250	79	95.9	96.2	96.4	0.82	0.87	0.89
		1191	88	333	5.2	60%	190%	11	16550	82	96.0	96.2	96.4	0.78	0.85	0.87
2875	2120	3579	80	344	6.1	50%	200%	14	12741	83	95.6	95.9	96.1	0.87	0.90	0.90
		1790	80	341	6.8	80%	240%	9	13463	79	95.9	96.2	96.5	0.78	0.85	0.87
		1193	88	359	5.4	50%	190%	17	17751	82	96.0	96.3	96.5	0.78	0.84	0.86
3000	2250	3579	80	359	5.8	50%	200%	14	12805	83	95.7	96.0	96.2	0.87	0.90	0.90
		1790	80	362	6.4	80%	240%	9	13530	79	96.0	96.3	96.6	0.78	0.85	0.87
		1193	88	374	5.1	50%	190%	17	17840	82	96.1	96.4	96.6	0.78	0.84	0.86
3175	2360	3580	80	376	6.4	50%	220%	13	13154	85	95.6	95.9	96.1	0.88	0.90	0.91
		1790	80	379	6.7	80%	240%	9	13896	79	96.1	96.3	96.6	0.79	0.86	0.88
3350	2500	3580	80	396	6.0	50%	220%	13	13220	85	95.7	96.0	96.2	0.88	0.90	0.91
		1790	80	402	6.3	80%	240%	9	13965	79	96.2	96.4	96.7	0.79	0.86	0.88
3500	2650	3580	80	418	6.9	60%	220%	10	13463	85	95.7	96.0	96.3	0.85	0.89	0.90
		1788	88	426	5.6	70%	210%	9	15845	82	96.3	96.5	96.6	0.79	0.85	0.87
3700	2800	3580	80	442	6.5	60%	220%	10	13530	85	95.8	96.1	96.4	0.85	0.89	0.90
		1789	88	460	6.1	70%	220%	8	16672	82	96.4	96.5	96.7	0.78	0.85	0.87
4000	3000	3580	88	473	5.9	50%	210%	13	15635	83	95.8	96.1	96.3	0.87	0.90	0.91
		1789	88	481	5.8	70%	220%	8	16755	82	96.5	96.6	96.8	0.78	0.85	0.87
4250	3150	3580	88	503	6.1	50%	210%	14	16090	85	95.5	95.9	96.2	0.87	0.90	0.91
		1790	88	505	6.0	70%	220%	9	17590	82	96.5	96.7	96.9	0.80	0.86	0.88
4500	3350	3580	88	532	5.8	50%	210%	14	16170	85	95.6	96.0	96.3	0.87	0.90	0.91

For technical information related to larger ratings please contact us

# W60 Medium Voltage Motors

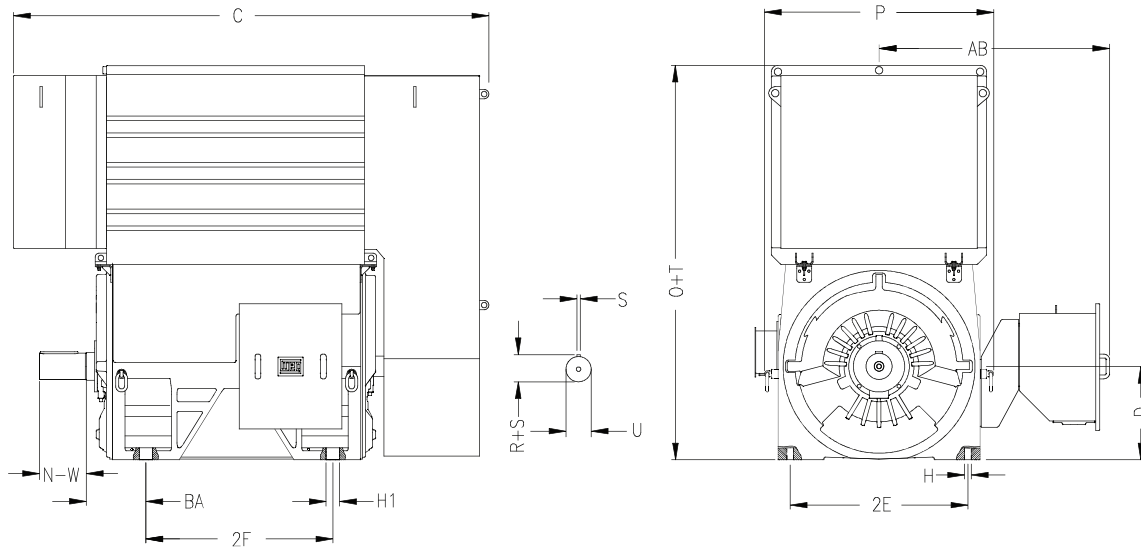
## WP-II 60Hz 4160V - Electrical Data

Rated Output		Full Load Speed (RPM)	NEMA Frame	Full Load Current (A) 4160V	Locked rotor current (I <sub>L</sub> /I <sub>n</sub> )	Locked rotor torque	Breakdown torque	Locked rotor time (s)	Weight (lb)	Noise level	Efficiency (%)			Power factor		
HP	kW										50%	75%	100%	50%	75%	100%
1300	950	1192	70	167	6.1	70%	210%	18	10269	83	95.5	96.0	95.9	0.74	0.82	0.84
1350	1000	1192	70	173	5.8	70%	210%	18	10320	83	95.6	96.1	96.0	0.74	0.82	0.84
1400	1060	1192	70	178	6.1	80%	210%	16	10518	83	95.7	96.0	95.9	0.76	0.82	0.85
1500	1120	1192	70	190	5.8	80%	210%	16	10570	83	95.8	96.1	96.0	0.76	0.82	0.85
1575	1180	1191	70	202	6.1	80%	210%	14	10552	83	95.8	96.1	95.9	0.74	0.82	0.84
1625	1250	1191	70	212	5.8	80%	210%	14	10605	83	95.9	96.2	96.0	0.74	0.82	0.84
1750	1320	1191	70	222	5.7	80%	210%	15	10855	83	95.8	96.2	96.0	0.75	0.82	0.85
1900	1400	1784	70	228	5.5	80%	190%	10	9498	83	95.5	96.0	95.7	0.85	0.89	0.90
		1191	80	238	5.5	60%	190%	14	12338	84	95.9	96.1	96.0	0.78	0.84	0.86
2000	1500	1784	70	240	5.2	80%	190%	10	9545	83	95.6	96.1	95.8	0.85	0.89	0.90
		1191	80	251	5.2	60%	190%	14	12400	84	96.0	96.2	96.1	0.78	0.84	0.86
		3574	70	253	6.0	60%	200%	9	9100	83	95.3	95.7	95.5	0.88	0.90	0.91
2125	1600	1786	70	258	6.3	90%	220%	8	10060	83	95.8	96.2	96.0	0.83	0.88	0.89
		1191	80	267	5.5	60%	190%	12	12634	84	95.8	96.1	96.0	0.77	0.84	0.86
		3574	70	268	5.7	60%	200%	9	9145	83	95.4	95.8	95.6	0.88	0.90	0.91
2250	1700	1786	70	272	5.9	90%	220%	8	10110	83	95.9	96.3	96.1	0.83	0.88	0.89
		1191	80	282	5.5	60%	190%	12	12697	84	95.9	96.2	96.1	0.77	0.84	0.86
		3575	70	282	6.5	60%	200%	9	9687	83	95.6	96.0	95.8	0.87	0.91	0.91
2375	1800	1786	70	288	6.3	90%	220%	8	10279	83	95.8	96.2	96.0	0.84	0.88	0.89
		1191	80	297	5.2	60%	190%	12	12760	84	96.0	96.3	96.2	0.77	0.84	0.86
		3575	70	297	6.1	60%	200%	9	9735	83	95.7	96.1	95.9	0.87	0.91	0.91
2500	1900	1786	70	303	5.9	90%	220%	8	10330	83	95.9	96.3	96.1	0.84	0.88	0.89
		1191	80	316	5.5	60%	190%	11	13025	84	96.1	96.3	96.4	0.74	0.82	0.85
		3574	70	323	6.5	60%	210%	9	9990	83	95.9	96.1	96.1	0.88	0.90	0.90
2750	2000	1784	70	323	5.6	80%	200%	8	10632	83	96.1	96.3	96.3	0.86	0.89	0.90
		1191	80	341	5.5	60%	190%	11	13090	84	96.2	96.4	96.5	0.74	0.82	0.85
		3574	70	344	6.1	60%	210%	9	10040	83	96.0	96.2	96.2	0.88	0.90	0.90
2875	2120	1784	70	343	5.3	80%	200%	8	10685	83	96.2	96.4	96.4	0.86	0.89	0.90
		1191	80	363	5.2	60%	190%	11	13155	84	96.3	96.5	96.6	0.74	0.82	0.85
		3574	70	354	6.3	50%	210%	12	10294	83	96.1	96.3	96.3	0.87	0.91	0.91
3000	2250	1788	80	365	5.4	70%	200%	9	11490	84	96.4	96.6	96.6	0.80	0.86	0.88
		1192	80	383	5.5	60%	200%	10	13498	84	96.2	96.4	96.5	0.73	0.81	0.84
		3574	70	375	5.9	50%	210%	12	10345	83	96.2	96.4	96.4	0.87	0.91	0.91
3175	2360	1788	80	382	6.0	70%	210%	9	12120	84	96.4	96.6	96.6	0.82	0.88	0.89
		1192	80	405	5.2	60%	200%	10	13565	84	96.3	96.5	96.6	0.73	0.81	0.84
		3577	80	400	5.7	60%	200%	10	11415	84	96.1	96.3	96.3	0.86	0.90	0.90
3350	2500	1788	80	403	5.7	70%	210%	9	12180	84	96.5	96.7	96.7	0.82	0.88	0.89
		1193	88	427	5.4	60%	200%	13	16245	85	96.4	96.6	96.8	0.72	0.81	0.84
		3579	80	413	6.6	60%	220%	9	12040	84	96.3	96.3	96.4	0.87	0.90	0.91
3500	2650	1788	80	422	5.7	70%	200%	8	12438	84	96.4	96.7	96.6	0.83	0.88	0.89
		1193	88	441	5.3	50%	190%	13	16572	85	96.5	96.6	96.7	0.75	0.82	0.85
		3579	80	436	6.2	60%	220%	9	12100	84	96.4	96.4	96.5	0.87	0.90	0.91
3700	2800	1788	80	445	5.4	70%	200%	8	12500	84	96.5	96.8	96.7	0.83	0.88	0.89
		1193	88	466	5.0	50%	190%	13	16655	85	96.6	96.7	96.8	0.75	0.82	0.85
		3578	80	478	6.3	60%	200%	10	12363	84	96.1	96.3	96.3	0.88	0.90	0.90
4000	3000	1789	80	492	6.5	80%	230%	7	12856	84	96.7	96.7	96.8	0.78	0.85	0.87
		1193	88	509	5.2	50%	200%	12	16815	85	96.6	96.7	96.8	0.72	0.80	0.84
		3578	80	507	5.9	60%	200%	10	12425	84	96.2	96.4	96.4	0.88	0.90	0.90
4250	3150	1789	80	522	6.1	80%	230%	7	12920	84	96.8	96.8	96.9	0.78	0.85	0.87
		3578	80	530	5.9	50%	200%	12	12856	84	96.4	96.5	96.6	0.87	0.91	0.91
4500	3350	1789	88	552	5.7	70%	220%	7	14995	85	96.8	96.9	97.0	0.77	0.84	0.87
		3578	80	559	5.6	50%	200%	12	12920	84	96.5	96.6	96.7	0.87	0.91	0.91
4750	3550	1790	88	582	5.5	60%	210%	7	15515	85	96.9	97.0	97.1	0.77	0.84	0.87
		3578	88	590	5.8	60%	210%	9	14715	85	96.4	96.5	96.5	0.87	0.90	0.91
5000	3750	1791	88	612	6.1	70%	230%	7	15975	85	97.1	97.1	97.2	0.76	0.84	0.87
		3580	88	632	5.8	60%	210%	10	15015	85	96.3	96.4	96.5	0.84	0.89	0.90
5700	4250	3580	88	671	5.6	50%	210%	11	15395	85	96.5	96.7	96.7	0.88	0.91	0.91

For technical information related to larger ratings please contact us

# W60 Medium Voltage Motors

## TEAAC - Mechanical Data

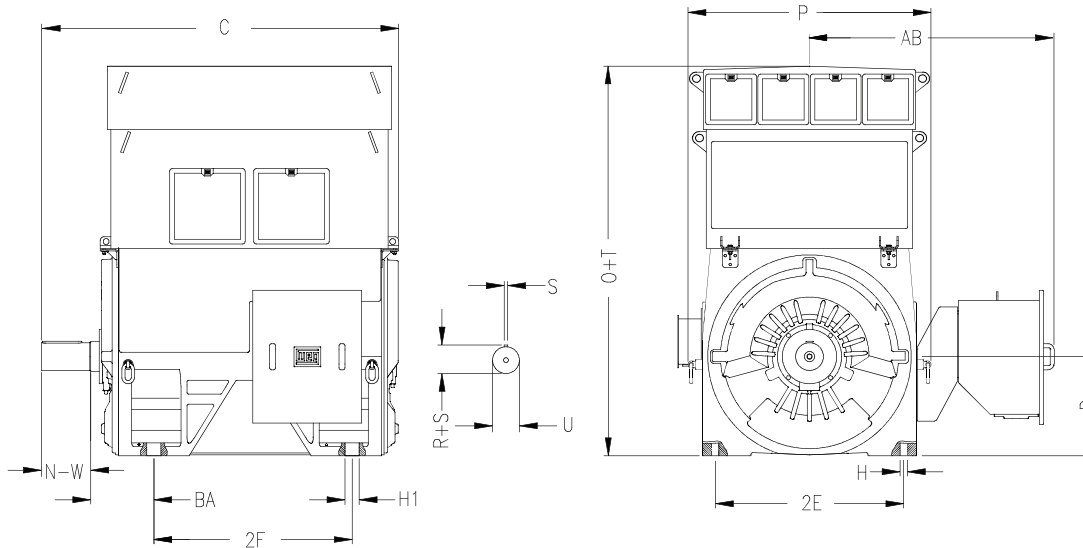


Frame	Poles	Mounting					Frame					Shaft Extension - Drive End			
		2E	2F	BA	H	H1	D	O+T	C	P	AB	U	N-W	S	R+S
70	2	34.000	36.000	11.500	1.380	2.830	17.500	77.200	97.200	44.300	52.600	4.000	8.500	1.000	4.440
	4 and 6									44.300		4.375			4.820
80	2	38.000	40.000	11.500	1.650	2.830	20.000	83.600	100.600	48.300	54.500	4.000	9.500	1.250	4.440
	4 and 6									5.500		6.050			
88	2	42.000	40.000	11.500	1.650	2.830	22.000	88.700	108.000	52.600	56.700	4.375	9.500	1.250	4.820
	4 and 6									5.500		6.050			

For technical information related to larger ratings please contact us

# W60 Medium Voltage Motors

## WP-II - Mechanical Data



Frame	Poles	Mounting					Frame				Shaft Extension - Drive End				
		2E	2F	BA	H	H1	D	O+T	C	P	AB	U	N-W	S	R+S
70	2	34.000	36.000	11.500	1.380	2.830	17.500	73.200	68.500	44.300	52.600	4.000	8.500	1.000	4.440
	4 and 6								70.600		4.375	4.820			
80	2	38.000	40.000	11.500	1.650	2.830	20.000	77.700	69.600	52.600	54.500	4.000	9.500	1.250	4.440
	4 and 6								70.600		5.500	6.050			
88	2	42.000	40.000	11.500	1.650	2.830	22.000	81.800	70.800	52.600	56.700	4.375	9.500	1.000	4.820
	4 and 6								71.800		5.500	6.050			

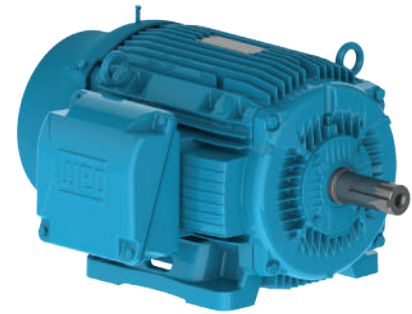
For technical information related to larger ratings please contact us

# Modification - Washdown Duty Motors

## Washdown Duty - TEFC

- External Paint: Burkes Industrial Coatings - Supercoat 316L
- Epoxy paint Epoxylite 7001
- Permatex (Loctite Gasket Sealant # 3) sealant on all relevant joints
- Loctite (Blue) 587 on the bearing cap bolt threads and under the bolt head
- Enlarged WEG shaft seal for non flanged motors
- WEG lead separator

The VJP Washdown is intended to increase the WEG motor's protection in a washdown/hosedown environment, where the motor(s) will be hosed down and cleaned after an normal shift. This enhanced product is designed for a normal daily shift operation and not for an intermittent duty and/or long periods of the motor being idle. In this case Space Heaters will be required



Frame	140	180	210	250	280	320	360	400	440	L449	500	580
P/N	M140	M180	M210	M250	M280	M320	M360	M400	M440		M500	M580
List Price	\$306	\$306	\$362	\$403	\$445	\$508	\$570	\$570	\$682	POA	POA	POA

## Washdown Duty - Explosion Proof Motors

- External Paint: Burkes Industrial Coatings - Supercoat 316L
- Epoxy paint Epoxylite 7001
- Lumomoly sealant on all relevant joints
- Recertification
- Enlarged WEG shaft seal for non flanged motors above 56 Frame
- Sealed bearings 2RS type frame size 56 to 215T (if not standard, as required)
- Frame 254T and up are re greaseable

The VJP Washdown is intended to increase the WEG motor's protection in a washdown/hosedown environment, where the motor(s) will be hosed down and cleaned after an normal shift. This enhanced product is designed for a normal daily shift operation and not for an intermittent duty and/or long periods of the motor being idle. In this case Space Heaters will be required



Frame	140	180	210	250	280	320	360	400	440	L449	500	580
P/N	M140	M180	M210	M250	M280	M320	M360	M400	M440		M500	M580
List Price	\$417	\$417	\$473	\$515	\$556	\$620	\$682	\$682	*	*	*	*

# Local Modifications

Modification	List Price by Frame												
	56	140	180	210	250	280	320	360	400	440	L449	500	580
Auxiliary Terminal Box	*	\$195	\$195	\$195	\$195	\$195	\$195	\$260	\$260	\$260	\$260	\$260	\$260
Bearing Change - Ball to Roller	*	*	*	*	\$655	\$728	\$772	\$874	\$874	\$1,092	\$1,690	\$1,092	\$1,893
Bearing Change - Roller to Ball	*	*	*	*	*	*	*	\$728	\$728	\$874	\$1,310	\$1,310	\$1,310
Blower-ThreePhase motor Forced Ventilation	*	POA	\$1,532	\$1,687	\$1,856	\$1,927	\$2,081	\$2,327	\$2,443	\$2,746	POA	POA	POA
Blower-ThreePhase with encoder provision	*	POA	\$1,827	\$2,080	\$2,288	\$2,385	\$2,575.80	\$3,074	\$3,227.70	\$3,635	POA	POA	POA
Blower-ThreePhase with encoder	*	POA	\$2,772	\$3,025	\$3,237	\$3,330	\$3,596	\$4,051	\$4,254	\$4,612	POA	POA	POA
Corrosion protected stator (internal) + rotor with epoxy.	\$250	\$250	\$250	\$250	\$312	\$312	\$312	POA	*	*	*	*	*
Cooling Tower Motor: CT-VSU (Vertical Shaft Up)	*	\$386	\$386	\$438	\$477	\$516	\$575	POA	POA	POA	POA	POA	POA
Cooling Tower Motor: CT-VSD (Vertical Shaft Down)	*	\$475	\$501	\$546	\$598	\$676	\$774	POA	POA	POA	POA	POA	POA
Cooling Tower Motor: CT-H (Horizontal)	*	\$336	\$336	\$388	\$427	\$466	\$525	POA	POA	POA	POA	POA	PPOA
Drill + Tap shaft end.	\$107	\$119	\$119	\$128	\$216	\$261	\$345	*	*	*	*	*	*
Drip Cover	\$72	\$98	\$111	\$137	\$169	\$176	\$195	\$273	\$299	\$442	\$442	\$442	POA
Double Shaft - TEFC / ODP	\$383	\$472	\$524	\$727	\$969	\$1,108	\$1,592	\$1,938	\$2,836	\$3,840	\$3,840	POA	POA
Double Shaft - XP	\$578	\$662	\$674	\$877	\$1,119	\$1,258	\$1,742	\$2,081	\$2,979	\$3,983	\$3,983	POA	POA
Encoder (Dynapar-HS35R10248477)	*	POA	\$1,230	\$1,318	\$1,352	\$1,375	\$1,422	\$1,612	\$1,673	\$1,736	\$1,736	\$1,820	POA
F2 Mount - TEFC 3 Phase	*	\$91	\$91	\$91	\$104	\$117	\$124	\$156	\$182	\$208	\$104	\$104	\$104
F2 Mount - XP 3 Phase	*	\$221	\$221	\$221	\$234	\$247	\$254	\$286	\$312	\$338	*	*	*
F3 Mount - TEFC 3 Phase	*	*	*	*	POA	POA	POA	POA	POA	POA	\$104	\$104	\$104
HP/HPH Shaft	*	\$410	\$455	\$624	\$819	\$935	\$1,398	\$1,690	\$2,990	*	*	*	*
JM Shaft	*	\$374	\$374	\$520	\$689	\$858	\$1,287	\$1,619	*	*	*	*	*
JM Shaft - XP	*	*	\$530	\$676	\$845	*	\$1,443	\$1,619	POA	*	*	*	*
JP Shaft	*	\$374	\$520	\$689	\$858	\$1,287	\$1,593	POA	*	*	*	*	*
New Standard DE shaft - TEFC (Front End)	\$267	\$325	\$355	\$443	\$576	\$798	\$1,019	\$1,330	\$1,775	POA	POA	POA	POA

# Local Modifications

Modification	List Price by Frame												
	56	140	180	210	250	280	320	360	400	440	L449	500	580
New Standard DE Shaft - XP (Front End)	\$462	\$468	\$506	\$571	\$831	\$932	\$1,359	POA	POA	POA	POA	POA	POA
Relocation of Drain Holes	\$52	\$52	\$52	\$52	\$52	\$52	\$52	\$104	\$104	\$104	\$104	\$104	\$325
Re Rate and/or new nameplate	\$26	\$26	\$26	\$26	\$26	\$26	\$26	\$26	\$26	\$26	\$26	\$26	\$26
Round Body TEFC / ODP	\$104	\$104	\$104	\$104	\$156	\$156	\$156	\$208	POA	POA	POA	POA	POA
RTD's - 1 / Bearing	*	*	*	*	*	*	*	\$845	\$845	\$845	\$845	\$845	\$845
RTD's - 1 / Phase (3)	*	*	*	*	*	\$780	\$780	\$780	\$780	\$780	\$780	\$780	\$780
*** Shaft Grounding Ring - Aegis (Externally mounted)	\$169	\$195	\$201	\$228	\$241	\$273	\$299	\$338	\$429	\$637	\$637	\$689	\$689
*** Shaft Grounding Ring - Aegis (Internally mounted)	\$269	\$295	\$301	\$328	\$341	\$373	\$399	\$438	\$529	\$737	\$737	\$789	\$789
Shaft Grounding Brush	*	\$169	\$169	\$169	\$234	\$234	\$234	\$273	\$273	\$273	\$273	\$273	\$273
Short Shaft (Standard)	*	\$195	\$226	\$325	\$481	\$549	\$619	\$723	\$767	\$845	\$845	\$1,235	POA
Space Heaters - 120V / 230V - W22 TEFC	*	\$260	\$273	\$293	\$325	\$345	\$364	\$429	\$429	\$494	\$494	\$572	*
** Space Heaters - 120V / 230V - W21X	*	\$455	\$468	\$487.50	\$520	\$539.50	\$559	\$624	\$624	\$689	\$689	\$767	POA
Special Colour	POA	POA	POA	POA	POA	POA	POA	POA	POA	POA	POA	POA	POA
Stub Shaft - Encoder (5/8") - Extending from the fan cover	*	POA	\$286	\$370.50	\$416	\$442	\$494	\$676	\$741	\$793	\$793	POA	POA
Thermistor - 1 / Phase.	*	\$156	\$156	\$156	\$208	\$208	\$208	\$260	\$260	\$260	\$260	\$260	POA
Thermostats - 1 / Phase	*	POA	POA	POA	\$286	\$319	\$358	\$358	\$358	\$358	\$358	\$390	\$455
Terminal Block - Main T-Box	*	\$124	\$124	\$124	\$163	\$163	\$195	\$247	\$247	\$325	\$325	\$325	POA
Washdown - W22	*	\$286	\$286	\$338	\$377	\$416	\$475	\$533	\$533	\$637	POA	POA	POA
Washdown - W01	\$286	\$286	\$286	\$338	\$377	*	*	*	*	*	*	*	*
Washdown - XP	*	\$390	\$390	\$442	\$481	\$520	\$579	\$637	\$637	*	*	*	*

# Loose Parts

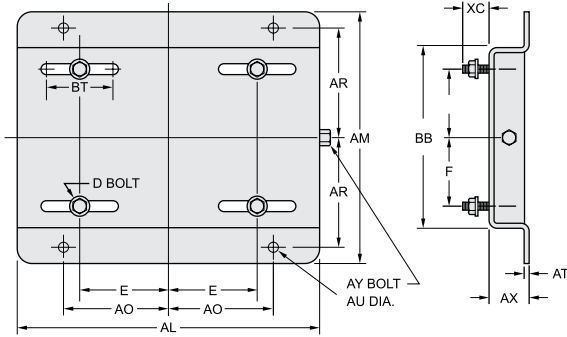
NEMA Frame	List Price by NEMA Frame / Equivalent IEC Frame																	
	IEC Frame	63	71	80	56	143/5	182/4	213/5	254/6	284/6	324/6	364/5	404/5	444/5/7	449	504/5	586/7	588/9
'C' Flange - ODP	.	.	.	\$118	\$192	\$238	\$318	\$456	\$1016	\$1360	\$2142	\$2702	\$3004	.	.	.	.	.
'D' Flange - ODP	.	.	.	.	.	.	.	.	\$1294	\$1580	\$2116	\$2442	\$2416	POA	.	.	.	.
'C' Flange - W22 TEFC	.	.	.	.	\$218	\$292	\$296	\$456	\$672	\$872	\$1748	\$1748	\$2732	\$3312	\$3896	\$7056	\$7056	
'D' Flange - W22 TEFC	.	.	.	.	\$544	\$554	\$564	\$1036	\$1036	\$1596	\$2200	\$2200	\$2690	\$4018	\$3942	\$7584	\$7584	
'C' Flange W22- IEEE 841-2009	.	.	.	.	\$918	\$1034	\$1136	\$1226	\$1378	\$1582	\$2046	\$2046	\$3146	POA	POA	POA	POA	
'D' Flange W22- IEEE 841-2009	.	.	.	.	\$996	\$928	\$836	\$1570	\$1306	\$2356	\$2662	\$2444	\$3736	POA	POA	POA	POA	
'C' Flange - Explosion Proof	.	.	.	\$382	\$468	\$656	\$976	\$1280	\$1404	\$1930	\$3214	\$3214	\$4962	POA	POA	\$7556	.	
'D' Flange - Explosion Proof	.	.	.	.	\$1054	\$1054	\$1170	\$1600	\$1652	\$3056	\$4028	\$4028	\$5180	\$5968	POA	POA	.	
'B14' Flange (C) - Metric	\$148	\$178	\$206	\$236	\$260	\$312	\$374	\$614	\$808	\$1024	\$1904	\$2288	\$2288	.	.	.	.	
'B5" Flange (D) - Metric	\$206	\$206	\$252	.	\$280	\$340	\$420	\$868	\$918	\$1232	\$2434	\$2676	\$3058	.	\$3266	\$3938	.	
P Base Flange W21/ W22	.	.	.	.	\$748	\$880	\$968	\$1308	\$1192	\$2074	\$3684	\$3684	POA	.	.	.	.	
Endshields-DriveEndW01ODP	.	.	.	\$104	\$104	\$142	\$224	\$336	.	.	.	.	.	.	.	.	.	.
Endshields-DriveEndW01TEFC	.	.	.	\$96	\$136	\$178	\$208	\$296	.	.	.	.	.	.	.	.	.	.
Endshields - Non-Drive End W01 ODP	.	.	.	\$80	\$104	\$278	\$370	\$398	.	.	.	.	.	.	.	.	.	.
Endshields - Non-Drive End W01 TEFC	.	.	.	\$80	\$158	\$248	\$318	\$356	.	.	.	.	.	.	.	.	.	.
Endshields-DriveEndW40ODP	.	.	.	.	.	.	.	.	\$428	\$704	\$948	\$948	\$1178	\$1546	.	.	.	.
Endshields-DriveEndW22TEFC	.	.	.	.	\$100	\$150	\$248	\$354	\$412	\$618	\$826	\$976	\$1294	\$1294	\$1794	.	.	
Endshields - Non-Drive End W40 ODP	.	.	.	.	.	.	.	.	\$428	\$632	\$822	POA	\$1438	\$1546	.	.	.	
Endshields - Non-Drive End W22 TEFC	.	.	.	.	\$190	\$248	\$382	\$450	\$500	\$810	\$1106	\$1042	\$4266	POA	\$5380	\$6590	.	
Endshields Non Drive End EXP W21	.	.	.	.	\$230	\$346	\$526	\$716	\$1110	\$1136	\$1392	POA	\$2262	POA	POA	POA	POA	
Fan - Plastic	\$68	\$68	\$68	\$68	\$68	\$83	\$94	\$192	\$224	\$488	\$668	\$668	\$668	\$668	\$668	.	.	
Fan - Metal	POA	\$108	\$144	.	\$144	\$242	\$424	\$424	\$548	\$1546	\$1546	\$1546	\$1546	\$1546	\$2644	\$2644	\$2644	
Fan - Bronze	.	.	.	.	\$290	\$426	\$668	\$730	\$752	\$870	\$2066	POA	\$2496	\$2496	\$2496	POA	POA	

# Loose Parts

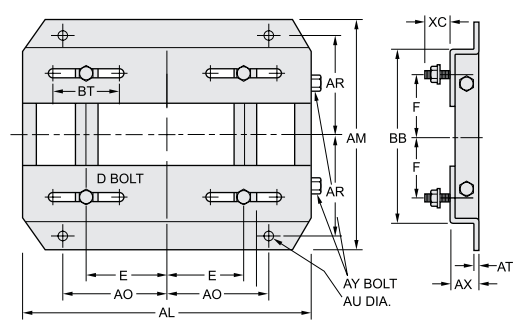
NEMA Frame	List Price by NEMA Frame / Equivalent IEC Frame																
	IEC Frame			56	143/5	182/4	213/5	254/6	284/6	324/6	364/5	404/5	444/5/7	449	504/5	586/7	588/9
IEC Frame	63	71	80	-	90	100/112	132	160	180	200	225	250	280	-	315	355	
Fan Cover - W01	\$100	\$100	\$100	\$100	\$100	\$100	\$196	\$224	POA	POA	POA	POA	POA	POA	POA	POA	POA
Fan Cover - W22	.	.	.	.	\$118	\$144	\$196	\$332	\$444	\$574	\$1156	\$1156	\$1854	\$1854	\$1854	\$4406	\$4406
Fan Cover - Explosion Proof	.	.	.	.	\$156	\$218	\$246	\$556	\$556	\$562	\$972	\$972	\$2318	\$2318	\$2318	\$5508	\$5508
Terminal Box - TEFC W22	.	.	.	.	\$150	\$202	\$202	\$304	\$304	\$480	\$638	\$638	\$1056	\$2044	\$2044	\$3420	\$3420
Terminal Box Part B Bracket (only W22)	.	.	.	.	.	.	.	.	.	.	\$1010	\$1010	\$1652	\$1652	\$1652	\$1948	\$1948
Terminal Box - ODP W01	.	.	.	\$96	\$100	\$160	\$168	\$310	.	.	.	.	.	.	.	.	.
Terminal Box - ODP W40	.	.	.	.	.	.	.	\$516	\$544	\$706	\$882	\$882	\$1178	\$1178	.	.	.
Terminal Box - Explosion Proof	.	.	.	.	\$404	\$488	\$488	\$648	\$648	\$908	\$1366	\$1366	\$2206	\$3908	\$3908	\$5292	.
Bearing Cap Kit W22	.	.	.	.	.	\$70	\$80	\$82	\$100	\$102	POA	POA	POA	POA	POA	POA	POA
Bearing Cap Kit W01	.	.	.	.	\$56	\$60	\$72	\$88	.	.	.	.	.	.	.	.	.
Bearing Cap Kit W40	.	.	.	.	.	.	.	.	\$224	\$250	\$264	\$264	\$330	POA	POA	POA	POA
BearingCapKit-ExplosionProof	.	.	.	.	.	.	.	.	.	.	\$1292	\$980	\$2126	\$1808	\$1808	POA	POA
Centrifugal Switch	POA	POA	POA	\$76	\$76	\$76	\$76	.	.	.	.	.	.	.	.	.	.
Stationary Switch	POA	POA	POA	\$76	\$76	\$110	\$110	.	.	.	.	.	.	.	.	.	.
Drip Cover W01	\$116	\$116	\$116	\$116	\$178	\$222	\$236	\$316	\$384	\$444	\$828	\$828	\$946	\$1478	\$946	\$1478	\$1478
Drip Cover W22	.	.	.	.	\$178	\$222	\$236	\$266	\$384	\$444	\$828	\$828	\$946	\$1478	\$946	\$1478	\$1478
Drip Cover W40	.	.	.	.	.	.	.	\$758	\$802	\$960	\$1062	POA	\$1186	POA	POA	POA	POA
Thermistor Relay	\$316	\$316	\$316	\$316	\$316	\$316	\$316	\$316	\$316	\$316	\$316	\$316	\$316	\$316	\$316	\$316	\$316
Saw Arbor Drive End	.	.	\$186	.	\$236	.	.	.	.	.	.	.	.	.	.	.	.
Saw Arbor Non Drive End	.	.	\$210	.	\$294	.	.	.	.	.	.	.	.	.	.	.	.
Saw Arbor Plates	.	.	\$666	.	\$666	.	.	.	.	.	.	.	.	.	.	.	.
Saw Arbor Fan Cover	.	.	\$112	.	\$136	.	.	.	.	.	.	.	.	.	.	.	.

# Motor Bases

## Adjustable Motor Bases - NEMA 56 - 587T Frames



**NEMA 56 - 215T**



**NEMA 213T - 447T**

NEMA Frame	List Price	Part Number	AL	AM	AX	BB	E	F	AO	AR	AU	BT	AT	XC	D Bolt	AY Bolt	Shipping Weight
143T	\$88	SB143DAB	10.500	7.500	1.125	5.500	2.750	2.000	3.750	3.375	0.375	3.000	0.119	0.813	5/15 x 1	3/8 x 4	5
145T	\$88	SB145DAB	10.500	8.500	1.125	6.500	2.750	2.500	3.750	3.875	0.375	3.000	0.199	0.813	5/15 x 1	3/8 x 4	6
182T	\$140	SB182DAB	12.750	9.500	1.500	6.500	3.750	2.250	4.500	4.250	0.500	3.000	0.134	1.500	3/8 x 1 3/4	1/2 x 5	9
184T	\$140	SB184DAB	12.750	10.500	1.500	7.500	3.750	2.750	4.500	4.750	0.500	3.000	0.134	1.500	3/8 x 1 3/4	1/2 x 5	9
213T	\$157	SB213DAB	15.000	11.000	1.750	7.500	4.250	2.750	5.250	4.750	0.500	3.500	0.164	1.500	3/8 x 1 3/4	1/2 x 5	13
215T	\$157	SB215DAB	15.000	12.500	1.750	9.000	4.250	3.500	5.250	5.500	0.500	3.500	0.164	1.500	3/8 x 1 3/4	1/2 x 5	15
254T	\$209	SB254DAB	17.750	15.125	2.000	10.750	5.000	4.125	6.250	6.625	0.625	4.000	0.188	1.438	1/2 x 1 3/4	5/8 x 6	17
256T	\$209	SB256DAB	17.750	16.875	2.000	12.500	5.000	5.000	6.250	7.500	0.625	4.000	0.188	1.438	1/2 x 1 3/4	5/8 x 6	18
284T	\$229	SB284DAB	19.750	16.875	2.000	12.500	5.250	4.750	7.000	7.500	0.625	4.500	0.188	1.688	1/2 x 2	5/8 x 6	21
286T	\$229	SB286DAB	19.750	18.375	2.000	14.000	5.250	5.500	7.000	8.250	0.625	4.500	0.188	1.688	1/2 x 2	5/8 x 6	22
324T	\$298	SB324DAB	22.750	19.250	2.500	14.000	6.250	5.250	8.000	8.500	0.750	5.250	0.188	2.188	5/8 x 2 1/2	3/4 x 9	31
326T	\$298	SB326DAB	22.750	20.750	2.500	15.500	6.250	6.000	8.000	9.250	0.750	5.250	0.188	2.188	5/8 x 2 1/2	3/4 x 9	32
364T	\$367	SB364DAB	25.500	20.500	2.500	15.500	7.000	5.625	9.000	9.125	0.750	6.000	0.250	2.063	5/8 x 2 1/2	3/4 x 9	44
365T	\$367	SB365DAB	25.500	21.500	2.500	16.500	7.000	6.125	9.000	9.625	0.750	6.000	0.250	2.063	5/8 x 2 1/2	3/4 x 9	45
404T	\$579	SB404DAB	28.750	22.375	3.000	16.500	8.000	6.125	10.000	9.875	0.875	7.000	0.250	2.500	3/4 x 3	3/4 x 11	60
405T	\$579	SB405DAB	28.750	23.875	3.000	18.000	8.000	6.875	10.000	10.625	0.875	7.000	0.250	2.500	3/4 x 3	3/4 x 11	61
444T	\$754	SB444DAB	31.250	24.625	3.000	19.250	9.000	7.250	11.000	11.000	0.875	7.500	0.250	2.500	3/4 x 3	3/4 x 11	68
445T	\$754	SB445DAB	31.250	26.625	3.000	21.250	9.000	8.250	11.000	12.000	0.875	7.500	0.250	2.500	3/4 x 3	3/4 x 11	73
447T	\$848	SB447DAB	31.250	30.125	3.000	24.750	9.000	10.000	11.000	13.750	0.875	7.500	0.313	2.500	3/4 x 3	3/4 x 14	89
449T	\$848	SB449DAB	31.250	35.125	3.000	29.750	9.000	12.500	11.000	16.250	0.875	7.500	0.313	2.500	3/4 x 3	3/4 x 14	95
504T	\$1,286	SB504DAB	35.000	28.000	3.500	20.750	10.000	8.000	12.500	12.500	1.000	8.000	0.313	3.000	7/8 x 3 1/2	7/8 x 16	132
505T	\$1,286	SB505DAB	35.000	30.000	3.500	22.750	10.000	9.000	12.500	13.500	1.000	8.000	0.313	3.000	7/8 x 3 1/2	7/8 x 16	135
586T	\$1,471	SB586DAB	586/7T sizes available on request														
587T	\$1,471	SB587DAB															

## Transition Bases

NEMA Frame	converts to	U Number	List Price	Part Number	Shipping Weight	Height	Width	Length	Thread
143T/145T		182/184	\$140	TR1814TT	2	1.000	2.250	7.500	5/16 - 18
182T/184T		213/215	\$157	TR2118TT	3	0.750	1.750	9.500	3/8 - 16
213T/215T		254U/256U	\$209	TR25U21T	5	1.000	2.438	12.750	3/8 - 16
254T/256T		284U/286U	\$229	TR28U25T	8	0.750	2.750	14.250	1/2 - 13
284T/286T		324U/326U	\$298	TR32U28T	10	1.000	3.250	15.750	1/2 - 13
324T/326T		364U/365U	\$367	TR36U32T	13	1.000	3.688	16.500	5/8 - 11
364T/365T		404U/405U	\$579	TR40U36T	22	1.000	4.250	18.625	5/8 - 11
404T/405T		444U/445U	\$754	TR44U40T	24	1.000	4.250	21.625	3/4 - 10

# W01 TEFC Construction Features

Frame		56	56H	143/ST	182/4T	213/5T	254/6T	
Mechanical Features								
Nameplate Marking		CSA, cULus						
Mounting	Std, High, NEMA Premium Efficiency			F-1/B3R(D)				
Frame	Material			Steel plate				
Degree of Protection		IP55						
Grounding		Terminal box					Grounding lug	
Cooling method		Totally enclosed fan cooled - TEFC						
Fan	Material			Plastic				
Fan cover	Material			Plastic		Steel plate		
Endshields	Material			Aluminium				
Flange	Material			FC-149Aluminum/FC-95CastIron	Aluminum	Cast Iron		
Drain plug		Automatic rubber drain plug						
Bearing	Shielded/clearance DE		ZZ / Normal				Z / C3	
	Shielded/clearance N.D.E.		ZZ / Normal				Z / C3	
	Locating bearing		W/O Lock on DE and spring washer on N.D.E.					
	Drive end	2P	6203 up to 3/4HP	6203 up to 3/4HP	6205	6206	6208	6309
Non-drive end	4-6P	6204 - 1HP up to 3HP and FC-95	6204 - 1HP up to 3HP and FC-95					
	2P	6202	6202	6203	6205	6206	6208	
Bearing seal	Drive end		V-ring					
	Non-drive end		W/O					
Joint seal		W/O						
Lubrication	Type of grease			Mobil Polyrex EM				
Grease fitting		W/O						
Terminal block		W/O						
Terminal box	Material			Aluminium - Diagonal				
Additional Terminal box		W/O Additional Terminal Box						
Lead inlet	Main	Size	1 hole ø22,4 (for NPT 1/2")	1 hole ø22,4 (for NPT 1/2")	1 hole ø 28,4 (for NPT 3/4")	1 hole ø 28,4 (for NPT 3/4")	1 hole ø 35 (for NPT 1")	1 hole ø 44 (for NPT 1 1/4")
	Accessories		W/O					
Plug		Stopping plug						
Shaft	Material		AISI 1040/45					
	Threaded hole		A3.15		A4			
	Shaft key		A key					
Vibration level (IEC)		Grade A						
Nameplate	Material			Mylar nameplate				
Painting	Painting plan		W/O	207N	207A	203A		
	Color	Std Eff, High Eff	-					Munsell N1 - Flat
NEMA Premium		-					Munsell N1 - Flat	
Eye bolt		W/O				With - 2		
Electrical Features								
Design	Std Eff		A		-			
	High Efficiency		-		B			
	NEMA Premium Eff		-		B			
NEMA Premium Eff - Single		up to 1/3HP Design N / 1/2HP and above Design L		L		-		
Voltage	50Hz	Std Eff		220/380 w/ 6 term				
		Std Eff - Single		110/220V		-		
	60Hz	Std Eff, High Eff, NEMA Premium		208-230/460V w/ 9 term				208-230/460V w/ 12 term
Std Eff - Single		115/208-230V		208-230/460V		-		
Winding	Impregnation		Dip and Bake					
	Insulation class		F (DT 80K)					
	Leads		Color coded lead CSA/UL					
Terminal Leads		Without terminal (Stripped wire)						
Service factor	50Hz	Std Eff - Three		1.00				
		Std Eff - Single		1.00				
	60Hz	Std Eff, High Eff, NEMA Premium		1.15 (208V - 1.0)				
		Std Eff - Monof		1.15 (208V - 1.0)				
Rotor		Aluminium die cast						
Thermal protection		W/O						
Space heaters		W/O						

# W22 TEFC Construction Features

## 143T to 286T

Frame		143T	145T	182T	184T	213T	215T	254T	256T	284T	286T	
<b>Mechanical features</b>												
Nameplate markings		UR, CSA										
Mounting		F-1										
Frame	Material	Cast Iron FC-200										
Degree of protection (IP rating)		IP55										
Grounding		Simple grounding (one inside the terminal box and one on the frame)										
Cooling method (IC)		Totally enclosed fan-cooled (IC411)										
Fan	Material	2P		Polypropylene								
		4P		Polypropylene								
		6-12P		Polypropylene								
Fan cover	Material	Steel					Cast Iron FC-200					
Endshields		Cast Iron FC-200										
Drain plug		Fitted with rubber drain plug					Fitted with rubber drain plug					
Bearings	Shielded/clearance (DE)		ZZ / Normal					Open / C3				
	Shielded/clearance (N.D.E.)		ZZ / Normal					Open / C3				
	Locating bearing configuration		Without bearing cap and with preload washer at N.D.E.					Locked DE bearing and preload washer at N.D.E.				
	Drive end	2P	6205	6205	6207	6207	6308	6308	6309	6309	6311	6311
		4 - 12P										
Non-drive end	2P	6204	6204	6206	6206	6207	6207	6209	6209	6211	6211	
	4 - 12P											
Bearing seal		V-ring										
Lubrication	Type of Grease		Mobil Polyrex EM									
	Grease fitting		None					With grease relief fitting				
Terminal block		None										
Terminal box	Material	Cast Iron FC-200										
Leads inlet	Main T-box	Size	NPT 3/4"	NPT 3/4"	NPT 1"	NPT 1"	NPT 1"	NPT 1"	NPT 1 1/2"	NPT 1 1/2"	NPT 1 1/2"	NPT 1 1/2"
	Plug		Flat plastic plug for transportation and storage									
Shaft	Material	2P	SAE 1040/45									
		4 - 12P										
	DE threaded hole	2P	-	-	-	-	-	-	-	-	-	-
		4 - 12P										
N.D.E.(*) threaded hole	2P	-	-	-	-	-	-	-	-	M12 x 1.25		
	4 - 12P											
Balance		With 1/2 key										
Nameplate	Material	Stainless Steel AISI 304										
Painting	Type	207A					203A					
	Colour	Blue RAL 5009										
<b>Electrical features</b>												
Design		B										
Voltage		230/460 V										
Winding	Impregnation	Dip and Bake - Polyester										
	Insulation class	F (DT=80K)										
Service factor		1.25 (up to 100 HP) 1.15 (125 HP and above)										
Rotor		Aluminium die cast										
Space heater		None										

# W22 TEFC Construction Features

## 324T to 588/9T

Frame		324T	326T	364/5T	404/5T	444/5T	445/7T	447/9T	L447/9T	504/5T	586/7T	588/9T		
<b>Mechanical features</b>														
Nameplate markings		UR, CSA												
Mounting		F-1												
Frame	Material	Cast Iron FC-200												
Degree of protection (IP rating)		IP55												
Grounding		Simplegrounding(one inside the terminal box and one on the frame)	Simple grounding (one inside the terminal box and one on the frame)				Simple grounding (one inside the terminal box and one on the frame)							
Cooling method (IC)		Totally enclosed fan-cooled (IC411)												
Fan	Material	2P	Polypropylene				Polypropylene	Polypropylene	Polypropylene	Polypropylene	Polypropylene	Aluminum		
		4P					Aluminum							
		6-12P	Polypropylene				Aluminium							
Fan cover	Material	Cast Iron FC-200												
Endshields	Material	Cast Iron FC-200												
Drain plug		Fitted with rubber drain plug												
Bearings	Shielded/clearance (DE)		Open / C3											
	Shielded/clearance (N.D.E.)		Open / C3											
	Locating bearing configuration		Locked DE bearing and preload washer at N.D.E.		Locked on DE with internal and external bearing caps and with preload springs at N.D.E.									
	Drive end	2P	6312	6312	6314	6314	6314	6314	6314	6314	6314	6314	6314	
		4-12P				6316	6319	6319	6322	6322	6319	6322	6322	
	Non-drive end	2P	6212	6212		6314	6314	6314	6314	6314	6314	6314	6314	6314
4-12P		6316				6316	6319	6319	6316	6319	6316	6319	6319	
Bearing seal		V-ring		WSeal'						Taconite Labyrinth				
Lubrication	Type of Grease		Mobil Polyrex EM											
	Grease fitting		With grease relief fitting											
Terminal block		None												
Terminal box	Material	Cast Iron FC-200												
Leads inlet	Main T-box	Size	NPT 2"	NPT 2"	NPT 3"	NPT 3"	2 x NPT 3"	2 x NPT 3"	2 x NPT 3"	2 x NPT 3" (removable gland plate)	2 x NPT 3" (removable gland plate)	2 x NPT 3" (removable gland plate)	2 x NPT 3" (removable gland plate)	
	Plug		Flat plastic plug for transportation and storage											
Shaft	Material	2P	SAE 1040/45				SAE 1040/45		SAE 4140	SAE 1040/45	SAE 4140			
		4-12P					SAE 4140							
	DE threaded hole	2P	-	-	UNC 3/4"	UNC 3/4"	UNC 3/4"	UNC 3/4"	UNC 3/4"	UNC 3/4"	UNC 3/4"	UNC 3/4"	UNC 3/4"	
	N.D.E.(*) threaded hole	2P	M12 x 1.25		M20 x 2.5		M20 x 2.5	M20 x 2.5	M20 x 2.5	M20 x 2.5	M20 x 2.5	M20 x 2.5	M20 x 2.5	
Balance		With 1/2 key												
Nameplate	Material	Stainless Steel AISI 304												
Painting	Type	203A												
	Colour	Blue RAL 5009												
<b>Electrical features</b>														
Design		B												
Voltage		230/460 V										460 V with 6 leads		
Winding	Impregnation	Dip and bake - Polyester		Continuous resin flow - Polyester										
	Insulation class	F (DT=80K)												
Service factor		1.25 (up to 100 HP) 1.15 (125 HP and above)										1.00		
Rotor		Aluminium die cast												
Space heater		None										200-240 Vac		

# W01 ODP Construction Features

Frame			56	56H	143/5T	182/4T	213/5T	254/6T
<b>Mechanical Features</b>								
Nameplate Marking			CSA, cULus					
Mounting	Std, High, NEMA Premium Efficiency		F-1/B3R(D)					
Frame	Material		Rolled Steel					
Degree of Protection			IP21					
Grounding			Terminal box					Grounding lug
Cooling method			ODP					
Fan	Material		W/O					
Fan cover			W/O					
Internal air baffle			Plastic (Nylon)					
Endshields	Material		Aluminum					
Flange	Material		FC-149Aluminum/FC-95CastIron	Aluminum	Cast Iron			
Drain plug			W/O					
Shielded/clearance DE			ZZ / Normal					Z / C3
Shielded/clearance N.D.E.			ZZ / Normal					Z / C3
Locating bearing			W/O Lock on DE and spring washer on N.D.E.					
Bearing	Drive end	2P	6203 up to 3/4HP	6203 up to 3/4HP	6205	6206	6208	6309
		4-6P	6204 - 1HP to 3HP and FC-95	6204 - 1HP to 3HP and FC-95				
	Non-drive end	2P	6202	6202	6203 - 3ph	6205	6206	6208
		4-6P			6202 - 1ph			
Bearing seal	Drive end		W/O					
	Non-drive end		W/O					
Joint seal			W/O					
Lubrication	Type of grease		Mobil Polyrex EM					
	Grease fitting		W/O					With
Terminal block			W/O					
Terminal box	Material		W/O			Aluminum - Diagonal		
Additional Terminal box			W/O Additional Terminal Box					
Lead inlet	Main	Size	NPT 1/2"	NPT 1/2"	1 hole ø 28,4 (for NPT 3/4")	1 hole ø 28,4 (for NPT 3/4")	1 hole ø 35 (for NPT 1")	1 hole ø 44 (for NPT 1 1/4")
	Accessories		W/O					
Plug			Stopping plug					
Shaft	Material		SAE 1040/45					
	Center hole		A3.15			A4		
	Shaft key		A key					
Balancing without/half/full key			A Grade					
Nameplate	Material		Mylar nameplate					
Painting	Painting plan		W/O	207N	207A		203A	
	Color	Std Eff, High Eff NEMA Premium	-	Munsell N1 - Flat				
Eye bolt			W/O			With - 2		
<b>Electrical Features</b>								
Design	Nenhume Premium Efficiency		A			-		
	High Efficiency		-			B		
	NEMA Premium		-			B		
	Oil Well Pumping		-			D		
Standard voltage	Standard e Premium Efficiency - Single		upto 1/3HP Design N/ 1/2HP and above Design L		L		-	
	50 Hz	Std Eff	220/380 w/ 6 term					-
		Std Eff - Single	110/220V					
	60 Hz	Std, High Eff, Premium Eff and NEMA Premium	230/460V w/ 9 term					230/460V w/ 12 term
Std, Premium Eff - Single		115/208-230V		230/460V		-		
Winding	Impregnation		Dip and Bake					
	Insulation class		F (DT 80K)					
	Leads		Color coded lead CSA/UL					
	Terminal Leads		Without terminal (Stripped wire)					
Service factor	Std and Premium Efficiency		According to "SFODP" spreadsheet			-		
	High Eff and NEMA Premium Eff		-			1.15 (208V - 1.0)		
	Oil Well Pumping		-			1,00		
	Std e Premium Eff - Single		According to "SF ODP" spreadsheet			-		
Rotor			Aluminium die cast					
Thermal protection			W/O					
Space heaters			W/O					

# W50 Construction Features

Frame			5009/10	5809/10	6806/07	6808/09	7006/07	7008/09
			Mechanical features					
Mounting			F1					
Frame	Material		Cast Iron FC-200					
Degree of protection			IP55					
Grounding			Double grounding (1 terminal box + 1 frame)					
Cooling method			TEFC					
Fan	Material	2P 4P - 12P	Cast Iron FC-200					
Fan cover			Cast iron FC-200 (rolling bearings) - Steel (sleeve bearings)					
Endshields			Cast Iron FC-200					
Drain plug			Automatic drain plug					
Bearing	Shielded/clearance DE		C3					
	Shielded/clearance N.D.E.		C3					
	Locating bearing		Fixed on DE with external and internal bearing cap and preload spring N.D.E.					
	Drive end	2P 4P - 12P	6314 6320	6314 6322	6218 6324	6218 6324	6220 6328	6220 6328
Non-drive end	2P 4P - 12P	6314 6316	6314 6319	6218 6319	6218 6319	6220 6322	6220 6322	
Sleeve bearings	Axial clearance		6 mm				6 mm (2P) / 8 mm (4P)	
	Locating bearing		Located both bearings					
	Drive end	2P 4P - 12P	9-80 9-90	9-80 9-100	9-80 11-110	9-80 11-110	9-80 11-125	9-80 11-125
	Non-drive end	2P 4P - 12P	9-80 9-90	9-80 9-100	9-80 11-110	9-80 11-110	9-80 11-125	9-80 11-125
Bearing seal			Taconite Labyrinth					
Lubrication	Type of grease		Mobil Polyrex EM					
	Grease fitting		With grease fitting					
Terminal box			Cast Iron FC-200					
Lead inlet	Main LV	Size	2 x NPT 3"		2 x NPT 4"			
	Main HV		NPT 3"					
	Additional Plug		3 x NPT 3/4"					
Shaft	Material		Plastic threaded plug					
	Threaded hole	2P	AISI 4140					
		4P - 12P	M20 M24 C key					
Shaft key			Grade A					
Vibration level			With 1/2 Key					
Balancing without/half/full key								
Nameplate	Material		Laser printed Stainless Steel AISI 304					
Painting	Type		214P				212P	
	Color		RAL 5009					
			Electrical features					
Design			Low voltage, up to 500 cv - design N / high voltage - not applicable					
Voltage	Single speed		380 V a 6,600 V					
Winding	Impregnation		Low voltage - resin continuous flow / high voltage - VPI					
	Insulation class		F (DT 80K)					
Space heater			110/220 V - 220/440 V for safe area / single voltage for Hazardous Area					
Service factor			1.00					
Ambient temperature	Maximum		+40 °C					
	Minimum		-20 °C					
Starting method			DOL					
Rotor			Die cast aluminium (7006/07 8 poles with copper bar)				Copper bars	
Thermal protection			Pt-100 - 3 wires (2 per phase)					

# Mounting Configurations

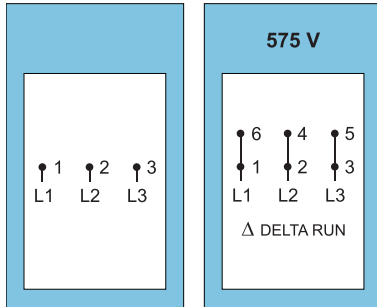
NEMA Standard Mounting Configurations

Floor mountings			Ceiling mountings		
Assembly F-1	Assembly F-2	Assembly F-3	Assembly C-1	Assembly C-2	Assembly C-3
Wall mountings					
Assembly W-1	Assembly W-2	Assembly W-3	Assembly W-4	Assembly W-5	Assembly W-6
Assembly W-7	Assembly W-8	Assembly W-9	Assembly W-10	Assembly W-11	Assembly W-12

IEC Standard Mounting Configurations

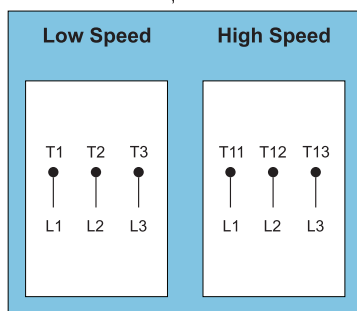
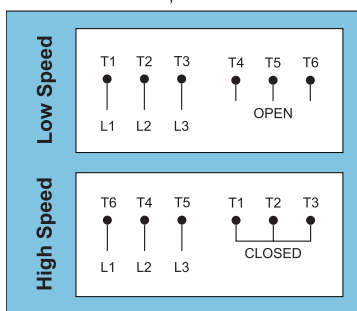
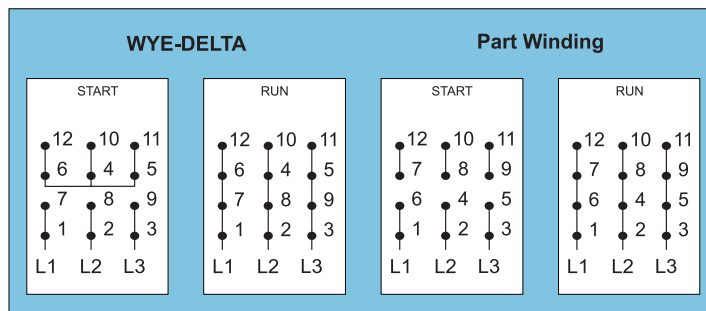
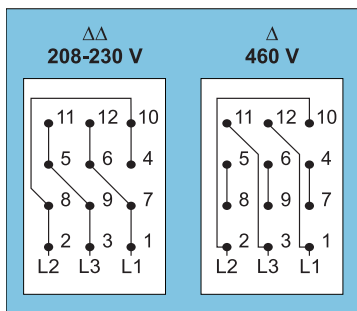
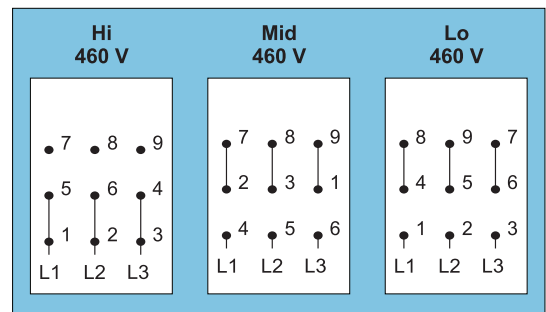
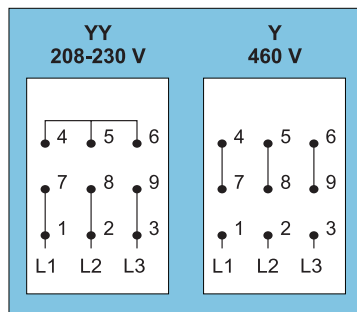
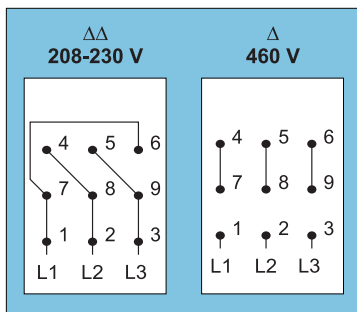
Assembly	Configuration												
	Reference	B3R	B3L	B3T	B5R	B5L	B5T	B6R	B6L	B6T	B7R	B7L	B7T
	Feet	With Feet			No Feet			With Feet			With Feet		
Details	Mounting	Base or Rails			Flange FF			Wall			Wall		
Assembly	Configuration												
	Reference	B8R	B8L	B8T	B14R	B14L	B14T	B34R	B34L	B34T	B35R	B35L	B35T
	Feet	With Feet			No Feet			With Feet			With Feet		
Details	Mounting	Ceiling			Flange FC			Base or Flange FC			Base or Flange FF		
Assembly	Configuration												
	Reference	V1L	V3L	V5R	V5L	V5T	V6R	V6L	V6T				
	Feet	No Feet			With Feet								
Details	Mounting	Flange FF			Wall								
Assembly	Configuration												
	Reference	V15R	V15L	V15T	V36R	V36L	V36T	V18L	V19L				
	Feet	With Feet						No Feet					
Details	Mounting	Wall or Flange FF						Flange FC					

# Three Phase Wiring Diagrams



**This page is for information only.**

It is imperative that motors only be connected as per the nameplate connection diagram found on the specific motor.



# WEG Paint Plans

Paint Plan	Recommended Application	Composition
201A	For normal environment, slightly severe, sheltered or unsheltered, for industrial use, with low relative humidity, regular temperature variations and presence of SO <sub>2</sub> .  Note: it is not recommended the direct exposure to acid vapors, alkalis and solvents.	Primer: One coat with 20 to 55 µm of primer alkyd-base oxide red.  Finish: One coat with 40 to 60 µm of primer alkyd-base.
202P	For severe industrial environment, sheltered or unsheltered. May have presence of SO <sub>2</sub> , vapors and contaminating and high humidity.	Primer: One coat of Alkid synthetic primer: 20 to 30 µm.  Intermediate: One coat of isocyanate epoxy primer with aluminum pigments (LackpoxiN-2288) applied by conventional spray or paint roller, with dry coat thickness of 80 to 95 µm.  Finishing: One coat of acrylic polyurethane paint (LackthaneN-2677) applied by conventional spray or paint roller, with dry coat thickness of 65 to 75 µm.
202E	For severe industrial environment, sheltered or unsheltered. May have presence of SO <sub>2</sub> , vapors and contaminating and high humidity.	Primer: One coat of Alkid synthetic primer: 20 to 30 µm.  Intermediate: One coat of isocyanate epoxy primer with aluminum pigments (LackpoxiN-2288) applied by conventional spray or paint roller, with dry coat thickness of 80 to 95 µm.  Finishing: One coat of two-pack epoxy top coat (LackpoxiN-2628) applied by conventional spray or paint roller, with dry coat thickness of 100 to 130 µm.
203A	For normal environment, slightly severe, sheltered or unsheltered, for industrial use, with low relative humidity, regular temperature variations and presence of SO <sub>2</sub> .  Note: it is not recommended the direct exposure to acid vapors, alkalis and solvents.	Primer: One coat with 20 to 55 µm of primer alkyd-base oxide red.  Finish: One coat with 50 to 70 µm of primer alkyd-base.
207N	For regular environment, slightly severe and sheltered, for domestic use, with low relative humidity, regular temperature variations.  Note: the direct exposure to acid vapors, alkalis and solvents is not recommended.	Primer: One coat with 20 µm to 55 µm of alkyd-base oxide red paint.  Finish: One coat with 30 µm to 40 µm of Nitrocellulose – fast drying paint.
207A	For normal environment, slightly severe sheltered or unsheltered, for industrial use, with low relative humidity, regular temperature variations and presence of SO <sub>2</sub> . Note: it is not recommended the direct exposure to acid vapors, alkalis and solvents.	Primer: One coat with 20 to 55 µm of primer alkyd-base oxide red.  Finish: One coat with 30 to 40 µm of primer styrene alkyd-base.
211E	Machines, devices and instruments manufactured with steel plate, operating at dry or humid environment, containing or not Sulfur derivate gases.  Operation temperature: from 15°C to 120°C, without thermal insulation.	Primer: One coat of epoxy-phosphate zinc paint with high thickness in the color grey or white, applied by roller, brush or spray. The minimum thickness of the dry coat must be 100 µm. The interval to apply the intermediate coat must be at least 16 hours and not more than 48 hours.  Finish: Two coats of aluminum phenolic paint in the color Aluminum (0170), with minimum dry coat thickness of 25 µm per coat, applied by roller or conventional spray. The interval to apply the next coat must be at least 24 hours and not more than 72 hours. If the color Aluminum is not specified, epoxy polyamide paint must be used instead of aluminum phenolic paint, with high coat thickness. One coat with minimum dry coat thickness of 100 µm, applied by roller or spray.
211P	Machines, devices and instruments manufactured with steel plate, operating at dry or humid environment, containing or not Sulfur derivate gases.  Operation temperature: from 15°C to 120°C, without thermal insulation.	Primer: One coat of zinc epoxy-phosphate paint with high thickness in the color grey or white, applied by roller, brush or spray. The minimum thickness of the dry coat must be 100 µm. The interval to apply the finish coat must be at least 16 hours and not more than 48 hours.  Finish: One coat of acrylic-polyurethane paint applied by roller or spray, with the dry coat thickness of 70 µm.

# WEG Paint Plans

Paint Plan	Recommended Application	Composition
212P	<p>Machines, devices and instruments manufactured with steel plate, operating at environment containing or not Sulfur derivate gases, situated on marine areas or in areas influenced by the sea shore.</p> <p>Operation temperature from 15°C to 120°C, without thermal insulation.</p>	<p>Primer: One coat of epoxy-cured zinc dust amide paint applied by conventional spray (with mechanical purge) or airless spray (with mechanical purge). The minimum thickness of the dry coat must be 75 µm. The interval to apply the intermediate coat must be at least 16 hours and not more than 48 hours.</p> <p>Intermediate: One coat of epoxy-phosphate zinc paint with high thickness in the color white or gray, applied by roller, brush or airless spray. The minimum thickness of the dry coat must be 100 µm. The interval to apply the finish coat must be at least 16 hours and not more than 48 hours.</p> <p>Finish: One coat of acrylic polyurethane paint applied by roller or spray, with minimum dry coat thickness of 70 µm.</p>
212E	<p>Machines, devices and instruments manufactured with steel plate, operating at environment containing or not Sulfur derivate gases, situated on marine areas or in areas influenced by the sea shore.</p> <p>Operation temperature from 15°C to 120°C, without thermal insulation.</p>	<p>Primer: One coat of epoxy-cured zinc dust amide paint applied by conventional spray (with mechanical purge) or airless spray (with mechanical purge). The minimum thickness of the dry coat must be 75 µm. The interval to apply the intermediate coat must be at least 16 hours and not more than 48 hours.</p> <p>Intermediate: One coat of epoxy-phosphate zinc paint with high thickness in the color white or gray, applied by roller, brush or airless spray. The minimum thickness of the dry coat must be 100 µm. The interval to apply the finish coat must be at least 16 hours and not more than 48 hours.</p> <p>Finish: Two coats of aluminum phenolic paint in the color Aluminum (0170), with the minimum dry coat thickness of 25 µm per coat, applied by roller or conventional spray. The interval between the coats must be at least 24 hours and not more than 72 hours. If the Aluminum color is not the specified, polyamide epoxy paint with high thickness must be used instead of the aluminum phenolic paint. One coat with minimum dry coat thickness of 100 µm, applied by roller or airless spray.</p>
214P	<p>Machines, devices and instruments cast or forged to any kind of environment or manufactured with steel plate, operating on dry or humid environment, without salinity, containing or not Sulfur derivate gases.</p> <p>Operation temperature of 15°C to 80°C, without thermal insulation.</p>	<p>Primer: One coat of epoxy-zinc polyamide paint applied by conventional spray (with mechanical purge) or airless spray (with mechanical purge). The thickness of the dry coat must be 70 µm. The interval to apply the finish coat must be at least 16 hours and not more than 48 hours. (Except parts in Aluminum).</p> <p>Finish: One coat of acrylic polyurethane paint applied by conventional spray or airless spray. The dry coat thickness must be of 70 µm.</p>
216P		<p>Primer: Two coats of epoxy "novolac" paint, type II, with minimum dry coat thickness of 175 µm per coat.</p> <p>Finish: One coat of acrylic polyurethane paint applied by conventional spray or airless spray. The dry coat thickness must be of 70 µm.</p>

# WEG Paint Plans vs. ISO 12944

WEG Painting Plans	WEG			ISO 12944					
	Weg Thickness µm	Weg Total Thickness µm	Weg Salt Spray Resistance hrs	Classification ISO 12944	Estimated Durability - ISO 12944-5			Thickness ISO 12944 µm	Minimal Salt Spray Resistance ISO 12944-6 hrs
					5 years	5 to 15 years	More than 15 years		
201A	20 - 55	60 - 115	120	C2	X			70 - 90	x
	40 - 60								
202P	20 - 30	165 - 200	500	C3			X	80 - 150	480
	80 - 95								
	65 - 75								
202E	20 - 30	200 - 255	500	C3			X	80 - 150	480
	80 - 95								
	100 - 130								
203A	20 - 55	70 - 125	240	C2	X			70 - 90	x
	50 - 70								
205P	20 - 55	105 - 175	300	C3		X		80 - 150	240
	20 - 30								
	65 - 90								
205E	20 - 55	140 - 215	300	C3		X		80 - 150	240
	20 - 30								
	100 - 130								
207 N	50 - 80	80 - 120	500	C3		X		80 - 150	240
	30 - 40								
207A	20 - 55	50 - 95	120	C2	X			70 - 90	x
	30 - 40								
211E	100 - 140	200 - 280	3000	C5 (I and M)			X	80 - 200	1440
	100 - 140								
211P	100 - 140	170 - 240	3000	C5 (I and M)			X	120 - 200	1440
	70 - 100								
212P	70 - 100	240 - 340	10000	C5 (I and M)			X	280 - 320	1440
	100 - 140								
	70 - 100								
212E	70 - 100	270 - 380	10000	C5 (I and M)			X	280 - 320	1440
	100 - 140								
	100 - 140								
214P	70 - 100	140 - 200	3000	C5 (I and M)			X	120 - 200	1440
	70 - 100								
216P	175 - 245	420 - 590	12000	C5 (I and M)			X	280 - 320	1440
	175 - 245								
	70 - 100								

