

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium Efficiency Three-Phase Product code : 13128964

Frame : 145HP	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : W-6
Duty cycle : Cont.(S1)	Rotation ¹ : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight ³ : 27.3 kg
Protection degree : IP55	Moment of inertia (J) : 0.0066 kgm ²
Design : B	

Output [HP]	2	1.5	1.5	1.5	2	2	2
Poles	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	5.58/2.79	2.57	2.57	2.56	3.33	3.22	3.14
L. R. Amperes [A]	46.3/23.2	21.1	22.4	21.5	20.0	21.3	22.9
LRC [A]	8.3x(Code L)	8.2x(Code L)	8.7x(Code M)	8.4x(Code M)	6.0x(Code H)	6.6x(Code J)	7.3x(Code K)
No load current [A]	3.26/1.63	1.61	1.80	1.97	1.61	1.80	1.97
Rated speed [RPM]	1750	1460	1465	1465	1435	1440	1450
Slip [%]	2.78	2.67	2.33	2.33	4.33	4.00	3.33
Rated torque [kgfm]	0.829	0.746	0.743	0.743	1.01	1.01	1.00
Locked rotor torque [%]	270	290	320	350	220	229	250
Breakdown torque [%]	320	330	380	409	240	260	290
Service factor	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	18s (cold) 10s (hot)	32s (cold) 18s (hot)	28s (cold) 16s (hot)	27s (cold) 15s (hot)	23s (cold) 13s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level ²	51.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%						
	50%	85.5	84.0	82.0	81.4	85.5	84.0
	75%	86.5	84.2	83.5	83.1	84.0	84.0
	100%	86.5	84.5	84.5	84.1	82.5	84.0
Power Factor	25%						
	50%	0.57	0.55	0.50	0.47	0.66	0.62
	75%	0.70	0.69	0.64	0.61	0.78	0.74
	100%	0.78	0.77	0.73	0.71	0.83	0.79

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1 (0,9;1,0)	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	P2 (0,5;1,0)	12.8	12.8	12.8	12.8	12.8	12.8	12.8
	P3 (0,25;1,0)	12.1	12.1	12.1	12.1	12.1	12.1	12.1
	P4 (0,9;0,5)	8.4	8.4	8.4	8.4	8.4	8.4	8.4
	P5 (0,5;0,5)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	P6 (0,5;0,25)	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	P7 (0,25;0,25)	3.5	3.5	3.5	3.5	3.5	3.5	3.5

Bearing type	: Drive end 6307 ZZ Non drive end 6204 ZZ	Foundation loads Max. traction Max. compression
Sealing	: V'Ring V'Ring	
Lubrication interval	: - -	
Lubricant amount	: - -	
Lubricant type	: Mobil Polyrex EM	

This revision replaces and cancel the previous one, which must be eliminated.
(1) Looking the motor from the shaft end.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

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Three Phase Induction Motor - Squirrel Cage



Customer :

Notes
USABLE @208V 5.85A SF 1.15 SFA 6.73A

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LOAD PERFORMANCE CURVE

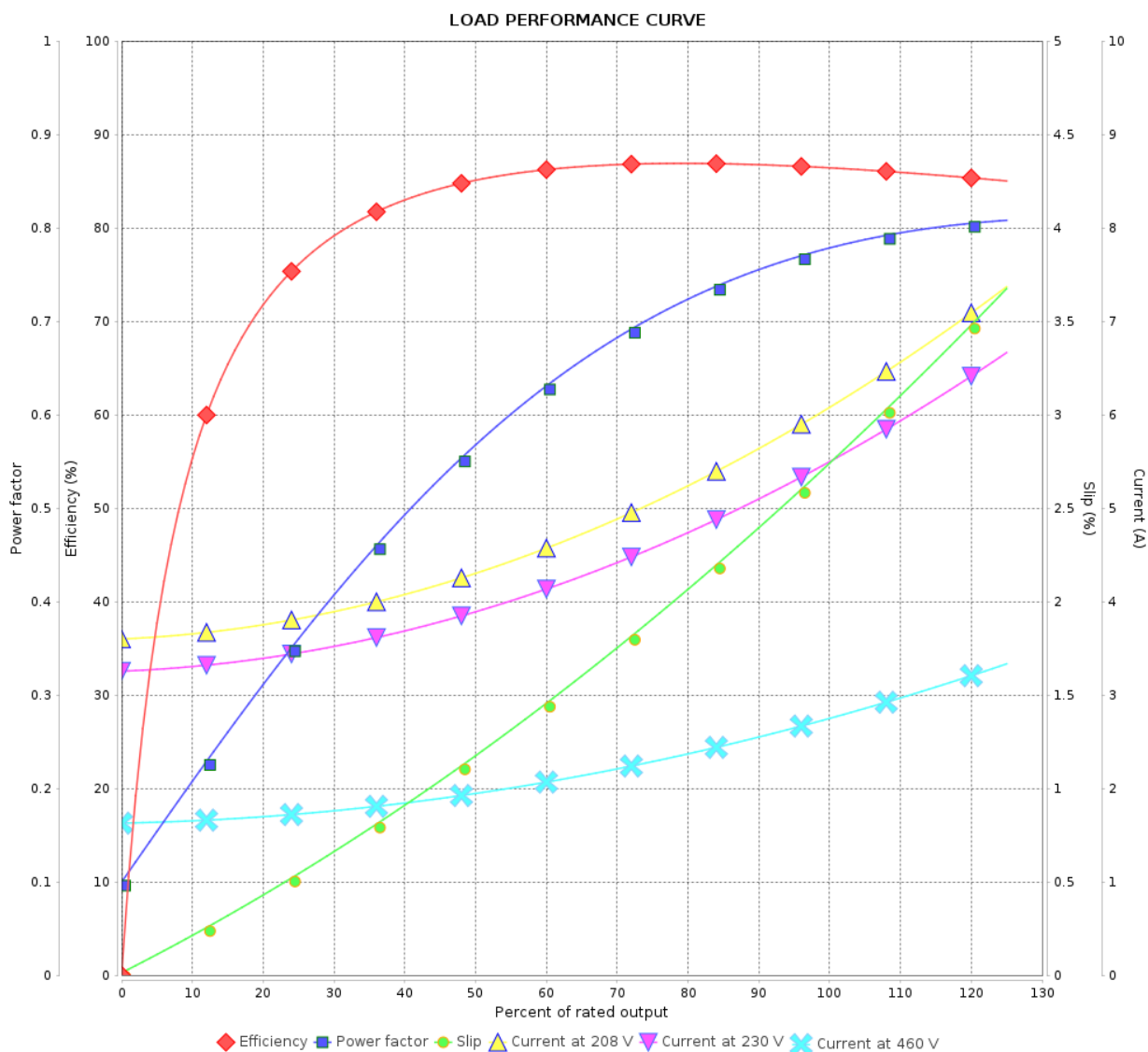
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 13128964



Performance : 230/460 V 60 Hz 4P

Rated current : 5.58/2.79 A
LRC : 8.3
Rated torque : 0.829 kgfm
Locked rotor torque : 270 %
Breakdown torque : 320 %
Rated speed : 1750 rpm

Moment of inertia (J) : 0.0066 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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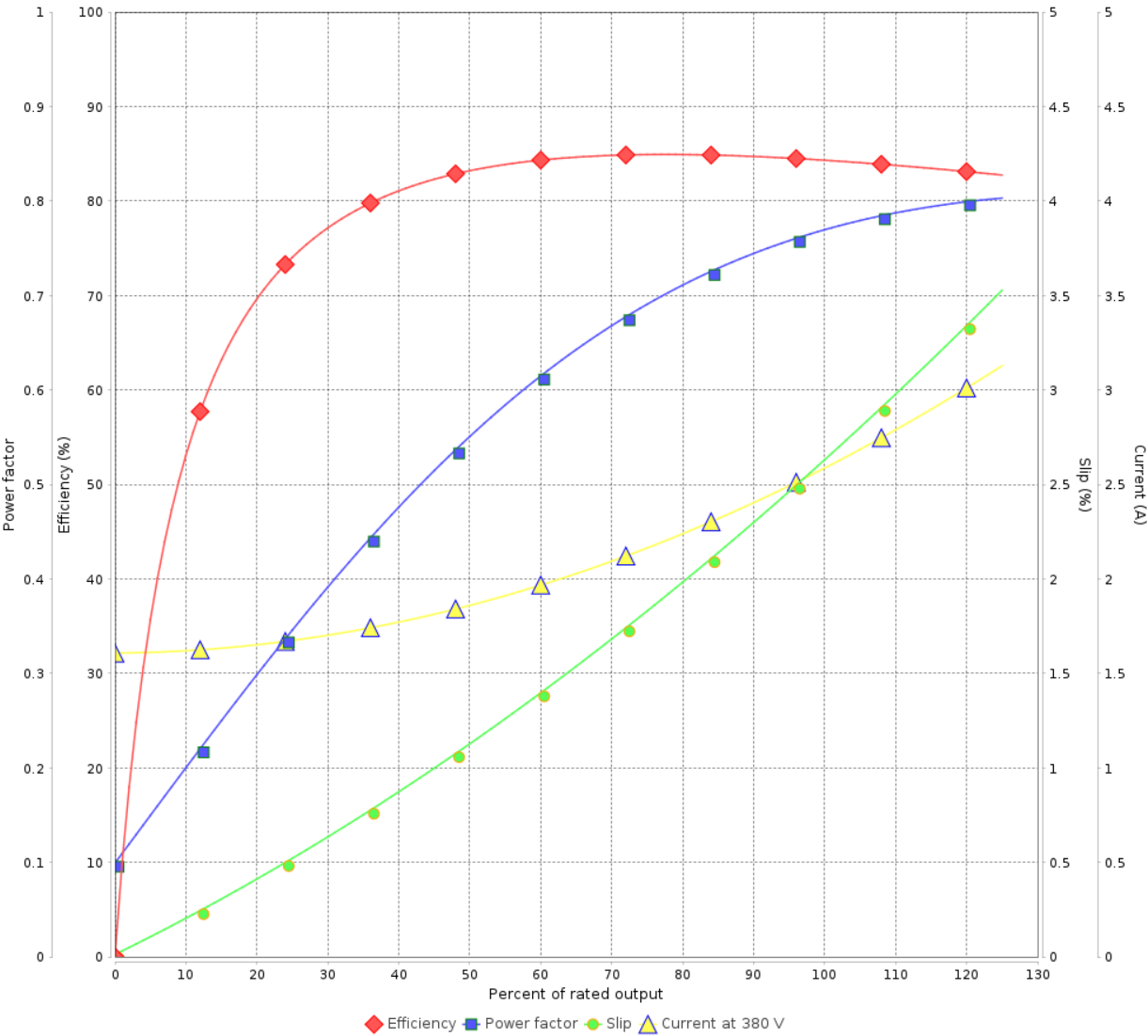
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium Product code : 13128964
Efficiency Three-Phase

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Performance : 380 V 50 Hz 4P IE3

Rated current	: 2.57 A	Moment of inertia (J)	: 0.0066 kgm ²
LRC	: 8.2	Duty cycle	: Cont.(S1)
Rated torque	: 0.746 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.25
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

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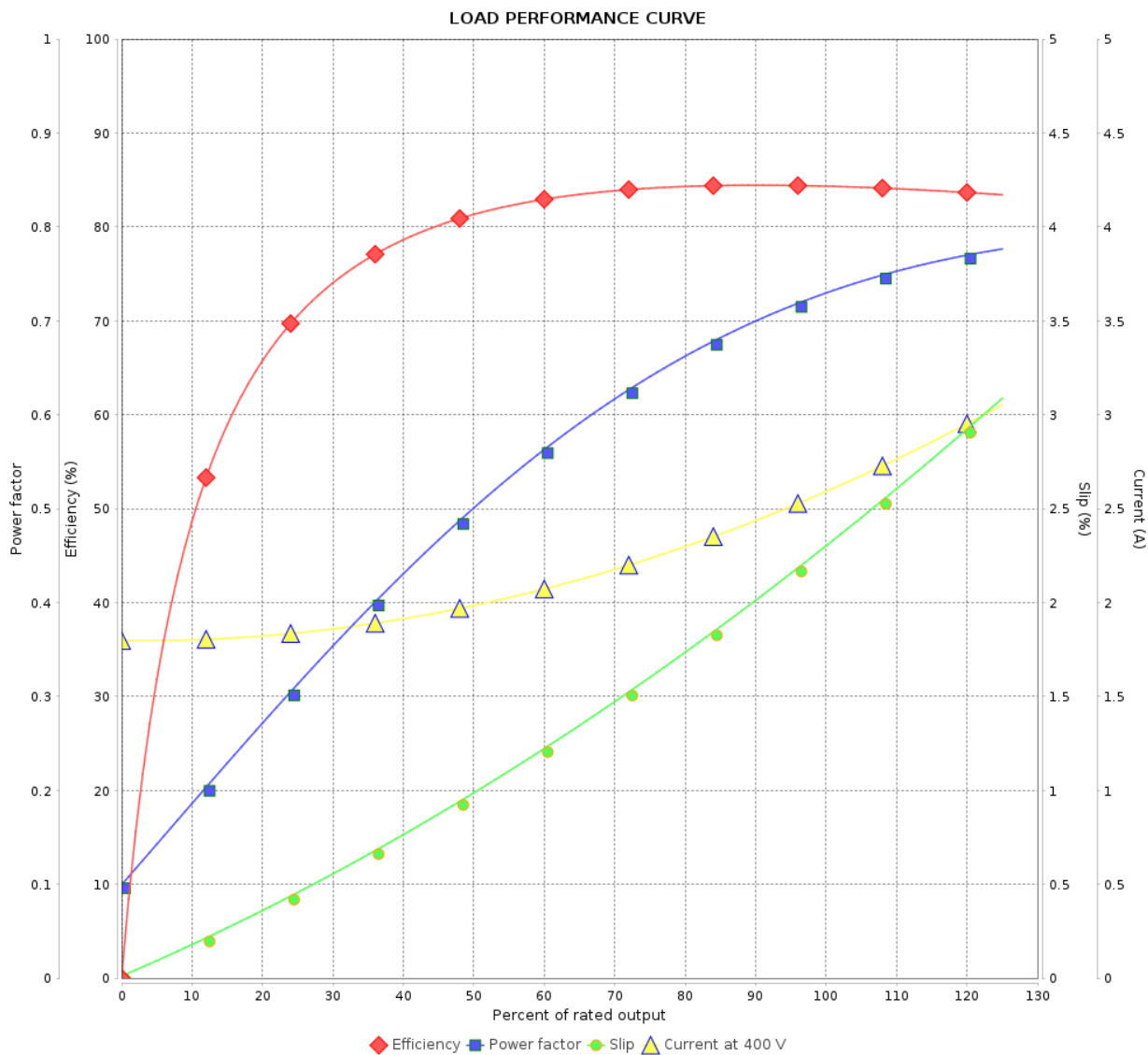
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 13128964



Performance : 400 V 50 Hz 4P IE3

Rated current : 2.57 A
LRC : 8.7
Rated torque : 0.743 kgfm
Locked rotor torque : 320 %
Breakdown torque : 380 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.0066 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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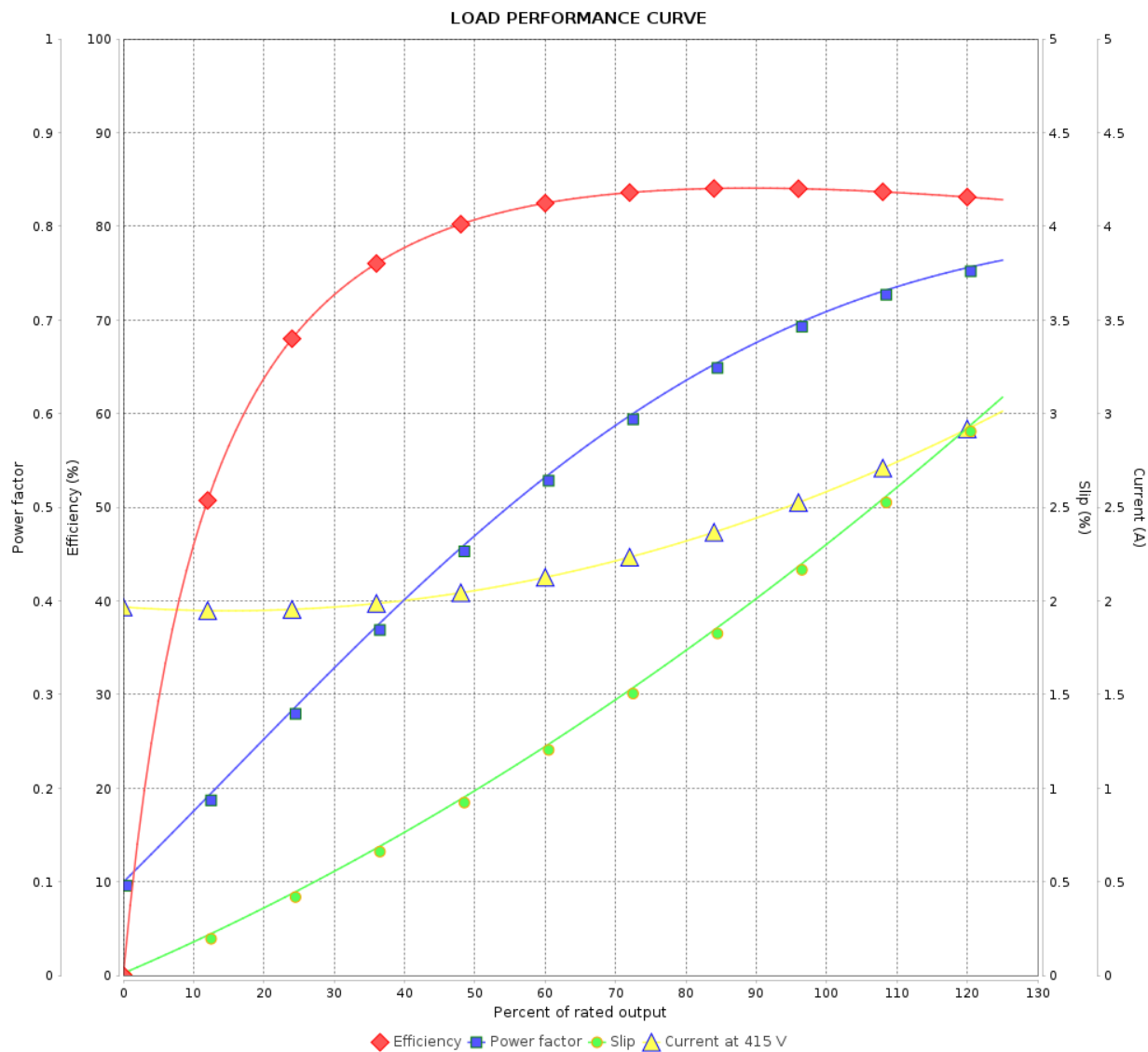
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 13128964



Performance : 415 V 50 Hz 4P IE3

Rated current : 2.56 A
LRC : 8.4
Rated torque : 0.743 kgfm
Locked rotor torque : 350 %
Breakdown torque : 409 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.0066 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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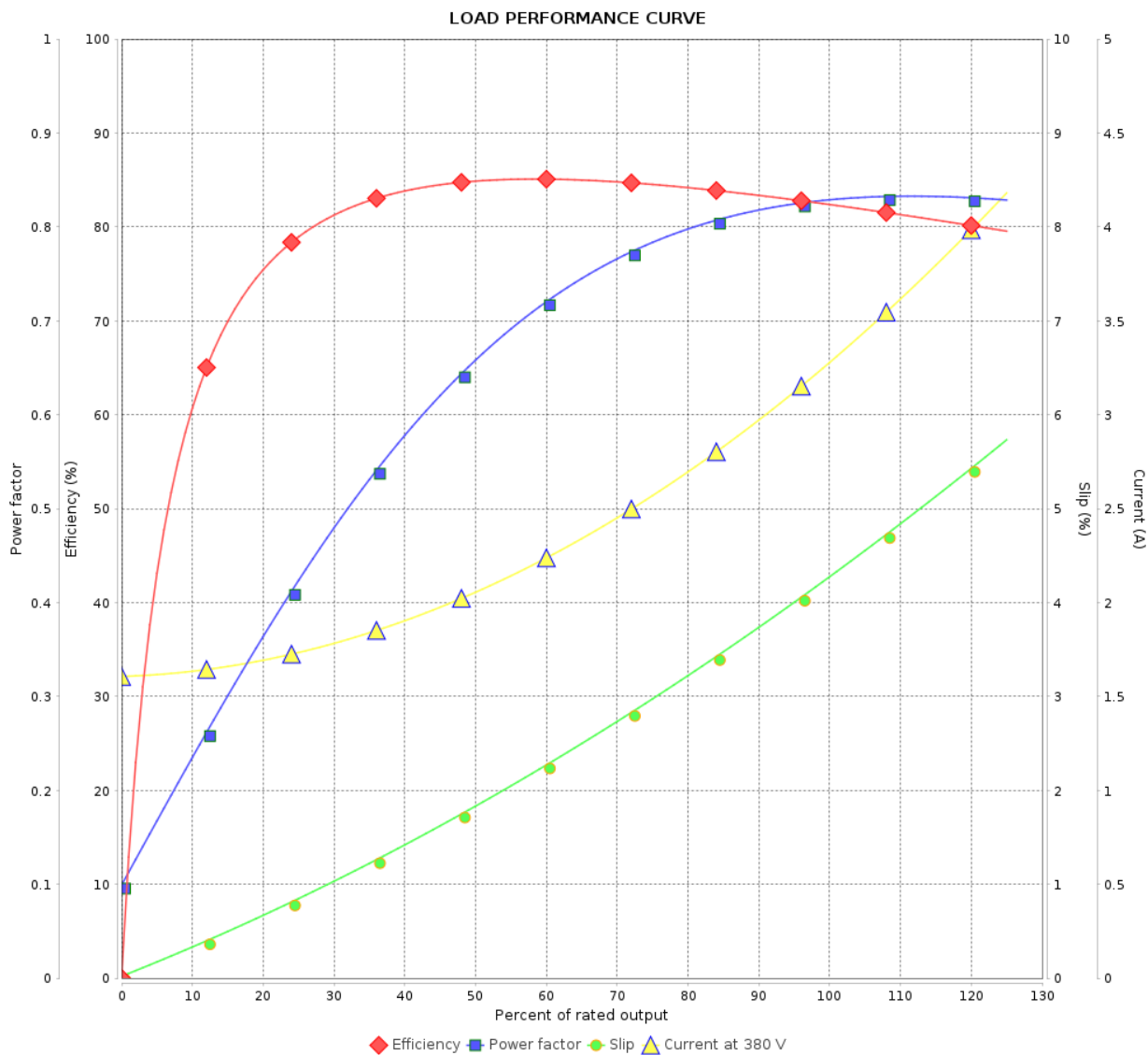
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Performance : 380 V 50 Hz 4P IE1

Rated current : 3.33 A
LRC : 6.0
Rated torque : 1.01 kgfm
Locked rotor torque : 220 %
Breakdown torque : 240 %
Rated speed : 1435 rpm

Moment of inertia (J) : 0.0066 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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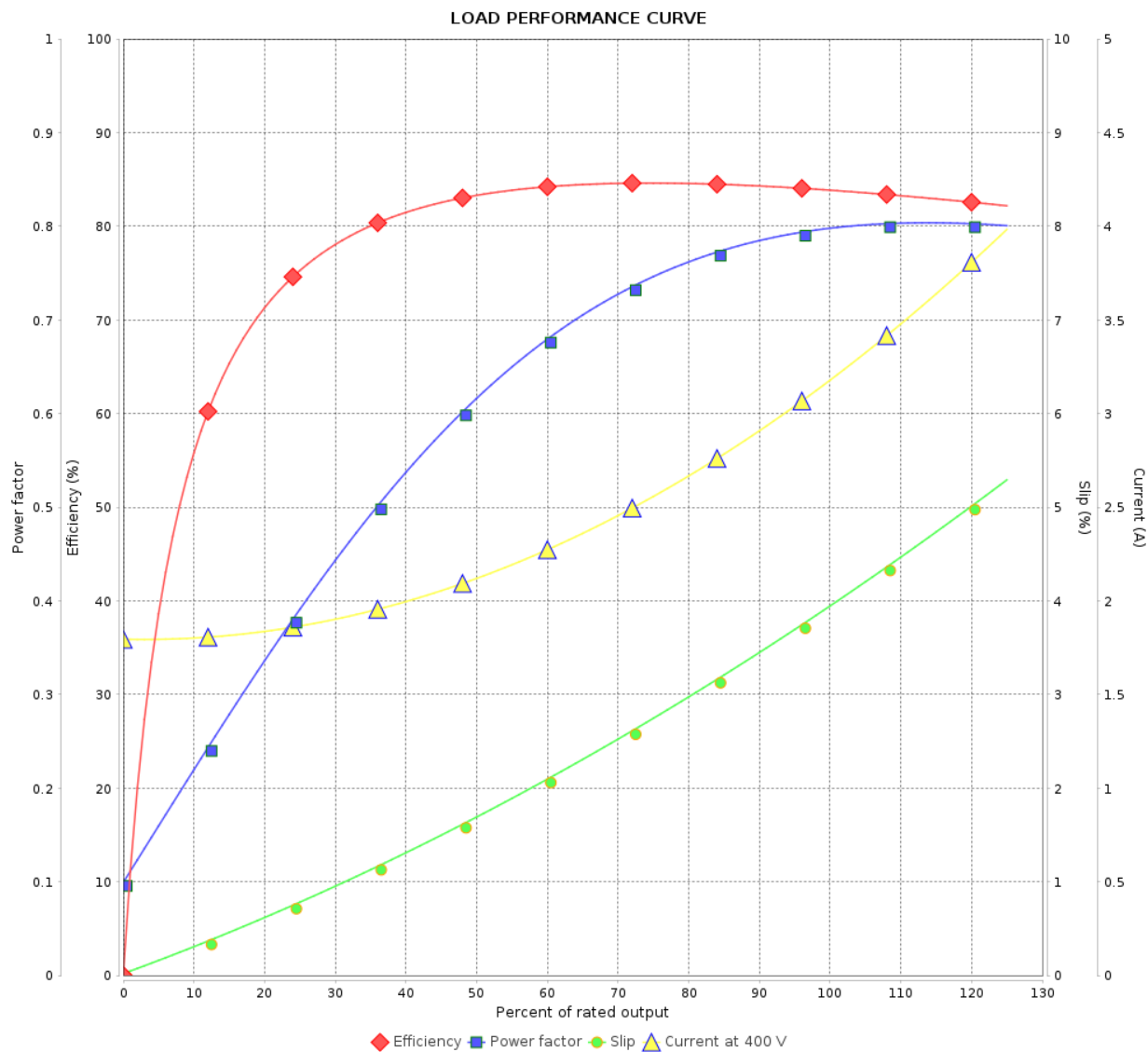
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium
Efficiency Three-Phase

Product code : 13128964



Performance : 400 V 50 Hz 4P IE2

Rated current : 3.22 A
LRC : 6.6
Rated torque : 1.01 kgfm
Locked rotor torque : 229 %
Breakdown torque : 260 %
Rated speed : 1440 rpm

Moment of inertia (J) : 0.0066 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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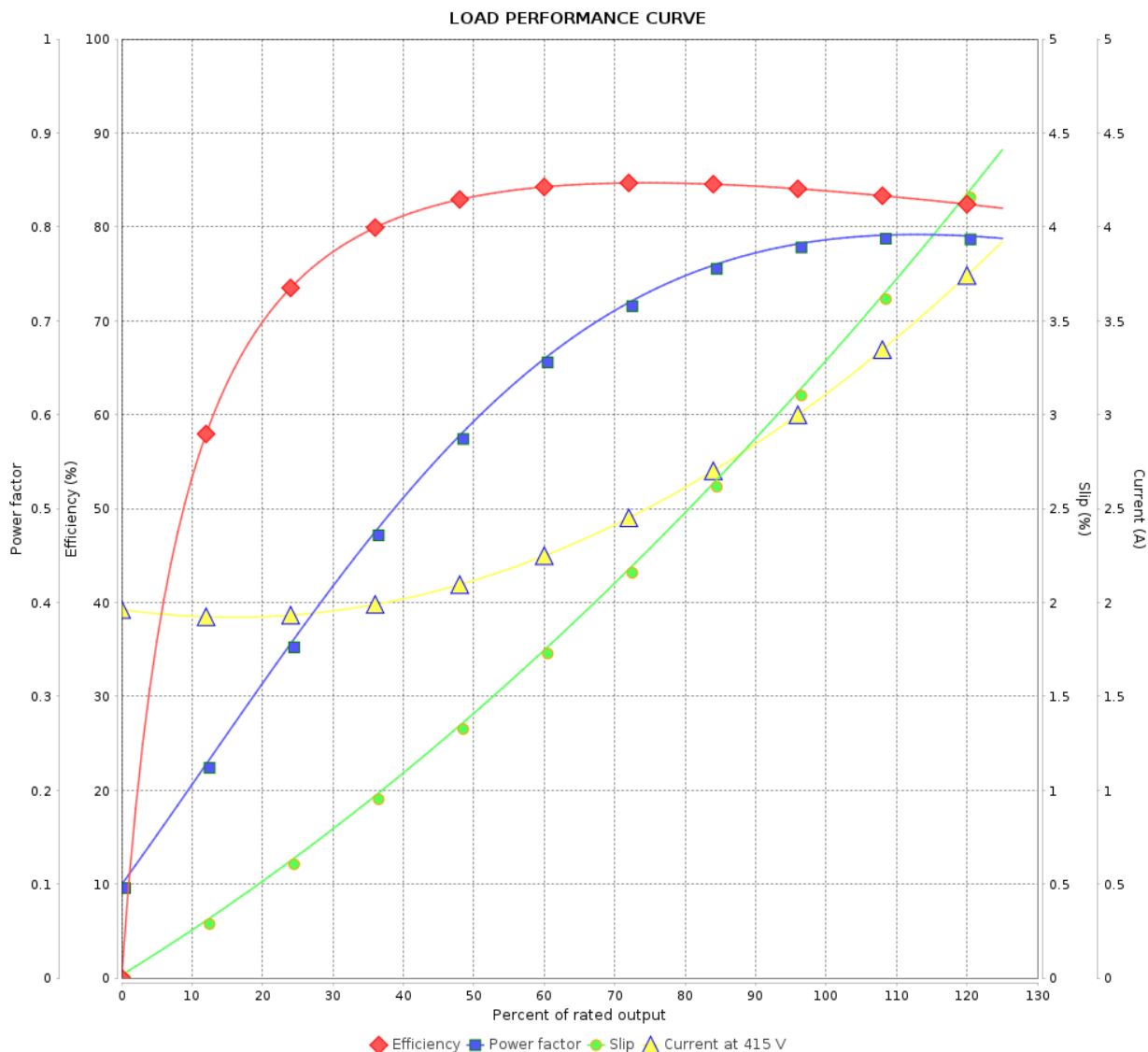
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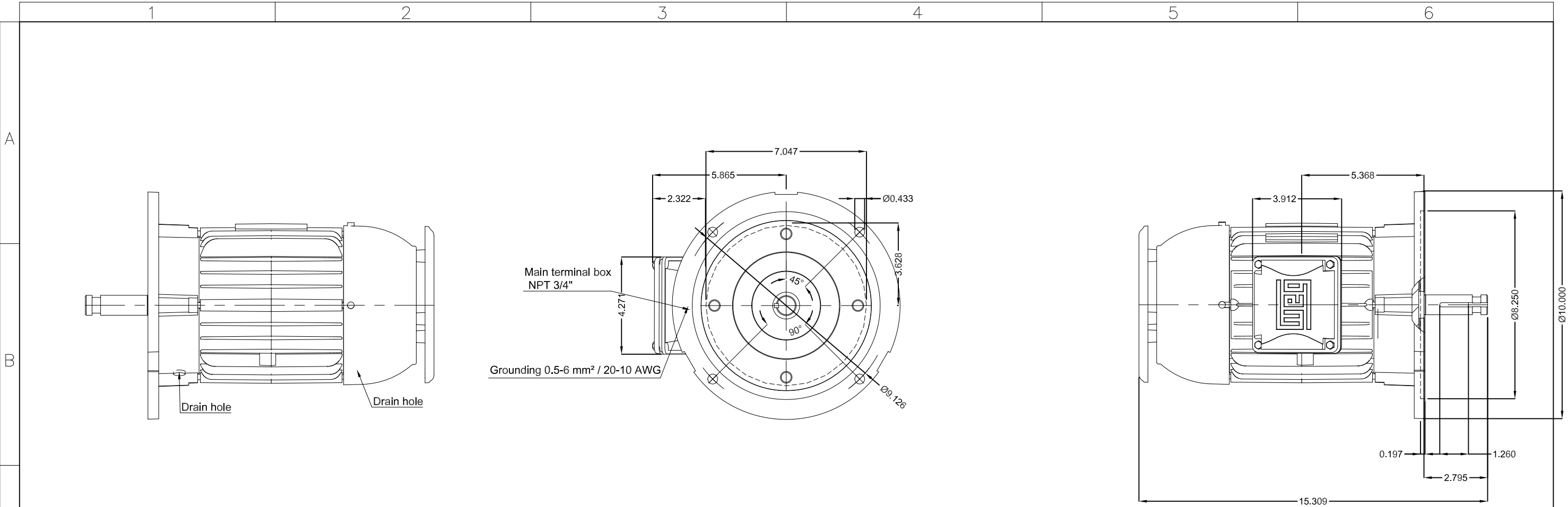


Performance : 415 V 50 Hz 4P IE2

Rated current : 3.14 A
LRC : 7.3
Rated torque : 1.00 kgfm
Locked rotor torque : 250 %
Breakdown torque : 290 %
Rated speed : 1450 rpm

Moment of inertia (J) : 0.0066 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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D																	
E	DE Shaft End																
	Color RAL 5009																
	Painting plan 207A																
	Mounting NEMA W-6																
	Mounting V1																
	2 HP 04 Poles 60 Hz A																
ECM		LOC		SUMMARY OF MODIFICATIONS				HYBRISUSER									
EXECUTED		HYBRISUSER		THREE PH. MOTOR W22 P. BASE NEMA PREM. EFF. FRAME 145HP IP55 TEFC				EXECUTED		CHECKED		RELEASED		DATE		VER	
CHECKED								00									
RELEASED																	
REL. DATE																	
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Dimensions in inches

A3