

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase Product code : 13180600

Frame	: 143/5JM	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: F-1
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	: 18.3 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0046 kgm ²
Design	: B		

Output [HP]	1.5	1.5	1.5
Poles	4	4	4
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	4.04/2.02	4.82/2.41	4.38/2.32
L. R. Amperes [A]	33.1/16.6	29.4/14.7	29.3/15.5
LRC [A]	8.2x(Code K)	6.1x(Code H)	6.7x(Code J)
No load current [A]	2.17/1.08	2.13/1.07	2.20/1.17
Rated speed [RPM]	1750	1420	1430
Slip [%]	2.78	5.33	4.67
Rated torque [kgfm]	0.622	0.767	0.761
Locked rotor torque [%]	270	210	240
Breakdown torque [%]	300	250	280
Service factor		1.15	1.15
Temperature rise	80 K	105 K	80 K
Locked rotor time	37s (cold) 21s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level ²	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%	85.2	85.0
	50%	85.5	84.7
	75%	86.5	84.9
	100%	86.5	83.6
Power Factor	25%	0.35	0.37
	50%	0.59	0.62
	75%	0.72	0.75
	100%	0.79	0.82

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6206 ZZ	6203 ZZ	Max. traction	: 51 kgf
Sealing	: V'Ring	Without Bearing Seal	Max. compression	: 70 kgf
Lubrication interval	: -	-		
Lubricant amount	: -	-		
Lubricant type	: Mobil Polyrex EM			

Notes

USABLE @208V 4.47A SF 1.00 SFA 4.47A

This revision replaces and cancel the previous one, which must be eliminated.

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.
- (4) At 100% of full load.

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	16/05/2022			

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Revision

LOAD PERFORMANCE CURVE

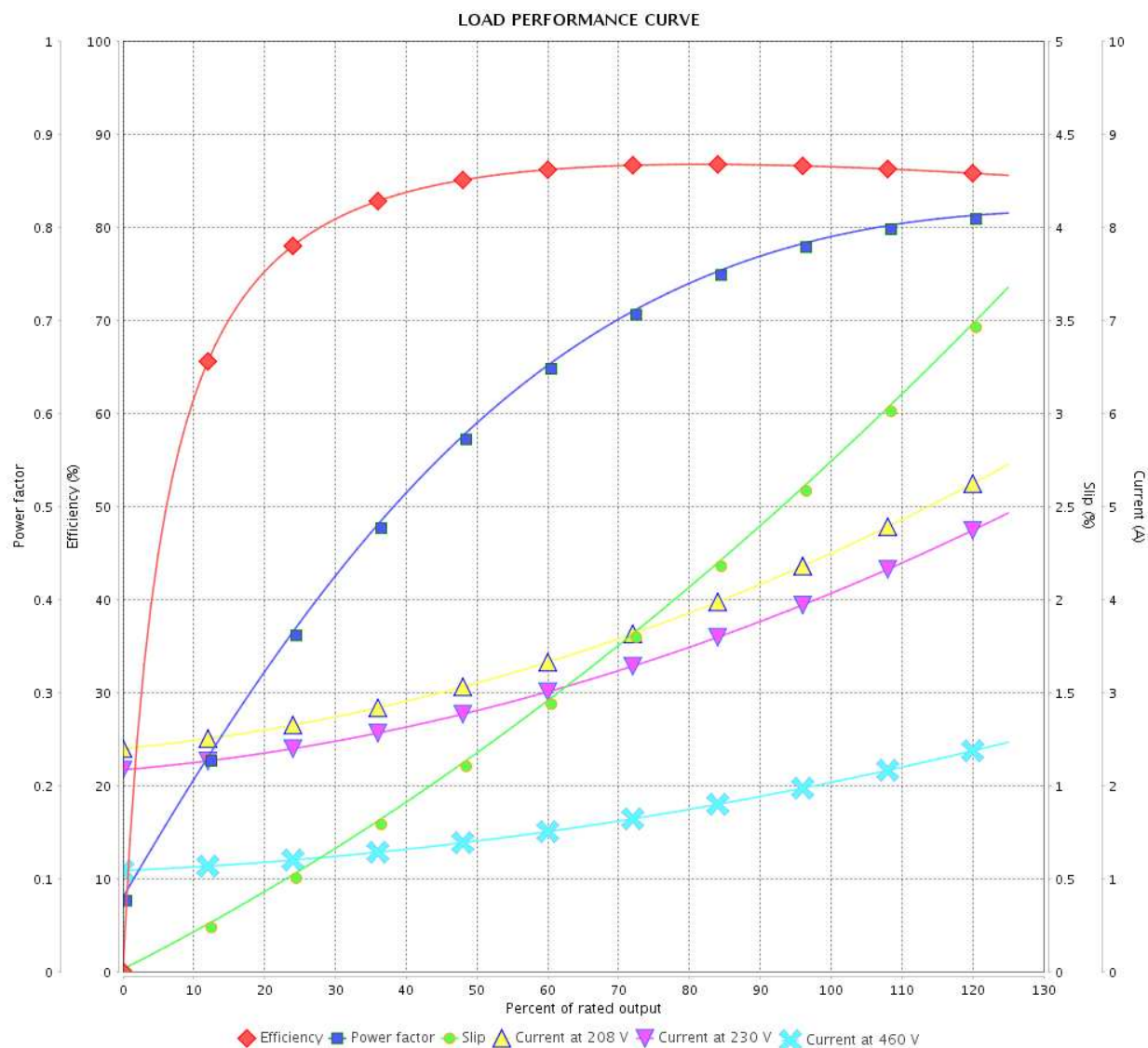
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : JM Pump NEMA Premium
Efficiency Three-Phase

Product code : 13180600



Performance : 230/460 V 60 Hz 4P

Rated current : 4.04/2.02 A
 LRC : 8.2
 Rated torque : 0.622 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 300 %
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.0046 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : B

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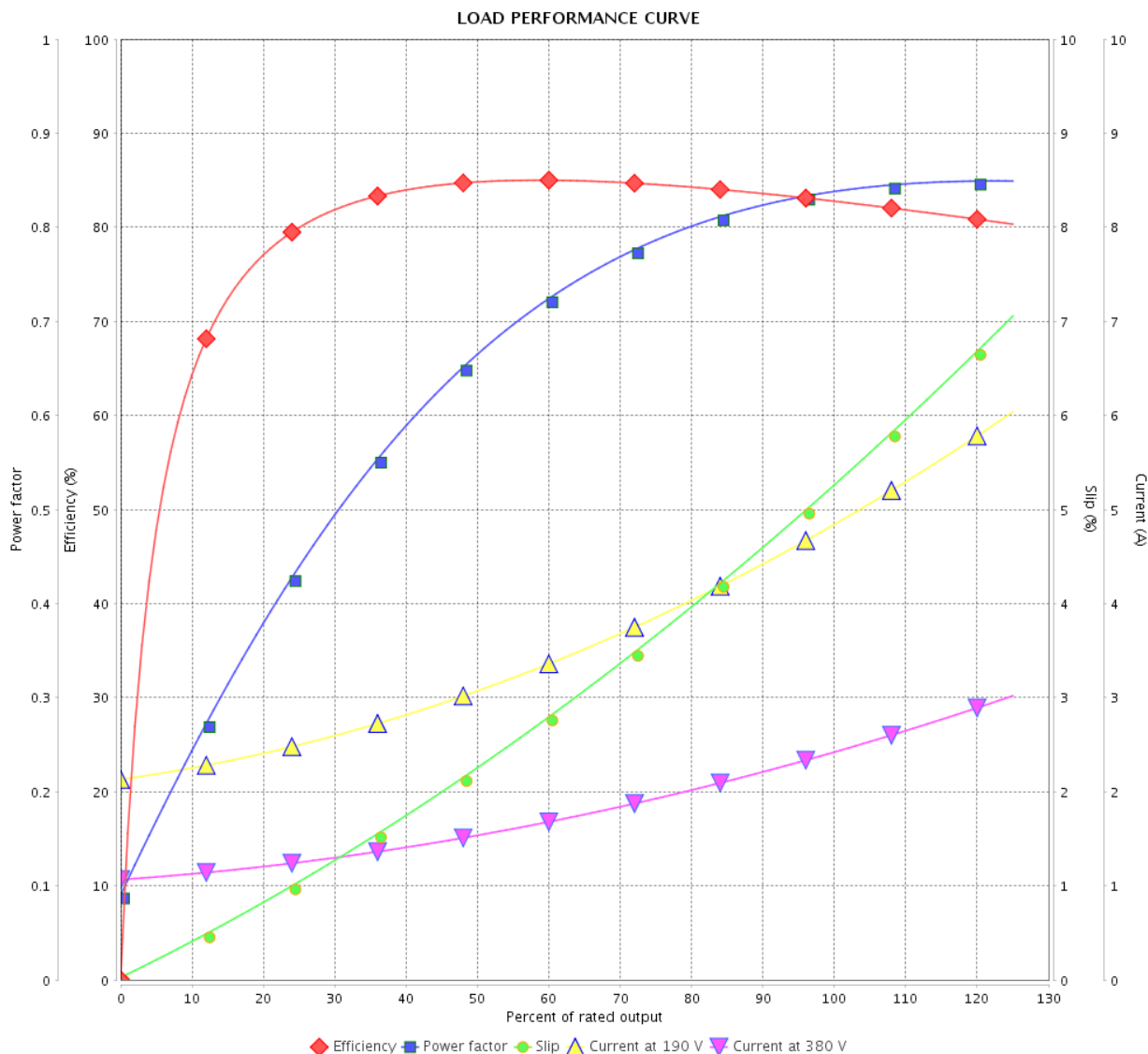
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : JM Pump NEMA Premium
Efficiency Three-Phase

Product code : 13180600



Performance : 190/380 V 50 Hz 4P

Rated current : 4.82/2.41 A
LRC : 6.1
Rated torque : 0.767 kgfm
Locked rotor torque : 210 %
Breakdown torque : 250 %
Rated speed : 1420 rpm

Moment of inertia (J) : 0.0046 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 105 K
Design : B

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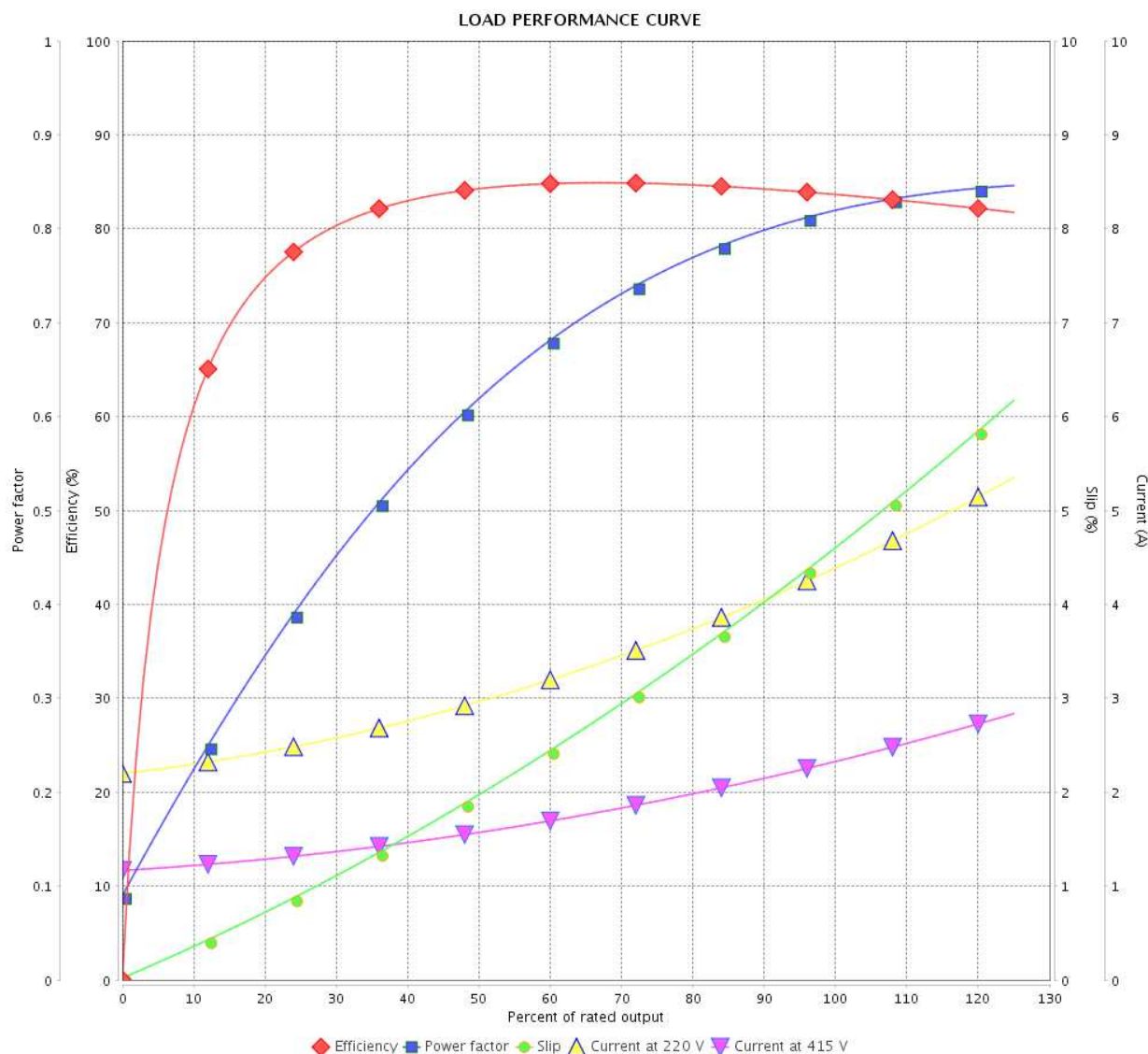
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : JM Pump NEMA Premium
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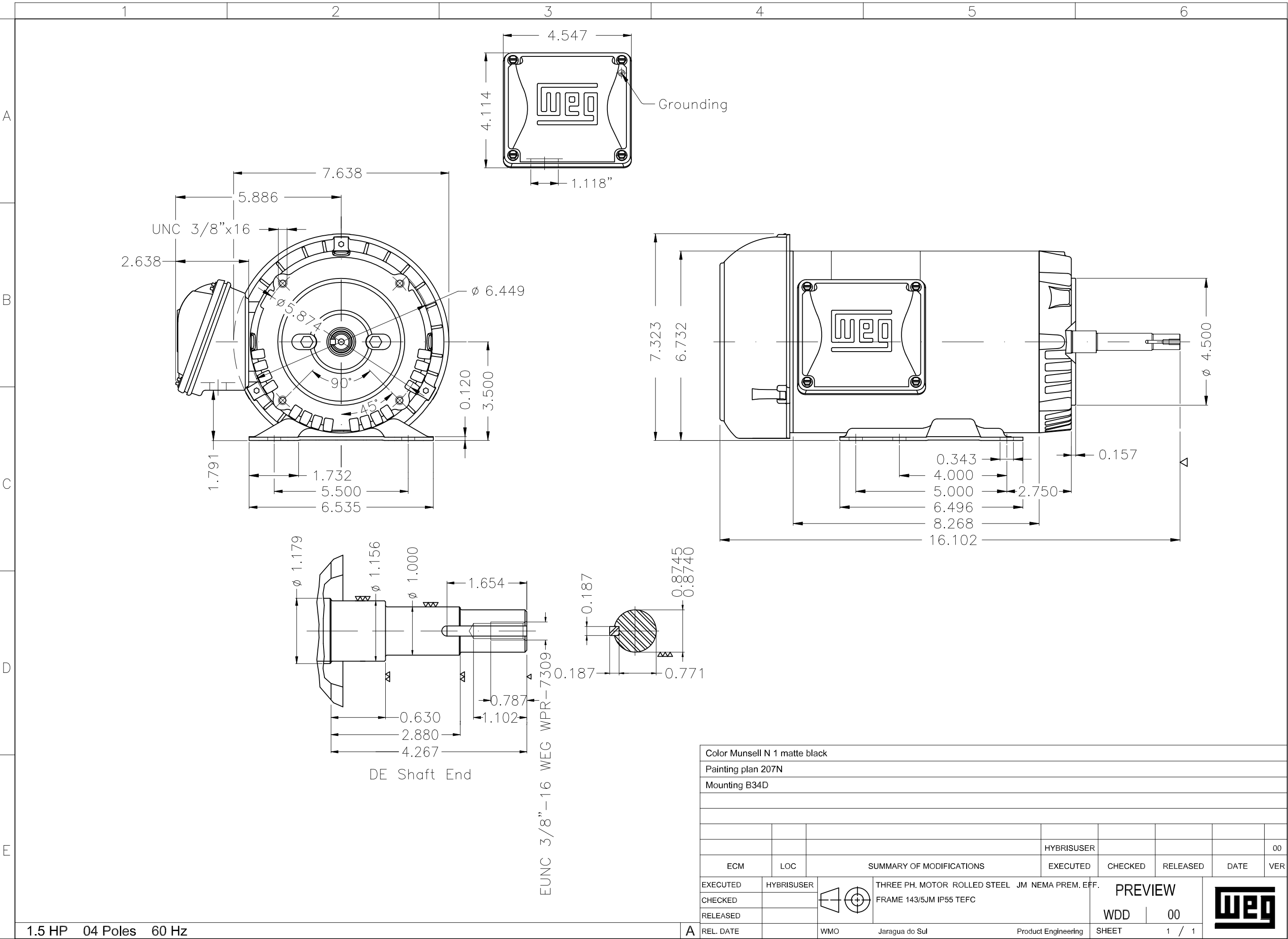


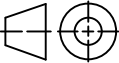
Performance : 220/415 V 50 Hz 4P

Rated current : 4.38/2.32 A
LRC : 6.7
Rated torque : 0.761 kgfm
Locked rotor torque : 240 %
Breakdown torque : 280 %
Rated speed : 1430 rpm

Moment of inertia (J) : 0.0046 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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Color Munsell N 1 matte black									
Painting plan 207N									
Mounting B34D									
						HYBRISUSER			00
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE VER
EXECUTED	HYBRISUSER	 THREE PH. MOTOR ROLLED STEEL JM NEMA PREM. EFF. FRAME 143/5JM IP55 TEFC				PREVIEW			
CHECKED									
RELEASED									
REL. DATE		WMO	Jaragua do Sul	Product Engineering	SHEET	1	/	1	