

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase Product code : 12675405

Frame	: 213/5T	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 ²	: 54.4 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0395 kgm ²
Design	: B		

Output [HP]	7.5	7.5	7.5
Poles	4	4	4
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	18.1/9.07	22.0/11.0	20.0/10.6
L. R. Amperes [A]	132/66.2	136/68.2	136/72.1
LRC [A]	7.3x(Code H)	6.2x(Code G)	6.8x(Code H)
No load current [A]	8.81/4.41	8.65/4.33	8.93/4.73
Rated speed [RPM]	1770	1455	1460
Slip [%]	1.67	3.00	2.67
Rated torque [kgfm]	3.08	3.74	3.73
Locked rotor torque [%]	260	190	220
Breakdown torque [%]	300	250	280
Service factor	1.15	1.00	1.00
Temperature rise	80 K	105 K	80 K
Locked rotor time	39s (cold) 22s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level ²	60.0 dB(A)	57.0 dB(A)	57.0 dB(A)
Efficiency (%)	25%	89.4	91.3
	50%	90.2	90.2
	75%	91.0	90.0
	100%	91.7	88.6
Power Factor	25%	0.39	0.45
	50%	0.64	0.71
	75%	0.76	0.82
	100%	0.82	0.86

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6208 ZZ	6206 ZZ	Max. traction	: 166 kgf
Sealing	: V'Ring	Without Bearing Seal	Max. compression	: 220 kgf
Lubrication interval	: -	-		
Lubricant amount	: -	-		
Lubricant type	: Mobil Polyrex EM			

Notes

USABLE @208V 20.1A SF 1.00 SFA 20.1A

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	13/05/2022			

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Revision

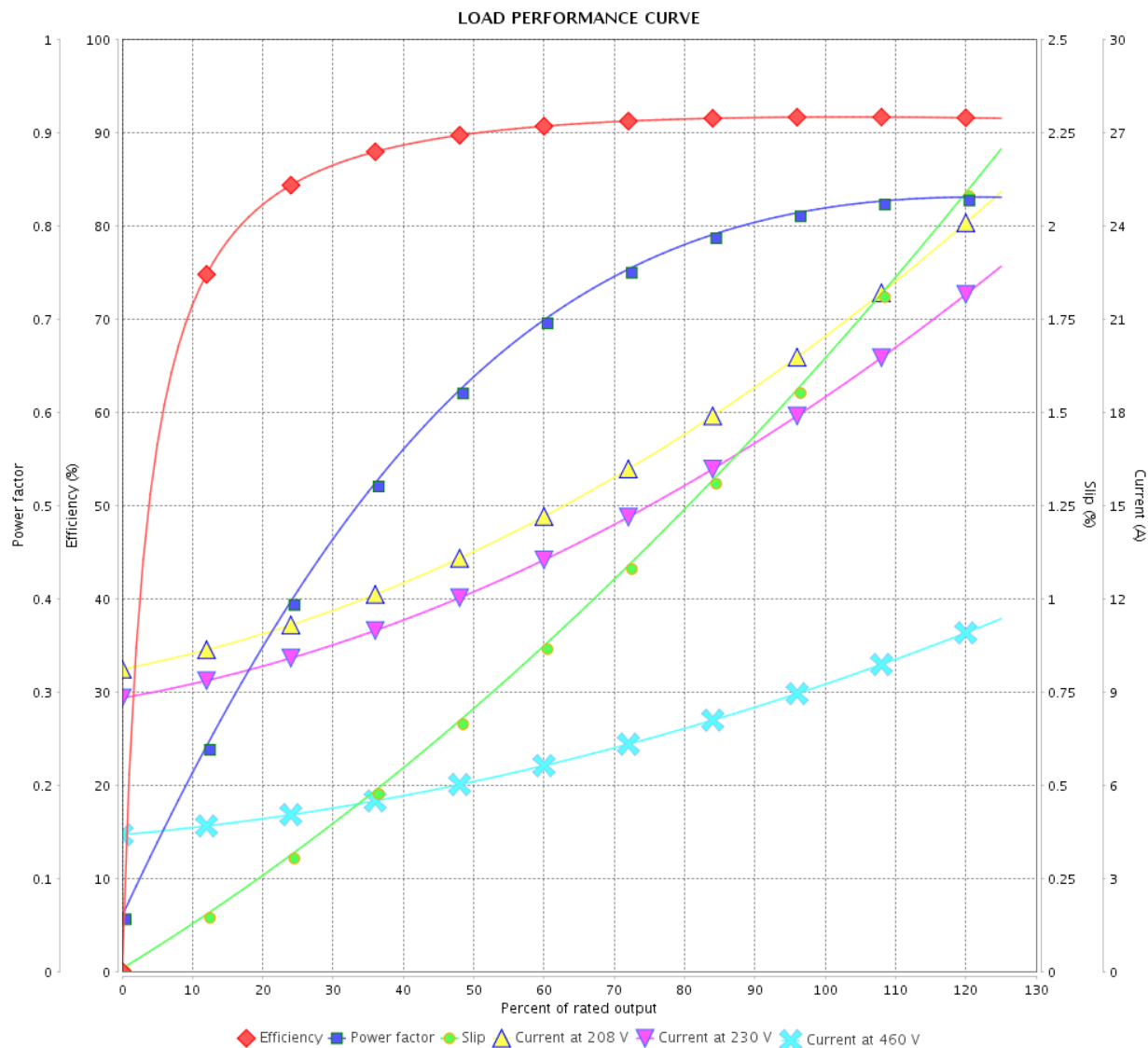
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase Product code : 12675405



Performance : 230/460 V 60 Hz 4P

Rated current : 18.1/9.07 A
 LRC : 7.3
 Rated torque : 3.08 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 300 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 0.0395 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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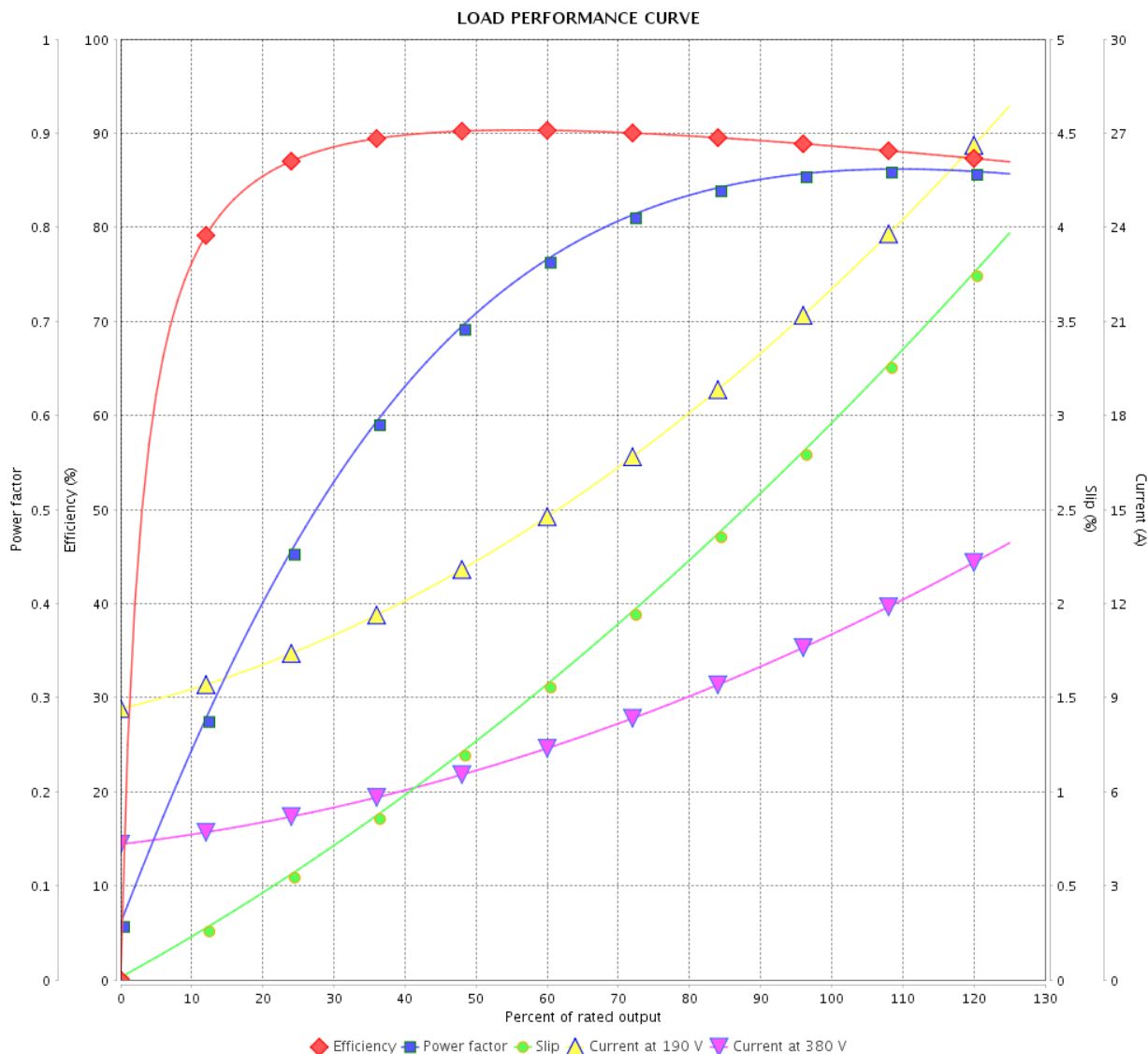
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675405



Performance : 190/380 V 50 Hz 4P

Rated current : 22.0/11.0 A
 LRC : 6.2
 Rated torque : 3.74 kgfm
 Locked rotor torque : 190 %
 Breakdown torque : 250 %
 Rated speed : 1455 rpm

Moment of inertia (J) : 0.0395 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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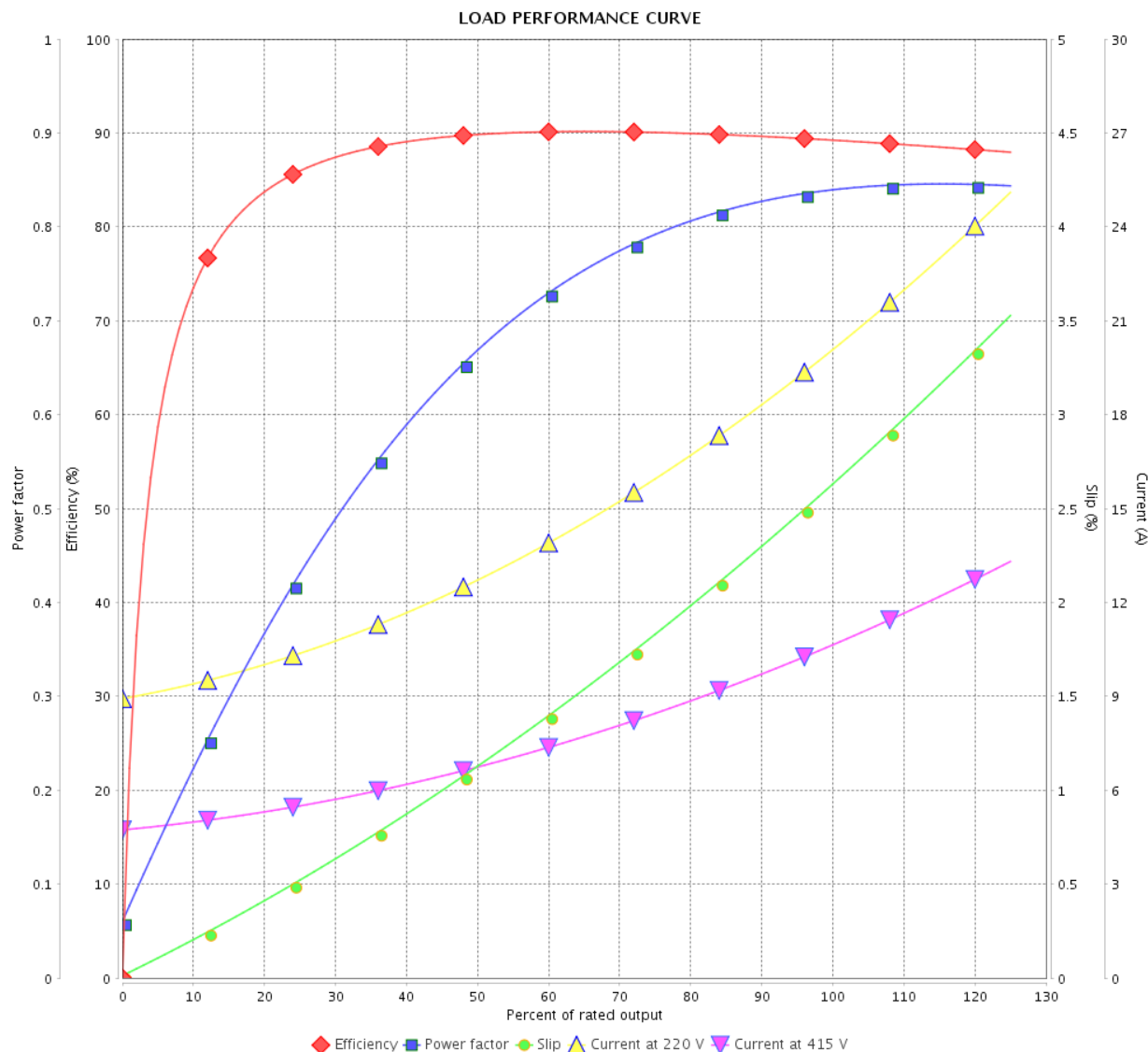
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase Product code : 12675405

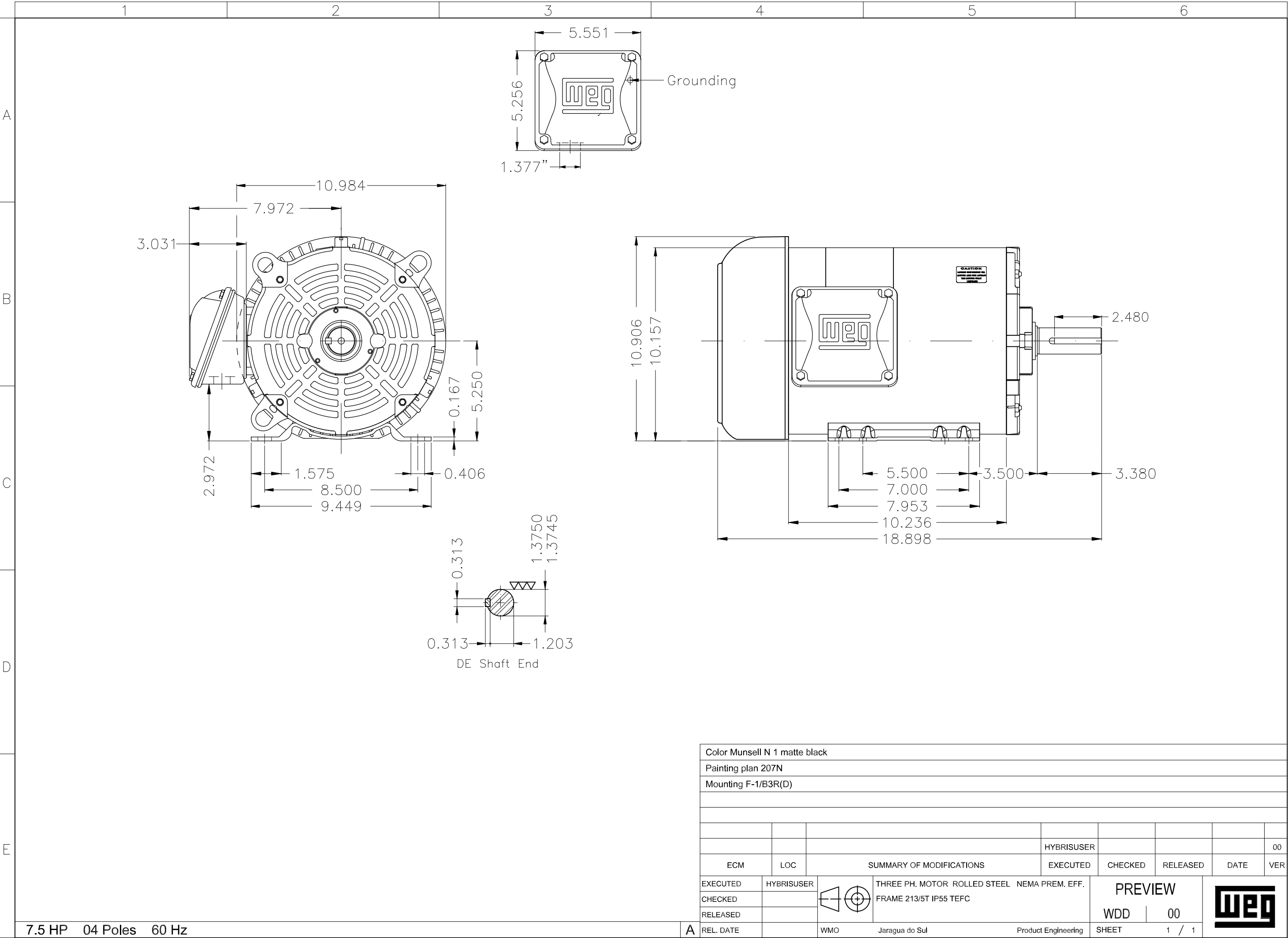


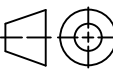
Performance : 220/415 V 50 Hz 4P

Rated current : 20.0/10.6 A
 LRC : 6.8
 Rated torque : 3.73 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 280 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.0395 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Date					
	13/05/2022				



Color Munsell N 1 matte black									
Painting plan 207N									
Mounting F-1/B3R(D)									
				HYBRISUSER					00
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	 THREE PH. MOTOR ROLLED STEEL NEMA PREM. EFF. FRAME 213/5T IP55 TEFC			PREVIEW				
CHECKED									
RELEASED									
REL. DATE		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1			