

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 12789072

Frame	: 254/6JM	Cooling method	: IC01 - ODP
Insulation class	: F	Mounting	: F-1
Duty cycle	: Cont.(S1)	Rotation <sup>1</sup>	: Both (CW and CCW)
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line
Altitude	: 1000 m.a.s.l.	Approx. weight <sup>2</sup>	: 103 kg
Design	: B	Moment of inertia (J)	: 0.0939 kgm <sup>2</sup>

Output [HP]	20	20	20
Poles	4	4	4
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	50.0/25.0	59.8/29.9	54.0/28.6
L. R. Amperes [A]	315/158	311/155	313/166
LRC [A]	6.3x(Code G)	5.2x(Code F)	5.8x(Code G)
No load current [A]	22.9/11.4	22.4/11.2	23.6/12.5
Rated speed [RPM]	1770	1460	1465
Slip [%]	1.67	2.67	2.33
Rated torque [kgfm]	8.20	9.94	9.91
Locked rotor torque [%]	240	180	200
Breakdown torque [%]	290	220	250
Service factor	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K
Locked rotor time	27s (cold) 15s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level <sup>2</sup>	64.0 dB(A)	62.0 dB(A)	62.0 dB(A)
Efficiency (%)	25%	91.7	93.0
	50%	92.4	91.8
	75%	92.4	91.2
	100%	93.0	89.7
Power Factor	25%	0.38	0.46
	50%	0.63	0.72
	75%	0.74	0.82
	100%	0.81	0.85

Bearing type	: Drive end 6309 Z C3 Non drive end 6208 Z C3	Foundation loads	
Sealing	: Without Without	Max. traction	: 338 kgf
	Bearing Seal Bearing Seal	Max. compression	: 441 kgf
Lubrication interval	: 20000 h 20000 h		
Lubricant amount	: 13 g 8 g		
Lubricant type	: Mobil Polyrex EM		

### Notes

USABLE @208V 55.3A SF 1.00 SFA 55.3A

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.

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Date	17/05/2022			

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Revision

# LOAD PERFORMANCE CURVE

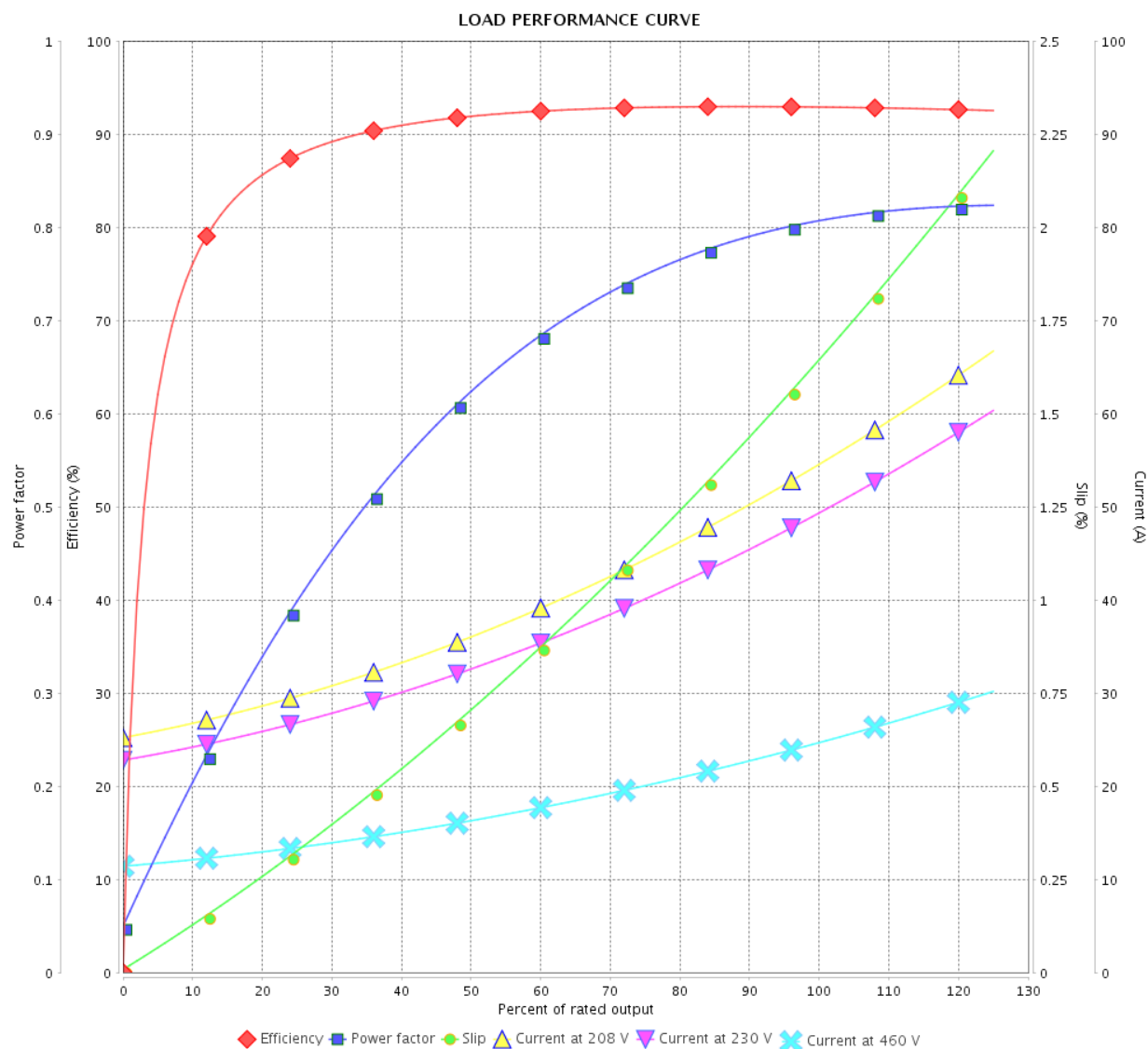
## Three Phase Induction Motor - Squirrel Cage



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Performance : 230/460 V 60 Hz 4P

Rated current : 50.0/25.0 A  
 LRC : 6.3  
 Rated torque : 8.20 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 290 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 0.0939 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

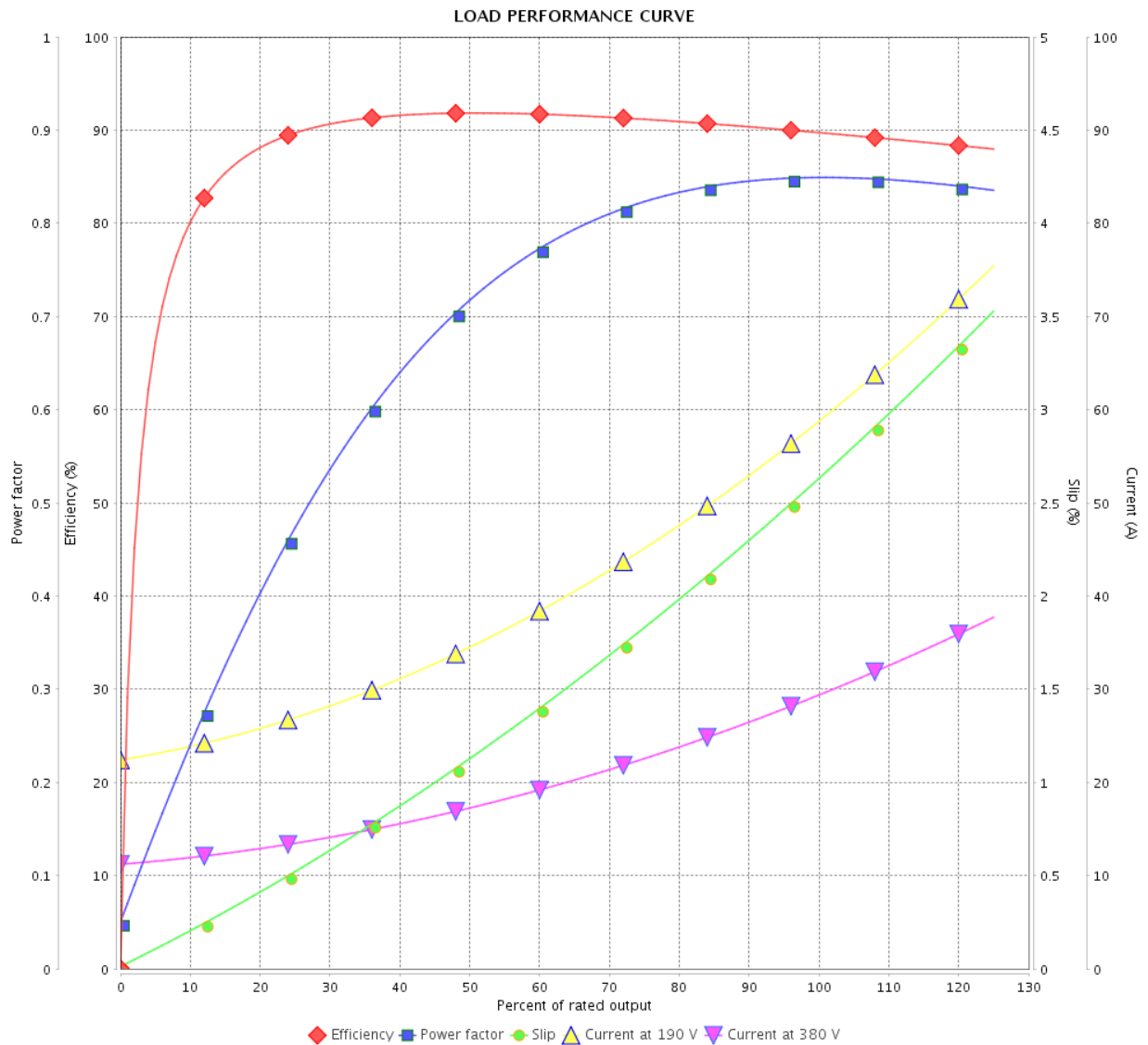
## Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 190/380 V 50 Hz 4P

Rated current : 59.8/29.9 A  
LRC : 5.2  
Rated torque : 9.94 kgfm  
Locked rotor torque : 180 %  
Breakdown torque : 220 %  
Rated speed : 1460 rpm

Moment of inertia (J) : 0.0939 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

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# LOAD PERFORMANCE CURVE

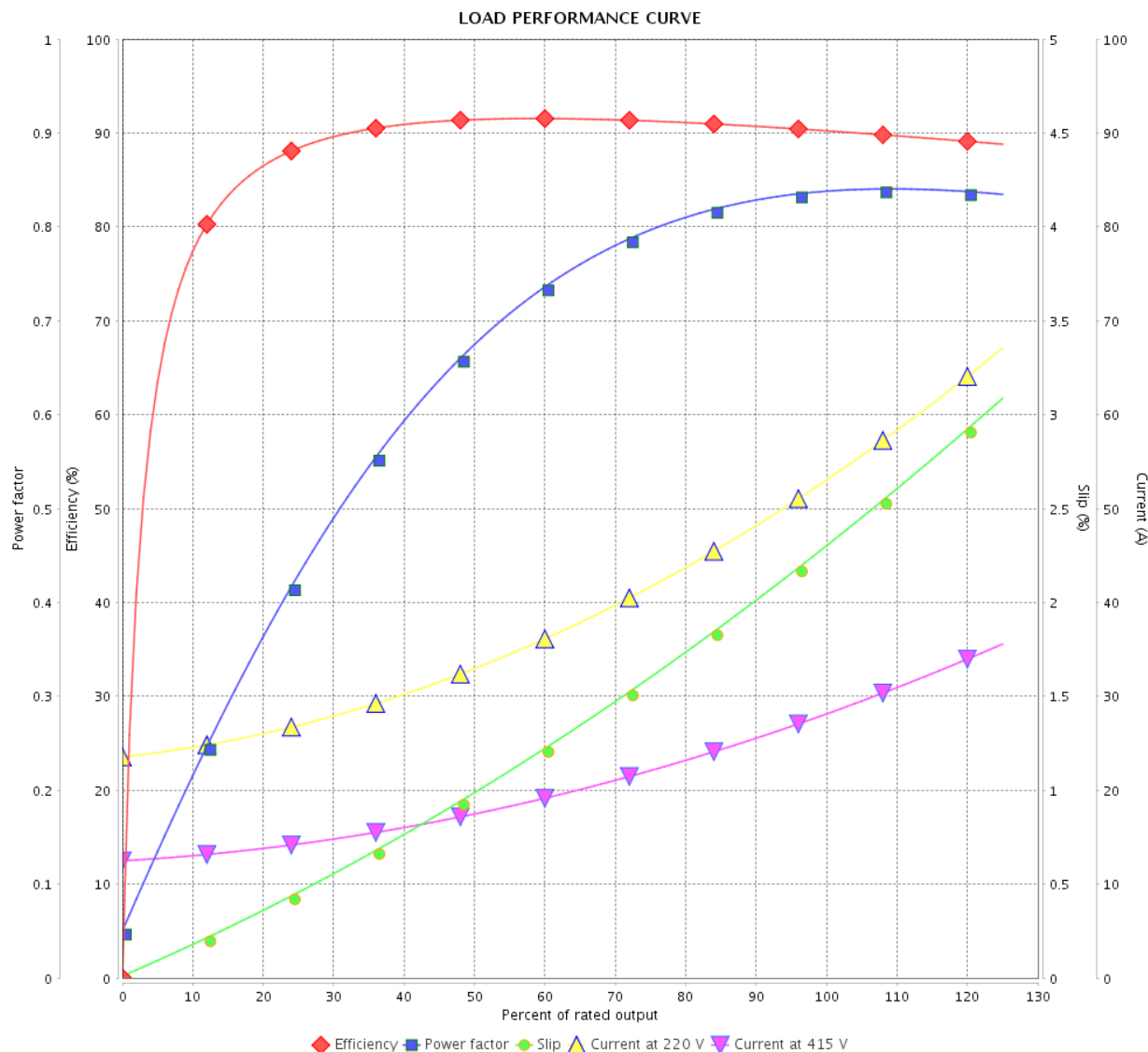
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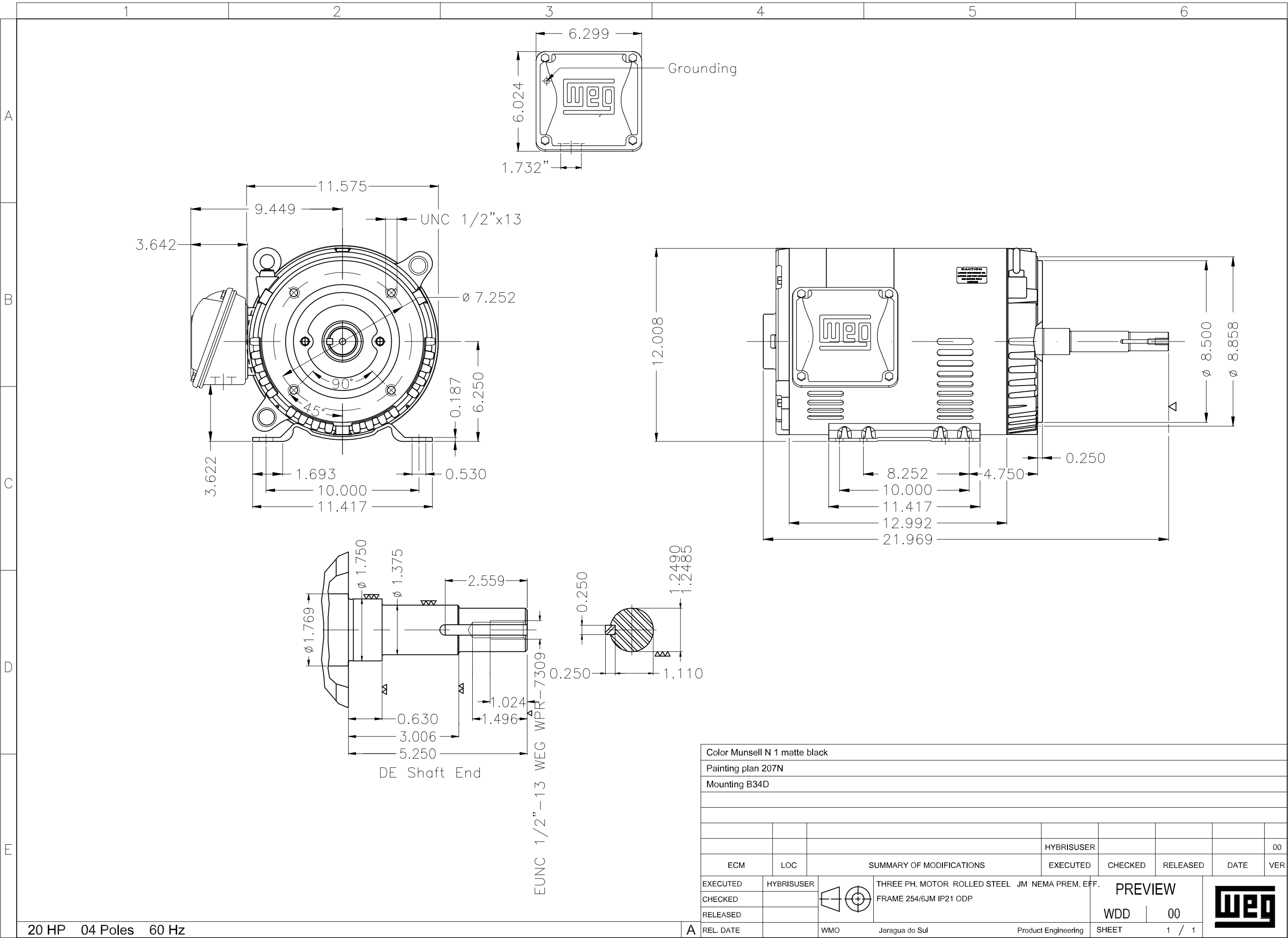


Performance : 220/415 V 50 Hz 4P

Rated current : 54.0/28.6 A  
LRC : 5.8  
Rated torque : 9.91 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 250 %  
Rated speed : 1465 rpm

Moment of inertia (J) : 0.0939 kgm<sup>2</sup>  
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									
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