

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 11439868

Frame : 404/5T	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 ³ : 561 kg
Protection degree : IP55	Moment of inertia (J) : 1.11 kgm ²
Design : B	

Output [HP]	100	75	75	75
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	226/113	103	100	98.7
L. R. Amperes [A]	1627/814	773	840	898
LRC [A]	7.2x(Code H)	7.5x(Code H)	8.4x(Code J)	9.1x(Code K)
No load current [A]	78.0/39.0	39.0	42.0	45.0
Rated speed [RPM]	1780	1480	1485	1485
Slip [%]	1.11	1.33	1.00	1.00
Rated torque [kgfm]	40.8	36.8	36.7	36.7
Locked rotor torque [%]	270	270	300	320
Breakdown torque [%]	280	310	360	370
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	23s (cold) 13s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level ²	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)
Efficiency (%)	25%	94.0	93.9	93.4
	50%	94.5	94.0	93.6
	75%	95.0	94.5	94.5
	100%	95.4	94.5	94.5
Power Factor	25%	0.47	0.44	0.38
	50%	0.72	0.69	0.62
	75%	0.82	0.80	0.75
	100%	0.87	0.86	0.82

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6217 C3	6314 C3	Max. traction : 1057 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 1611 kgf
Lubrication interval :	9149 h	9789 h	
Lubricant amount :	21 g	27 g	
Lubricant type :	Mobil Polyrex EM		

Notes
USABLE @208V 250A SF 1.00 SFA 250A

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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Performed by				
Checked by				
Date	29/10/2024			

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Revision

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Customer :

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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LOAD PERFORMANCE CURVE

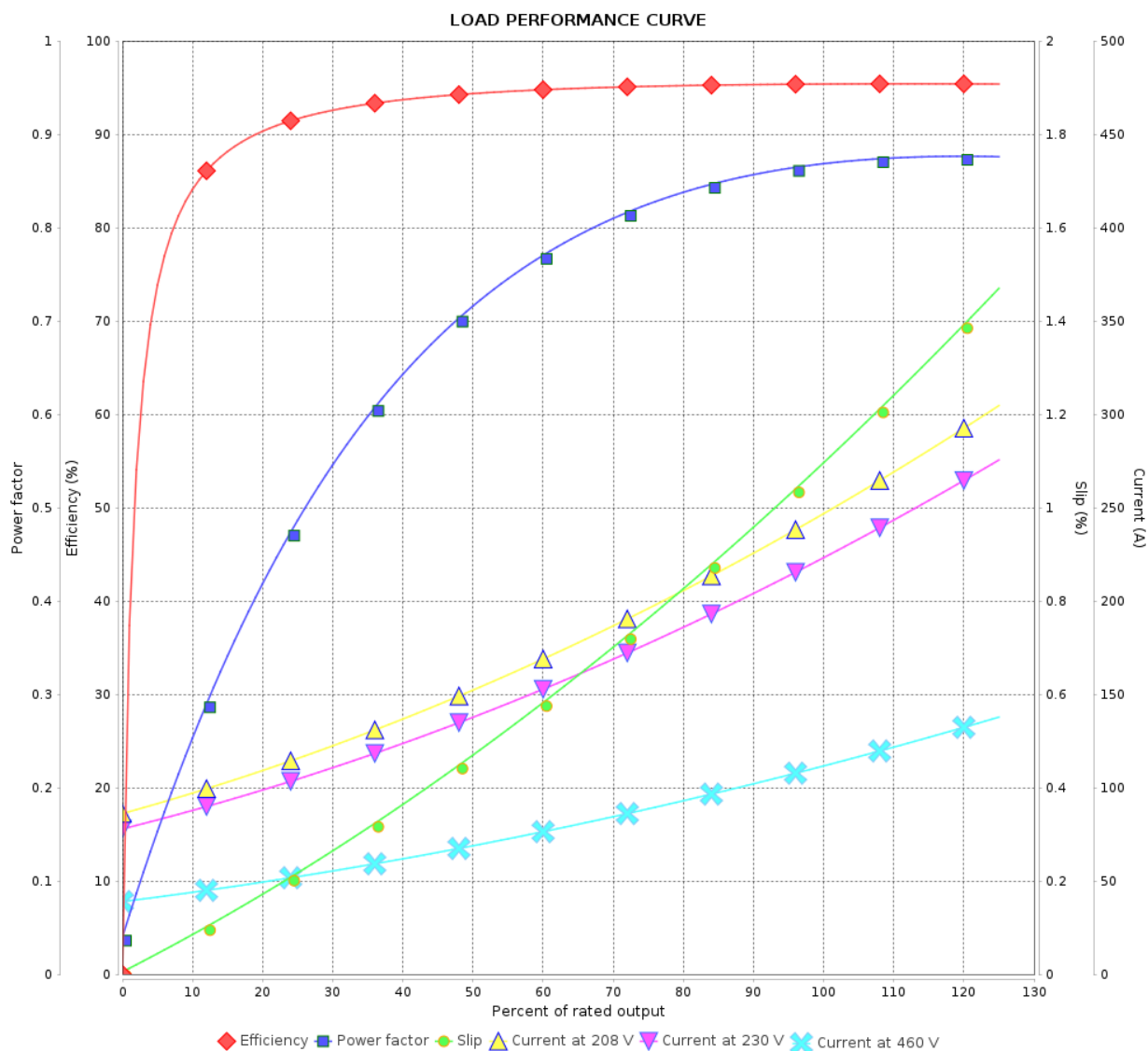
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA
Premium Efficiency Three-Phase

Product code : 11439868



Performance : 230/460 V 60 Hz 4P

Rated current : 226/113 A
LRC : 7.2
Rated torque : 40.8 kgfm
Locked rotor torque : 270 %
Breakdown torque : 280 %
Rated speed : 1780 rpm

Moment of inertia (J) : 1.11 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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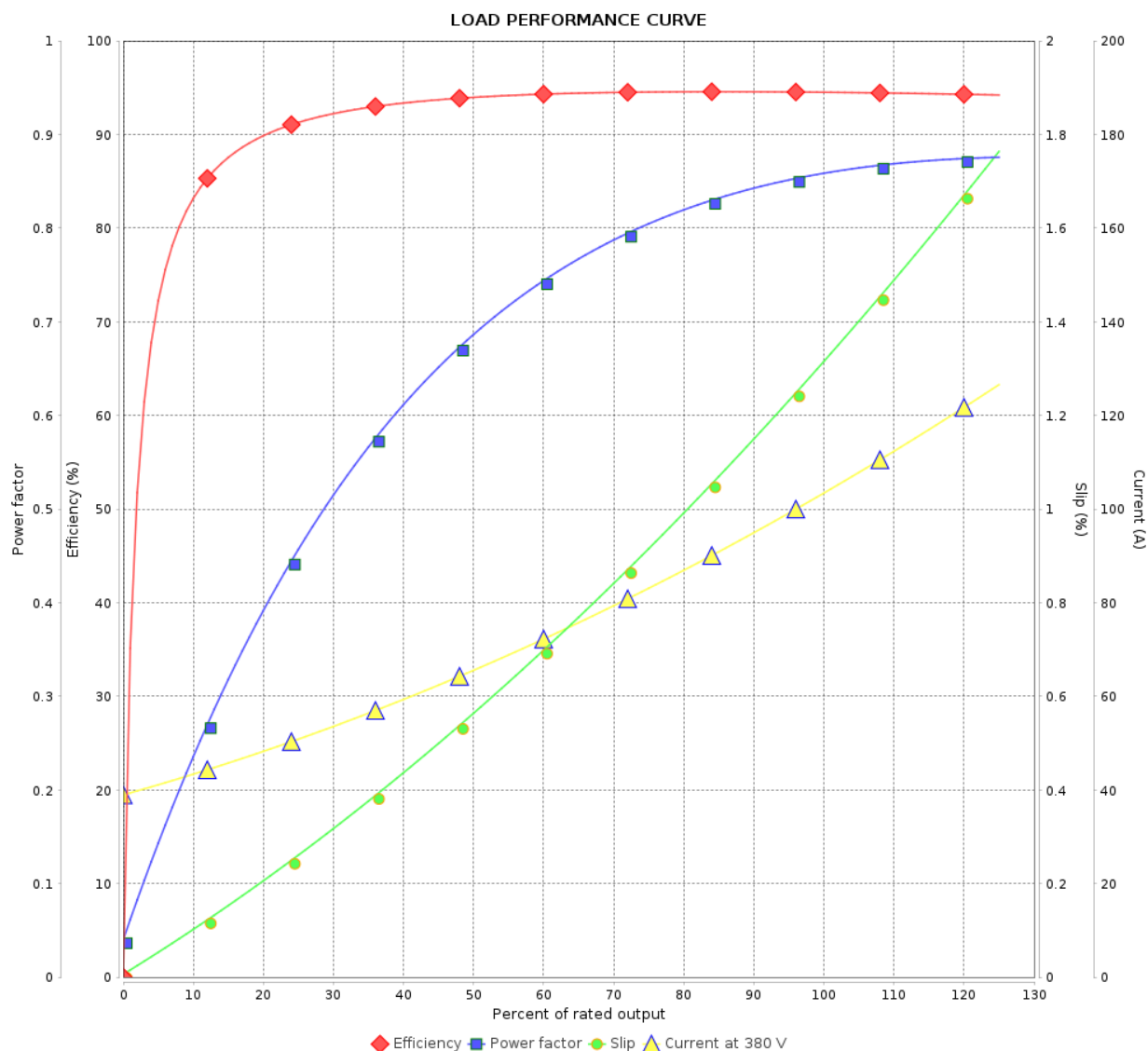
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA
Premium Efficiency Three-Phase

Product code : 11439868



Performance : 380 V 50 Hz 4P IE2

Rated current : 103 A
LRC : 7.5
Rated torque : 36.8 kgfm
Locked rotor torque : 270 %
Breakdown torque : 310 %
Rated speed : 1480 rpm

Moment of inertia (J) : 1.11 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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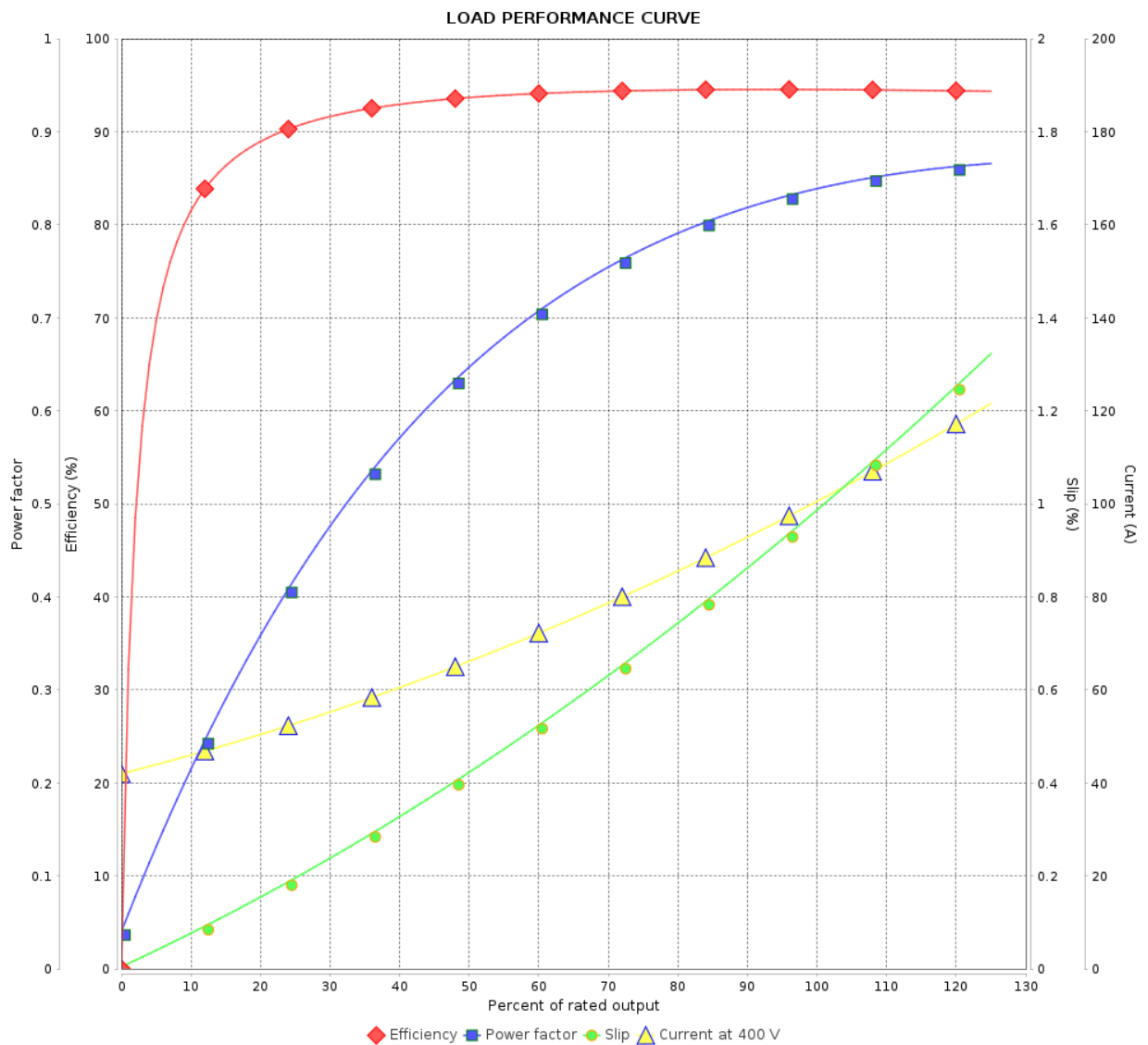
Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

Product code : 11439868



Performance : 400 V 50 Hz 4P IE2

Rated current : 100 A
LRC : 8.4
Rated torque : 36.7 kgfm
Locked rotor torque : 300 %
Breakdown torque : 360 %
Rated speed : 1485 rpm

Moment of inertia (J) : 1.11 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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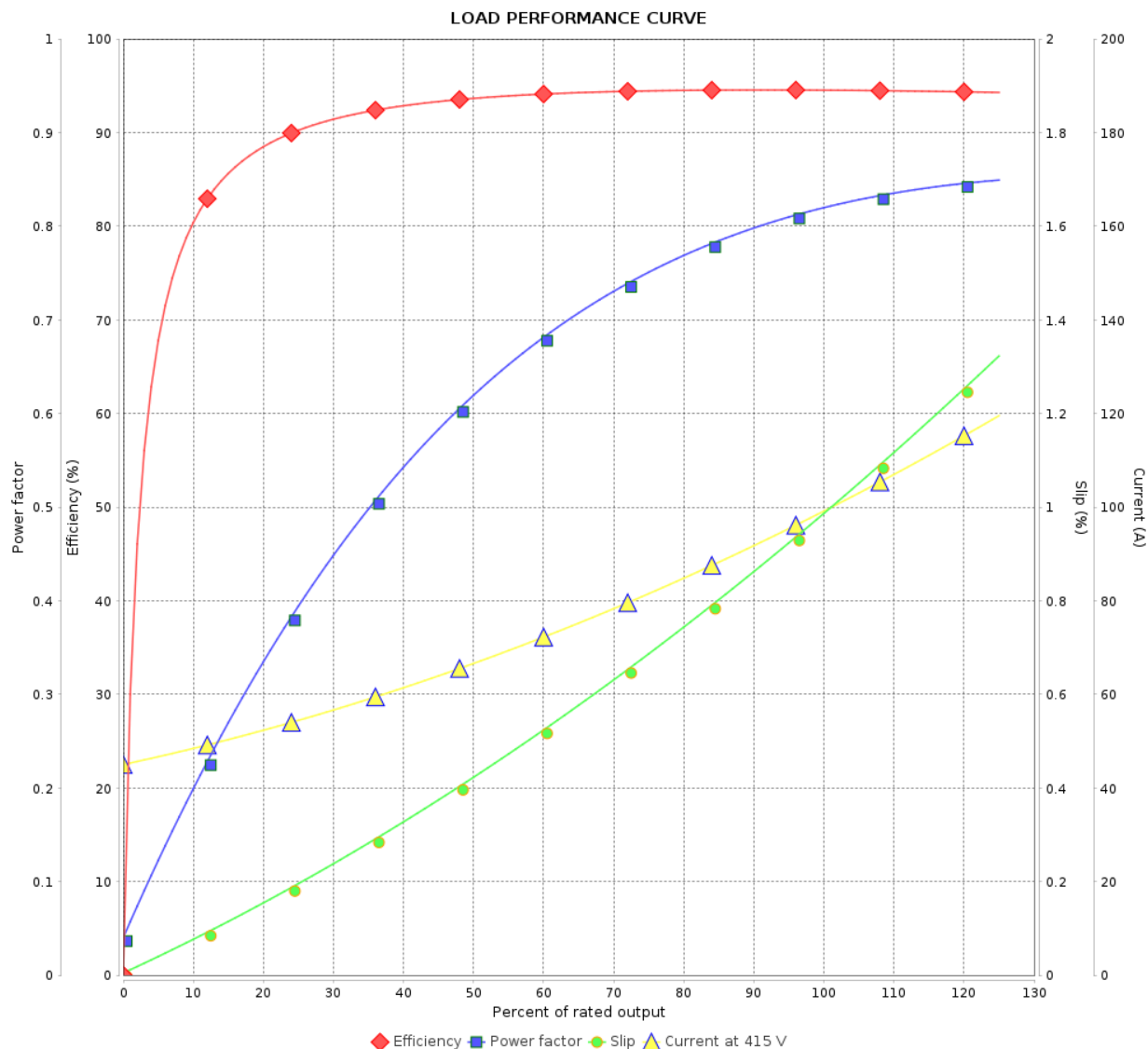
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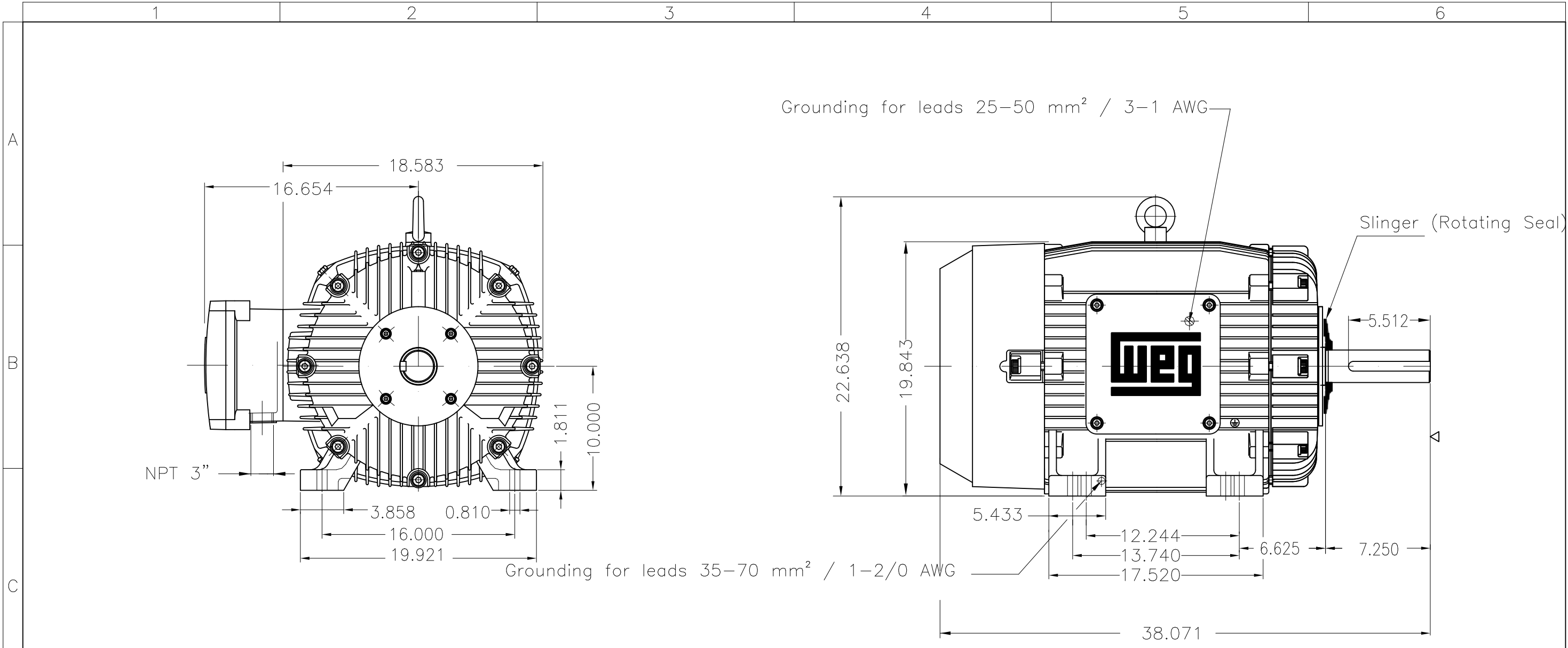


Performance : 415 V 50 Hz 4P IE2

Rated current : 98.7 A
LRC : 9.1
Rated torque : 36.7 kgfm
Locked rotor torque : 320 %
Breakdown torque : 370 %
Rated speed : 1485 rpm

Moment of inertia (J) : 1.11 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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Color RAL 5009

Painting plan 202P

Mounting B3R(D)

DE Shaft End

DUNC 3/4"-10 WEG WPR-7339

100 HP 04 Poles 60 Hz

HYBRISUSER

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ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	<div>THREE PH. MOTOR EXPLOSION PROOF NEMA PREM. EFF. FRAME 404/5T IP55 TEFC</div>					
CHECKED							
RELEASED							
REL. DATE		WMO Jaragua do Sul	Product Engineering	SHEET 1 / 1			

PREVIEW

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