

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 12310134

Frame : 364/5TS	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 : 480 kg
Protection degree : IP55	Moment of inertia (J) : 0.4198 kgm ²
Design : B	

Output [HP]	60	50	50	50
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	137/68.6	68.7	65.3	63.6
L. R. Amperes [A]	878/439	419	438	458
LRC [A]	6.4x(Code G)	6.1x(Code F)	6.7x(Code G)	7.2x(Code H)
No load current [A]	30.0/15.0	15.0	16.0	17.0
Rated speed [RPM]	3550	2950	2960	2960
Slip [%]	1.39	1.67	1.33	1.33
Rated torque [kgfm]	12.3	12.3	12.3	12.3
Locked rotor torque [%]	200	190	210	229
Breakdown torque [%]	250	240	260	290
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	108s (cold) 60s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)
Noise level ²	85.0 dB(A)	82.0 dB(A)	82.0 dB(A)	82.0 dB(A)
Efficiency (%)	25%			
	50%	92.4	92.0	92.0
	75%	93.0	92.8	92.8
	100%	93.6	93.0	93.0
Power Factor	25%			
	50%	0.79	0.77	0.76
	75%	0.86	0.85	0.85
	100%	0.88	0.88	0.87

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6314 C3	6314 C3	Max. traction : 161 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression : 638 kgf
Lubrication interval	: 3604 h	3604 h	
Lubricant amount	: 27 g	27 g	
Lubricant type	: Mobil Polyrex EM		

Notes
USABLE @208V 151A SF 1.00 SFA 151A

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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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

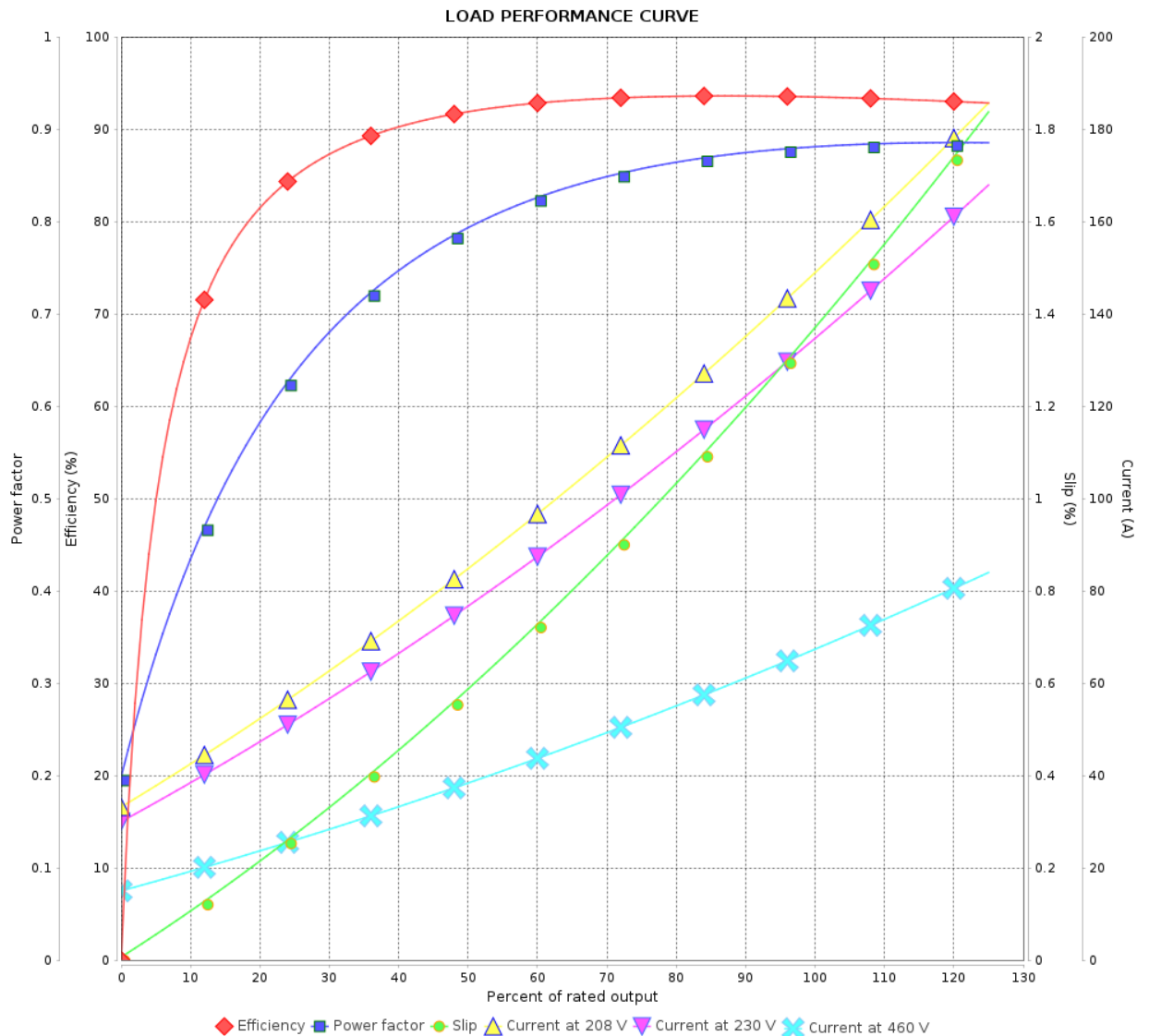
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12310134



Performance : 230/460 V 60 Hz 2P

Rated current : 137/68.6 A
LRC : 6.4
Rated torque : 12.3 kgfm
Locked rotor torque : 200 %
Breakdown torque : 250 %
Rated speed : 3550 rpm

Moment of inertia (J) : 0.4198 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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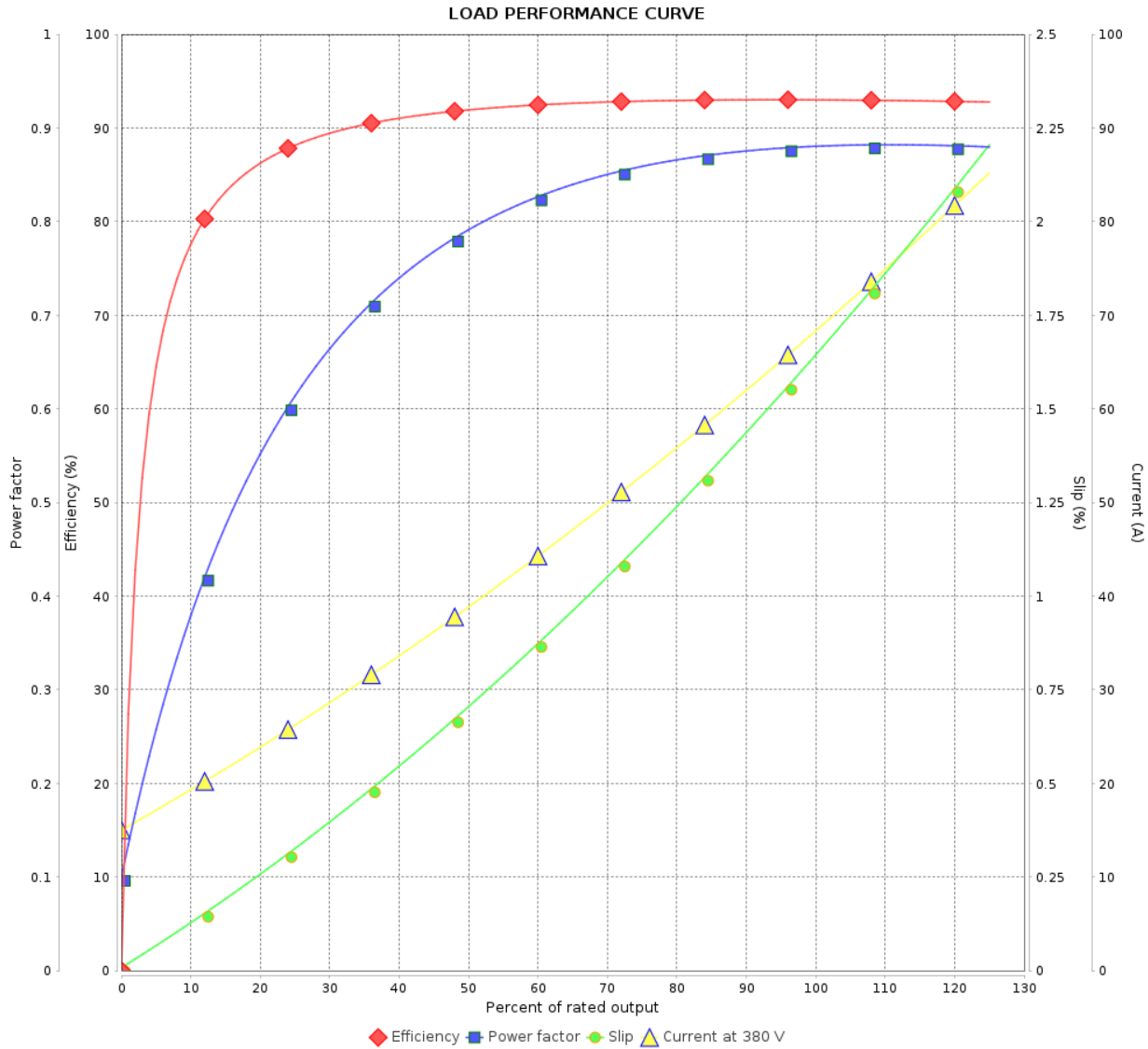
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12310134



Performance : 380 V 50 Hz 2P IE2

Rated current : 68.7 A
LRC : 6.1
Rated torque : 12.3 kgfm
Locked rotor torque : 190 %
Breakdown torque : 240 %
Rated speed : 2950 rpm

Moment of inertia (J) : 0.4198 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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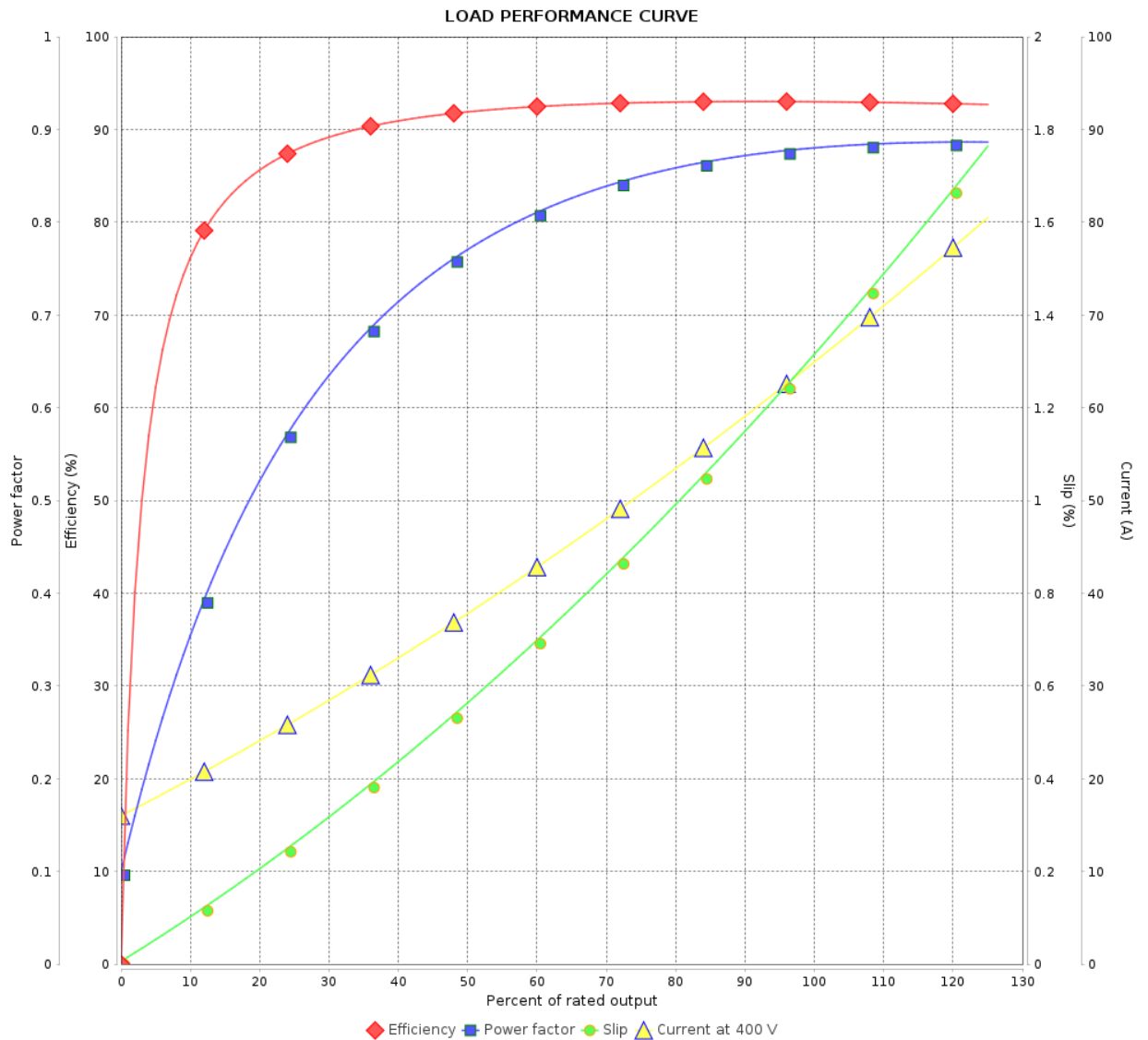
Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

Product code : 12310134



Performance : 400 V 50 Hz 2P IE2

Rated current : 65.3 A
LRC : 6.7
Rated torque : 12.3 kgfm
Locked rotor torque : 210 %
Breakdown torque : 260 %
Rated speed : 2960 rpm

Moment of inertia (J) : 0.4198 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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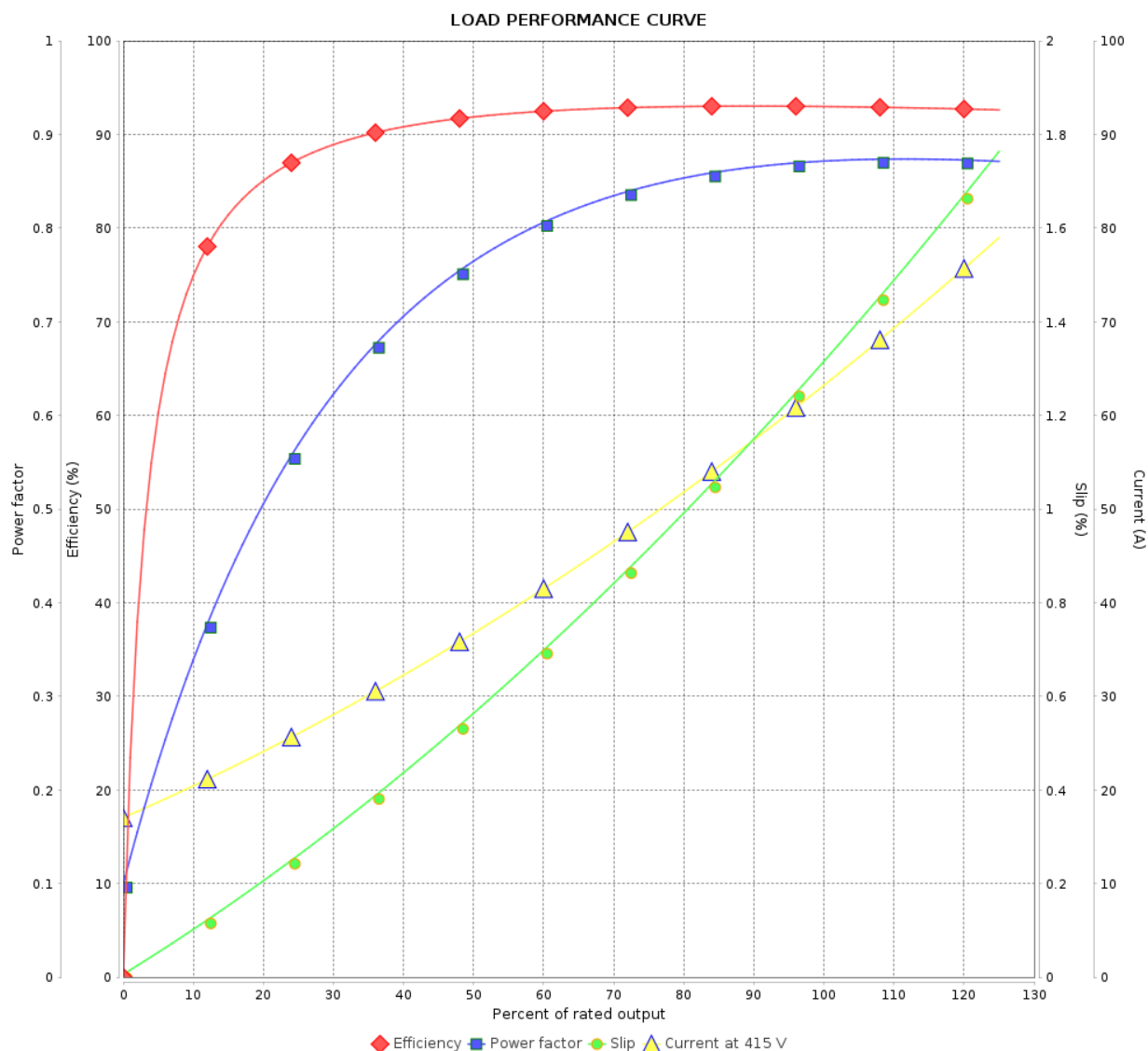
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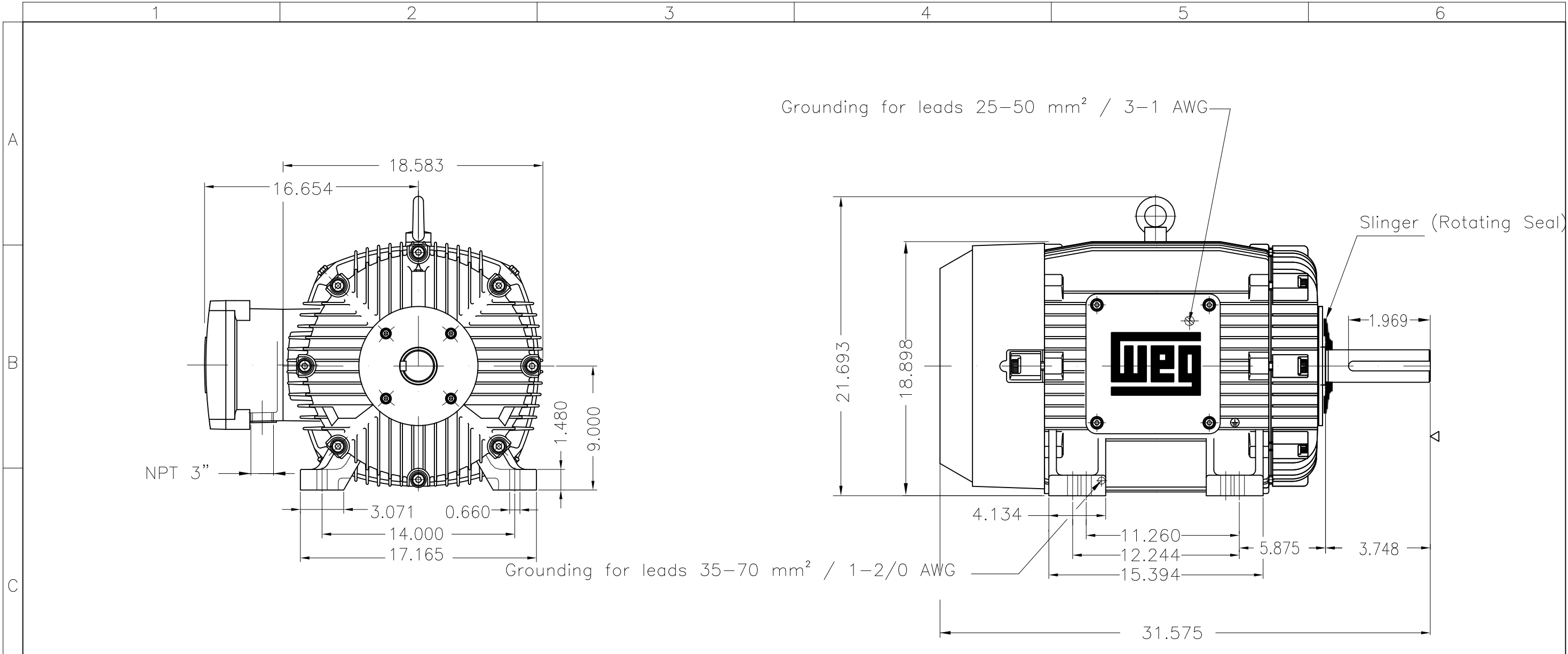


Performance : 415 V 50 Hz 2P IE2

Rated current : 63.6 A
LRC : 7.2
Rated torque : 12.3 kgfm
Locked rotor torque : 229 %
Breakdown torque : 290 %
Rated speed : 2960 rpm

Moment of inertia (J) : 0.4198 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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D										
E	60 HP 02 Poles 60 Hz									
						HYBRISUSER				00
ECM		LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE VER
EXECUTED	HYBRISUSER		THREE PH. MOTOR EXPLOSION PROOF NEMA PREM. EFF.				PREVIEW			
CHECKED			FRAME 364/5TS IP55 TEFC				WDD 00			
RELEASED										
REL. DATE			WMO	Jaragua do Sul	Product Engineering	SHEET		1 / 1		

Color RAL 5009

Painting plan 222P

Mounting B3R(D)

DE Shaft End

0.500 0.500 1.591 1.8750 1.8740

DUNC 3/4"-10 WEG WPR-7339