

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14192751

Frame	: 182/4T	Cooling method	: IC411 - TEFC
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>3</sup>	: 56.9 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0062 kgm <sup>2</sup>
Design	: B		

Output [HP]	3	3	3	3
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	7.52/3.76	4.44	4.27	4.16
L. R. Amperes [A]	63.2/31.6	29.7	31.6	33.3
LRC [A]	8.4x(Code K)	6.7x(Code H)	7.4x(Code J)	8.0x(Code J)
No load current [A]	2.80/1.40	1.30	1.40	1.48
Rated speed [RPM]	3510	2880	2890	2900
Slip [%]	2.50	4.00	3.67	3.33
Rated torque [kgfm]	0.620	0.756	0.753	0.751
Locked rotor torque [%]	250	210	240	260
Breakdown torque [%]	400	300	340	370
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	54s (cold) 30s (hot)	77s (cold) 43s (hot)	77s (cold) 43s (hot)	77s (cold) 43s (hot)
Noise level <sup>2</sup>	69.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)
Efficiency (%)	25%	81.3	82.0	81.2
	50%	82.5	82.5	82.5
	75%	85.5	85.5	85.5
	100%	86.5	85.5	86.5
Power Factor	25%	0.48	0.55	0.51
	50%	0.73	0.78	0.75
	75%	0.81	0.85	0.83
	100%	0.85	0.88	0.86

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6307 2RS	6206 2RS	Max. traction	: 30 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression	: 86 kgf
Lubrication interval	: -	-		
Lubricant amount	: -	-		
Lubricant type	: Mobil Polyrex EM			

Notes  
USABLE @208V 8.32A SF 1.15 SFA 9.56A

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	28/10/2024			

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Revision

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## Three Phase Induction Motor - Squirrel Cage



Customer :

Thermal protection

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

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Date	28/10/2024				

# LOAD PERFORMANCE CURVE

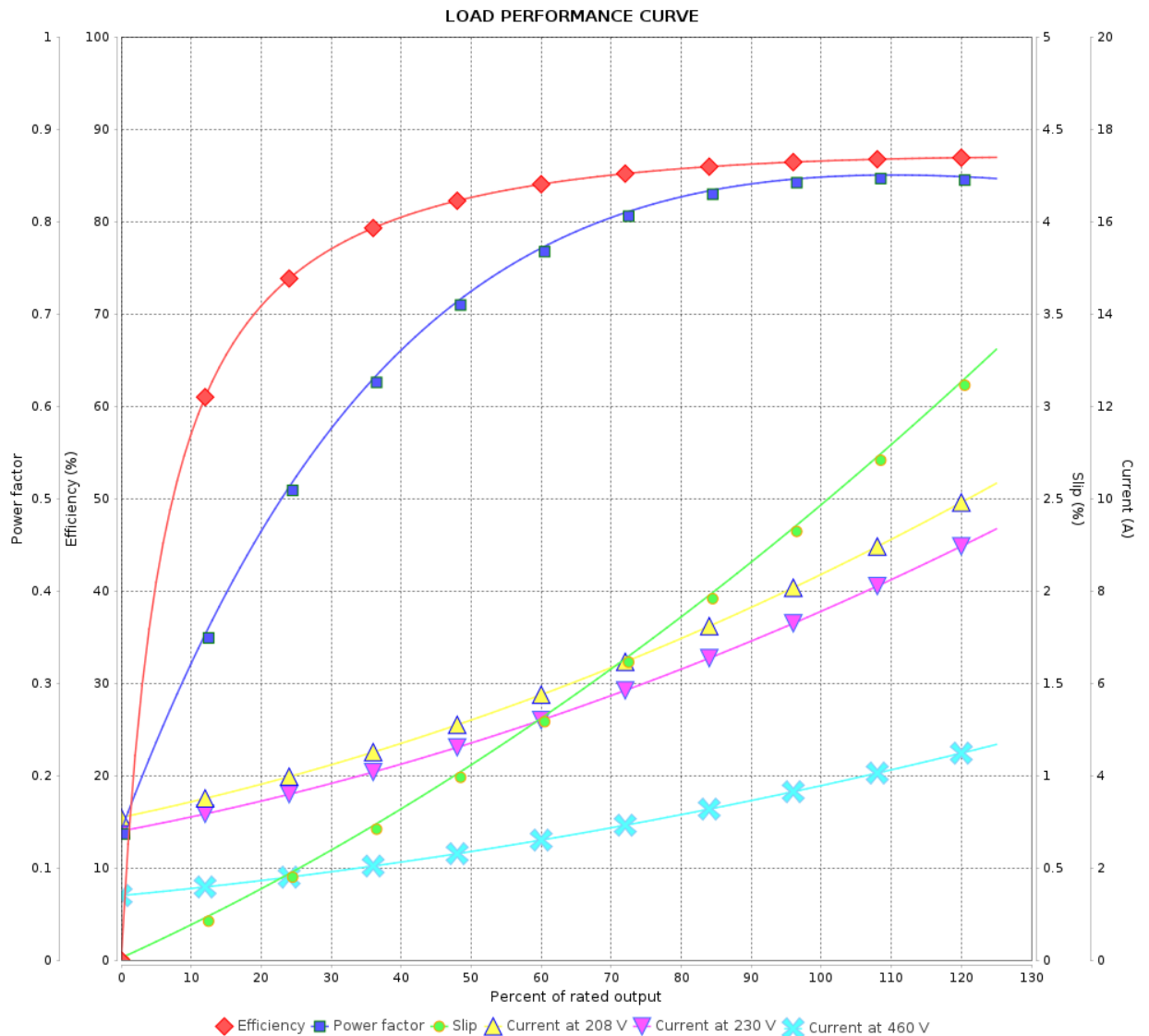
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14192751



Performance : 230/460 V 60 Hz 2P

Rated current : 7.52/3.76 A  
LRC : 8.4  
Rated torque : 0.620 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 400 %  
Rated speed : 3510 rpm

Moment of inertia (J) : 0.0062 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

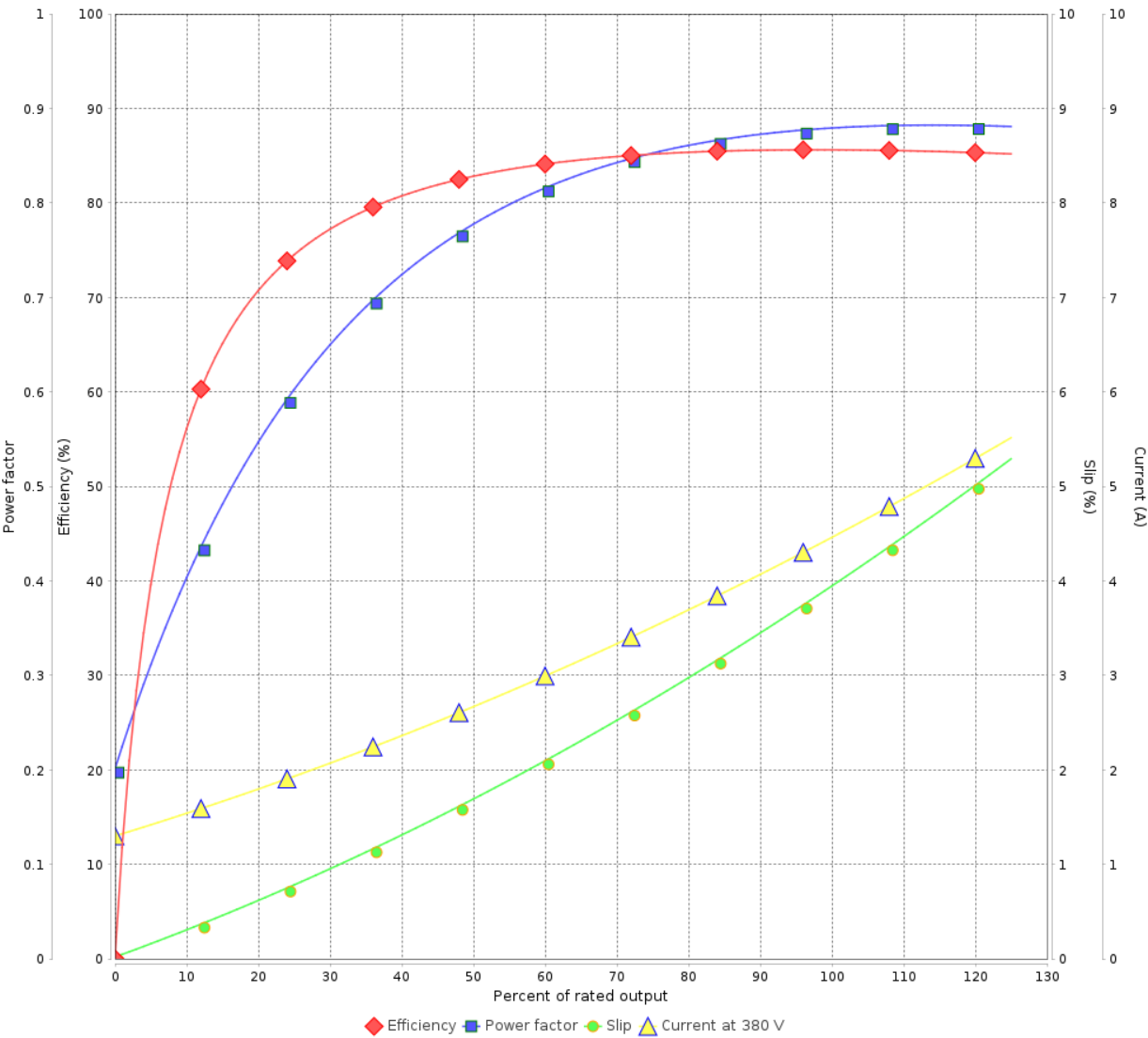


Customer :

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

Product code : 14192751

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 2P IE2

Rated current : 4.44 A  
LRC : 6.7  
Rated torque : 0.756 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 300 %  
Rated speed : 2880 rpm

Moment of inertia (J) : 0.0062 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

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# LOAD PERFORMANCE CURVE

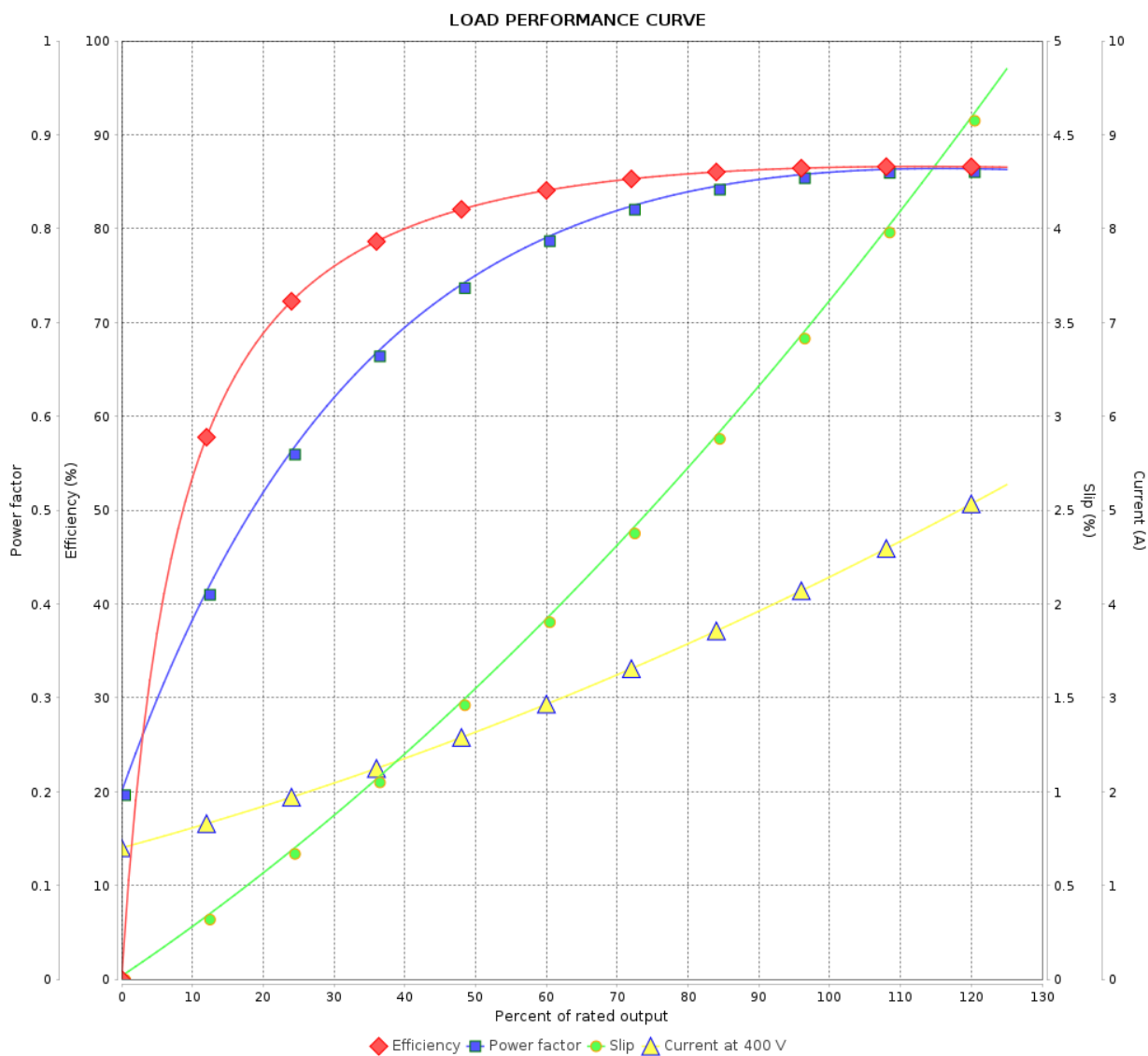
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

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Performance : 400 V 50 Hz 2P IE3

Rated current : 4.27 A  
LRC : 7.4  
Rated torque : 0.753 kgfm  
Locked rotor torque : 240 %  
Breakdown torque : 340 %  
Rated speed : 2890 rpm

Moment of inertia (J) : 0.0062 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

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# LOAD PERFORMANCE CURVE

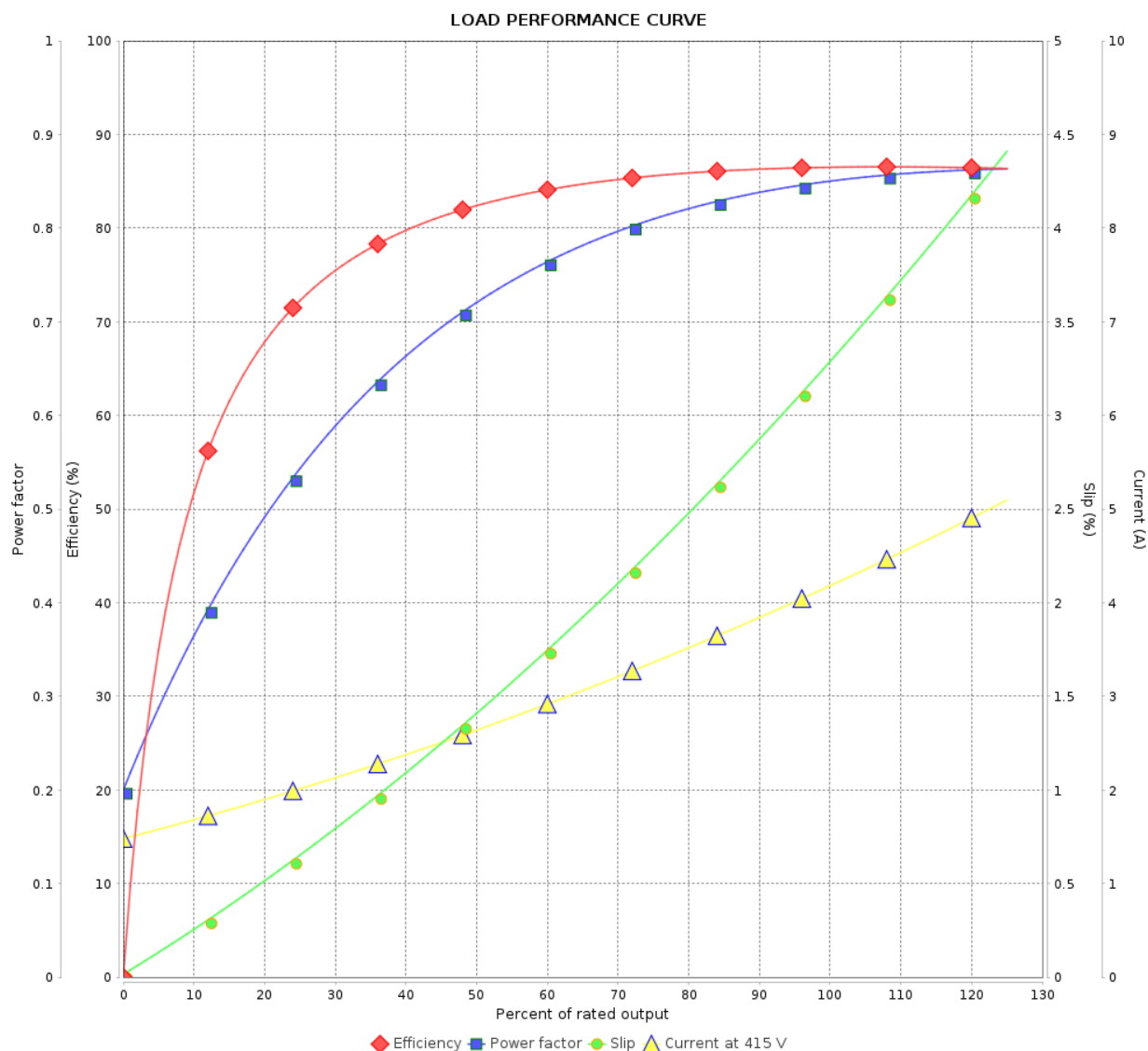
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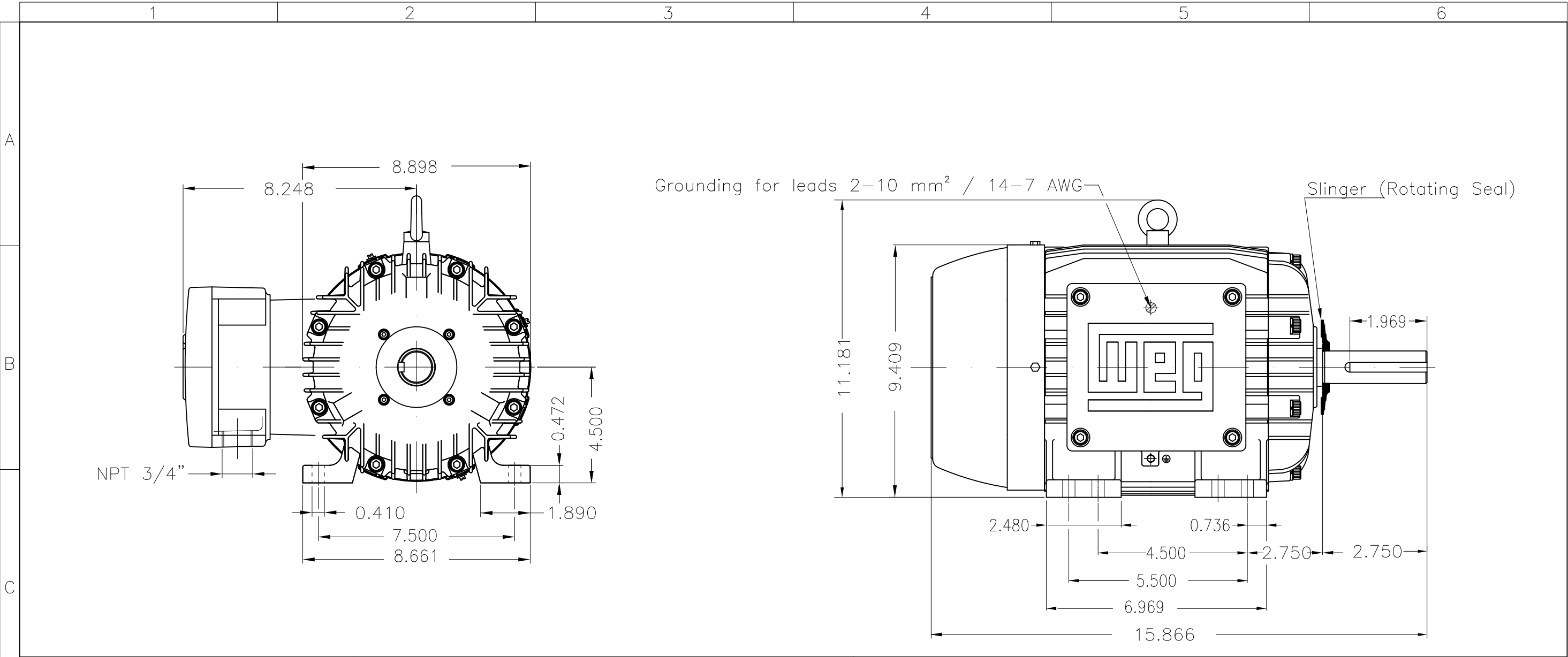


Performance : 415 V 50 Hz 2P IE3

Rated current : 4.16 A  
LRC : 8.0  
Rated torque : 0.751 kgfm  
Locked rotor torque : 260 %  
Breakdown torque : 370 %  
Rated speed : 2900 rpm

Moment of inertia (J) : 0.0062 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

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