

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14406880

Frame	: 254TC	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	: 151 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0974 kgm ²
Design	: B		

Output [HP]	15	15	15	15
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	36.8/18.4	22.1	21.3	20.8
L. R. Amperes [A]	269/134	128	136	141
LRC [A]	7.3x(Code J)	5.8x(Code G)	6.4x(Code G)	6.8x(Code H)
No load current [A]	17.2/8.60	8.40	9.20	9.60
Rated speed [RPM]	1770	1455	1460	1465
Slip [%]	1.67	3.00	2.67	2.33
Rated torque [kgfm]	6.15	7.48	7.46	7.43
Locked rotor torque [%]	300	220	250	270
Breakdown torque [%]	300	229	250	270
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	46s (cold) 26s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)
Noise level ²	69.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)
Efficiency (%)	25%			
	50%	90.2	91.0	91.0
	75%	91.7	91.7	91.0
	100%	92.4	90.2	91.0
Power Factor	25%			
	50%	0.65	0.71	0.68
	75%	0.75	0.79	0.77
	100%	0.81	0.84	0.82

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6309 C3	6209 C3	Max. traction	: 240 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression	: 391 kgf
Lubrication interval	: 20000 h	20000 h		
Lubricant amount	: 13 g	9 g		
Lubricant type	: Mobil Polyrex EM			

Notes
USABLE @208V 40.7A SF 1.15 SFA 46.8A

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

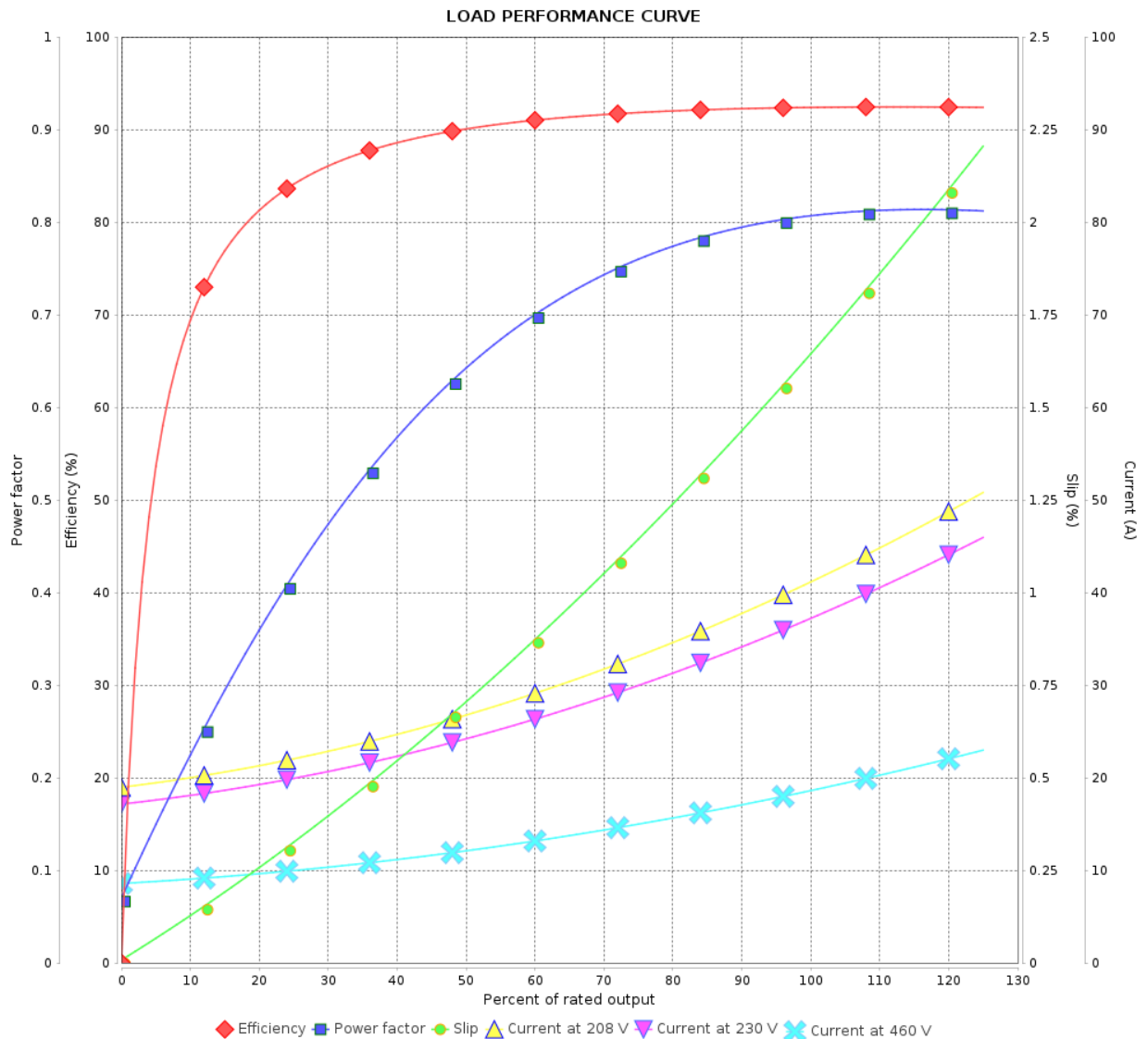
Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

Product code : 14406880



Performance : 230/460 V 60 Hz 4P

Rated current : 36.8/18.4 A
LRC : 7.3
Rated torque : 6.15 kgfm
Locked rotor torque : 300 %
Breakdown torque : 300 %
Rated speed : 1770 rpm

Moment of inertia (J) : 0.0974 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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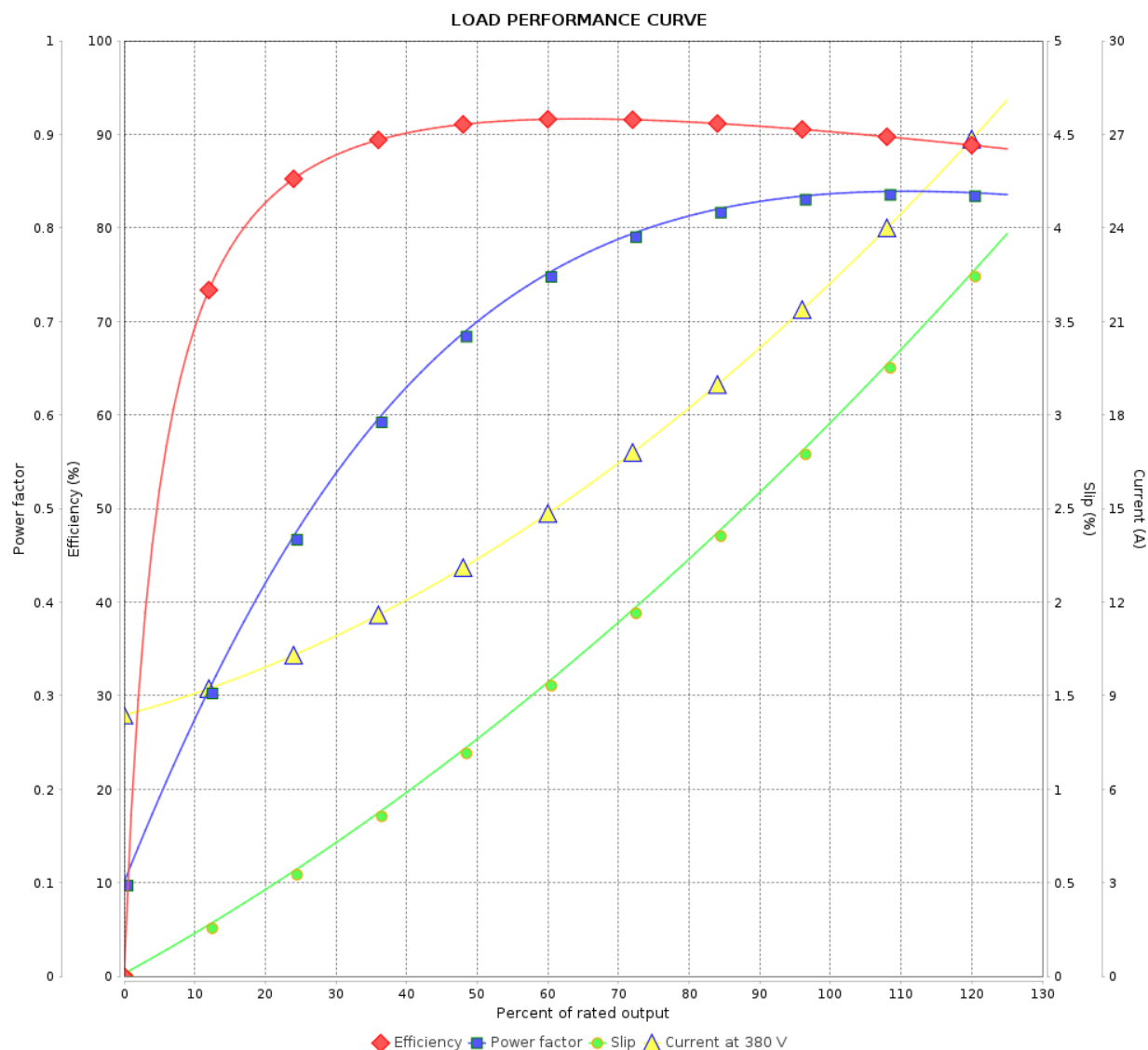
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14406880



Performance : 380 V 50 Hz 4P IE2

Rated current : 22.1 A
LRC : 5.8
Rated torque : 7.48 kgfm
Locked rotor torque : 220 %
Breakdown torque : 229 %
Rated speed : 1455 rpm

Moment of inertia (J) : 0.0974 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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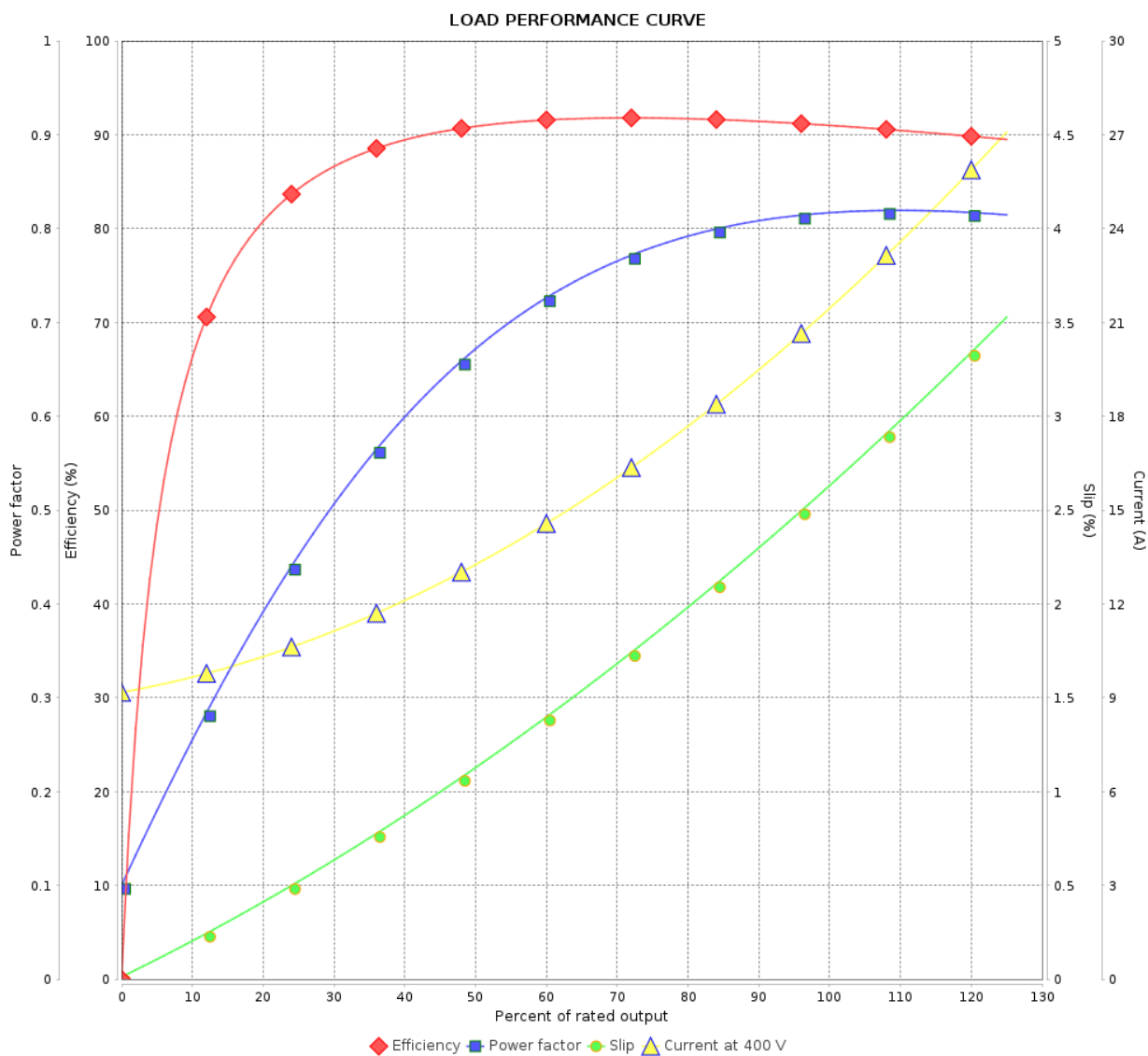
Three Phase Induction Motor - Squirrel Cage



Customer :

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Premium Efficiency Three-Phase

Product code : 14406880



Performance : 400 V 50 Hz 4P IE2

Rated current : 21.3 A
LRC : 6.4
Rated torque : 7.46 kgfm
Locked rotor torque : 250 %
Breakdown torque : 250 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.0974 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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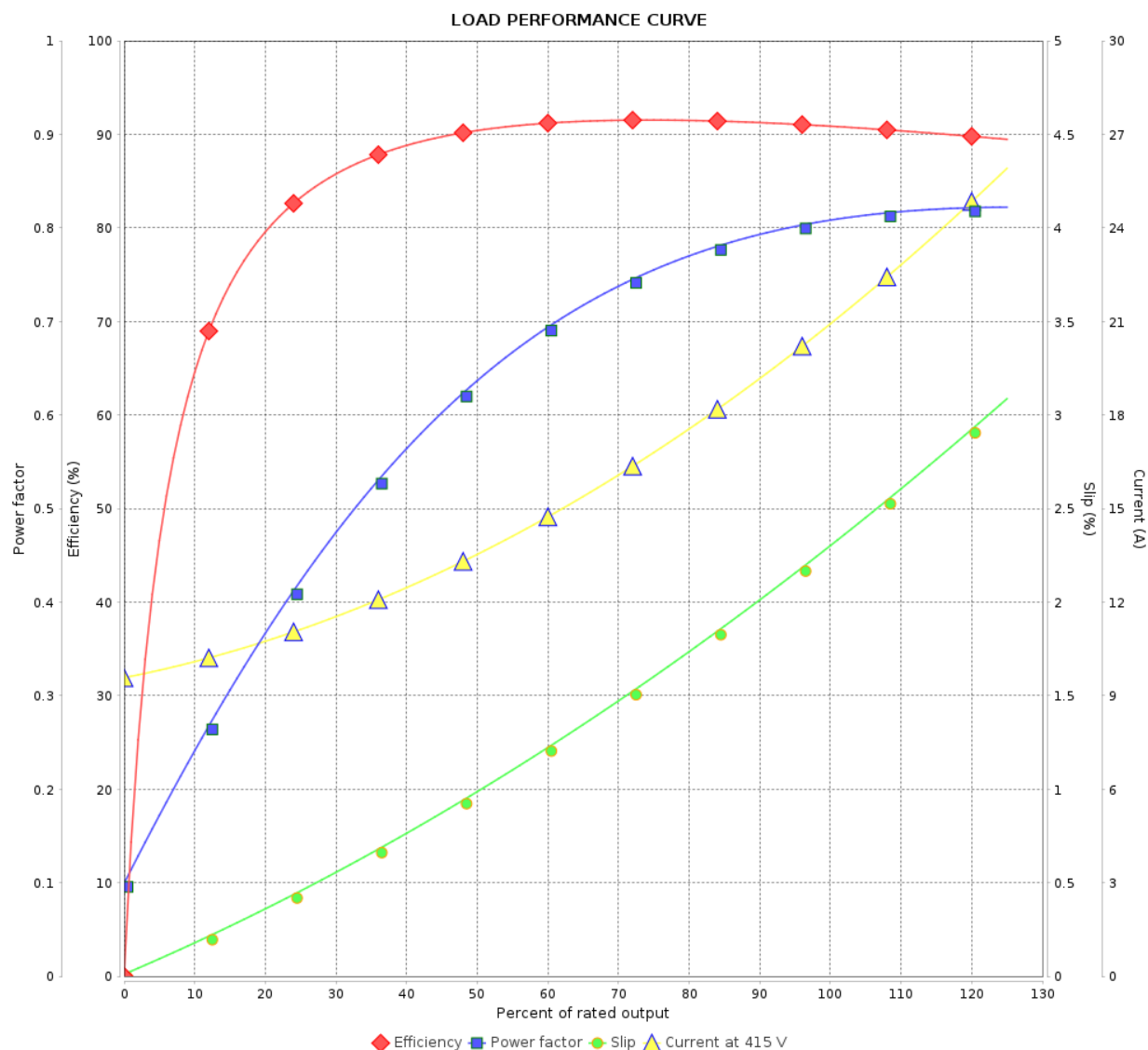
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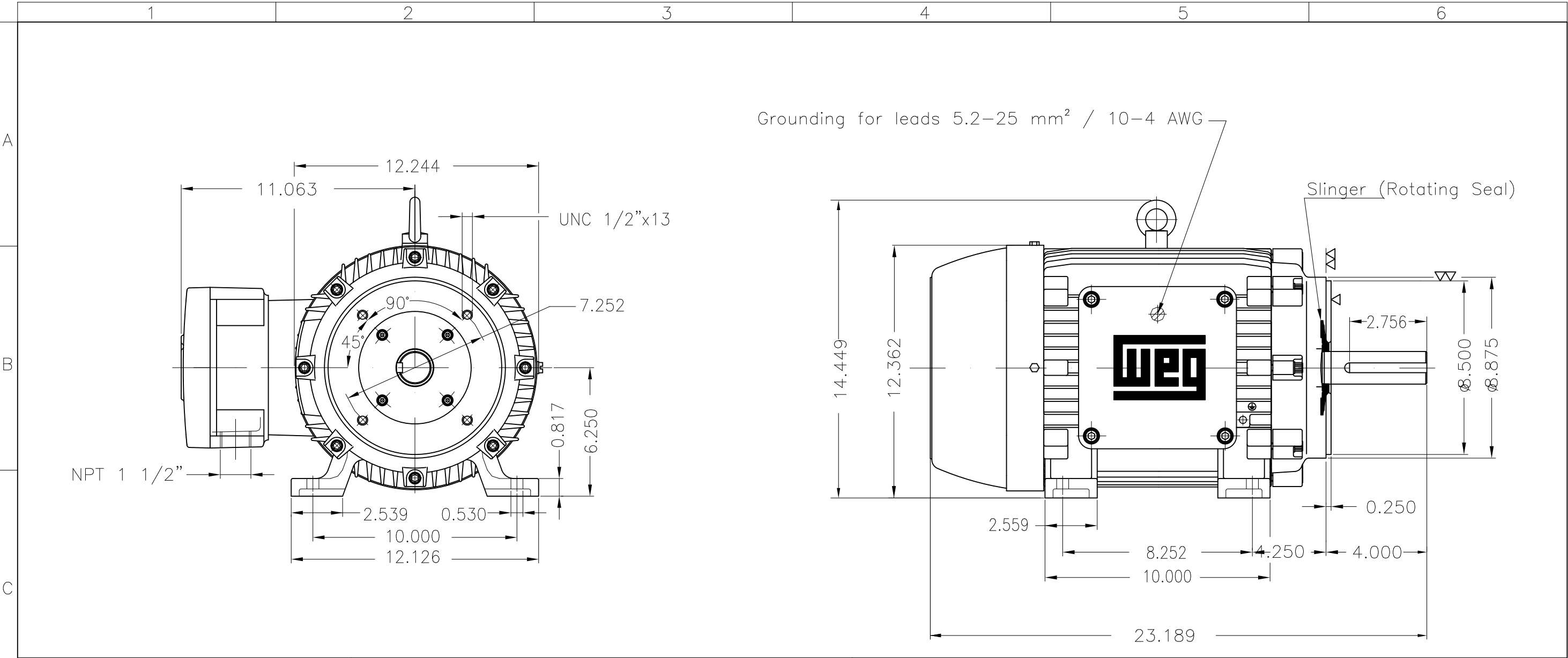


Performance : 415 V 50 Hz 4P IE2

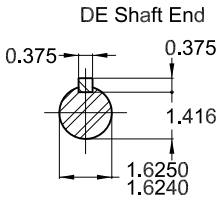
Rated current : 20.8 A
LRC : 6.8
Rated torque : 7.43 kgfm
Locked rotor torque : 270 %
Breakdown torque : 270 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.0974 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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D										
E										



With grease fitting
Color RAL 5009
Painting plan 202P
Mounting NEMA F-1
Mounting B34R(D)