

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 16766514

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 : 148 kg
Protection degree : IP55	Moment of inertia (J) : 0.1436 kgm ²
Design : B	

Output [HP]	5	5	5	5
Poles	8	8	8	8
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	15.9/7.93	9.17	8.92	8.73
L. R. Amperes [A]	84.0/42.0	48.6	47.3	46.3
LRC [A]	5.3x(Code H)	5.3x(Code H)	5.3x(Code H)	5.3x(Code H)
No load current [A]	11.0/5.50	5.44	5.77	6.03
Rated speed [RPM]	880	720	725	730
Slip [%]	2.22	4.00	3.33	2.67
Rated torque [kgfm]	4.12	5.04	5.01	4.97
Locked rotor torque [%]	210	160	180	200
Breakdown torque [%]	270	200	229	250
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	37s (cold) 21s (hot)	37s (cold) 21s (hot)	37s (cold) 21s (hot)	37s (cold) 21s (hot)
Noise level ²	55.0 dB(A)	53.0 dB(A)	53.0 dB(A)	53.0 dB(A)
Efficiency (%)	25%			
	50%	84.0	82.5	82.5
	75%	86.5	84.0	84.0
	100%	87.5	84.0	85.5
Power Factor	25%			
	50%	0.46	0.53	0.50
	75%	0.58	0.65	0.62
	100%	0.67	0.73	0.70

	<u>Drive end</u>	<u>Non drive end</u>	
Bearing type :	6309	6209	Foundation loads
	2RS C3	2RS C3	Max. traction : 121 kgf
Sealing :	Oil Seal	Lip Seal	Max. compression : 269 kgf
Lubrication interval :	-	-	
Lubricant amount :	-	-	
Lubricant type :	Mobil Polyrex EM		

Notes
USABLE @208V 17.5A SF 1.15 SFA 20.2A

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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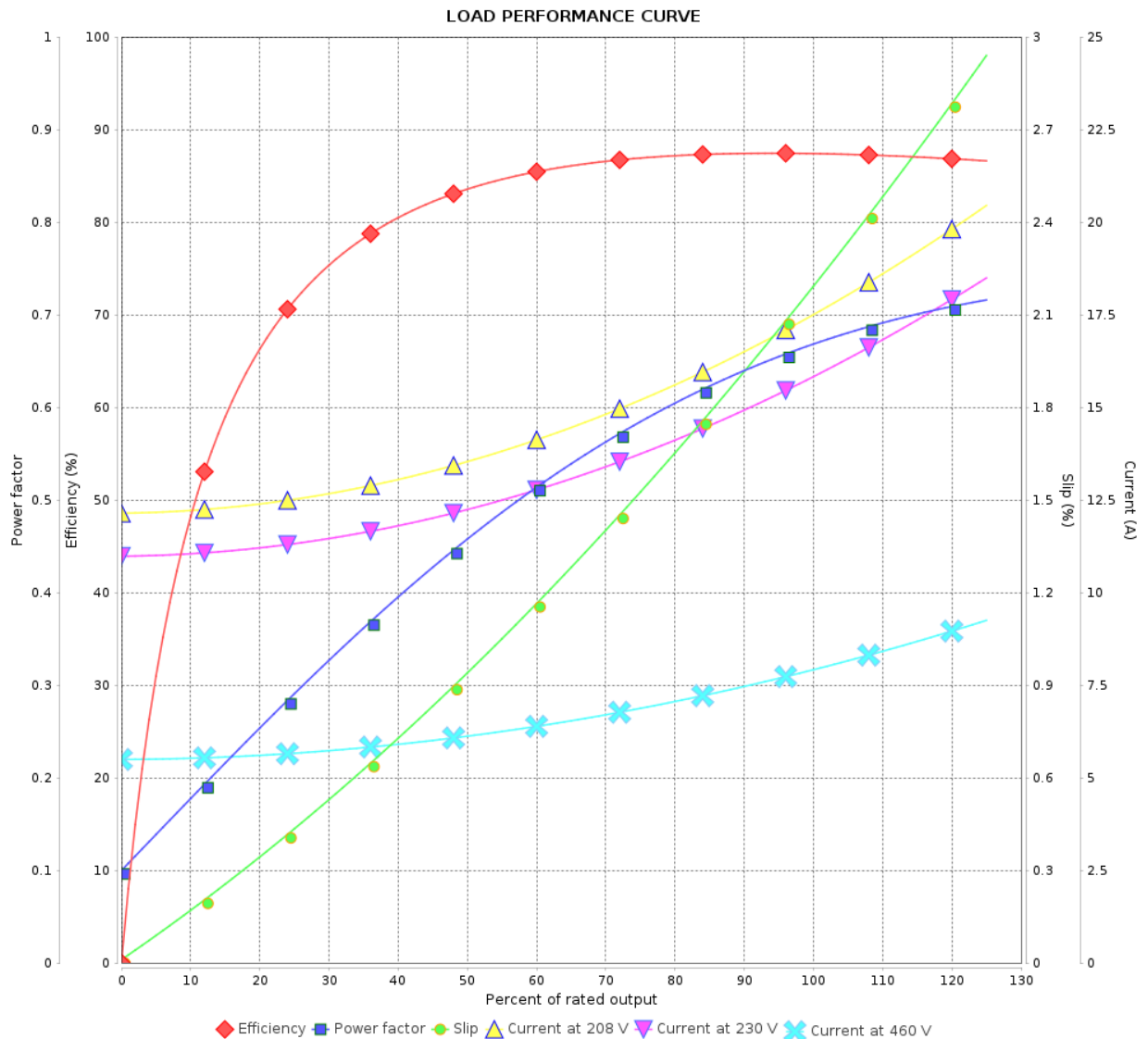
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 16766514



Performance : 230/460 V 60 Hz 8P

Rated current : 15.9/7.93 A
LRC : 5.3
Rated torque : 4.12 kgfm
Locked rotor torque : 210 %
Breakdown torque : 270 %
Rated speed : 880 rpm

Moment of inertia (J) : 0.1436 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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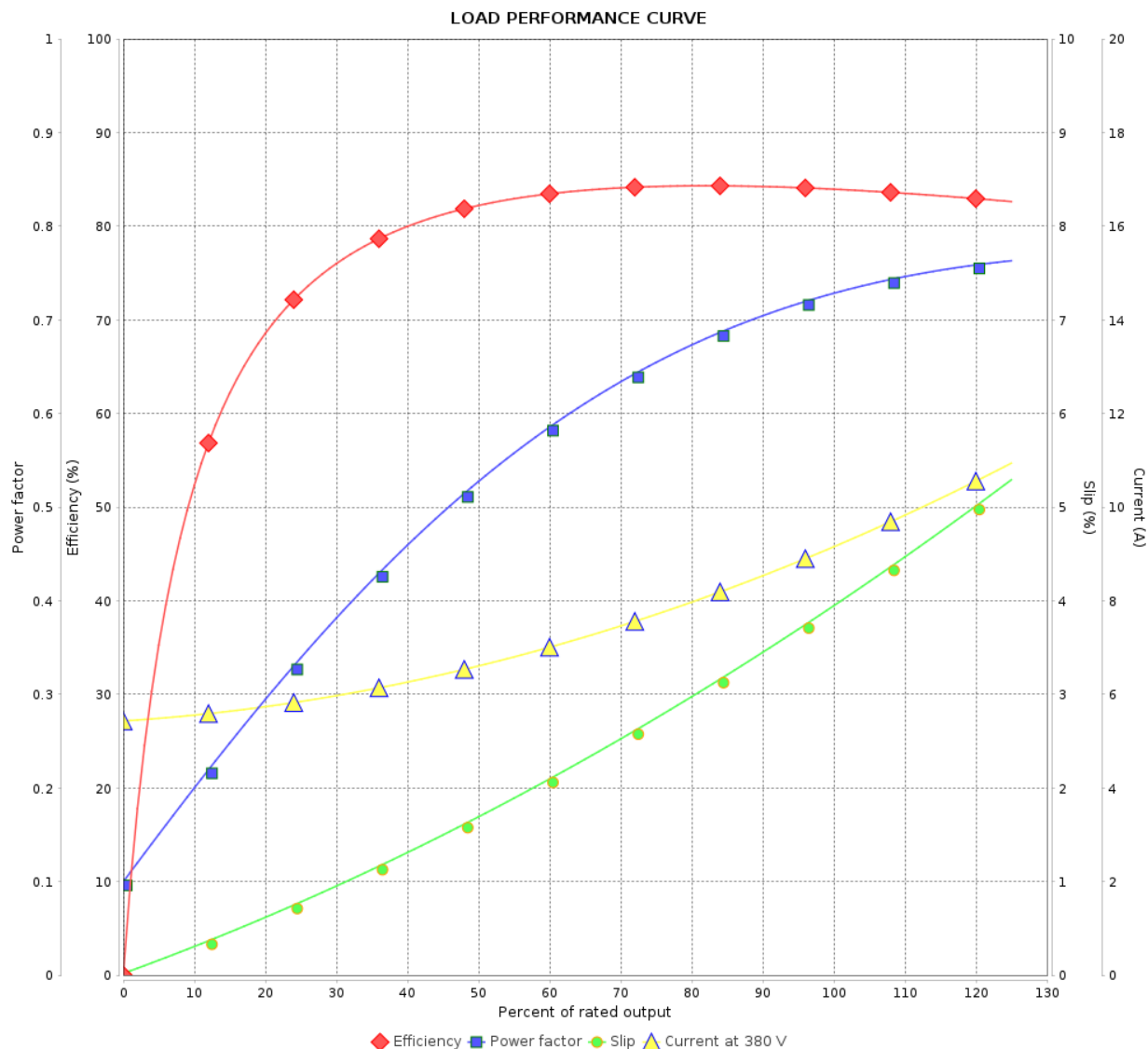
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 8P IE2

Rated current : 9.17 A
LRC : 5.3
Rated torque : 5.04 kgfm
Locked rotor torque : 160 %
Breakdown torque : 200 %
Rated speed : 720 rpm

Moment of inertia (J) : 0.1436 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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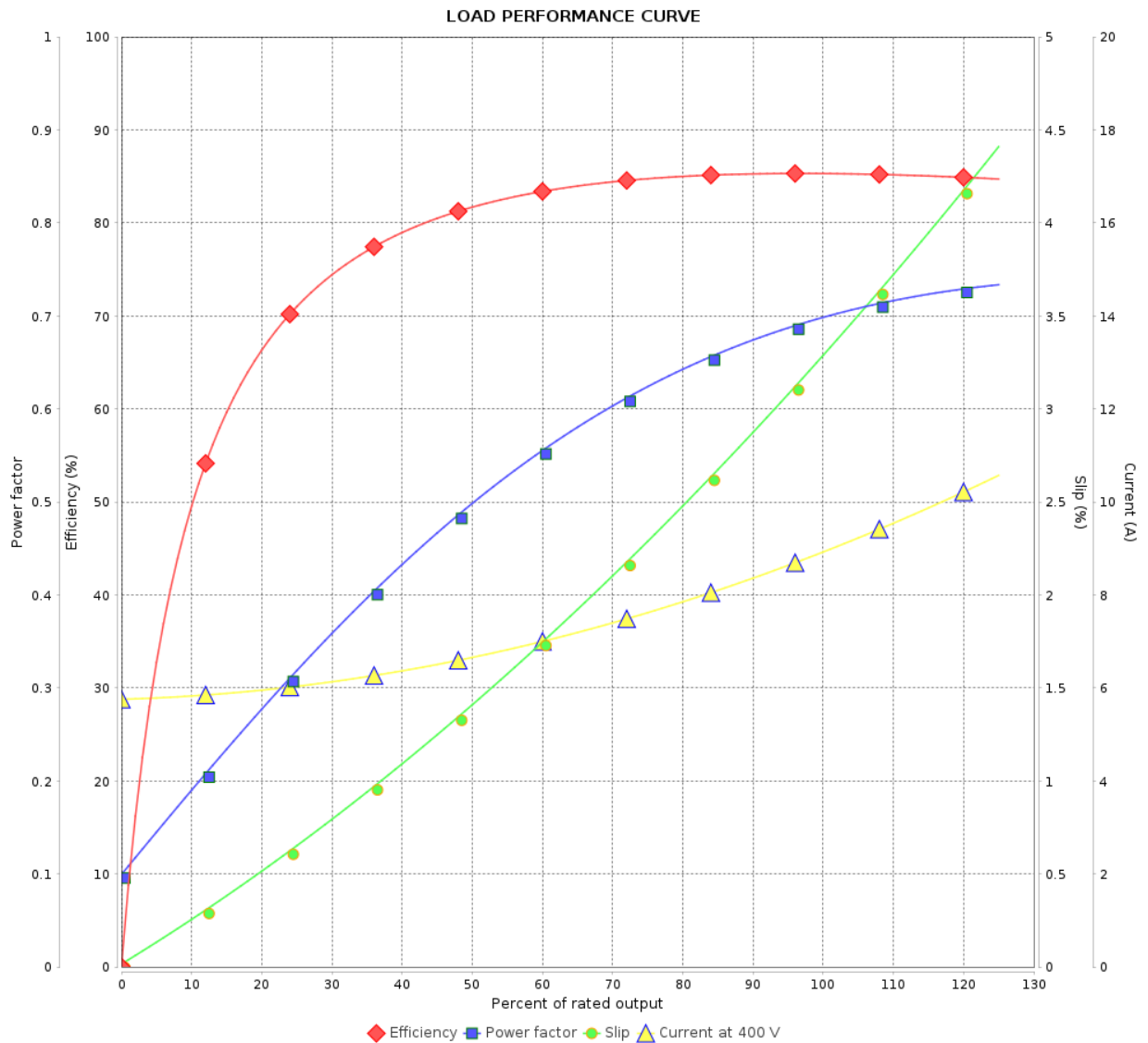
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 8P IE3

Rated current	: 8.92 A	Moment of inertia (J)	: 0.1436 kgm ²
LRC	: 5.3	Duty cycle	: Cont.(S1)
Rated torque	: 5.01 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 725 rpm	Design	: B

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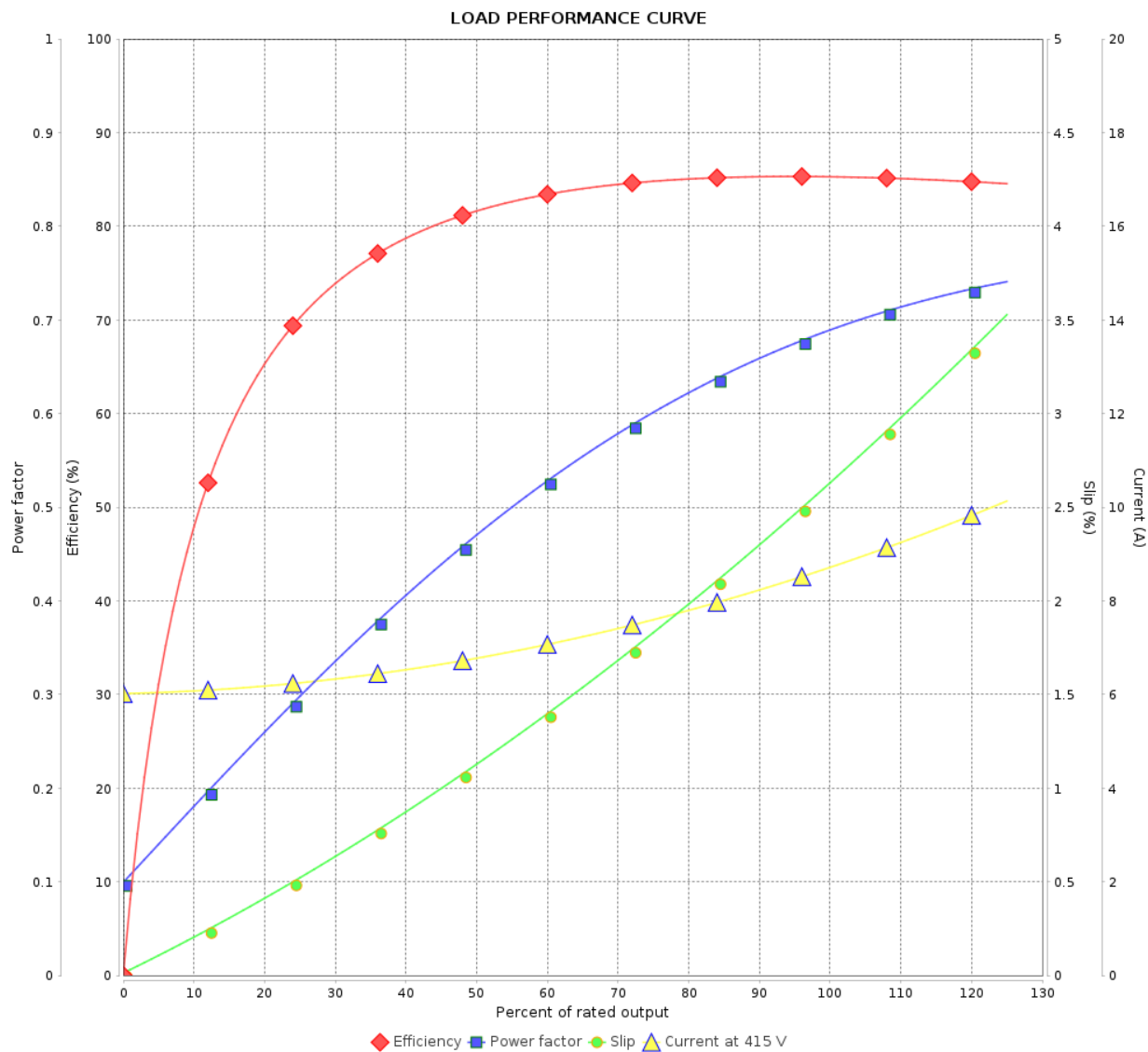
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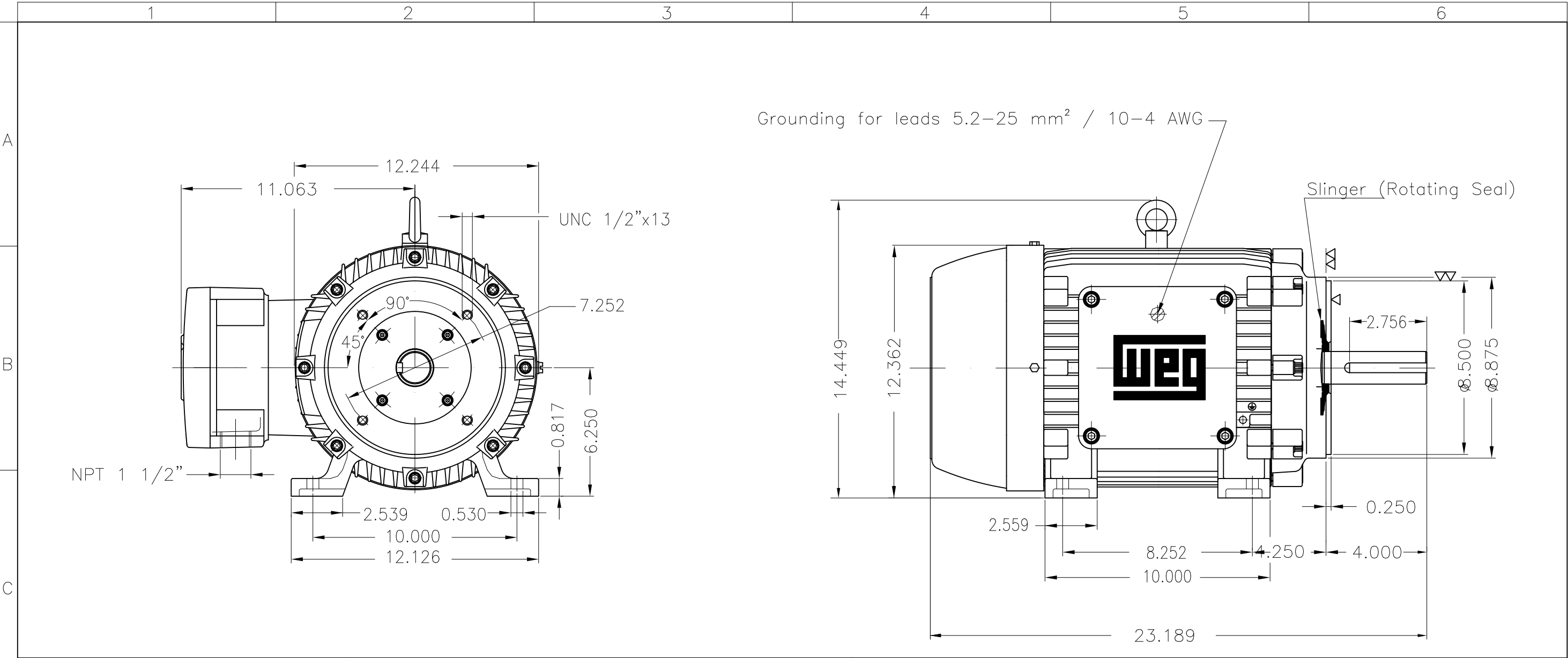


Performance : 415 V 50 Hz 8P IE3

Rated current : 8.73 A
LRC : 5.3
Rated torque : 4.97 kgfm
Locked rotor torque : 200 %
Breakdown torque : 250 %
Rated speed : 730 rpm

Moment of inertia (J) : 0.1436 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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