

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line		: W21 Explosion Proof NEMA Premium Efficiency Three-Phase		Product code : 11889522
Frame	: 404/5T	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>	: 550 kg	
Protection degree	: IP55	Moment of inertia (J)	: 1.69 kgm <sup>2</sup>	
Design	: B			
Output [HP]	75	60	60	60
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	174/87.0	86.6	84.3	81.8
L. R. Amperes [A]	1340/670	624	666	687
LRC [A]	7.7x(Code J)	7.2x(Code H)	7.9x(Code J)	8.4x(Code K)
No load current [A]	62.5/31.3	31.0	33.6	36.0
Rated speed [RPM]	1185	985	987	988
Slip [%]	1.25	1.50	1.30	1.20
Rated torque [kgfm]	45.9	44.2	44.1	44.1
Locked rotor torque [%]	250	229	260	280
Breakdown torque [%]	260	250	280	300
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)
Noise level <sup>2</sup>	65.0 dB(A)	61.0 dB(A)	61.0 dB(A)	61.0 dB(A)
Efficiency (%)	25%			
	50%	94.1	94.0	93.6
	75%	95.0	94.0	94.5
	100%	94.5	94.0	94.5
Power Factor	25%			
	50%	0.72	0.72	0.68
	75%	0.81	0.81	0.78
	100%	0.84	0.84	0.82
Bearing type	: <u>Drive end</u> NU-217 C3 <u>Non drive end</u> 6314 C3	Foundation loads		
Sealing	: Oil Seal Lip Seal	Max. traction : 1026 kgf		
Lubrication interval	: 10272 h 14267 h	Max. compression : 1576 kgf		
Lubricant amount	: 21 g 27 g			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 192A SF 1.00 SFA 192A				
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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## 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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# LOAD PERFORMANCE CURVE

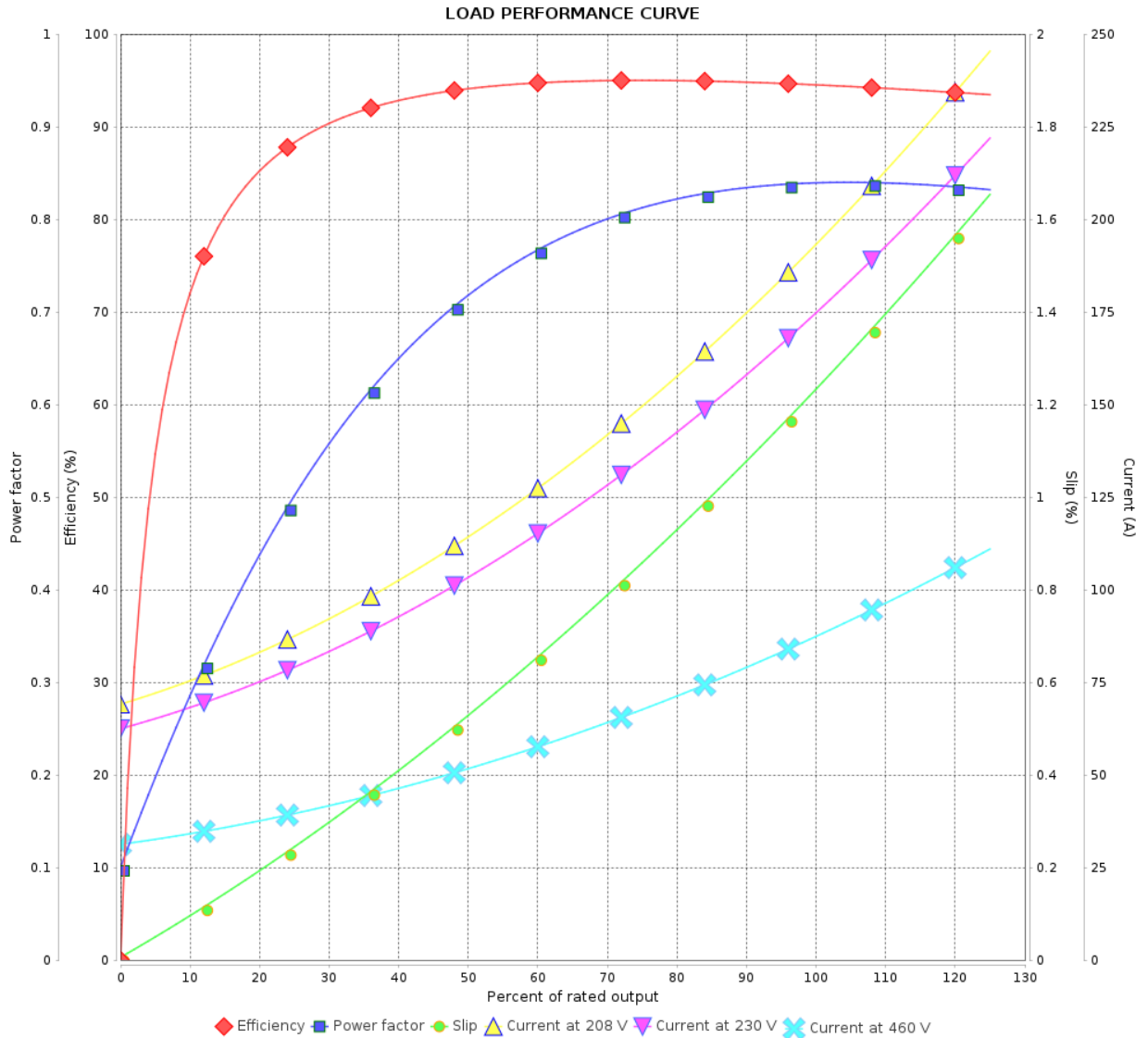
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11889522



Performance : 230/460 V 60 Hz 6P

Rated current : 174/87.0 A  
LRC : 7.7  
Rated torque : 45.9 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 260 %  
Rated speed : 1185 rpm

Moment of inertia (J) : 1.69 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

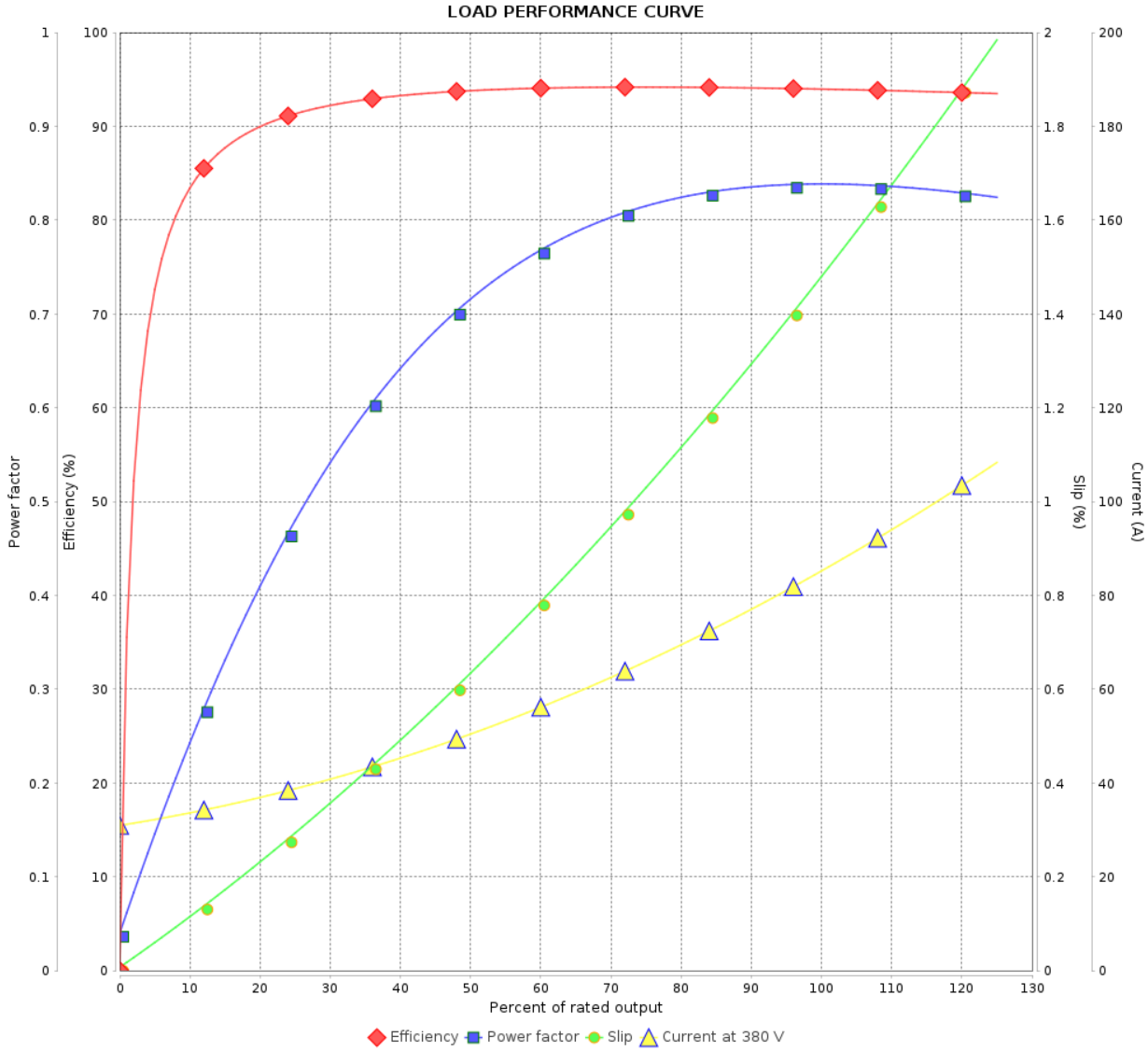
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11889522



Performance : 380 V 50 Hz 6P IE3

Rated current	: 86.6 A	Moment of inertia (J)	: 1.69 kgm <sup>2</sup>
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 44.2 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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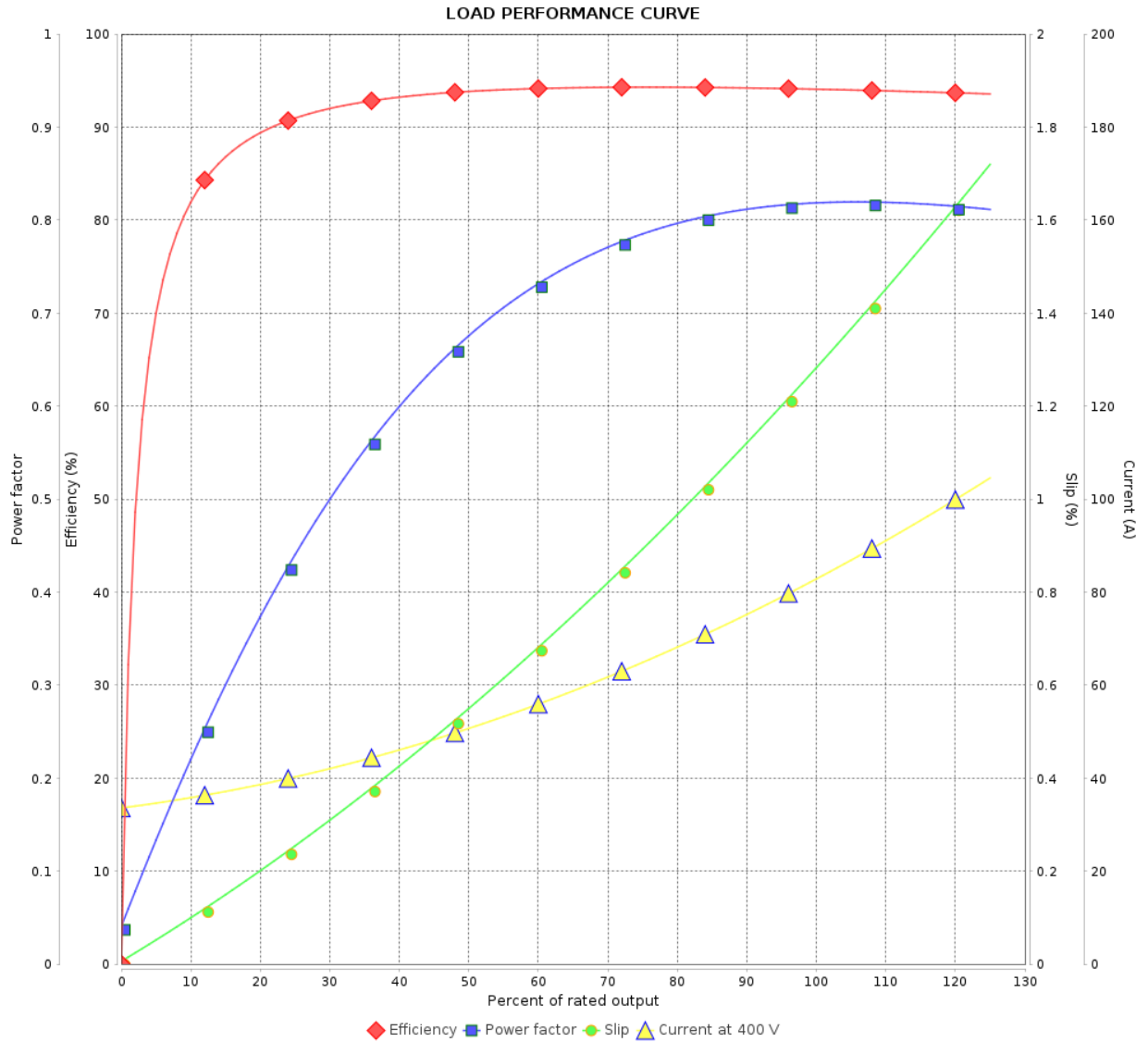
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase  
 Product code : 11889522



Performance : 400 V 50 Hz 6P IE3

Rated current	: 84.3 A	Moment of inertia (J)	: 1.69 kgm <sup>2</sup>
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 44.1 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 987 rpm	Design	: B

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# LOAD PERFORMANCE CURVE

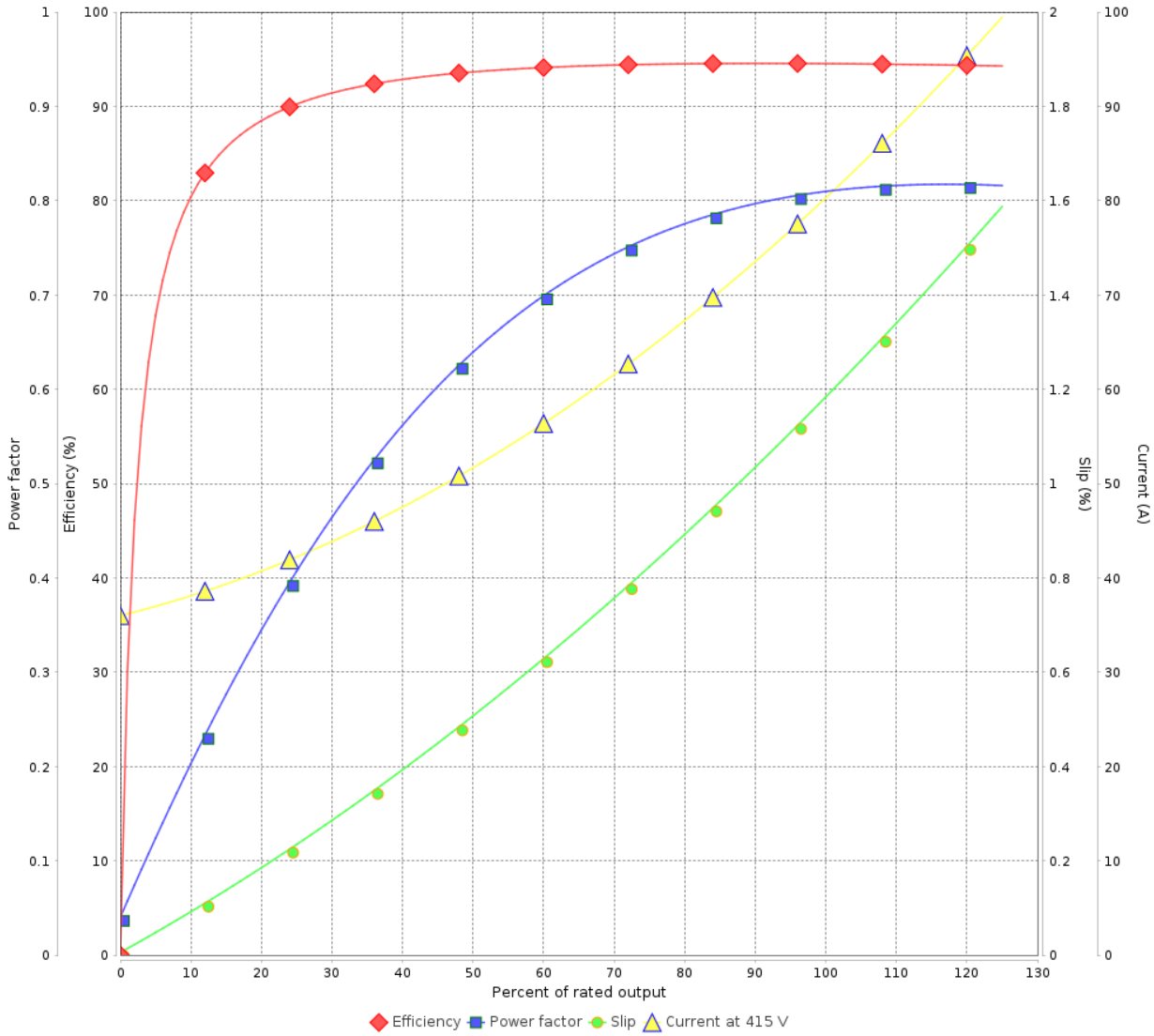
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase      Product code : 11889522

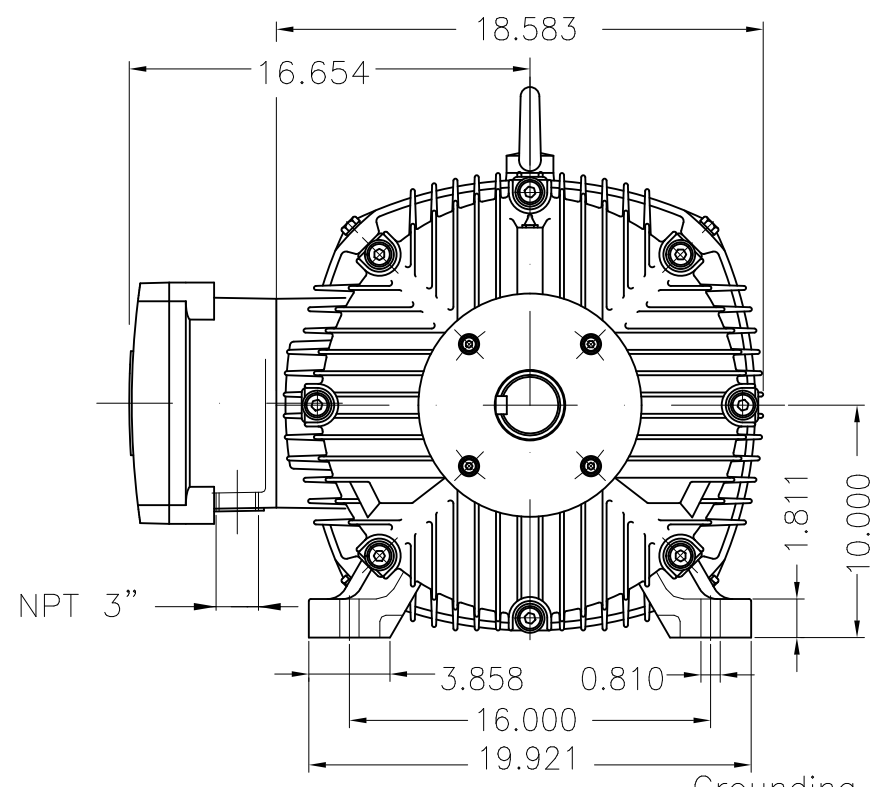
LOAD PERFORMANCE CURVE



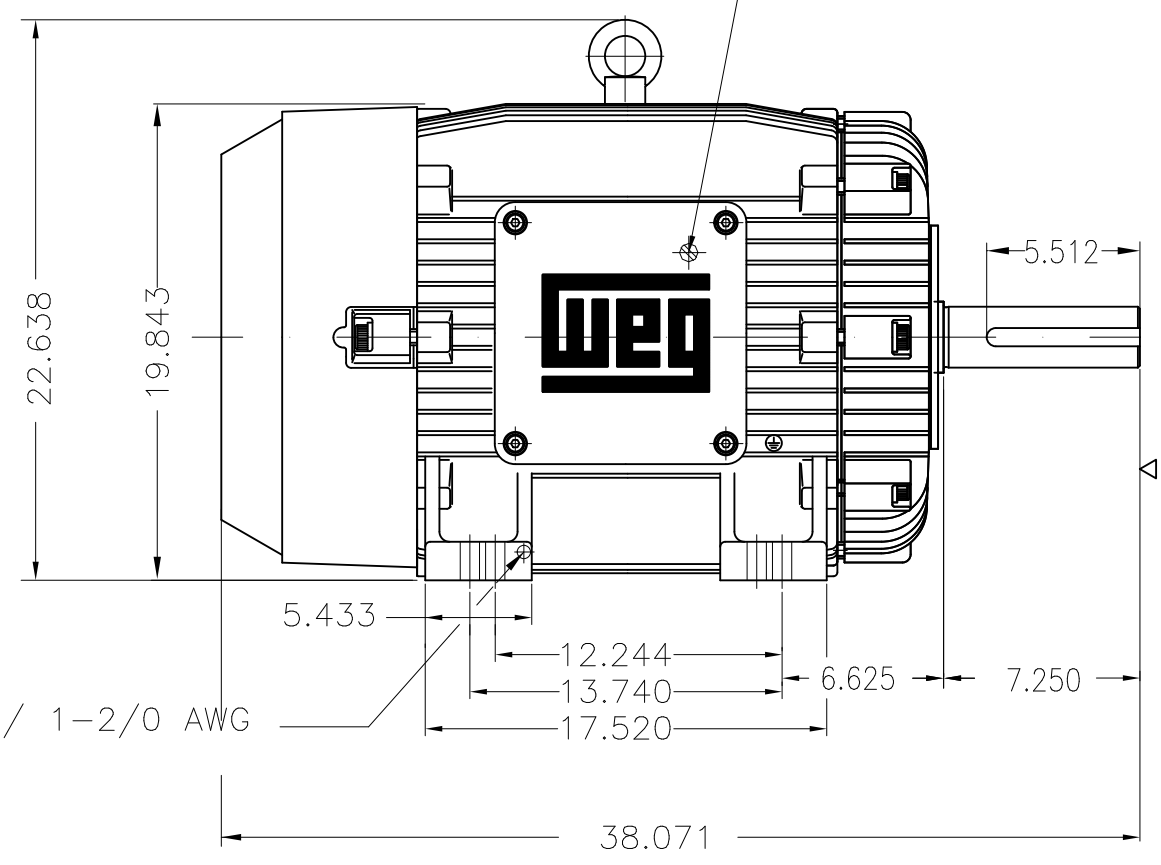
Performance : 415 V 50 Hz 6P IE3

Rated current	: 81.8 A	Moment of inertia (J)	: 1.69 kgm <sup>2</sup>
LRC	: 8.4	Duty cycle	: Cont.(S1)
Rated torque	: 44.1 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 988 rpm	Design	: B

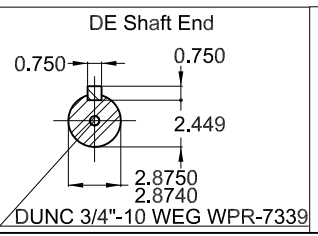
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Grounding for leads 25-50 mm<sup>2</sup> / 3-1 AWG



DE roller bearing
Shaft locking device
Color RAL 5009
Painting plan 202P
Mounting B3R(D)



75 HP 06 Poles 60 Hz A

						HYBRISUSER								00	
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER					
EXECUTED	HYBRISUSER	THREE PH. MOTOR EXPLOSION PROOF		NEMA PREM. EFF.		<b>PREVIEW</b>									
CHECKED		FRAME 404/5T IP55 TEFC				WDD		00							
RELEASED						SHEET		1 / 1							
REL. DATE		WMO	Jaragua do Sul	Product Engineering											

Dimensions in inches XME A3