

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line		: W21 Explosion Proof NEMA Premium Efficiency Three-Phase		Product code : 11439868
Frame	: 404/5T	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	: 561 kg	
Protection degree	: IP55	Moment of inertia (J)	: 1.11 kgm ²	
Design	: B			
Output [HP]	100	75	75	75
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	226/113	103	100	98.7
L. R. Amperes [A]	1627/814	773	840	898
LRC [A]	7.2x(Code H)	7.5x(Code H)	8.4x(Code J)	9.1x(Code K)
No load current [A]	78.0/39.0	39.0	42.0	45.0
Rated speed [RPM]	1780	1480	1485	1485
Slip [%]	1.11	1.33	1.00	1.00
Rated torque [kgfm]	40.8	36.8	36.7	36.7
Locked rotor torque [%]	270	270	300	320
Breakdown torque [%]	280	310	360	370
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	23s (cold) 13s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level ²	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)
Efficiency (%)	25%	94.0	93.9	93.4
	50%	94.5	94.0	93.6
	75%	95.0	94.5	94.5
	100%	95.4	94.5	94.5
Power Factor	25%	0.47	0.44	0.41
	50%	0.72	0.69	0.65
	75%	0.82	0.80	0.77
	100%	0.87	0.86	0.84
Bearing type	: <u>Drive end</u> 6217 C3 <u>Non drive end</u> 6314 C3	Foundation loads		
Sealing	: Oil Seal Lip Seal	Max. traction	: 1057 kgf	
Lubrication interval	: 9149 h 9789 h	Max. compression	: 1611 kgf	
Lubricant amount	: 21 g 27 g			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 250A SF 1.00 SFA 250A				
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
Performed by			Page 1 / 6	Revision
Checked by				
Date	29/10/2024			

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Thermal protection

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

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Checked by				
Date	29/10/2024			

LOAD PERFORMANCE CURVE

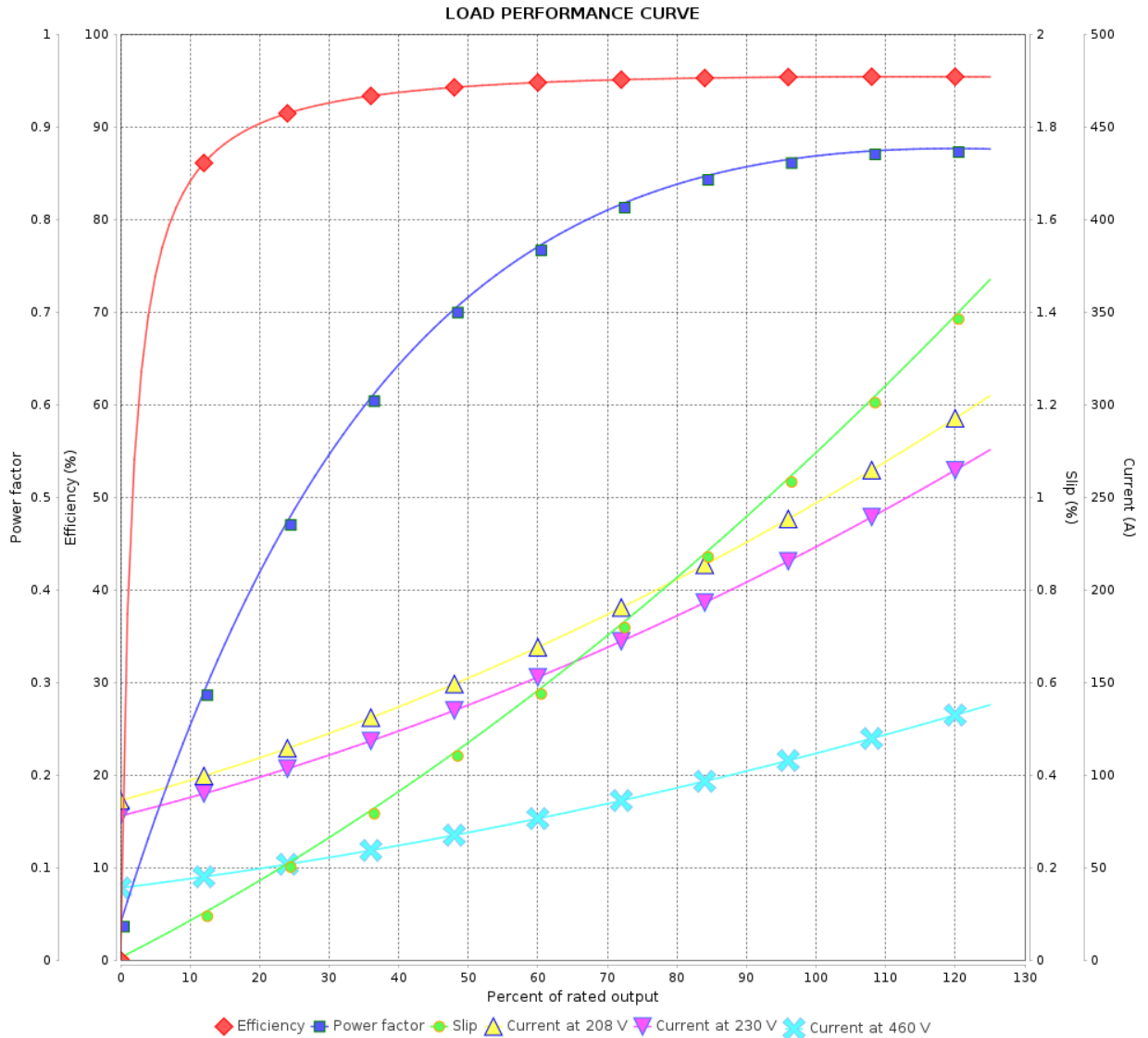
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439868



Performance : 230/460 V 60 Hz 4P

Rated current : 226/113 A
 LRC : 7.2
 Rated torque : 40.8 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 280 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 1.11 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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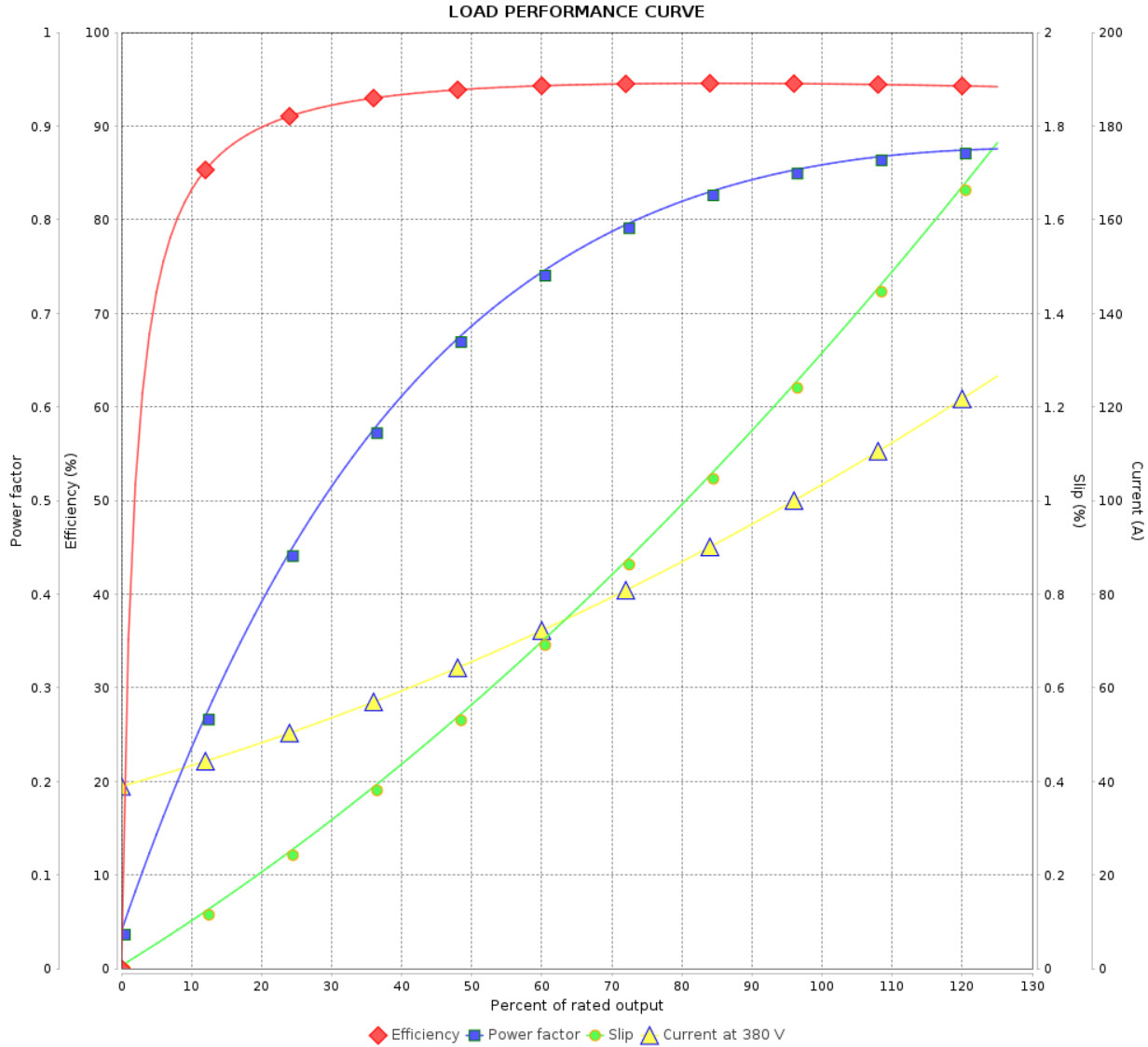
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 11439868



Performance : 380 V 50 Hz 4P IE2

Rated current	: 103 A	Moment of inertia (J)	: 1.11 kgm ²
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 36.8 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

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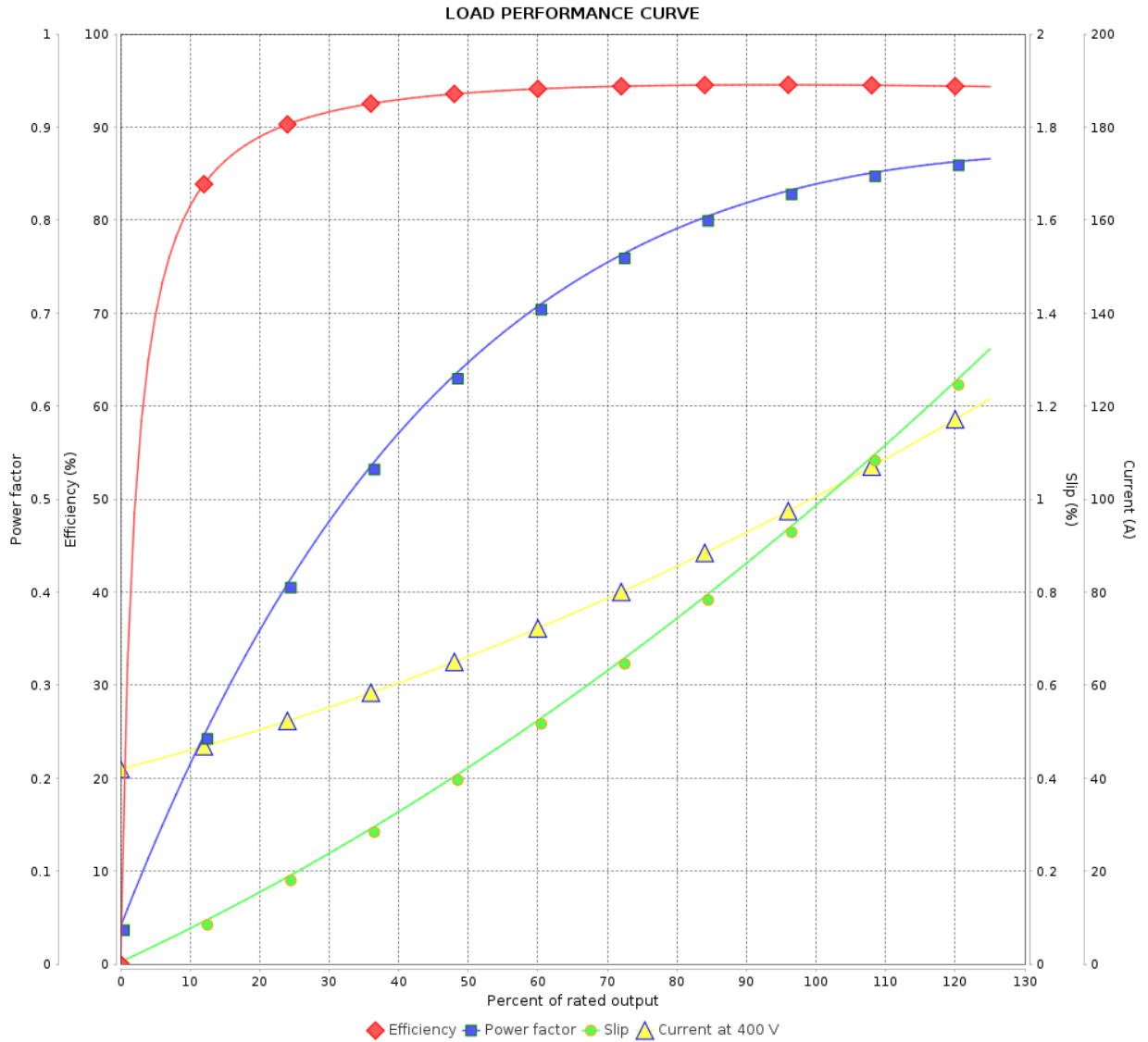
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11439868



Performance : 400 V 50 Hz 4P IE2

Rated current : 100 A
 LRC : 8.4
 Rated torque : 36.7 kgfm
 Locked rotor torque : 300 %
 Breakdown torque : 360 %
 Rated speed : 1485 rpm

Moment of inertia (J) : 1.11 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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Date				

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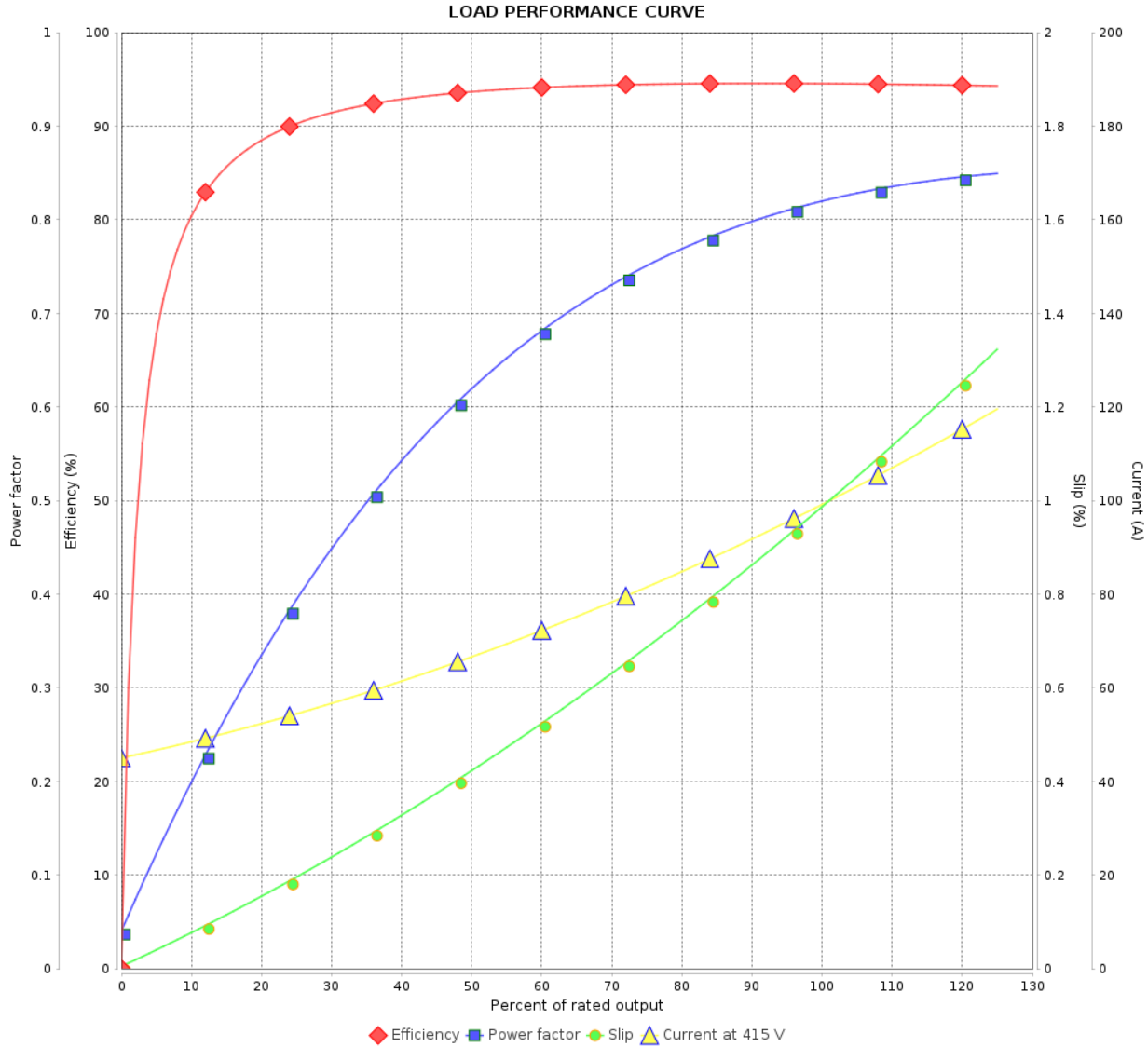
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Customer :

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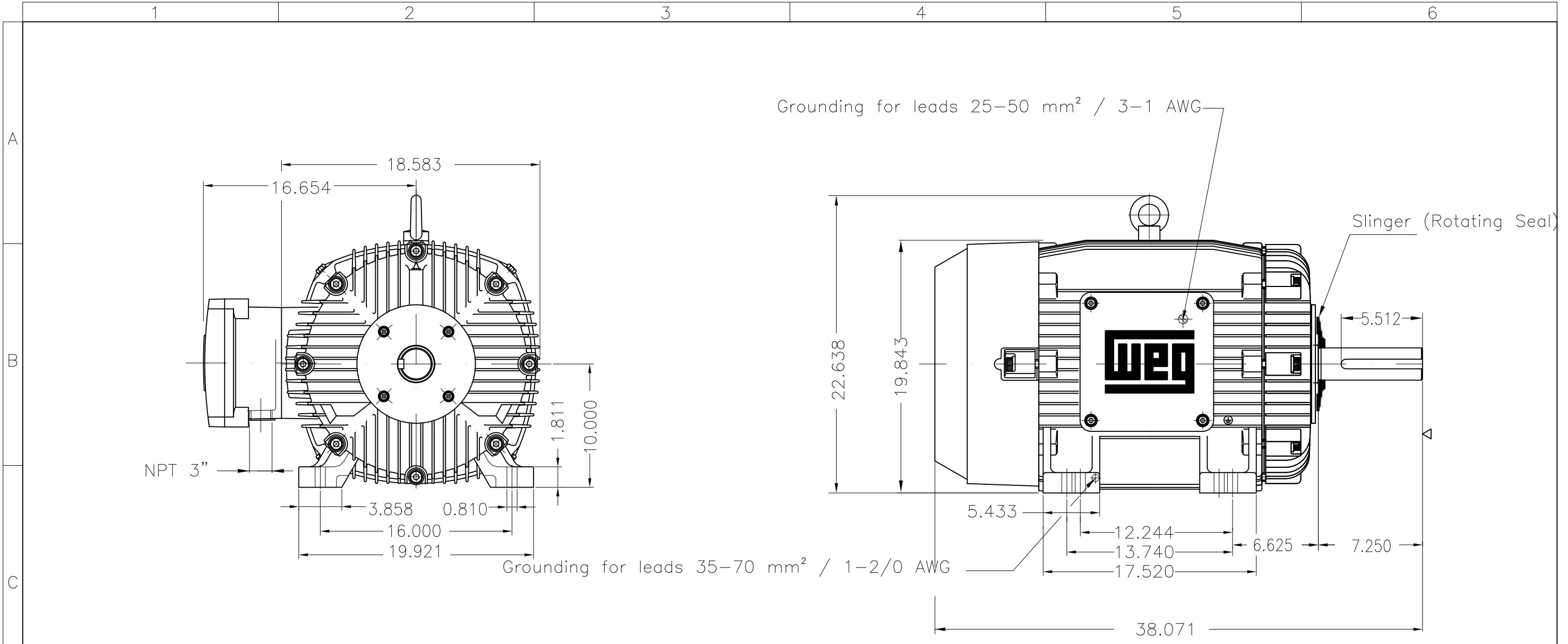


Performance : 415 V 50 Hz 4P IE2

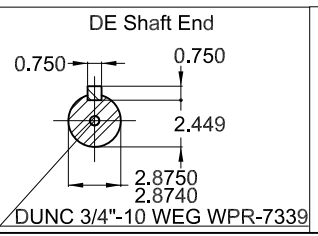
Rated current : 98.7 A
 LRC : 9.1
 Rated torque : 36.7 kgfm
 Locked rotor torque : 320 %
 Breakdown torque : 370 %
 Rated speed : 1485 rpm

Moment of inertia (J) : 1.11 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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100 HP 04 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. FRAME 404/5T IP55 TEFC					EXECUTED	CHECKED	RELEASED	DATE	VER
CHECKED							EXECUTED	CHECKED	RELEASED	DATE	VER
RELEASED							EXECUTED	CHECKED	RELEASED	DATE	VER
REL. DATE		WMO	Jaragua do Sul	Product Engineering	SHEET		1 / 1				



Color RAL 5009
 Painting plan 202P
 Mounting B3R(D)

PREVIEW
 WDD 00
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Dimensions in inches XME A3