

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12846716

Frame : 213/5T	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 : 79.7 kg
Protection degree : IP55	Moment of inertia (J) : 0.0566 kgm ²
Design : B	

Output [HP]	7.5	7.5	7.5	7.5
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	9.18	11.0	10.6	10.3
L. R. Amperes [A]	65.2	61.6	65.7	69.0
LRC [A]	7.1x(Code H)	5.6x(Code F)	6.2x(Code G)	6.7x(Code H)
No load current [A]	4.20	4.10	4.40	4.70
Rated speed [RPM]	1765	1455	1460	1465
Slip [%]	1.94	3.00	2.67	2.33
Rated torque [kgfm]	3.08	3.74	3.73	3.72
Locked rotor torque [%]	220	170	190	210
Breakdown torque [%]	310	240	270	290
Service factor	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	36s (cold) 20s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)
Noise level ²	58.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%			
	50%	89.5	89.5	89.5
	75%	91.0	89.5	90.2
	100%	91.7	89.6	90.2
Power Factor	25%			
	50%	0.66	0.72	0.69
	75%	0.76	0.81	0.78
	100%	0.82	0.85	0.83

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1 (0,9;1,0)	8.8	8.8	8.8	8.8
	P2 (0,5;1,0)	7.0	7.0	7.0	7.0
	P3 (0,25;1,0)	6.5	6.5	6.5	6.5
	P4 (0,9;0,5)	4.9	4.9	4.9	4.9
	P5 (0,5;0,5)	3.3	3.3	3.3	3.3
	P6 (0,5;0,25)	2.4	2.4	2.4	2.4
	P7 (0,25;0,25)	1.6	1.6	1.6	1.6

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6308 C3	6207 C3	Max. traction : 159 kgf
Sealing :	Taconite	Taconite	Max. compression : 239 kgf
	Labyrinth	Labyrinth	
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	11 g	7 g	
Lubricant type :	Mobil Polyrex EM		

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).

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	22/10/2024			

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Customer :

Notes

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LOAD PERFORMANCE CURVE

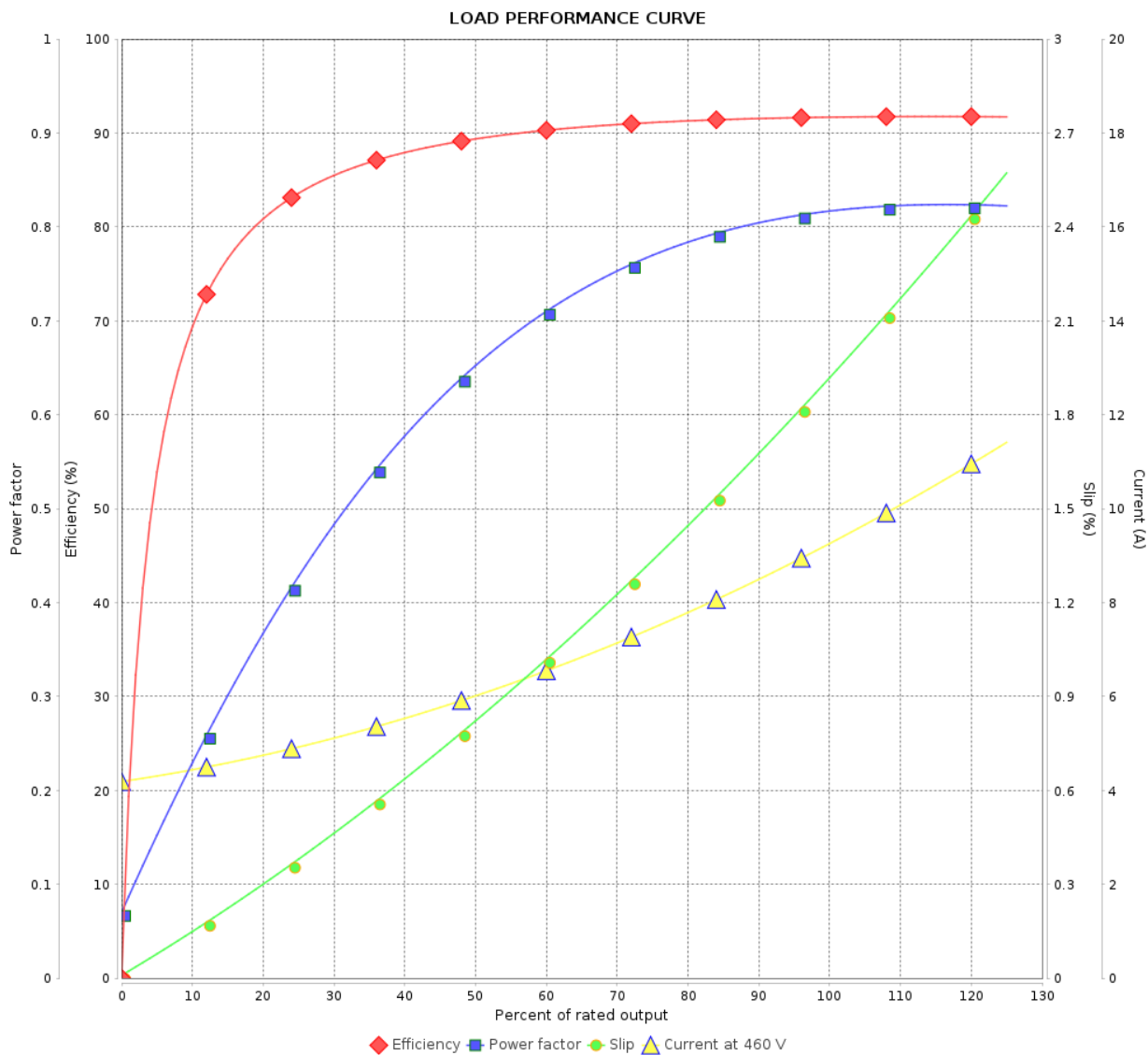
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Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 12846716



Performance : 460 V 60 Hz 4P

Rated current : 9.18 A
LRC : 7.1
Rated torque : 3.08 kgfm
Locked rotor torque : 220 %
Breakdown torque : 310 %
Rated speed : 1765 rpm

Moment of inertia (J) : 0.0566 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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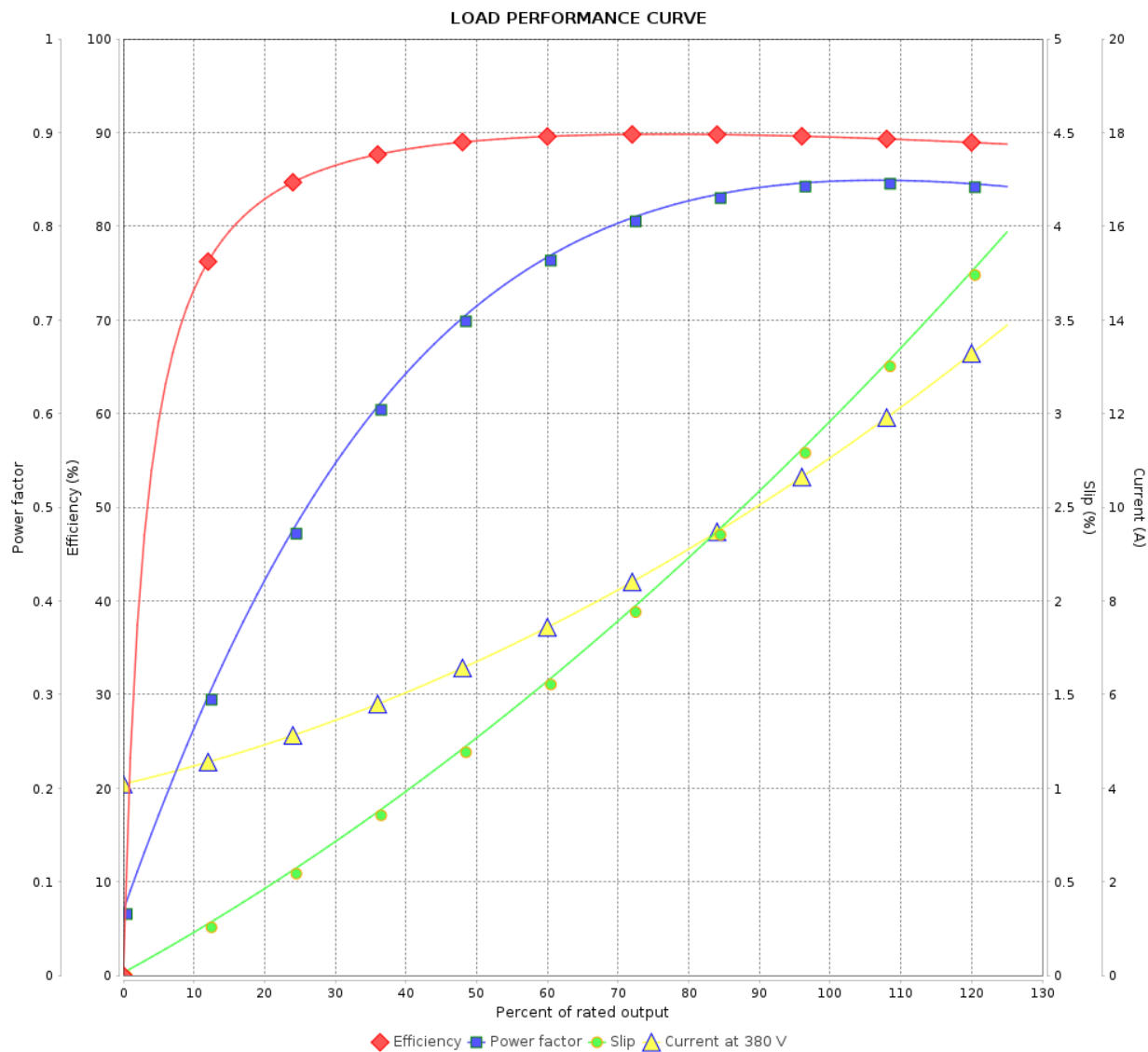
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 4P IE3

Rated current : 11.0 A
LRC : 5.6
Rated torque : 3.74 kgfm
Locked rotor torque : 170 %
Breakdown torque : 240 %
Rated speed : 1455 rpm

Moment of inertia (J) : 0.0566 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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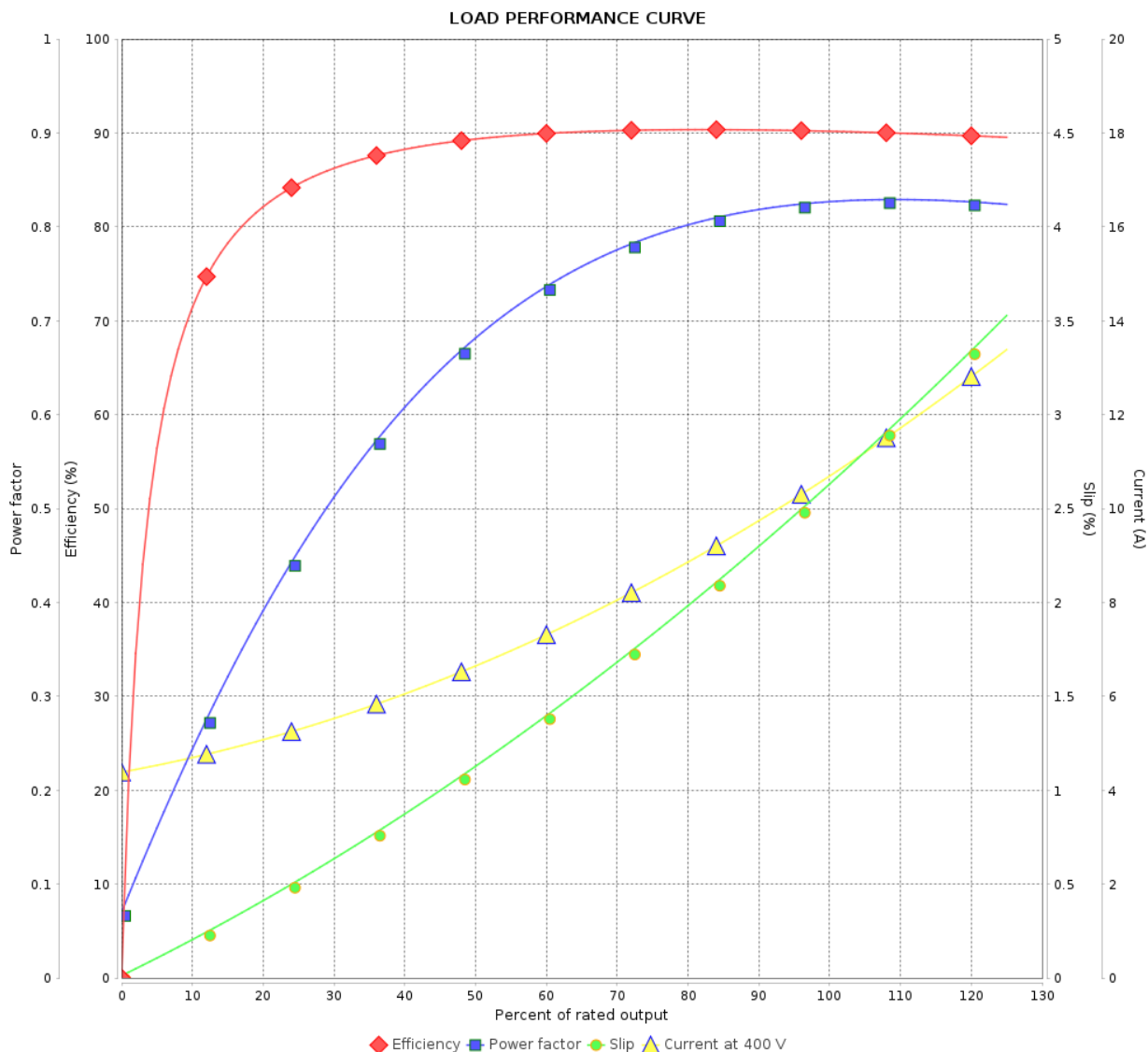
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Customer :

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Performance : 400 V 50 Hz 4P IE3

Rated current : 10.6 A
LRC : 6.2
Rated torque : 3.73 kgfm
Locked rotor torque : 190 %
Breakdown torque : 270 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.0566 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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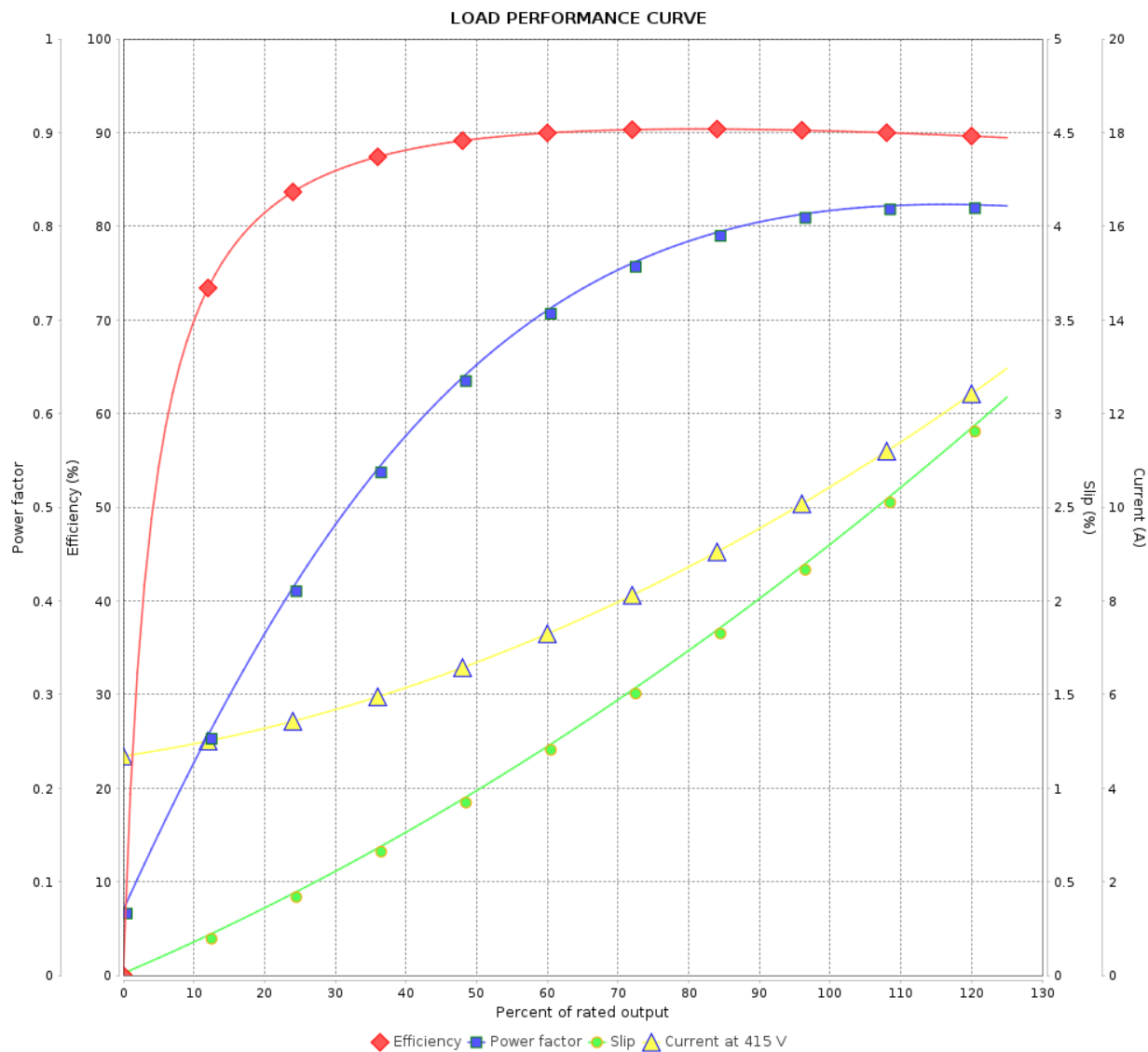
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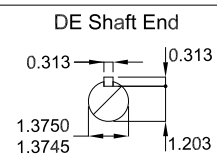
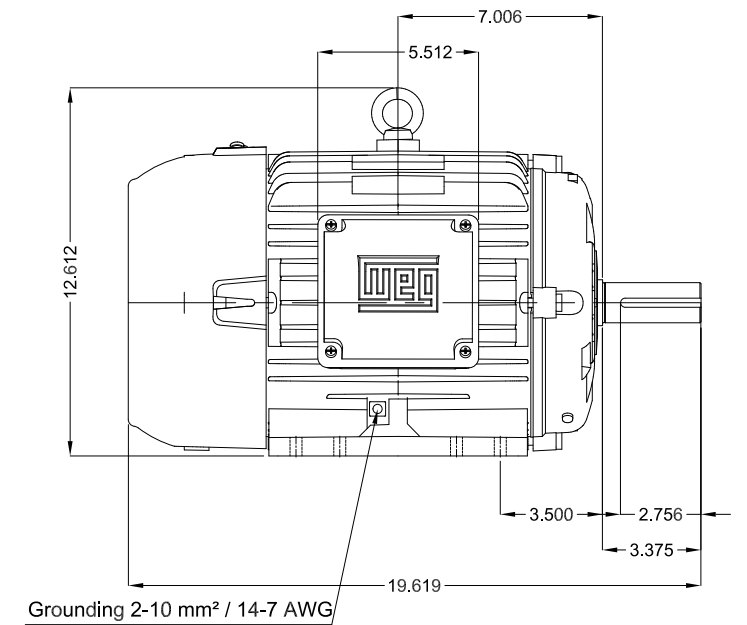
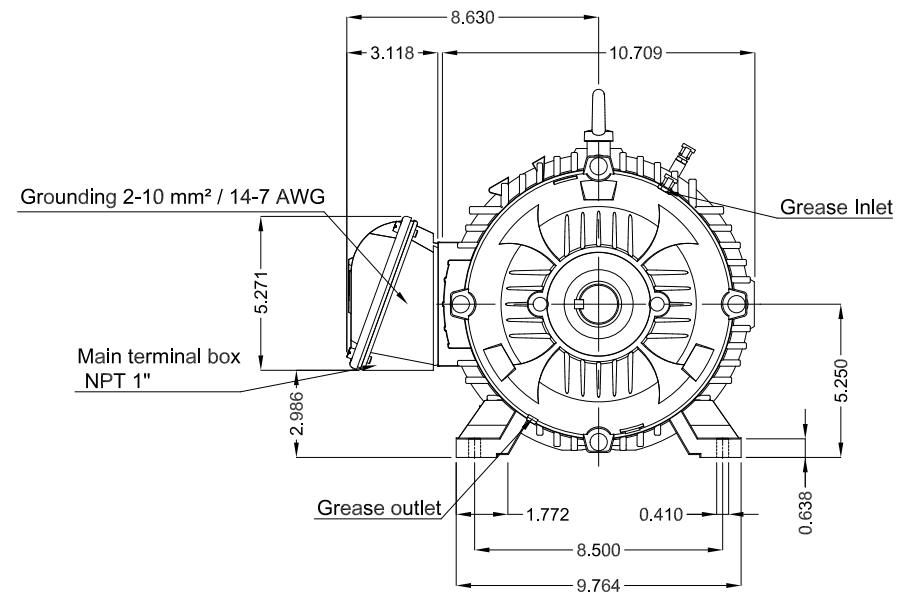
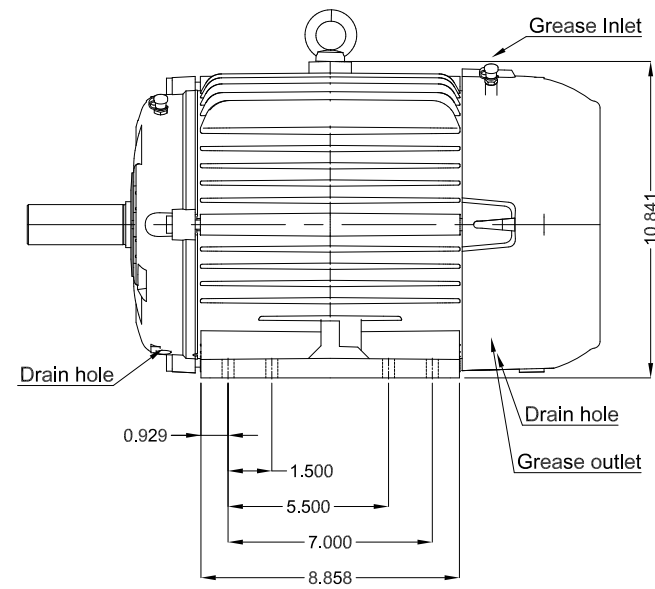


Performance : 415 V 50 Hz 4P IE3

Rated current : 10.3 A
LRC : 6.7
Rated torque : 3.72 kgfm
Locked rotor torque : 210 %
Breakdown torque : 290 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.0566 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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Sealing - Taconite labyrinth
Grease outlet according to IEEE841
Color RAL 5009
Painting plan 202E
Mounting NEMA F-1
Mounting B3R(D)

7.5 HP 04 Poles 60 Hz										A
							HYBRISUSER			00
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER		THREE PH. MOTOR IEEE 841 W22 NEMA PREM. EFF. FRAME 213/5T IP55 TEFC				PREVIEW WDD 00			
CHECKED										
RELEASED										
REL. DATE										
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