

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11432051

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 : 81.5 kg
Protection degree : IP56	Moment of inertia (J) : 0.0620 kgm ²
Design : B	

Output [HP]	5	5	5	5
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	6.83	8.20	7.82	7.65
L. R. Amperes [A]	46.4	45.1	47.7	49.7
LRC [A]	6.8x(Code J)	5.5x(Code G)	6.1x(Code H)	6.5x(Code J)
No load current [A]	3.45	3.41	3.68	3.90
Rated speed [RPM]	1170	960	965	970
Slip [%]	2.50	4.00	3.50	3.00
Rated torque [kgfm]	3.10	3.78	3.76	3.74
Locked rotor torque [%]	170	150	160	190
Breakdown torque [%]	260	215	220	250
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	102s (cold) 57s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)
Noise level ²	55.0 dB(A)	53.0 dB(A)	53.0 dB(A)	53.0 dB(A)
Efficiency (%)	25%			
	50%	88.5	88.5	87.5
	75%	89.5	88.5	88.5
	100%	89.5	87.5	88.5
Power Factor	25%			
	50%	0.58	0.65	0.58
	75%	0.70	0.73	0.71
	100%	0.76	0.78	0.76

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

Losses (%)	P1 (0,9;1,0)	11.1	14.4	13.5	12.3
	P2 (0,5;1,0)	9.1	11.8	11.1	10.1
	P3 (0,25;1,0)	8.8	11.4	10.8	9.8
	P4 (0,9;0,5)	5.8	7.5	7.1	6.4
	P5 (0,5;0,5)	4.0	5.2	4.9	4.5
	P6 (0,5;0,25)	2.9	3.7	3.5	3.2
	P7 (0,25;0,25)	2.1	2.7	2.6	2.3

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6308 C3	6207 C3	Max. traction : 132 kgf
Sealing :	Inpro/Seal	Inpro/Seal	Max. compression : 214 kgf
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).
 (3) Approximate weight subject to changes after manufacturing process.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

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Checked by				
Date	27/10/2024			

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Revision

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Customer :

Notes

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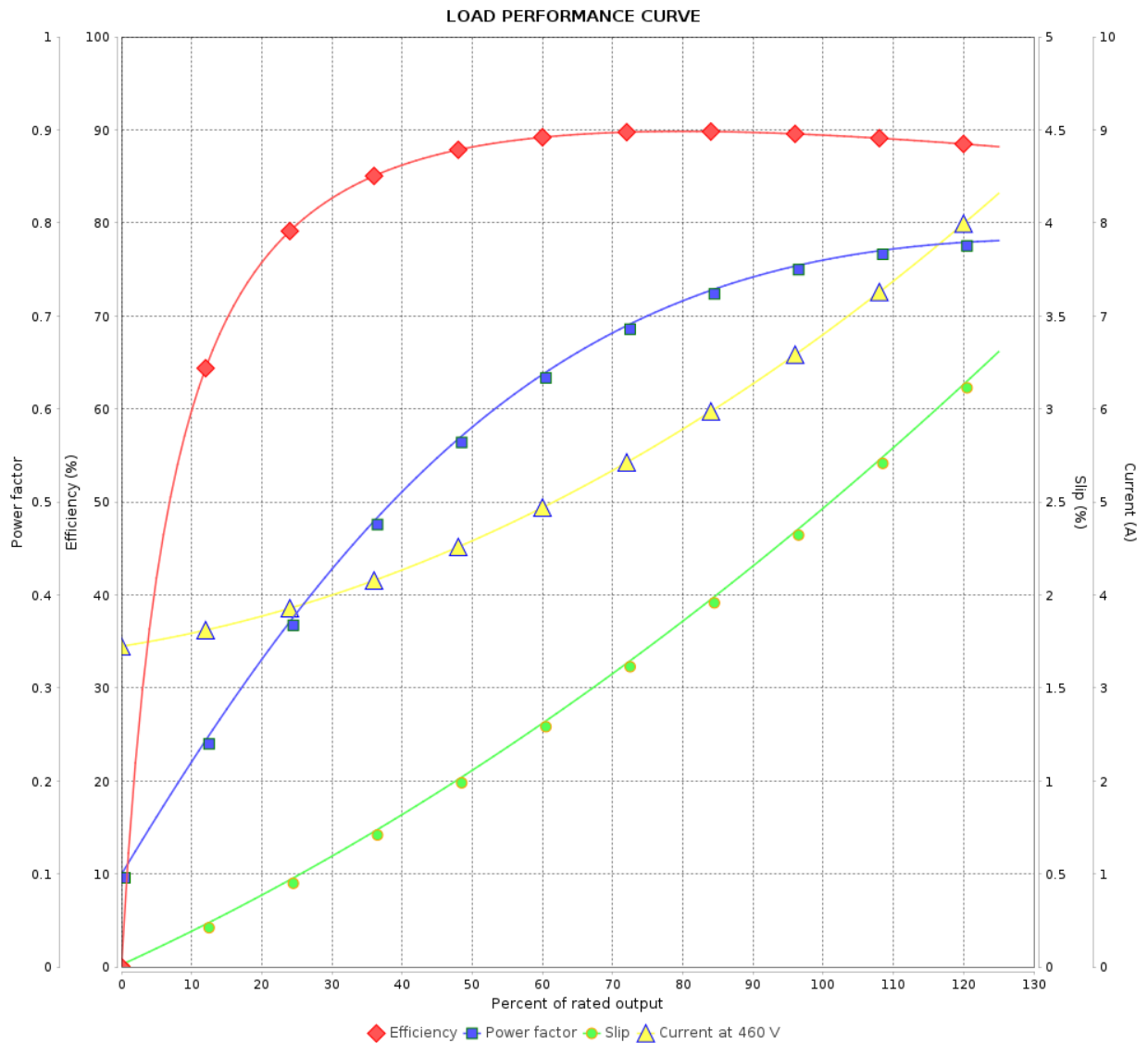
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Customer :

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Performance : 460 V 60 Hz 6P

Rated current	: 6.83 A	Moment of inertia (J)	: 0.0620 kgm ²
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 3.10 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1170 rpm	Design	: B

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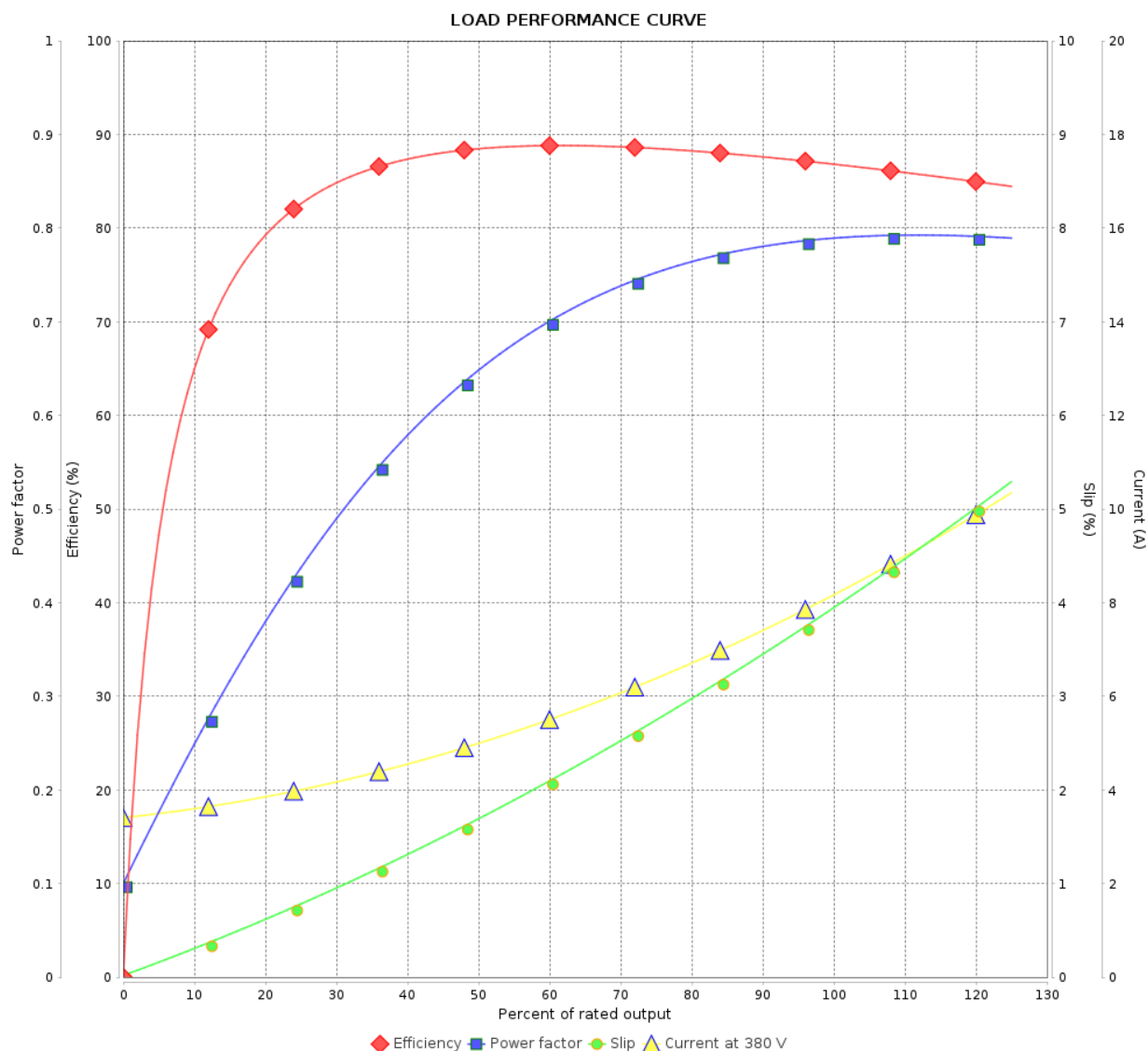
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 6P IE3

Rated current : 8.20 A
LRC : 5.5
Rated torque : 3.78 kgfm
Locked rotor torque : 150 %
Breakdown torque : 215 %
Rated speed : 960 rpm

Moment of inertia (J) : 0.0620 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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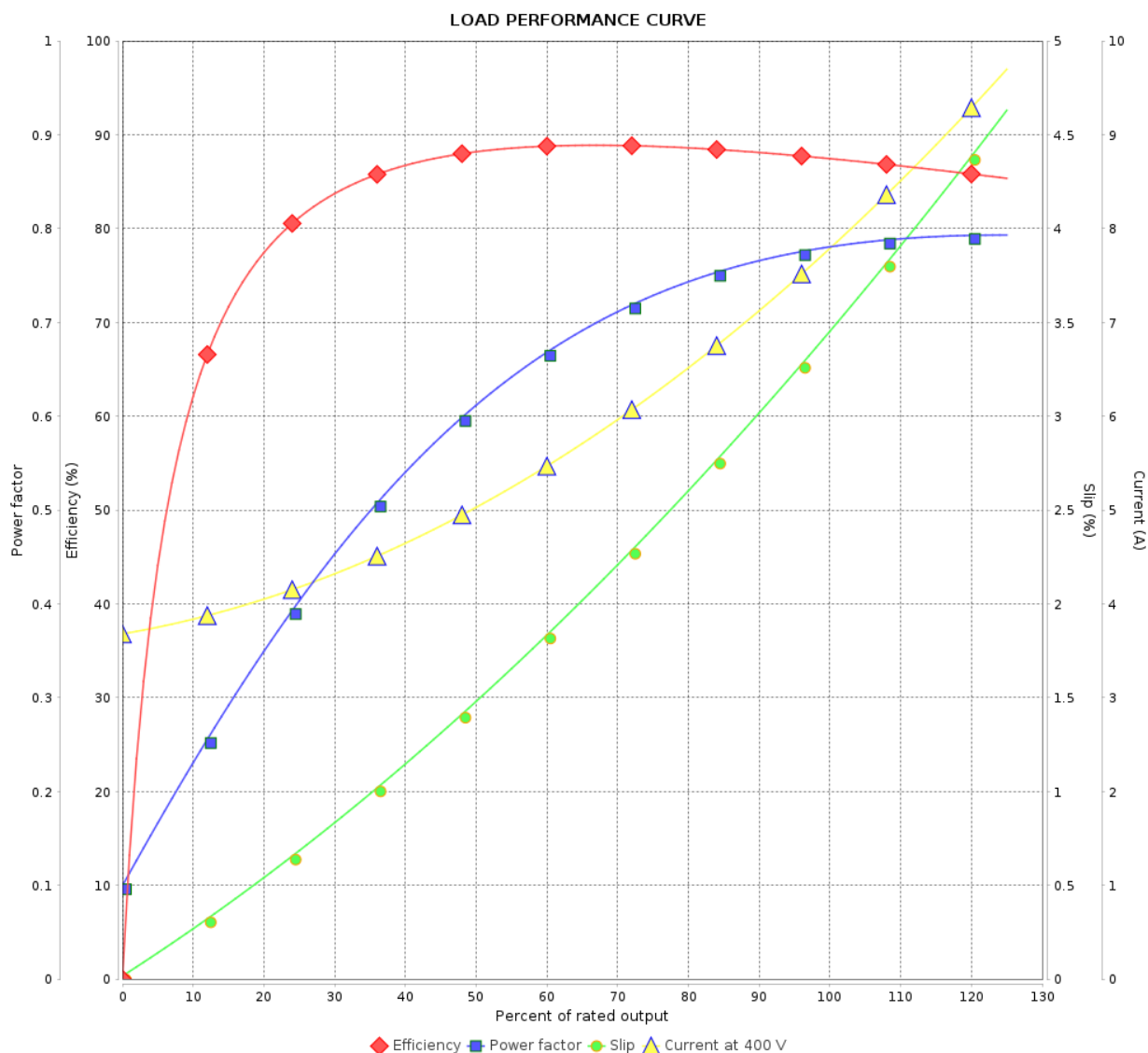
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 6P IE3

Rated current : 7.82 A
LRC : 6.1
Rated torque : 3.76 kgfm
Locked rotor torque : 160 %
Breakdown torque : 220 %
Rated speed : 965 rpm

Moment of inertia (J) : 0.0620 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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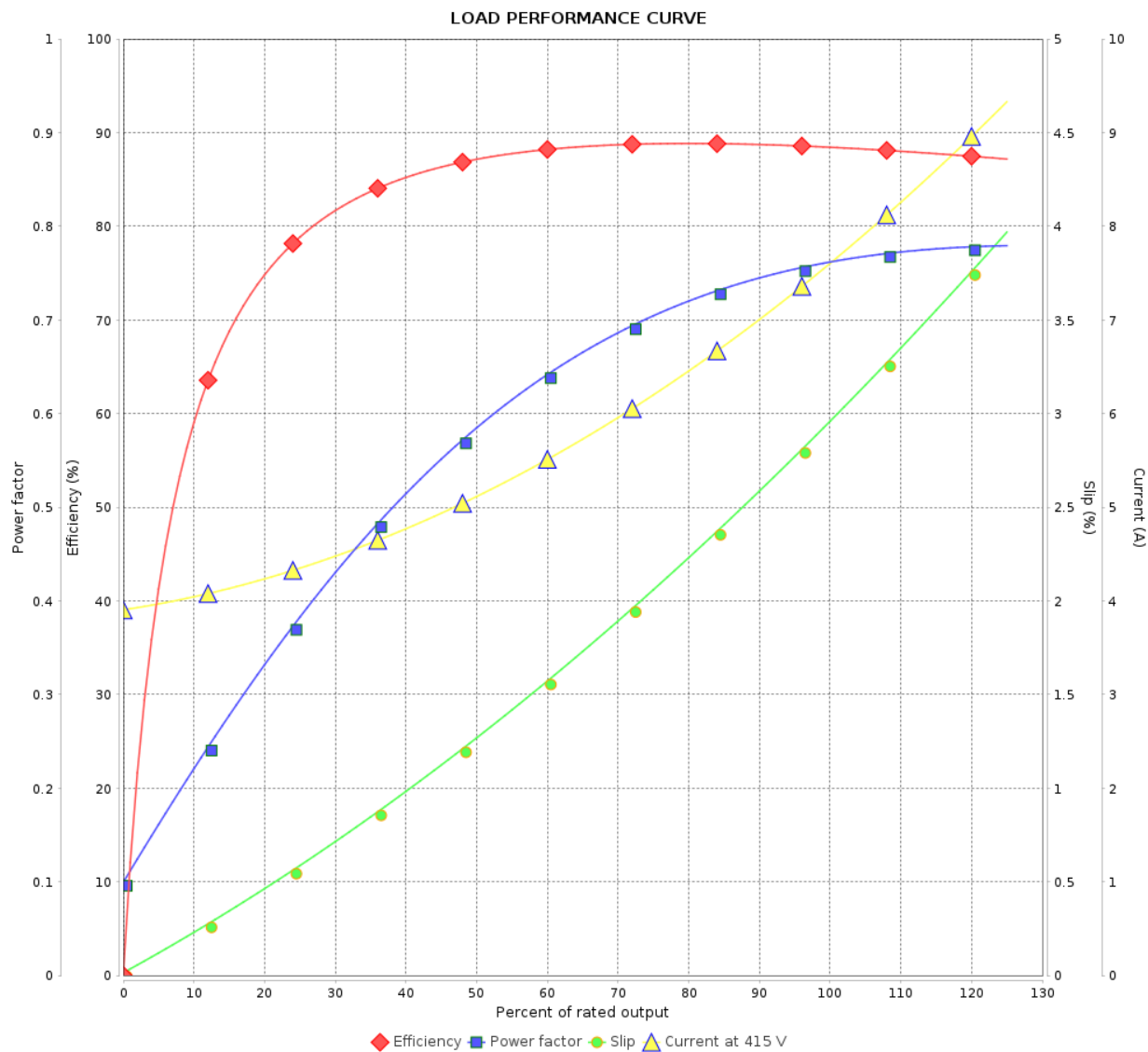
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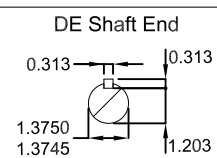
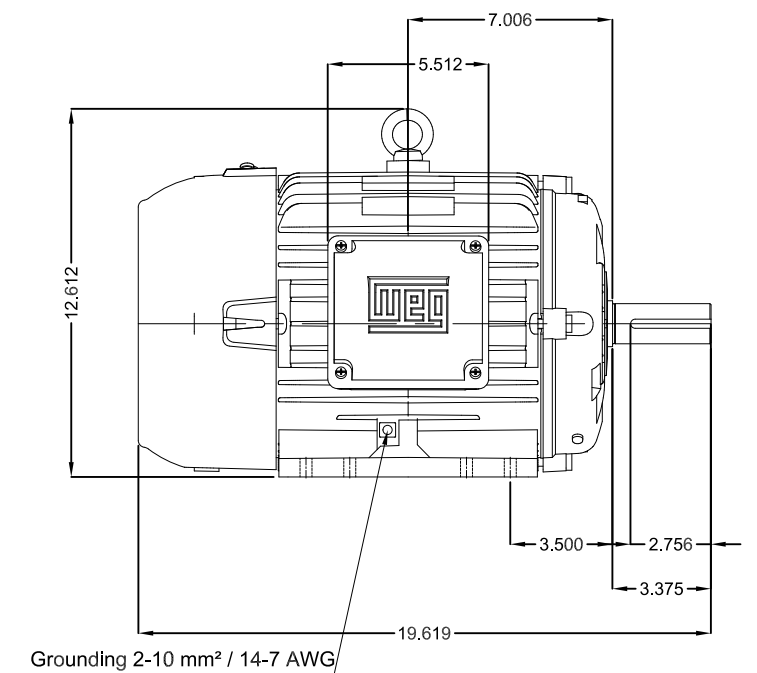
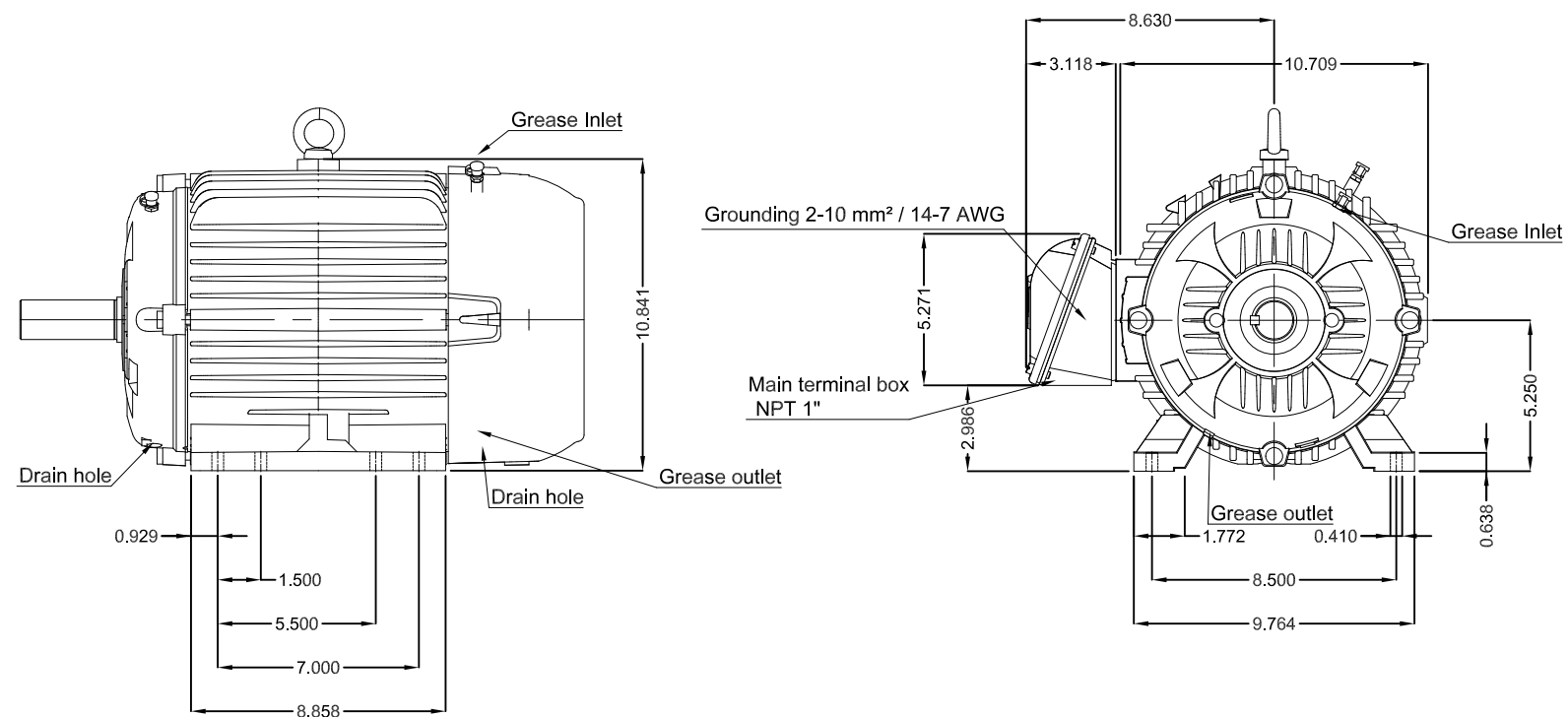


Performance : 415 V 50 Hz 6P IE3



Rated current : 7.65 A
LRC : 6.5
Rated torque : 3.74 kgfm
Locked rotor torque : 190 %
Breakdown torque : 250 %
Rated speed : 970 rpm

Moment of inertia (J) : 0.0620 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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Grease outlet according to IEEE841
Color RAL 5009
Painting plan 202E
Mounting B3R(D)

5 HP 06 Poles 60 Hz										A	
					HYBRISUSER						
ECM		LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER	
EXECUTED	HYBRISUSER		THREE PH. MOTOR IEEE 841 W22 NEMA PREM. EFF. FRAME 213/5T IP56 TEFC			PREVIEW WDD 00					
CHECKED											
RELEASED											
REL. DATE											
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