

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11770612

Frame : 284/6T	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 : 206 kg
Protection degree : IP55	Moment of inertia (J) : 0.2467 kgm ²
Design : B	

Output [HP]	30	30	30	30
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	35.1	43.1	41.1	39.7
L. R. Amperes [A]	214	228	247	238
LRC [A]	6.1x(Code G)	5.3x(Code F)	6.0x(Code G)	6.0x(Code G)
No load current [A]	12.3	12.2	13.1	13.8
Rated speed [RPM]	1770	1455	1460	1465
Slip [%]	1.67	3.00	2.67	2.33
Rated torque [kgfm]	12.3	15.0	14.9	14.9
Locked rotor torque [%]	240	170	190	220
Breakdown torque [%]	240	200	220	250
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	105 K	105 K	105 K
Locked rotor time	36s (cold) 20s (hot)	23s (cold) 13s (hot)	23s (cold) 13s (hot)	21s (cold) 12s (hot)
Noise level ²	63.0 dB(A)	61.0 dB(A)	61.0 dB(A)	61.0 dB(A)
Efficiency (%)	25%			
	50%	93.0	90.0	90.5
	75%	93.0	90.2	91.0
	100%	93.6	90.2	91.0
Power Factor	25%			
	50%	0.70	0.76	0.73
	75%	0.80	0.83	0.82
	100%	0.84	0.86	0.85

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

Losses (%)	P1 (0,9;1,0)	6.8	6.8	6.8	6.8
	P2 (0,5;1,0)	5.8	5.8	5.8	5.8
	P3 (0,25;1,0)	5.2	5.2	5.2	5.2
	P4 (0,9;0,5)	3.1	3.1	3.1	3.1
	P5 (0,5;0,5)	2.2	2.2	2.2	2.2
	P6 (0,5;0,25)	1.4	1.4	1.4	1.4
	P7 (0,25;0,25)	0.9	0.9	0.9	0.9

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6311 C3	6211 C3	Max. traction : 428 kgf
Sealing :	Taconite	Taconite	Max. compression : 634 kgf
	Labyrinth	Labyrinth	
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	18 g	11 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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Notes

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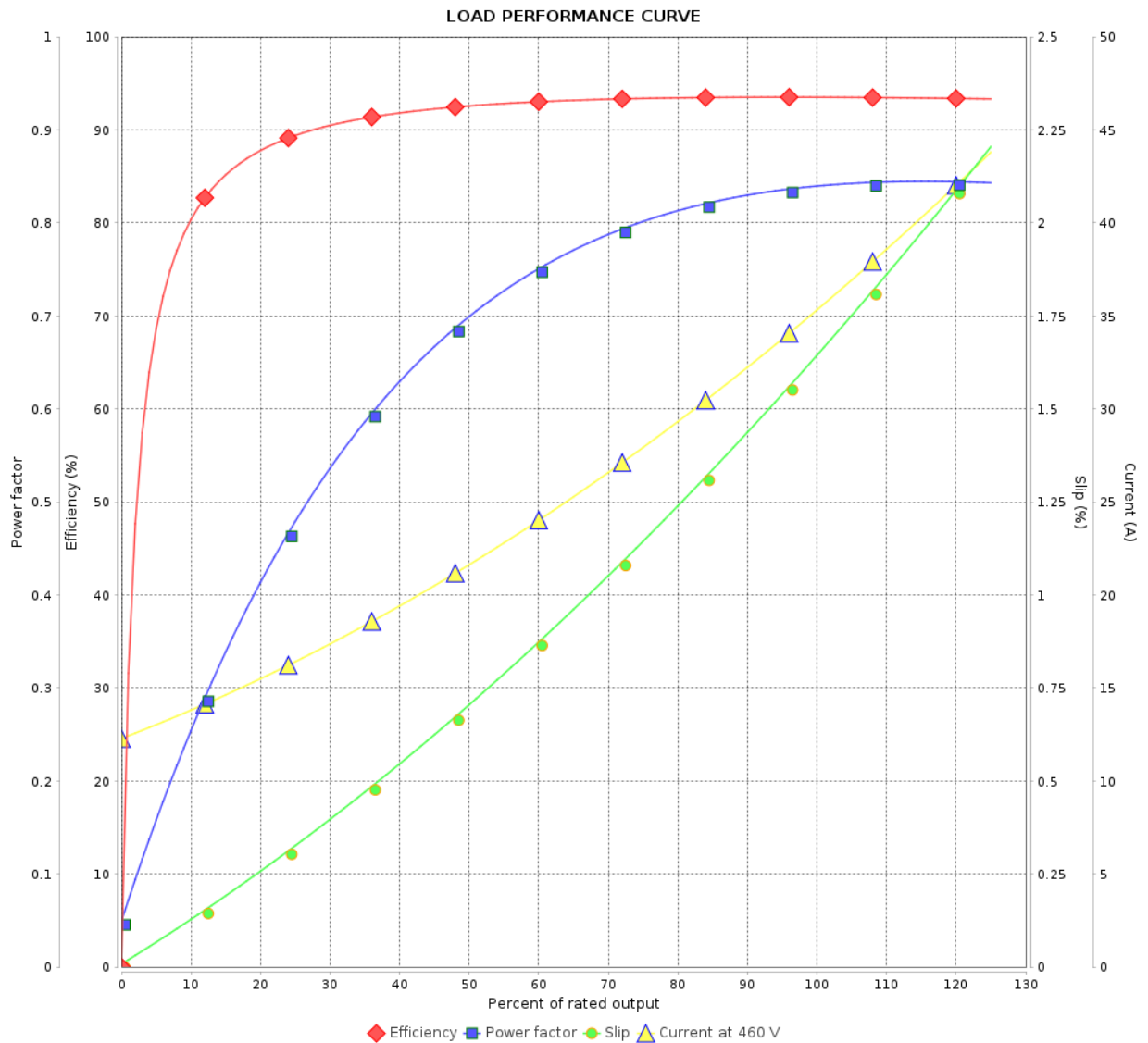
Three Phase Induction Motor - Squirrel Cage



Customer :

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Efficiency Three-Phase

Product code : 11770612



Performance : 460 V 60 Hz 4P

Rated current : 35.1 A
LRC : 6.1
Rated torque : 12.3 kgfm
Locked rotor torque : 240 %
Breakdown torque : 240 %
Rated speed : 1770 rpm

Moment of inertia (J) : 0.2467 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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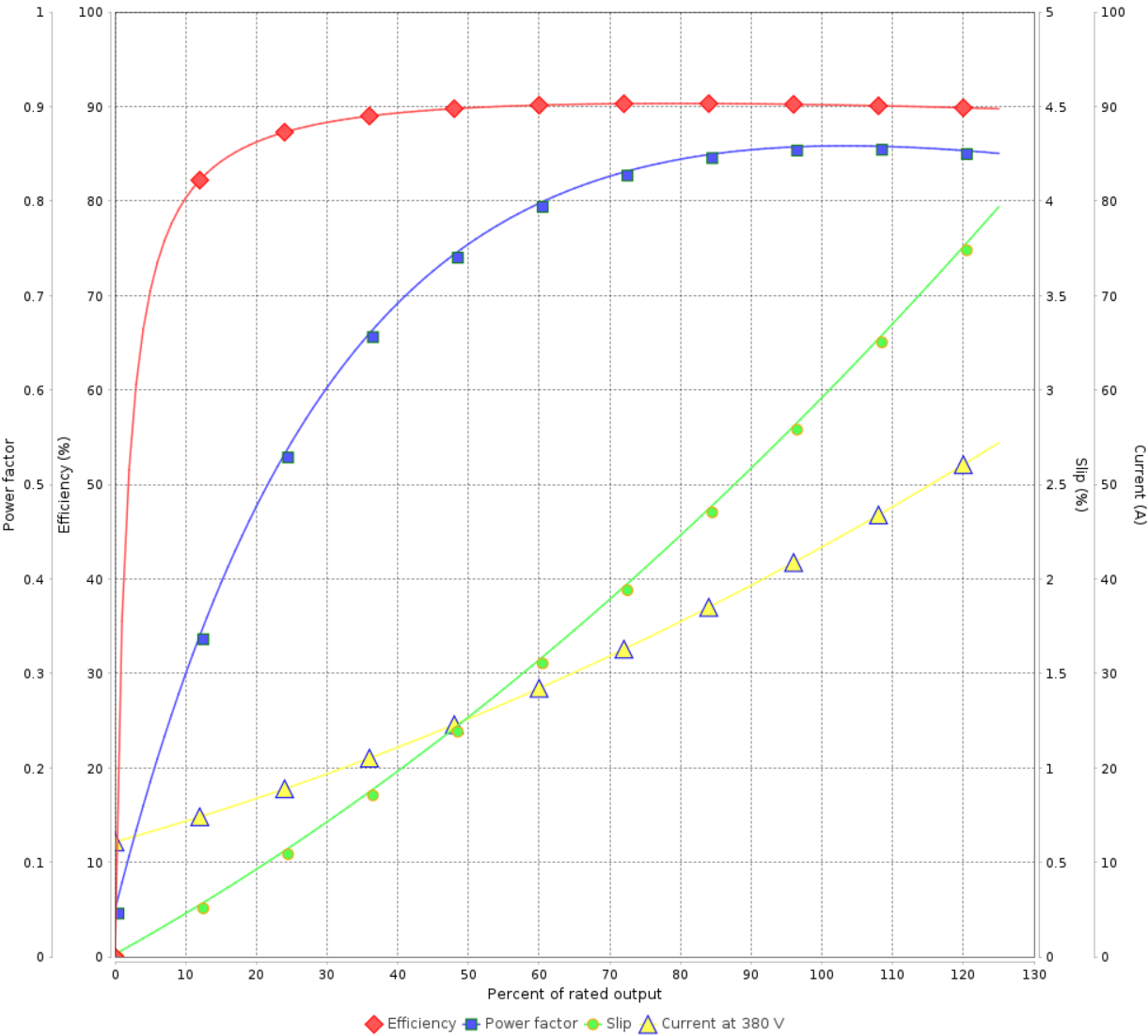
Three Phase Induction Motor - Squirrel Cage



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Performance : 380 V 50 Hz 4P IE1

Rated current	: 43.1 A	Moment of inertia (J)	: 0.2467 kgm²
LRC	: 5.3	Duty cycle	: Cont.(S1)
Rated torque	: 15.0 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 1455 rpm	Design	: B

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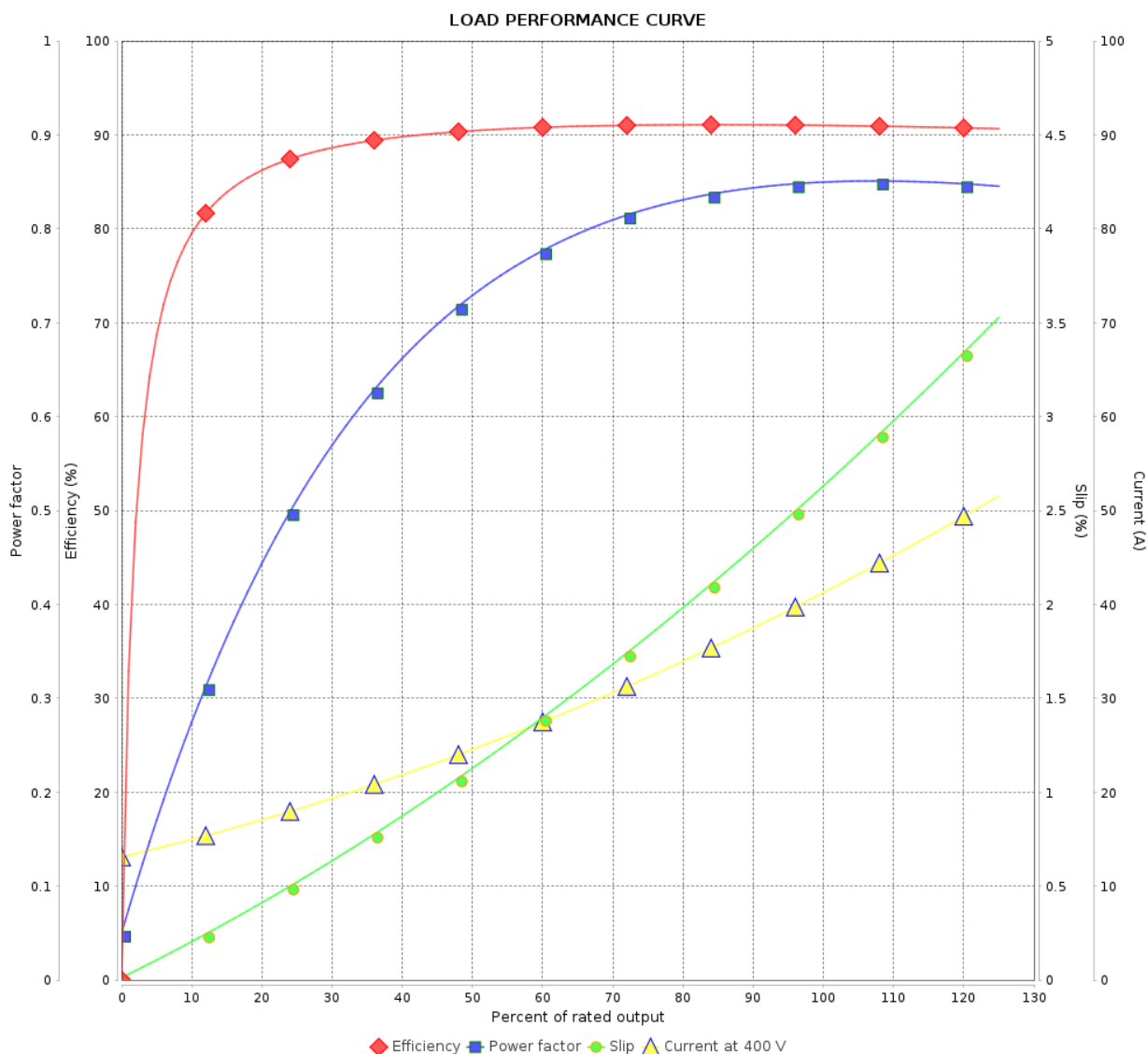
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 4P IE1

Rated current : 41.1 A
LRC : 6.0
Rated torque : 14.9 kgfm
Locked rotor torque : 190 %
Breakdown torque : 220 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.2467 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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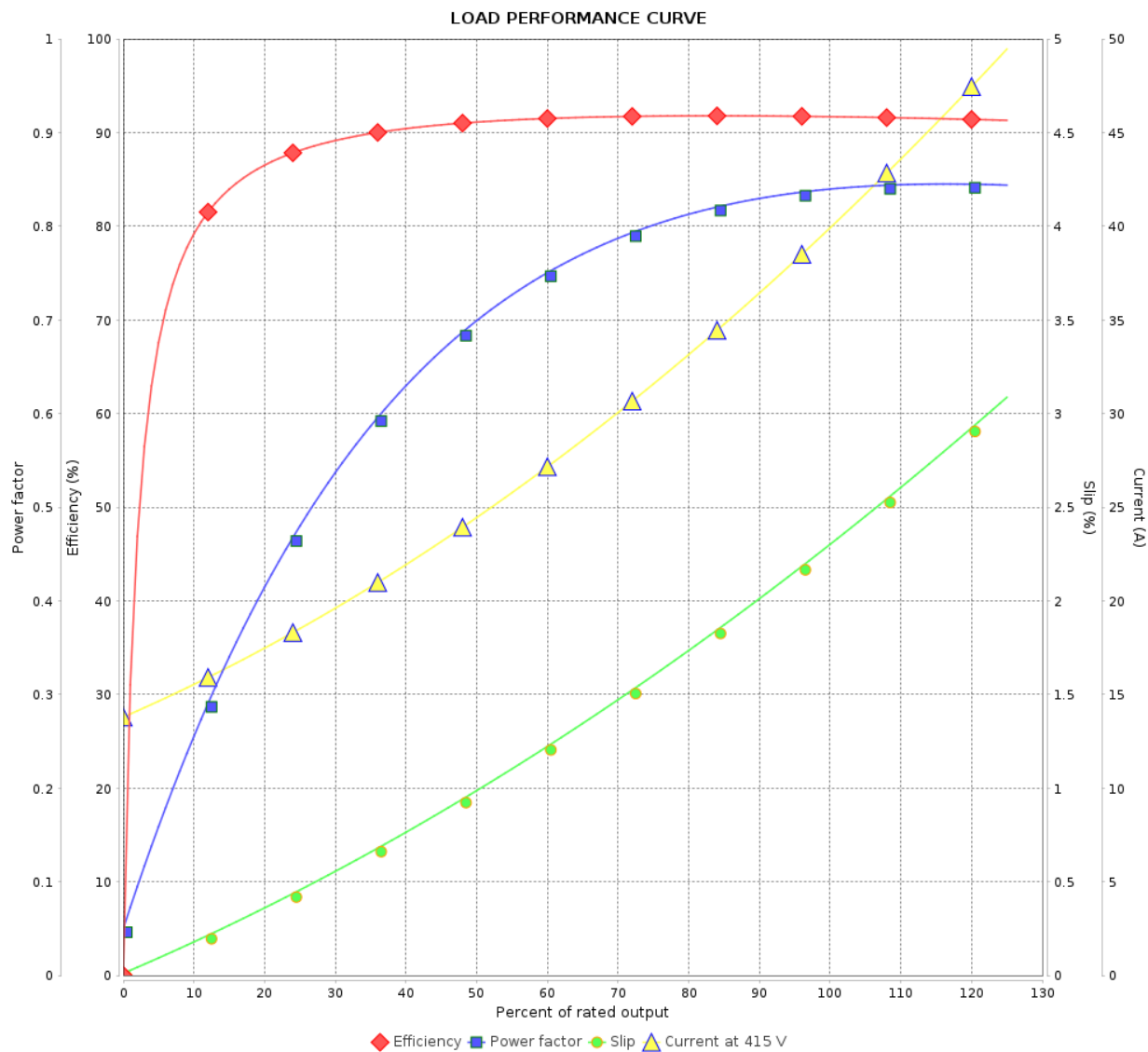
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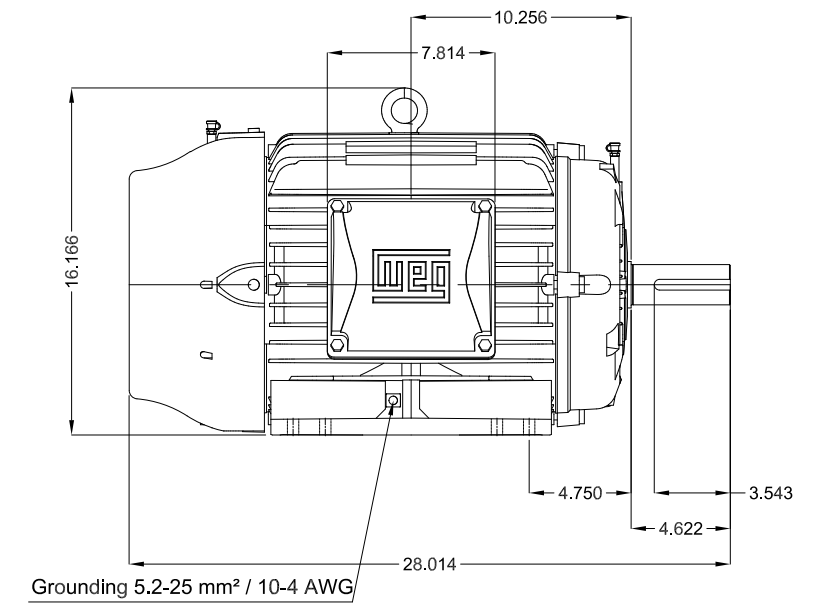
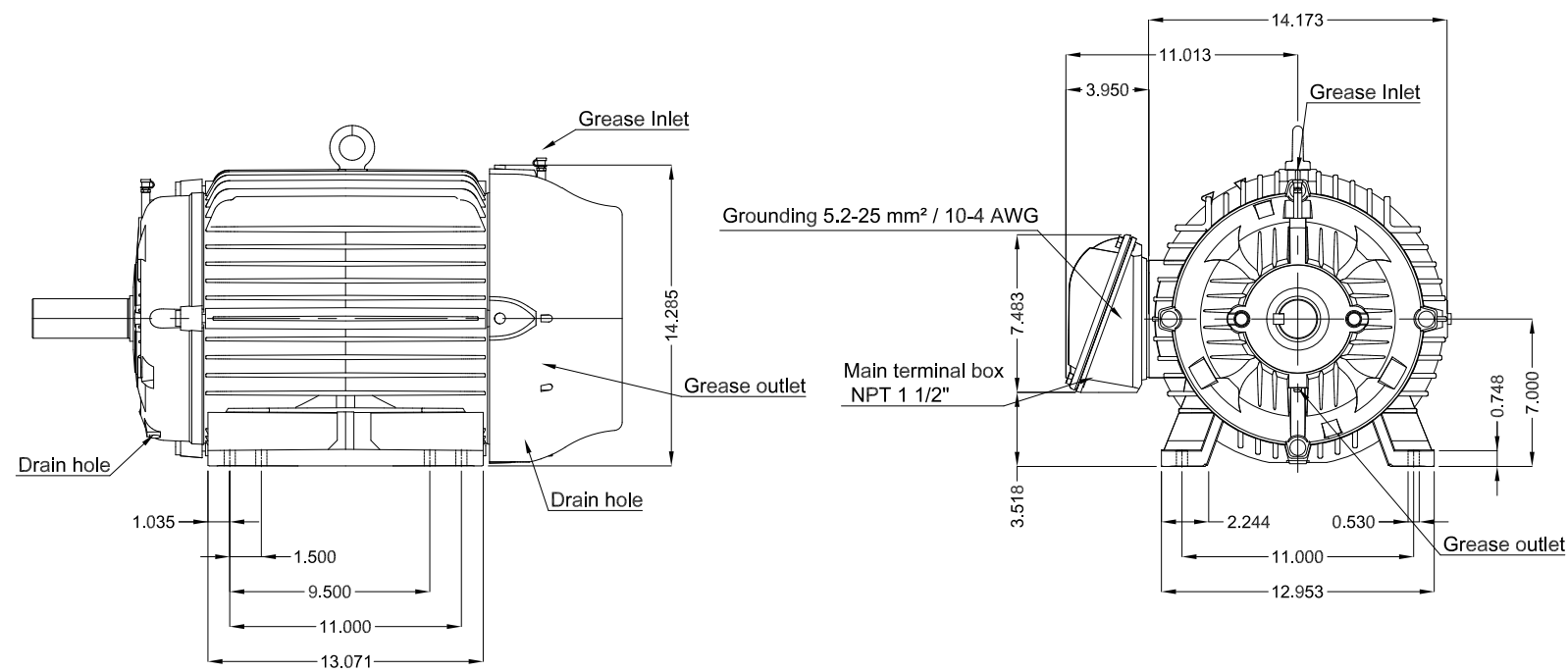




Performance : 415 V 50 Hz 4P IE2

Rated current : 39.7 A
LRC : 6.0
Rated torque : 14.9 kgfm
Locked rotor torque : 220 %
Breakdown torque : 250 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.2467 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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ECM		LOC		SUMMARY OF MODIFICATIONS			EXECUTED		CHECKED		RELEASED	DATE	VER		
EXECUTED		HYBRISUSER				THREE PH. MOTOR IEEE 841 W22 NEMA PREM. EFF. FRAME 284/6T IP55 TEFC				PREVIEW WDD 00					
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