

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	0.66
	75%	0.76	0.81	0.76
	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.

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	22/10/2024		Page 1 / 6	Revision

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Notes

Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page		Revision
Checked by					
Date	22/10/2024				
			2 / 6		

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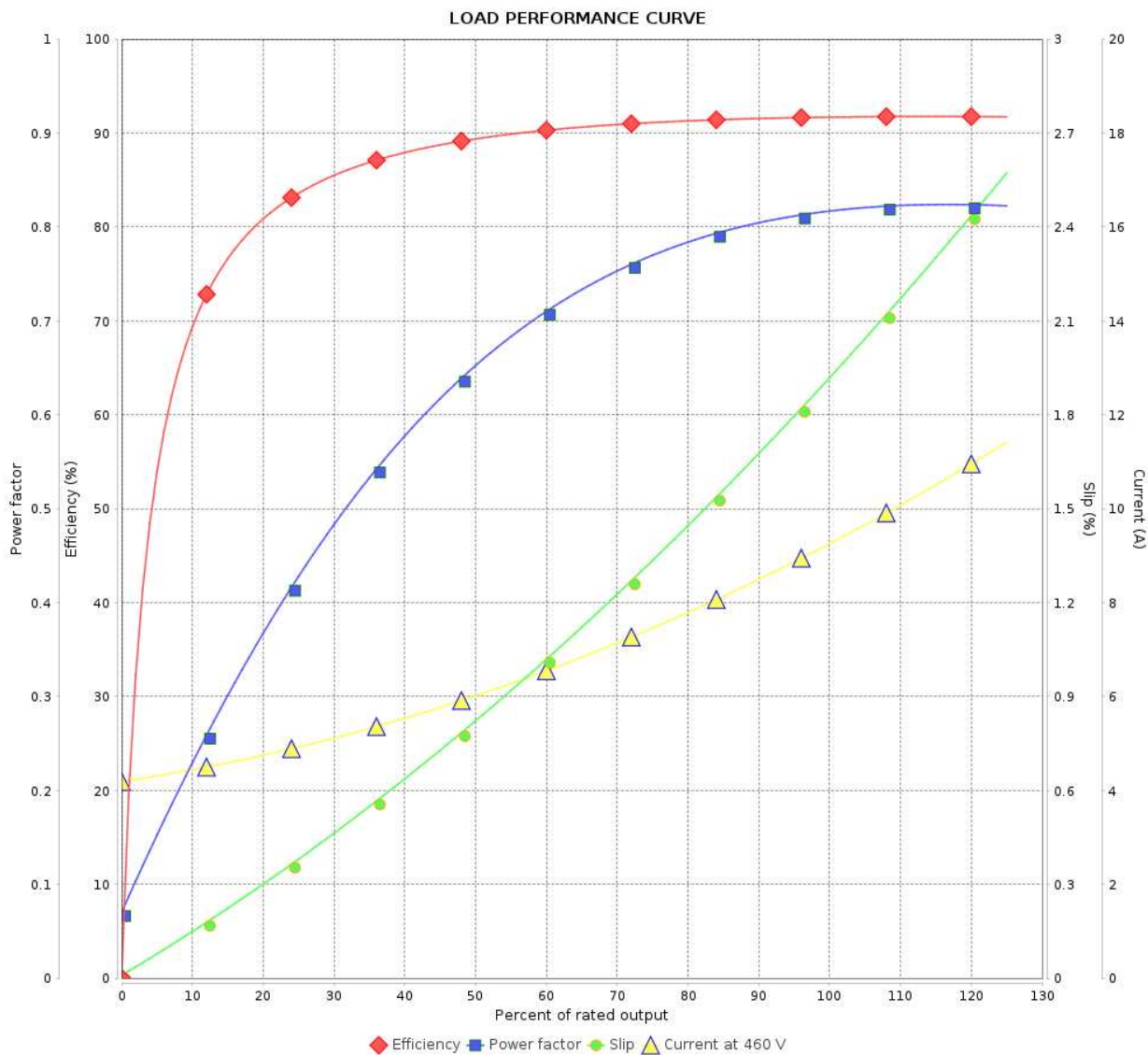
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Customer :

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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

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 3 / 6Revision		
Checked by				
Date	22/10/2024			

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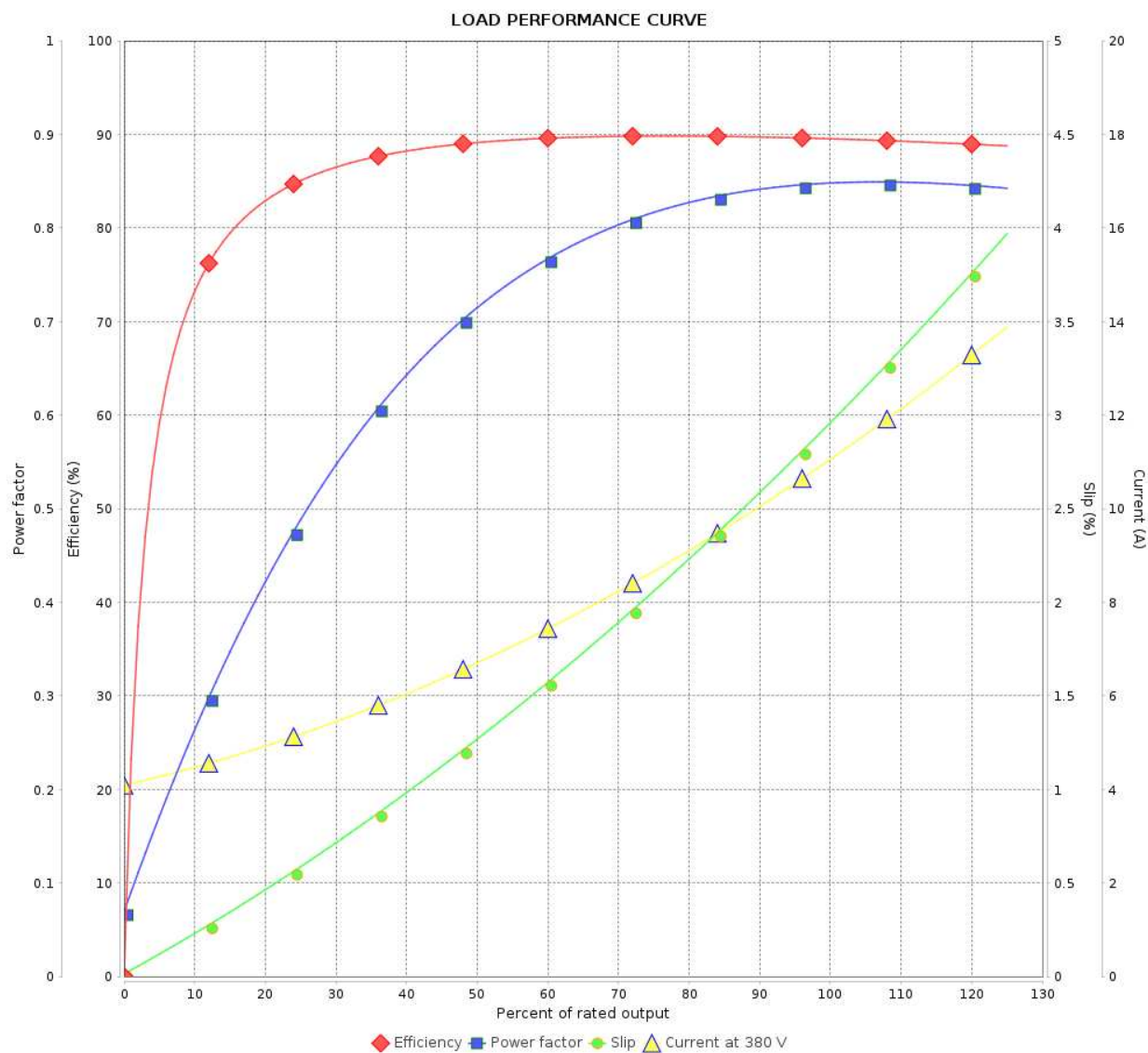
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Customer :

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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

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 4 / 6	Revision
Checked by					
Date	22/10/2024				

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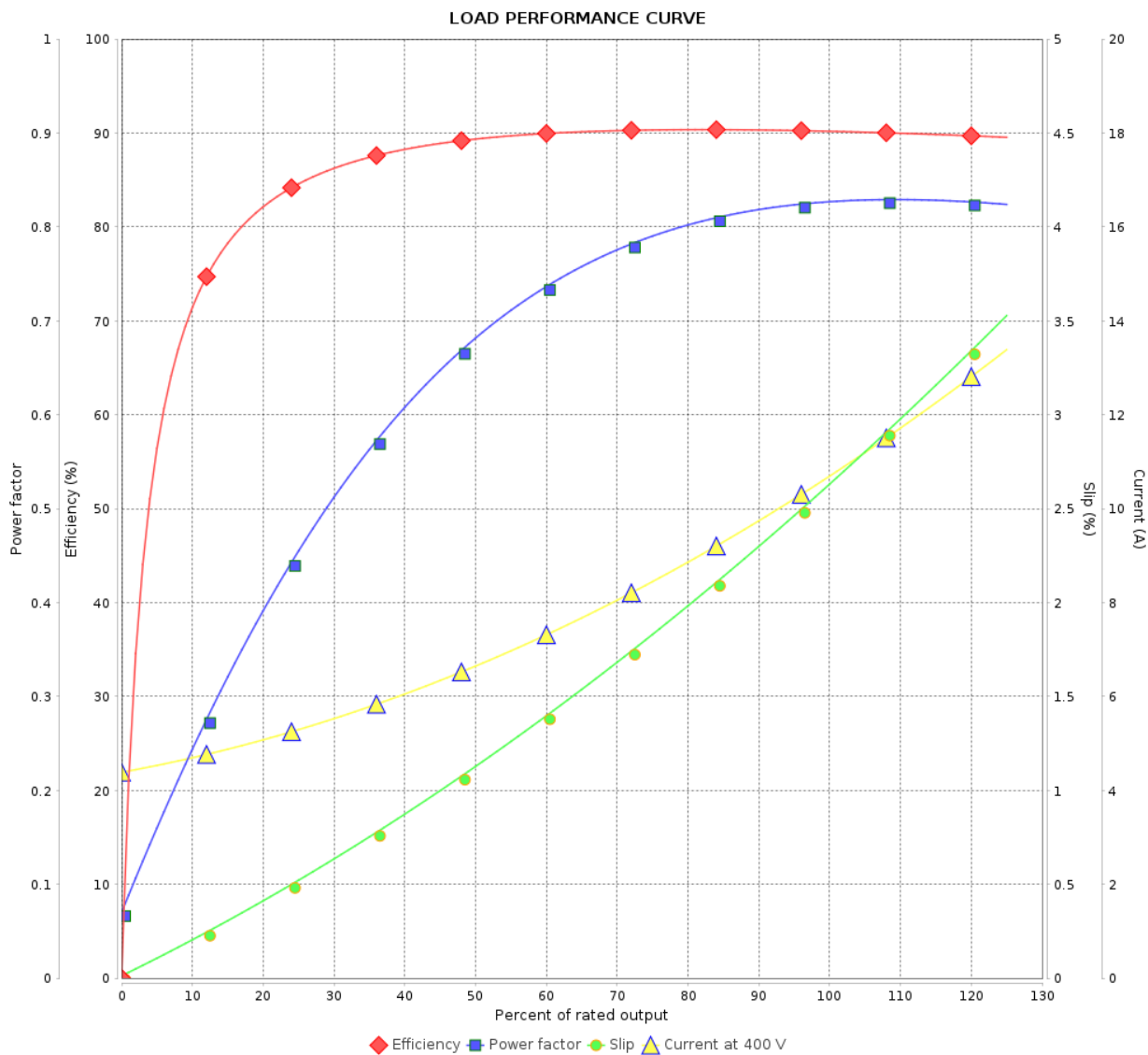
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Customer :

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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

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 6 Revision		
Checked by				
Date	22/10/2024			

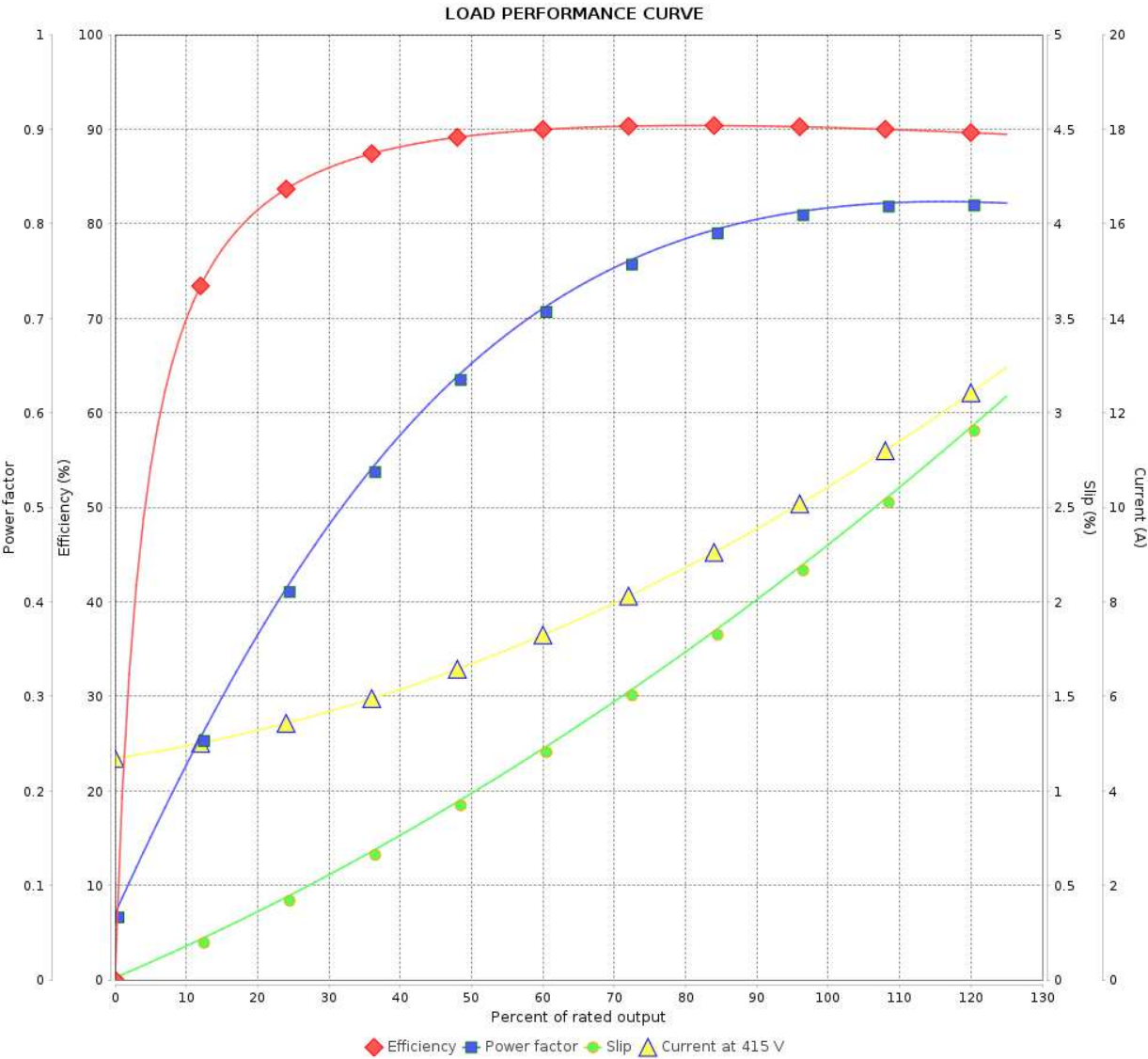
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Performance : 415 V 50 Hz 4P IE3

Rated current	: 10.3 A	Moment of inertia (J)	: 0.0566 kgm ²
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 3.72 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 6 / 6	Revision
Checked by					
Date	22/10/2024				

