

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12950323

Frame	: 213/5TC	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 ²	: 81.7 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	: 158 kgf
Sealing	: Taconite	Taconite	Max. compression	: 240 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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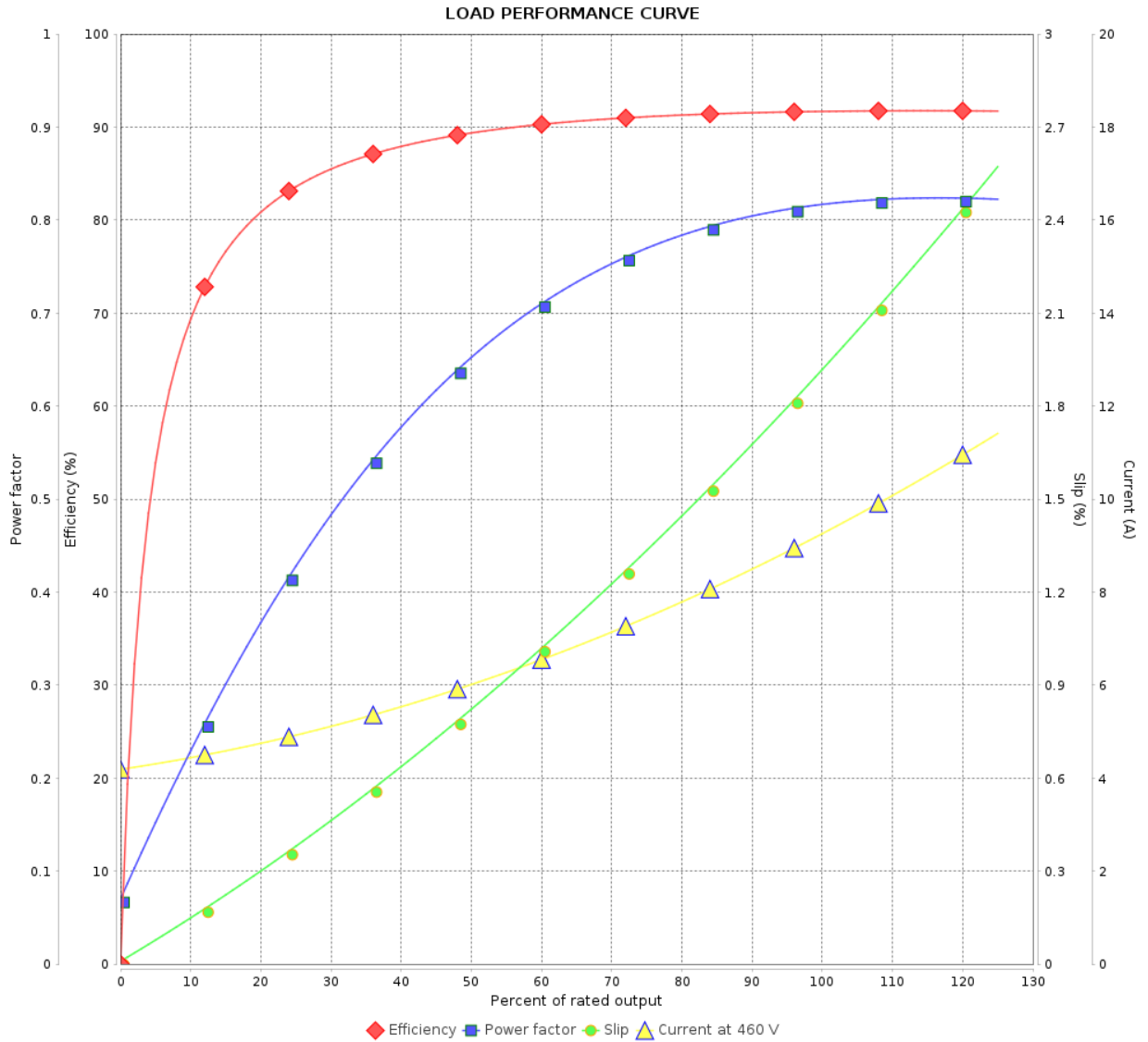
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Performance : 460 V 60 Hz 4P

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

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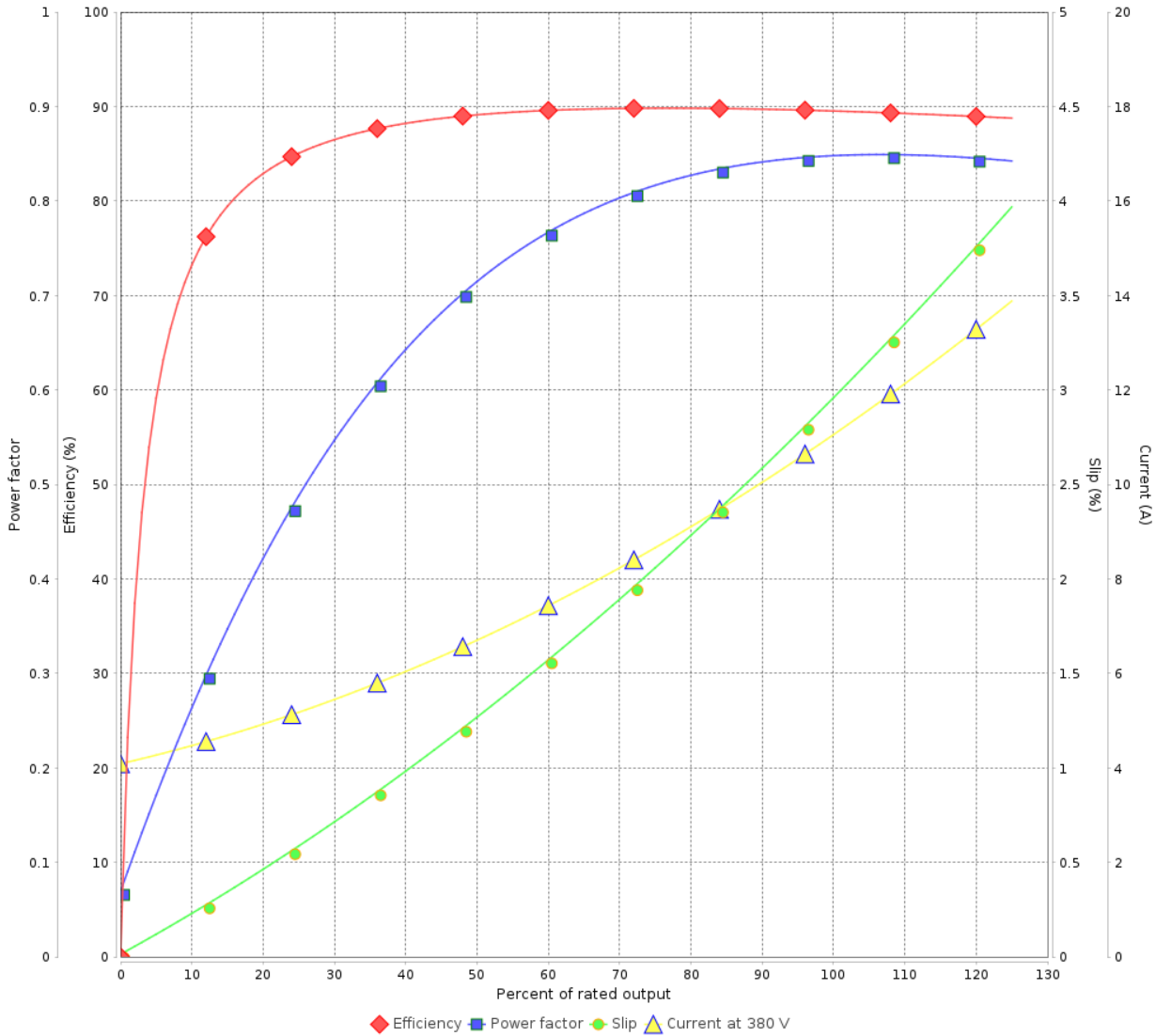
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Performance : 380 V 50 Hz 4P IE3

Rated current	: 11.0 A	Moment of inertia (J)	: 0.0566 kgm ²
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 3.74 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

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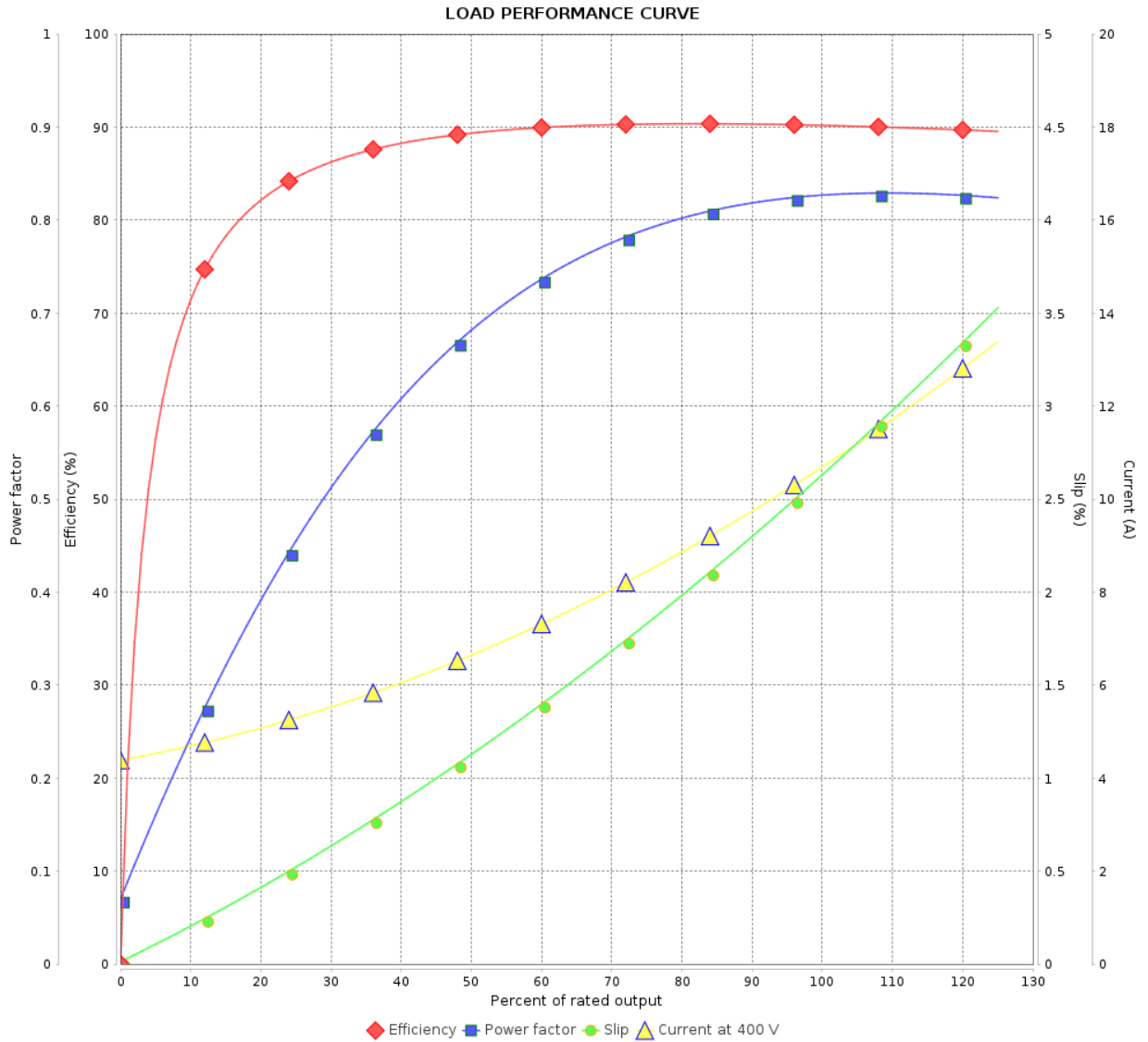
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Performance : 400 V 50 Hz 4P IE3

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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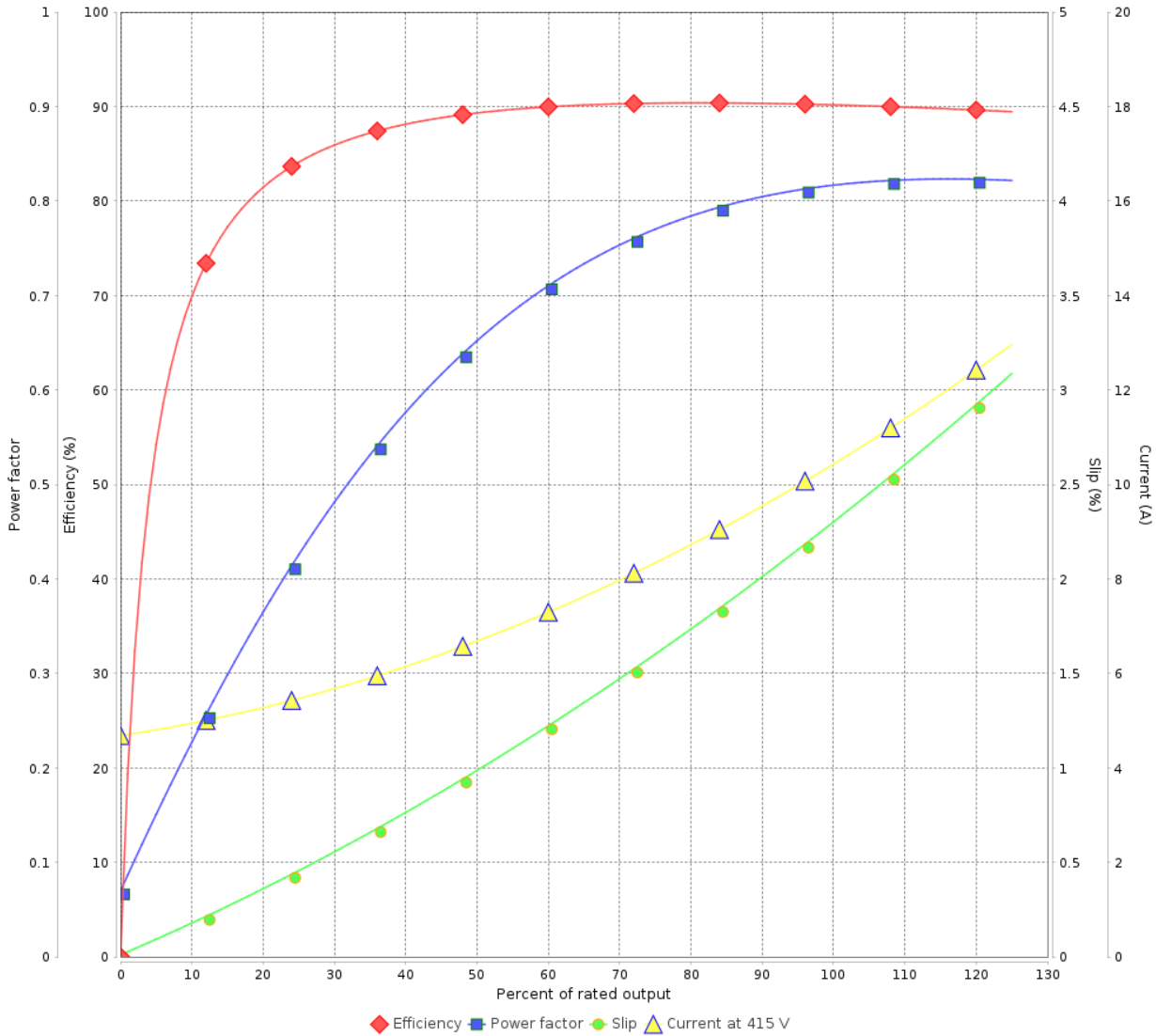
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Performance : 415 V 50 Hz 4P IE3

Rated current	: 10.3 A	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

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