

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 13869844

Frame	: 404/5T	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	: 554 kg
Protection degree	: IP55	Moment of inertia (J)	: 1.26 kgm ²
Design	: B		

Output [HP]	100	100	100	100
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	116	142	135	131
L. R. Amperes [A]	719	795	837	865
LRC [A]	6.2x(Code G)	5.6x(Code F)	6.2x(Code G)	6.6x(Code G)
No load current [A]	32.0	31.7	33.7	35.0
Rated speed [RPM]	1775	1465	1470	1475
Slip [%]	1.39	2.33	2.00	1.67
Rated torque [kgfm]	40.9	49.5	49.4	49.2
Locked rotor torque [%]	240	190	210	220
Breakdown torque [%]	220	170	190	210
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	105 K	105 K	105 K
Locked rotor time	23s (cold) 13s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)
Noise level ²	68.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)
Efficiency (%)	25%			
	50%	95.0	94.5	94.5
	75%	95.0	94.1	94.5
	100%	95.4	93.6	94.5
Power Factor	25%			
	50%	0.77	0.82	0.79
	75%	0.84	0.86	0.85
	100%	0.85	0.86	0.85

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

Losses (%)	P1 (0,9;1,0)	4.6	4.6	4.6	4.6
	P2 (0,5;1,0)	3.8	3.8	3.8	3.8
	P3 (0,25;1,0)	3.7	3.7	3.7	3.7
	P4 (0,9;0,5)	2.0	2.0	2.0	2.0
	P5 (0,5;0,5)	1.4	1.4	1.4	1.4
	P6 (0,5;0,25)	0.8	0.8	0.8	0.8
	P7 (0,25;0,25)	0.5	0.5	0.5	0.5

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6316 C3	6314 C3	Max. traction : 740 kgf
Sealing	: Inpro/Seal	Inpro/Seal	Max. compression : 1294 kgf
Lubrication interval	: 10000 h	12000 h	
Lubricant amount	: 34 g	27 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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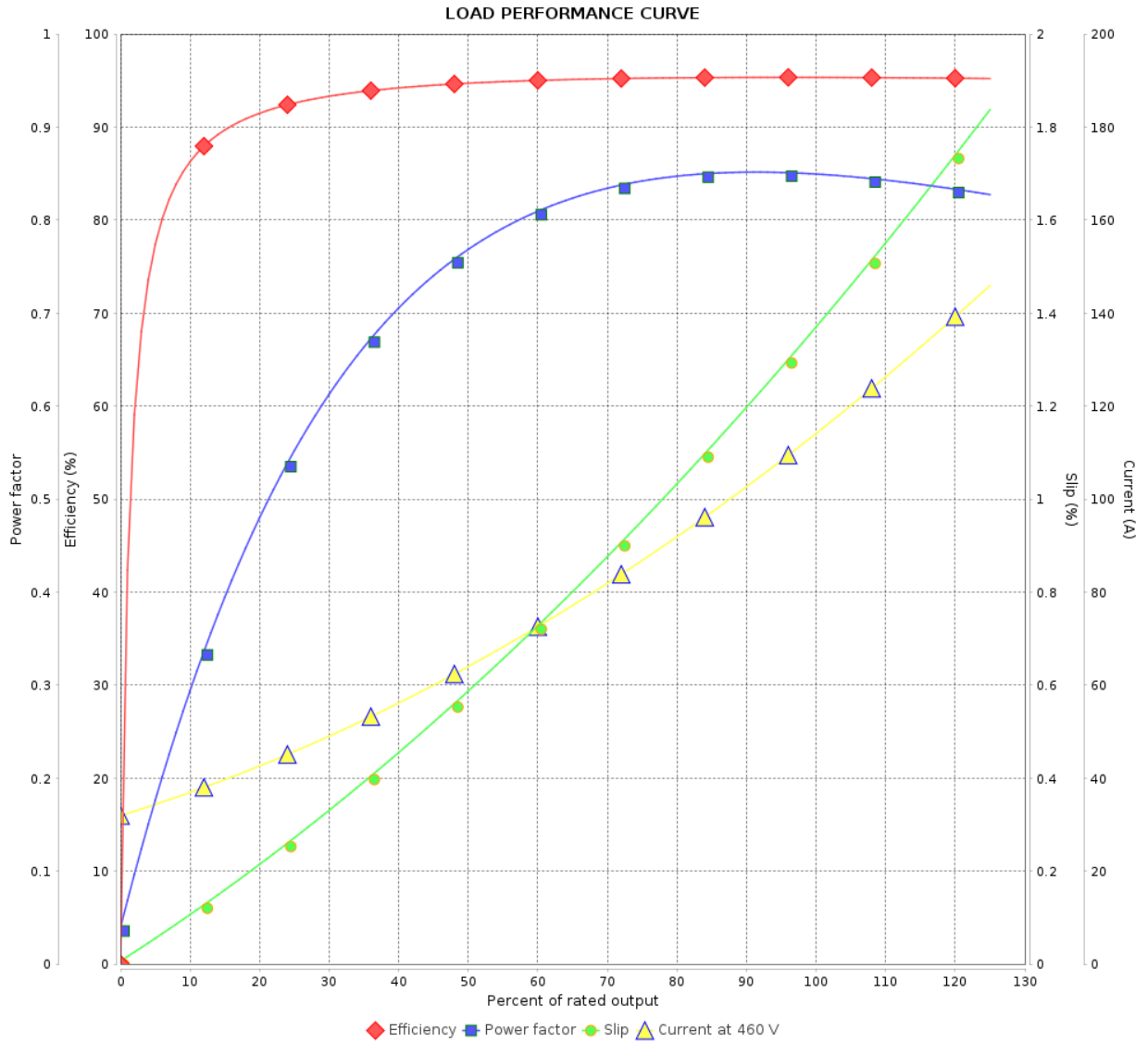
Three Phase Induction Motor - Squirrel Cage



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Three-Phase

Product code : 13869844



Performance : 460 V 60 Hz 4P

Rated current : 116 A
 LRC : 6.2
 Rated torque : 40.9 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 220 %
 Rated speed : 1775 rpm

Moment of inertia (J) : 1.26 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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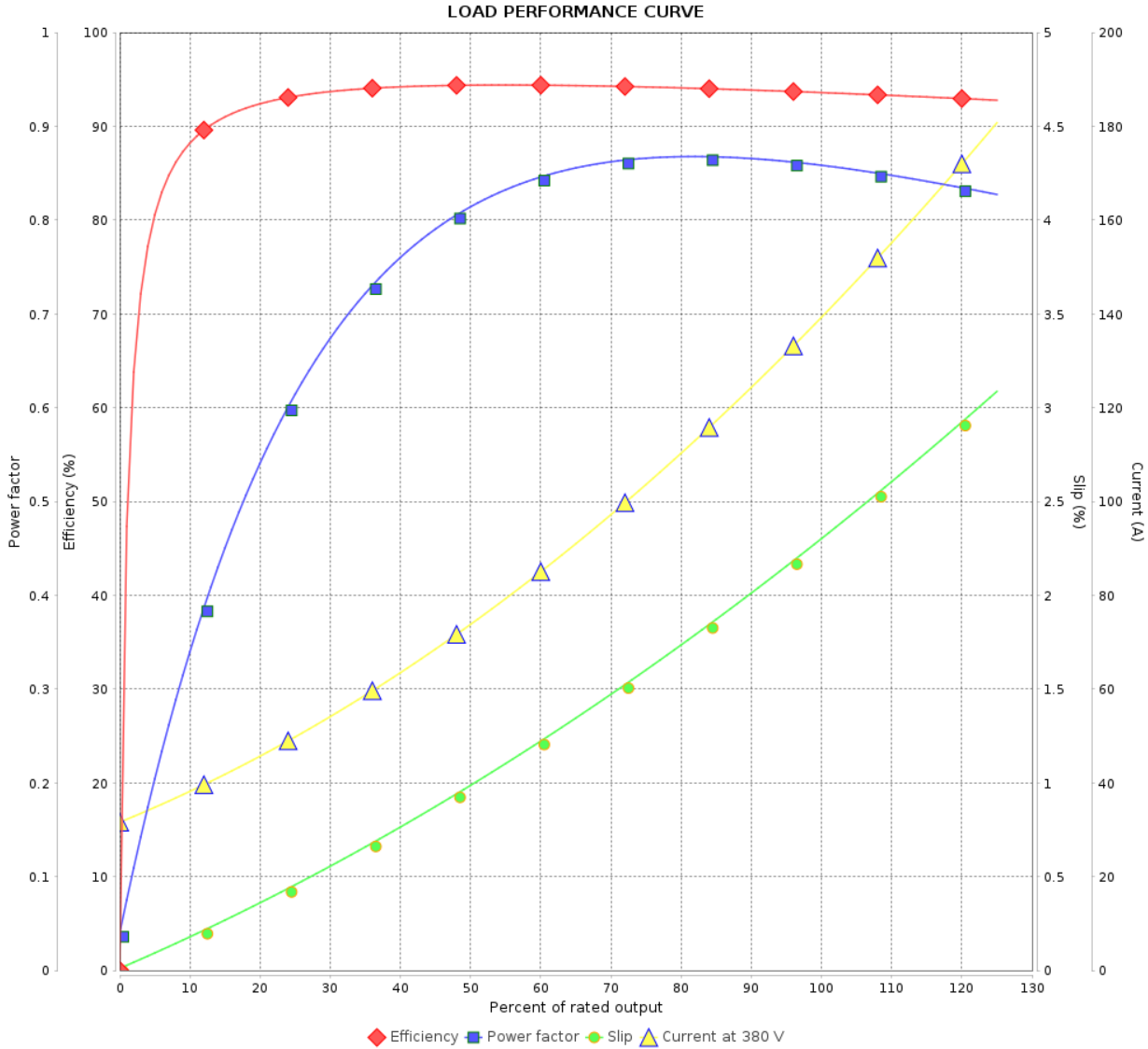
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Three Phase Induction Motor - Squirrel Cage



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Performance : 380 V 50 Hz 4P IE1

Rated current	: 142 A	Moment of inertia (J)	: 1.26 kgm ²
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 49.5 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 170 %	Temperature rise	: 105 K
Rated speed	: 1465 rpm	Design	: B

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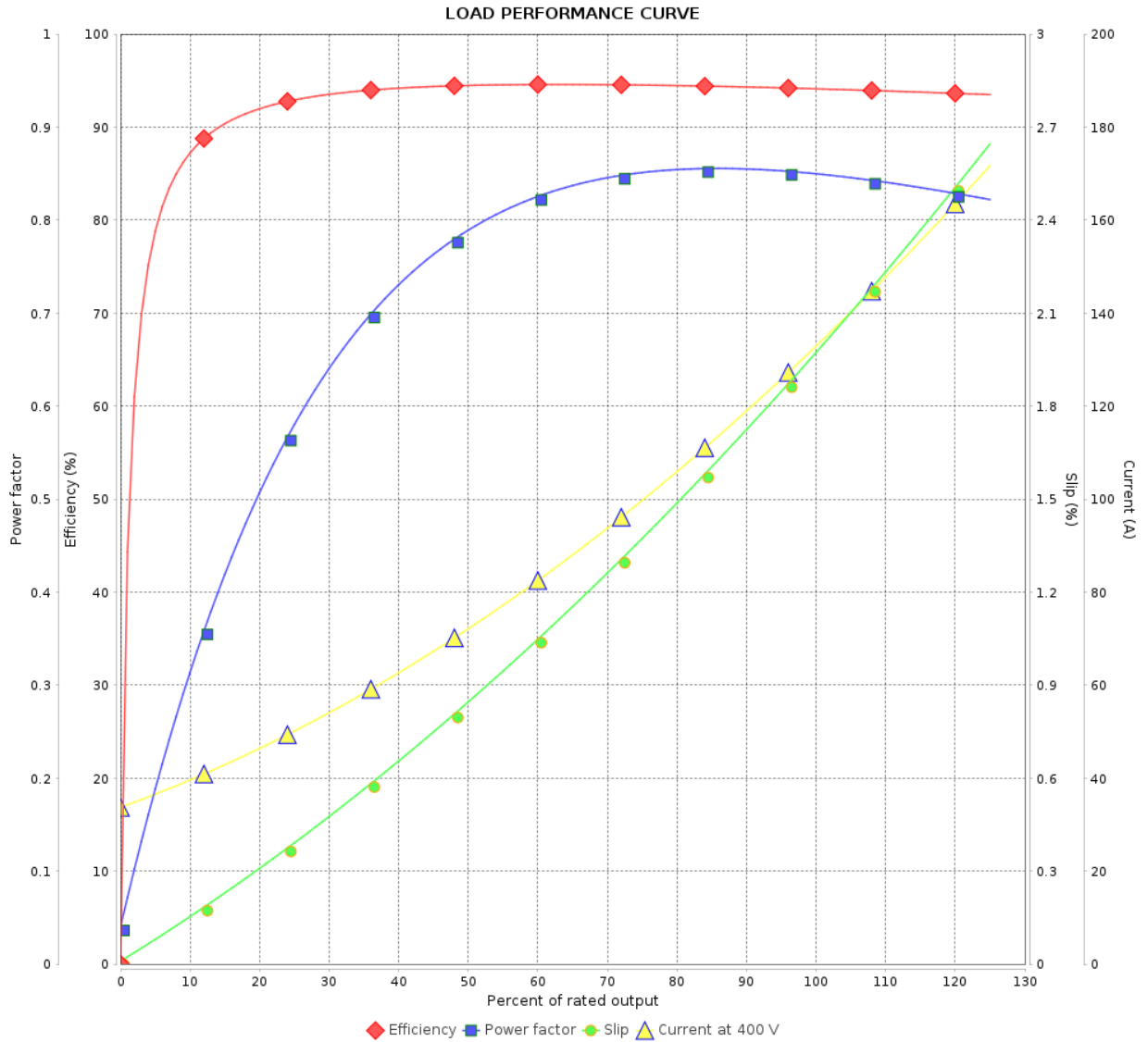
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Customer :

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Performance : 400 V 50 Hz 4P IE2

Rated current : 135 A
 LRC : 6.2
 Rated torque : 49.4 kgfm
 Locked rotor torque : 210 %
 Breakdown torque : 190 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 1.26 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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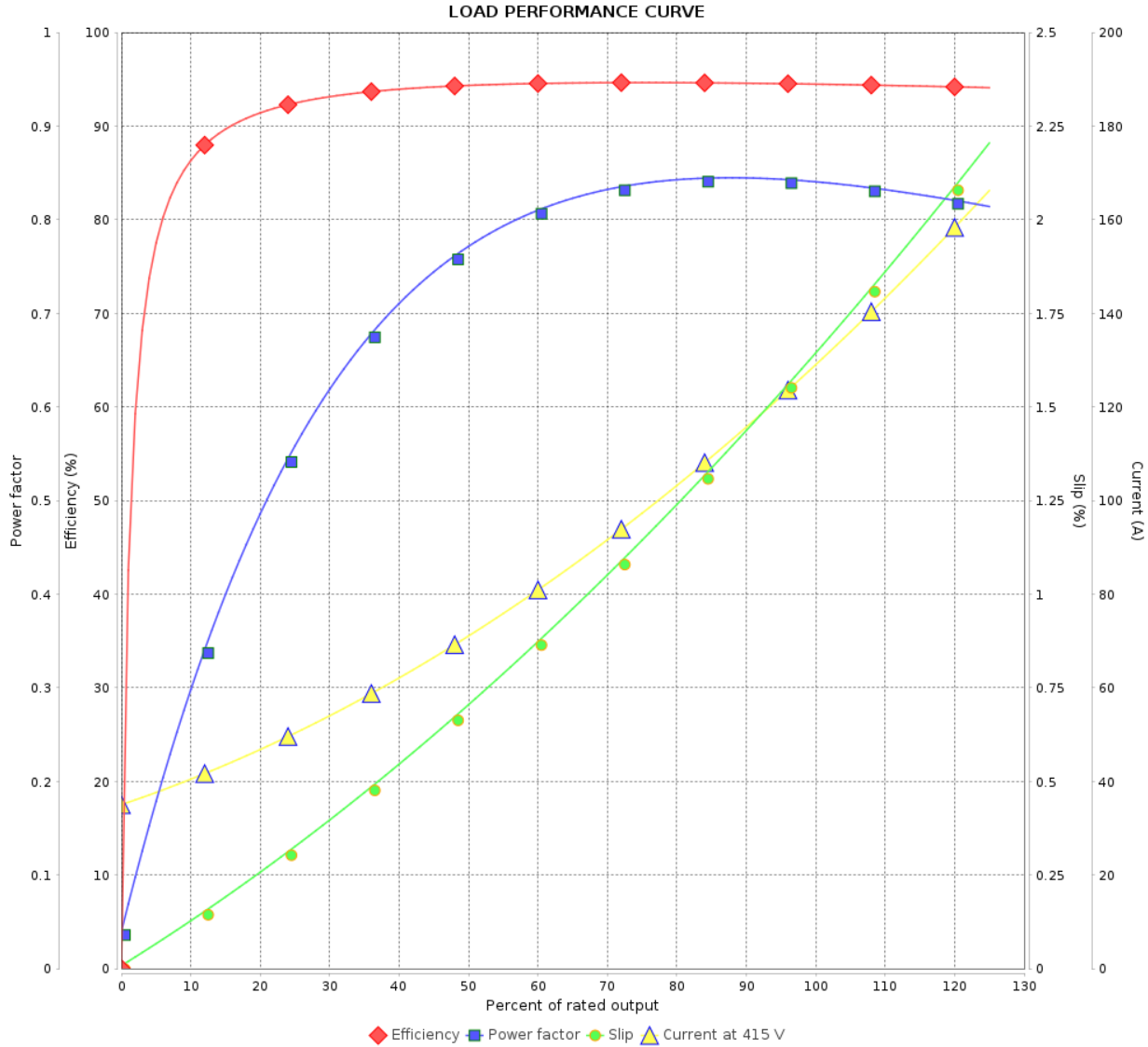
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Performance : 415 V 50 Hz 4P IE2

Rated current	: 131 A	Moment of inertia (J)	: 1.26 kgm ²
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 49.2 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 1475 rpm	Design	: B

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