

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12376408

Frame : 213/5TC	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : F-1
Duty cycle : Cont.(S1)	Rotation <sup>1</sup> : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight <sup>3</sup> : 78.8 kg
Protection degree : IP56	Moment of inertia (J) : 0.0504 kgm <sup>2</sup>
Design : B	

Output [HP]	3	3	3	3
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	4.41	5.09	4.92	4.87
L. R. Amperes [A]	30.9	29.5	31.5	33.1
LRC [A]	7.0x(Code K)	5.8x(Code H)	6.4x(Code J)	6.8x(Code J)
No load current [A]	2.75	2.72	2.91	3.05
Rated speed [RPM]	1175	965	970	970
Slip [%]	2.08	3.50	3.00	3.00
Rated torque [kgfm]	1.85	2.26	2.24	2.24
Locked rotor torque [%]	200	170	200	220
Breakdown torque [%]	280	210	240	270
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	104s (cold) 58s (hot)	72s (cold) 40s (hot)	72s (cold) 40s (hot)	72s (cold) 40s (hot)
Noise level <sup>2</sup>	55.0 dB(A)	53.0 dB(A)	53.0 dB(A)	53.0 dB(A)
Efficiency (%)	25%			
	50%	86.5	87.5	86.5
	75%	88.5	88.5	88.5
	100%	89.5	87.5	88.5
Power Factor	25%			
	50%	0.50	0.57	0.53
	75%	0.63	0.70	0.66
	100%	0.70	0.75	0.73

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

Losses (%)	P1 (0,9;1,0)	11.0	11.0	11.0	11.0
	P2 (0,5;1,0)	8.5	8.5	8.5	8.5
	P3 (0,25;1,0)	7.7	7.7	7.7	7.7
	P4 (0,9;0,5)	6.7	6.7	6.7	6.7
	P5 (0,5;0,5)	4.4	4.4	4.4	4.4
	P6 (0,5;0,25)	3.4	3.4	3.4	3.4
	P7 (0,25;0,25)	2.5	2.5	2.5	2.5

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6308 C3	6207 C3	Max. traction : 72 kgf
Sealing	: Inpro/Seal	Inpro/Seal	Max. compression : 151 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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## Three Phase Induction Motor - Squirrel Cage



Customer :

Notes

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# LOAD PERFORMANCE CURVE

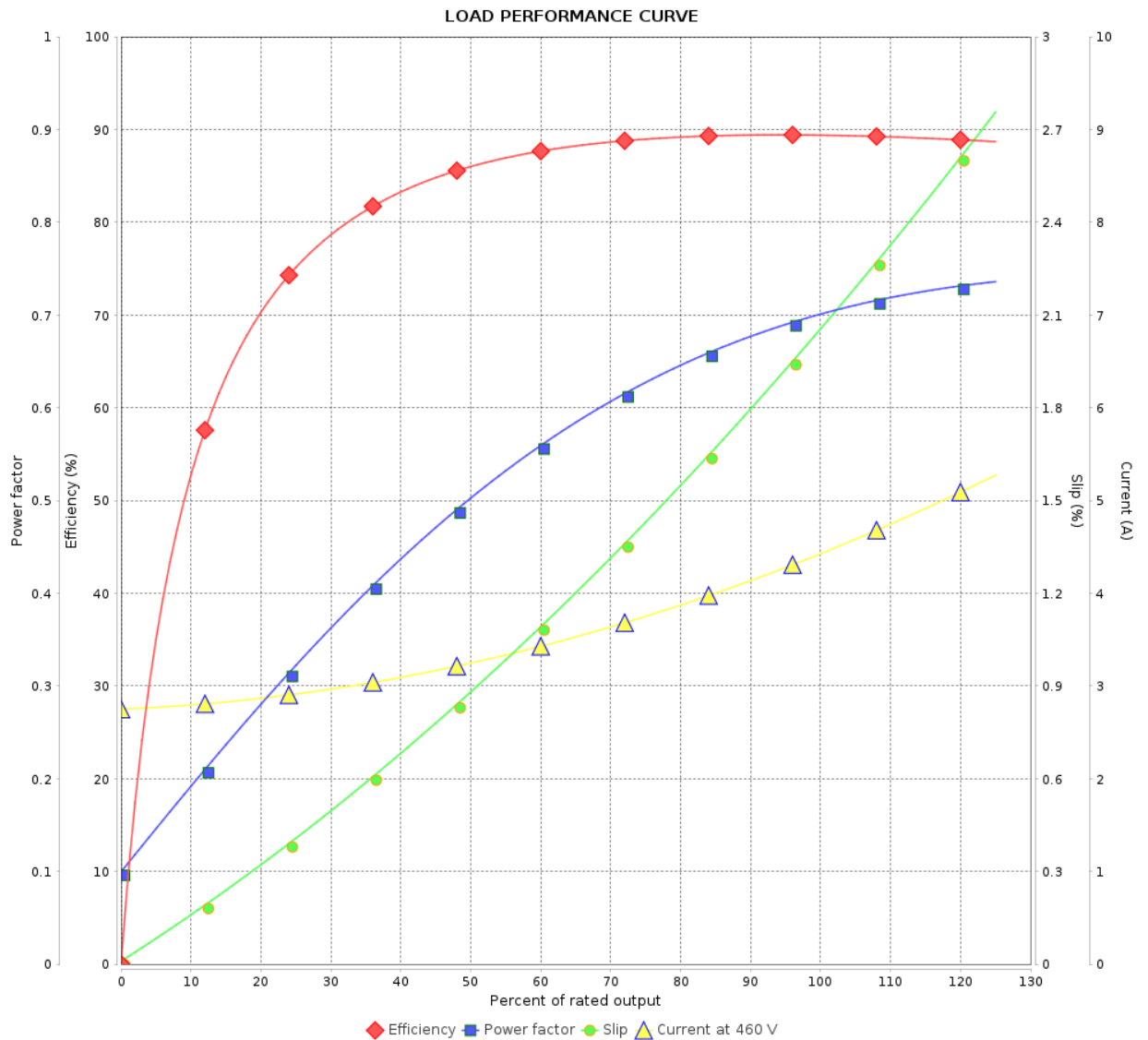
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12376408



Performance : 460 V 60 Hz 6P

Rated current : 4.41 A  
LRC : 7.0  
Rated torque : 1.85 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 280 %  
Rated speed : 1175 rpm

Moment of inertia (J) : 0.0504 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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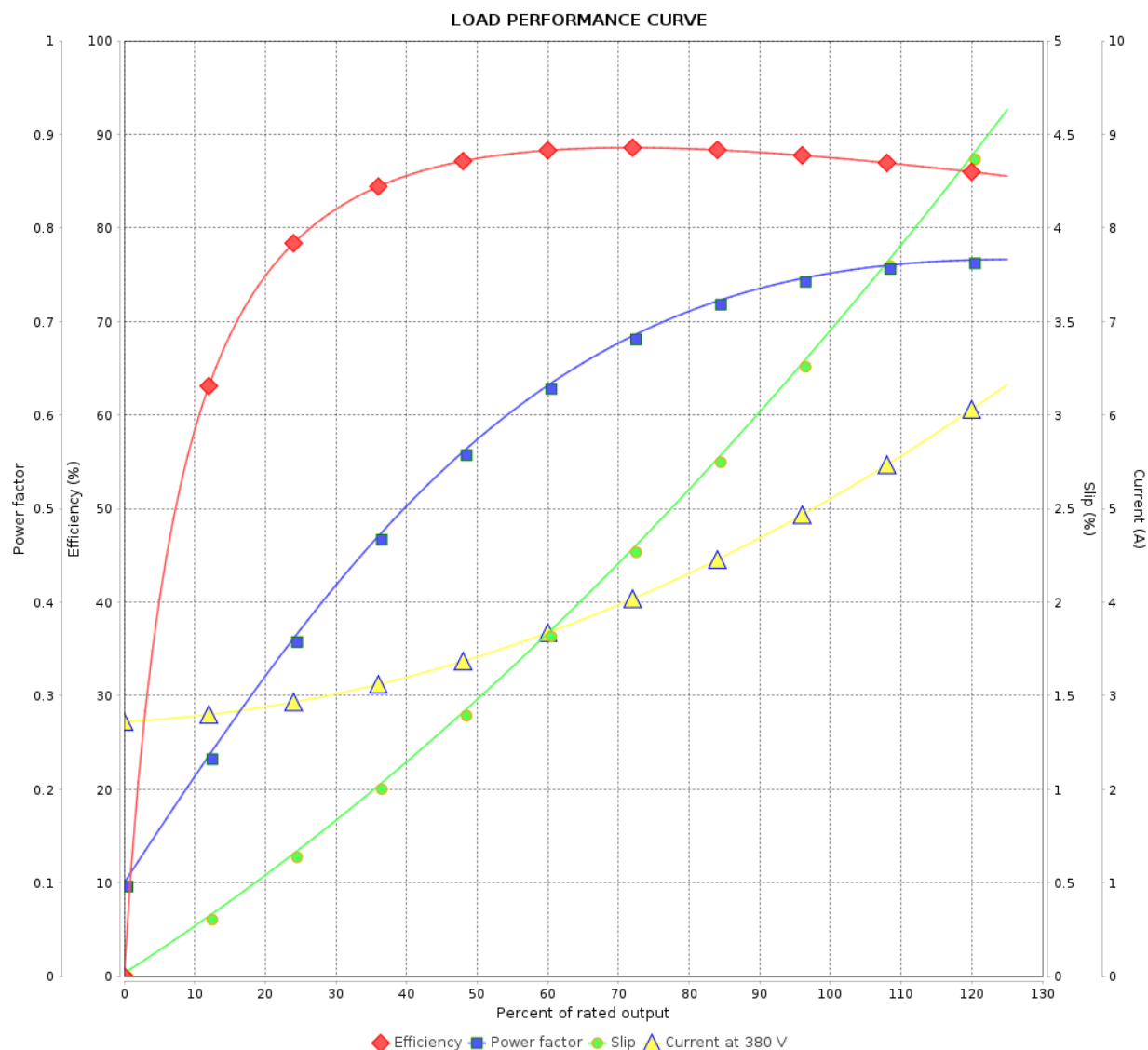
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12376408



Performance : 380 V 50 Hz 6P IE4

Rated current : 5.09 A  
LRC : 5.8  
Rated torque : 2.26 kgfm  
Locked rotor torque : 170 %  
Breakdown torque : 210 %  
Rated speed : 965 rpm

Moment of inertia (J) : 0.0504 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

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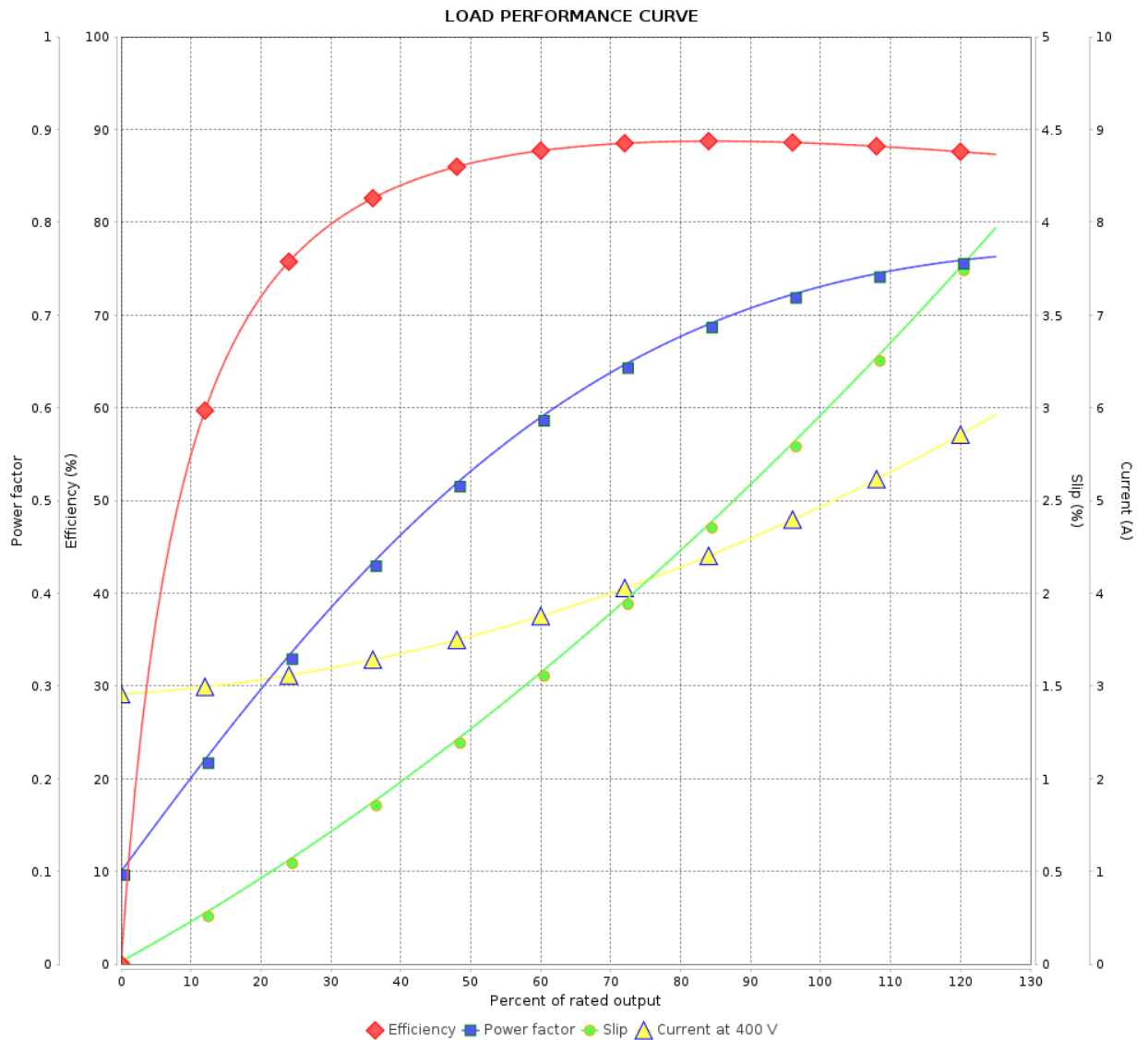
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium  
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Product code : 12376408



Performance : 400 V 50 Hz 6P IE4

Rated current	: 4.92 A	Moment of inertia (J)	: 0.0504 kgm <sup>2</sup>
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 2.24 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 970 rpm	Design	: B

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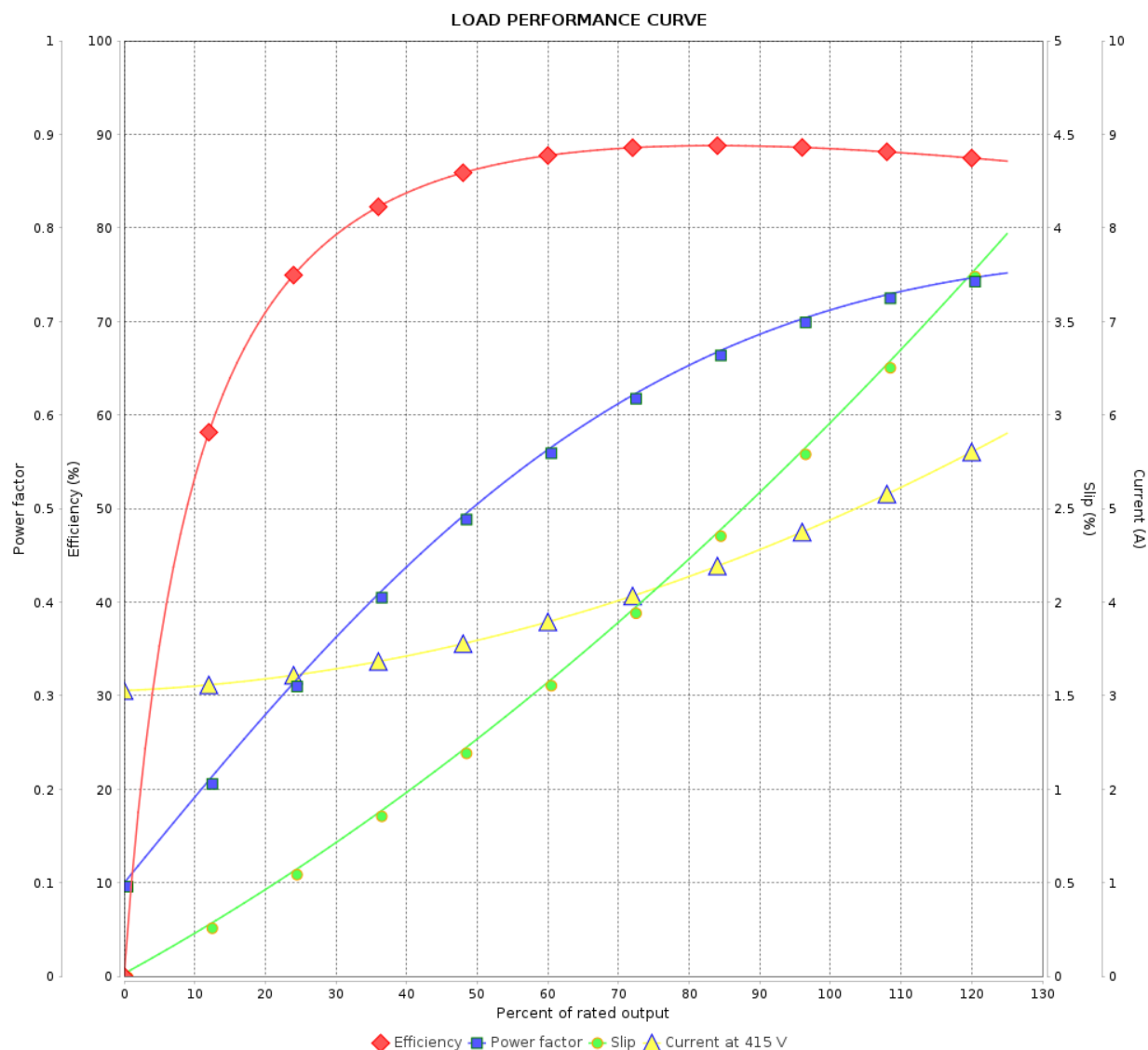
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12376408



Performance : 415 V 50 Hz 6P IE4

Rated current : 4.87 A  
LRC : 6.8  
Rated torque : 2.24 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 270 %  
Rated speed : 970 rpm

Moment of inertia (J) : 0.0504 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

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