

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12385056

Frame : 254/6TC	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> : 136 kg
Protection degree : IP56	Moment of inertia (J) : 0.1652 kgm <sup>2</sup>
Design : B	

Output [HP]	7.5	7.5	7.5	7.5
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	460	380	400	415
Rated current [A]	9.48	11.4	10.8	10.5
L. R. Amperes [A]	63.5	58.1	61.6	64.0
LRC [A]	6.7x(Code H)	5.1x(Code F)	5.7x(Code G)	6.1x(Code H)
No load current [A]	4.50	4.50	4.75	4.95
Rated speed [RPM]	1175	970	970	975
Slip [%]	2.08	3.00	3.00	2.50
Rated torque [kgfm]	4.62	5.61	5.61	5.58
Locked rotor torque [%]	240	160	190	210
Breakdown torque [%]	290	210	229	250
Service factor	1.25	1.00	1.15	1.15
Temperature rise	80 K	105 K	105 K	80 K
Locked rotor time	54s (cold) 30s (hot)	48s (cold) 27s (hot)	48s (cold) 27s (hot)	48s (cold) 27s (hot)
Noise level <sup>2</sup>	59.0 dB(A)	57.0 dB(A)	57.0 dB(A)	57.0 dB(A)
Efficiency (%)	25%			
	50%	89.5	89.5	89.5
	75%	90.2	89.5	89.5
	100%	91.0	89.5	90.2
Power Factor	25%			
	50%	0.63	0.70	0.64
	75%	0.74	0.79	0.75
	100%	0.80	0.83	0.81

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

Losses (%)	P1 (0,9;1,0)	10.9	14.5	13.0	12.0
	P2 (0,5;1,0)	9.4	13.0	11.5	10.5
	P3 (0,25;1,0)	8.9	12.4	11.0	10.0
	P4 (0,9;0,5)	5.6	7.2	6.5	6.1
	P5 (0,5;0,5)	4.0	5.4	4.8	4.4
	P6 (0,5;0,25)	2.9	3.8	3.4	3.2
	P7 (0,25;0,25)	2.0	2.9	2.5	2.3

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6309 C3	6209 C3	Max. traction : 151 kgf
Sealing :	Inpro/Seal	Inpro/Seal	Max. compression : 288 kgf
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	13 g	9 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

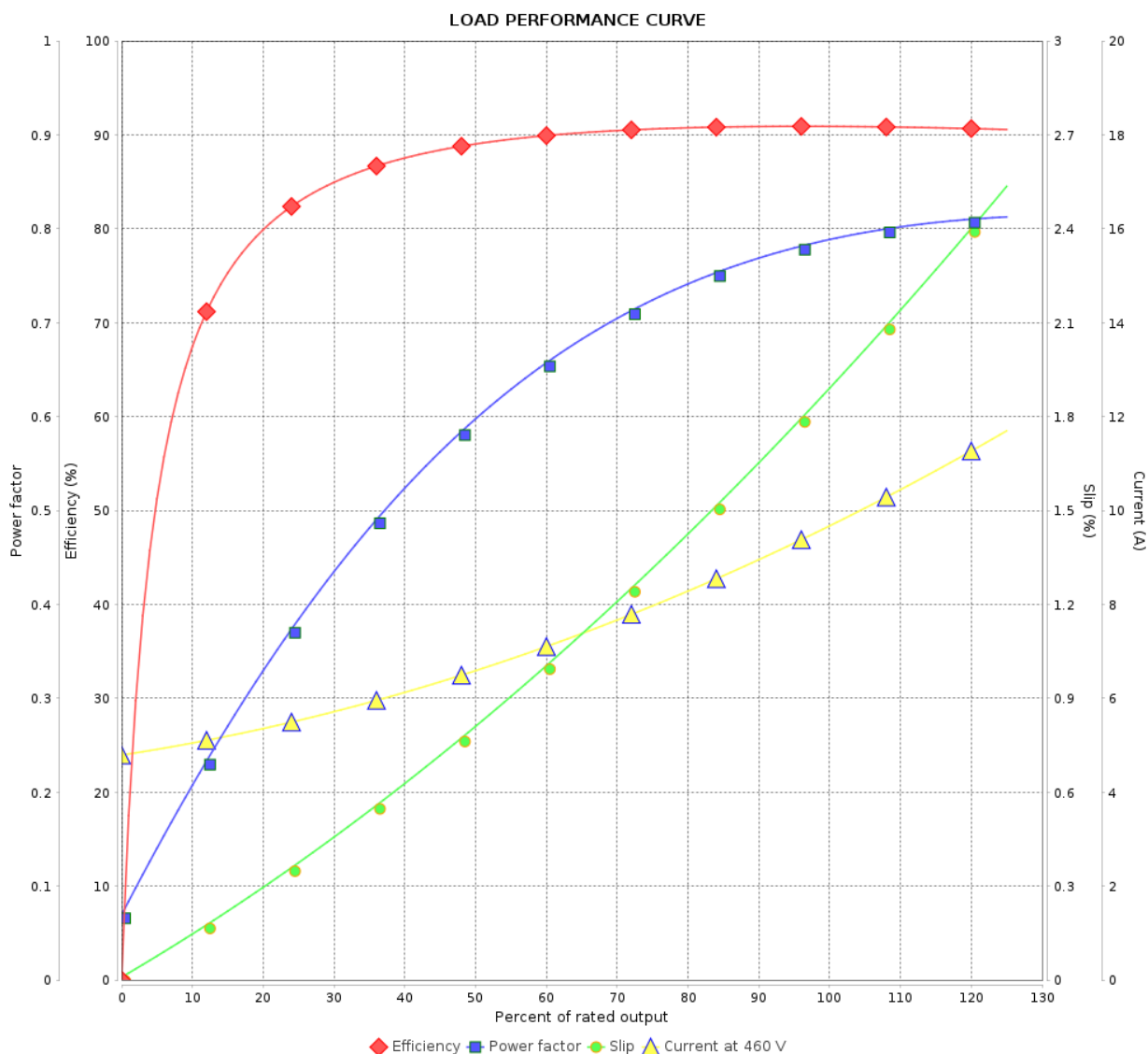
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12385056



Performance : 460 V 60 Hz 6P

Rated current : 9.48 A  
LRC : 6.7  
Rated torque : 4.62 kgfm  
Locked rotor torque : 240 %  
Breakdown torque : 290 %  
Rated speed : 1175 rpm

Moment of inertia (J) : 0.1652 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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# LOAD PERFORMANCE CURVE

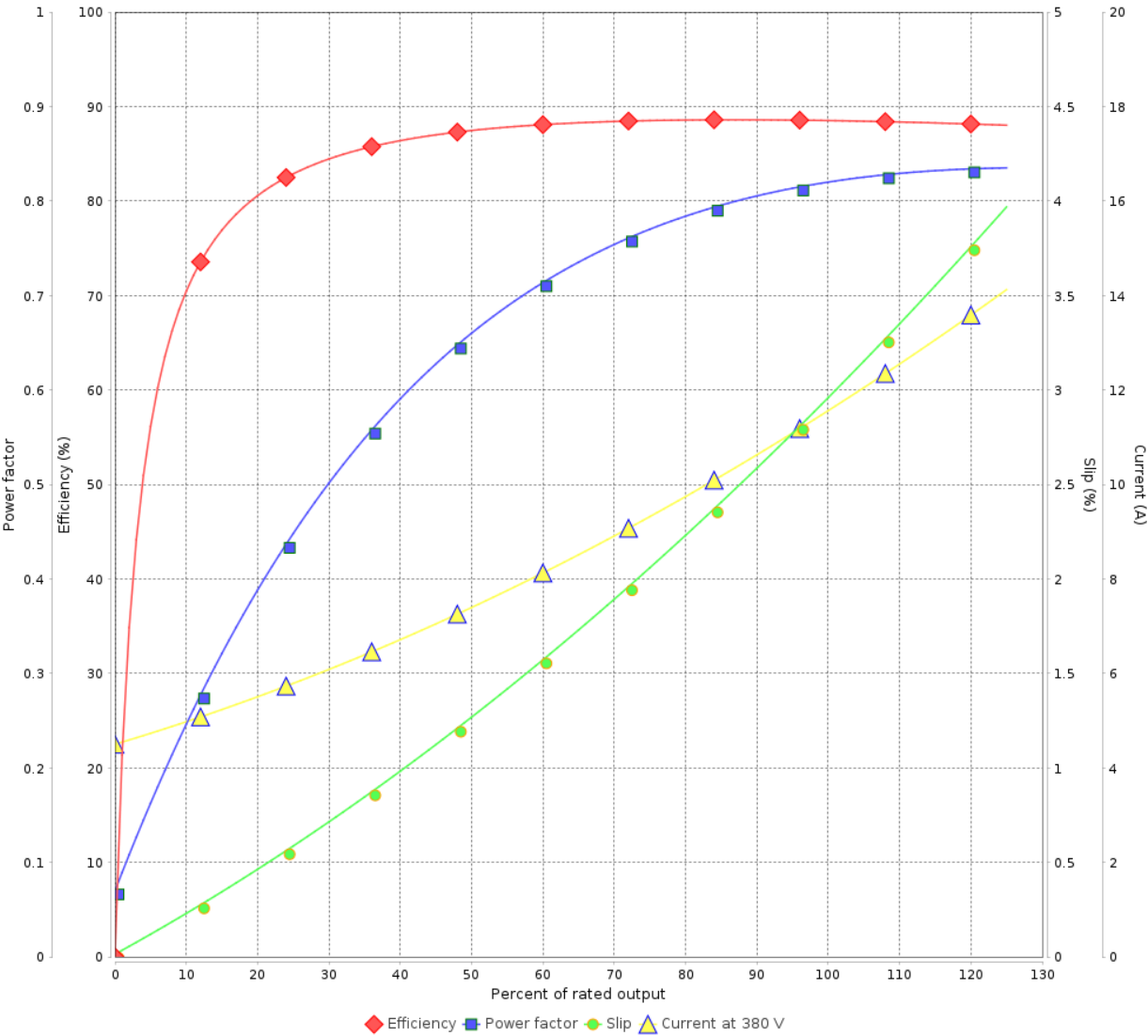
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12385056

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Performance : 380 V 50 Hz 6P IE3

Rated current	: 11.4 A	Moment of inertia (J)	: 0.1652 kgm <sup>2</sup>
LRC	: 5.1	Duty cycle	: Cont.(S1)
Rated torque	: 5.61 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 970 rpm	Design	: B

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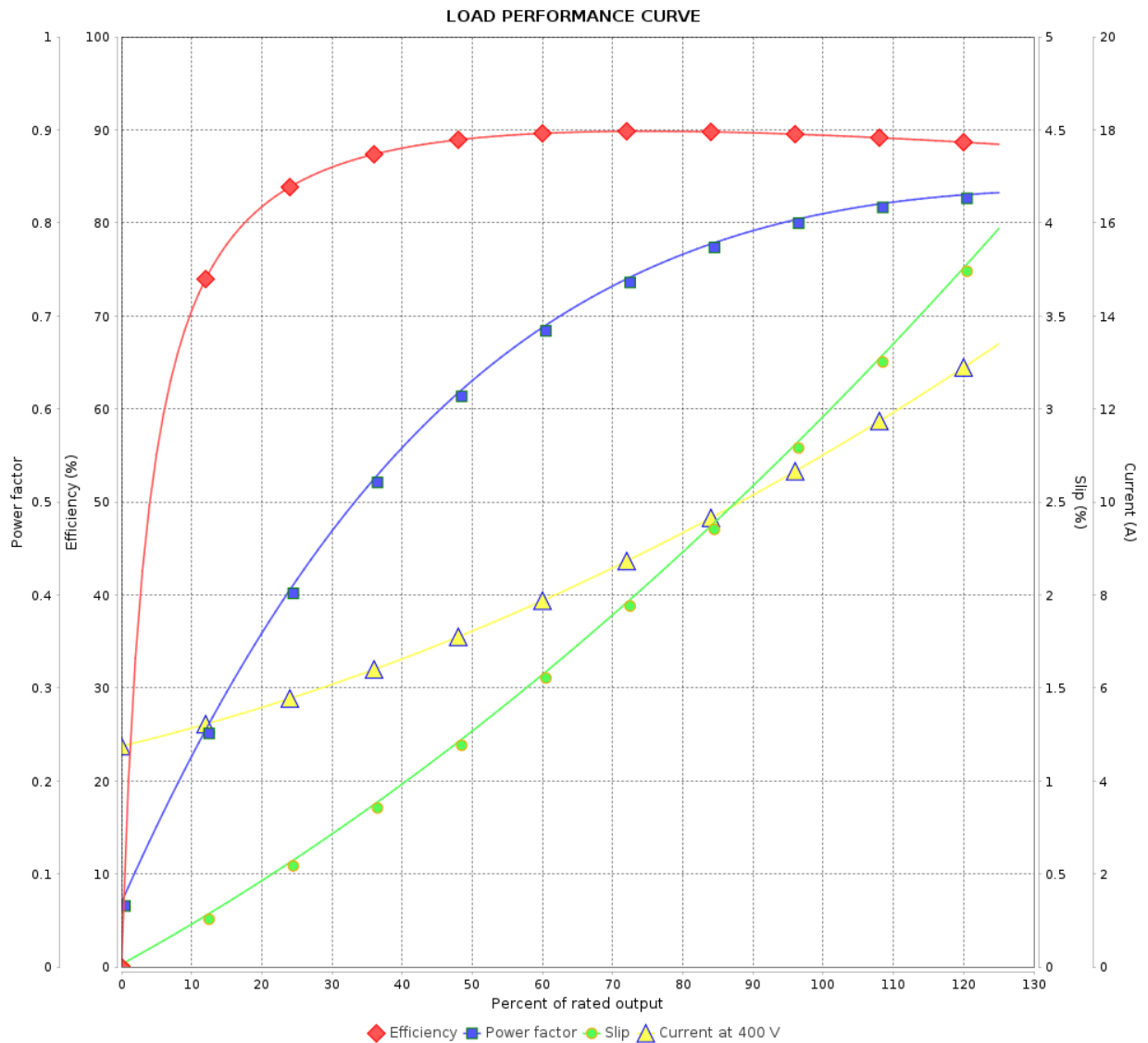
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12385056



Performance : 400 V 50 Hz 6P IE3

Rated current : 10.8 A  
LRC : 5.7  
Rated torque : 5.61 kgfm  
Locked rotor torque : 190 %  
Breakdown torque : 229 %  
Rated speed : 970 rpm

Moment of inertia (J) : 0.1652 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 105 K  
Design : B

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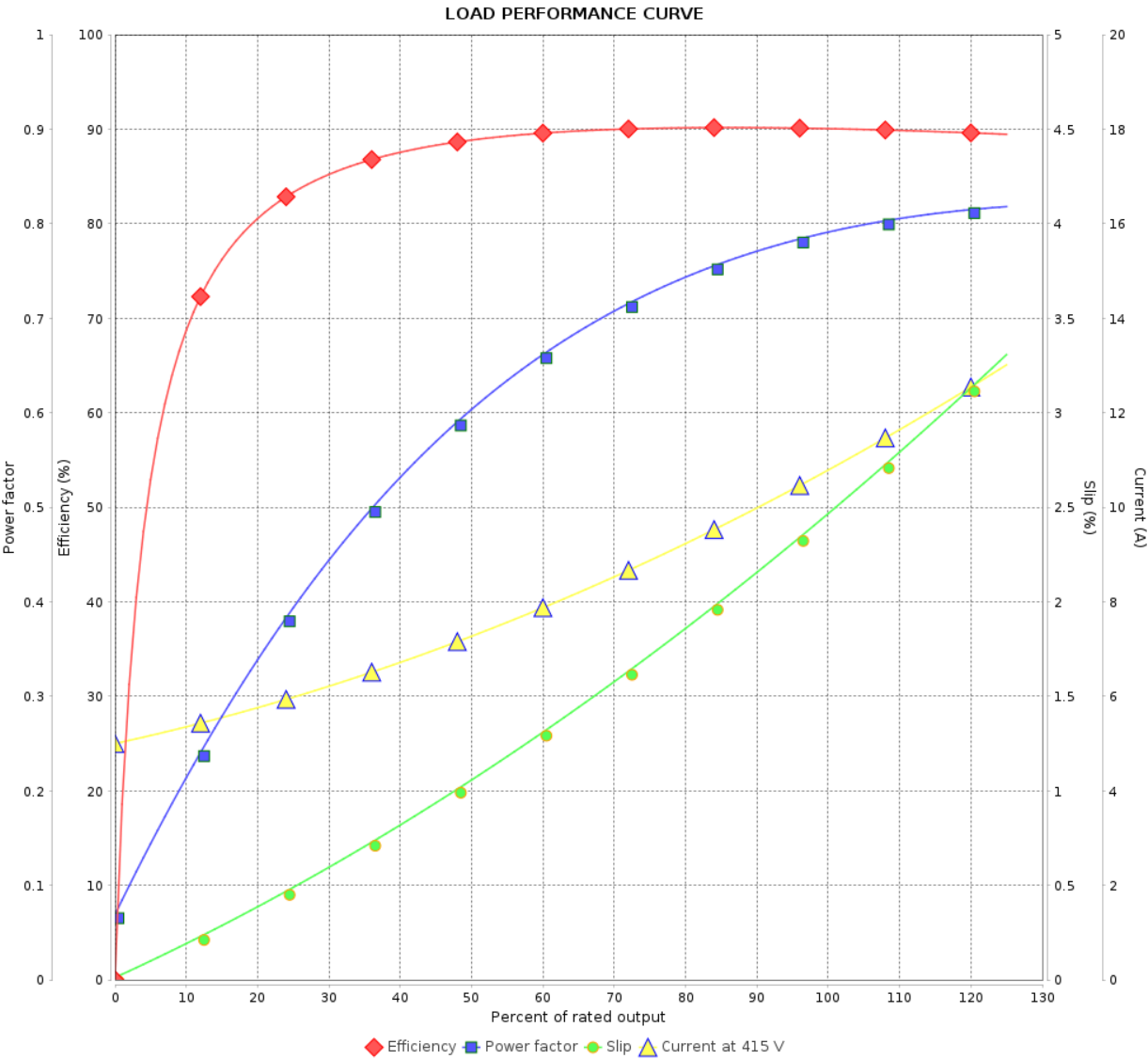
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase      Product code : 12385056



Performance : 415 V 50 Hz 6P IE3

Rated current	: 10.5 A	Moment of inertia (J)	: 0.1652 kgm <sup>2</sup>
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 5.58 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: B

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