

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12445774

Frame : 254/6T	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> : 117 kg
Protection degree : IP55	Moment of inertia (J) : 0.1436 kgm <sup>2</sup>
Design : B	

Output [HP]	5	5	5	5
Poles	8	8	8	8
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	15.4/7.69	8.96	8.92	8.85
L. R. Amperes [A]	81.5/40.8	44.8	45.5	46.9
LRC [A]	5.3x(Code H)	5.0x(Code G)	5.1x(Code H)	5.3x(Code H)
No load current [A]	10.8/5.40	5.20	5.70	6.20
Rated speed [RPM]	883	725	730	730
Slip [%]	1.89	3.33	2.67	2.67
Rated torque [kgfm]	4.11	5.01	4.99	4.97
Locked rotor torque [%]	250	180	200	229
Breakdown torque [%]	280	190	229	260
Service factor	1.25	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	77s (cold) 43s (hot)	59s (cold) 33s (hot)	59s (cold) 33s (hot)	55s (cold) 31s (hot)
Noise level <sup>2</sup>	54.0 dB(A)	51.0 dB(A)	51.0 dB(A)	51.0 dB(A)
Efficiency (%)	25%			
	50%	84.7	84.0	82.0
	75%	87.0	84.8	85.5
	100%	87.5	84.8	85.5
Power Factor	25%			
	50%	0.48	0.55	0.46
	75%	0.61	0.67	0.59
	100%	0.69	0.74	0.68

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

Losses (%)	P1 (0,9;1,0)	13.7	13.7	13.7	13.7
	P2 (0,5;1,0)	11.9	11.9	11.9	11.9
	P3 (0,25;1,0)	12.0	12.0	12.0	12.0
	P4 (0,9;0,5)	7.8	7.8	7.8	7.8
	P5 (0,5;0,5)	5.9	5.9	5.9	5.9
	P6 (0,5;0,25)	4.6	4.6	4.6	4.6
	P7 (0,25;0,25)	3.6	3.6	3.6	3.6

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6309 C3	6209 C3	Max. traction : 145 kgf
Sealing :	V'Ring	V'Ring	Max. compression : 261 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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Customer : \_\_\_\_\_

Notes  
USABLE @208V 16.8A SF 1.15 SFA 19.3A

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# LOAD PERFORMANCE CURVE

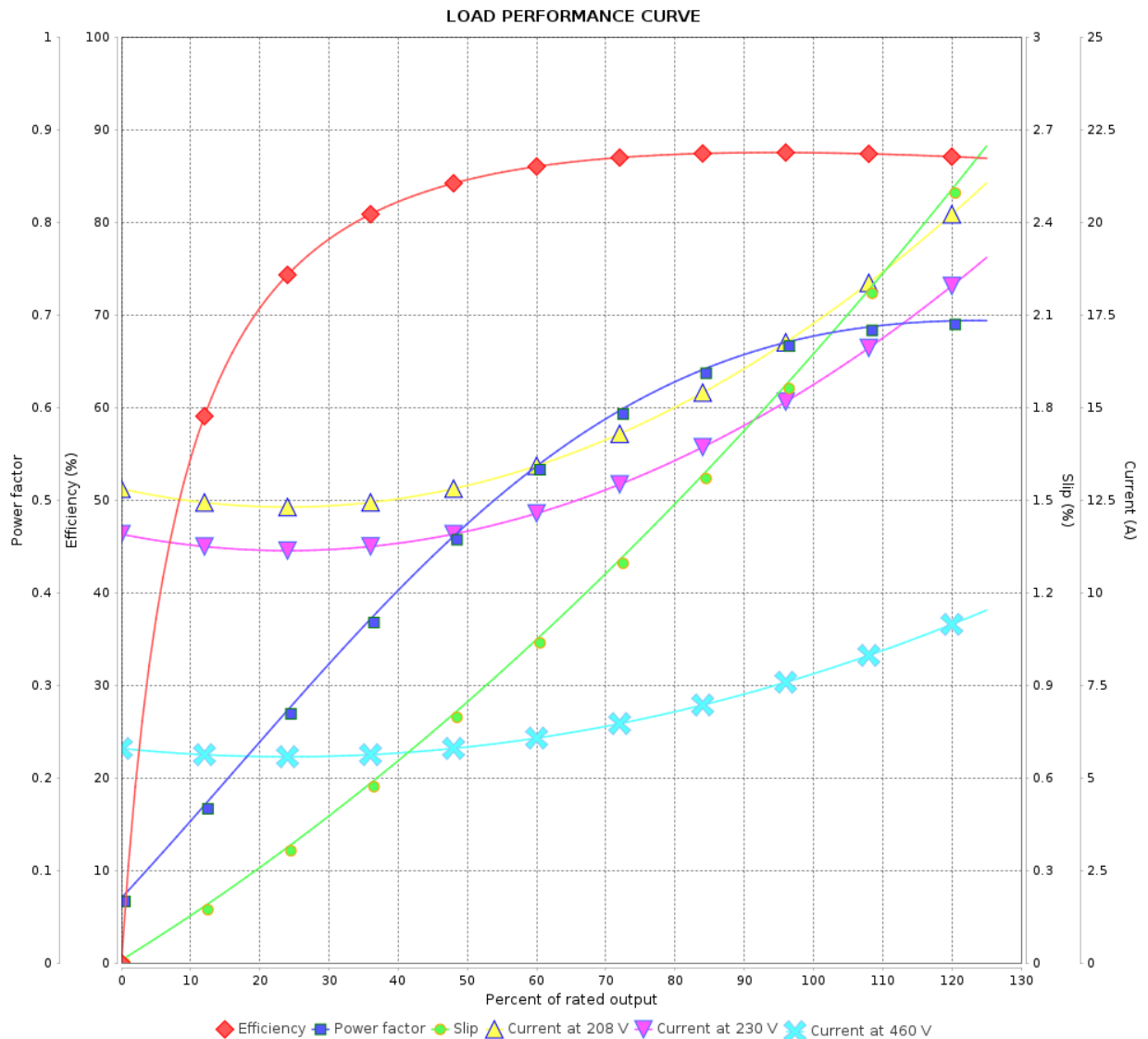
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 12445774



Performance : 230/460 V 60 Hz 8P

Rated current : 15.4/7.69 A  
LRC : 5.3  
Rated torque : 4.11 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 280 %  
Rated speed : 883 rpm

Moment of inertia (J) : 0.1436 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

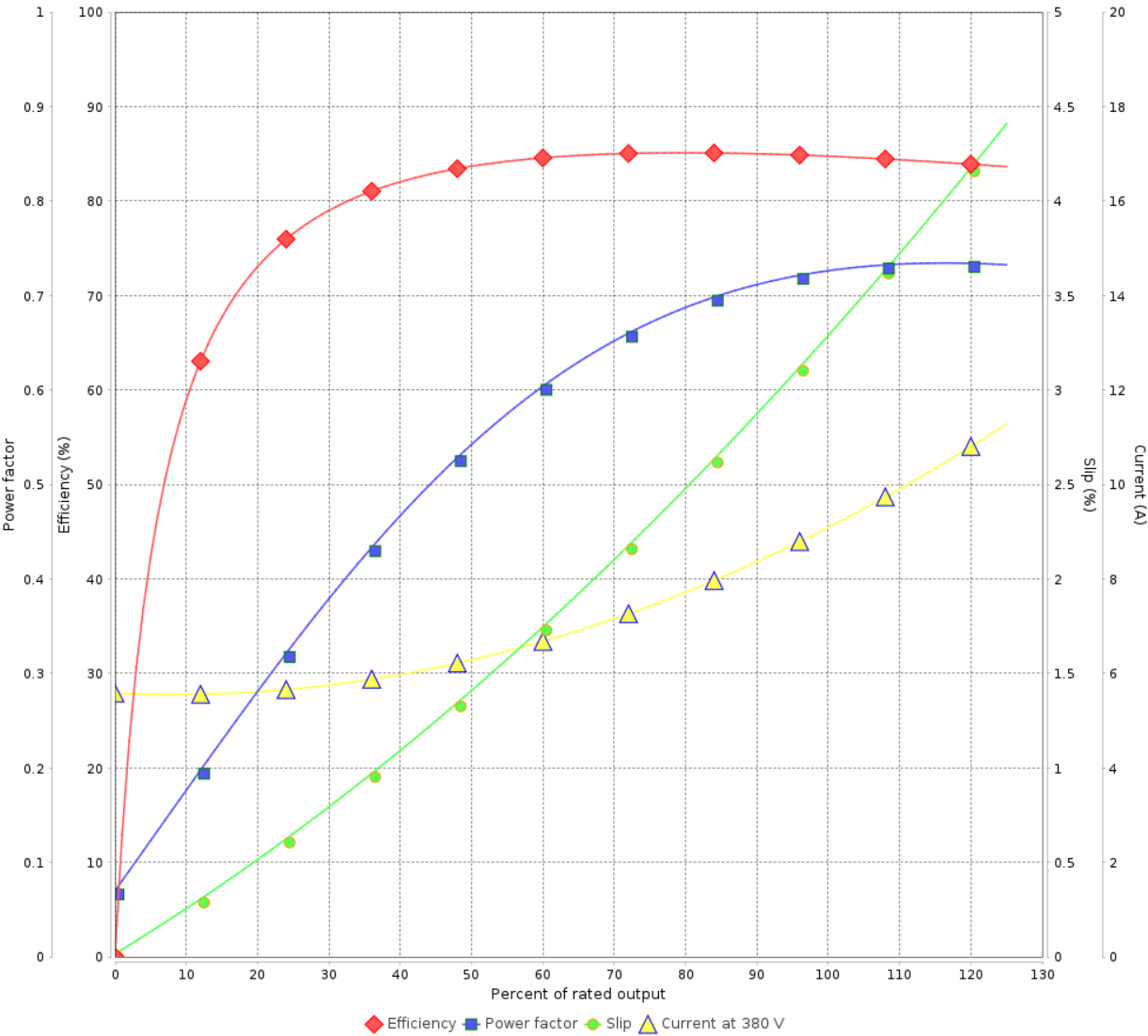
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 12445774

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Performance : 380 V 50 Hz 8P IE3

Rated current	: 8.96 A	Moment of inertia (J)	: 0.1436 kgm <sup>2</sup>
LRC	: 5.0	Duty cycle	: Cont.(S1)
Rated torque	: 5.01 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.15
Breakdown torque	: 190 %	Temperature rise	: 80 K
Rated speed	: 725 rpm	Design	: B

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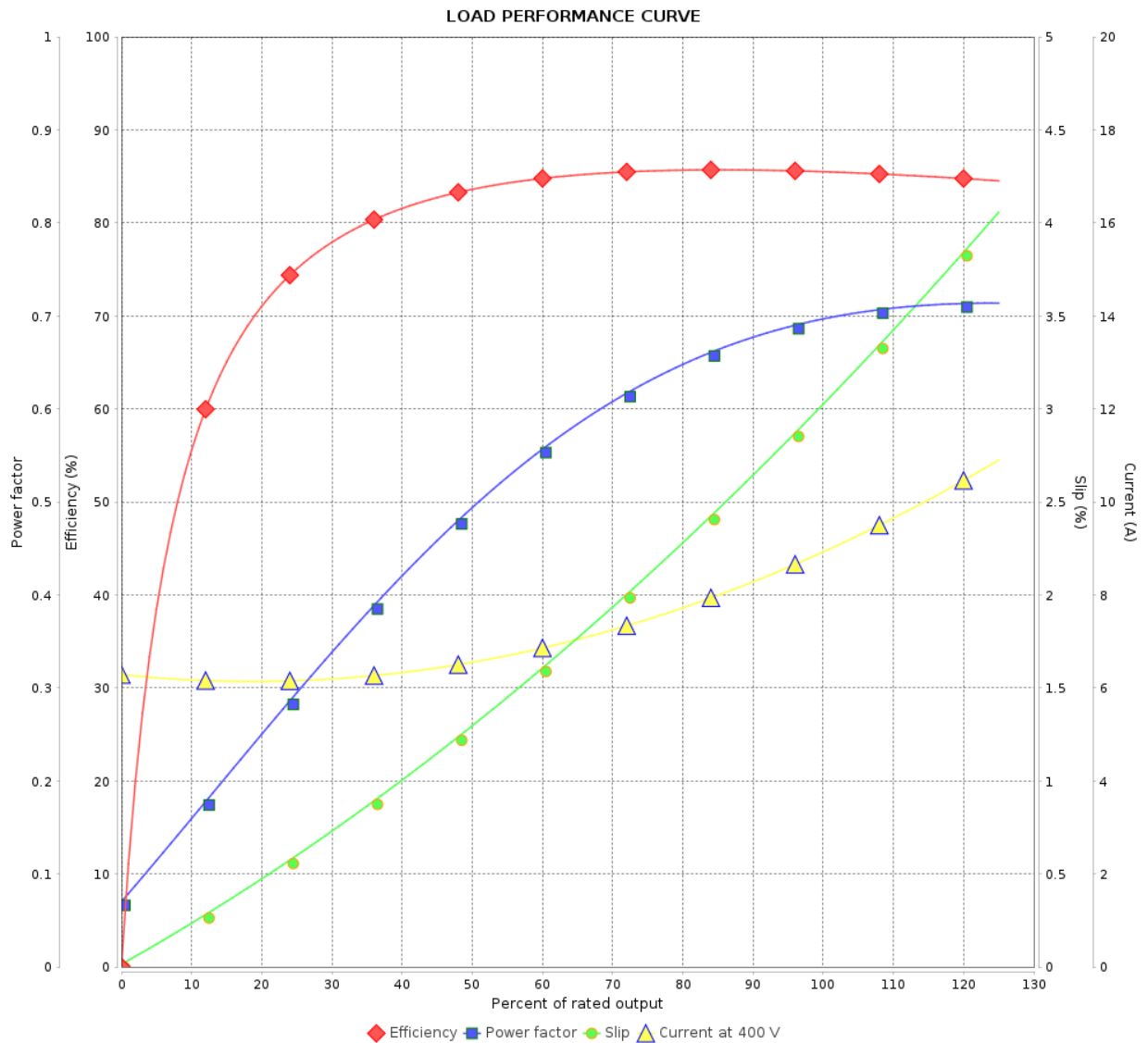
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 12445774



Performance : 400 V 50 Hz 8P IE3

Rated current : 8.92 A  
LRC : 5.1  
Rated torque : 4.99 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 229 %  
Rated speed : 730 rpm

Moment of inertia (J) : 0.1436 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

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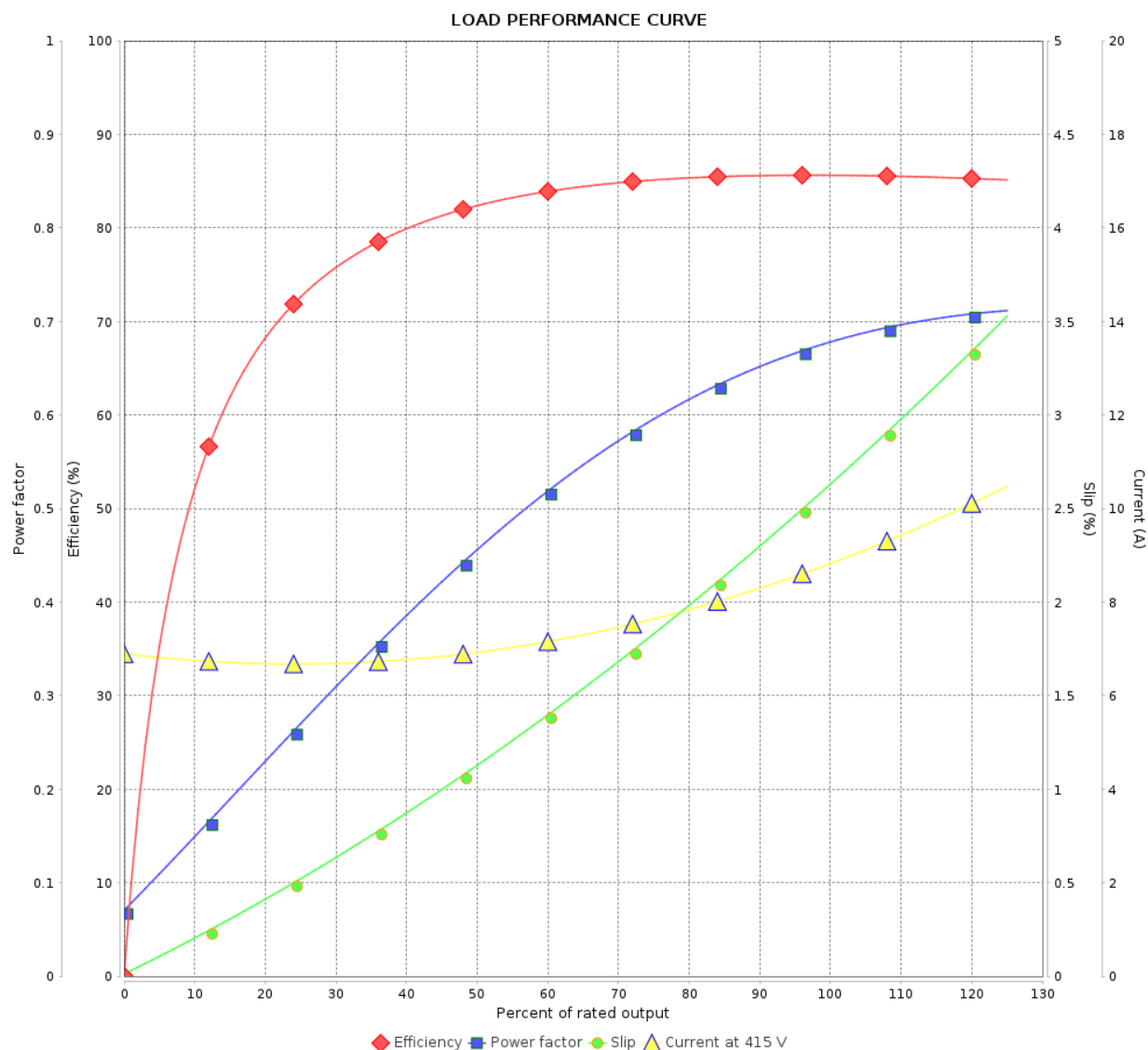
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 12445774



Performance : 415 V 50 Hz 8P IE3

Rated current : 8.85 A  
LRC : 5.3  
Rated torque : 4.97 kgfm  
Locked rotor torque : 229 %  
Breakdown torque : 260 %  
Rated speed : 730 rpm

Moment of inertia (J) : 0.1436 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

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