

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11568843

Frame : 284/6T  
Insulation class : F  
Duty cycle : Cont.(S1)  
Ambient temperature : -20°C to +40°C  
Altitude : 1000 m.a.s.l.  
Protection degree : IP55  
Design : B

Cooling method : IC411 - TEFC  
Mounting : F-1  
Rotation<sup>1</sup> : Both (CW and CCW)  
Starting method : Direct On Line  
Approx. weight<sup>2</sup> : 190 kg  
Moment of inertia (J) : 0.3448 kgm<sup>2</sup>

Output [HP]	15	15	15	15
Poles	8	8	8	8
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	39.2/19.6	23.6	22.7	22.1
L. R. Amperes [A]	216/108	101	109	113
LRC [A]	5.5x(Code G)	4.3x(Code D)	4.8x(Code F)	5.1x(Code F)
No load current [A]	19.6/9.80	9.70	10.5	11.1
Rated speed [RPM]	880	720	725	730
Slip [%]	2.22	4.00	3.33	2.67
Rated torque [kgfm]	12.4	15.1	15.0	14.9
Locked rotor torque [%]	200	150	170	190
Breakdown torque [%]	229	180	200	220
Service factor	1.25	1.00	1.00	1.15
Temperature rise	80 K	105 K	105 K	105 K
Locked rotor time	45s (cold) 25s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level <sup>2</sup>	54.0 dB(A)	52.0 dB(A)	52.0 dB(A)	52.0 dB(A)
Efficiency (%)	25%			
	50%	85.5	88.0	88.0
	75%	90.0	88.5	88.5
	100%	90.2	88.6	88.6
Power Factor	25%			
	50%	0.62	0.68	0.62
	75%	0.72	0.76	0.73
	100%	0.78	0.80	0.78

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

Losses (%)	P1 (0,9;1,0)	10.3	10.3	10.3	10.3
	P2 (0,5;1,0)	8.2	8.2	8.2	8.2
	P3 (0,25;1,0)	7.6	7.6	7.6	7.6
	P4 (0,9;0,5)	5.5	5.5	5.5	5.5
	P5 (0,5;0,5)	3.7	3.7	3.7	3.7
	P6 (0,5;0,25)	2.7	2.7	2.7	2.7
	P7 (0,25;0,25)	1.8	1.8	1.8	1.8

	<u>Drive end</u>	<u>Non drive end</u>
Bearing type	: 6311 C3	6211 C3
Sealing	: V'Ring	V'Ring
Lubrication interval	: 20000 h	20000 h
Lubricant amount	: 18 g	11 g
Lubricant type	: Mobil Polyrex EM	

Foundation loads  
Max. traction : 374 kgf  
Max. compression : 564 kgf

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  
USABLE @208V 42.9A SF 1.15 SFA 49.3A

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# LOAD PERFORMANCE CURVE

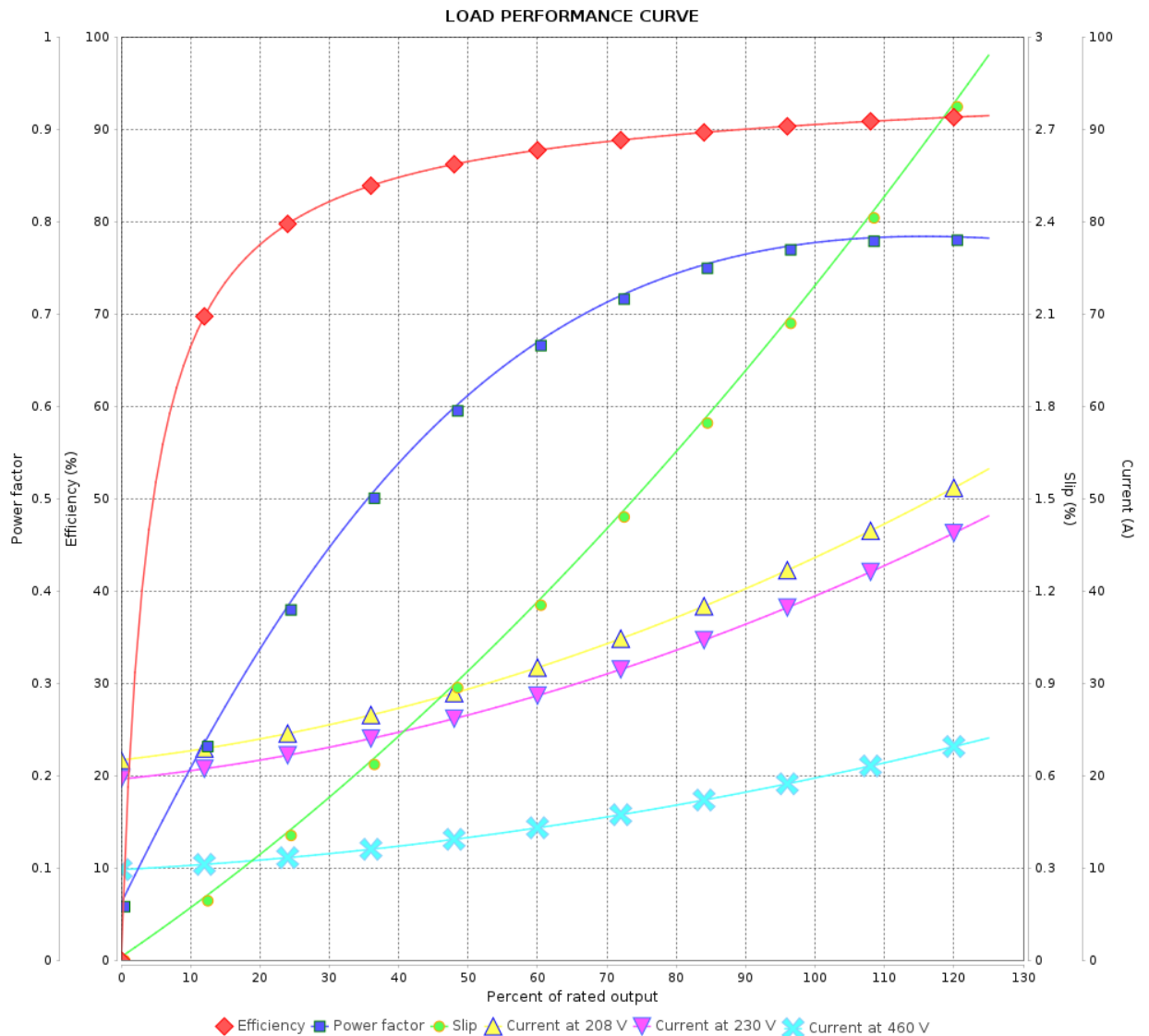
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11568843



Performance : 230/460 V 60 Hz 8P

Rated current : 39.2/19.6 A  
LRC : 5.5  
Rated torque : 12.4 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 229 %  
Rated speed : 880 rpm

Moment of inertia (J) : 0.3448 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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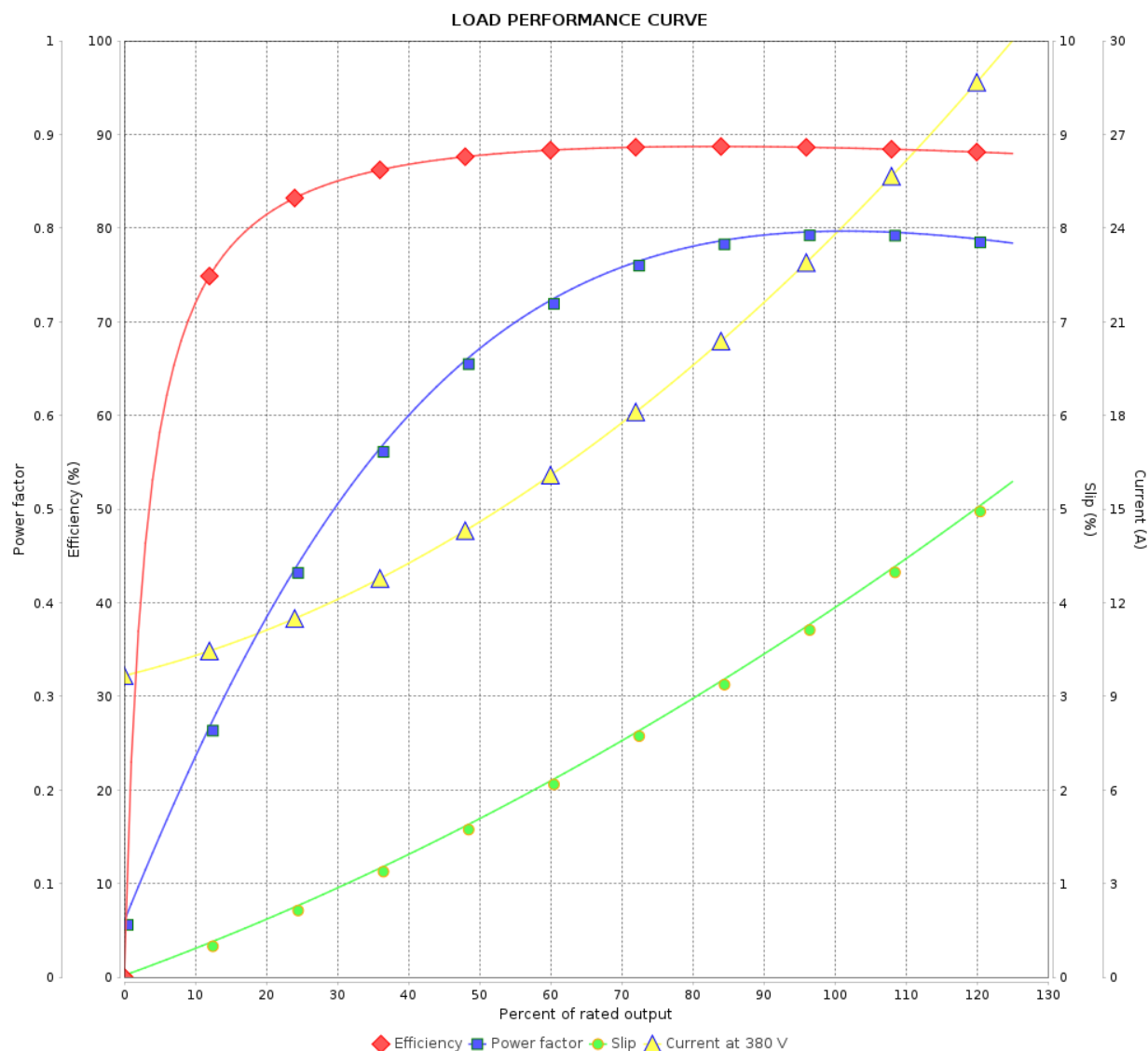
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11568843



Performance : 380 V 50 Hz 8P IE3

Rated current : 23.6 A  
LRC : 4.3  
Rated torque : 15.1 kgfm  
Locked rotor torque : 150 %  
Breakdown torque : 180 %  
Rated speed : 720 rpm

Moment of inertia (J) : 0.3448 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

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# LOAD PERFORMANCE CURVE

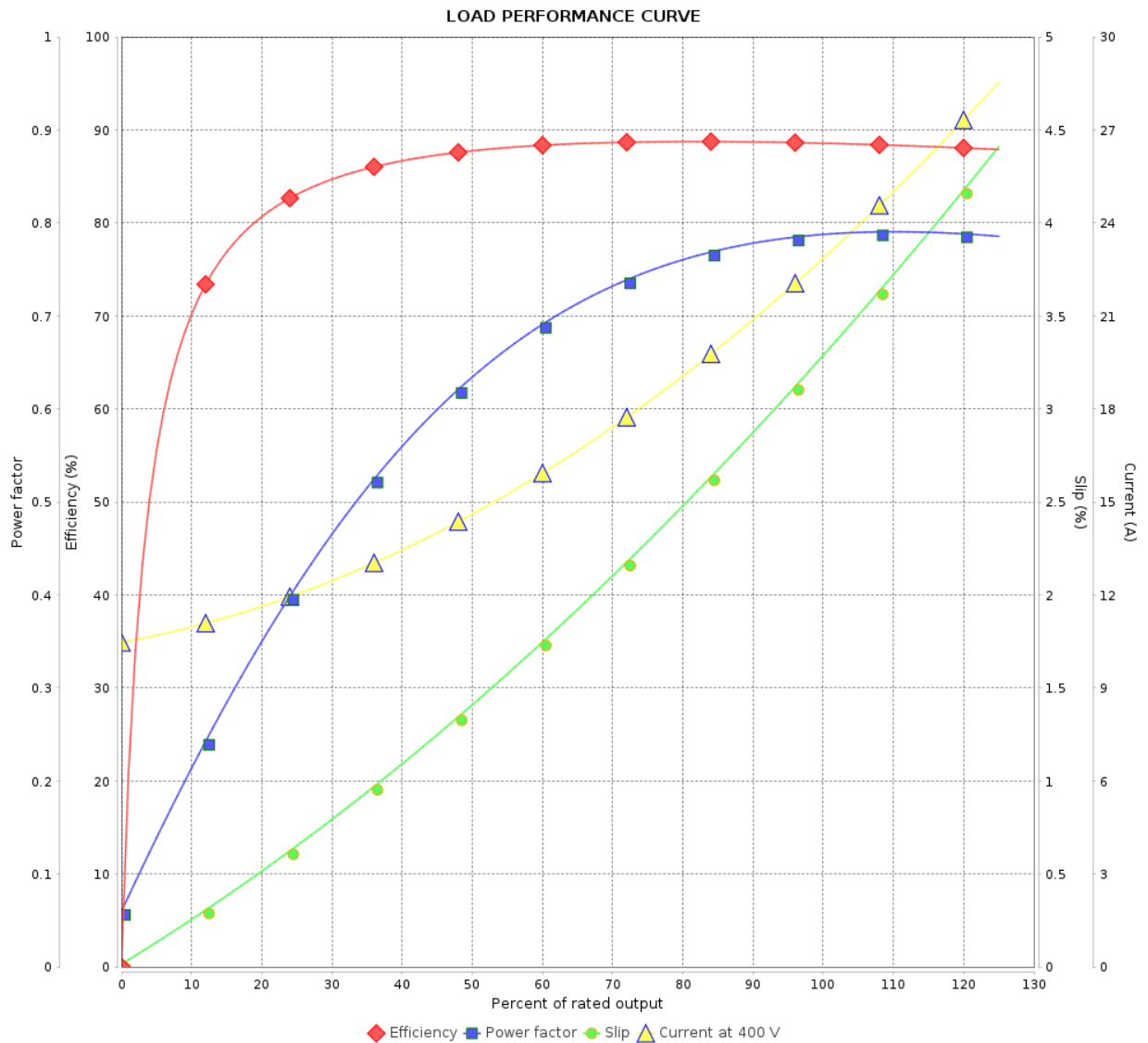
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11568843



Performance : 400 V 50 Hz 8P IE3

Rated current : 22.7 A  
LRC : 4.8  
Rated torque : 15.0 kgfm  
Locked rotor torque : 170 %  
Breakdown torque : 200 %  
Rated speed : 725 rpm

Moment of inertia (J) : 0.3448 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

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# LOAD PERFORMANCE CURVE

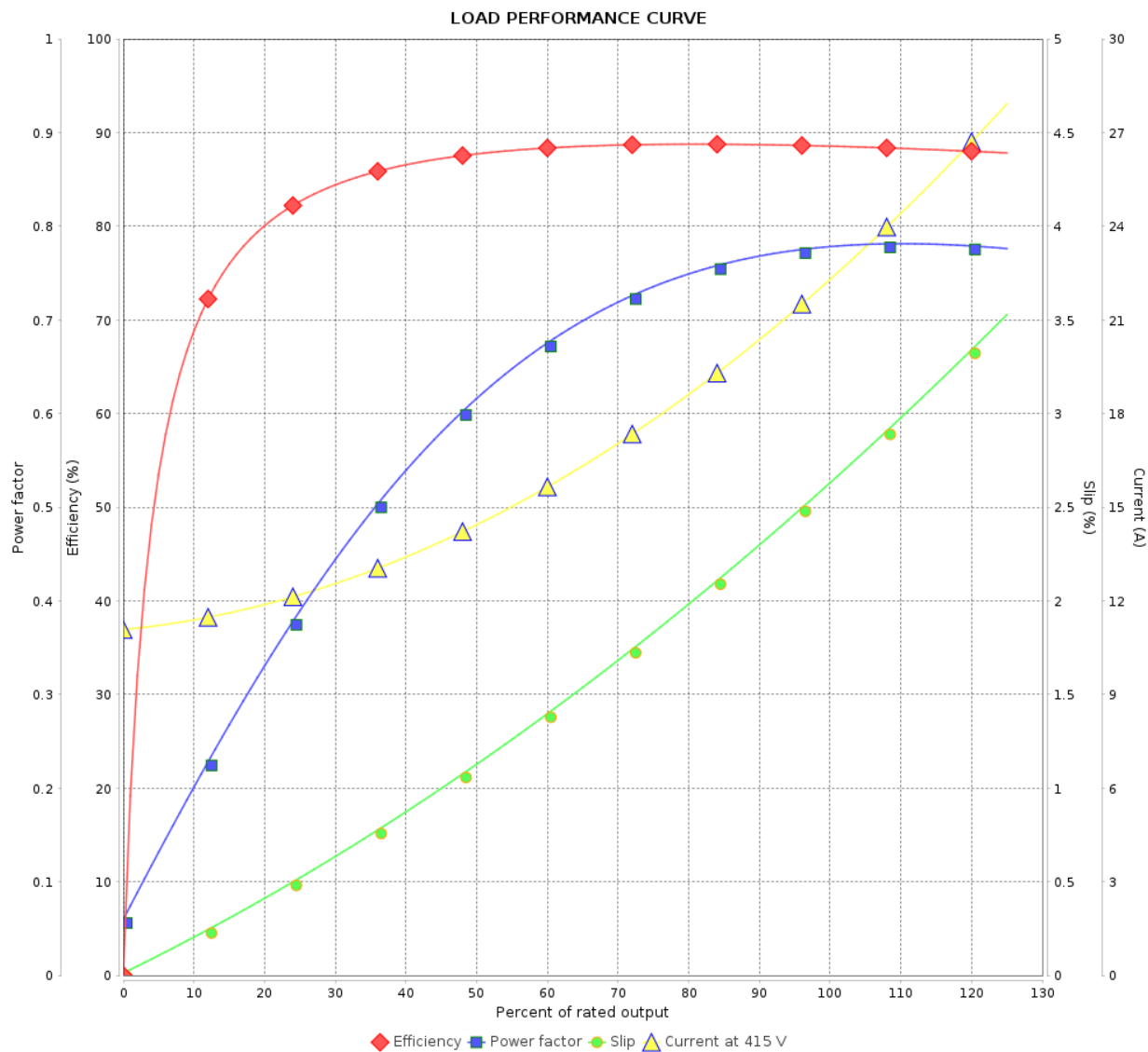
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11568843



Performance : 415 V 50 Hz 8P IE3

Rated current : 22.1 A  
LRC : 5.1  
Rated torque : 14.9 kgfm  
Locked rotor torque : 190 %  
Breakdown torque : 220 %  
Rated speed : 730 rpm

Moment of inertia (J) : 0.3448 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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