

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12383642

Frame : 254/6T  
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> : 128 kg  
Moment of inertia (J) : 0.1652 kgm<sup>2</sup>

Output [HP]	7.5	7.5	7.5	7.5
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	19.0/9.48	11.4	11.0	10.7
L. R. Amperes [A]	129/64.5	59.3	63.8	66.3
LRC [A]	6.8x(Code H)	5.2x(Code F)	5.8x(Code G)	6.2x(Code H)
No load current [A]	9.00/4.50	4.50	4.75	4.95
Rated speed [RPM]	1178	970	975	975
Slip [%]	1.83	3.00	2.50	2.50
Rated torque [kgfm]	4.62	5.61	5.58	5.58
Locked rotor torque [%]	250	170	200	220
Breakdown torque [%]	300	220	240	260
Service factor	1.25	1.00	1.15	1.15
Temperature rise	80 K	80 K	80 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	87.5	87.5
	75%	90.2	88.0	88.0
	100%	91.0	88.0	88.0
Power Factor	25%			
	50%	0.63	0.70	0.66
	75%	0.74	0.79	0.75
	100%	0.80	0.83	0.82

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

Losses (%)	P1 (0,9;1,0)	9.6	9.6	9.6	9.6
	P2 (0,5;1,0)	8.0	8.0	8.0	8.0
	P3 (0,25;1,0)	7.4	7.4	7.4	7.4
	P4 (0,9;0,5)	5.1	5.1	5.1	5.1
	P5 (0,5;0,5)	3.4	3.4	3.4	3.4
	P6 (0,5;0,25)	2.4	2.4	2.4	2.4
	P7 (0,25;0,25)	1.7	1.7	1.7	1.7

	<u>Drive end</u>	<u>Non drive end</u>
Bearing type	: 6309 C3	6209 C3
Sealing	: V'Ring	V'Ring
Lubrication interval	: 20000 h	20000 h
Lubricant amount	: 13 g	9 g
Lubricant type	: Mobil Polyrex EM	

Foundation loads  
Max. traction : 164 kgf  
Max. compression : 292 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 21.0A SF 1.15 SFA 24.1A

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# LOAD PERFORMANCE CURVE

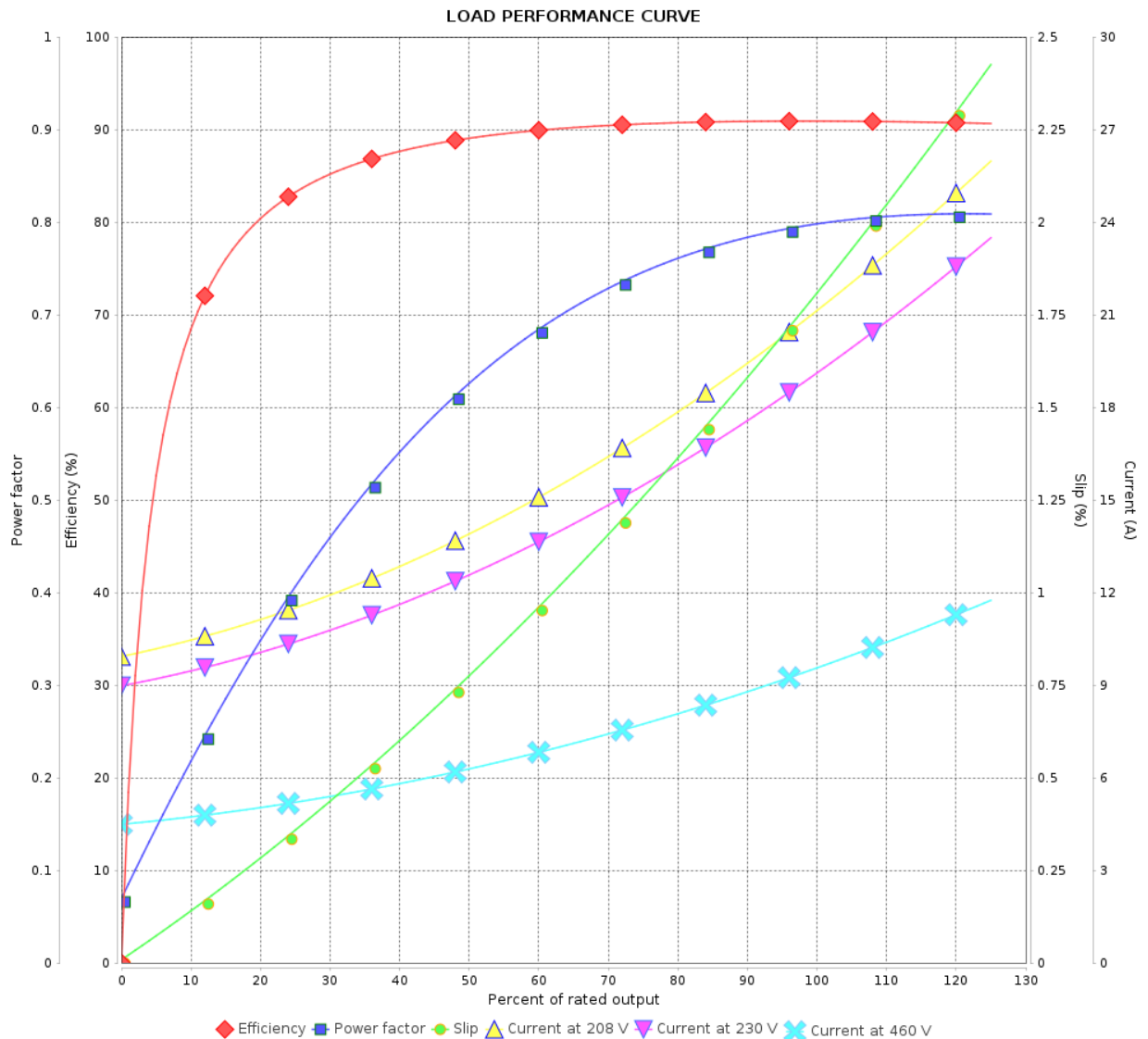
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12383642



Performance : 230/460 V 60 Hz 6P

Rated current : 19.0/9.48 A  
LRC : 6.8  
Rated torque : 4.62 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 300 %  
Rated speed : 1178 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

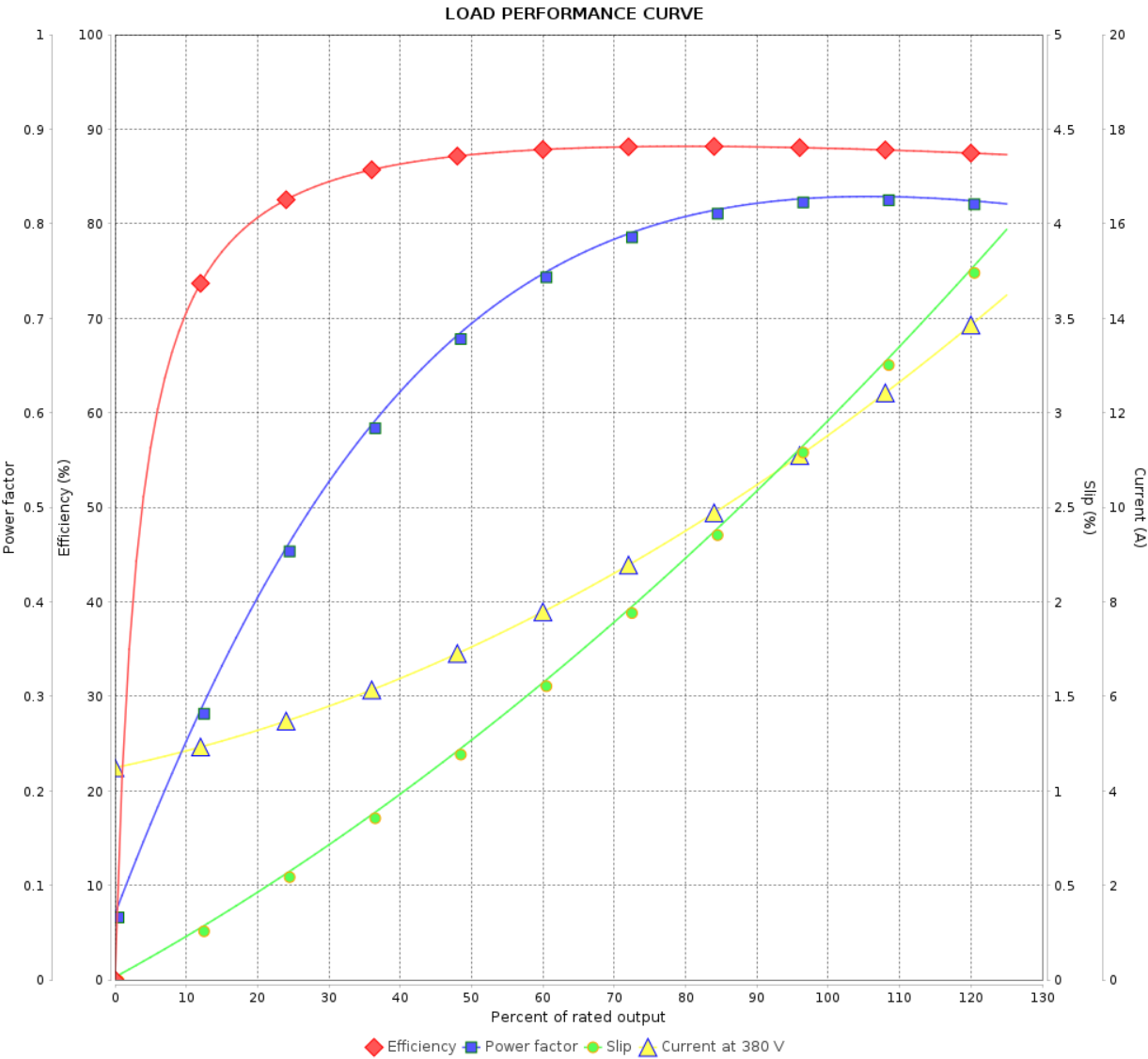
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12383642



Performance : 380 V 50 Hz 6P IE3

Rated current : 11.4 A  
LRC : 5.2  
Rated torque : 5.61 kgfm  
Locked rotor torque : 170 %  
Breakdown torque : 220 %  
Rated speed : 970 rpm

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

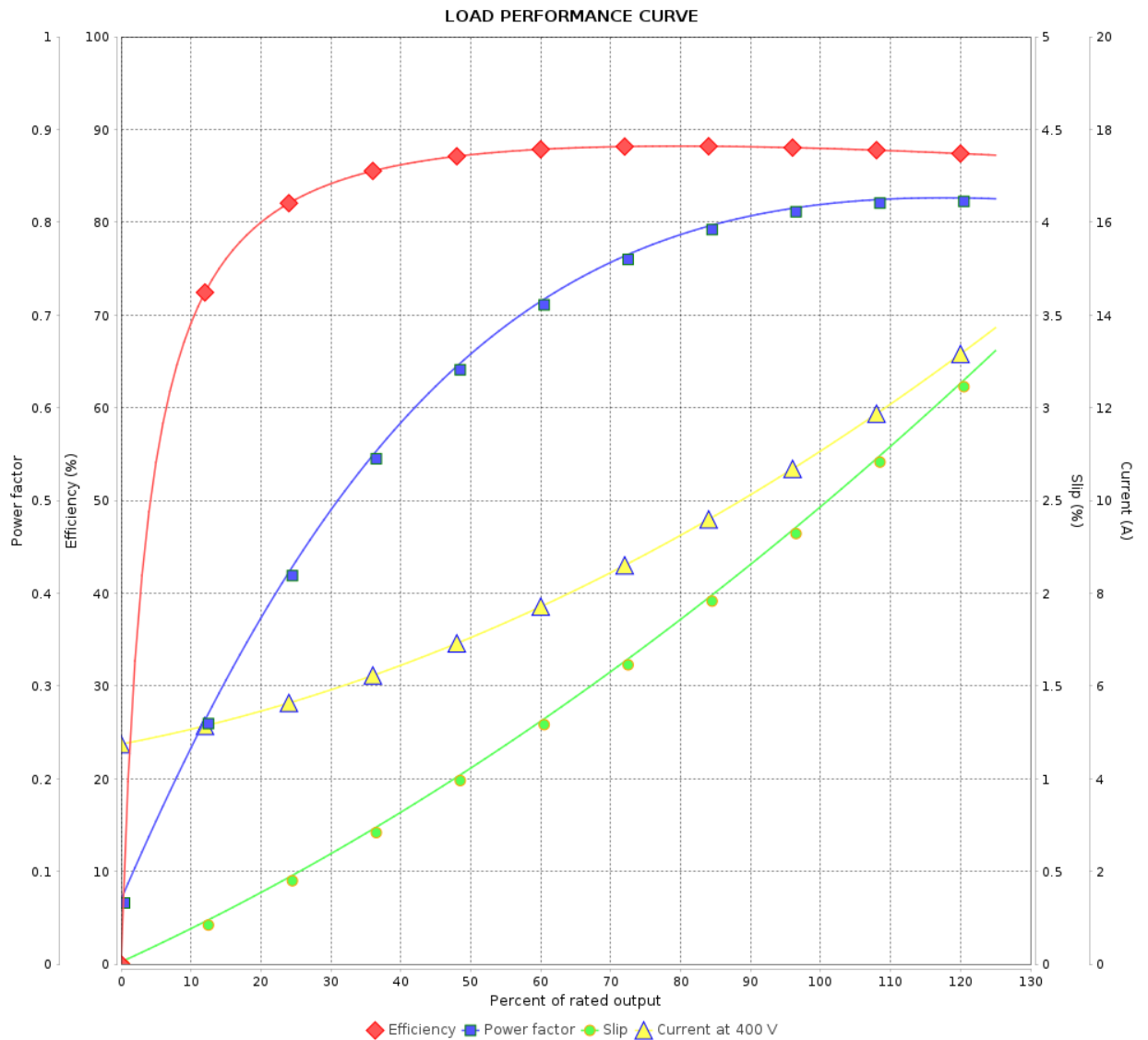
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12383642



Performance : 400 V 50 Hz 6P IE3

Rated current	: 11.0 A	Moment of inertia (J)	: 0.1652 kgm <sup>2</sup>
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 5.58 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: B

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# LOAD PERFORMANCE CURVE

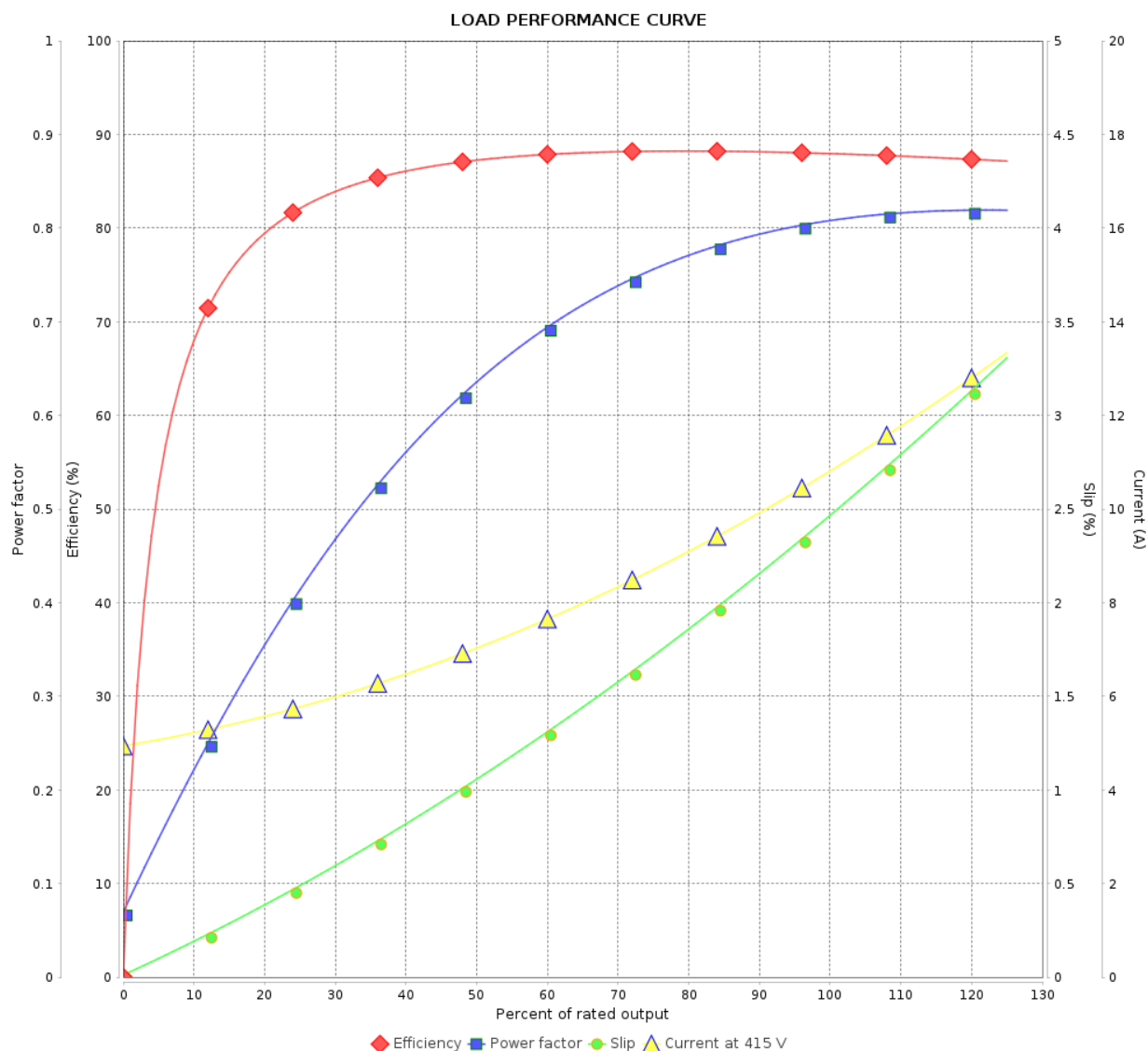
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12383642



Performance : 415 V 50 Hz 6P IE3

Rated current : 10.7 A  
LRC : 6.2  
Rated torque : 5.58 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 260 %  
Rated speed : 975 rpm

Moment of inertia (J) : 0.1652 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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