

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM  
NEMA Premium Efficiency Three-Phase

Product code : 12941830

Frame : 254/6JM	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>2</sup> : 139 kg
Protection degree : IP55	Moment of inertia (J) : 0.1867 kgm <sup>2</sup>
Design : B	

Output [HP]	10	10	10	10
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	26.6/13.3	15.4	14.8	14.4
L. R. Amperes [A]	173/86.5	78.5	84.4	87.8
LRC [A]	6.5x(Code H)	5.1x(Code F)	5.7x(Code G)	6.1x(Code H)
No load current [A]	12.0/6.00	6.40	6.80	7.20
Rated speed [RPM]	1175	965	970	975
Slip [%]	2.08	3.50	3.00	2.50
Rated torque [kgfm]	6.17	7.50	7.48	7.44
Locked rotor torque [%]	229	170	200	220
Breakdown torque [%]	280	220	240	260
Service factor	1.25	1.00	1.15	1.15
Temperature rise	80 K	105 K	105 K	80 K
Locked rotor time	46s (cold) 26s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (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%	90.2	90.2	89.5
	75%	91.0	89.5	90.2
	100%	91.0	89.1	89.5
Power Factor	25%			
	50%	0.63	0.66	0.60
	75%	0.74	0.79	0.75
	100%	0.78	0.83	0.81

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

Losses (%)	P1 (0,9;1,0)	9.8	9.8	9.8	9.8
	P2 (0,5;1,0)	8.4	8.4	8.4	8.4
	P3 (0,25;1,0)	7.8	7.8	7.8	7.8
	P4 (0,9;0,5)	5.0	5.0	5.0	5.0
	P5 (0,5;0,5)	3.6	3.6	3.6	3.6
	P6 (0,5;0,25)	2.5	2.5	2.5	2.5
	P7 (0,25;0,25)	1.8	1.8	1.8	1.8

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6309 C3	6209 C3	Max. traction : 235 kgf
Sealing :	V'Ring	V'Ring	Max. compression : 374 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).

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 28.5A SF 1.15 SFA 32.8A

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# LOAD PERFORMANCE CURVE

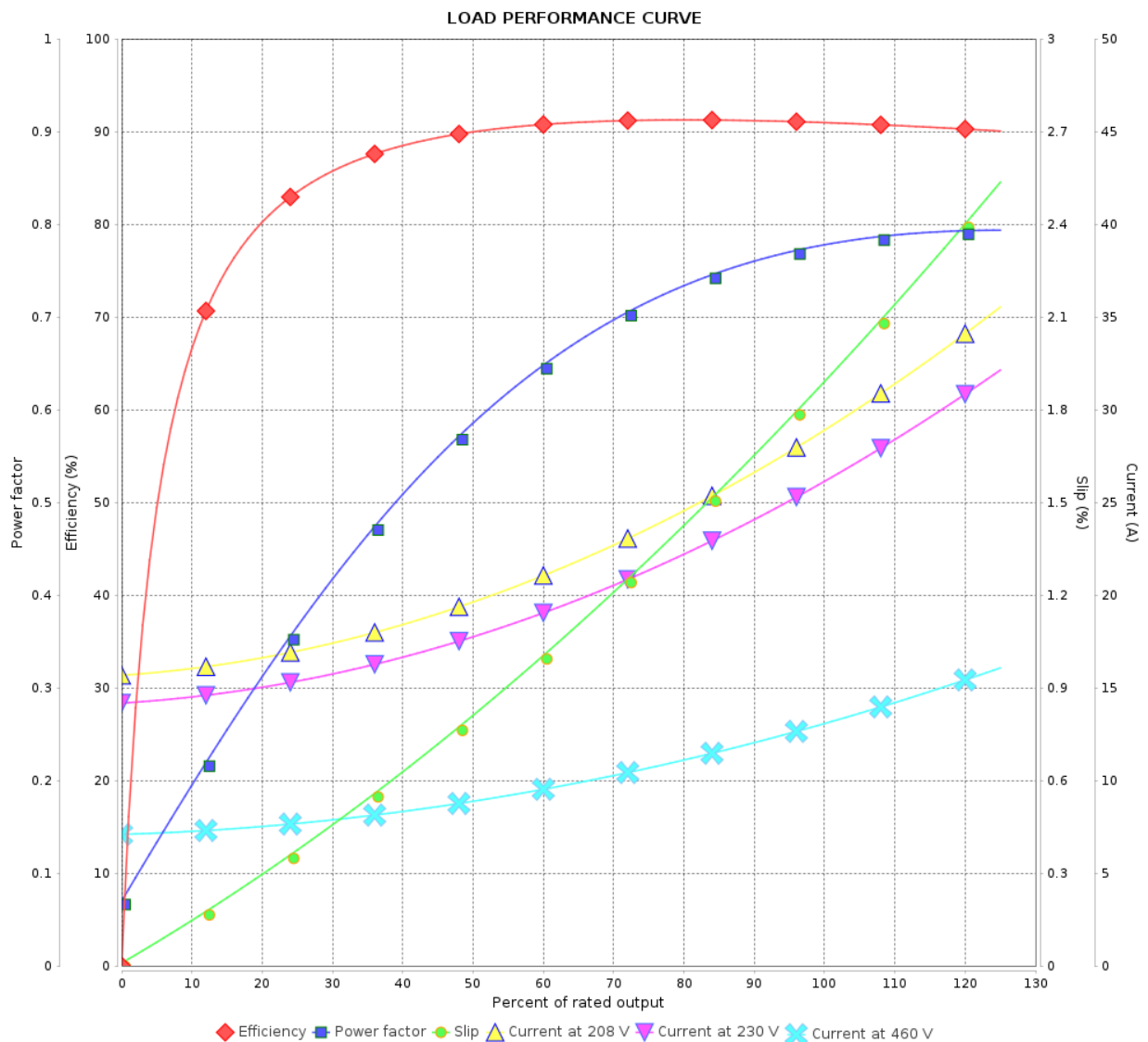
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM  
NEMA Premium Efficiency Three-Phase

Product code : 12941830



Performance : 230/460 V 60 Hz 6P

Rated current : 26.6/13.3 A  
LRC : 6.5  
Rated torque : 6.17 kgfm  
Locked rotor torque : 229 %  
Breakdown torque : 280 %  
Rated speed : 1175 rpm

Moment of inertia (J) : 0.1867 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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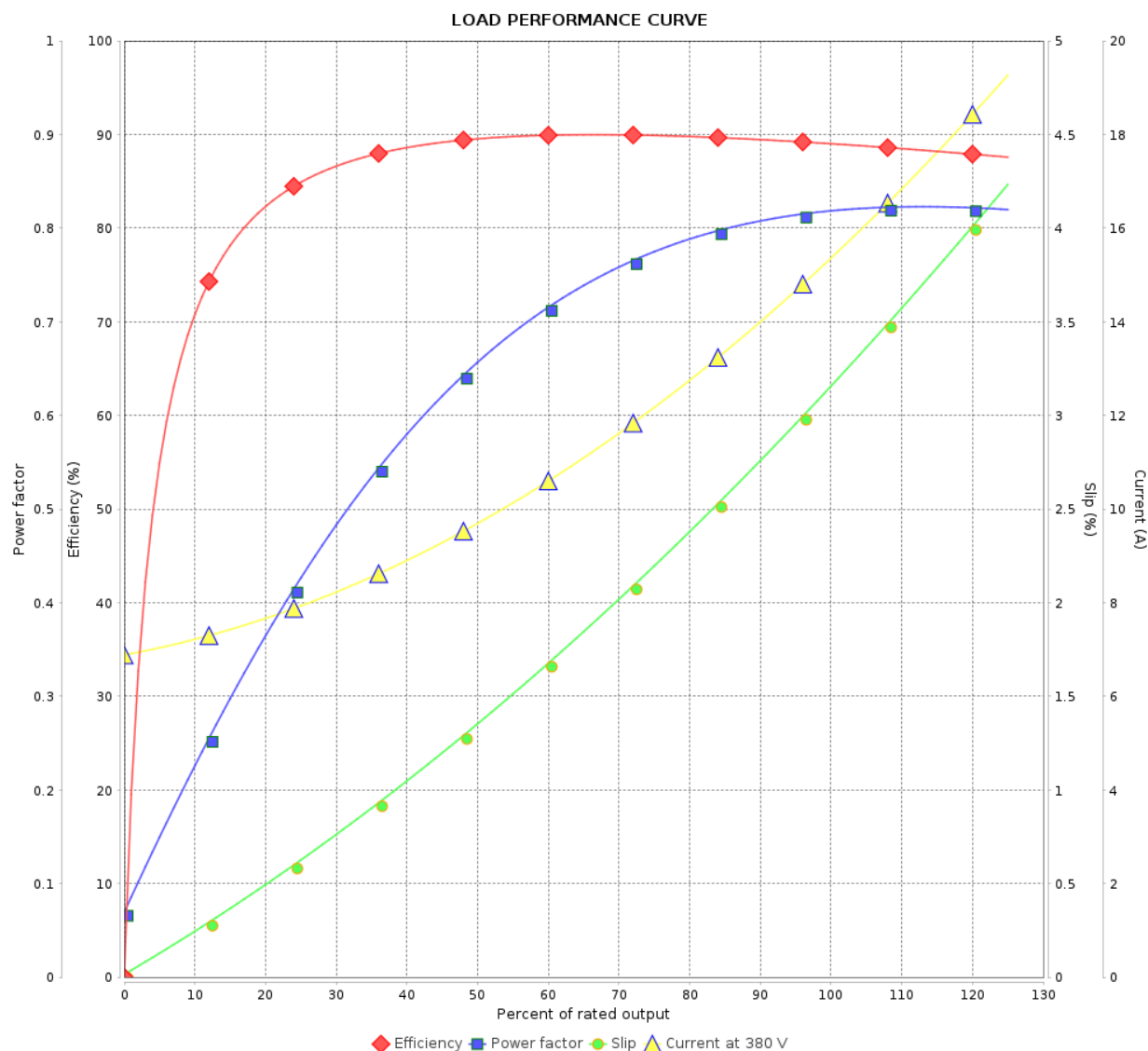
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM  
NEMA Premium Efficiency Three-Phase

Product code : 12941830



Performance : 380 V 50 Hz 6P IE3

Rated current : 15.4 A  
LRC : 5.1  
Rated torque : 7.50 kgfm  
Locked rotor torque : 170 %  
Breakdown torque : 220 %  
Rated speed : 965 rpm

Moment of inertia (J) : 0.1867 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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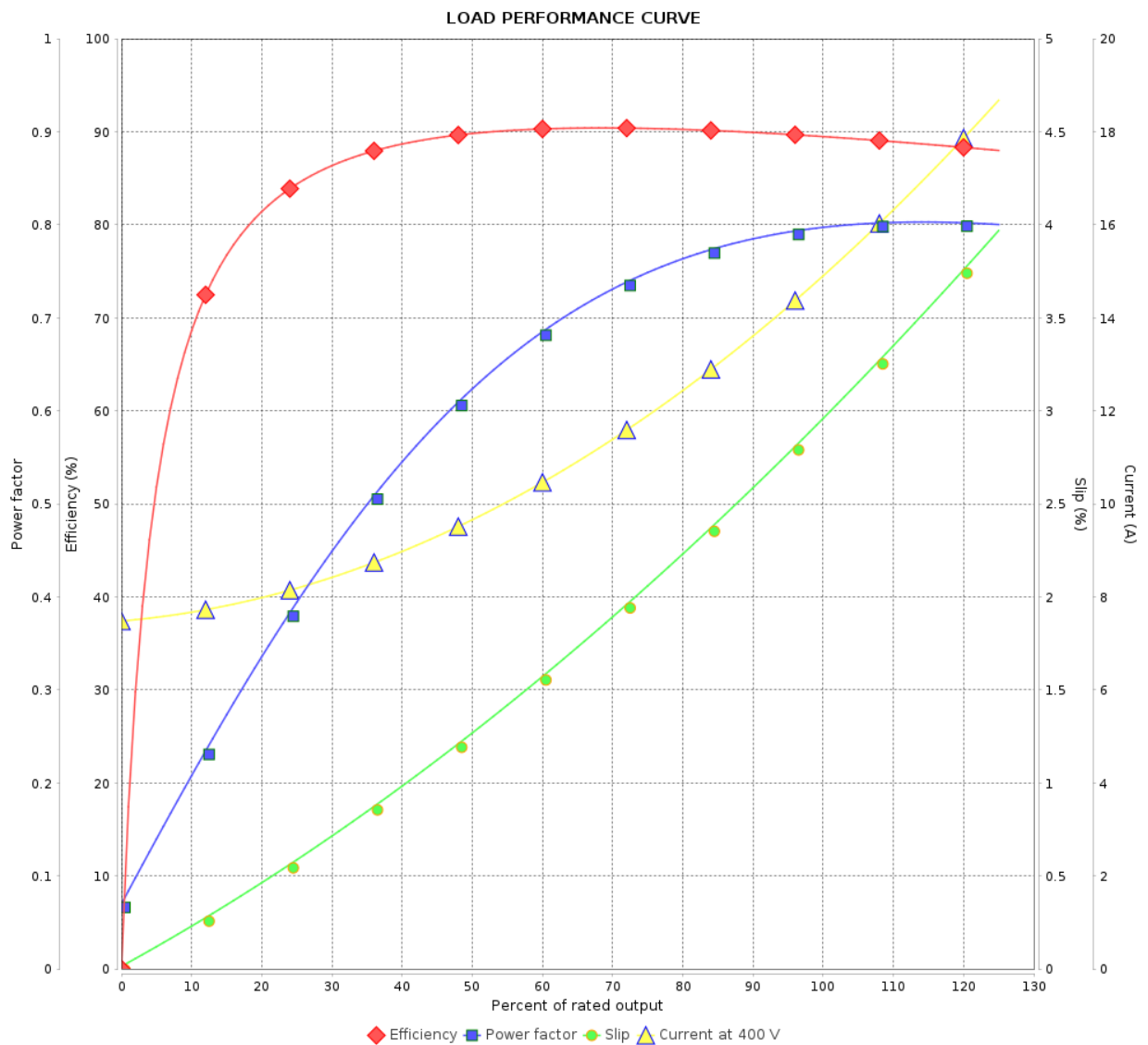
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM  
NEMA Premium Efficiency Three-Phase

Product code : 12941830



Performance : 400 V 50 Hz 6P IE3

Rated current	: 14.8 A	Moment of inertia (J)	: 0.1867 kgm <sup>2</sup>
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 7.48 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 105 K
Rated speed	: 970 rpm	Design	: B

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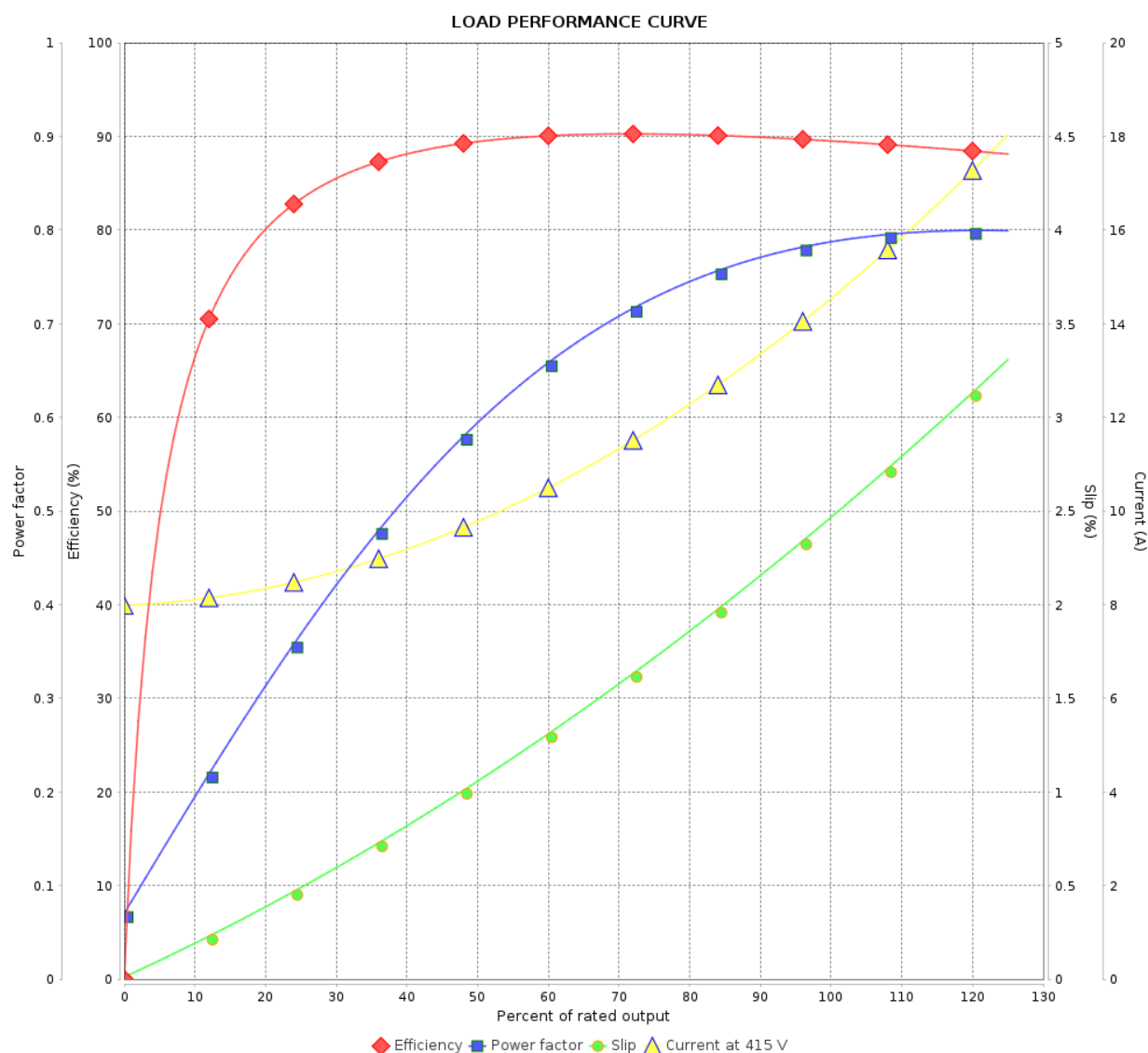
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM  
NEMA Premium Efficiency Three-Phase

Product code : 12941830



Performance : 415 V 50 Hz 6P IE3

Rated current : 14.4 A  
LRC : 6.1  
Rated torque : 7.44 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 260 %  
Rated speed : 975 rpm

Moment of inertia (J) : 0.1867 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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