

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12717287

Frame	: 284/6TC	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>	: 178 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.3034 kgm <sup>2</sup>
Design	: B		

Output [HP]	10	10	10	10
Poles	8	8	8	8
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	26.8/13.4	16.1	15.3	15.1
L. R. Amperes [A]	150/75.0	70.8	75.0	78.5
LRC [A]	5.6x(Code G)	4.4x(Code E)	4.9x(Code F)	5.2x(Code G)
No load current [A]	13.0/6.50	6.40	6.90	7.35
Rated speed [RPM]	880	725	725	730
Slip [%]	2.22	3.33	3.33	2.67
Rated torque [kgfm]	8.25	10.0	10.0	9.94
Locked rotor torque [%]	200	150	170	190
Breakdown torque [%]	240	190	210	229
Service factor	1.25	1.00	1.15	1.15
Temperature rise	80 K	105 K	105 K	105 K
Locked rotor time	57s (cold) 32s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (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%	89.5	89.5	88.5
	75%	90.2	88.5	88.5
	100%	90.2	87.5	88.5
Power Factor	25%			
	50%	0.61	0.68	0.64
	75%	0.72	0.77	0.74
	100%	0.78	0.81	0.80

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)	8.5	8.5	8.5	8.5
	P3 (0,25;1,0)	8.4	8.4	8.4	8.4
	P4 (0,9;0,5)	5.4	5.4	5.4	5.4
	P5 (0,5;0,5)	3.7	3.7	3.7	3.7
	P6 (0,5;0,25)	2.6	2.6	2.6	2.6
	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	: 6311 C3	6211 C3	Max. traction	: 238 kgf
Sealing	: V'Ring	V'Ring	Max. compression	: 416 kgf
Lubrication interval	: 20000 h	20000 h		
Lubricant amount	: 18 g	11 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  
USABLE @208V 29.6A SF 1.15 SFA 34.1A

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# LOAD PERFORMANCE CURVE

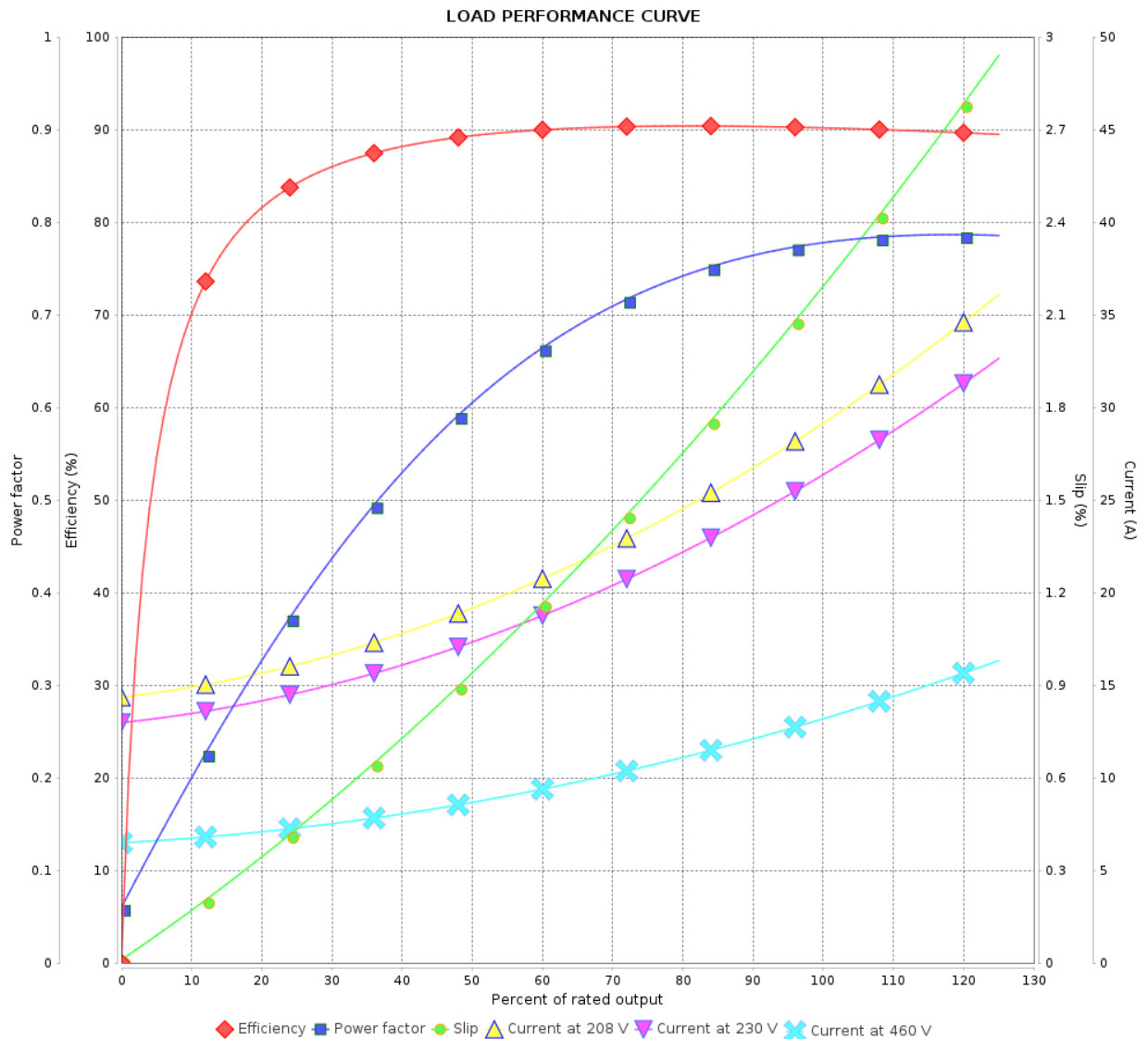
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 12717287



Performance : 230/460 V 60 Hz 8P

Rated current : 26.8/13.4 A  
LRC : 5.6  
Rated torque : 8.25 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 240 %  
Rated speed : 880 rpm

Moment of inertia (J) : 0.3034 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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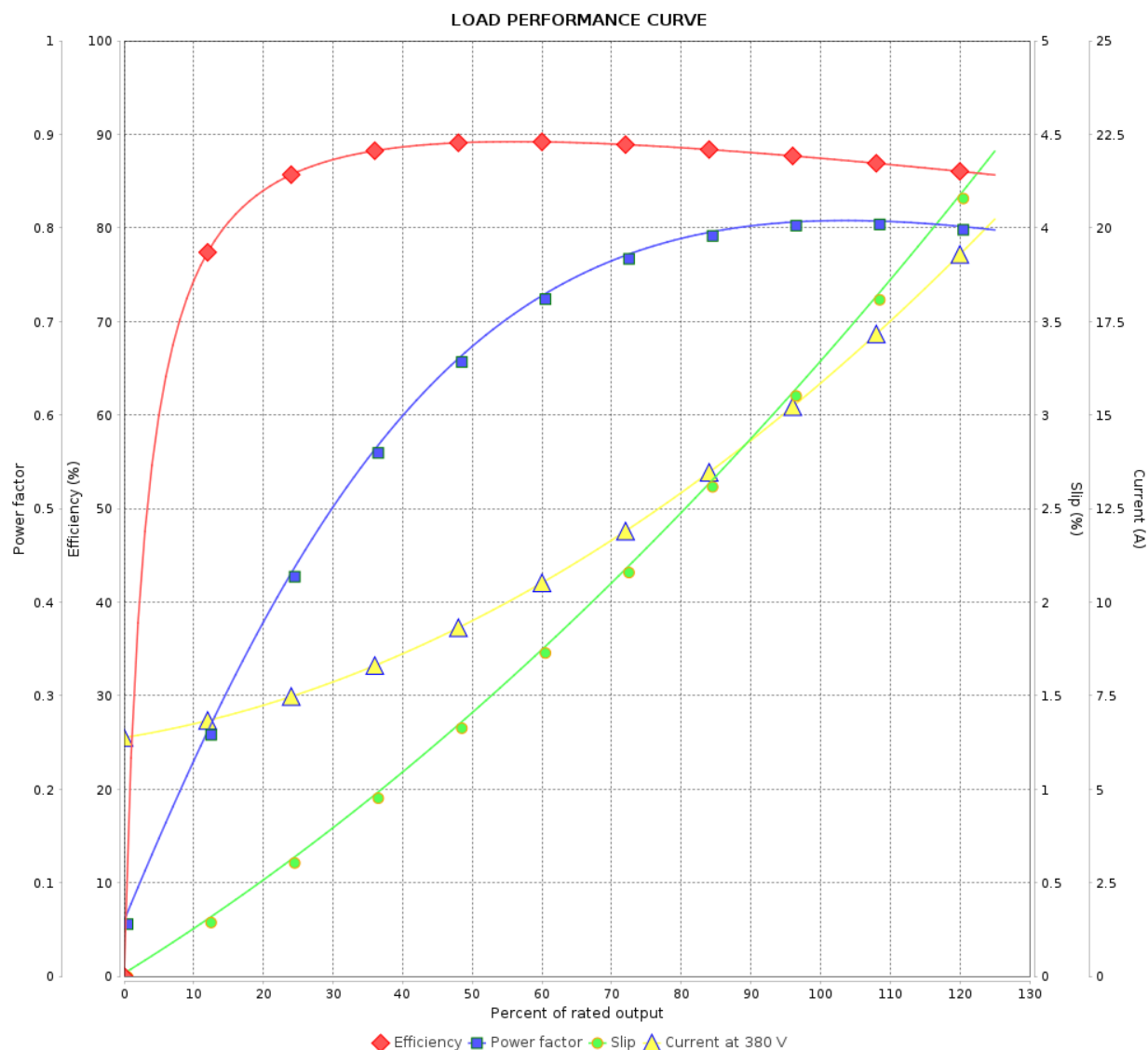
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 12717287



Performance : 380 V 50 Hz 8P IE3

Rated current : 16.1 A  
LRC : 4.4  
Rated torque : 10.0 kgfm  
Locked rotor torque : 150 %  
Breakdown torque : 190 %  
Rated speed : 725 rpm

Moment of inertia (J) : 0.3034 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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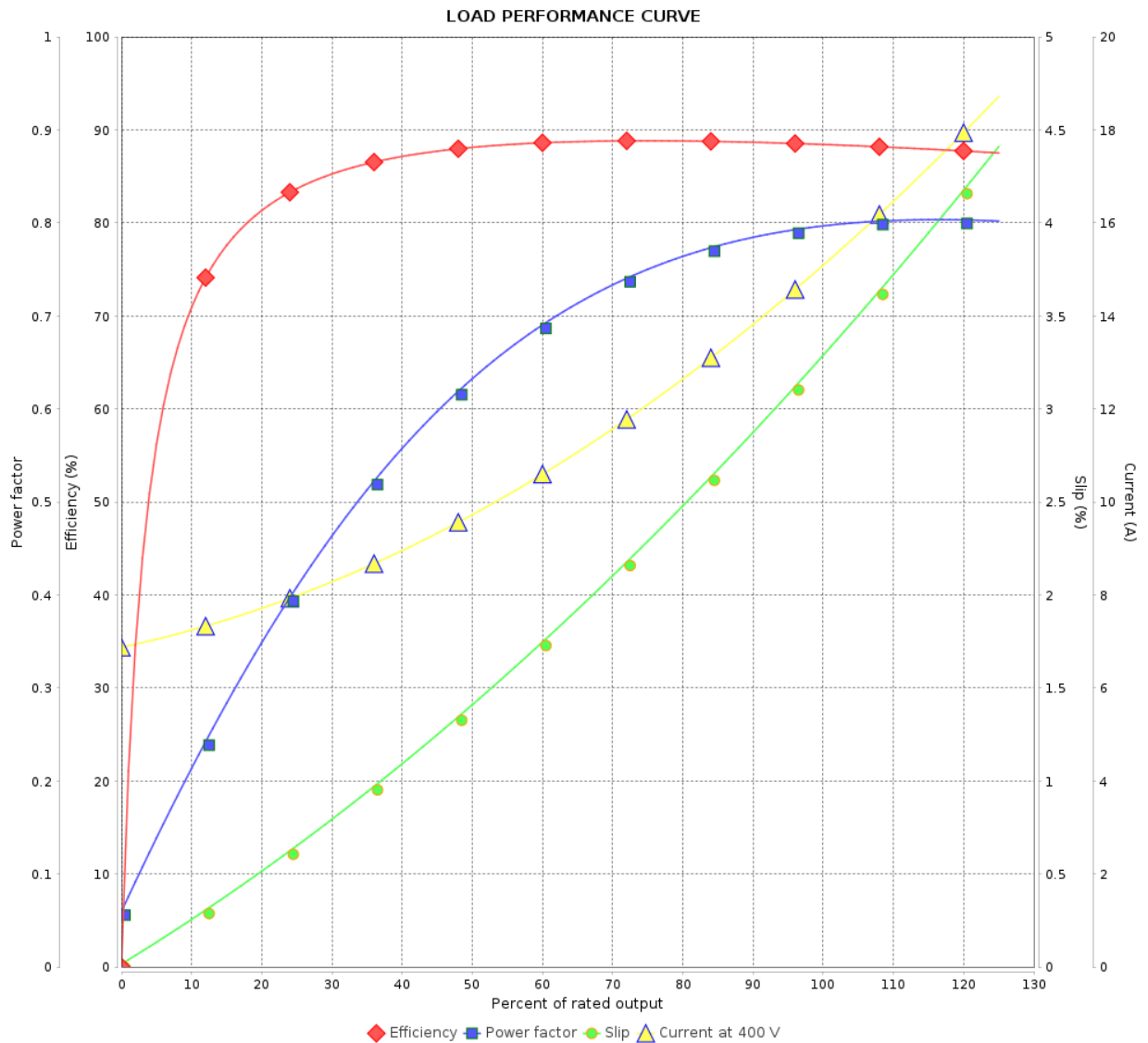
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 12717287



Performance : 400 V 50 Hz 8P IE3

Rated current : 15.3 A  
LRC : 4.9  
Rated torque : 10.0 kgfm  
Locked rotor torque : 170 %  
Breakdown torque : 210 %  
Rated speed : 725 rpm

Moment of inertia (J) : 0.3034 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

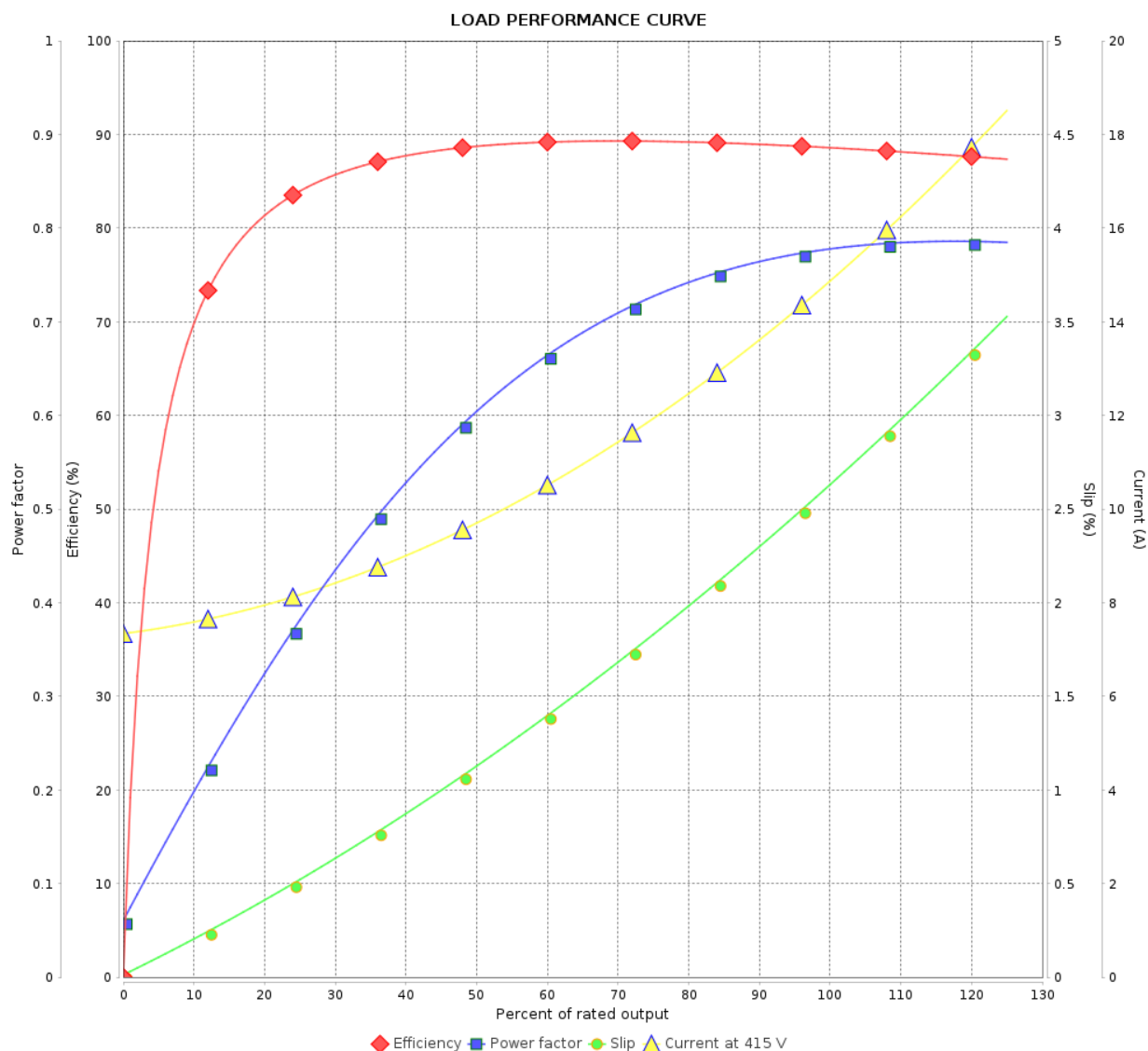
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 12717287



Performance : 415 V 50 Hz 8P IE3

Rated current : 15.1 A  
LRC : 5.2  
Rated torque : 9.94 kgfm  
Locked rotor torque : 190 %  
Breakdown torque : 229 %  
Rated speed : 730 rpm

Moment of inertia (J) : 0.3034 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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