

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 13025320

Frame : 404/5TSC	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> : 521 kg
Protection degree : IP55	Moment of inertia (J) : 0.5561 kgm <sup>2</sup>
Design : B	

Output [HP]	100	75	75	75
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	224/112	99.6	94.6	92.2
L. R. Amperes [A]	1456/728	677	719	756
LRC [A]	6.5x(Code G)	6.8x(Code G)	7.6x(Code H)	8.2x(Code J)
No load current [A]	52.0/26.0	25.7	27.5	29.1
Rated speed [RPM]	3545	2955	2960	2965
Slip [%]	1.53	1.50	1.33	1.17
Rated torque [kgfm]	20.5	18.4	18.4	18.4
Locked rotor torque [%]	240	250	280	300
Breakdown torque [%]	260	280	310	330
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	25s (cold) 14s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)
Noise level <sup>2</sup>	79.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)
Efficiency (%)	25%			
	50%	93.0	93.0	93.5
	75%	94.1	93.8	94.0
	100%	94.1	94.3	94.3
Power Factor	25%			
	50%	0.83	0.82	0.78
	75%	0.88	0.88	0.85
	100%	0.89	0.89	0.88

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

Losses (%)	P1 (0,9;1,0)	5.9	5.9	5.9	5.9
	P2 (0,5;1,0)	4.6	4.6	4.6	4.6
	P3 (0,25;1,0)	4.4	4.4	4.4	4.4
	P4 (0,9;0,5)	2.8	2.8	2.8	2.8
	P5 (0,5;0,5)	1.6	1.6	1.6	1.6
	P6 (0,5;0,25)	0.9	0.9	0.9	0.9
	P7 (0,25;0,25)	0.5	0.5	0.5	0.5

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6314 C3	6314 C3	Max. traction : 336 kgf
Sealing :	WSeal	WSeal	Max. compression : 857 kgf
Lubrication interval :	4000 h	4000 h	
Lubricant amount :	27 g	27 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 243A SF 1.10 SFA 268A

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# LOAD PERFORMANCE CURVE

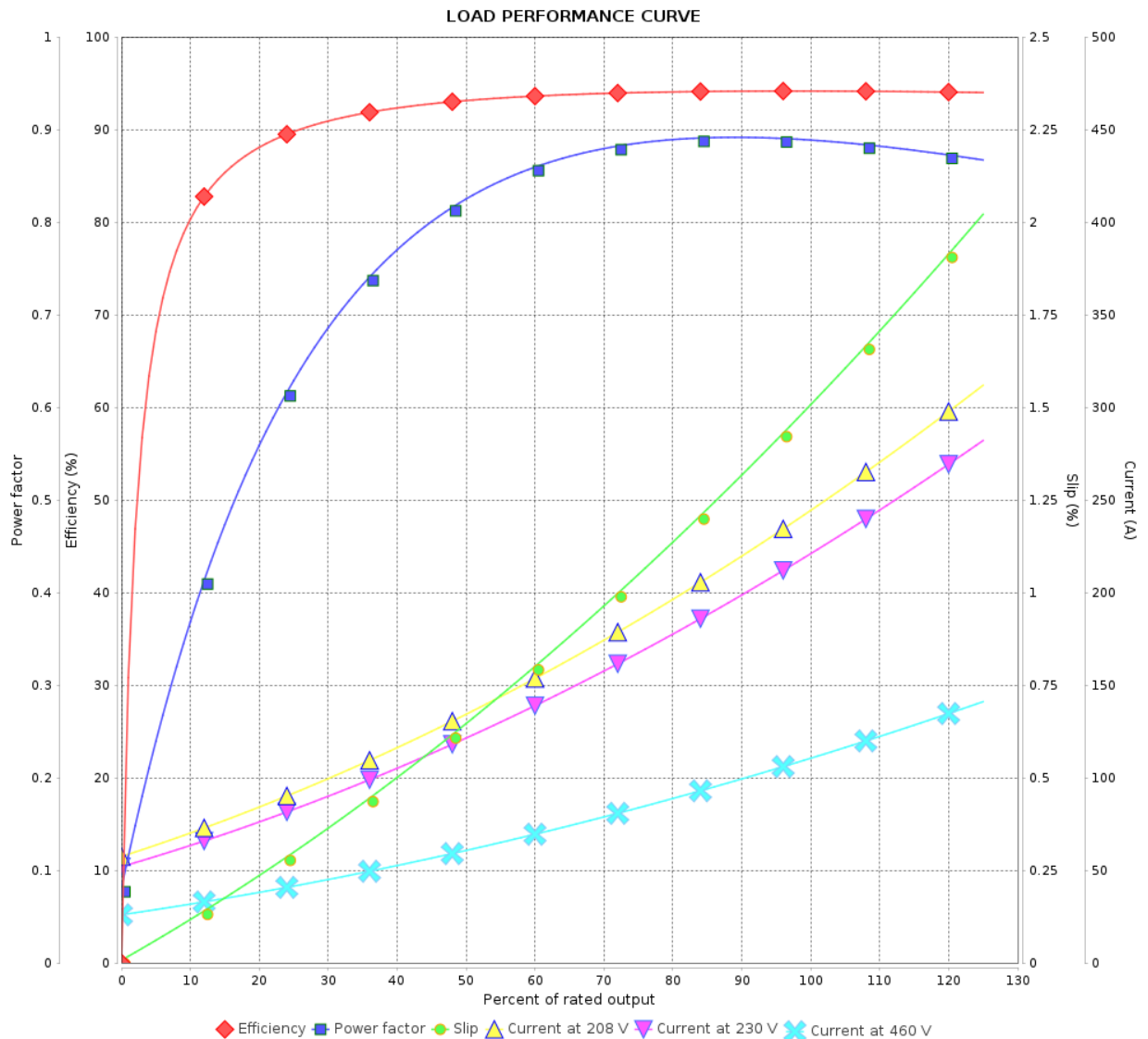
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 13025320



Performance : 230/460 V 60 Hz 2P

Rated current : 224/112 A  
LRC : 6.5  
Rated torque : 20.5 kgfm  
Locked rotor torque : 240 %  
Breakdown torque : 260 %  
Rated speed : 3545 rpm

Moment of inertia (J) : 0.5561 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

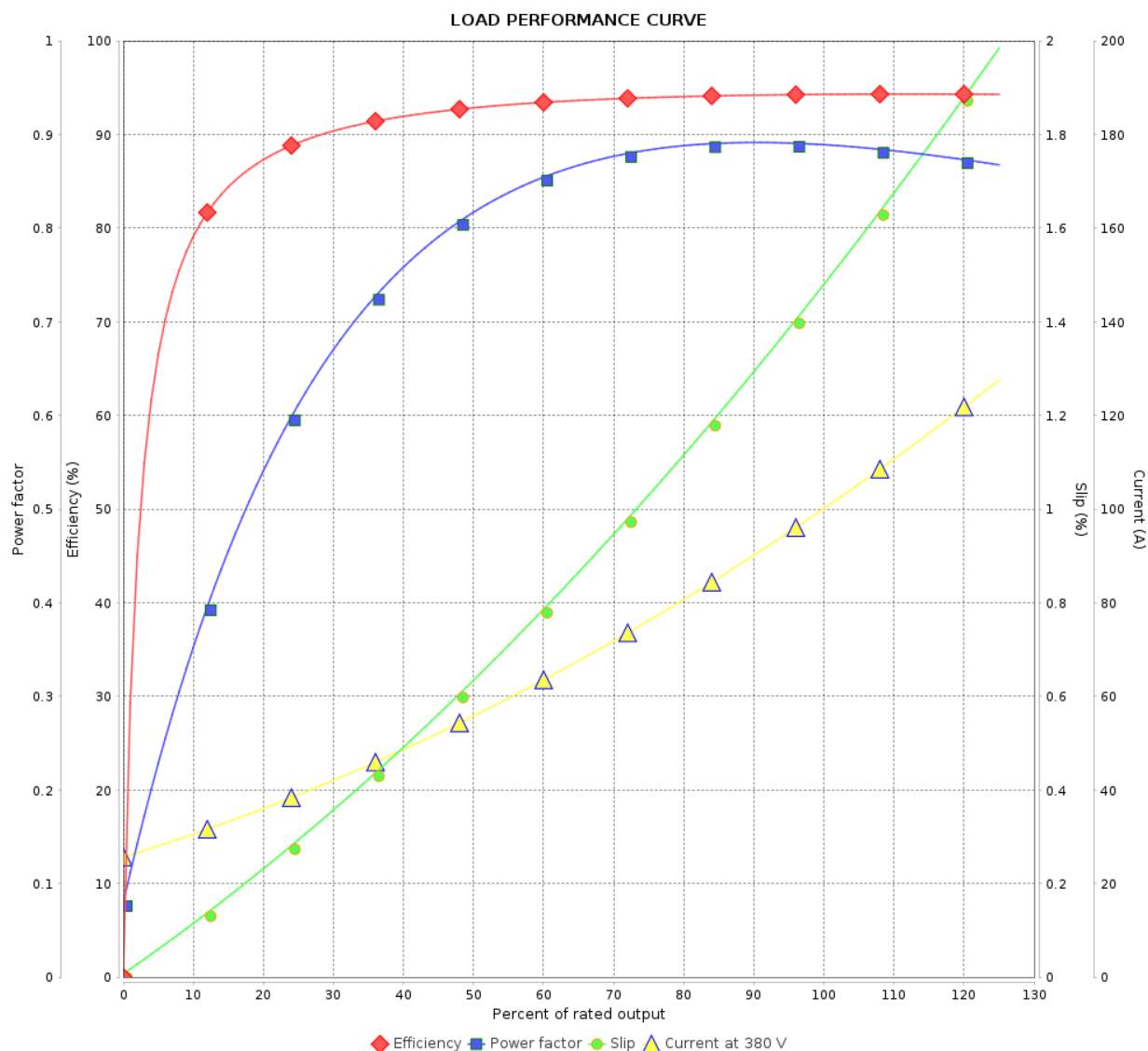
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 13025320



Performance : 380 V 50 Hz 2P IE3

Rated current : 99.6 A  
LRC : 6.8  
Rated torque : 18.4 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 280 %  
Rated speed : 2955 rpm

Moment of inertia (J) : 0.5561 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

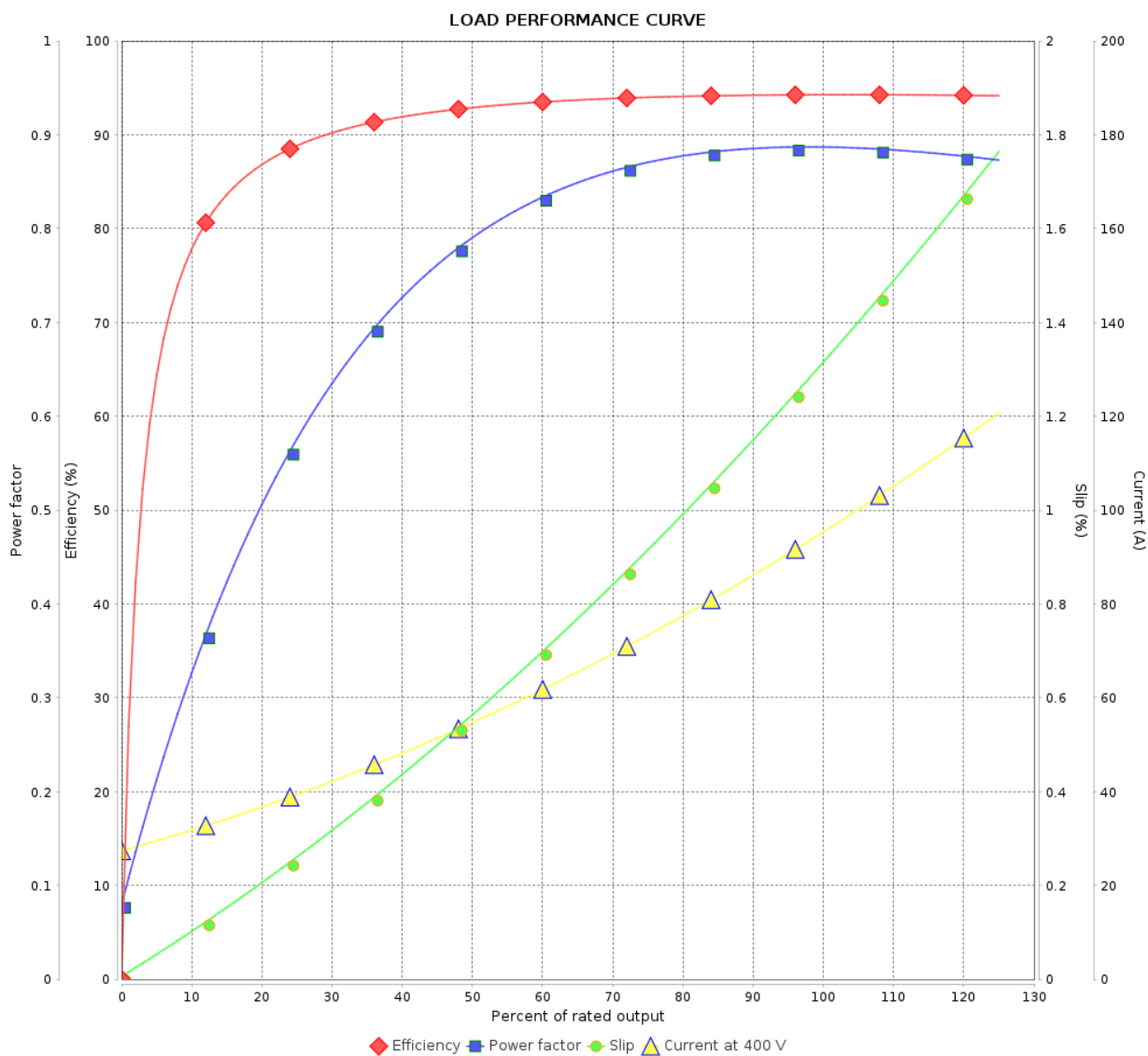
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 13025320



Performance : 400 V 50 Hz 2P IE3

Rated current : 94.6 A  
LRC : 7.6  
Rated torque : 18.4 kgfm  
Locked rotor torque : 280 %  
Breakdown torque : 310 %  
Rated speed : 2960 rpm

Moment of inertia (J) : 0.5561 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

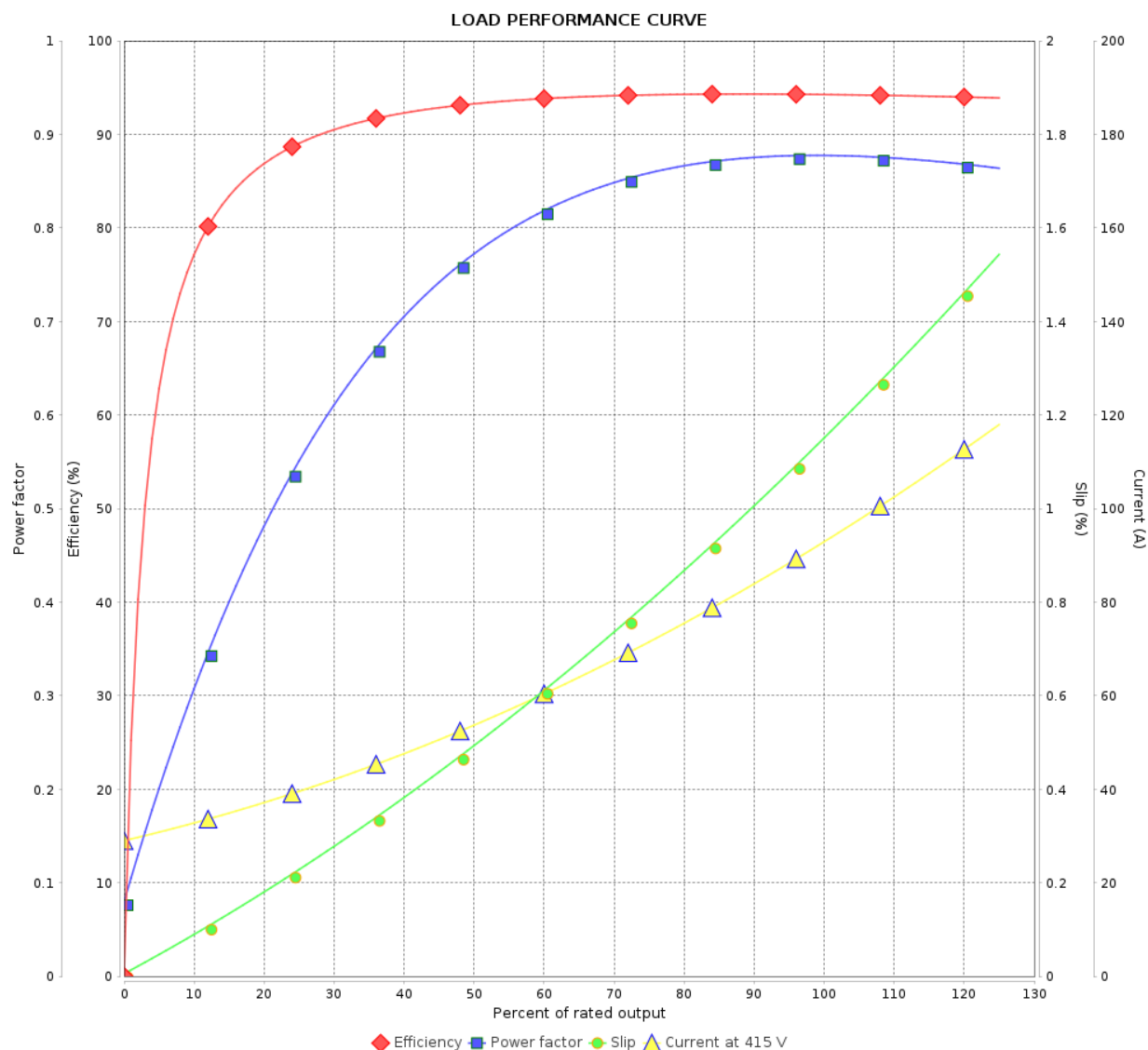
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 13025320



Performance : 415 V 50 Hz 2P IE3

Rated current : 92.2 A  
LRC : 8.2  
Rated torque : 18.4 kgfm  
Locked rotor torque : 300 %  
Breakdown torque : 330 %  
Rated speed : 2965 rpm

Moment of inertia (J) : 0.5561 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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