

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 P Base NEMA Premium Efficiency Three-Phase      Product code : 13129041

Frame	: 364/5HP	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: W-6
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>	: 428 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.9798 kgm <sup>2</sup>
Design	: B		

Output [HP]	75	60	60	60	75	75	75
Poles	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	174/87.2	88.5	84.9	82.7	106	102	98.7
L. R. Amperes [A]	1116/558	620	637	662	541	571	602
LRC [A]	6.4x(Code G)	7.0x(Code H)	7.5x(Code J)	8.0x(Code J)	5.1x(Code E)	5.6x(Code F)	6.1x(Code G)
No load current [A]	66.0/33.0	33.0	35.0	38.0	33.0	35.0	38.0
Rated speed [RPM]	1780	1480	1480	1485	1470	1475	1480
Slip [%]	1.11	1.33	1.33	1.00	2.00	1.67	1.33
Rated torque [kgfm]	30.6	29.4	29.4	29.3	37.0	36.9	36.8
Locked rotor torque [%]	240	210	240	260	170	200	210
Breakdown torque [%]	260	250	280	310	200	220	240
Service factor	1.25	1.00	1.00	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	105 K	105 K	105 K
Locked rotor time	25s (cold) 14s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)
Noise level <sup>2</sup>	67.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)	63.0 dB(A)
Efficiency (%)	25%	0.000			0.000		
	50%	94.5	93.7	93.6	93.5	94.5	94.1
	75%	95.0	94.2	94.2	94.2	94.1	94.5
	100%	95.4	94.2	94.4	94.6	93.6	94.5
Power Factor	25%	0.00			0.00		
	50%	0.68	0.68	0.64	0.61	0.75	0.67
	75%	0.78	0.78	0.75	0.73	0.82	0.78
	100%	0.83	0.82	0.81	0.80	0.84	0.82

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

Losses (%)	P1 (0,9;1,0)	4.7	4.7	4.7	4.7	4.7	4.7
	P2 (0,5;1,0)	3.8	3.8	3.8	3.8	3.8	3.8
	P3 (0,25;1,0)	3.5	3.5	3.5	3.5	3.5	3.5
	P4 (0,9;0,5)	2.4	2.4	2.4	2.4	2.4	2.4
	P5 (0,5;0,5)	1.6	1.6	1.6	1.6	1.6	1.6
	P6 (0,5;0,25)	1.1	1.1	1.1	1.1	1.1	1.1
	P7 (0,25;0,25)	0.7	0.7	0.7	0.7	0.7	0.7

Bearing type	: Drive end 6316 C3      Non drive end 6314 C3	Foundation loads Max. traction Max. compression
Sealing	: Lip Seal      Lip Seal	
Lubrication interval	: 5000 h      6000 h	
Lubricant amount	: 34 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.

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 186A SF 1.10 SFA 205A

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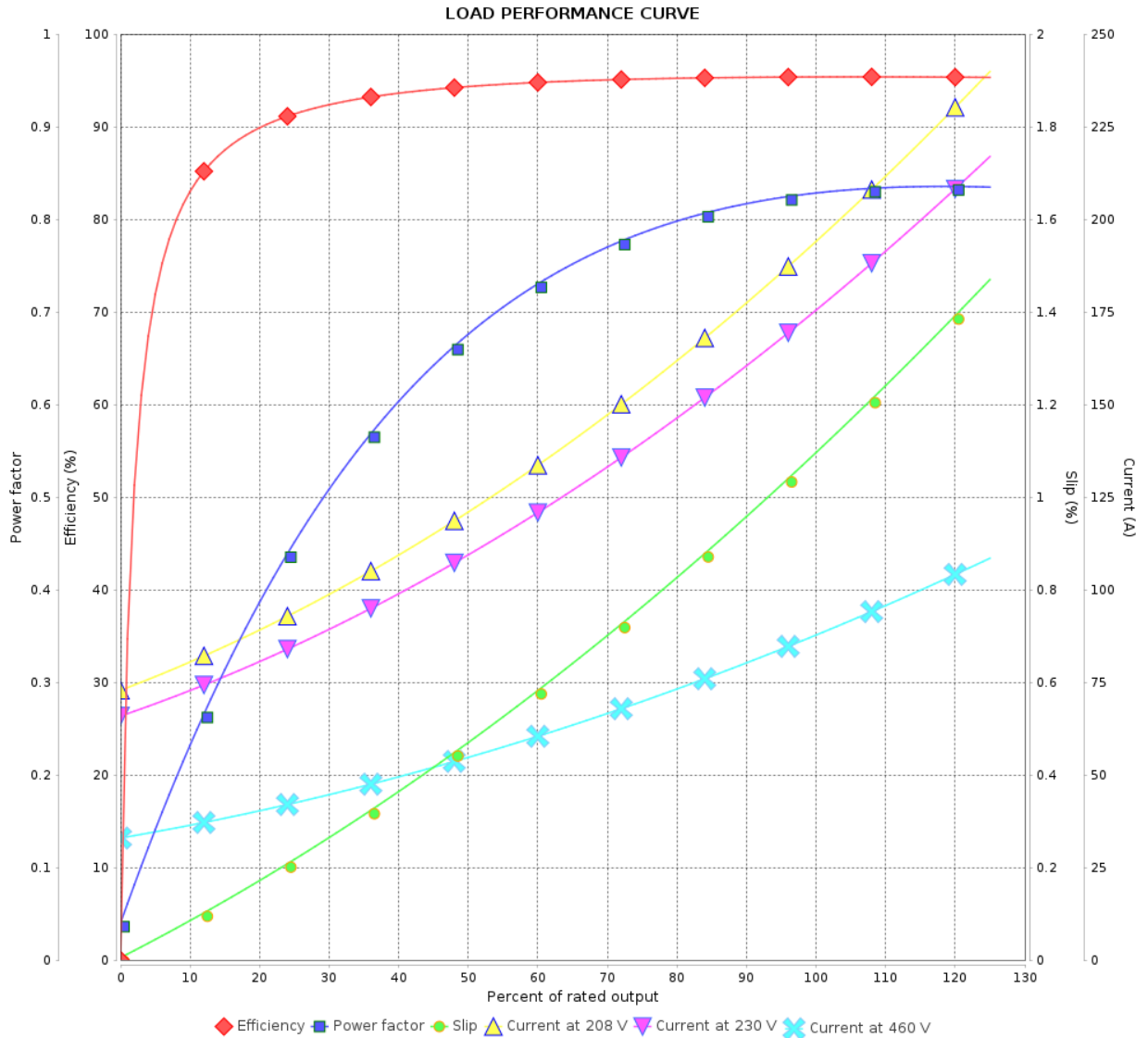
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium  
Efficiency Three-Phase

Product code : 13129041



Performance : 230/460 V 60 Hz 4P

Rated current : 174/87.2 A  
 LRC : 6.4  
 Rated torque : 30.6 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 260 %  
 Rated speed : 1780 rpm

Moment of inertia (J) : 0.9798 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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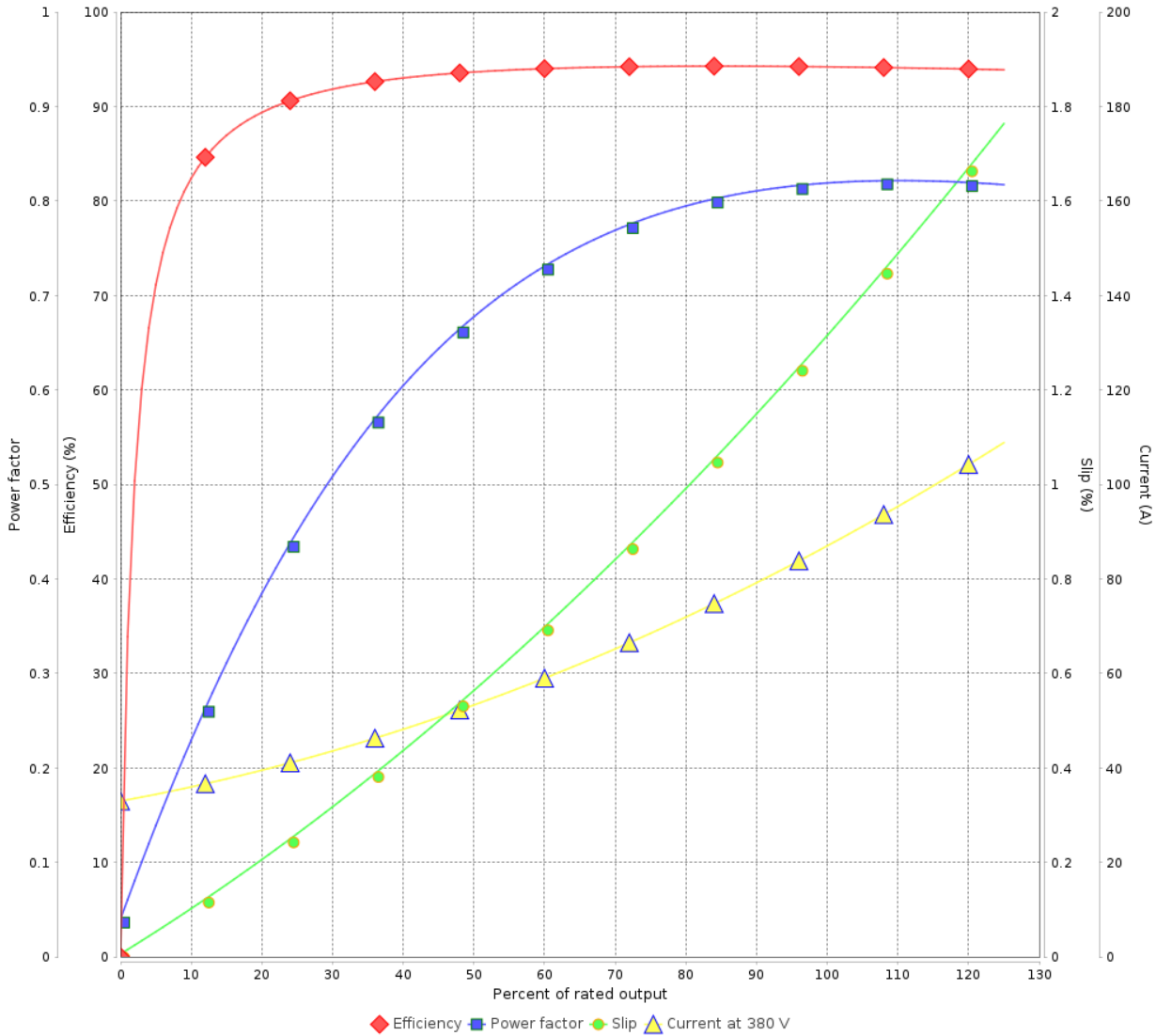
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium Efficiency Three-Phase      Product code : 13129041

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 4P IE3

Rated current	: 88.5 A	Moment of inertia (J)	: 0.9798 kgm <sup>2</sup>
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 29.4 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

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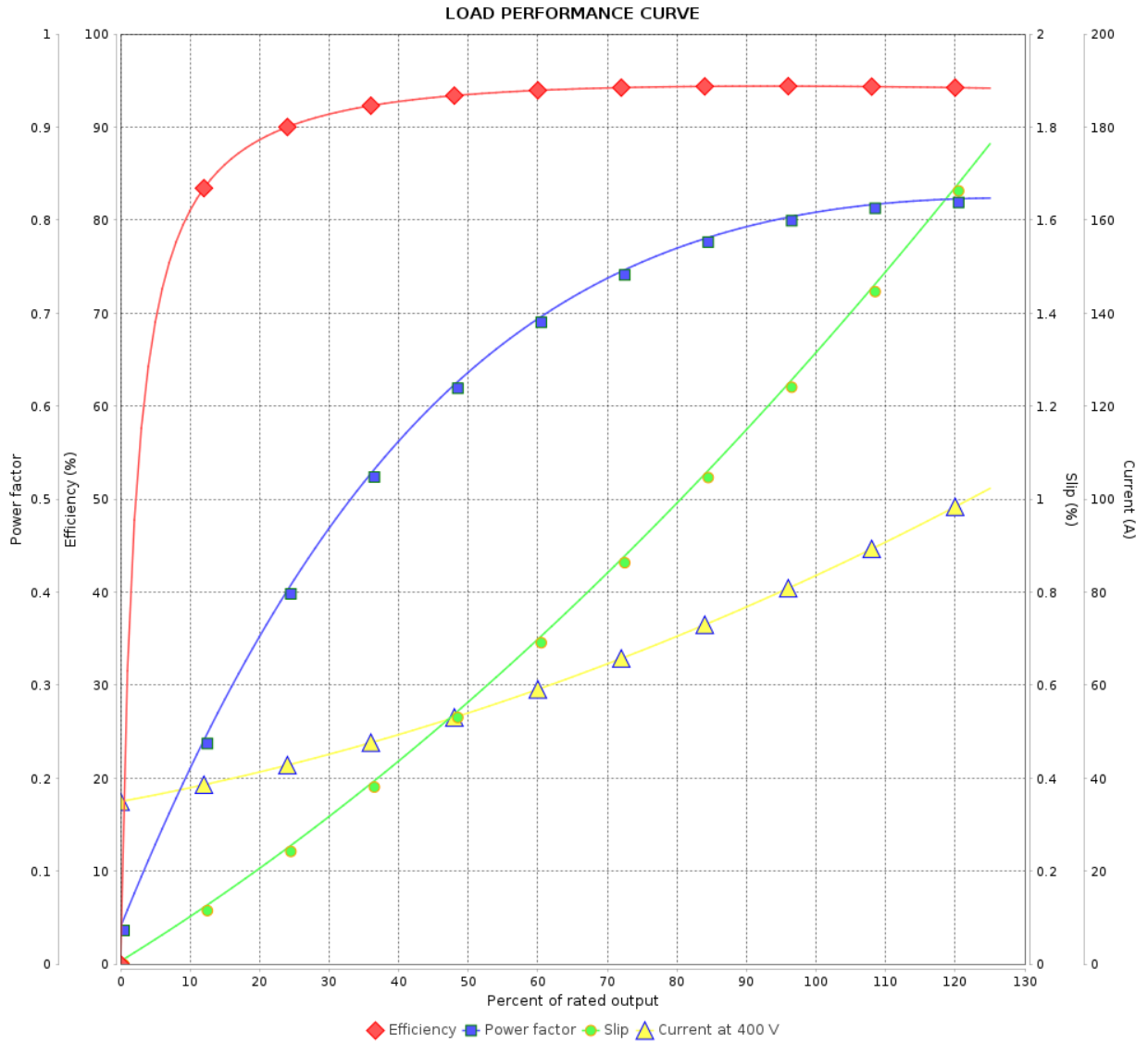
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium  
Efficiency Three-Phase

Product code : 13129041



Performance : 400 V 50 Hz 4P IE3

Rated current : 84.9 A  
 LRC : 7.5  
 Rated torque : 29.4 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 280 %  
 Rated speed : 1480 rpm

Moment of inertia (J) : 0.9798 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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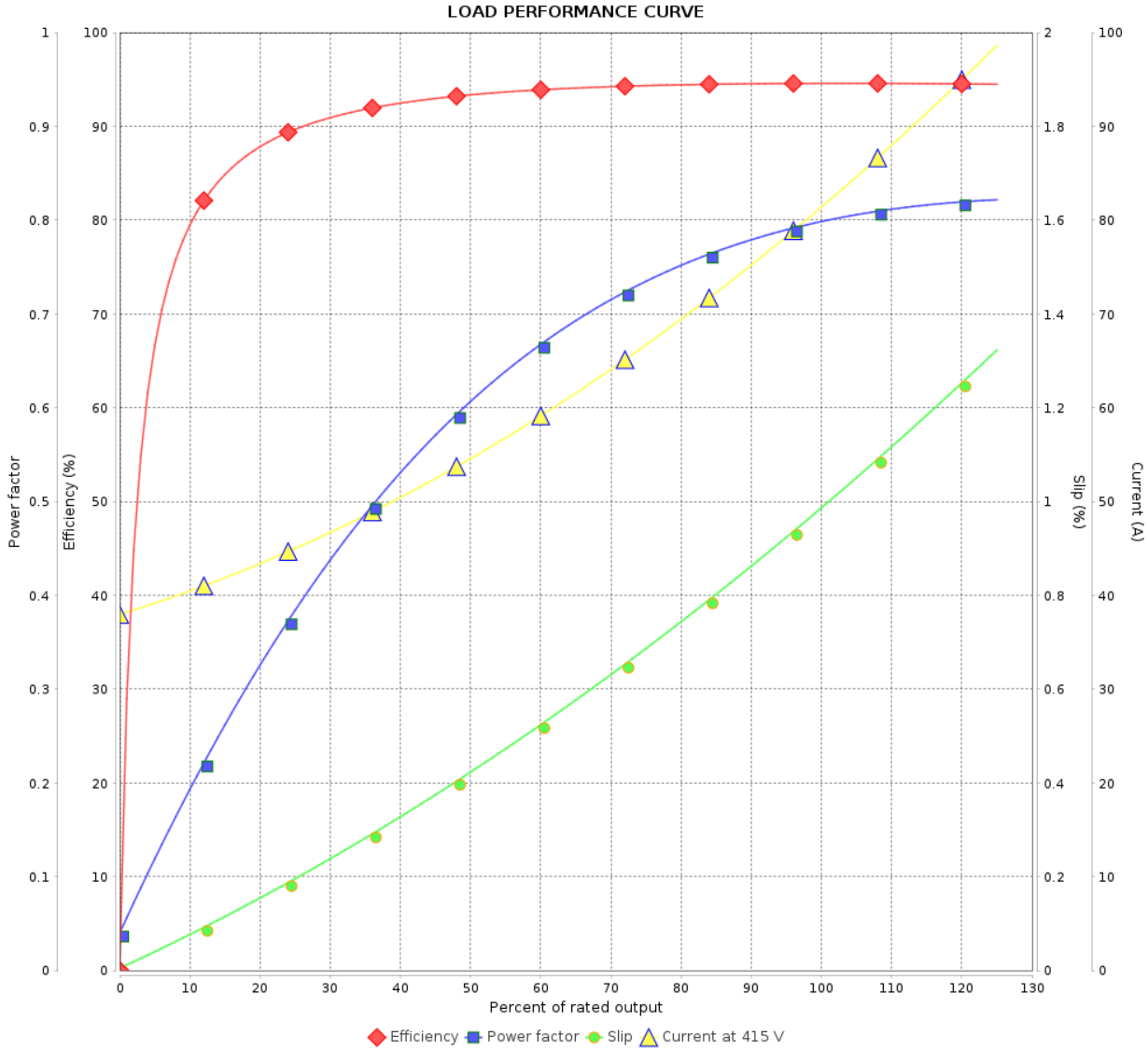
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium Efficiency Three-Phase      Product code : 13129041



Performance : 415 V 50 Hz 4P IE3

Rated current	: 82.7 A	Moment of inertia (J)	: 0.9798 kgm <sup>2</sup>
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 29.3 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: B

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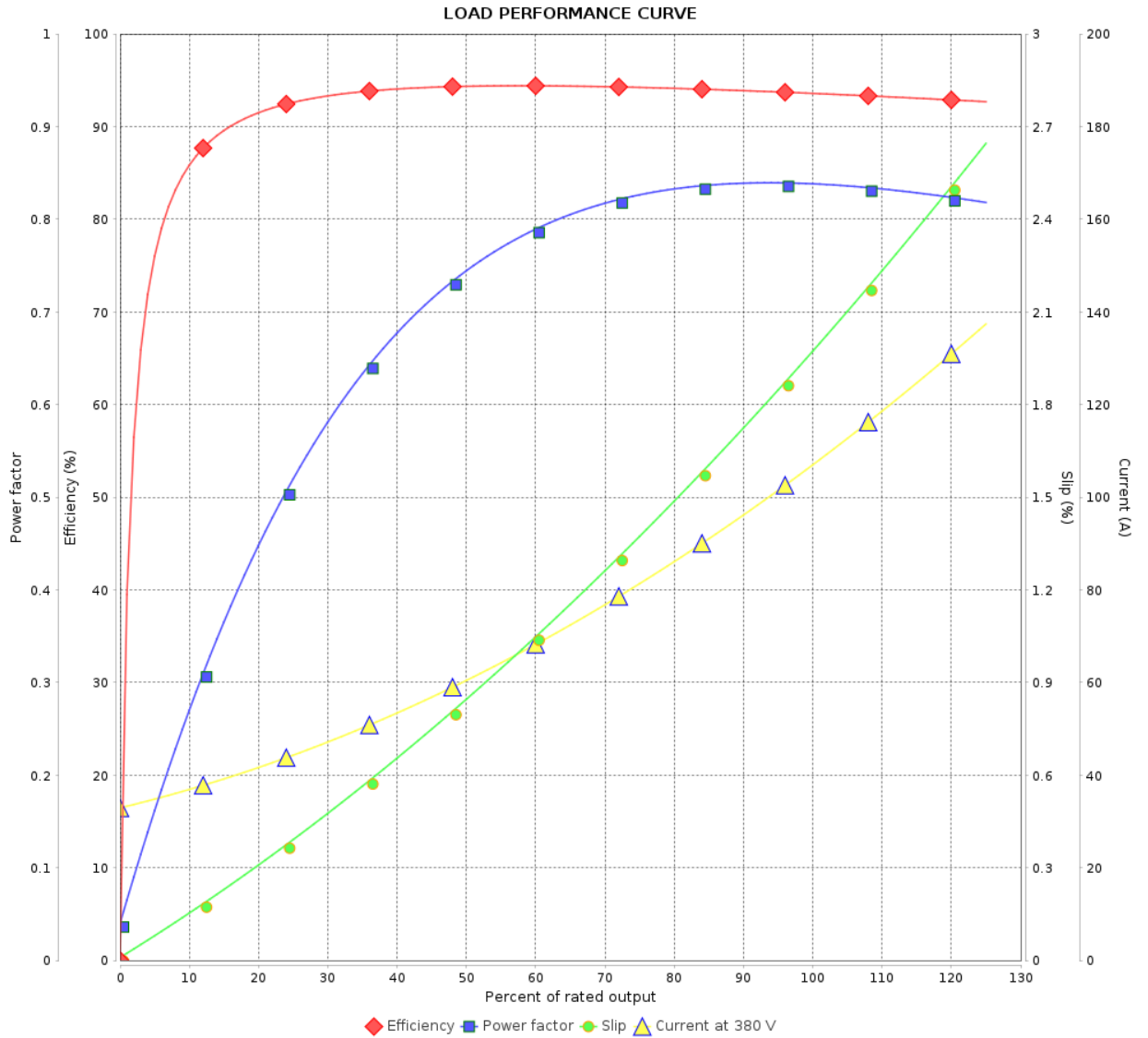
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium Efficiency Three-Phase

Product code : 13129041



Performance : 380 V 50 Hz 4P IE2

Rated current : 106 A  
 LRC : 5.1  
 Rated torque : 37.0 kgfm  
 Locked rotor torque : 170 %  
 Breakdown torque : 200 %  
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.9798 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

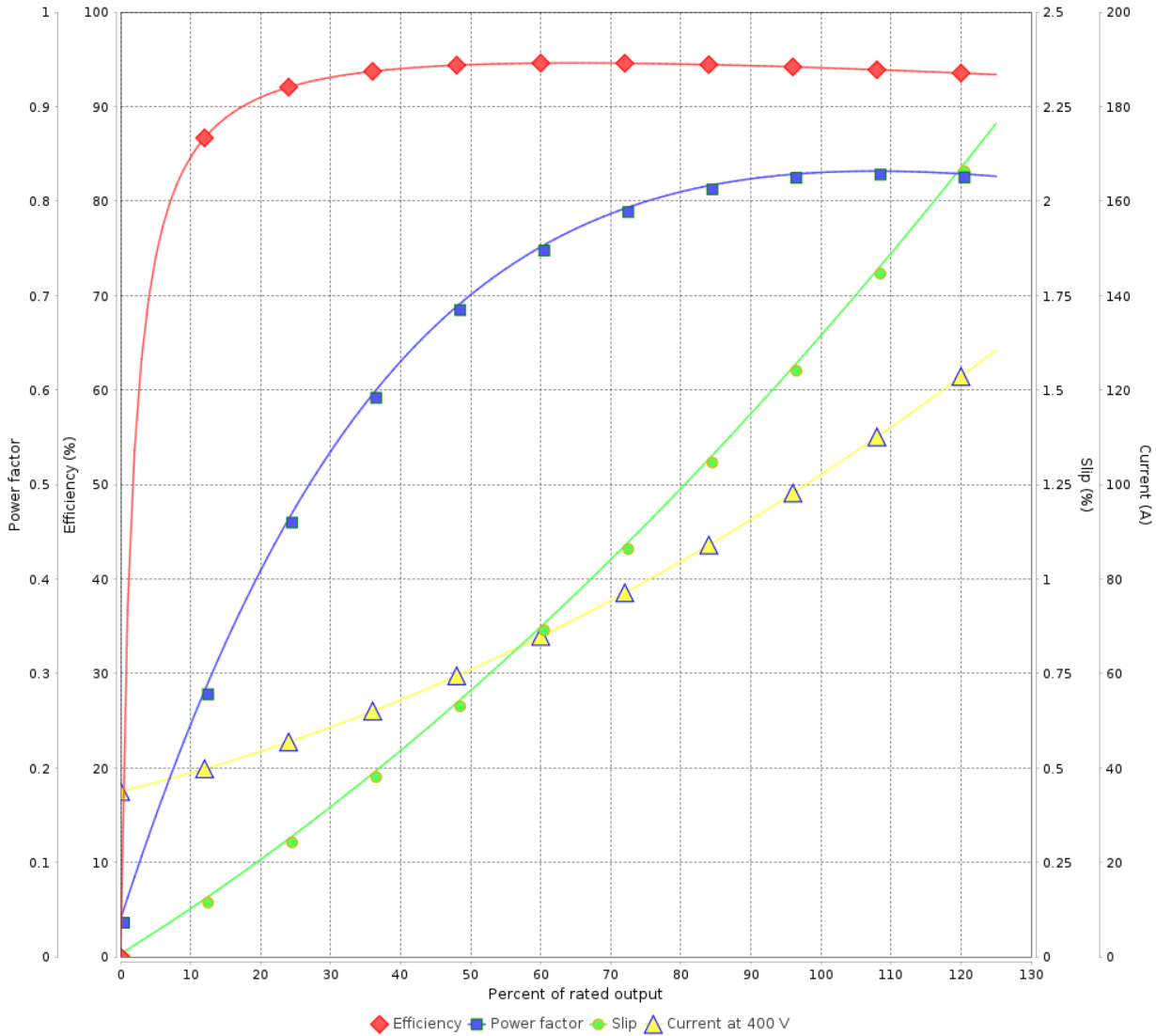


Customer :

Product line : W22 P Base NEMA Premium  
Efficiency Three-Phase

Product code : 13129041

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 4P IE2

Rated current : 102 A  
LRC : 5.6  
Rated torque : 36.9 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 220 %  
Rated speed : 1475 rpm

Moment of inertia (J) : 0.9798 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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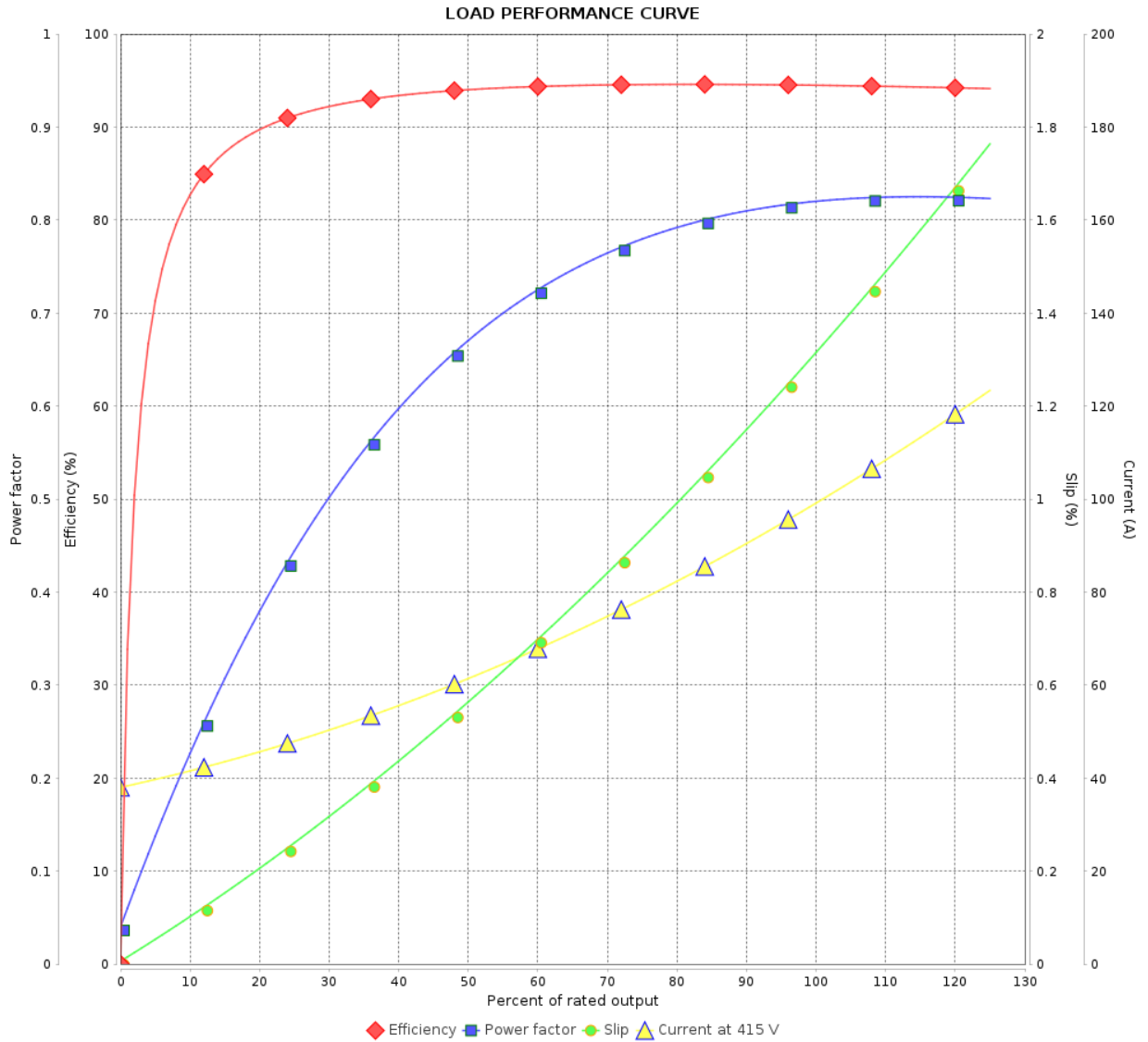
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 P Base NEMA Premium  
Efficiency Three-Phase

Product code : 13129041



Performance : 415 V 50 Hz 4P IE2

Rated current : 98.7 A  
 LRC : 6.1  
 Rated torque : 36.8 kgfm  
 Locked rotor torque : 210 %  
 Breakdown torque : 240 %  
 Rated speed : 1480 rpm

Moment of inertia (J) : 0.9798 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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