

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11165648

Frame	: 364/5T	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>	: 407 kg
Protection degree	: IP55	Moment of inertia (J)	: 1.36 kgm <sup>2</sup>
Design	: B		

Output [HP]	50	40	40	40	50	50	50
Poles	6	6	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	115/57.4	57.7	55.5	53.5	71.3	67.2	65.5
L. R. Amperes [A]	735/367	358	377	396	349	370	400
LRC [A]	6.4x(Code G)	6.2x(Code G)	6.8x(Code H)	7.4x(Code J)	4.9x(Code E)	5.5x(Code F)	6.1x(Code G)
No load current [A]	40.0/20.0	20.0	21.5	22.5	20.5	21.5	22.5
Rated speed [RPM]	1183	983	985	985	975	979	980
Slip [%]	1.42	1.70	1.50	1.50	2.50	2.10	2.00
Rated torque [kgfm]	30.7	29.5	29.5	29.5	37.2	37.1	37.0
Locked rotor torque [%]	200	200	229	250	160	180	200
Breakdown torque [%]	240	240	260	290	190	210	229
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	80 K	80 K
Locked rotor time	32s (cold) 18s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)
Noise level <sup>2</sup>	66.0 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%						
	50%	93.6	92.7	92.7	92.6	93.0	93.0
	75%	94.1	92.8	93.1	93.1	92.4	93.0
	100%	94.1	92.9	92.9	92.9	91.7	92.4
Power Factor	25%						
	50%	0.74	0.72	0.70	0.66	0.77	0.74
	75%	0.83	0.82	0.80	0.79	0.84	0.83
	100%	0.86	0.85	0.84	0.84	0.86	0.85

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

Losses (%)	P1 (0,9;1,0)	6.2	6.2	6.2	6.2	6.2	6.2
	P2 (0,5;1,0)	5.2	5.2	5.2	5.2	5.2	5.2
	P3 (0,25;1,0)	4.6	4.6	4.6	4.6	4.6	4.6
	P4 (0,9;0,5)	2.8	2.8	2.8	2.8	2.8	2.8
	P5 (0,5;0,5)	1.9	1.9	1.9	1.9	1.9	1.9
	P6 (0,5;0,25)	1.2	1.2	1.2	1.2	1.2	1.2
	P7 (0,25;0,25)	0.8	0.8	0.8	0.8	0.8	0.8

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6314 C3	6314 C3	Max. traction : 753 kgf
Sealing	: WSeal	WSeal	Max. compression : 1160 kgf
Lubrication interval	: 17000 h	17000 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.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

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# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Notes  
USABLE @208V 127A SF 1.10 SFA 140A

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# LOAD PERFORMANCE CURVE

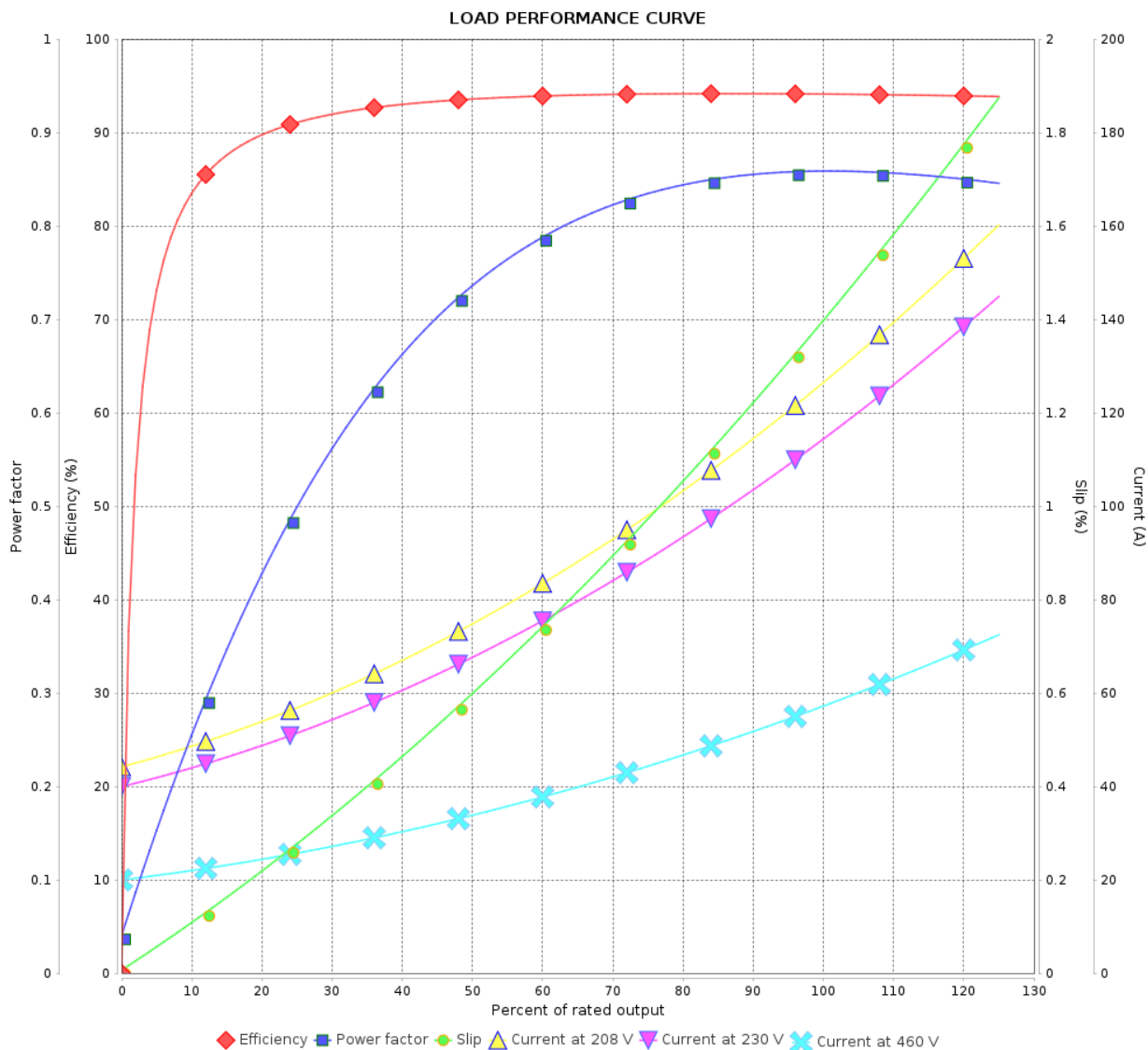
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11165648



Performance : 230/460 V 60 Hz 6P

Rated current : 115/57.4 A  
LRC : 6.4  
Rated torque : 30.7 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 240 %  
Rated speed : 1183 rpm

Moment of inertia (J) : 1.36 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

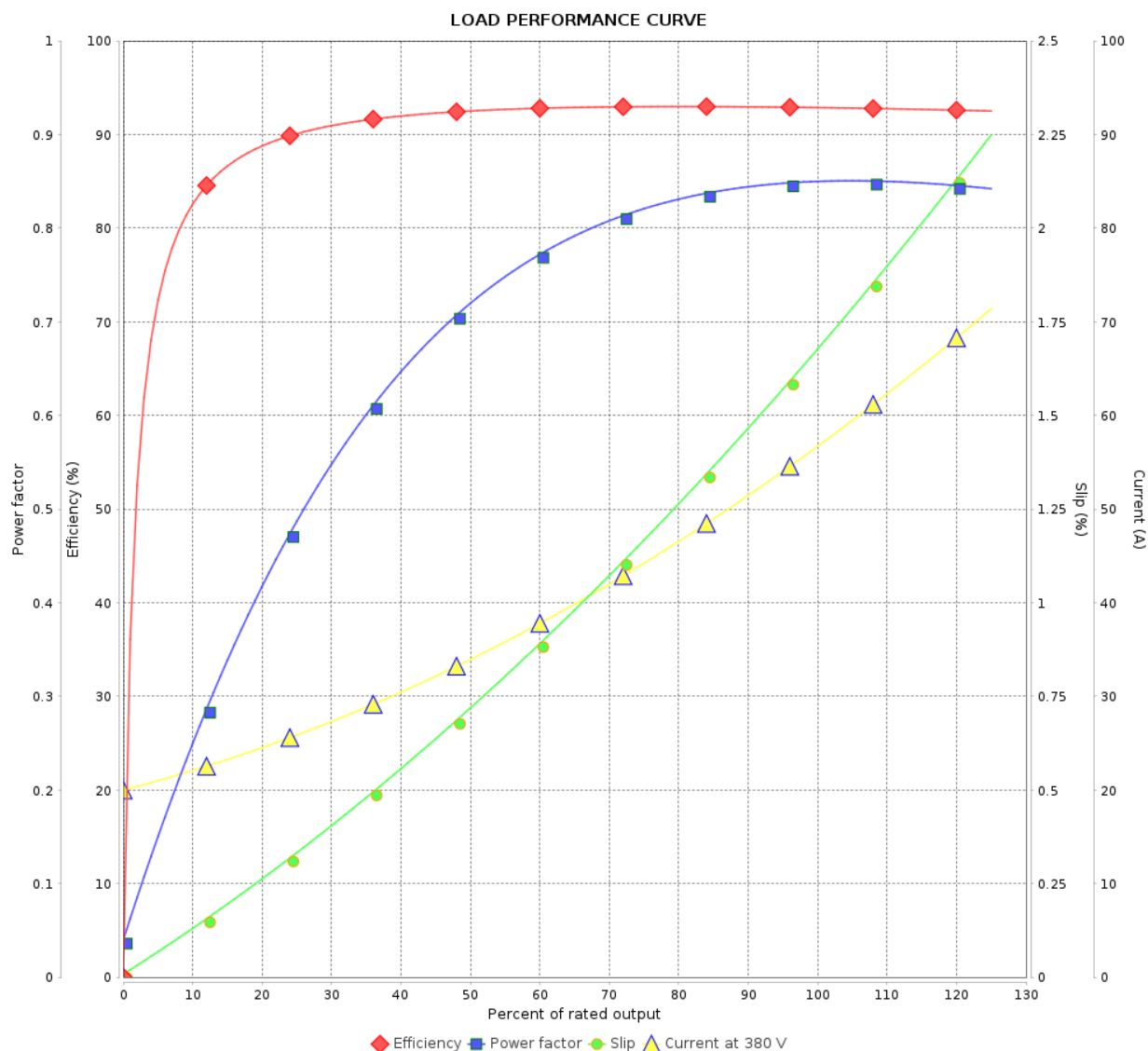
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11165648



Performance : 380 V 50 Hz 6P IE3

Rated current : 57.7 A  
LRC : 6.2  
Rated torque : 29.5 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 240 %  
Rated speed : 983 rpm

Moment of inertia (J) : 1.36 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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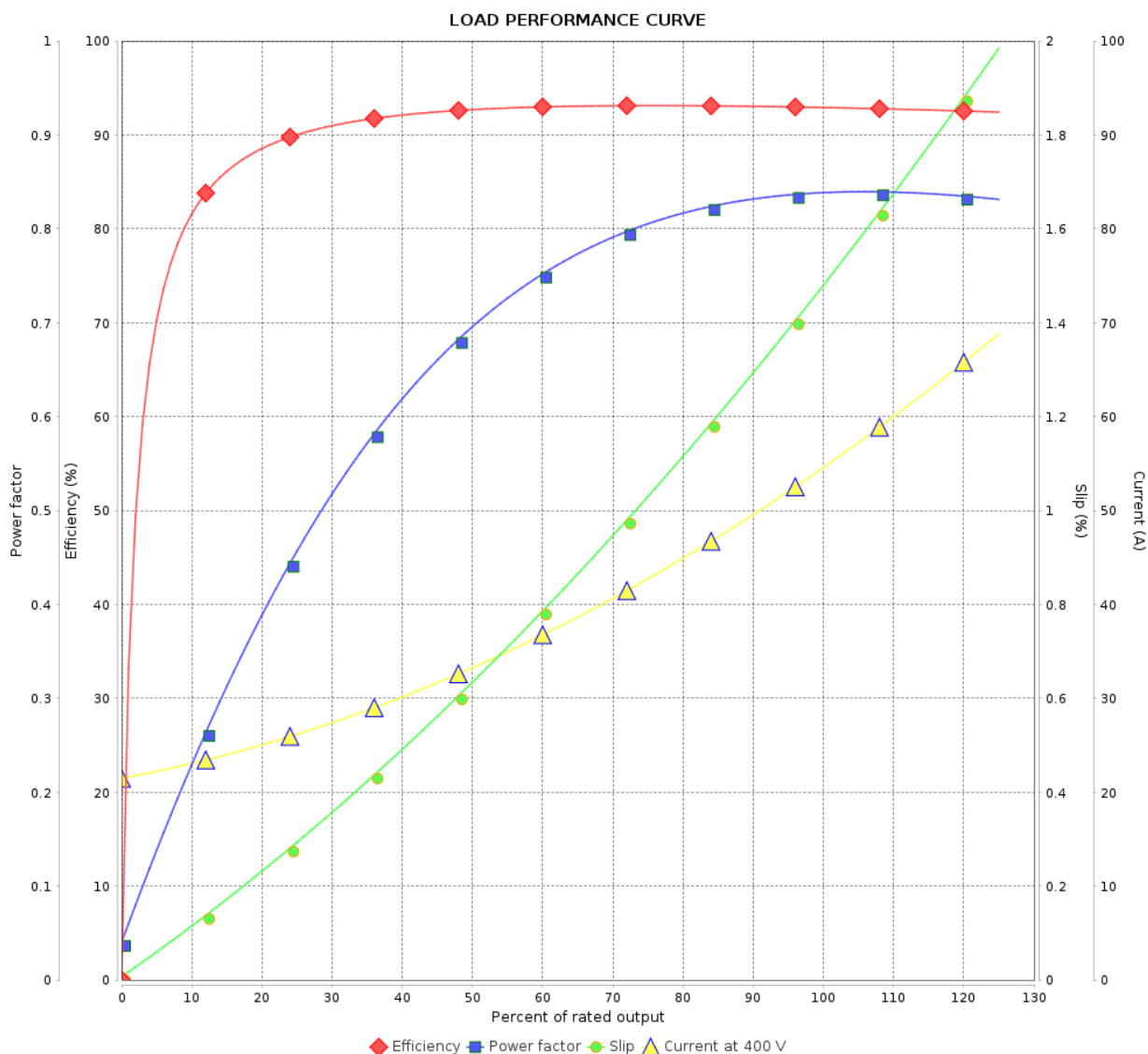
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11165648



Performance : 400 V 50 Hz 6P IE3

Rated current : 55.5 A  
LRC : 6.8  
Rated torque : 29.5 kgfm  
Locked rotor torque : 229 %  
Breakdown torque : 260 %  
Rated speed : 985 rpm

Moment of inertia (J) : 1.36 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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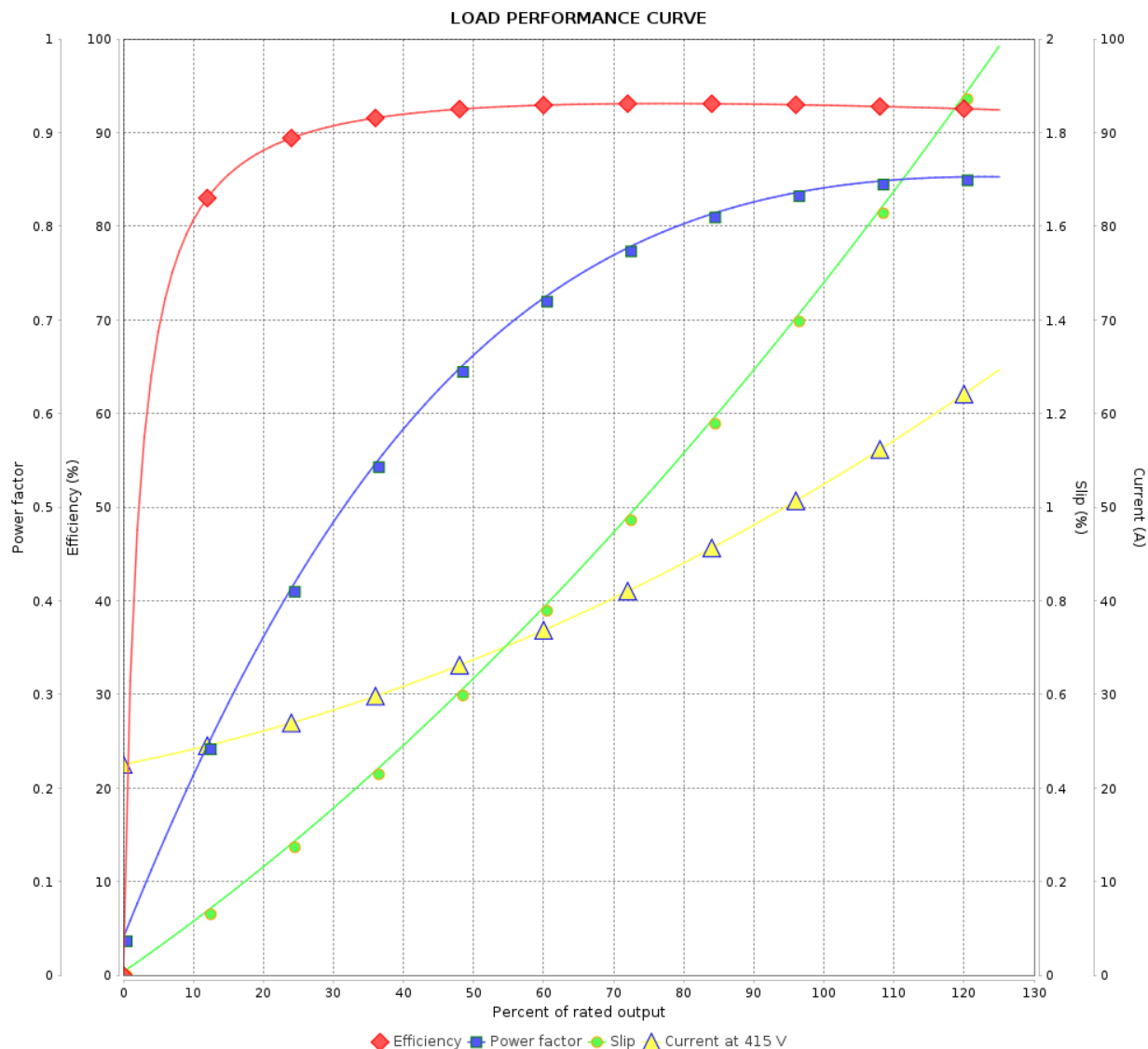
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11165648



Performance : 415 V 50 Hz 6P IE3

Rated current : 53.5 A  
LRC : 7.4  
Rated torque : 29.5 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 290 %  
Rated speed : 985 rpm

Moment of inertia (J) : 1.36 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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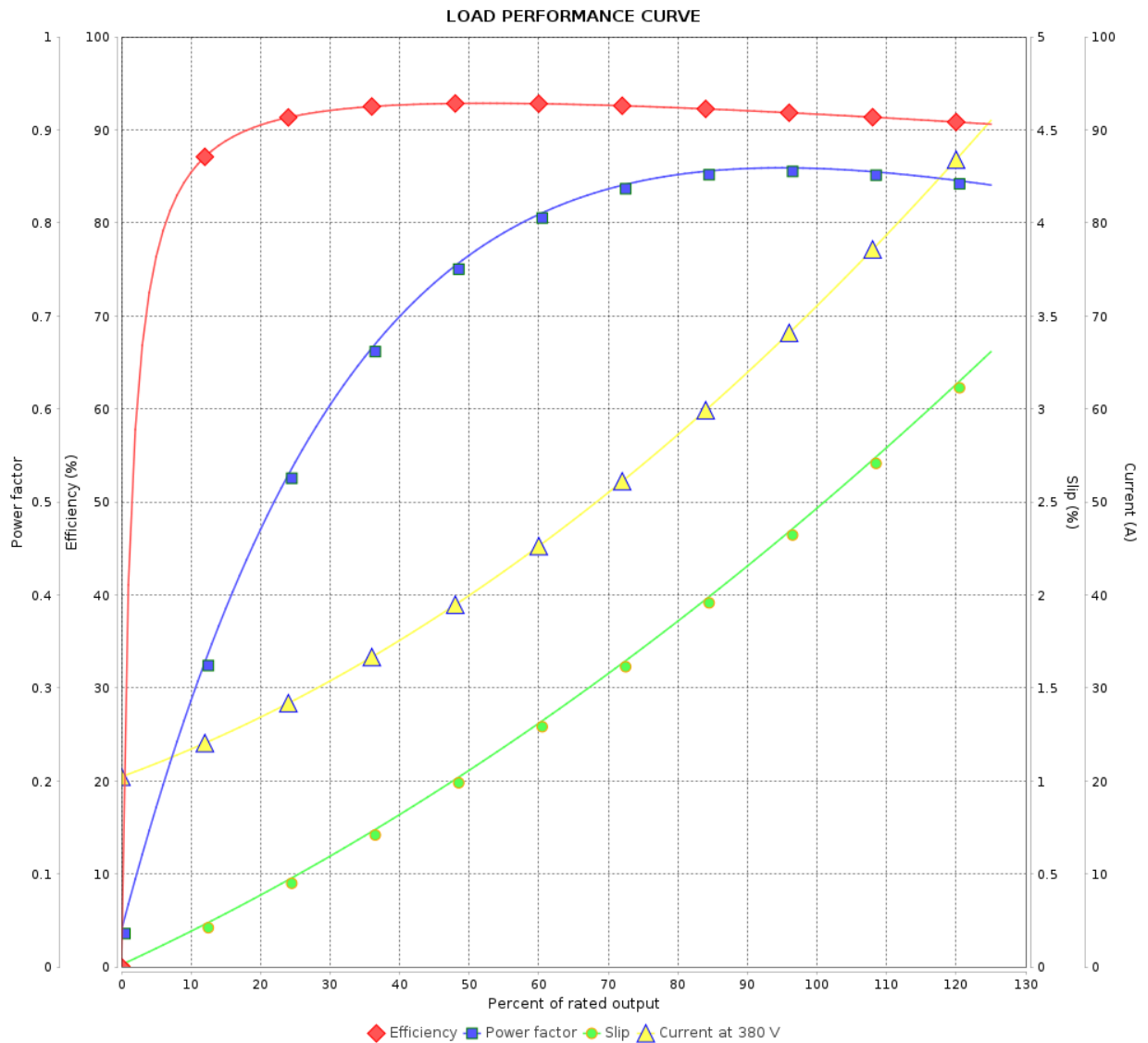
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11165648



Performance : 380 V 50 Hz 6P IE1

Rated current : 71.3 A  
LRC : 4.9  
Rated torque : 37.2 kgfm  
Locked rotor torque : 160 %  
Breakdown torque : 190 %  
Rated speed : 975 rpm

Moment of inertia (J) : 1.36 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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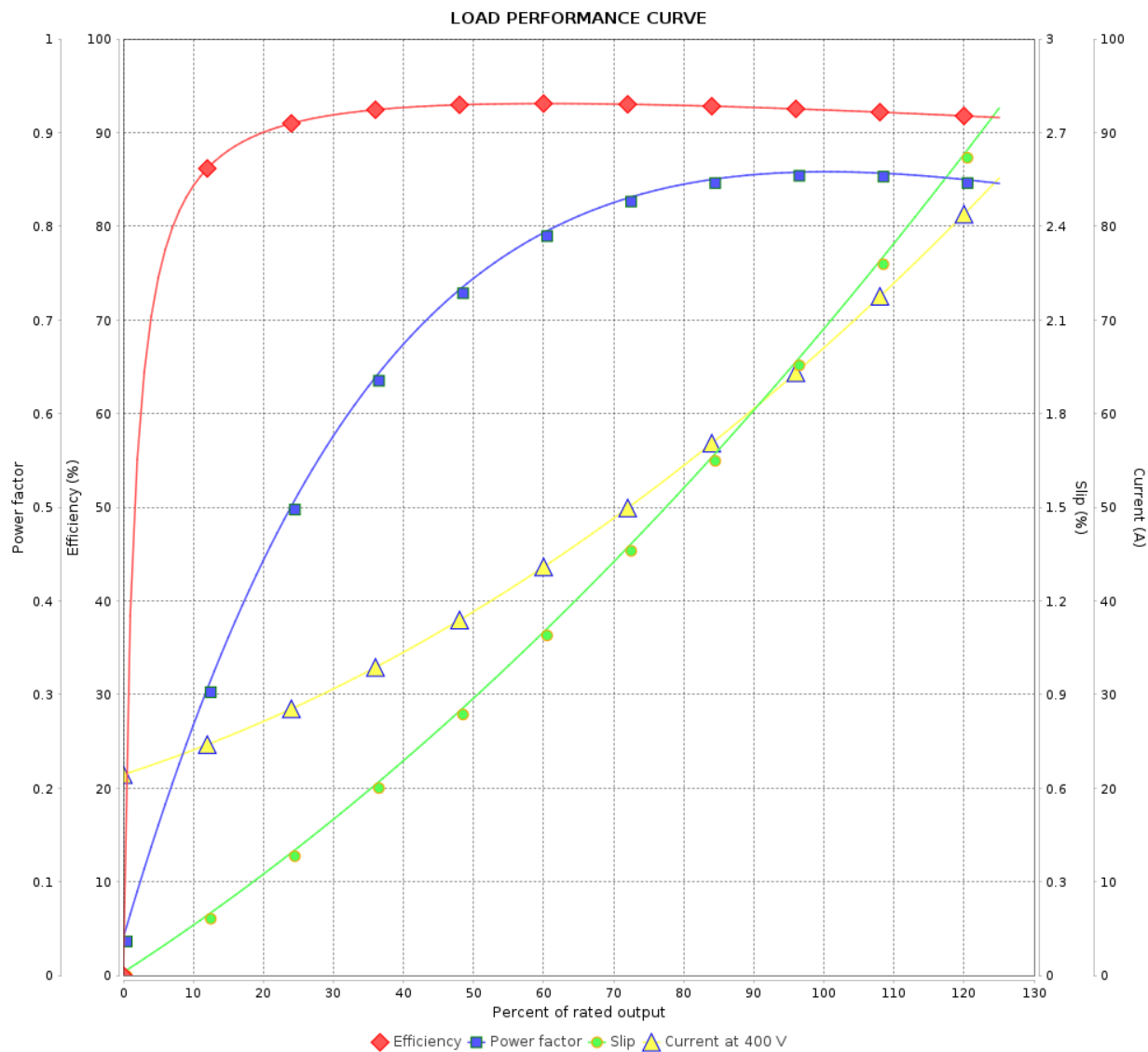
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11165648



Performance : 400 V 50 Hz 6P IE2

Rated current : 67.2 A  
LRC : 5.5  
Rated torque : 37.1 kgfm  
Locked rotor torque : 180 %  
Breakdown torque : 210 %  
Rated speed : 979 rpm

Moment of inertia (J) : 1.36 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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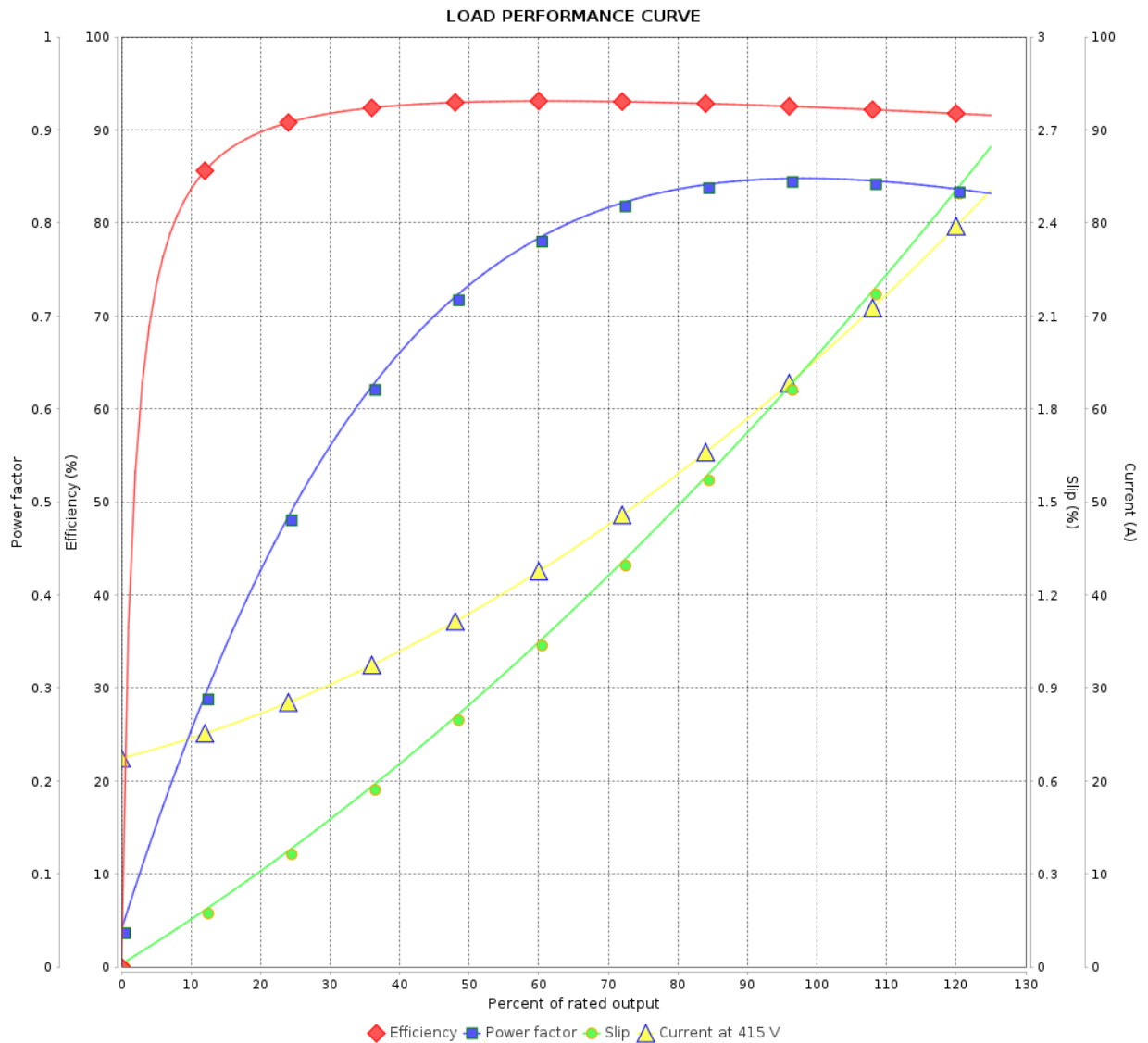
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11165648



Performance : 415 V 50 Hz 6P IE2

Rated current	: 65.5 A	Moment of inertia (J)	: 1.36 kgm <sup>2</sup>
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 37.0 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: B

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