

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :							
Product line	: General NEMA Premium Efficiency Three-Phase	Product code :	11996039				
Frame	: 213/5TC	Cooling method	: IC01 - ODP				
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>	: 57.3 kg				
Protection degree	: IP21	Moment of inertia (J)	: 0.0504 kgm <sup>2</sup>				
Design	: B						
Output [HP]	10	7.5	7.5	7.5	10	10	10
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]	24.7/12.4	11.5	11.4	11.4	15.1	14.5	14.2
L. R. Amperes [A]	161/80.4	82.9	87.5	93.2	78.7	84.3	89.6
LRC [A]	6.5x(Code H)	7.2x(Code J)	7.7x(Code K)	8.2x(Code K)	5.2x(Code F)	5.8x(Code G)	6.3x(Code H)
No load current [A]	10.9/5.45	5.50	6.00	6.50	5.50	6.00	6.50
Rated speed [RPM]	1765	1470	1475	1475	1450	1455	1460
Slip [%]	1.94	2.00	1.67	1.67	3.33	3.00	2.67
Rated torque [kgfm]	4.11	3.70	3.69	3.69	5.01	4.99	4.97
Locked rotor torque [%]	210	220	260	280	170	180	200
Breakdown torque [%]	290	290	320	360	210	229	250
Service factor	1.15	1.15	1.15	1.15	1.00	1.00	1.15
Temperature rise	105 K	105 K	105 K	105 K	105 K	105 K	105 K
Locked rotor time	10s (cold) 6s (hot)	9s (cold) 5s (hot)	9s (cold) 5s (hot)	9s (cold) 5s (hot)	9s (cold) 5s (hot)	9s (cold) 5s (hot)	9s (cold) 5s (hot)
Noise level <sup>2</sup>	59.0 dB(A)						
Efficiency (%)	25%						
	50%	90.2	85.1	85.1	85.0	87.5	88.2
	75%	91.0	87.5	88.0	88.4	87.5	88.7
	100%	91.7	89.6	89.6	89.7	87.5	89.5
Power Factor	25%						
	50%	0.64	0.59	0.55	0.51	0.69	0.61
	75%	0.76	0.72	0.69	0.65	0.80	0.75
	100%	0.83	0.81	0.78	0.75	0.86	0.82
Bearing type	: Drive end : 6208 ZZ Non drive end : 6206 ZZ	Foundation loads					
Sealing	: Without Bearing Seal Without Bearing Seal	Max. traction	: 201 kgf				
Lubrication interval	: -	Max. compression	: 258 kgf				
Lubricant amount	: -						
Lubricant type	: Mobil Polyrex EM						
Notes USABLE @208V 27.0A SF 1.15 SFA 31.0A							
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. (4) At 100% of full load.		These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.					
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# LOAD PERFORMANCE CURVE

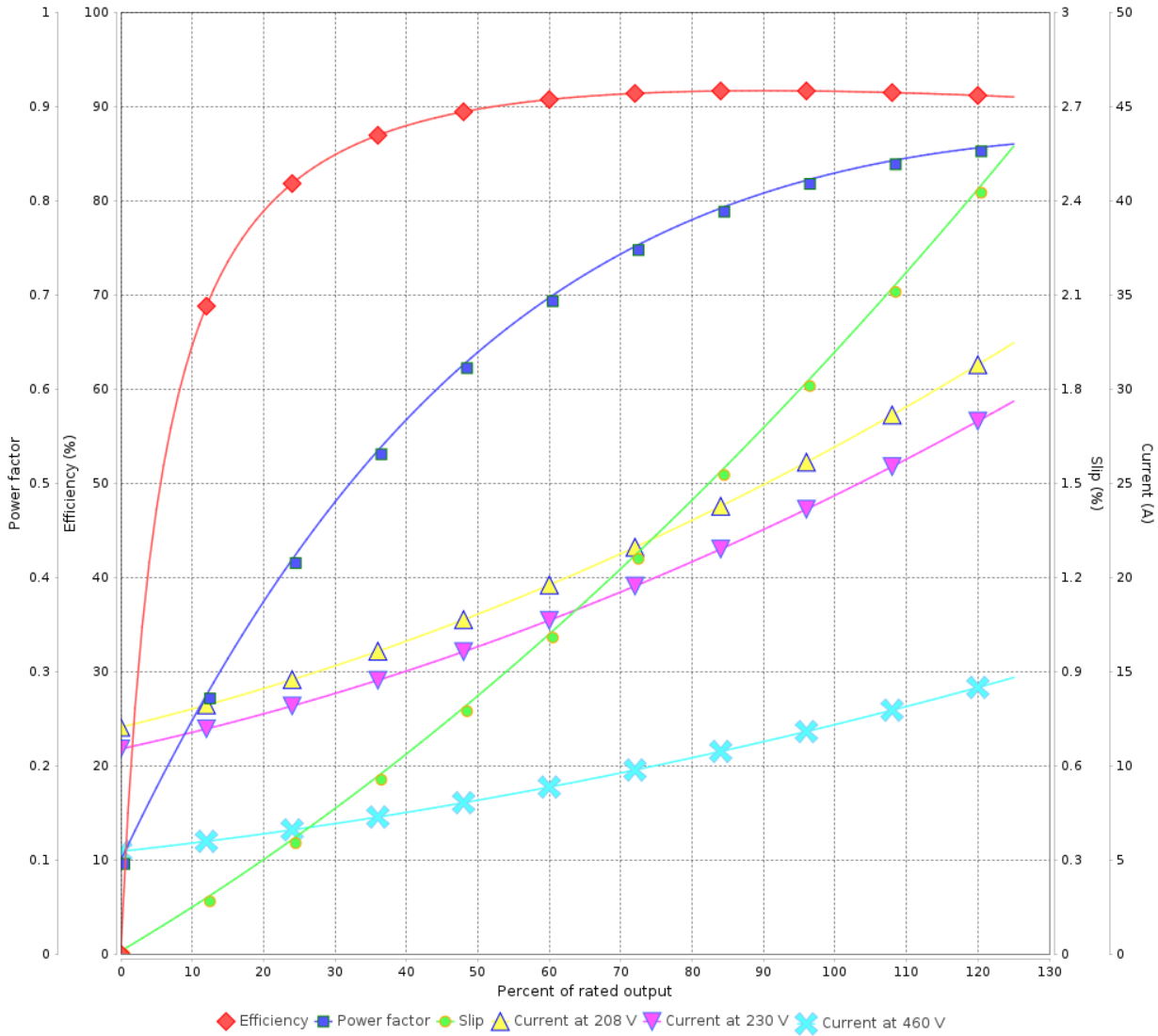
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : General NEMA Premium Efficiency Three-Phase      Product code : 11996039

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Performance : 230/460 V 60 Hz 4P

Rated current : 24.7/12.4 A  
 LRC : 6.5  
 Rated torque : 4.11 kgfm  
 Locked rotor torque : 210 %  
 Breakdown torque : 290 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.0504 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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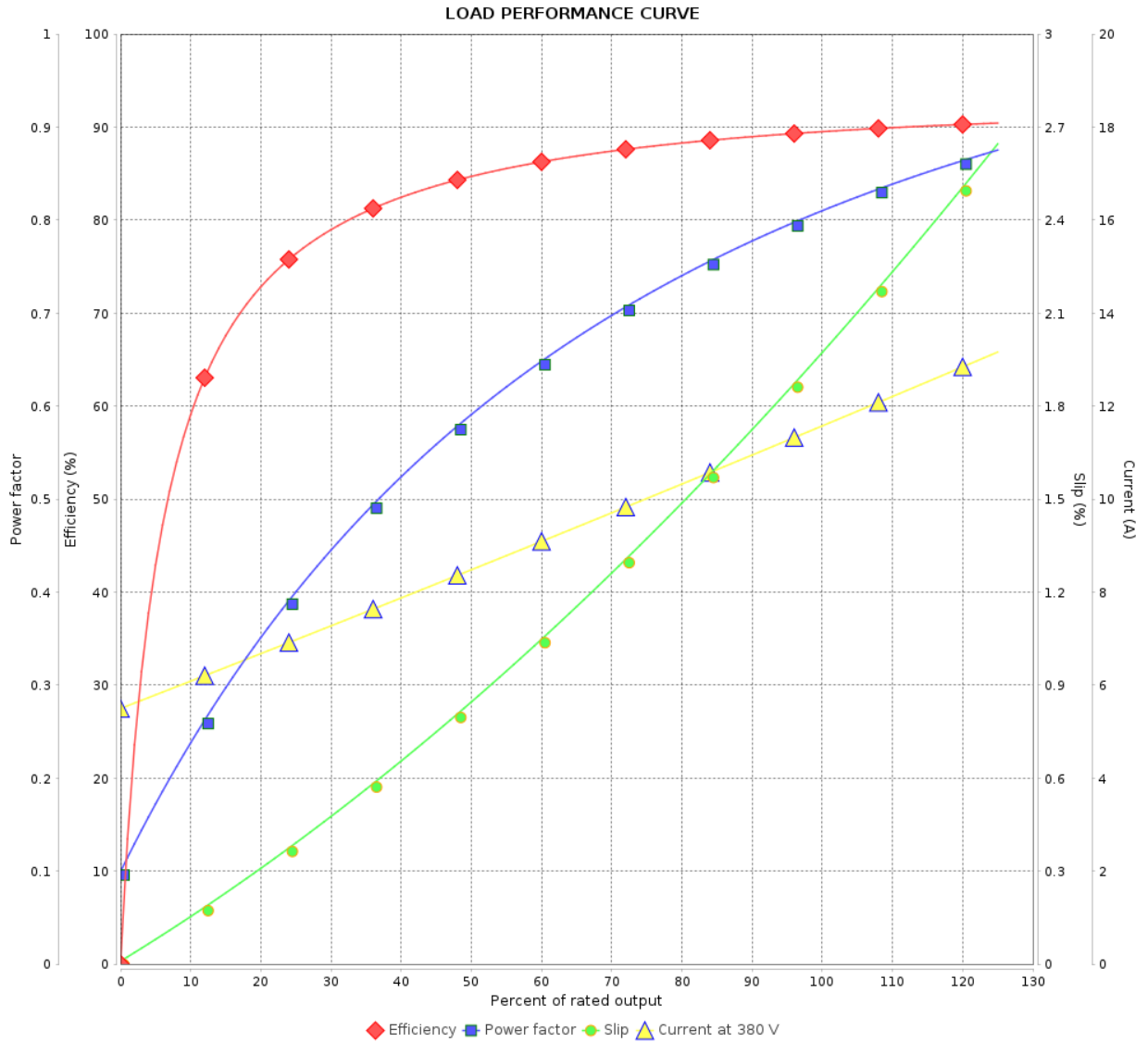
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : General NEMA Premium Efficiency Three-Phase      Product code : 11996039



Performance : 380 V 50 Hz 4P IE3

Rated current	: 11.5 A	Moment of inertia (J)	: 0.0504 kgm <sup>2</sup>
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 3.70 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 105 K
Rated speed	: 1470 rpm	Design	: B

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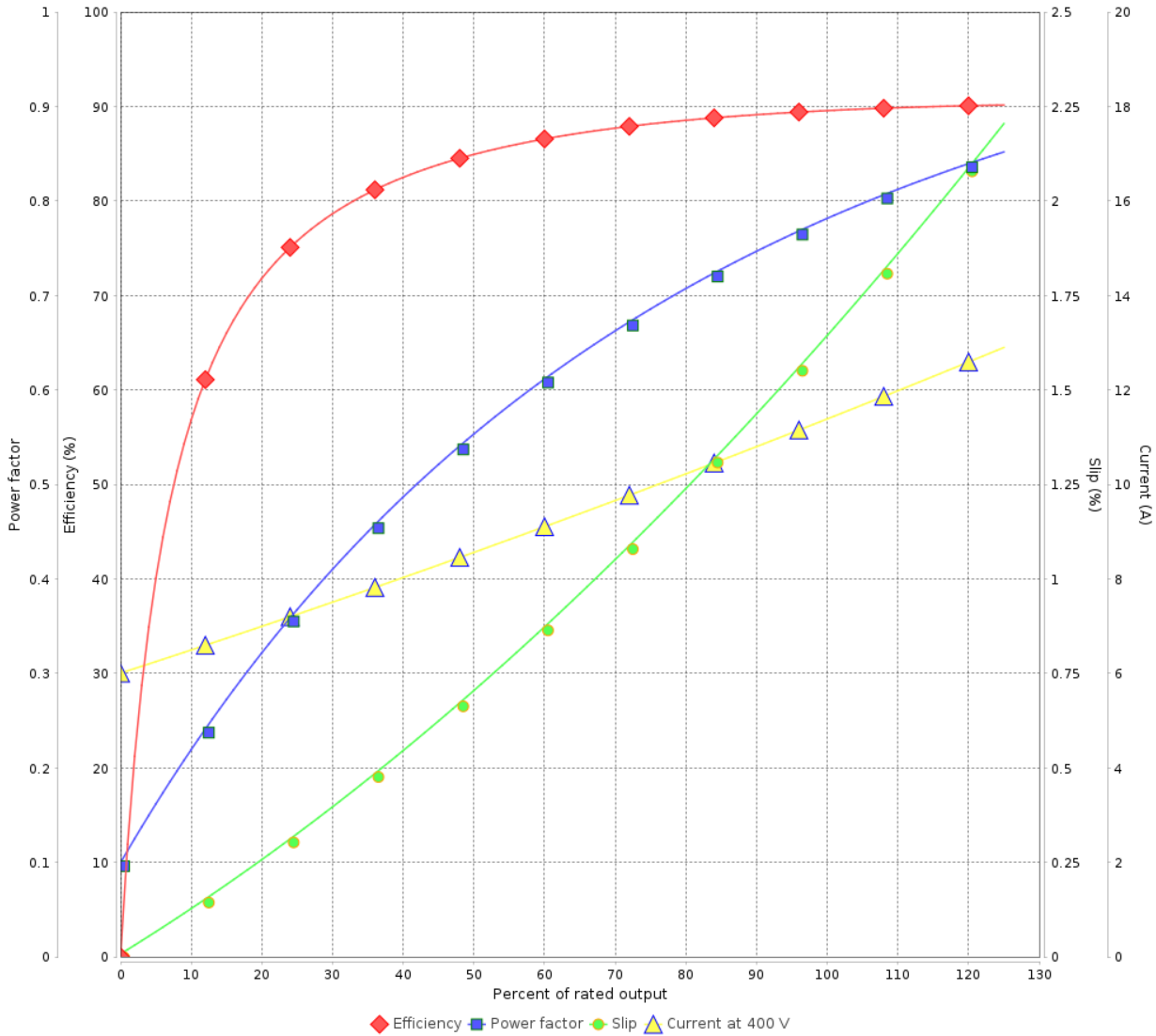
Three Phase Induction Motor - Squirrel Cage



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

Product line : General NEMA Premium Efficiency Three-Phase      Product code : 11996039

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Performance : 400 V 50 Hz 4P IE3

Rated current	: 11.4 A	Moment of inertia (J)	: 0.0504 kgm <sup>2</sup>
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 3.69 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 105 K
Rated speed	: 1475 rpm	Design	: B

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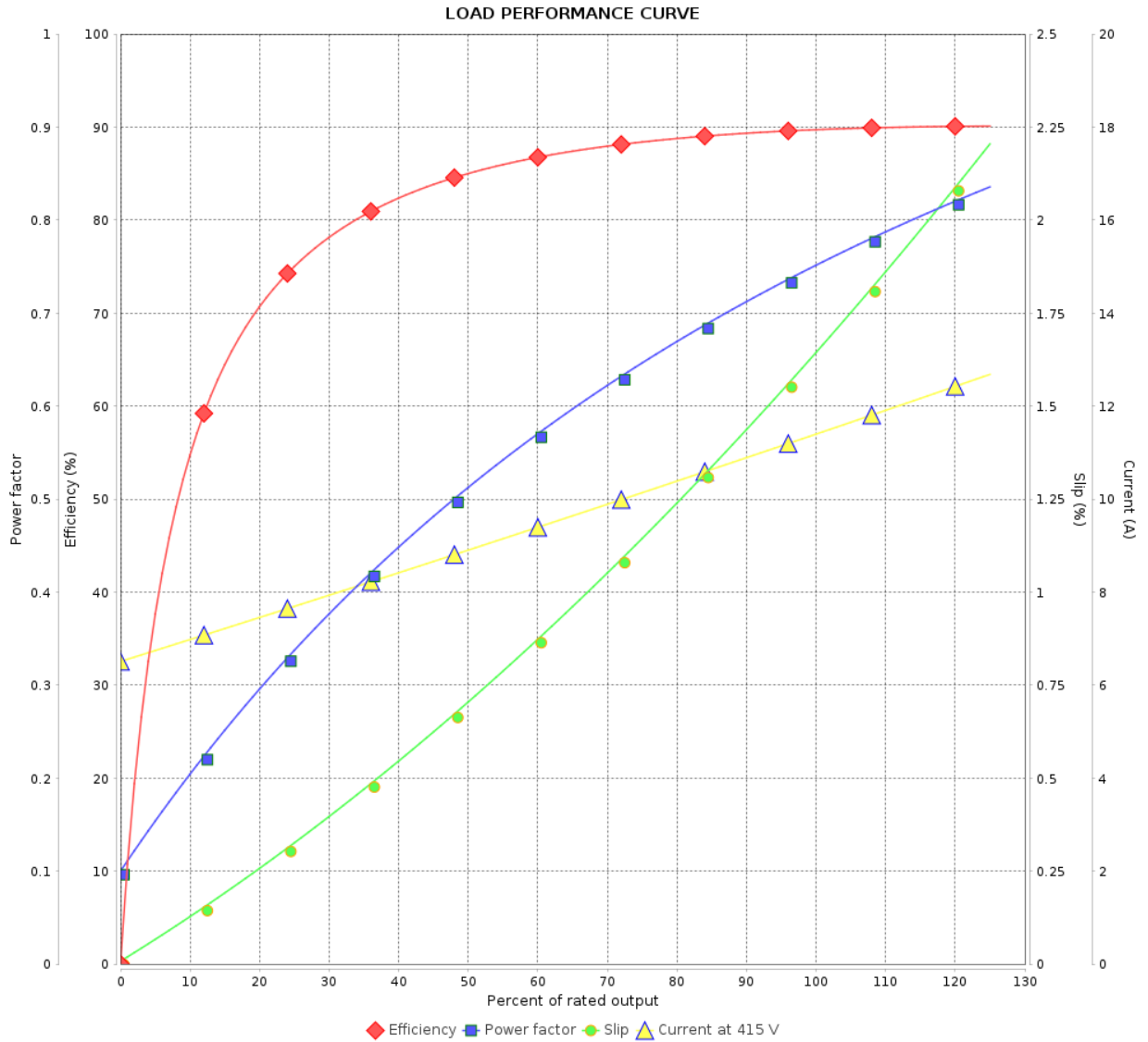
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : General NEMA Premium Efficiency Three-Phase      Product code : 11996039



Performance : 415 V 50 Hz 4P IE3

Rated current	: 11.4 A	Moment of inertia (J)	: 0.0504 kgm <sup>2</sup>
LRC	: 8.2	Duty cycle	: Cont.(S1)
Rated torque	: 3.69 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 360 %	Temperature rise	: 105 K
Rated speed	: 1475 rpm	Design	: B

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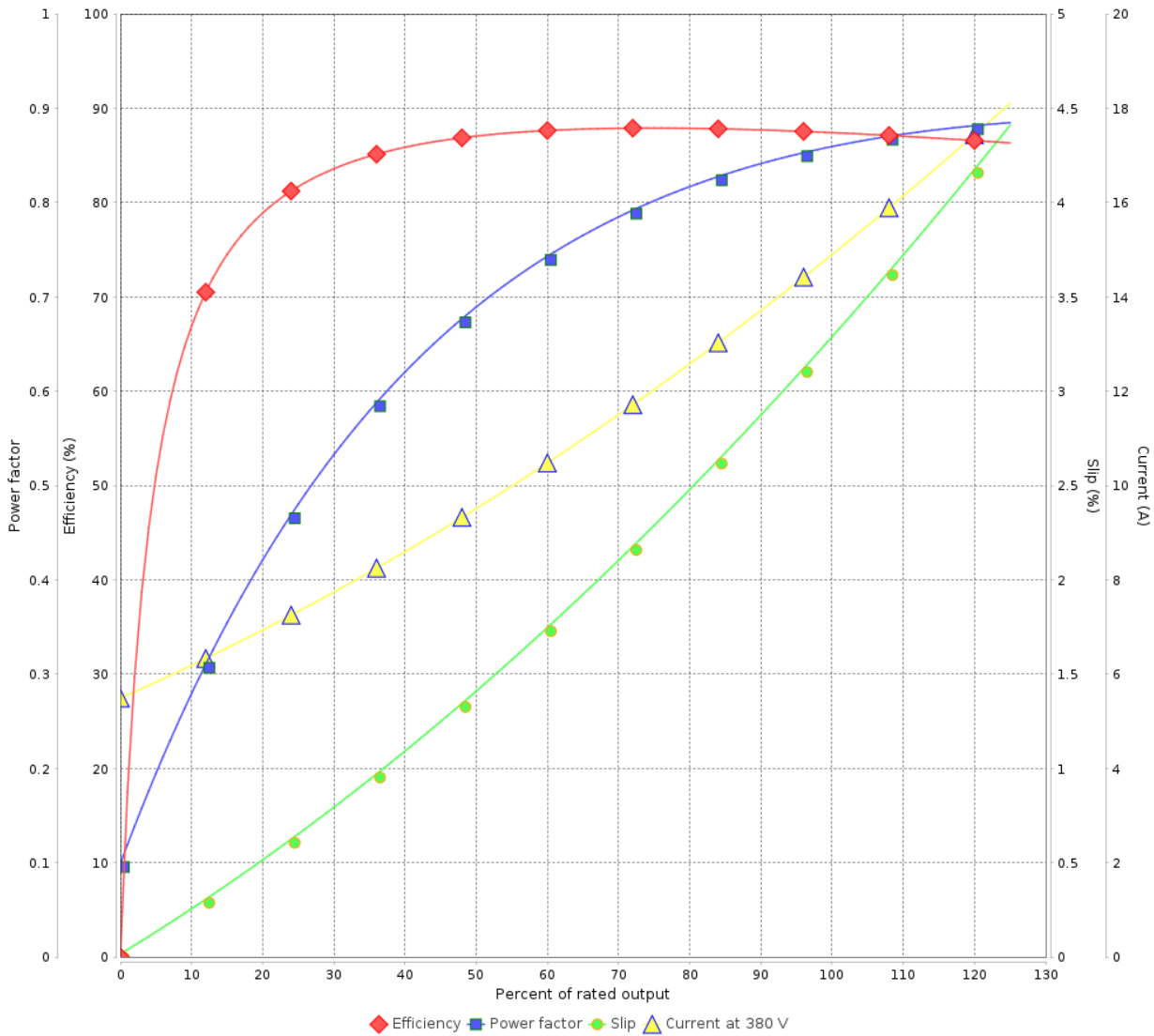
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : General NEMA Premium Efficiency Three-Phase      Product code : 11996039

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Performance : 380 V 50 Hz 4P IE1

Rated current	: 15.1 A	Moment of inertia (J)	: 0.0504 kgm <sup>2</sup>
LRC	: 5.2	Duty cycle	: Cont.(S1)
Rated torque	: 5.01 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 1450 rpm	Design	: B

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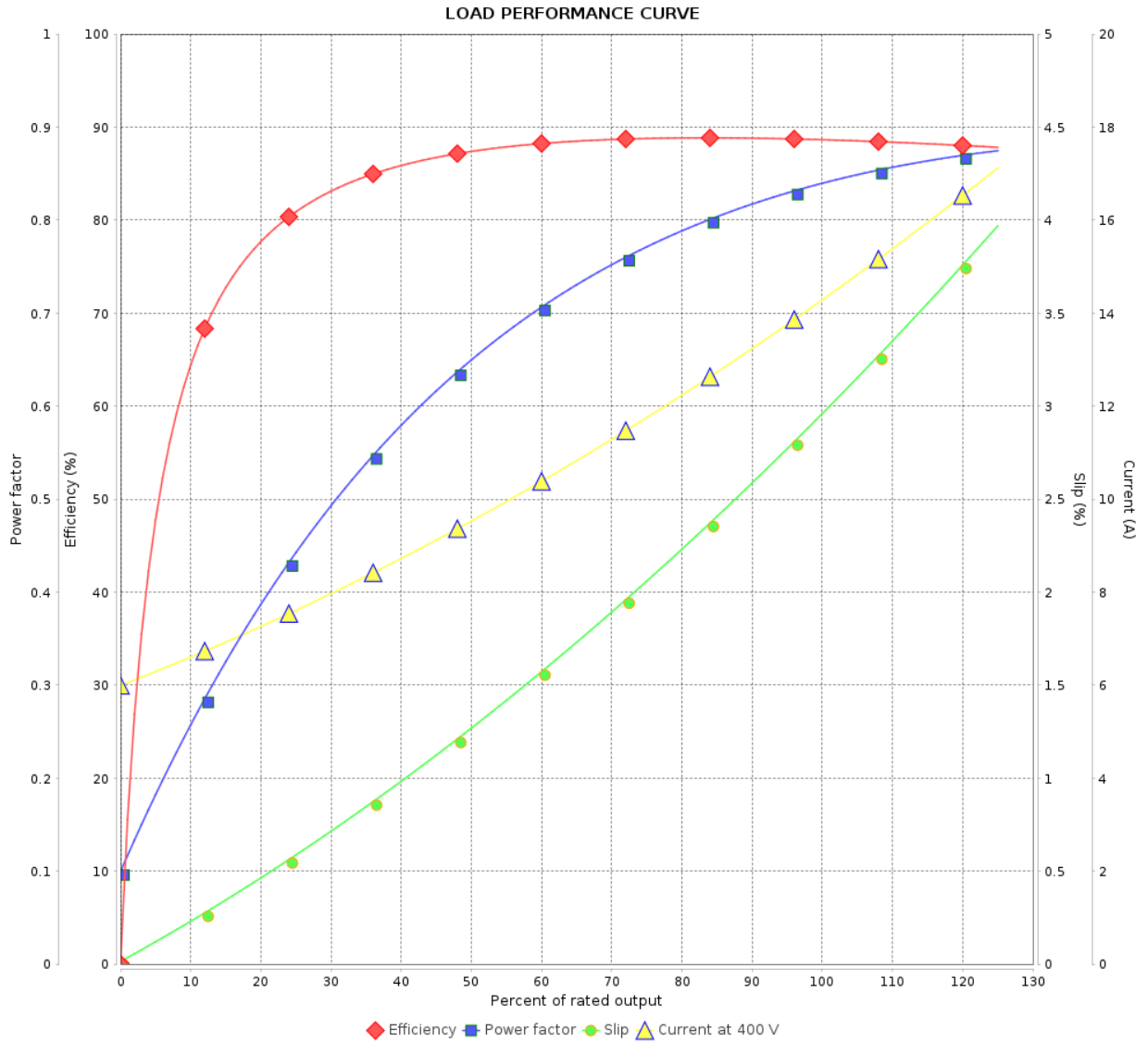
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : General NEMA Premium Efficiency Three-Phase      Product code : 11996039



Performance : 400 V 50 Hz 4P IE2

Rated current	: 14.5 A	Moment of inertia (J)	: 0.0504 kgm <sup>2</sup>
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 4.99 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 1455 rpm	Design	: B

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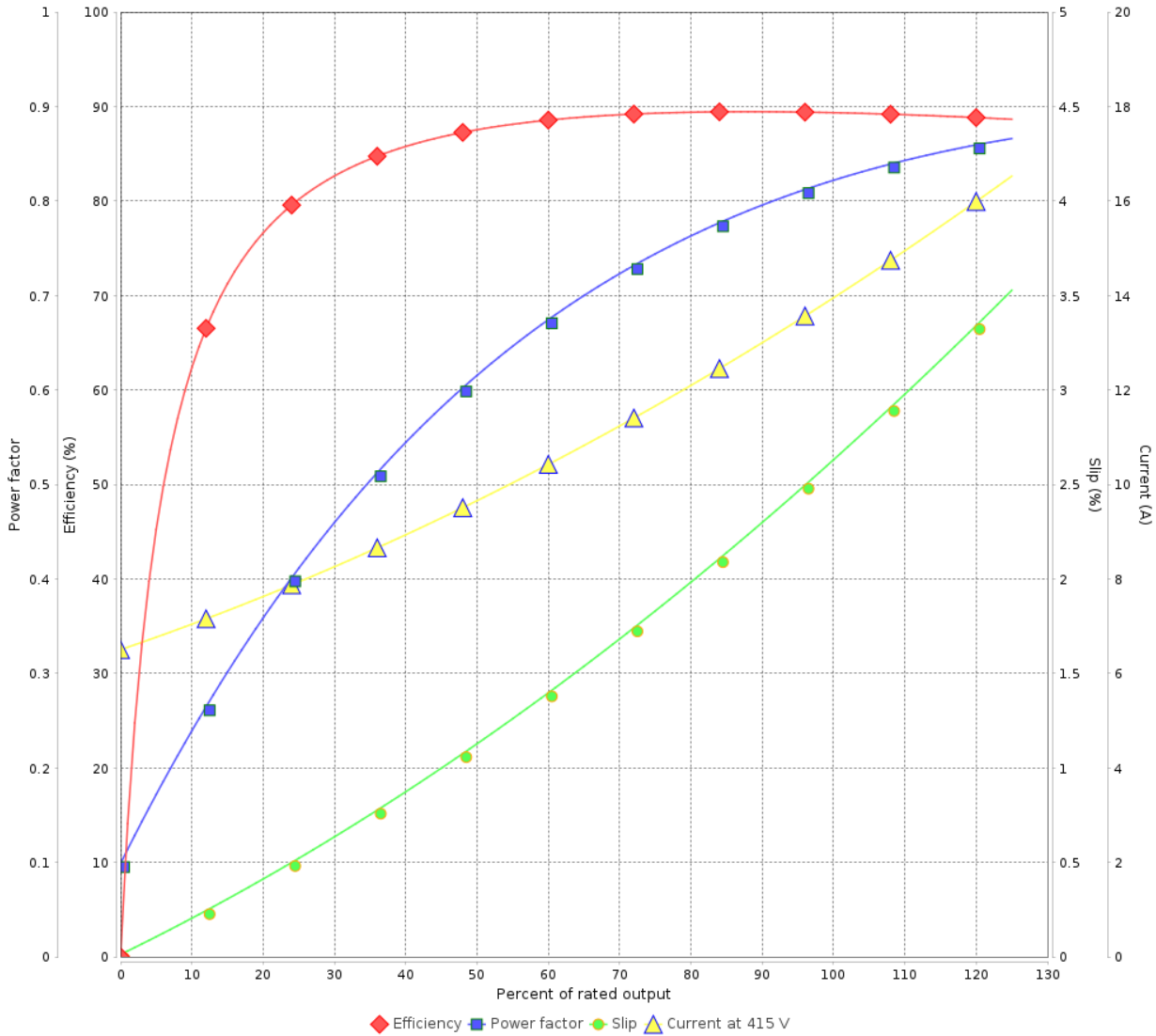
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : General NEMA Premium Efficiency Three-Phase      Product code : 11996039

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Performance : 415 V 50 Hz 4P IE2

Rated current	: 14.2 A	Moment of inertia (J)	: 0.0504 kgm <sup>2</sup>
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 4.97 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 105 K
Rated speed	: 1460 rpm	Design	: B

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