

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :							
Product line	: ODP NEMA Premium Efficiency Three-Phase	Product code :	11997216				
Frame	: 284TC	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>3</sup>	: 165 kg				
Protection degree	: IP23	Moment of inertia (J)	: 0.1435 kgm <sup>2</sup>				
Design	: B						
Output [HP]	25	20	20	20	25	25	25
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]	59.8/29.9	29.8	29.4	28.6	36.1	35.1	34.0
L. R. Amperes [A]	401/200	197	194	186	195	193	187
LRC [A]	6.7x(Code H)	6.6x(Code H)	6.6x(Code H)	6.5x(Code H)	5.4x(Code F)	5.5x(Code F)	5.5x(Code F)
No load current [A]	24.0/12.0	11.9	12.9	13.8	11.9	12.9	13.8
Rated speed [RPM]	1770	1470	1470	1475	1460	1465	1470
Slip [%]	1.67	2.00	2.00	1.67	2.67	2.33	2.00
Rated torque [kgfm]	10.3	9.87	9.87	9.84	12.4	12.4	12.3
Locked rotor torque [%]	250	290	300	330	229	240	260
Breakdown torque [%]	280	300	330	360	240	260	290
Service factor	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	27s (cold) 15s (hot)	36s (cold) 20s (hot)	37s (cold) 21s (hot)	41s (cold) 23s (hot)	36s (cold) 20s (hot)	37s (cold) 21s (hot)	41s (cold) 23s (hot)
Noise level <sup>2</sup>	62.0 dB(A)						
Efficiency (%)	25%						
	50%	92.4	89.6	89.4	88.8	91.0	91.0
	75%	93.0	91.5	91.5	91.4	91.7	91.7
	100%	93.6	92.1	92.1	92.3	91.7	91.7
Power Factor	25%						
	50%	0.67	0.66	0.62	0.59	0.73	0.69
	75%	0.78	0.78	0.74	0.71	0.82	0.79
	100%	0.83	0.83	0.80	0.78	0.85	0.83
Bearing type	: Drive end : 6311 Z C3	Non drive end : 6211 Z C3	Foundation loads				
Sealing	: Without	Without	Max. traction : 429 kgf				
	Bearing Seal Bearing Seal		Max. compression : 594 kgf				
Lubrication interval	: 20000 h	20000 h					
Lubricant amount	: 18 g	11 g					
Lubricant type	: Mobil Polyrex EM						
Notes USABLE @208V 66.1A SF 1.15 SFA 76.0A							
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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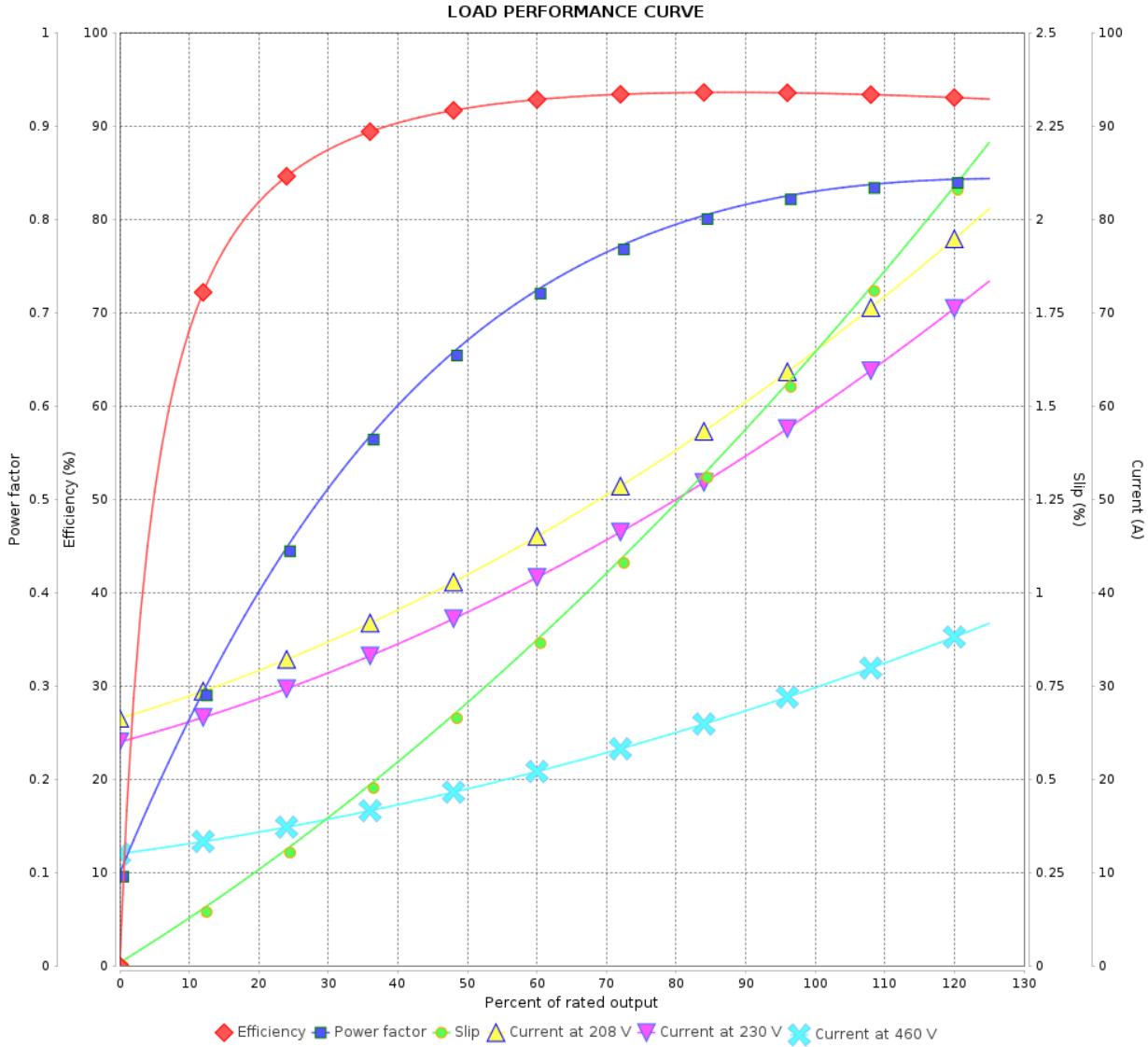
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



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

Product line : ODP NEMA Premium Efficiency Three-Phase      Product code : 11997216



Performance : 230/460 V 60 Hz 4P

Rated current : 59.8/29.9 A  
 LRC : 6.7  
 Rated torque : 10.3 kgfm  
 Locked rotor torque : 250 %  
 Breakdown torque : 280 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 0.1435 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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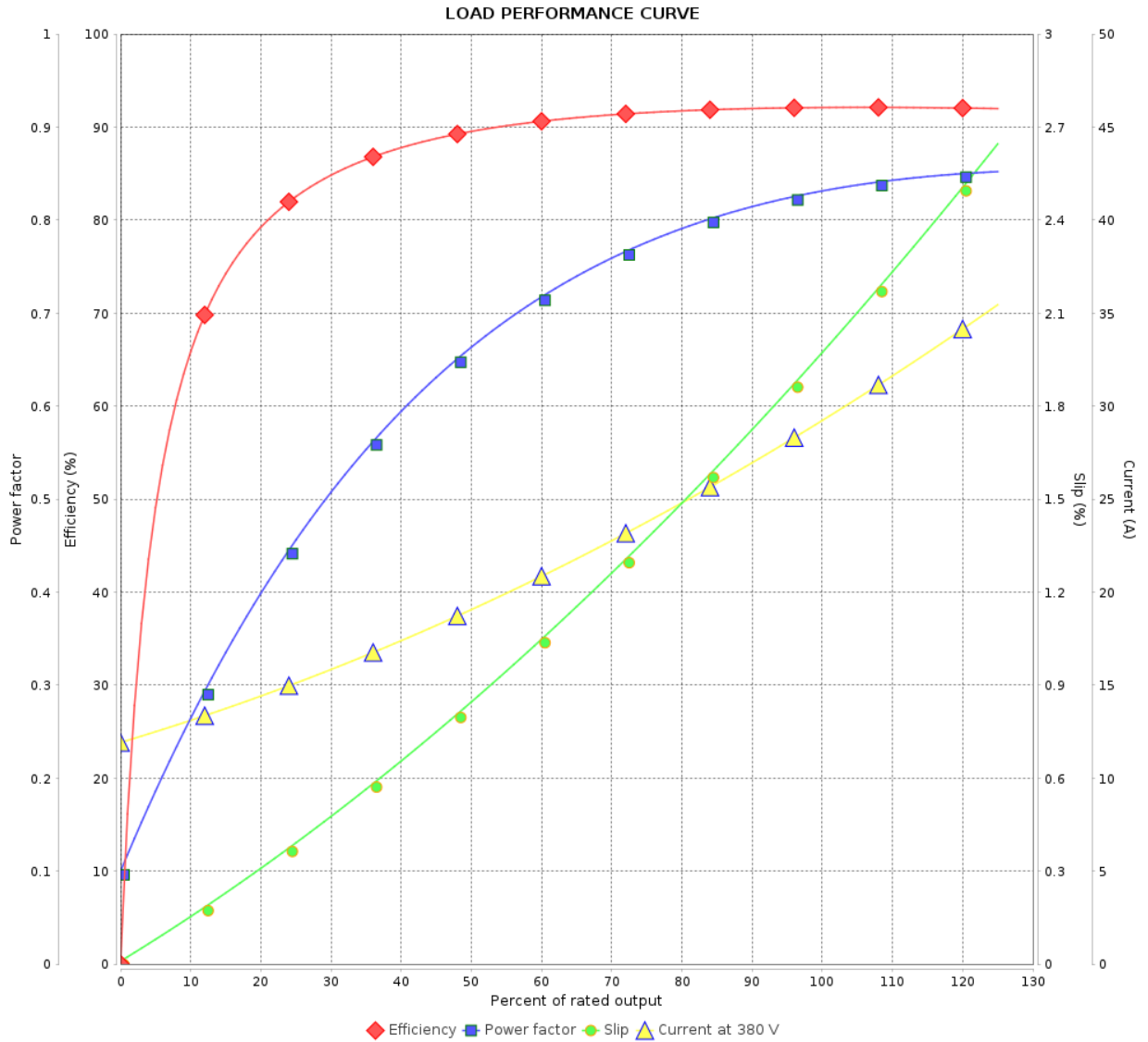
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase

Product code : 11997216



Performance : 380 V 50 Hz 4P IE3

Rated current : 29.8 A  
 LRC : 6.6  
 Rated torque : 9.87 kgfm  
 Locked rotor torque : 290 %  
 Breakdown torque : 300 %  
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.1435 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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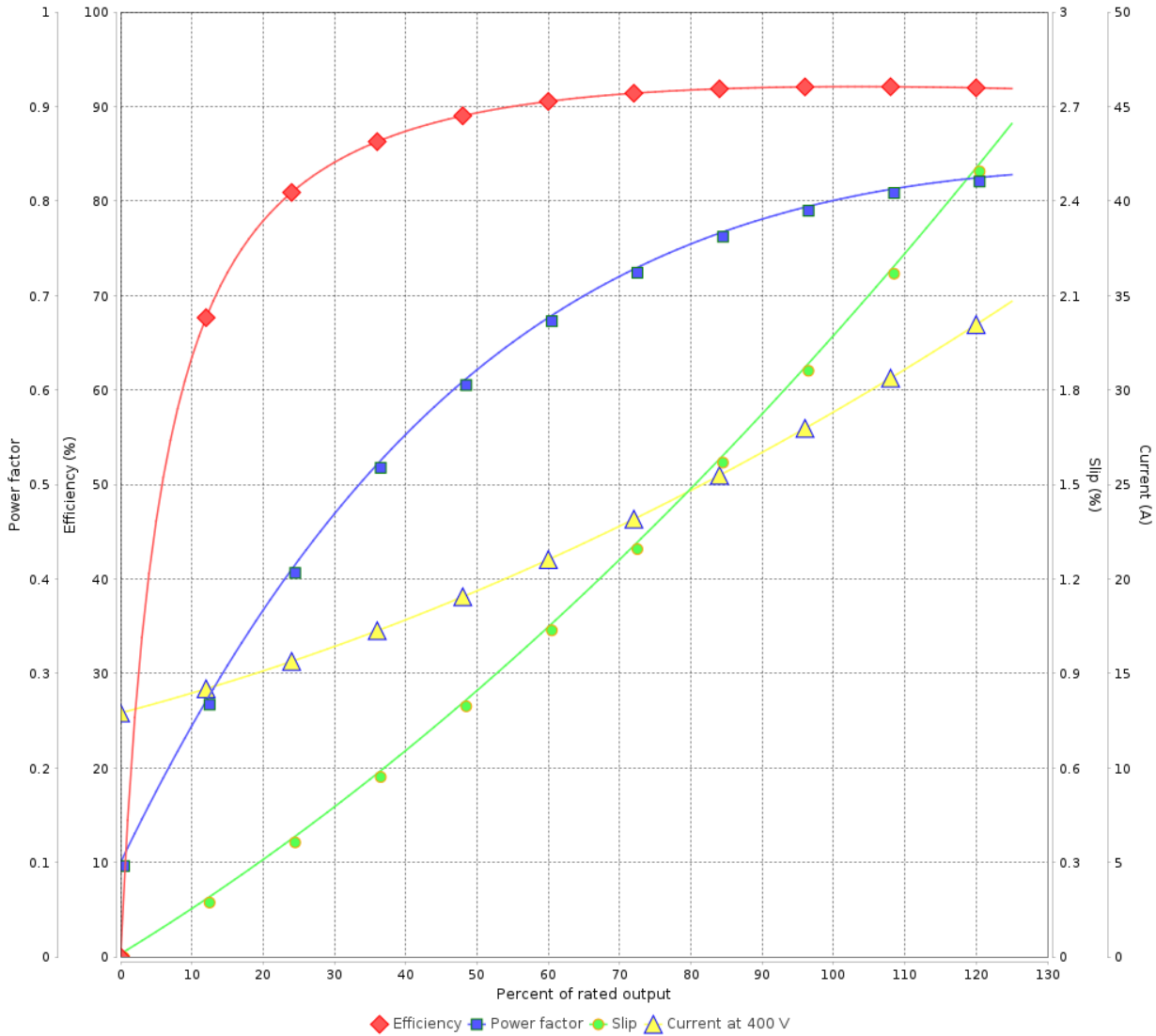
Three Phase Induction Motor - Squirrel Cage



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

Product line : ODP NEMA Premium Efficiency Three-Phase      Product code : 11997216

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Performance : 400 V 50 Hz 4P IE3

Rated current	: 29.4 A	Moment of inertia (J)	: 0.1435 kgm <sup>2</sup>
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 9.87 kgfm	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.15
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

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# LOAD PERFORMANCE CURVE

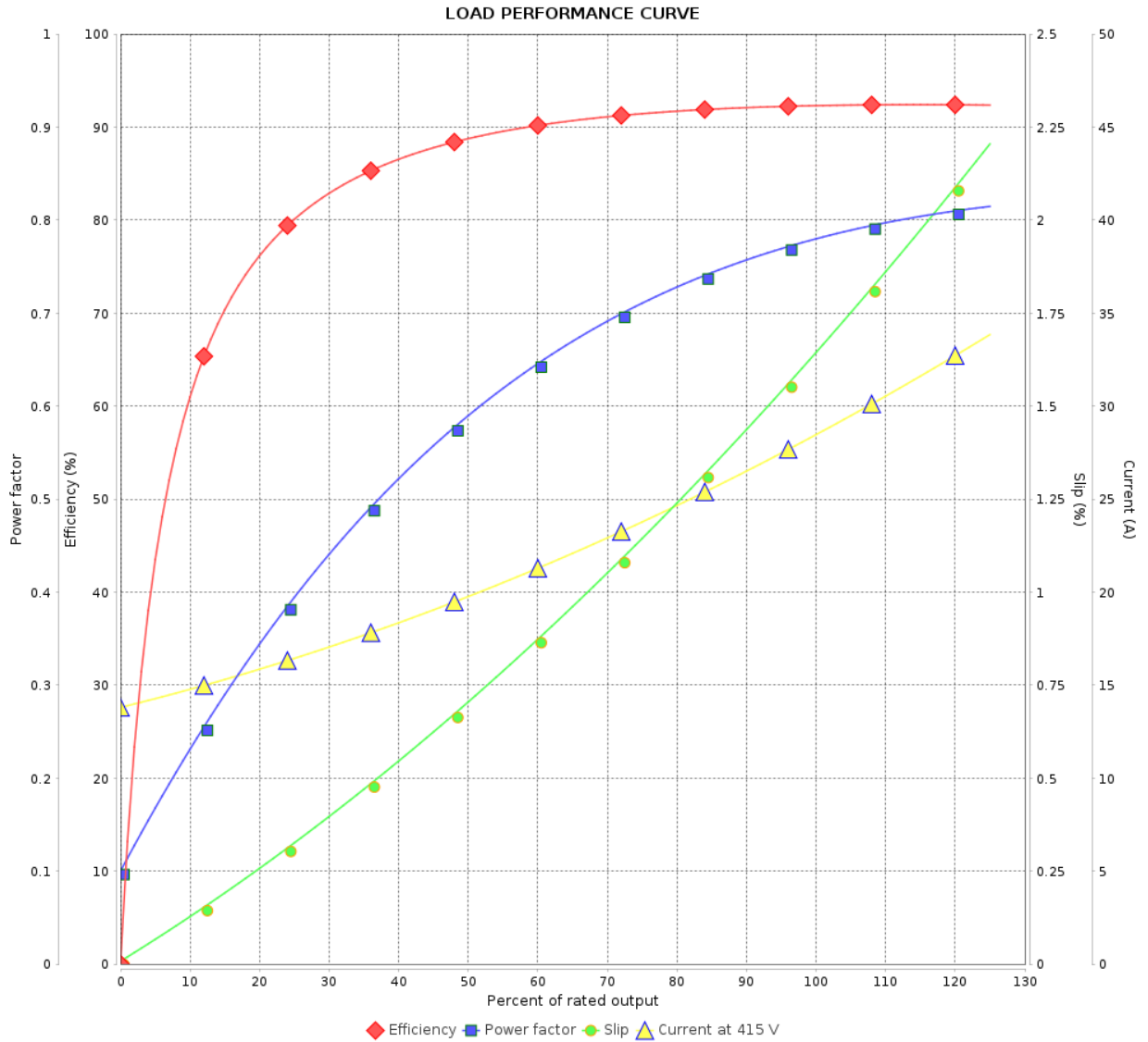
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency  
Three-Phase

Product code : 11997216



Performance : 415 V 50 Hz 4P IE3

Rated current : 28.6 A  
 LRC : 6.5  
 Rated torque : 9.84 kgfm  
 Locked rotor torque : 330 %  
 Breakdown torque : 360 %  
 Rated speed : 1475 rpm

Moment of inertia (J) : 0.1435 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

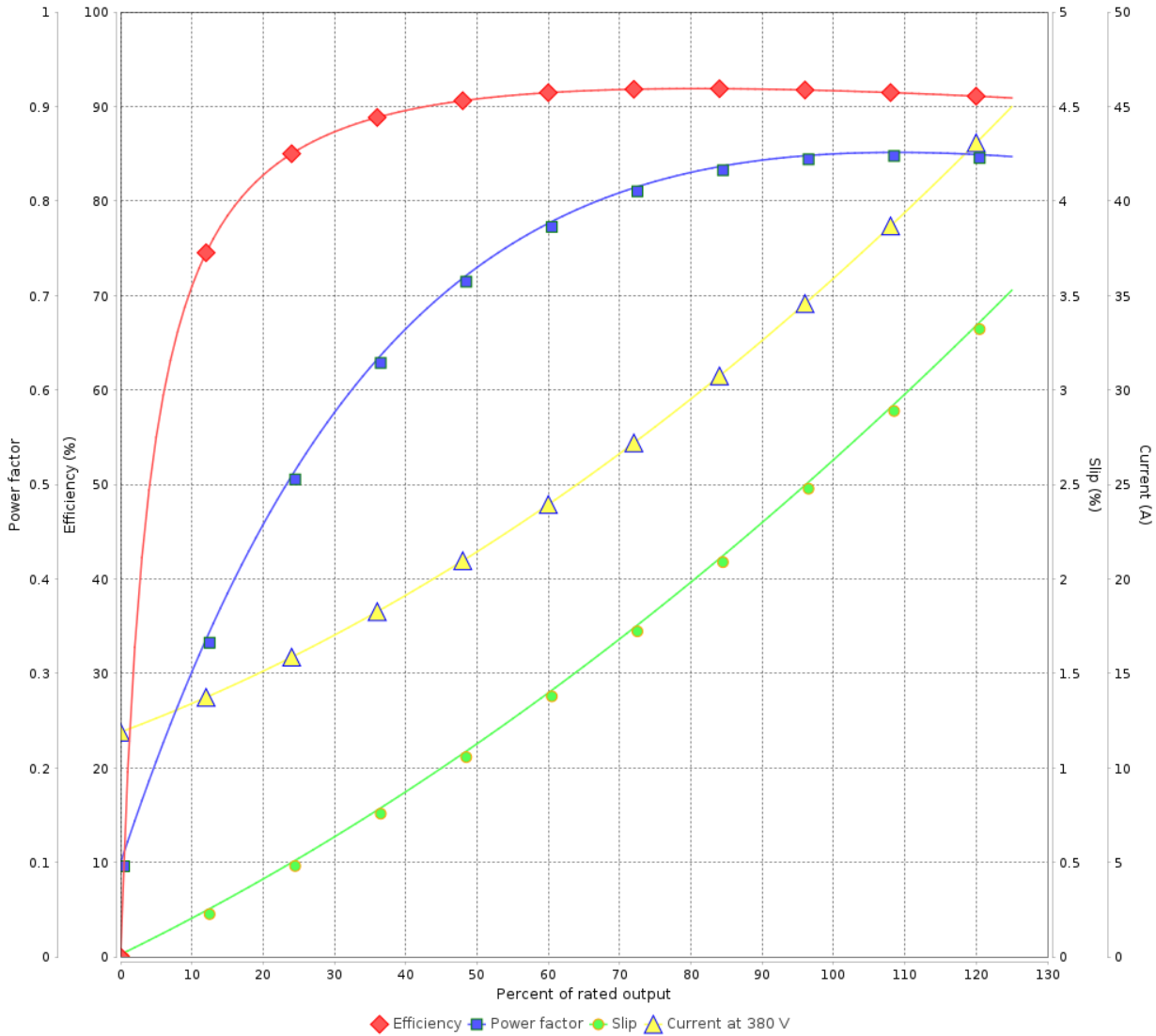
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase      Product code : 11997216

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Performance : 380 V 50 Hz 4P IE2

Rated current	: 36.1 A	Moment of inertia (J)	: 0.1435 kgm <sup>2</sup>
LRC	: 5.4	Duty cycle	: Cont.(S1)
Rated torque	: 12.4 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

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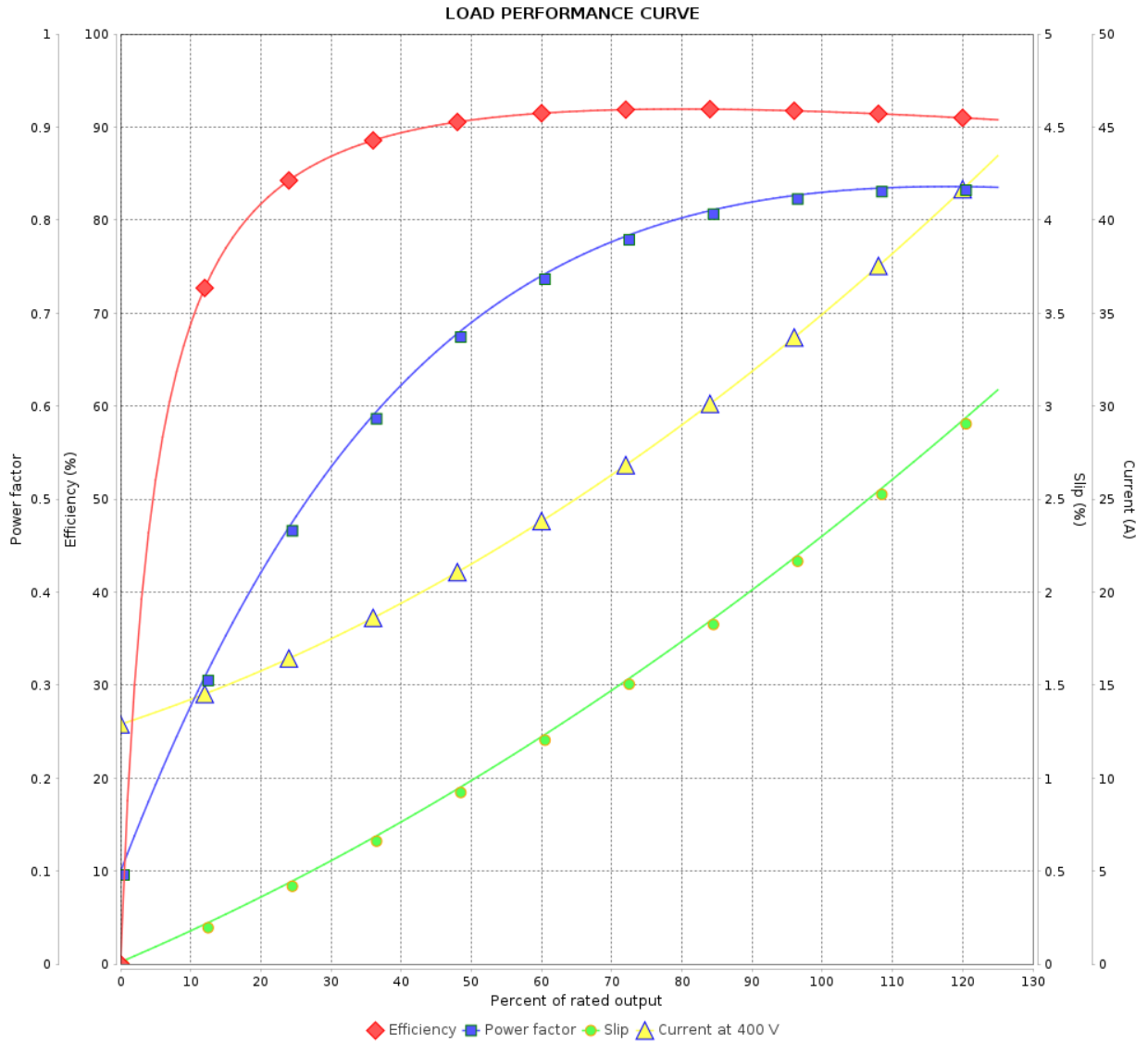
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase

Product code : 11997216



Performance : 400 V 50 Hz 4P IE2

Rated current : 35.1 A  
 LRC : 5.5  
 Rated torque : 12.4 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 260 %  
 Rated speed : 1465 rpm

Moment of inertia (J) : 0.1435 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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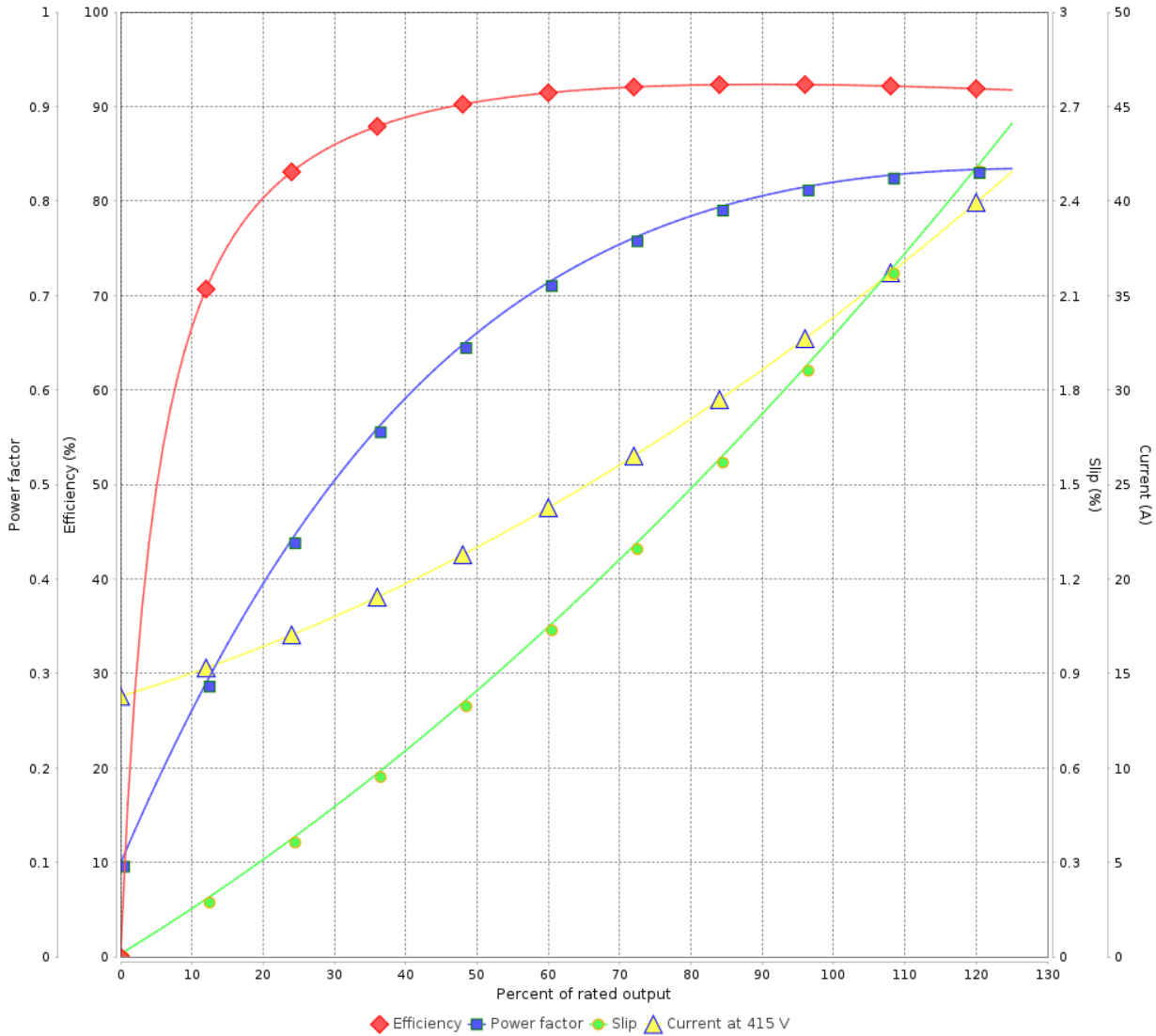
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase      Product code : 11997216

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 4P IE2

Rated current	: 34.0 A	Moment of inertia (J)	: 0.1435 kgm <sup>2</sup>
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 12.3 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

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