

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :							
Product line	: ODP NEMA Premium Efficiency Three-Phase	Product code :	12517080				
Frame	: 256TC	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>	: 109 kg				
Protection degree	: IP23	Moment of inertia (J)	: 0.0456 kgm <sup>2</sup>				
Design	: B						
Output [HP]	25	20	20	20	25	25	25
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	59.6/29.8	28.5	28.0	27.7	35.7	34.2	33.3
L. R. Amperes [A]	387/194	188	202	216	189	202	216
LRC [A]	6.5x(Code G)	6.6x(Code G)	7.2x(Code H)	7.8x(Code J)	5.3x(Code E)	5.9x(Code F)	6.5x(Code G)
No load current [A]	22.0/11.0	9.90	11.3	12.6	9.90	11.3	12.6
Rated speed [RPM]	3530	2925	2935	2940	2905	2915	2925
Slip [%]	1.94	2.50	2.17	2.00	3.17	2.83	2.50
Rated torque [kgfm]	5.14	4.96	4.95	4.94	6.25	6.22	6.20
Locked rotor torque [%]	200	200	229	250	160	180	200
Breakdown torque [%]	260	300	340	380	240	270	300
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	16s (cold) 9s (hot)	14s (cold) 8s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	14s (cold) 8s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)
Noise level <sup>2</sup>	67.0 dB(A)						
Efficiency (%)	25%						
	50%	91.0	87.4	86.8	87.5	88.5	89.5
	75%	91.7	89.1	89.0	89.9	89.5	90.2
	100%	91.7	91.9	91.9	91.9	89.5	90.9
Power Factor	25%						
	50%	0.73	0.72	0.68	0.63	0.78	0.74
	75%	0.82	0.82	0.79	0.75	0.86	0.83
	100%	0.85	0.87	0.84	0.82	0.88	0.86
Bearing type	: Drive end : 6309 Z C3	Non drive end : 6209 Z C3	Foundation loads				
Sealing	: Without	Without	Max. traction : 238 kgf				
	Bearing Seal Bearing Seal		Max. compression : 347 kgf				
Lubrication interval	: 20000 h	20000 h					
Lubricant amount	: 13 g	9 g					
Lubricant type	: Mobil Polyrex EM						
Notes USABLE @208V 65.9A SF 1.15 SFA 75.8A							
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

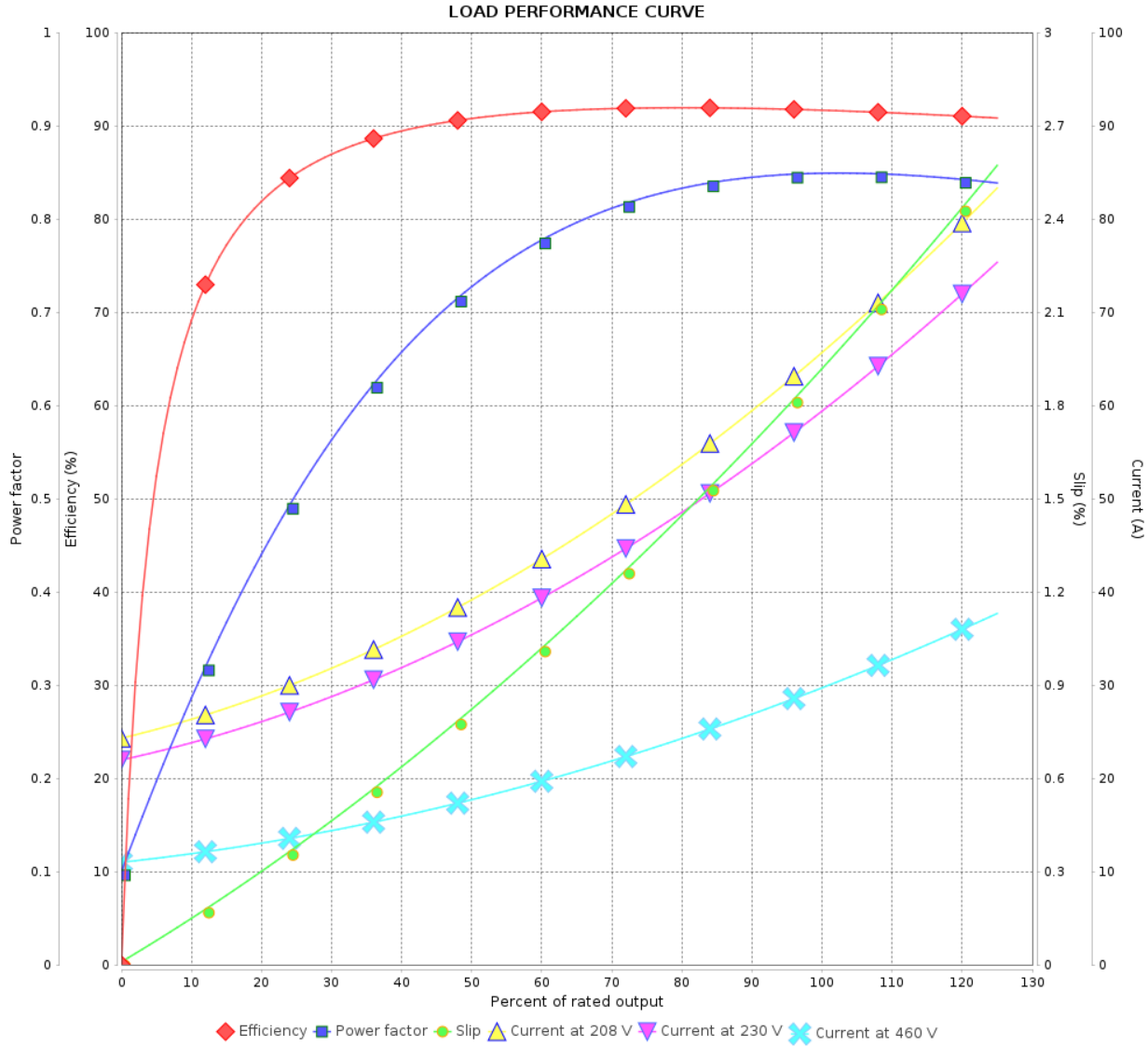
Three Phase Induction Motor - Squirrel Cage



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

Product line : ODP NEMA Premium Efficiency Three-Phase

Product code : 12517080



Performance : 230/460 V 60 Hz 2P

Rated current : 59.6/29.8 A  
 LRC : 6.5  
 Rated torque : 5.14 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 260 %  
 Rated speed : 3530 rpm

Moment of inertia (J) : 0.0456 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

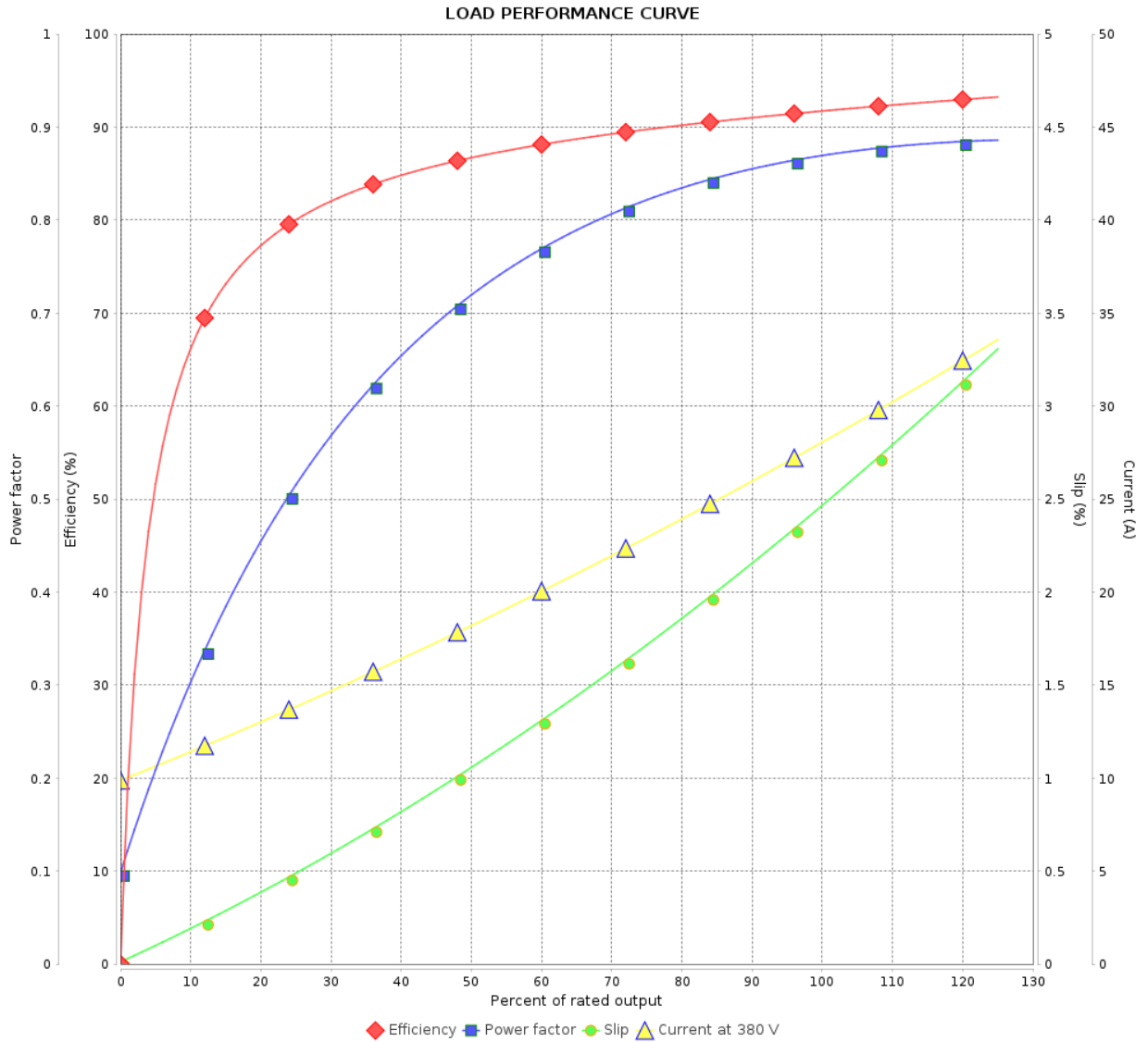
## Three Phase Induction Motor - Squirrel Cage



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

Product line : ODP NEMA Premium Efficiency Three-Phase

Product code : 12517080



Performance : 380 V 50 Hz 2P IE3

Rated current : 28.5 A  
 LRC : 6.6  
 Rated torque : 4.96 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 300 %  
 Rated speed : 2925 rpm

Moment of inertia (J) : 0.0456 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

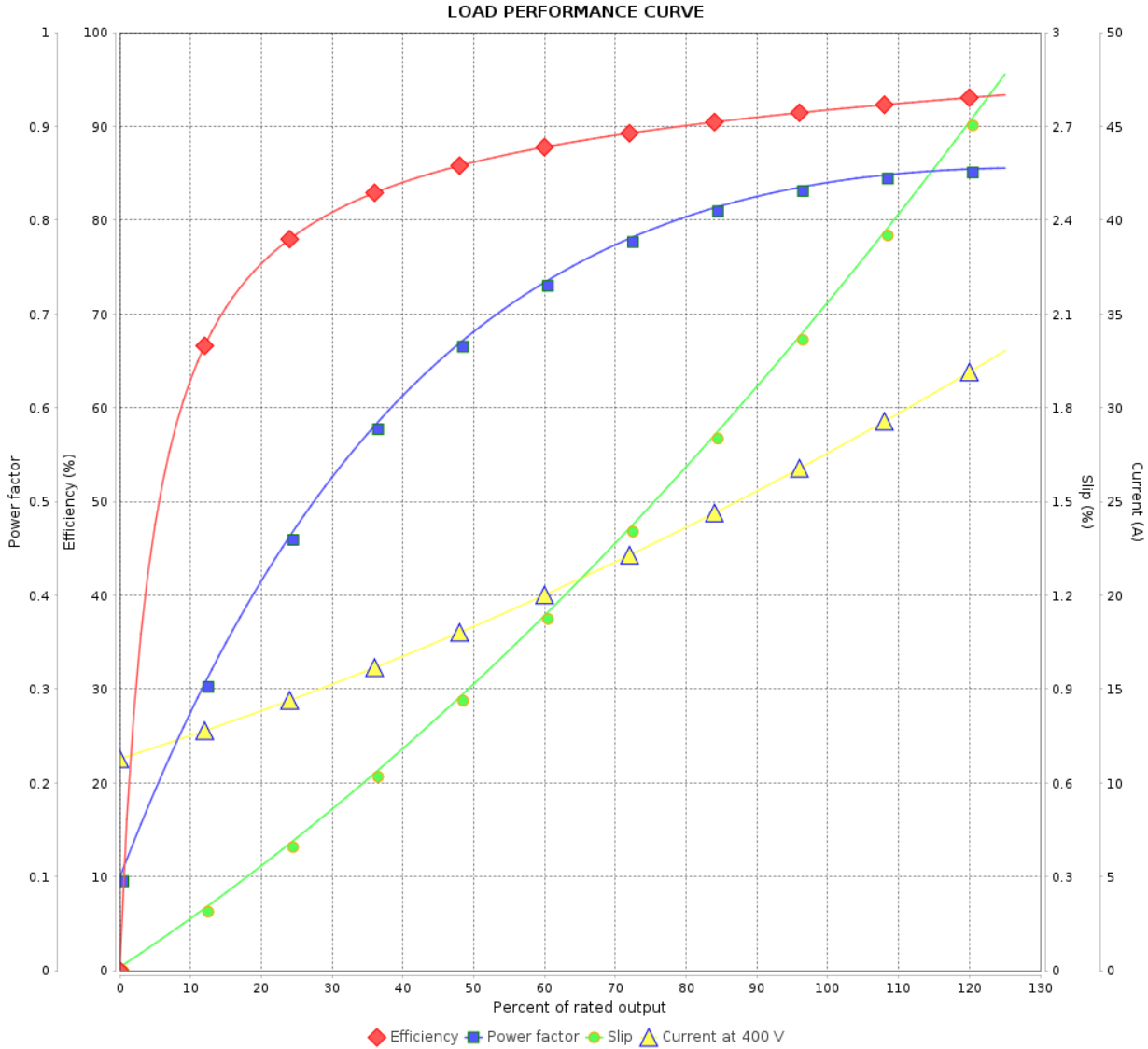
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase

Product code : 12517080



Performance : 400 V 50 Hz 2P IE3

Rated current : 28.0 A  
 LRC : 7.2  
 Rated torque : 4.95 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 340 %  
 Rated speed : 2935 rpm

Moment of inertia (J) : 0.0456 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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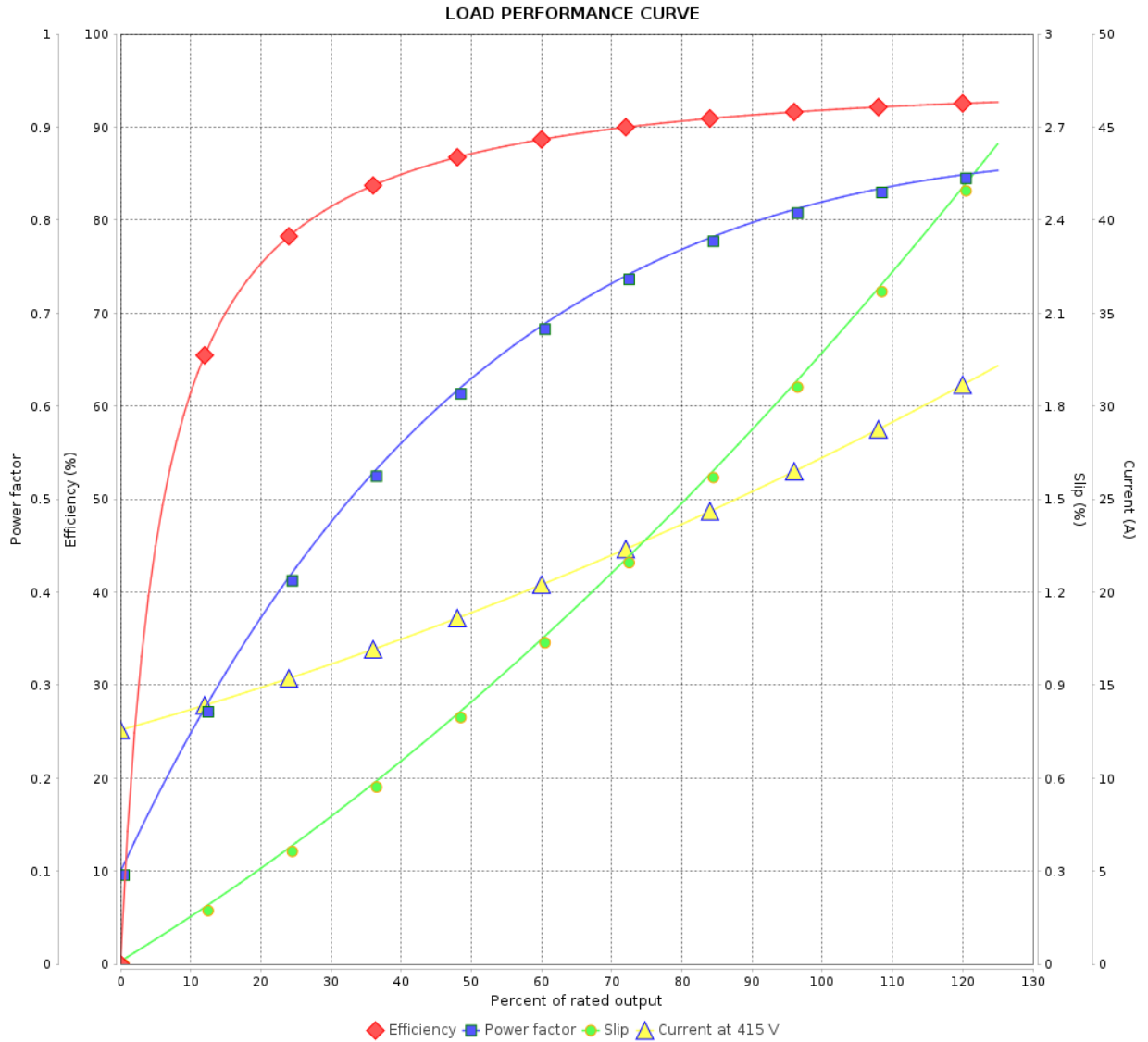
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase

Product code : 12517080



Performance : 415 V 50 Hz 2P IE3

Rated current : 27.7 A  
 LRC : 7.8  
 Rated torque : 4.94 kgfm  
 Locked rotor torque : 250 %  
 Breakdown torque : 380 %  
 Rated speed : 2940 rpm

Moment of inertia (J) : 0.0456 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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Checked by				
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# LOAD PERFORMANCE CURVE

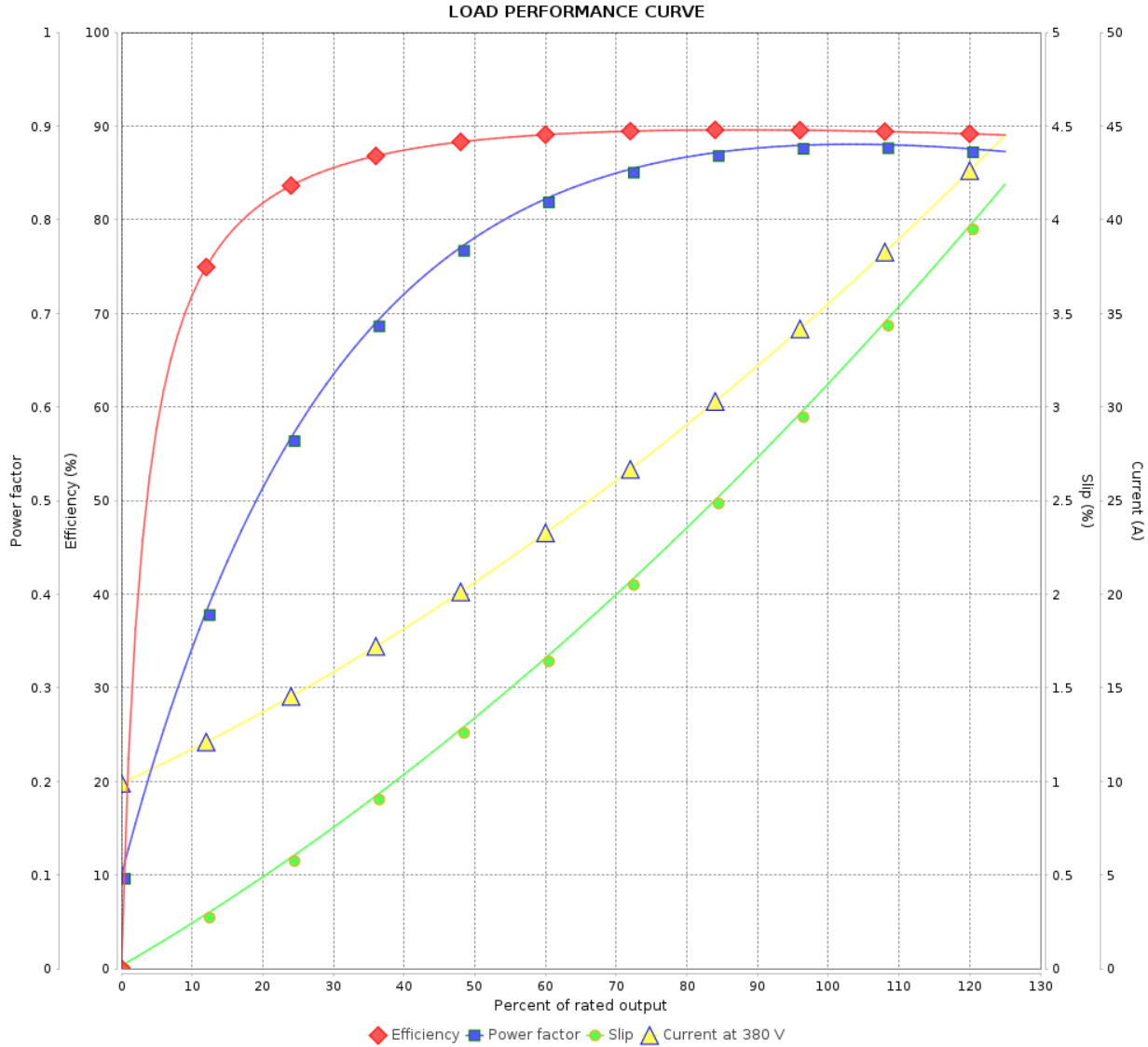
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase

Product code : 12517080



Performance : 380 V 50 Hz 2P IE1

Rated current : 35.7 A  
 LRC : 5.3  
 Rated torque : 6.25 kgfm  
 Locked rotor torque : 160 %  
 Breakdown torque : 240 %  
 Rated speed : 2905 rpm

Moment of inertia (J) : 0.0456 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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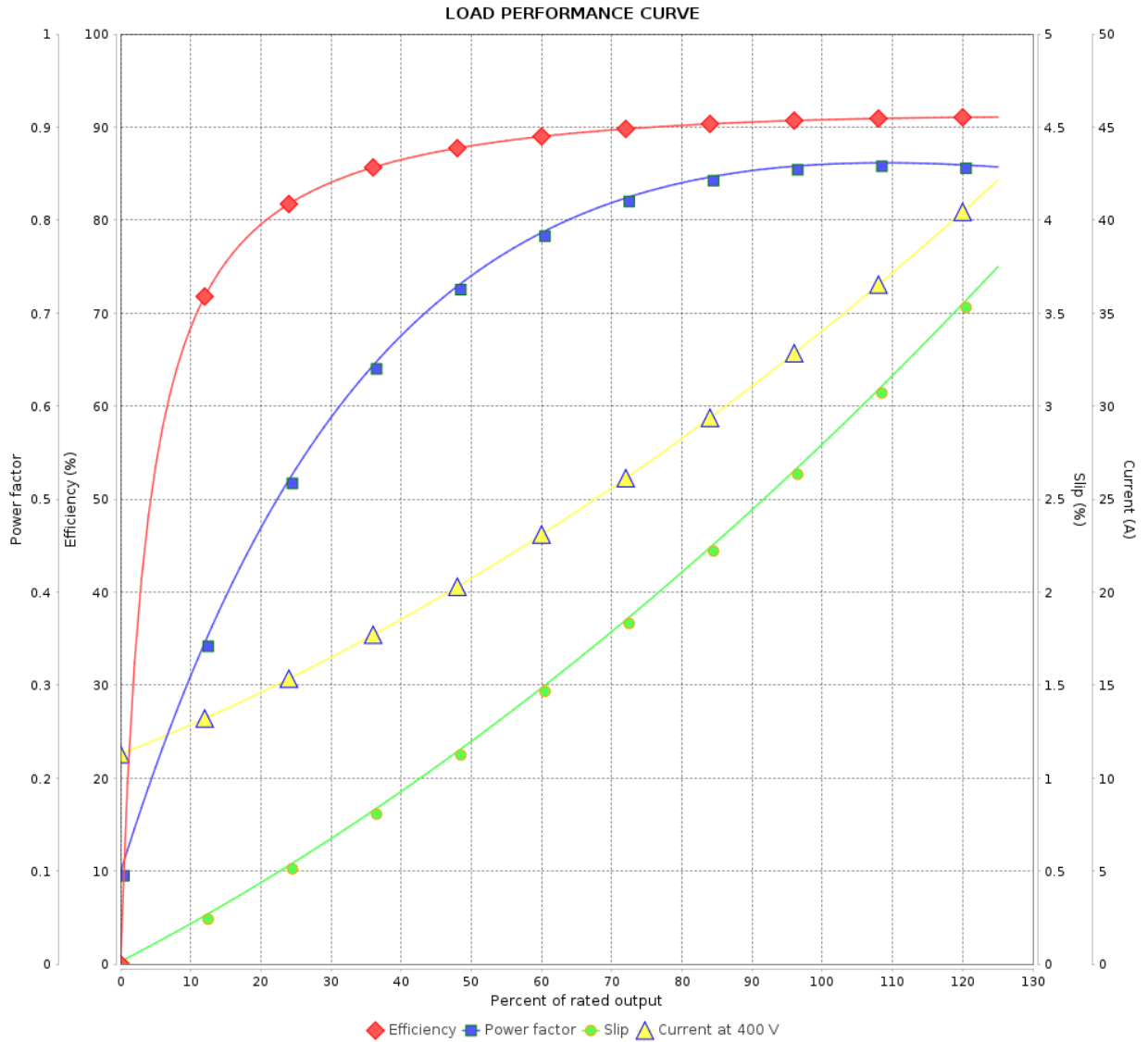
## Three Phase Induction Motor - Squirrel Cage



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

Product line : ODP NEMA Premium Efficiency Three-Phase

Product code : 12517080



Performance : 400 V 50 Hz 2P IE2

Rated current : 34.2 A  
 LRC : 5.9  
 Rated torque : 6.22 kgfm  
 Locked rotor torque : 180 %  
 Breakdown torque : 270 %  
 Rated speed : 2915 rpm

Moment of inertia (J) : 0.0456 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

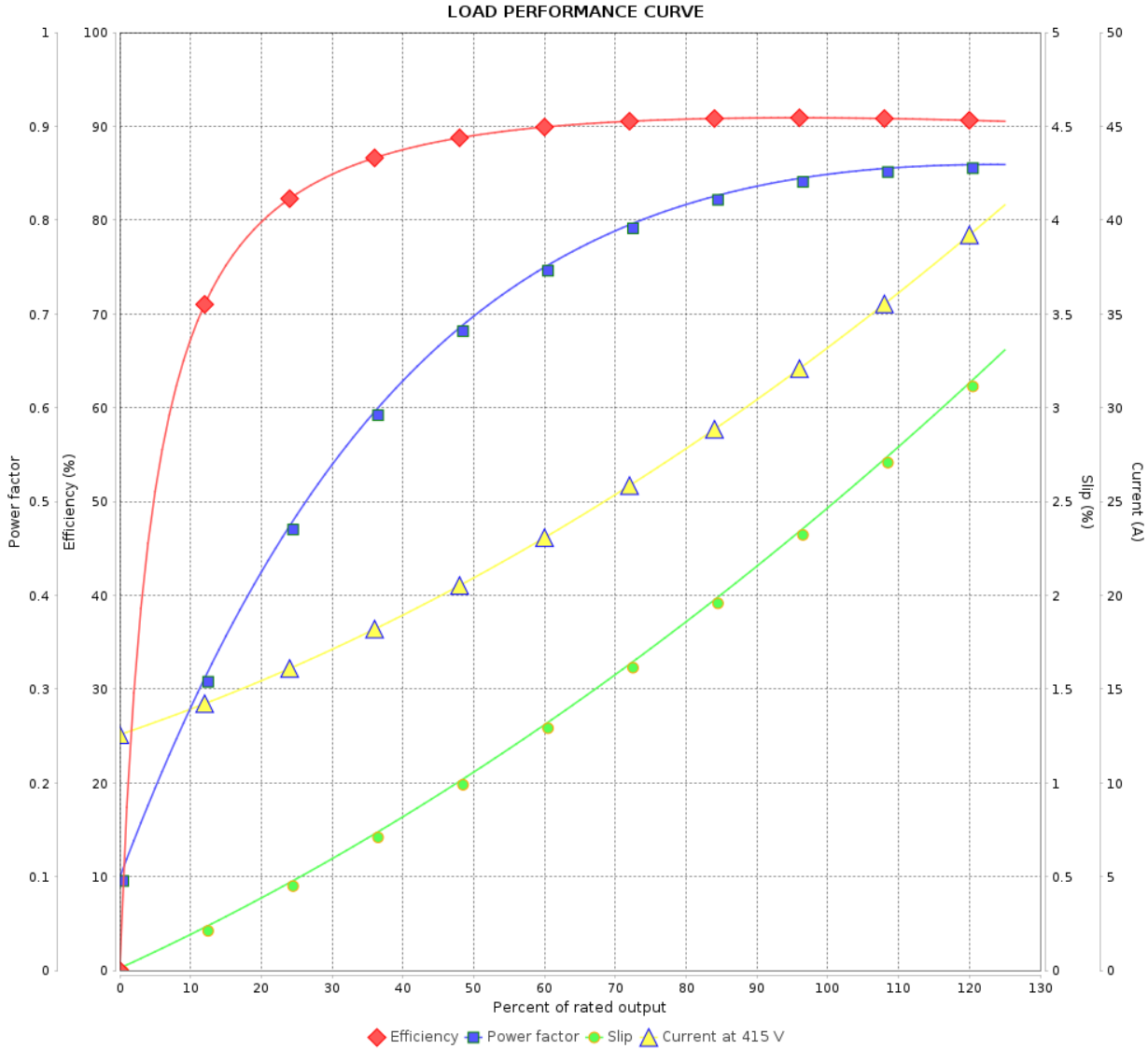
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase

Product code : 12517080



Performance : 415 V 50 Hz 2P IE2

Rated current : 33.3 A  
 LRC : 6.5  
 Rated torque : 6.20 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 300 %  
 Rated speed : 2925 rpm

Moment of inertia (J) : 0.0456 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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