

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 14653999

Frame : 404/5T	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : F-1
Duty cycle : Cont.(S1)	Rotation ¹ : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight ² : 505 kg
Protection degree : IP55	Moment of inertia (J) : 1.46 kgm ²
Design : B	

Output [HP]	50	40	40	40	50	50	50
Poles	8	8	8	8	8	8	8
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	120/60.2	59.4	57.6	56.8	73.3	69.9	68.2
L. R. Amperes [A]	867/433	404	420	443	403	419	443
LRC [A]	7.2x(Code H)	6.8x(Code H)	7.3x(Code J)	7.8x(Code J)	5.5x(Code F)	6.0x(Code G)	6.5x(Code H)
No load current [A]	49.0/24.5	23.5	25.0	26.0	23.0	25.0	26.0
Rated speed [RPM]	880	730	733	735	720	725	725
Slip [%]	2.22	2.67	2.27	2.00	4.00	3.33	3.33
Rated torque [kgfm]	41.2	39.8	39.6	39.5	50.4	50.1	50.1
Locked rotor torque [%]	170	170	200	229	140	160	180
Breakdown torque [%]	260	240	290	310	200	229	250
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	52s (cold) 29s (hot)	57s (cold) 32s (hot)	54s (cold) 30s (hot)	50s (cold) 28s (hot)	36s (cold) 20s (hot)	37s (cold) 21s (hot)	36s (cold) 20s (hot)
Noise level ²	60.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%						
	50%	93.0	92.9	91.8	91.8	92.4	92.4
	75%	93.0	92.3	92.2	92.2	91.7	91.7
	100%	93.0	91.3	91.7	91.8	90.2	91.0
Power Factor	25%						
	50%	0.68	0.65	0.63	0.60	0.74	0.71
	75%	0.78	0.78	0.76	0.73	0.82	0.80
	100%	0.83	0.84	0.82	0.80	0.85	0.84

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

Losses (%)	P1 (0,9;1,0)	7.3	7.3	7.3	7.3	7.3	7.3
	P2 (0,5;1,0)	6.3	6.3	6.3	6.3	6.3	6.3
	P3 (0,25;1,0)	6.3	6.3	6.3	6.3	6.3	6.3
	P4 (0,9;0,5)	3.0	3.0	3.0	3.0	3.0	3.0
	P5 (0,5;0,5)	2.2	2.2	2.2	2.2	2.2	2.2
	P6 (0,5;0,25)	1.3	1.3	1.3	1.3	1.3	1.3
	P7 (0,25;0,25)	0.9	0.9	0.9	0.9	0.9	0.9

Bearing type : Sealing : Lubrication interval : Lubricant amount : Lubricant type :	Drive end	Non drive end	Foundation loads Max. traction : 980 kgf Max. compression : 1485 kgf
	NU-316 C3	6314 C3	
	WSeal	WSeal	
	17000 h	20000 h	
	34 g	27 g	
	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 : _____

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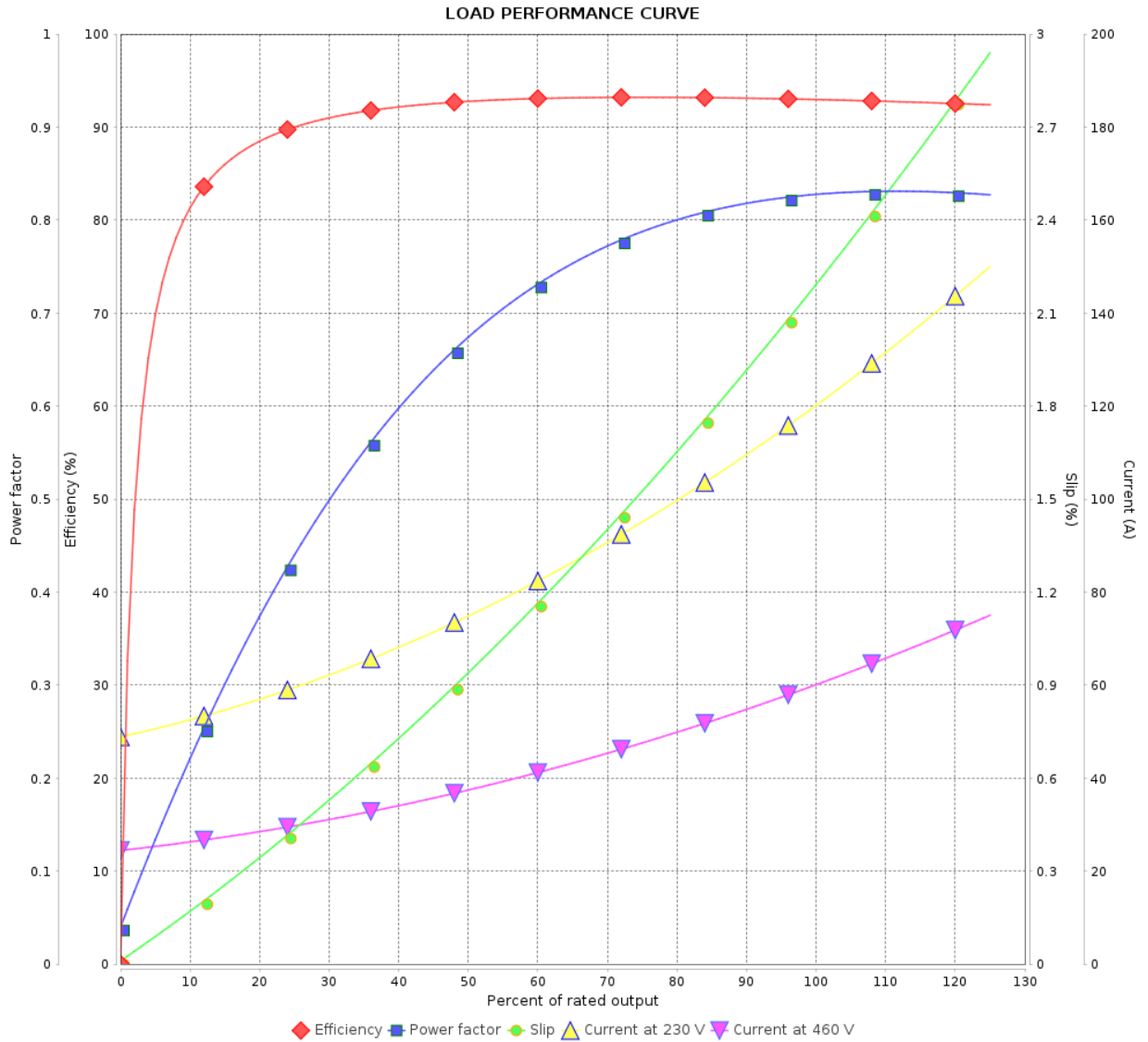
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 14653999



Performance : 230/460 V 60 Hz 8P

Rated current : 120/60.2 A
 LRC : 7.2
 Rated torque : 41.2 kgfm
 Locked rotor torque : 170 %
 Breakdown torque : 260 %
 Rated speed : 880 rpm

Moment of inertia (J) : 1.46 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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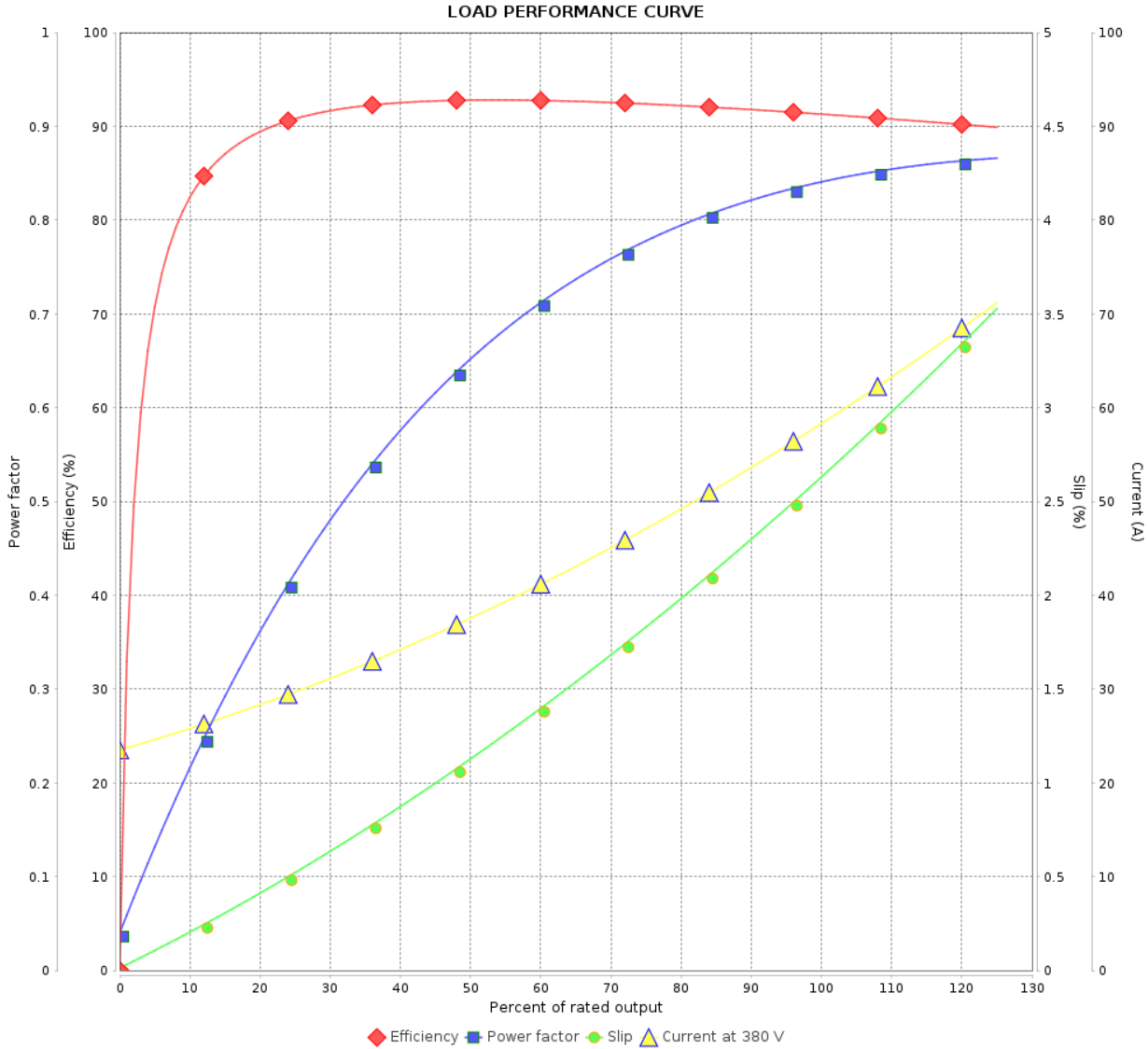
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 14653999



Performance : 380 V 50 Hz 8P IE3

Rated current : 59.4 A
 LRC : 6.8
 Rated torque : 39.8 kgfm
 Locked rotor torque : 170 %
 Breakdown torque : 240 %
 Rated speed : 730 rpm

Moment of inertia (J) : 1.46 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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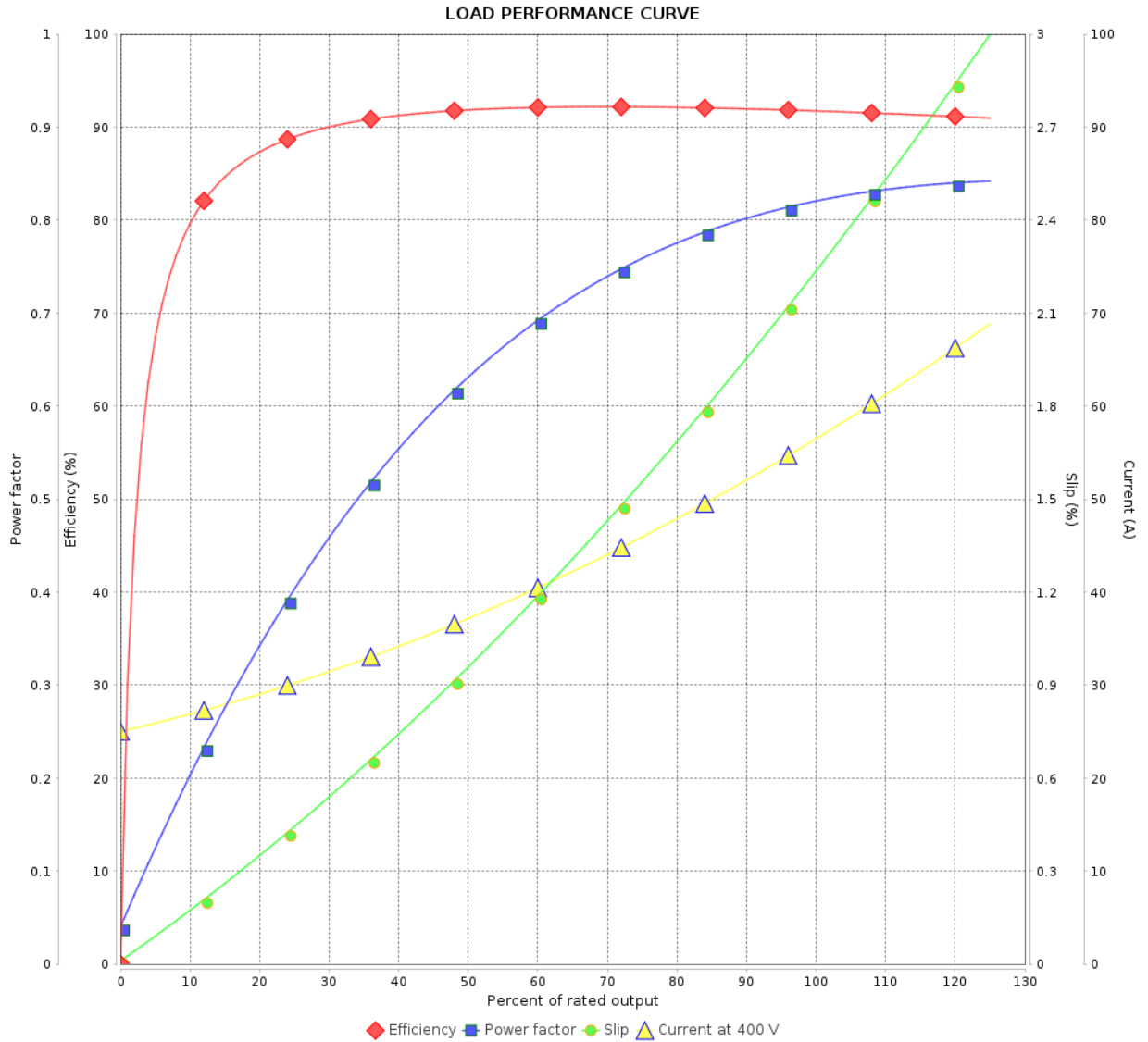
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 14653999



Performance : 400 V 50 Hz 8P IE3

Rated current : 57.6 A
 LRC : 7.3
 Rated torque : 39.6 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 290 %
 Rated speed : 733 rpm

Moment of inertia (J) : 1.46 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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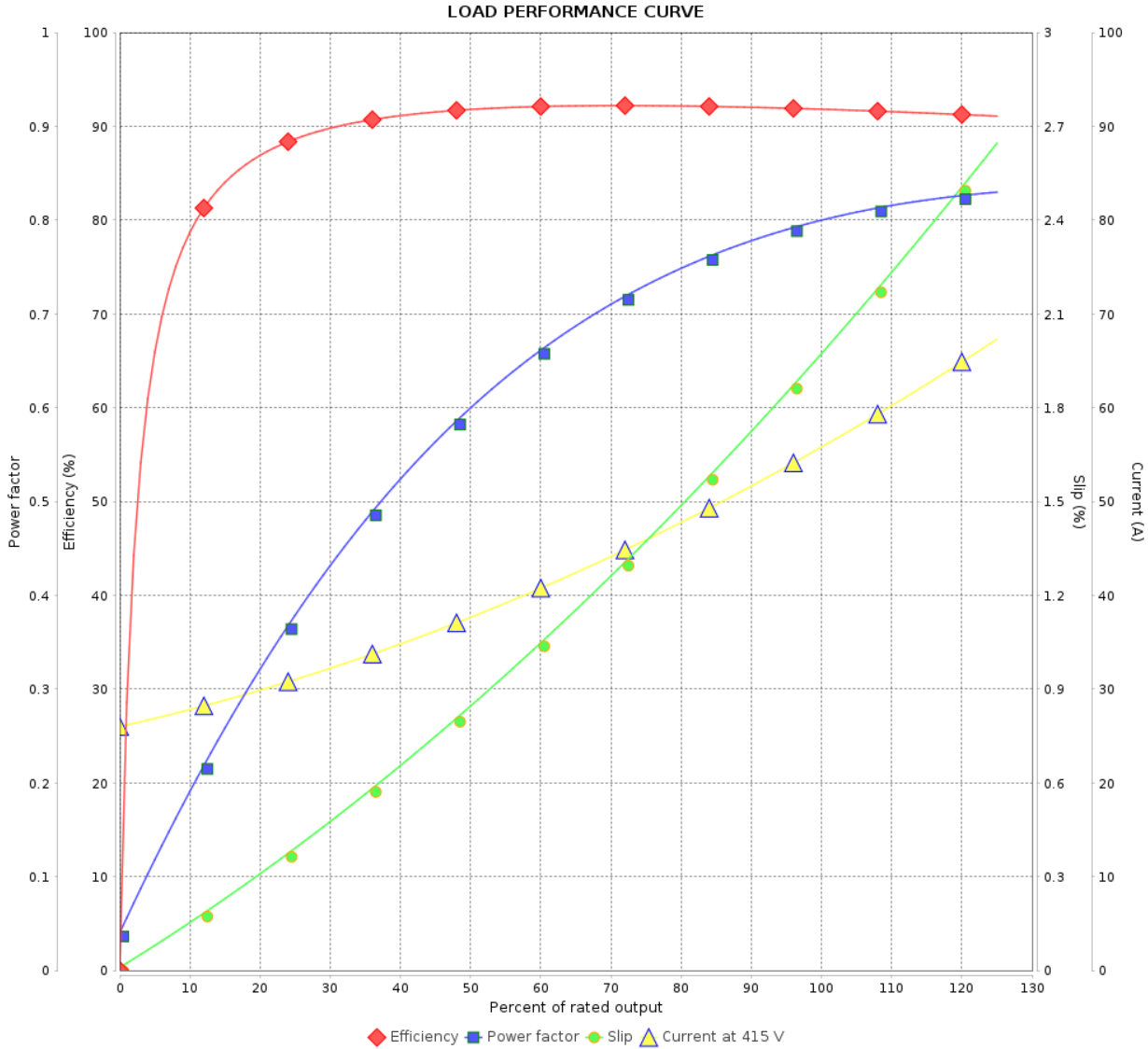
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 14653999



Performance : 415 V 50 Hz 8P IE3

Rated current	: 56.8 A	Moment of inertia (J)	: 1.46 kgm ²
LRC	: 7.8	Duty cycle	: Cont.(S1)
Rated torque	: 39.5 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 735 rpm	Design	: B

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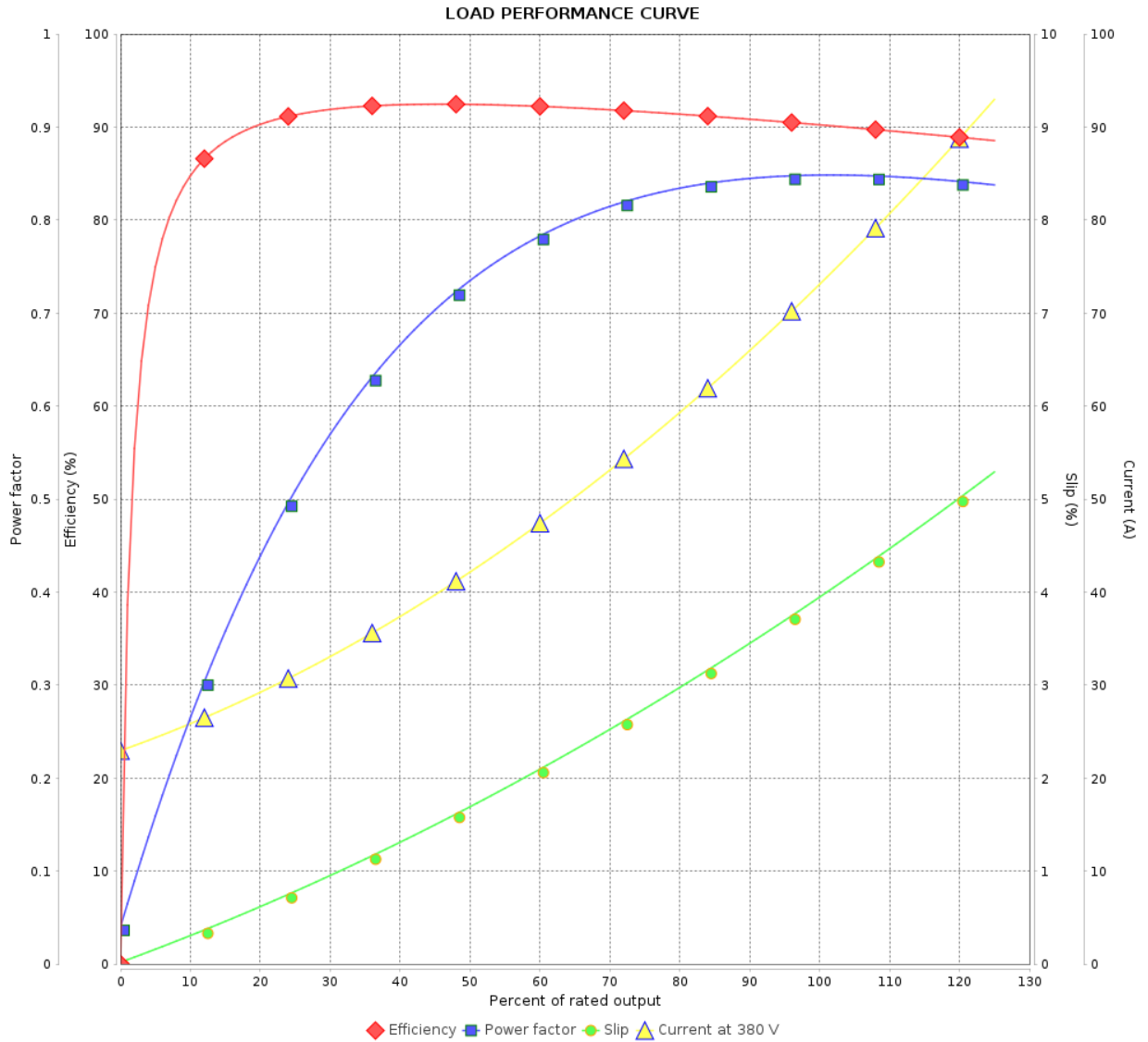
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 14653999



Performance : 380 V 50 Hz 8P IE1

Rated current : 73.3 A
 LRC : 5.5
 Rated torque : 50.4 kgfm
 Locked rotor torque : 140 %
 Breakdown torque : 200 %
 Rated speed : 720 rpm

Moment of inertia (J) : 1.46 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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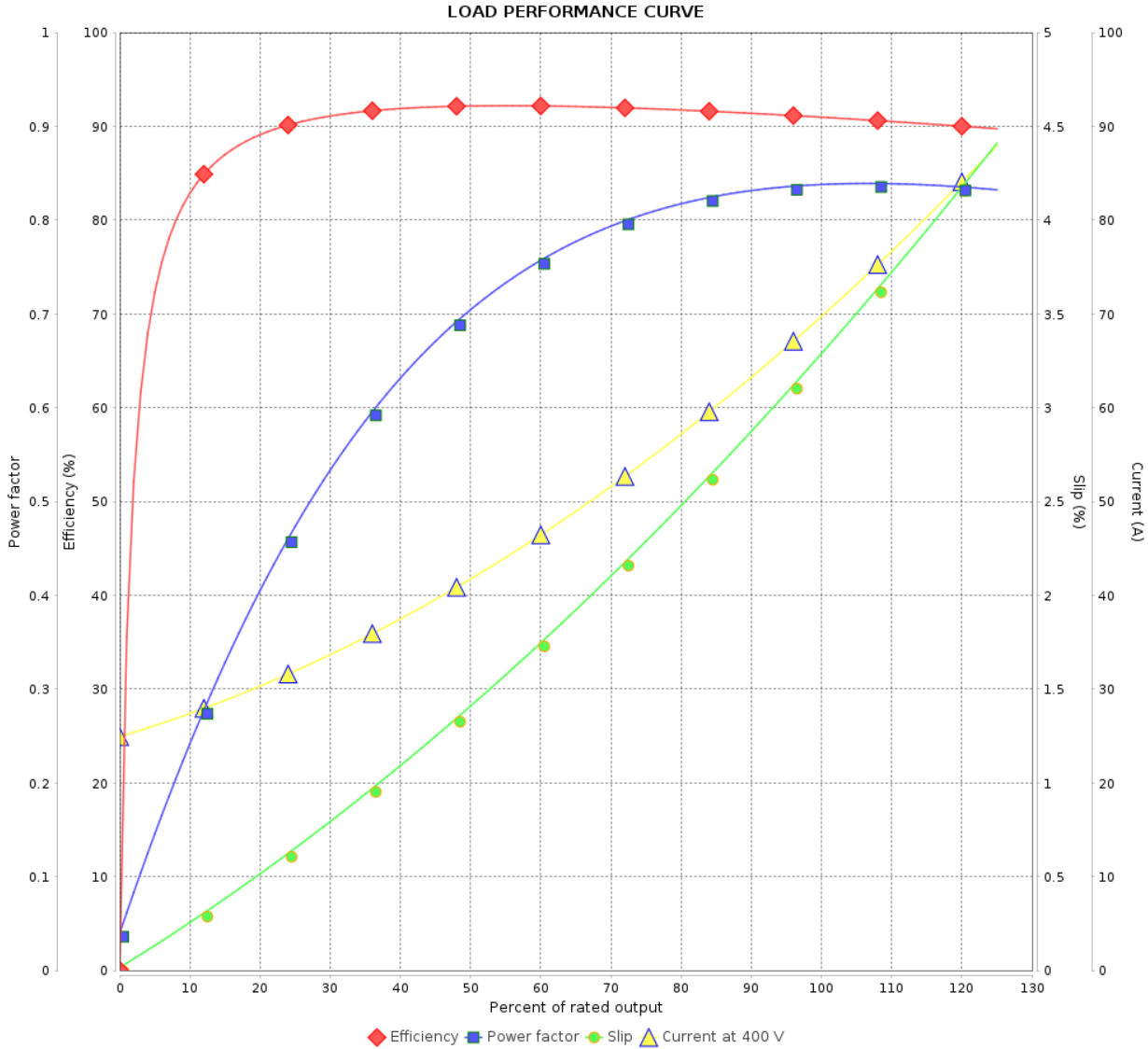
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 14653999



Performance : 400 V 50 Hz 8P IE2

Rated current : 69.9 A
 LRC : 6.0
 Rated torque : 50.1 kgfm
 Locked rotor torque : 160 %
 Breakdown torque : 229 %
 Rated speed : 725 rpm

Moment of inertia (J) : 1.46 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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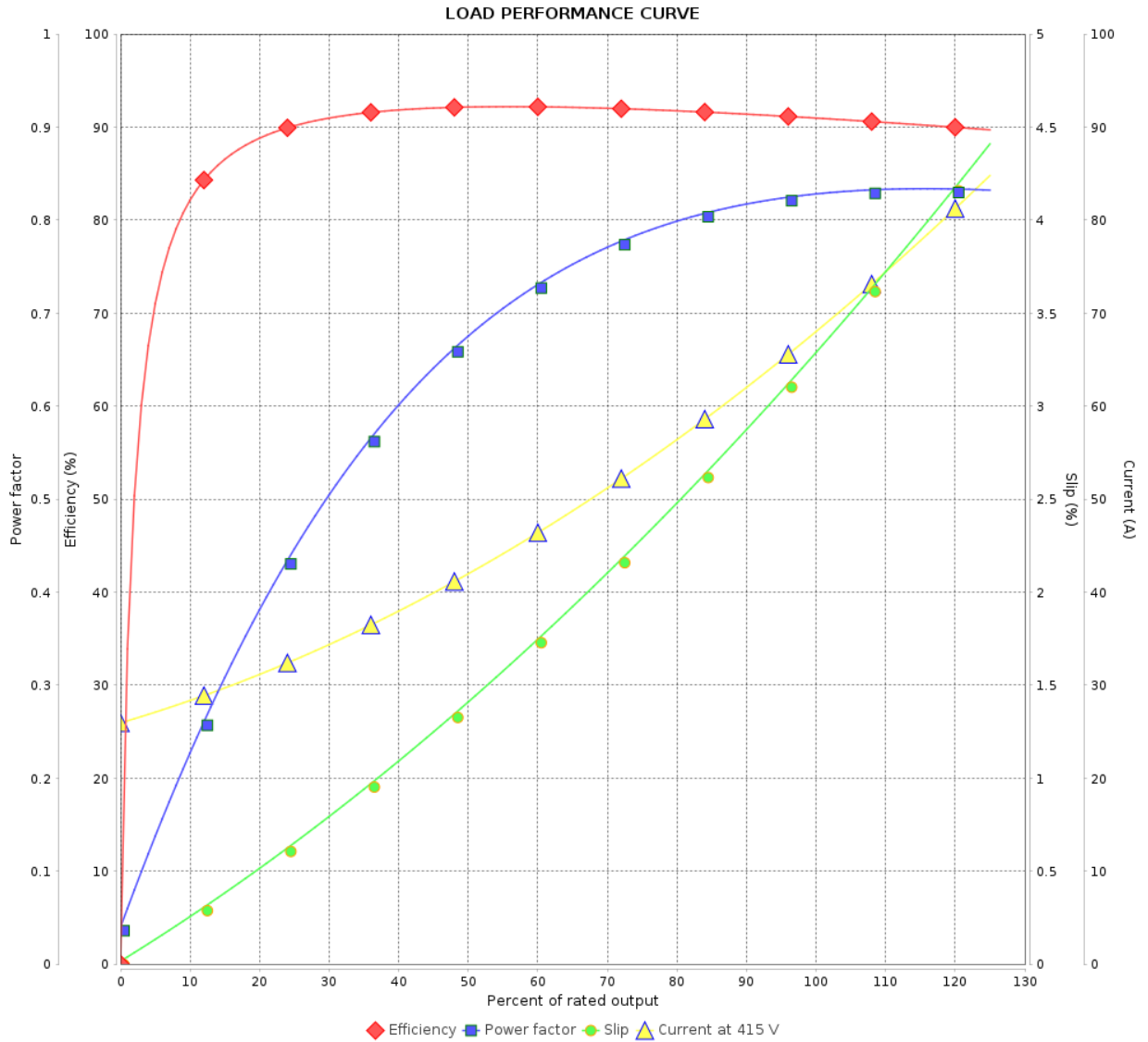
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 14653999



Performance : 415 V 50 Hz 8P IE2

Rated current : 68.2 A
 LRC : 6.5
 Rated torque : 50.1 kgfm
 Locked rotor torque : 180 %
 Breakdown torque : 250 %
 Rated speed : 725 rpm

Moment of inertia (J) : 1.46 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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