

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : Close Coupled Pump NEMA Premium Efficiency Three-Phase Product code : 11169351

Frame : 256JM	Cooling method : IC01 - ODP
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 : 126 kg
Protection degree : IP23	Moment of inertia (J) : 0.1104 kgm ²
Design : B	

Output [HP]	20	15	15	15	20	20	20
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]	49.4/24.7	23.4	23.4	24.1	29.6	29.1	29.2
L. R. Amperes [A]	311/156	166	175	188	166	175	187
LRC [A]	6.3x(Code G)	7.1x(Code J)	7.5x(Code K)	7.8x(Code K)	5.6x(Code F)	6.0x(Code G)	6.4x(Code H)
No load current [A]	24.0/12.0	11.9	13.5	15.1	11.9	13.5	15.1
Rated speed [RPM]	1770	1475	1475	1475	1465	1465	1470
Slip [%]	1.67	1.67	1.67	1.67	2.33	2.33	2.00
Rated torque [kgfm]	8.20	7.38	7.38	7.38	9.91	9.91	9.87
Locked rotor torque [%]	260	229	260	270	170	190	200
Breakdown torque [%]	280	350	390	430	260	290	320
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	21s (cold) 12s (hot)	28s (cold) 16s (hot)	27s (cold) 15s (hot)	25s (cold) 14s (hot)	28s (cold) 16s (hot)	27s (cold) 15s (hot)	25s (cold) 14s (hot)
Noise level ²	60.0 dB(A)						
Efficiency (%)	25%						
	50%	91.7	87.6	87.1	86.7	90.2	90.2
	75%	93.0	90.4	90.4	90.4	91.0	91.0
	100%	93.0	91.4	91.5	91.6	91.7	91.7
Power Factor	25%						
	50%	0.63	0.59	0.54	0.49	0.68	0.63
	75%	0.72	0.72	0.67	0.62	0.80	0.76
	100%	0.82	0.80	0.76	0.71	0.84	0.81

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6309 Z C3	6209 Z C3	Max. traction : 434 kgf
Sealing :	Without	Without	Max. compression : 560 kgf
	Bearing Seal	Bearing Seal	
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	13 g	9 g	
Lubricant type :	Mobil Polyrex EM		

Notes
USABLE @208V 55.3A SF 1.15 SFA 63.6A

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.

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/01/2024		1 / 8	

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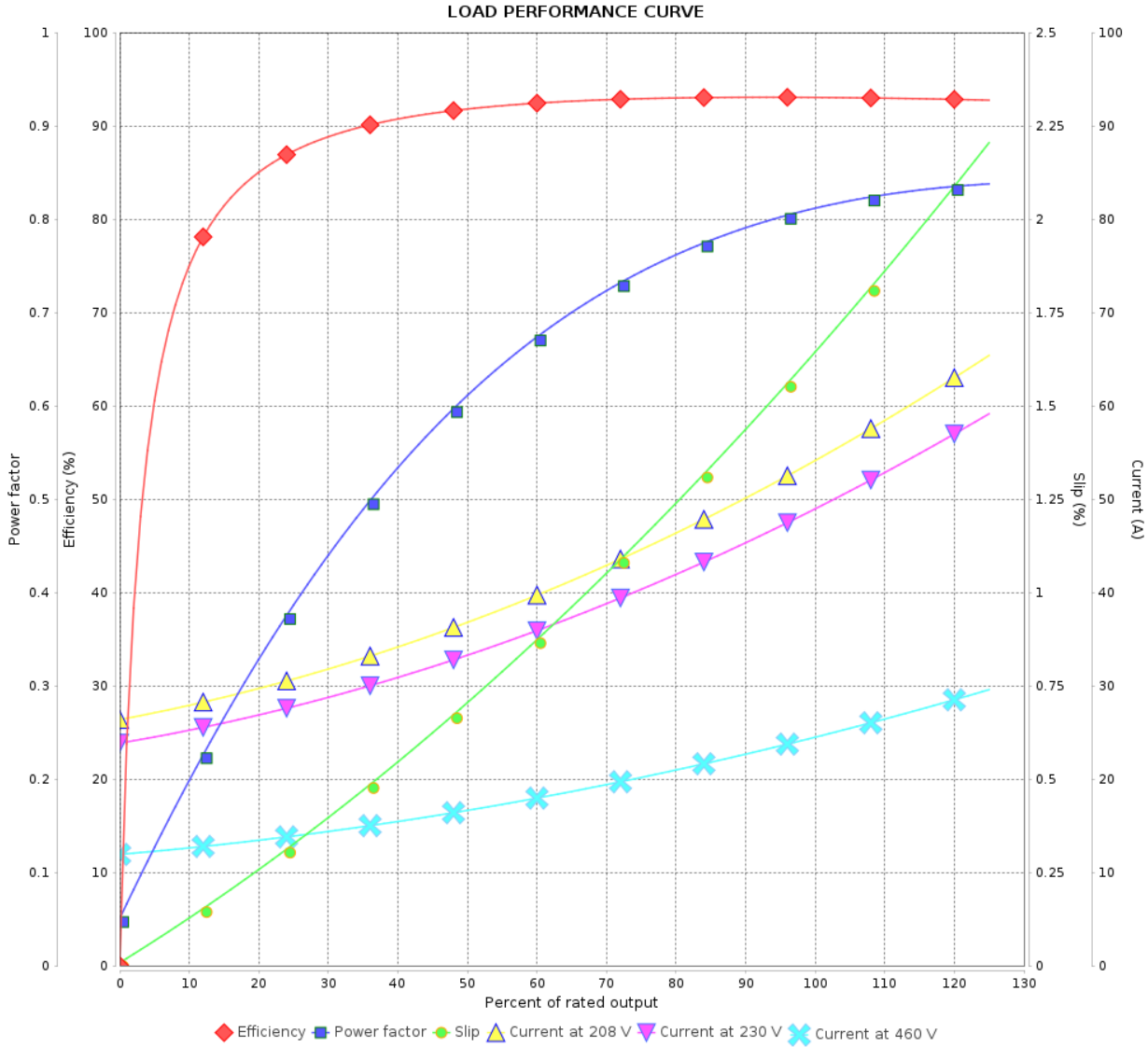
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : Close Coupled Pump NEMA Premium
Efficiency Three-Phase

Product code : 11169351



Performance : 230/460 V 60 Hz 4P

Rated current : 49.4/24.7 A
 LRC : 6.3
 Rated torque : 8.20 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 280 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 0.1104 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

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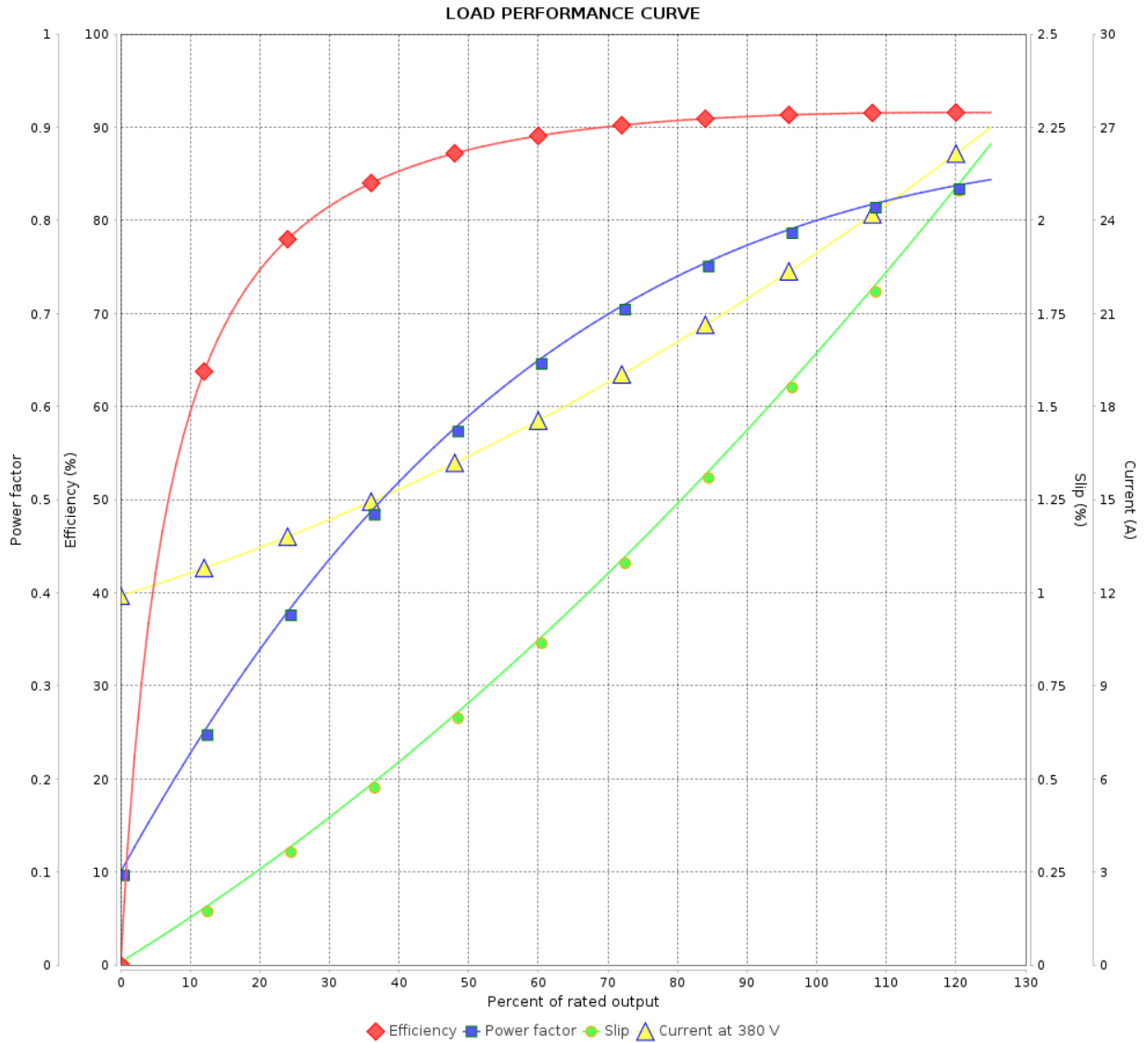
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : Close Coupled Pump NEMA Premium
Efficiency Three-Phase

Product code : 11169351



Performance : 380 V 50 Hz 4P IE3

Rated current : 23.4 A
 LRC : 7.1
 Rated torque : 7.38 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 350 %
 Rated speed : 1475 rpm

Moment of inertia (J) : 0.1104 kgm²
 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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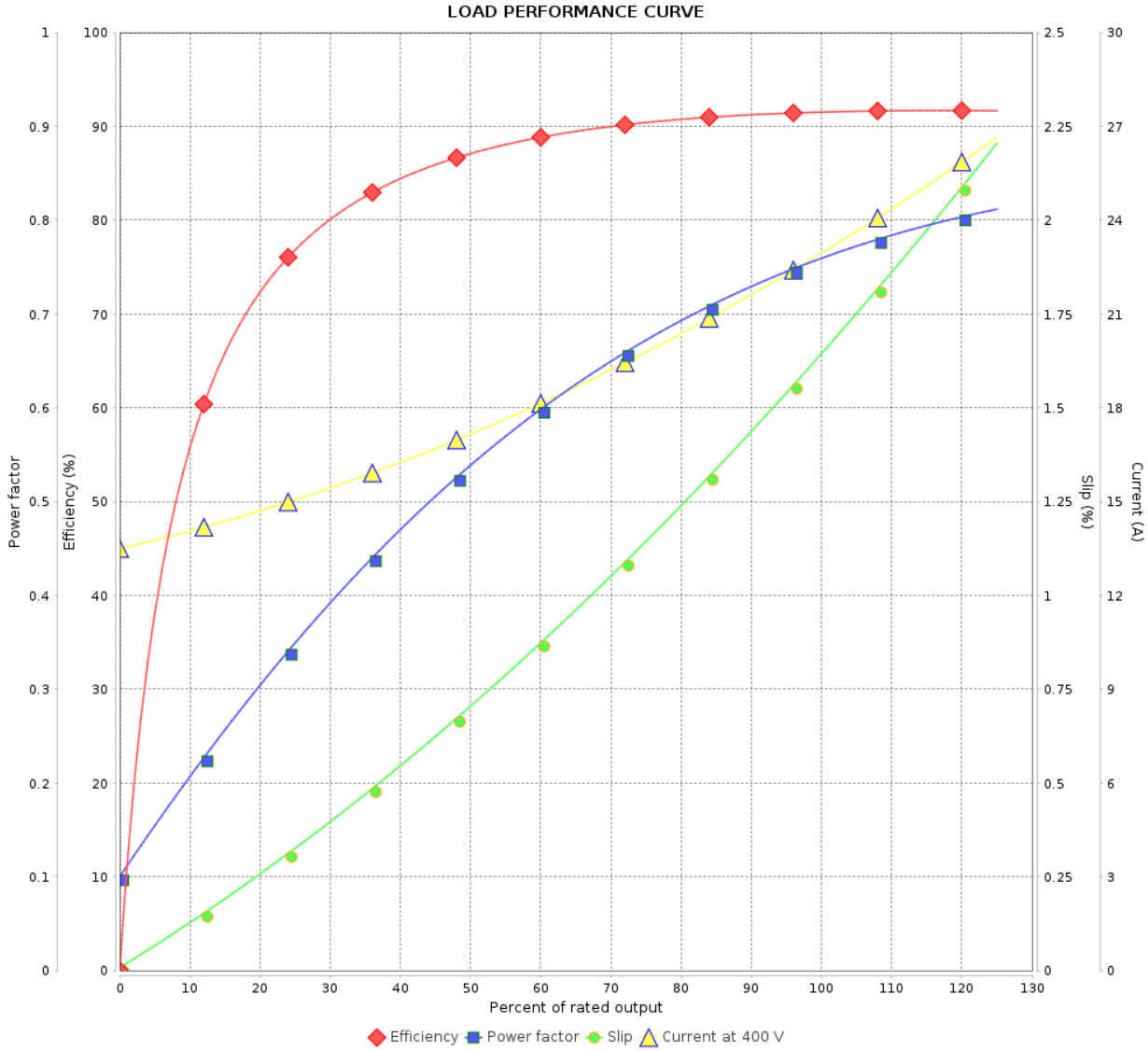
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA Premium
Efficiency Three-Phase

Product code : 11169351



Performance : 400 V 50 Hz 4P IE3

Rated current : 23.4 A
 LRC : 7.5
 Rated torque : 7.38 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 390 %
 Rated speed : 1475 rpm

Moment of inertia (J) : 0.1104 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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Performed by			Page	Revision
Checked by				
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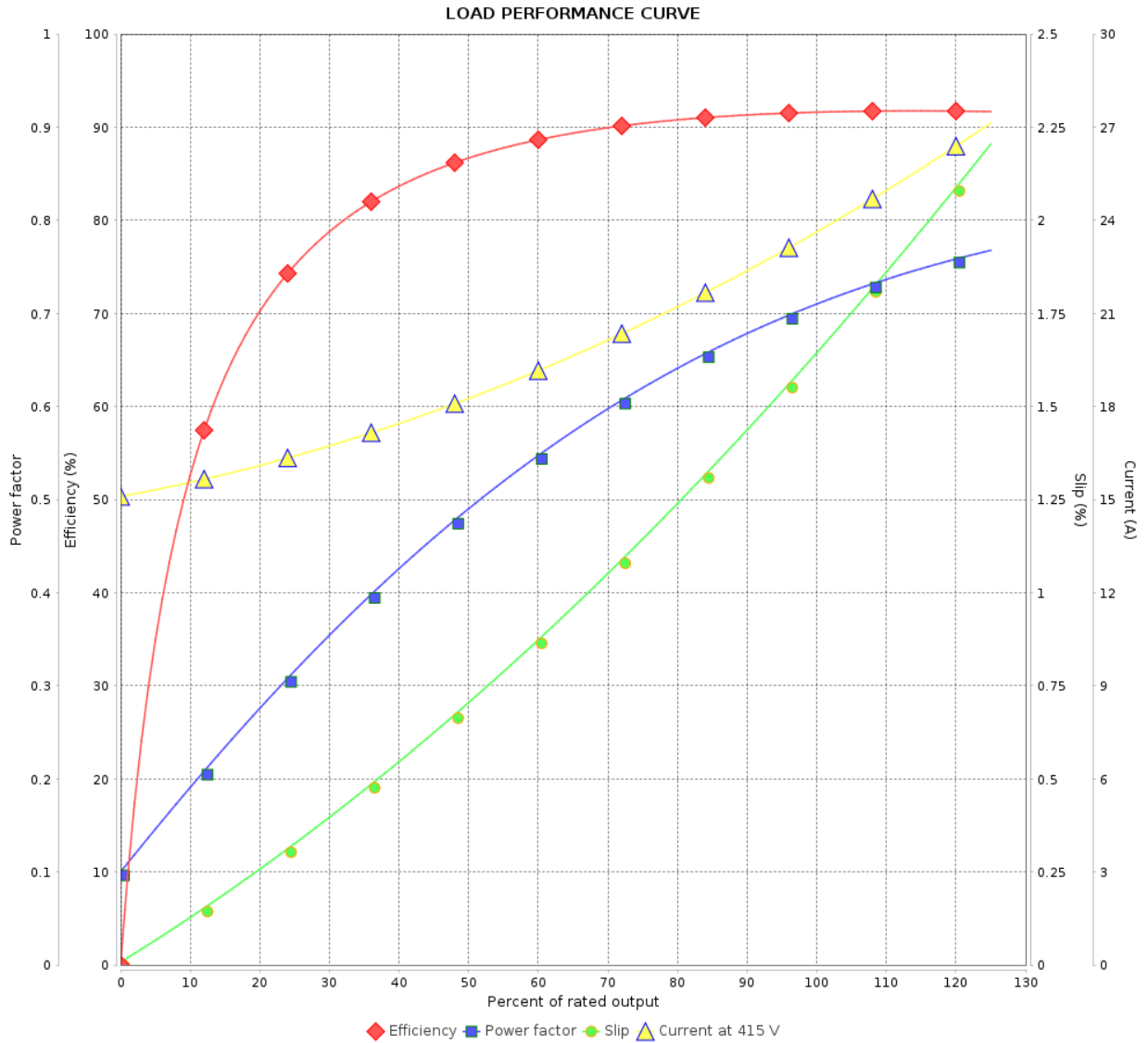
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : Close Coupled Pump NEMA Premium
Efficiency Three-Phase

Product code : 11169351



Performance : 415 V 50 Hz 4P IE3

Rated current : 24.1 A
 LRC : 7.8
 Rated torque : 7.38 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 430 %
 Rated speed : 1475 rpm

Moment of inertia (J) : 0.1104 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date	
Performed by					
Checked by					
Date					14/01/2024
		Page	Revision		
		5 / 8			

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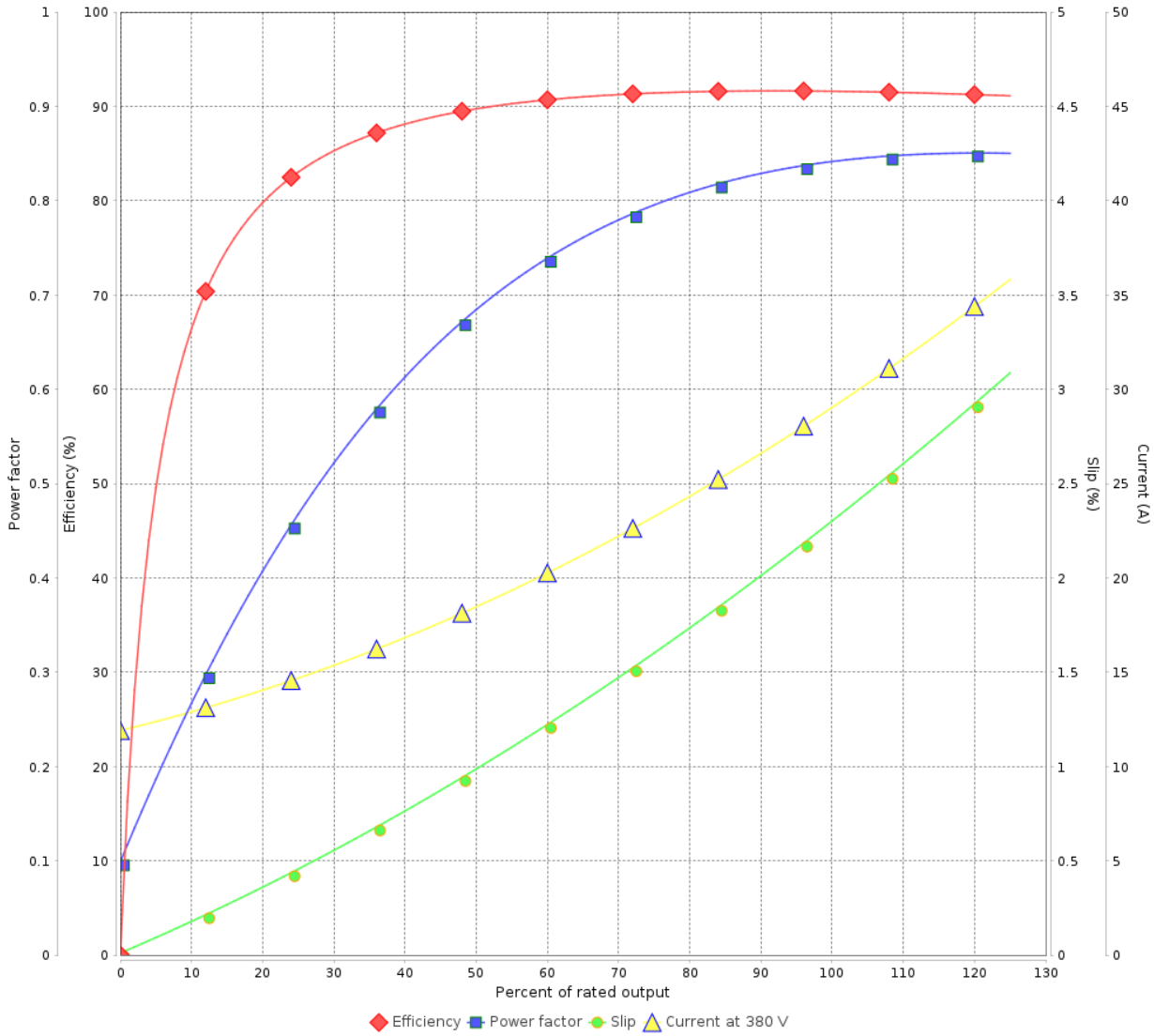


Customer :

Product line : Close Coupled Pump NEMA Premium
Efficiency Three-Phase

Product code : 11169351

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Performance : 380 V 50 Hz 4P IE2

Rated current : 29.6 A
LRC : 5.6
Rated torque : 9.91 kgfm
Locked rotor torque : 170 %
Breakdown torque : 260 %
Rated speed : 1465 rpm

Moment of inertia (J) : 0.1104 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

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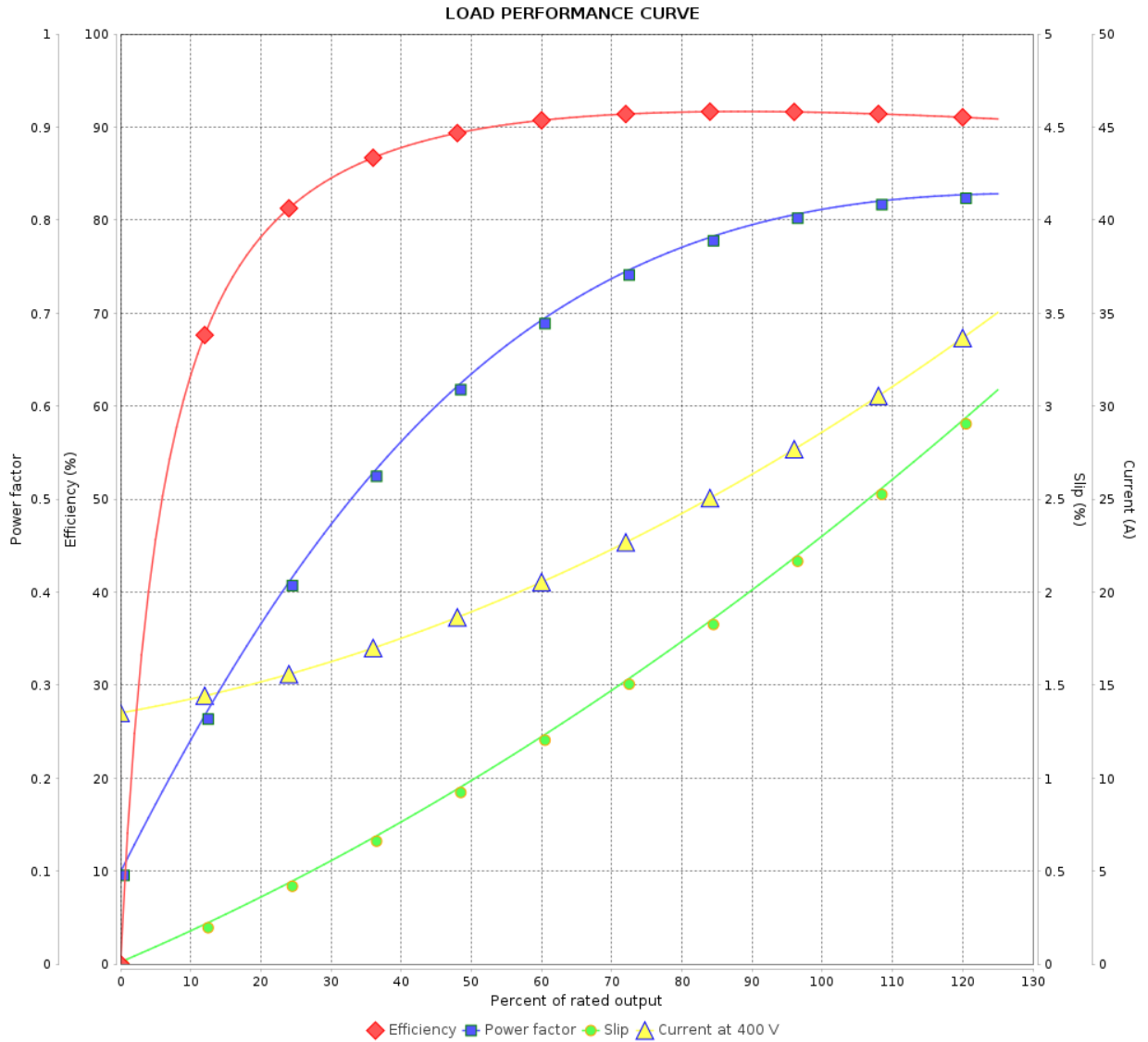
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : Close Coupled Pump NEMA Premium
Efficiency Three-Phase

Product code : 11169351



Performance : 400 V 50 Hz 4P IE2

Rated current : 29.1 A
 LRC : 6.0
 Rated torque : 9.91 kgfm
 Locked rotor torque : 190 %
 Breakdown torque : 290 %
 Rated speed : 1465 rpm

Moment of inertia (J) : 0.1104 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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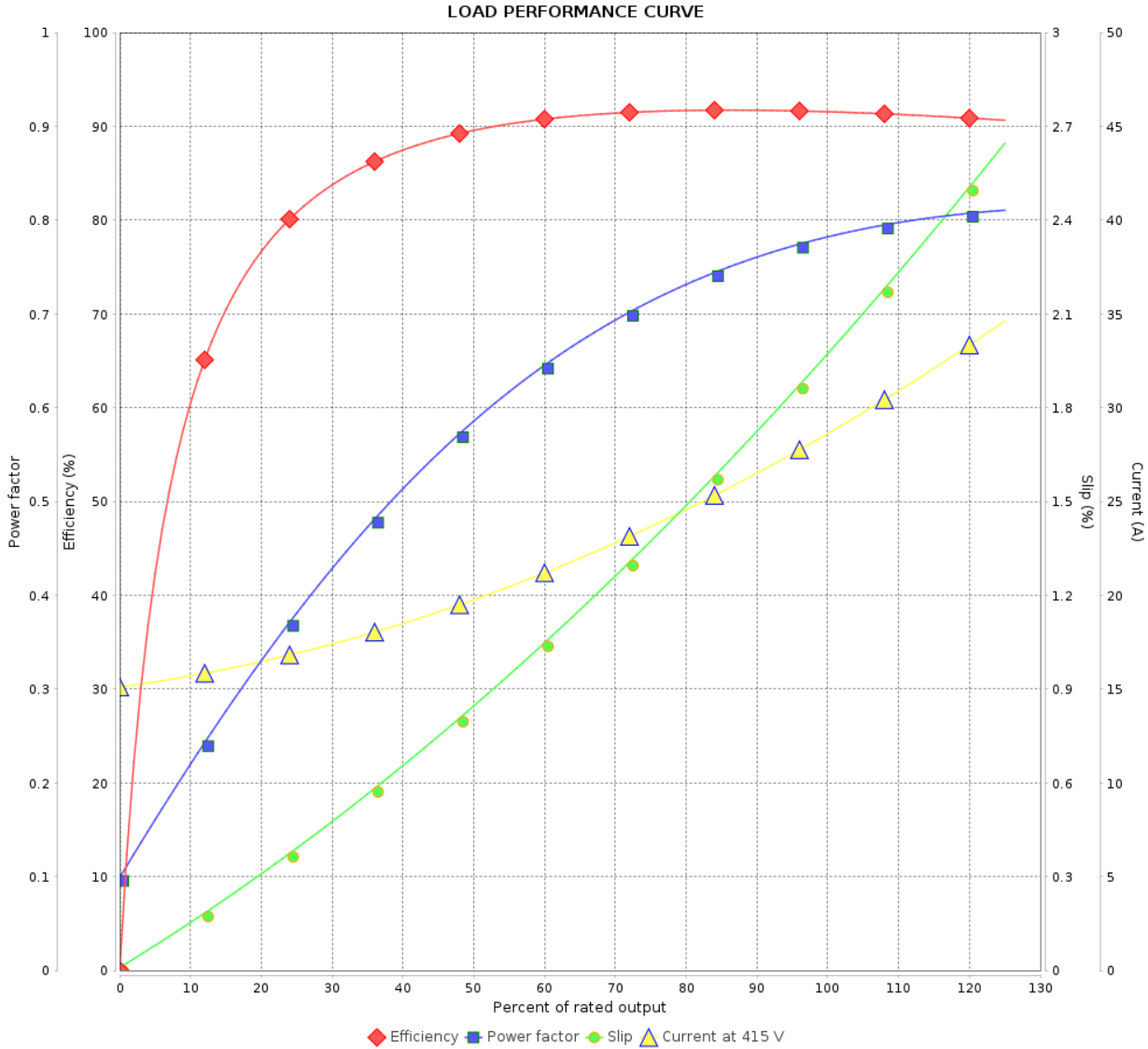
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Close Coupled Pump NEMA Premium
Efficiency Three-Phase

Product code : 11169351



Performance : 415 V 50 Hz 4P IE2

Rated current : 29.2 A
 LRC : 6.4
 Rated torque : 9.87 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 320 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.1104 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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