

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : Close Coupled Pump NEMA Premium Efficiency Three-Phase      Product code : 11011969

Frame	: 284JM	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>	: 163 kg
Protection degree	: IP23	Moment of inertia (J)	: 0.0795 kgm <sup>2</sup>
Design	: B		

Output [HP]	30	25	25	25	30	30	30
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]	70.0/35.0	35.0	34.0	33.6	42.4	40.9	40.2
L. R. Amperes [A]	441/221	231	238	225	225	237	261
LRC [A]	6.3x(Code G)	6.6x(Code G)	7.0x(Code H)	6.7x(Code H)	5.3x(Code E)	5.8x(Code F)	6.5x(Code G)
No load current [A]	25.8/12.9	12.0	13.0	14.0	11.5	12.5	14.0
Rated speed [RPM]	3550	2945	2950	2955	2925	2935	2945
Slip [%]	1.39	1.83	1.67	1.50	2.50	2.17	1.83
Rated torque [kgfm]	6.13	6.16	6.15	6.14	7.44	7.42	7.39
Locked rotor torque [%]	180	170	190	200	160	180	200
Breakdown torque [%]	260	240	260	270	180	200	220
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	18s (cold) 10s (hot)	23s (cold) 13s (hot)	21s (cold) 12s (hot)	19s (cold) 11s (hot)	23s (cold) 13s (hot)	21s (cold) 12s (hot)	19s (cold) 11s (hot)
Noise level <sup>2</sup>	72.0 dB(A)						
Efficiency (%)	25%	90.0	88.1	88.2	88.3	91.8	91.1
	50%	90.2	89.7	89.8	89.8	90.8	91.0
	75%	91.7	90.7	90.8	90.8	90.8	91.0
	100%	91.7	92.4	92.4	92.4	89.5	90.7
Power Factor	25%	0.47	0.50	0.45	0.42	0.56	0.47
	50%	0.73	0.75	0.70	0.66	0.80	0.71
	75%	0.82	0.83	0.80	0.77	0.86	0.81
	100%	0.86	0.87	0.85	0.83	0.88	0.84

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6311 Z C3	6211 Z C3	Max. traction : 151 kgf
Sealing	: Without	Without	Max. compression : 314 kgf
	<u>Bearing Seal</u>	<u>Bearing Seal</u>	
Lubrication interval	: 20000 h	20000 h	
Lubricant amount	: 18 g	11 g	
Lubricant type	: Mobil Polyrex EM		

Notes  
USABLE @208V 76.7A SF 1.15 SFA 88.2A

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	

# LOAD PERFORMANCE CURVE

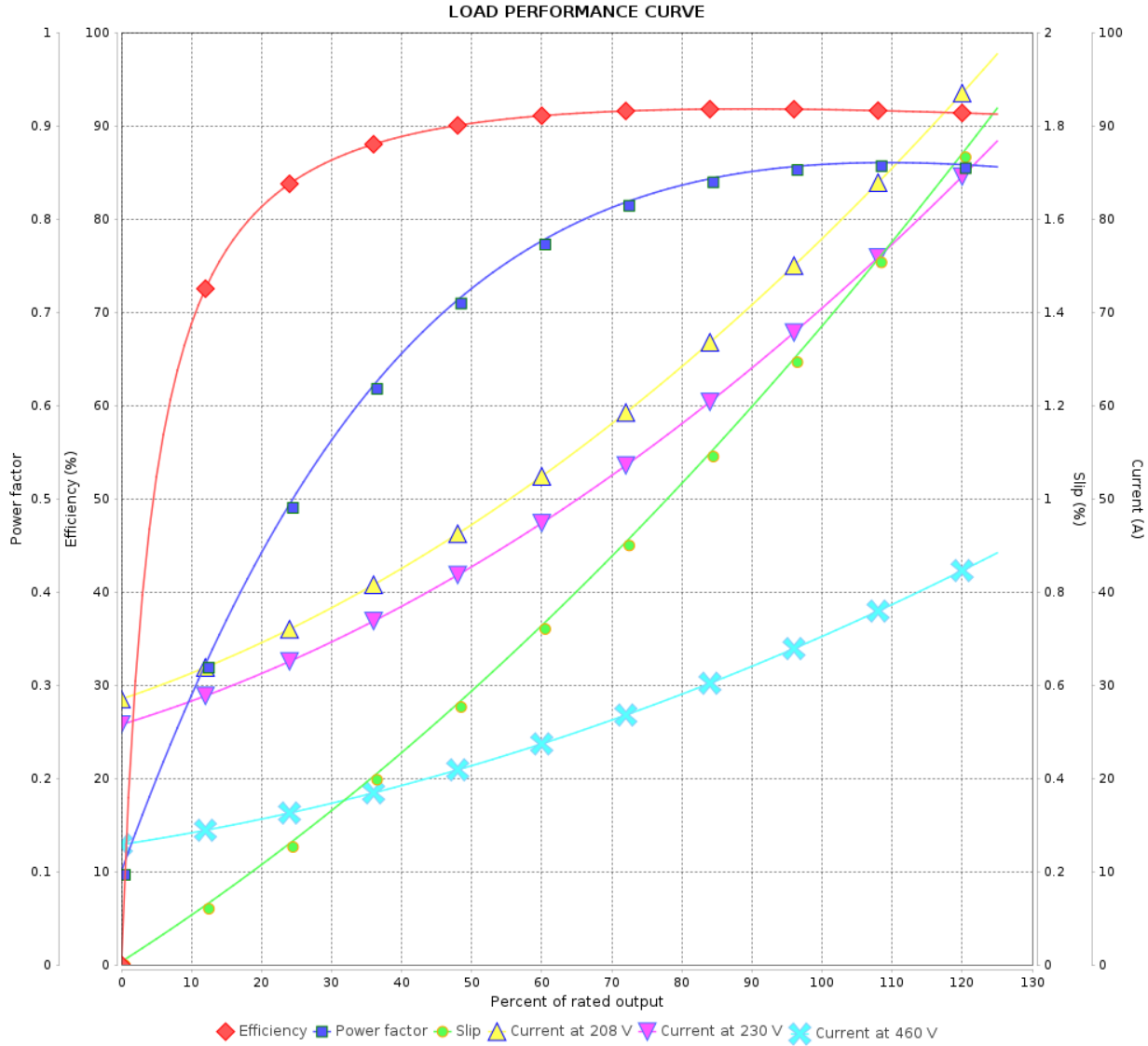
Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11011969



Performance : 230/460 V 60 Hz 2P

Rated current : 70.0/35.0 A  
 LRC : 6.3  
 Rated torque : 6.13 kgfm  
 Locked rotor torque : 180 %  
 Breakdown torque : 260 %  
 Rated speed : 3550 rpm

Moment of inertia (J) : 0.0795 kgm<sup>2</sup>  
 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		2 / 8		
Date		14/01/2024		

# LOAD PERFORMANCE CURVE

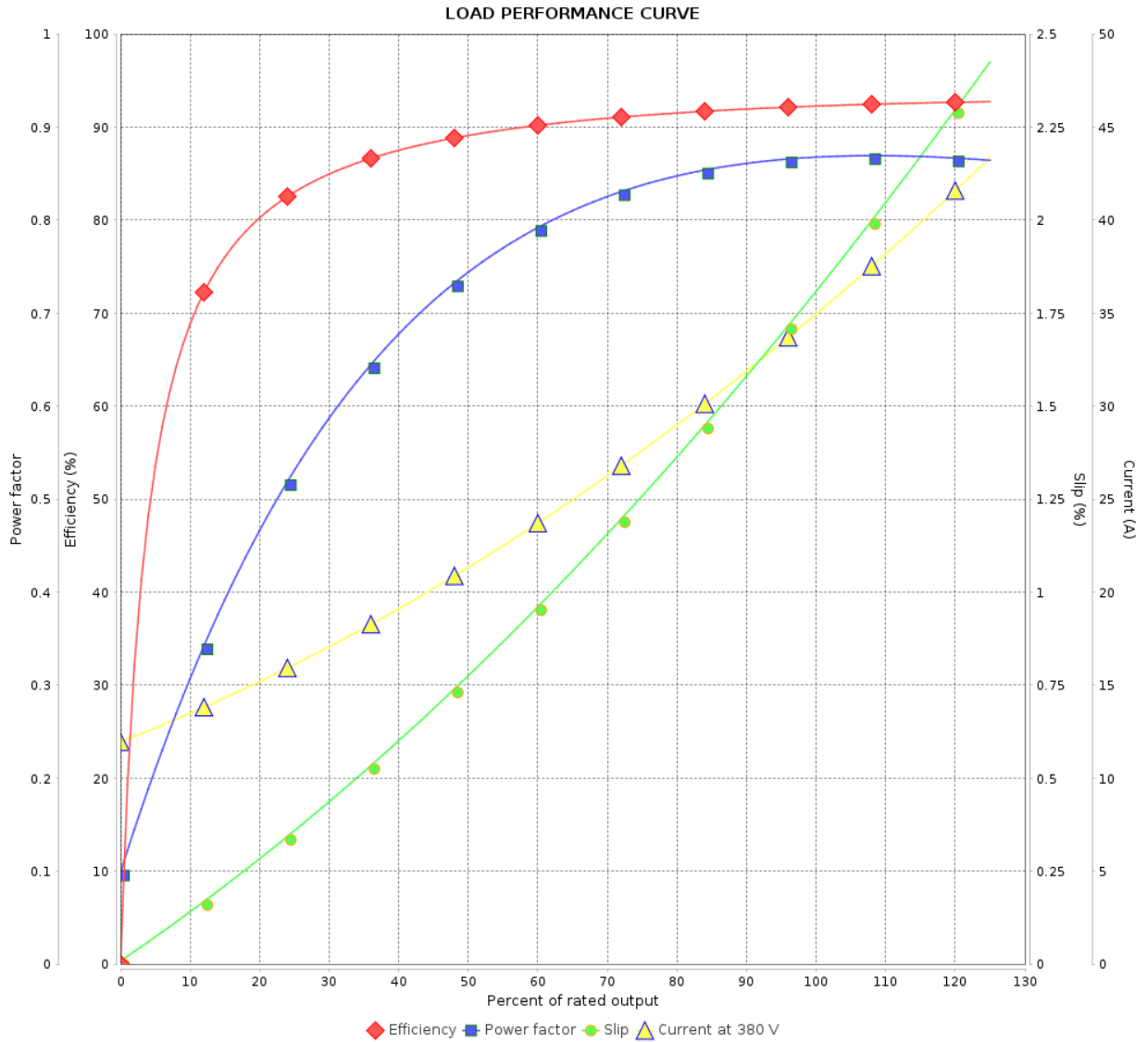
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11011969



Performance : 380 V 50 Hz 2P IE3

Rated current : 35.0 A  
LRC : 6.6  
Rated torque : 6.16 kgfm  
Locked rotor torque : 170 %  
Breakdown torque : 240 %  
Rated speed : 2945 rpm

Moment of inertia (J) : 0.0795 kgm<sup>2</sup>  
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				

# LOAD PERFORMANCE CURVE

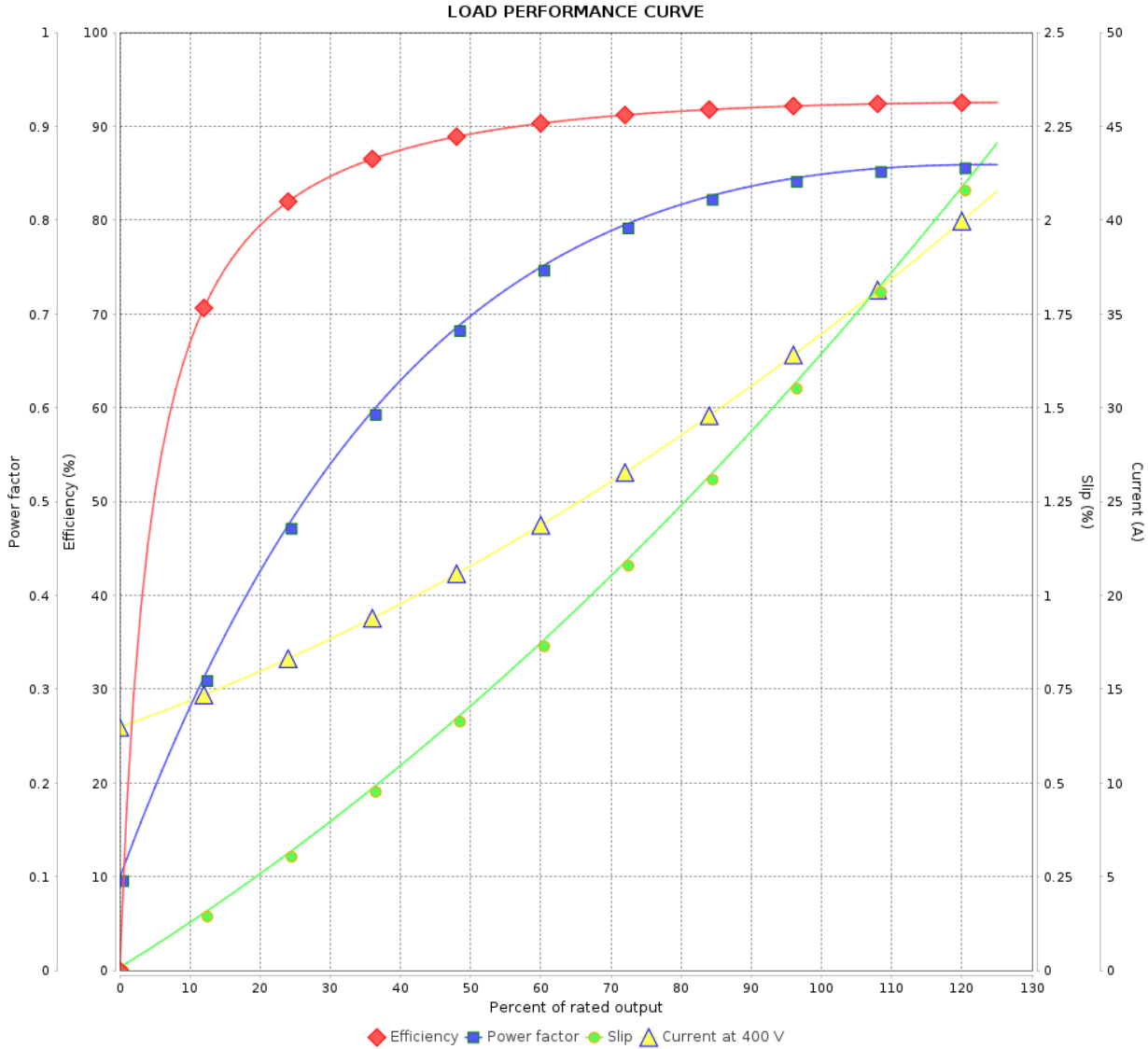
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11011969



Performance : 400 V 50 Hz 2P IE3

Rated current : 34.0 A  
LRC : 7.0  
Rated torque : 6.15 kgfm  
Locked rotor torque : 190 %  
Breakdown torque : 260 %  
Rated speed : 2950 rpm

Moment of inertia (J) : 0.0795 kgm<sup>2</sup>  
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 4 / 8	Revision
Checked by				
Date	14/01/2024			

# LOAD PERFORMANCE CURVE

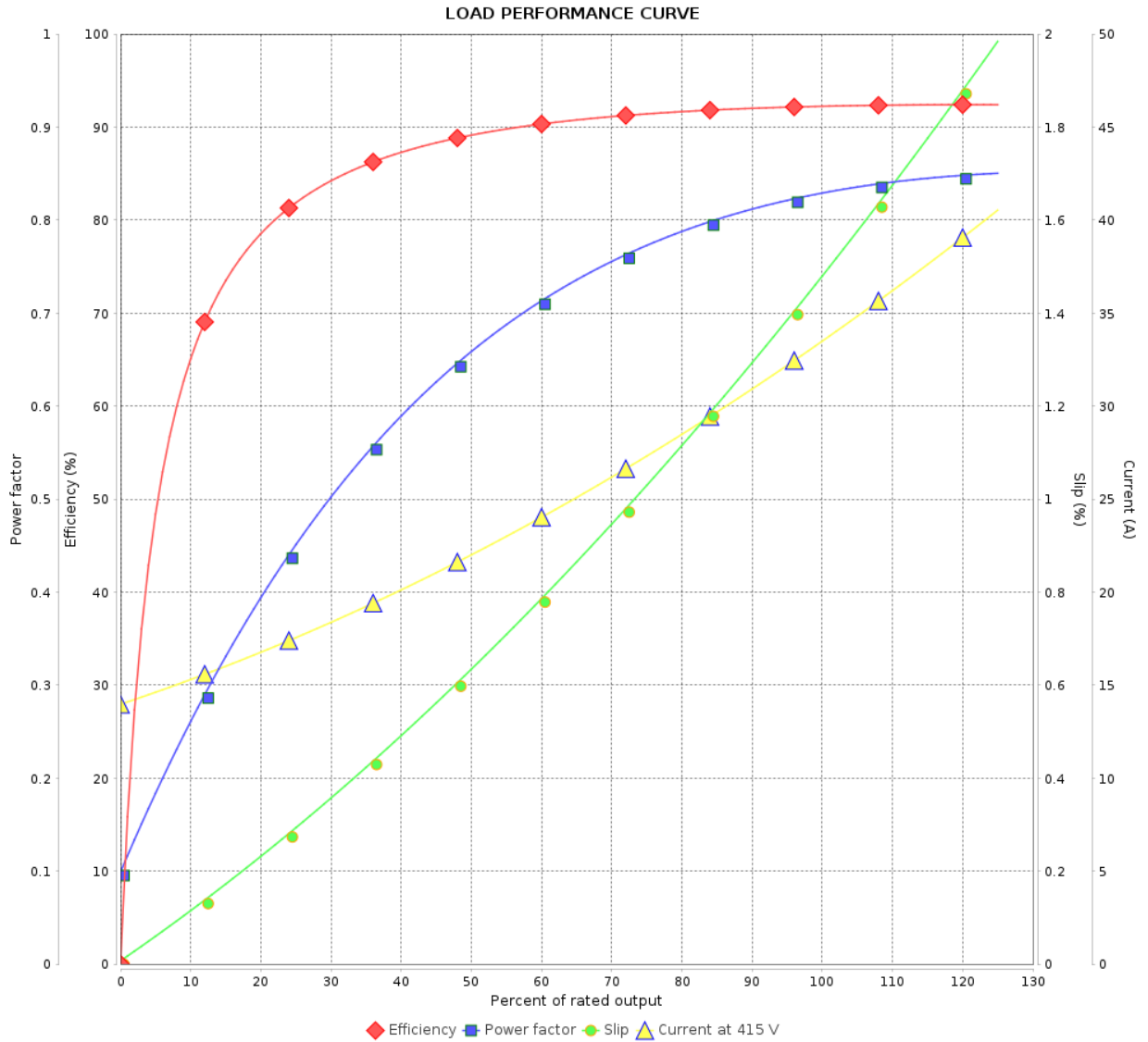
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11011969



Performance : 415 V 50 Hz 2P IE3

Rated current : 33.6 A  
 LRC : 6.7  
 Rated torque : 6.14 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 270 %  
 Rated speed : 2955 rpm

Moment of inertia (J) : 0.0795 kgm<sup>2</sup>  
 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				

# LOAD PERFORMANCE CURVE

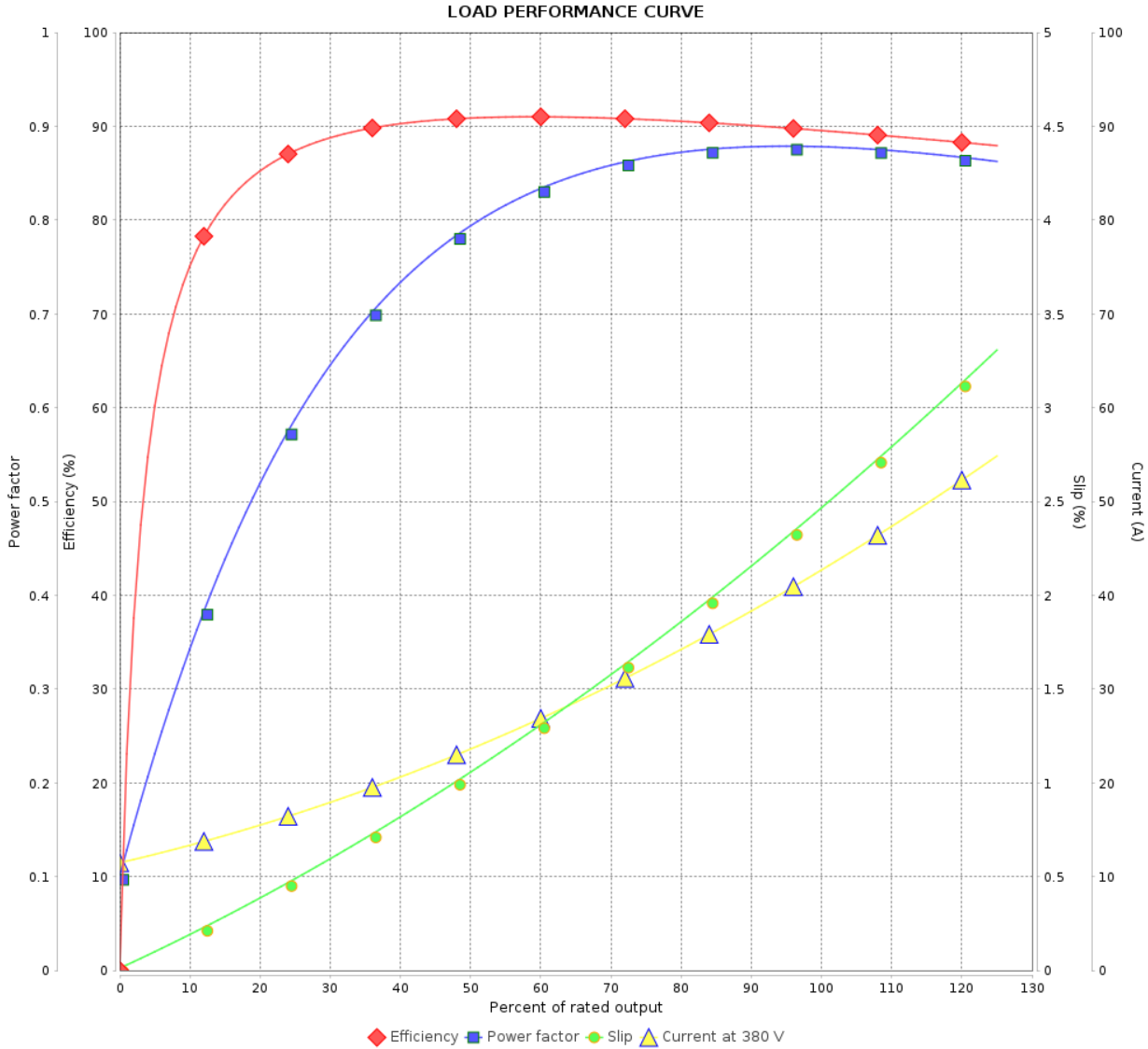
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11011969



Performance : 380 V 50 Hz 2P

Rated current : 42.4 A  
 LRC : 5.3  
 Rated torque : 7.44 kgfm  
 Locked rotor torque : 160 %  
 Breakdown torque : 180 %  
 Rated speed : 2925 rpm

Moment of inertia (J) : 0.0795 kgm<sup>2</sup>  
 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				

# LOAD PERFORMANCE CURVE

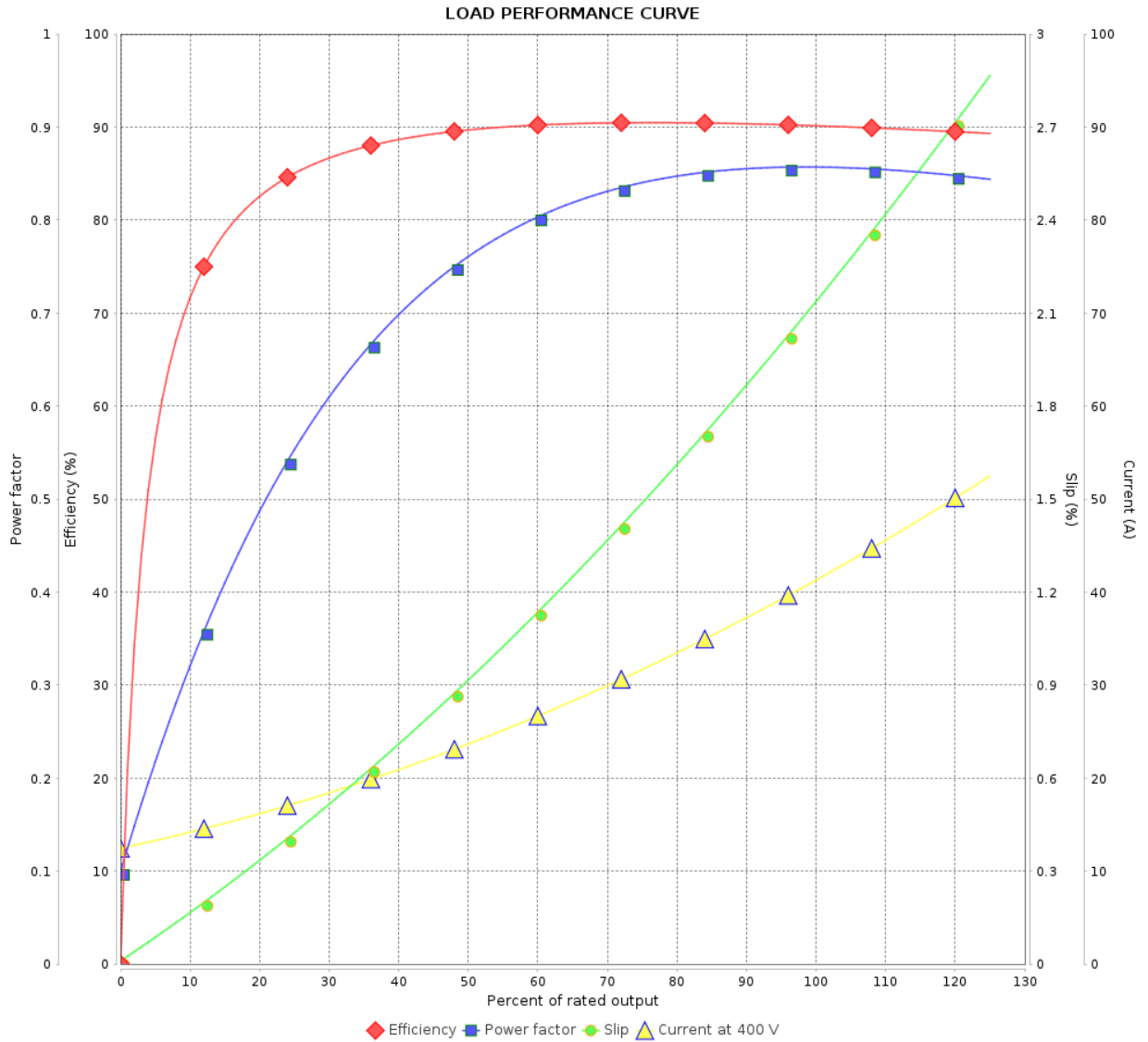
## Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11011969



Performance : 400 V 50 Hz 2P IE1

Rated current : 40.9 A  
LRC : 5.8  
Rated torque : 7.42 kgfm  
Locked rotor torque : 180 %  
Breakdown torque : 200 %  
Rated speed : 2935 rpm

Moment of inertia (J) : 0.0795 kgm<sup>2</sup>  
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				

# LOAD PERFORMANCE CURVE

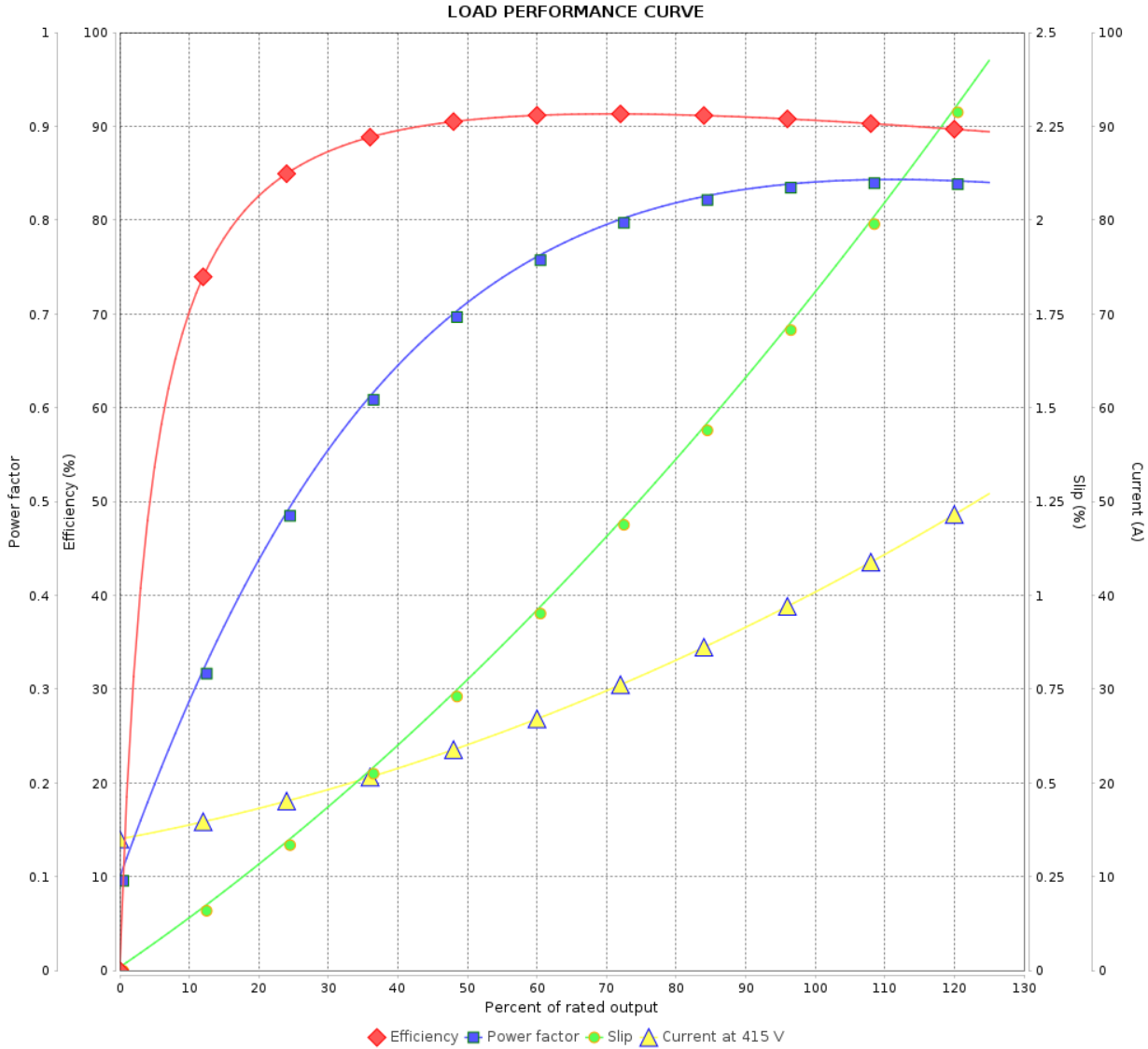
Three Phase Induction Motor - Squirrel Cage



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

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

Product code : 11011969



Performance : 415 V 50 Hz 2P IE1

Rated current : 40.2 A  
 LRC : 6.5  
 Rated torque : 7.39 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 220 %  
 Rated speed : 2945 rpm

Moment of inertia (J) : 0.0795 kgm<sup>2</sup>  
 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 8 / 8	Revision
Checked by				
Date	14/01/2024			