

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :							
Product line	: W22 Close Coupled Pump JM NEMA Premium Efficiency Three-Phase						
Product code :	12969044						
Frame	: 182/4JM						
Insulation class	: F						
Duty cycle	: Cont.(S1)						
Ambient temperature	: -20°C to +40°C						
Altitude	: 1000 m.a.s.l.						
Protection degree	: IP55						
Design	: A						
Cooling method	: IC411 - TEFC						
Mounting	: F-1						
Rotation <sup>1</sup>	: Both (CW and CCW)						
Starting method	: Direct On Line						
Approx. weight <sup>3</sup>	: 45.1 kg						
Moment of inertia (J)	: 0.0095 kgm <sup>2</sup>						
Output [HP]	7.5	5.5	5.5	5.5	7.5	7.5	7.5
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]	17.5/8.76	7.84	7.62	7.47	10.9	10.3	10.0
L. R. Amperes [A]	144/71.8	65.1	69.3	71.7	68.7	72.1	74.0
LRC [A]	8.2x(Code J)	8.3x(Code J)	9.1x(Code K)	9.6x(Code L)	6.3x(Code G)	7.0x(Code H)	7.4x(Code H)
No load current [A]	5.80/2.90	2.70	3.00	3.20	2.70	3.00	3.20
Rated speed [RPM]	3485	2900	2910	2915	2810	2840	2860
Slip [%]	3.19	3.33	3.00	2.83	6.33	5.33	4.67
Rated torque [kgfm]	1.56	1.38	1.37	1.37	1.94	1.92	1.90
Locked rotor torque [%]	270	310	350	370	220	250	270
Breakdown torque [%]	330	360	390	430	260	280	310
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	80 K	80 K	80 K
Locked rotor time	30s (cold) 17s (hot)	28s (cold) 16s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	28s (cold) 16s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)
Noise level <sup>2</sup>	66.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)
Efficiency (%)	25%						
	50%	88.5	85.5	85.9	86.2	87.0	87.5
	75%	89.5	87.0	87.6	88.1	87.0	88.0
	100%	89.5	88.1	88.1	88.7	84.5	86.0
Power Factor	25%						
	50%	0.75	0.70	0.66	0.63	0.80	0.77
	75%	0.84	0.82	0.79	0.77	0.88	0.86
	100%	0.88	0.88	0.86	0.84	0.91	0.90
Losses at normative operating points (speed;torque), in percentage of rated output power							
Losses (%)	P1 (0,9;1,0)	11.4	11.4	11.4	11.4	11.4	11.4
	P2 (0,5;1,0)	9.4	9.4	9.4	9.4	9.4	9.4
	P3 (0,25;1,0)	8.7	8.7	8.7	8.7	8.7	8.7
	P4 (0,9;0,5)	5.3	5.3	5.3	5.3	5.3	5.3
	P5 (0,5;0,5)	3.4	3.4	3.4	3.4	3.4	3.4
	P6 (0,5;0,25)	2.1	2.1	2.1	2.1	2.1	2.1
	P7 (0,25;0,25)	1.3	1.3	1.3	1.3	1.3	1.3
Bearing type	: Drive end 6307 ZZ	: Non drive end 6206 ZZ	Foundation loads				
Sealing	: V'Ring	: V'Ring	Max. traction : 101 kgf				
Lubrication interval	: -	: -	Max. compression : 146 kgf				
Lubricant amount	: -	: -					
Lubricant type	: 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.			
Rev.	Changes Summary			Performed	Checked	Date	
Performed by							
Checked by						Page	Revision
Date	13/01/2024					1 / 9	

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



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

Notes

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/01/2024		2 / 9	

# LOAD PERFORMANCE CURVE

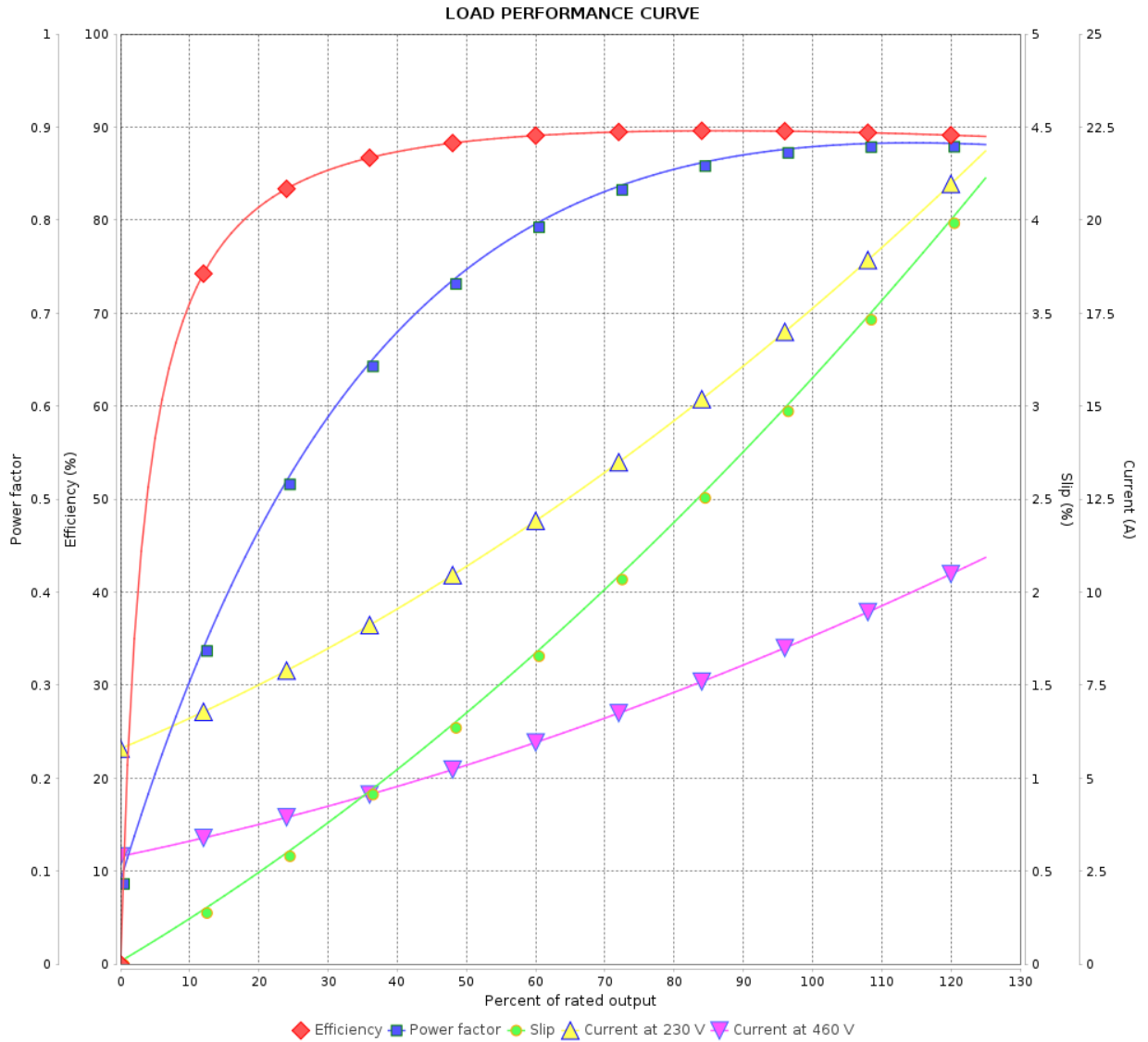
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM NEMA  
Premium Efficiency Three-Phase

Product code : 12969044



Performance : 230/460 V 60 Hz 2P

Rated current : 17.5/8.76 A  
 LRC : 8.2  
 Rated torque : 1.56 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 330 %  
 Rated speed : 3485 rpm

Moment of inertia (J) : 0.0095 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : A

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

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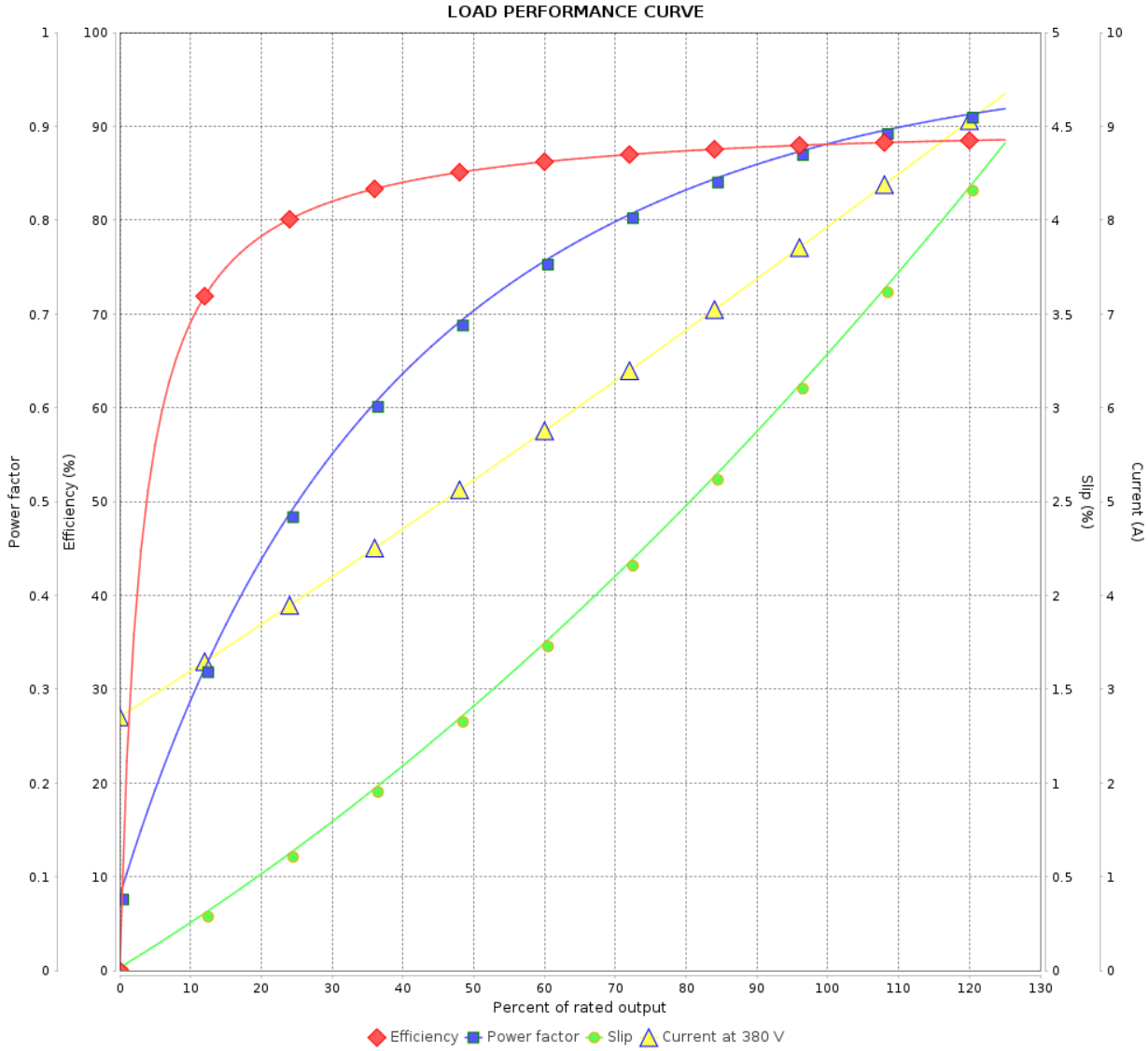
Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 Close Coupled Pump JM NEMA  
Premium Efficiency Three-Phase

Product code : 12969044



Performance : 380 V 50 Hz 2P IE3

Rated current : 7.84 A  
 LRC : 8.3  
 Rated torque : 1.38 kgfm  
 Locked rotor torque : 310 %  
 Breakdown torque : 360 %  
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.0095 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

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

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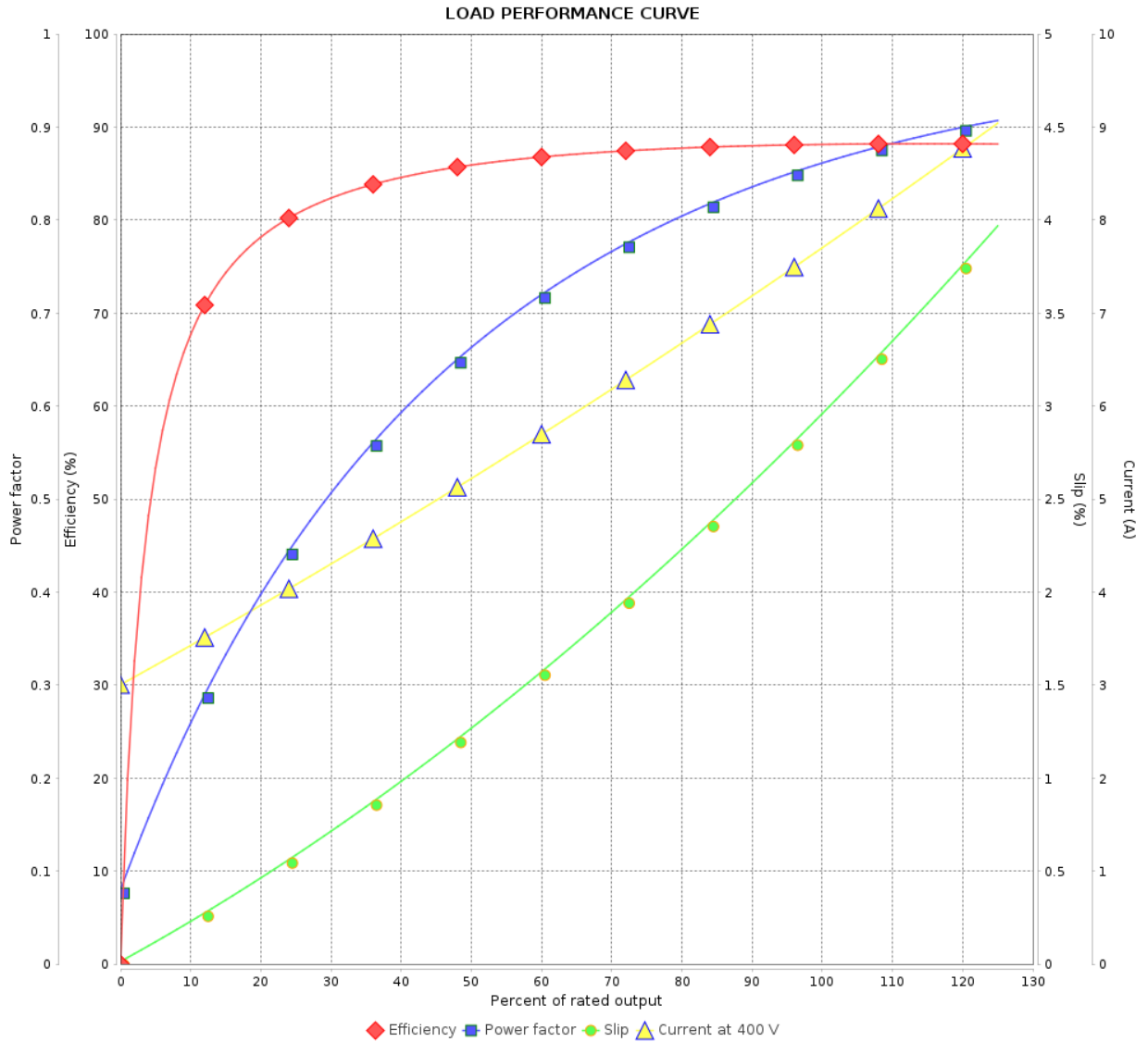
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 Close Coupled Pump JM NEMA  
Premium Efficiency Three-Phase

Product code : 12969044



Performance : 400 V 50 Hz 2P IE3

Rated current : 7.62 A  
 LRC : 9.1  
 Rated torque : 1.37 kgfm  
 Locked rotor torque : 350 %  
 Breakdown torque : 390 %  
 Rated speed : 2910 rpm

Moment of inertia (J) : 0.0095 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date				
		Page	Revision	
		5 / 9		

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

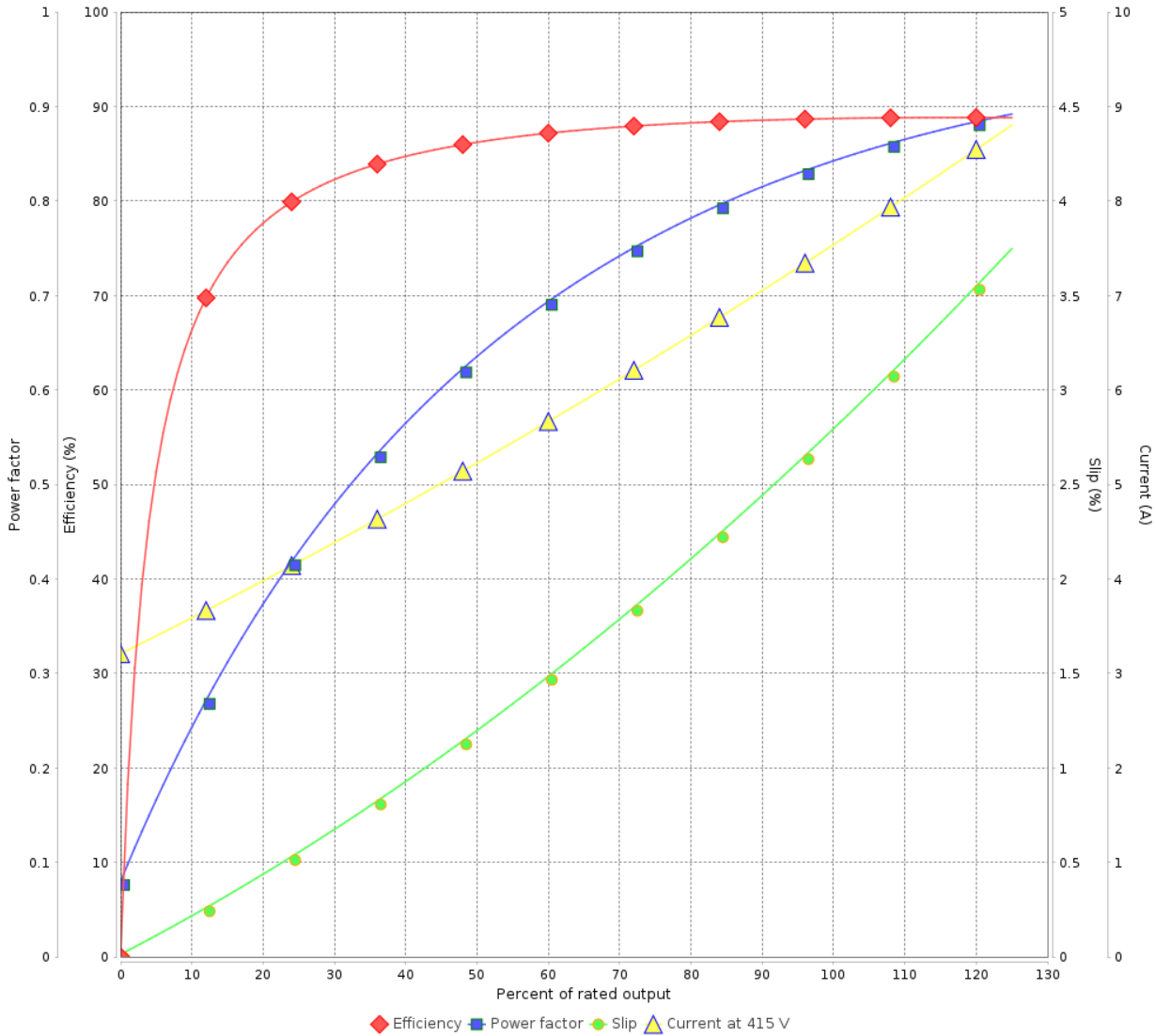


Customer :

Product line : W22 Close Coupled Pump JM NEMA  
Premium Efficiency Three-Phase

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LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 2P IE3

Rated current : 7.47 A  
LRC : 9.6  
Rated torque : 1.37 kgfm  
Locked rotor torque : 370 %  
Breakdown torque : 430 %  
Rated speed : 2915 rpm

Moment of inertia (J) : 0.0095 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : A

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

# LOAD PERFORMANCE CURVE

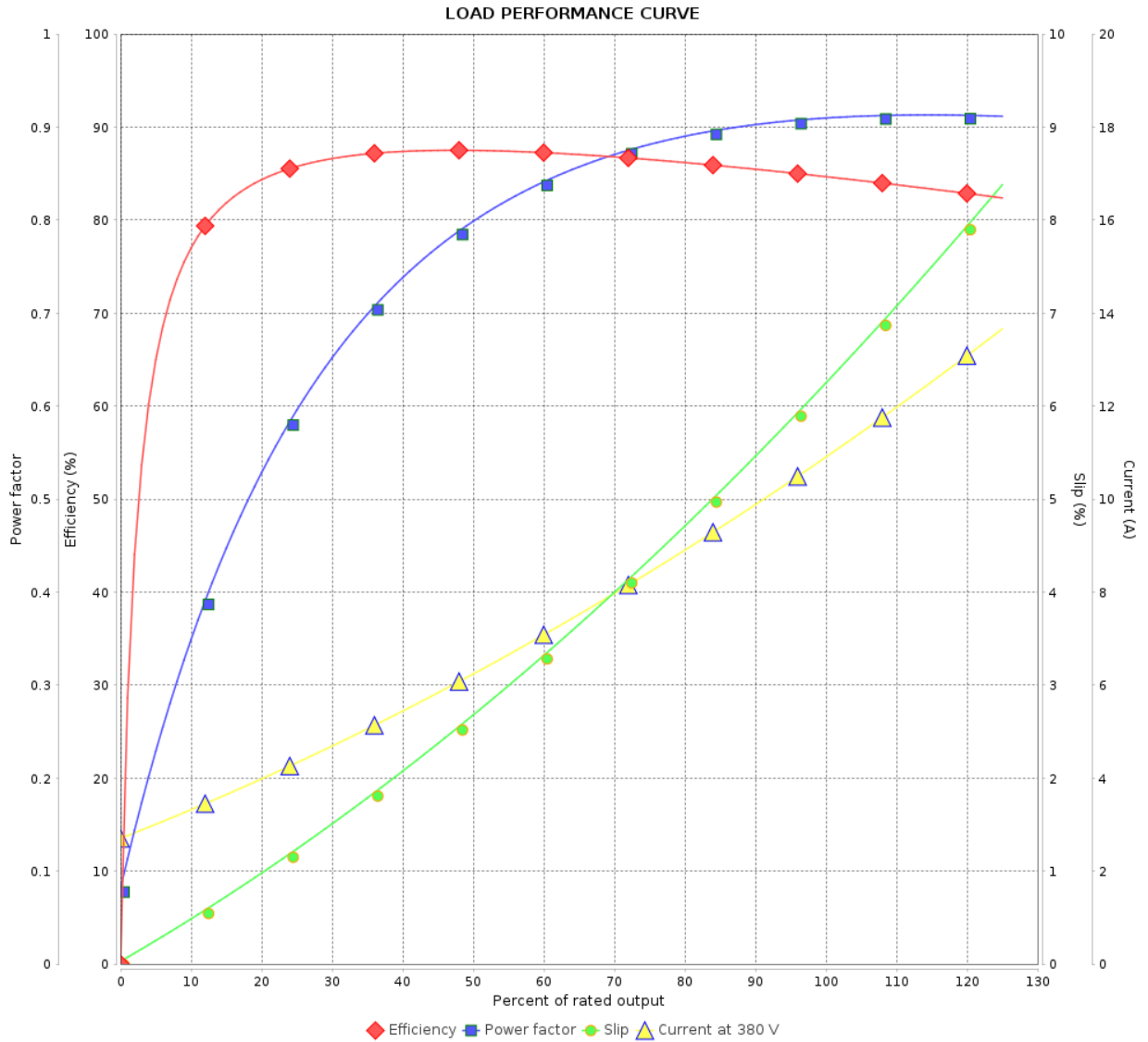
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 Close Coupled Pump JM NEMA  
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Product code : 12969044



Performance : 380 V 50 Hz 2P

Rated current : 10.9 A  
 LRC : 6.3  
 Rated torque : 1.94 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 260 %  
 Rated speed : 2810 rpm

Moment of inertia (J) : 0.0095 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

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

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

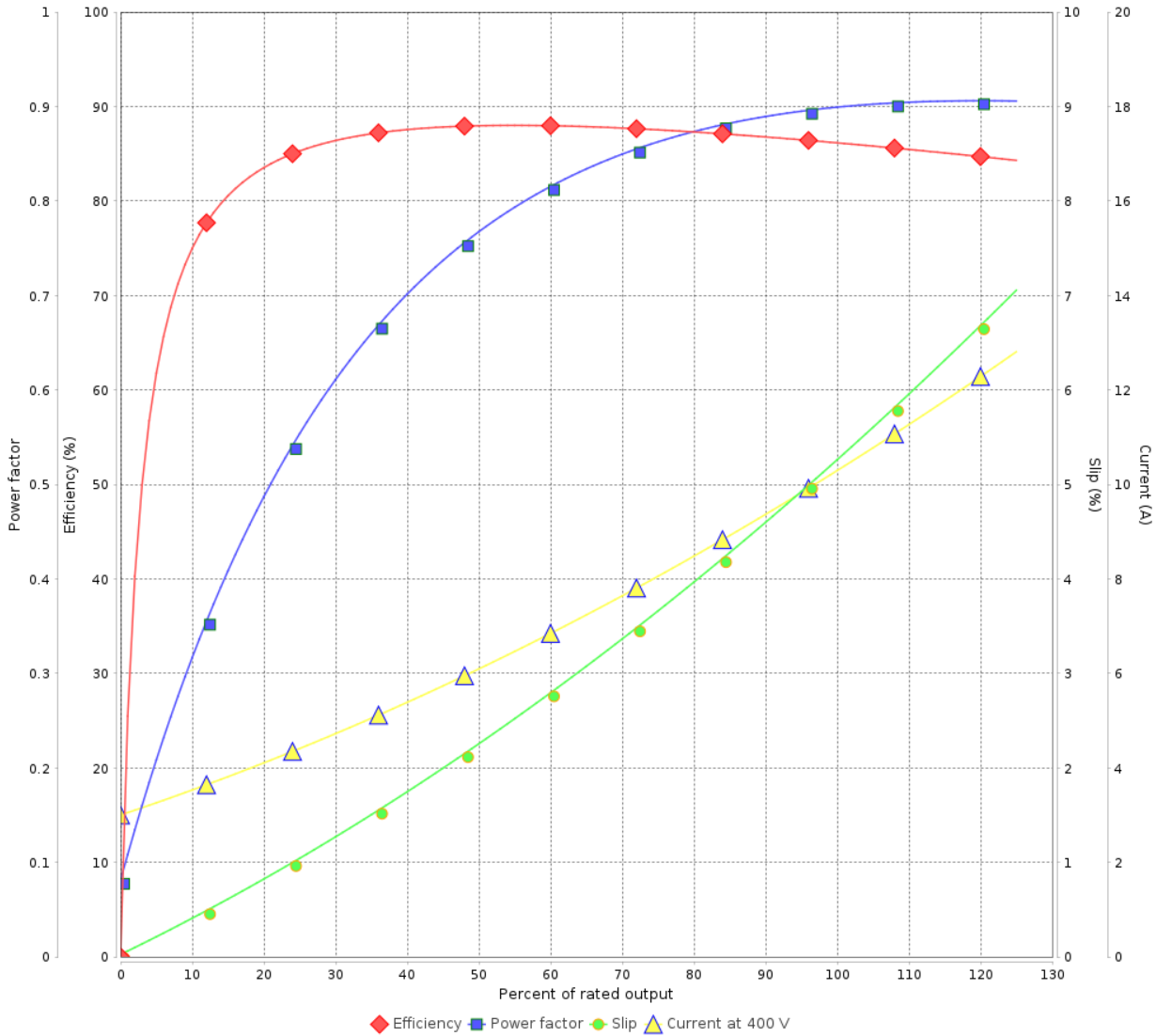


Customer : \_\_\_\_\_

Product line : W22 Close Coupled Pump JM NEMA  
Premium Efficiency Three-Phase

Product code : 12969044

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE1

Rated current : 10.3 A  
LRC : 7.0  
Rated torque : 1.92 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 280 %  
Rated speed : 2840 rpm

Moment of inertia (J) : 0.0095 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : A

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



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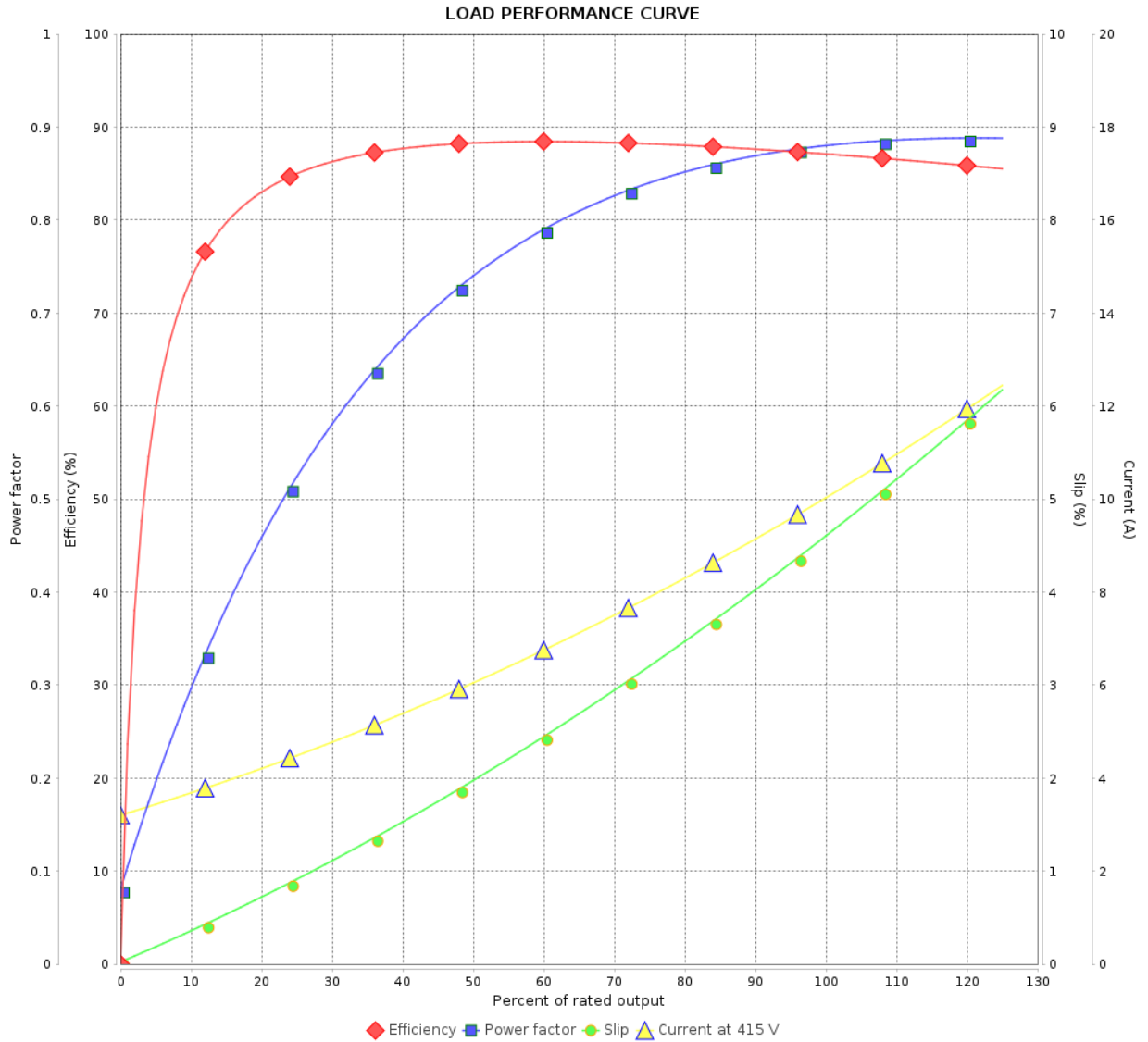
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Customer : \_\_\_\_\_

Product line : W22 Close Coupled Pump JM NEMA  
Premium Efficiency Three-Phase

Product code : 12969044



Performance : 415 V 50 Hz 2P IE2

Rated current : 10.0 A  
LRC : 7.4  
Rated torque : 1.90 kgfm  
Locked rotor torque : 270 %  
Breakdown torque : 310 %  
Rated speed : 2860 rpm

Moment of inertia (J) : 0.0095 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : A

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