

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12447102

Frame : 284/6TS	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 ³ : 164 kg
Protection degree : IP55	Moment of inertia (J) : 0.1135 kgm ²
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]	57.5/28.8	28.2	27.1	26.4	35.3	33.6	32.1
L. R. Amperes [A]	363/181	175	187	198	173	185	199
LRC [A]	6.3x(Code G)	6.2x(Code G)	6.9x(Code H)	7.5x(Code J)	4.9x(Code E)	5.5x(Code F)	6.2x(Code G)
No load current [A]	14.5/7.27	6.87	7.38	7.81	6.87	7.38	7.81
Rated speed [RPM]	3545	2945	2951	2956	2915	2930	2940
Slip [%]	1.53	1.83	1.63	1.47	2.83	2.33	2.00
Rated torque [kgfm]	5.11	4.93	4.91	4.90	6.20	6.19	6.17
Locked rotor torque [%]	200	200	229	240	160	180	190
Breakdown torque [%]	229	220	240	260	170	190	210
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	30s (cold) 17s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)
Noise level ²	72.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)
Efficiency (%)	25%						
	50%	91.0	90.2	90.3	89.8	91.0	91.0
	75%	91.7	90.7	91.1	91.1	90.2	91.0
	100%	91.7	91.9	91.9	91.9	89.5	91.0
Power Factor	25%						
	50%	0.78	0.79	0.76	0.73	0.83	0.81
	75%	0.85	0.86	0.84	0.82	0.88	0.87
	100%	0.88	0.88	0.87	0.86	0.89	0.88

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

Losses (%)	P1 (0,9;1,0)	8.6	8.3	8.3	8.3	11.1	10.3	9.4
	P2 (0,5;1,0)	6.5	6.3	6.3	6.3	8.4	7.8	7.1
	P3 (0,25;1,0)	5.6	5.5	5.5	5.5	7.3	6.7	6.1
	P4 (0,9;0,5)	4.4	4.3	4.3	4.3	5.8	5.3	4.9
	P5 (0,5;0,5)	2.5	2.5	2.5	2.5	3.3	3.0	2.8
	P6 (0,5;0,25)	1.6	1.6	1.6	1.6	2.1	1.9	1.8
	P7 (0,25;0,25)	0.9	0.9	0.9	0.9	1.2	1.1	1.0

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6311 C3	6211 C3	Max. traction : 103 kgf
Sealing :	V'Ring	V'Ring	Max. compression : 267 kgf
Lubrication interval :	14000 h	17000 h	
Lubricant amount :	18 g	11 g	
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				
Date	21/10/2024		Page 1 / 9	Revision

DATA SHEET

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Customer : _____

Notes
USABLE @208V 63.0A SF 1.10 SFA 69.3A

Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page		Revision
Checked by					
Date	21/10/2024				

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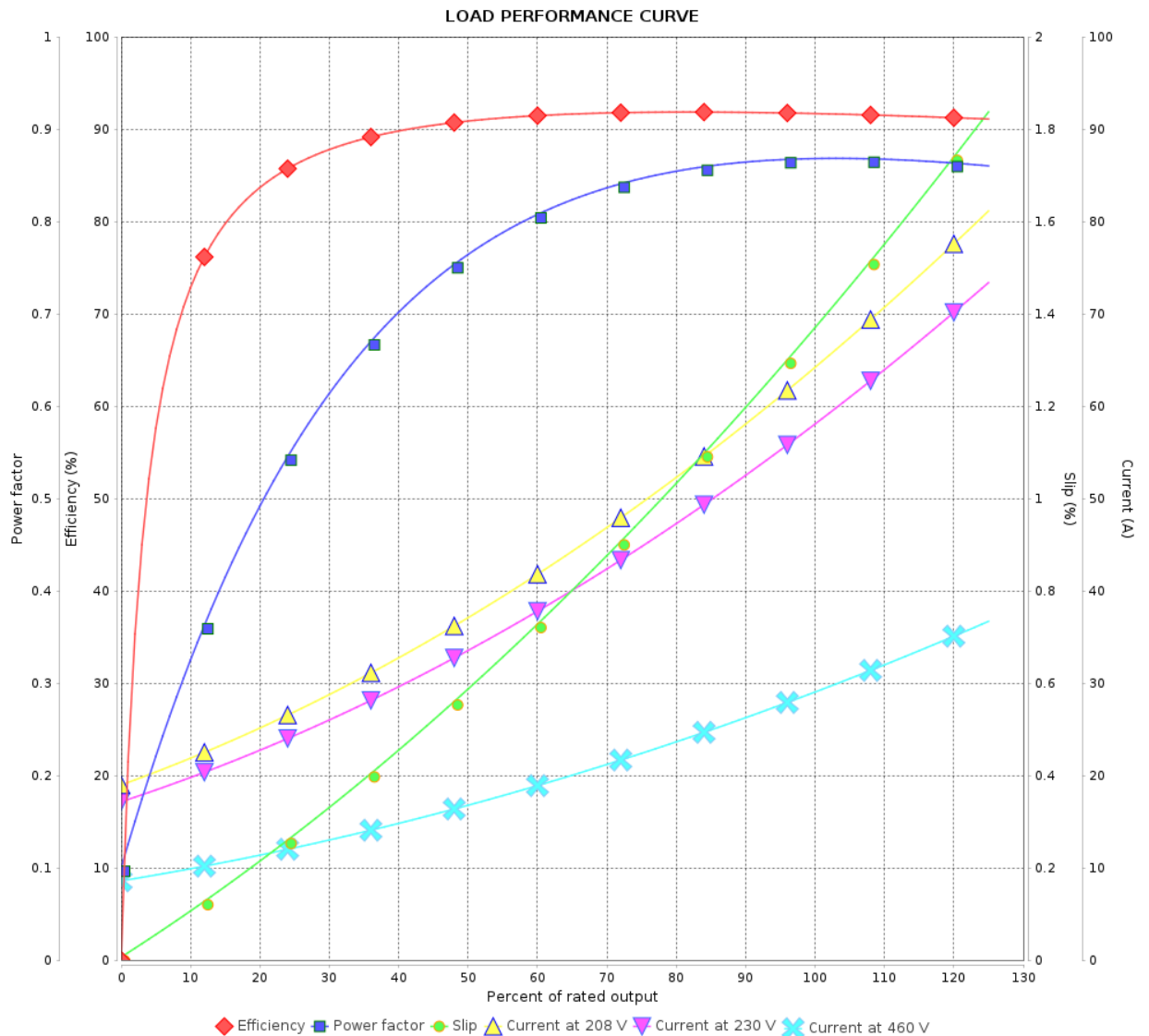
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447102



Performance : 230/460 V 60 Hz 2P

Rated current : 57.5/28.8 A
LRC : 6.3
Rated torque : 5.11 kgfm
Locked rotor torque : 200 %
Breakdown torque : 229 %
Rated speed : 3545 rpm

Moment of inertia (J) : 0.1135 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 3 / 9	Revision
Checked by					
Date	21/10/2024				

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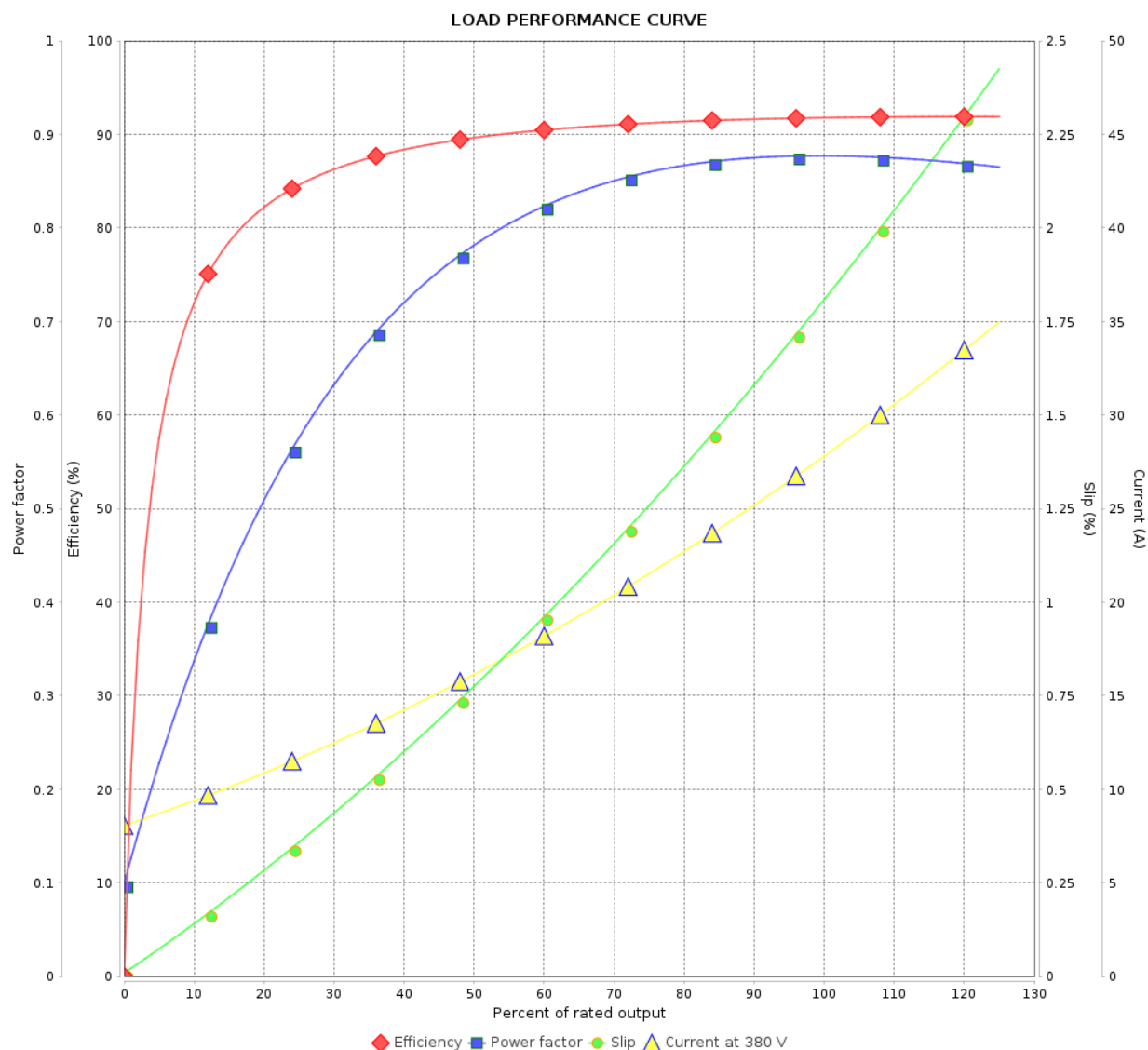
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447102



Performance : 380 V 50 Hz 2P IE3

Rated current : 28.2 A
LRC : 6.2
Rated torque : 4.93 kgfm
Locked rotor torque : 200 %
Breakdown torque : 220 %
Rated speed : 2945 rpm

Moment of inertia (J) : 0.1135 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				4 / 9	
Date					

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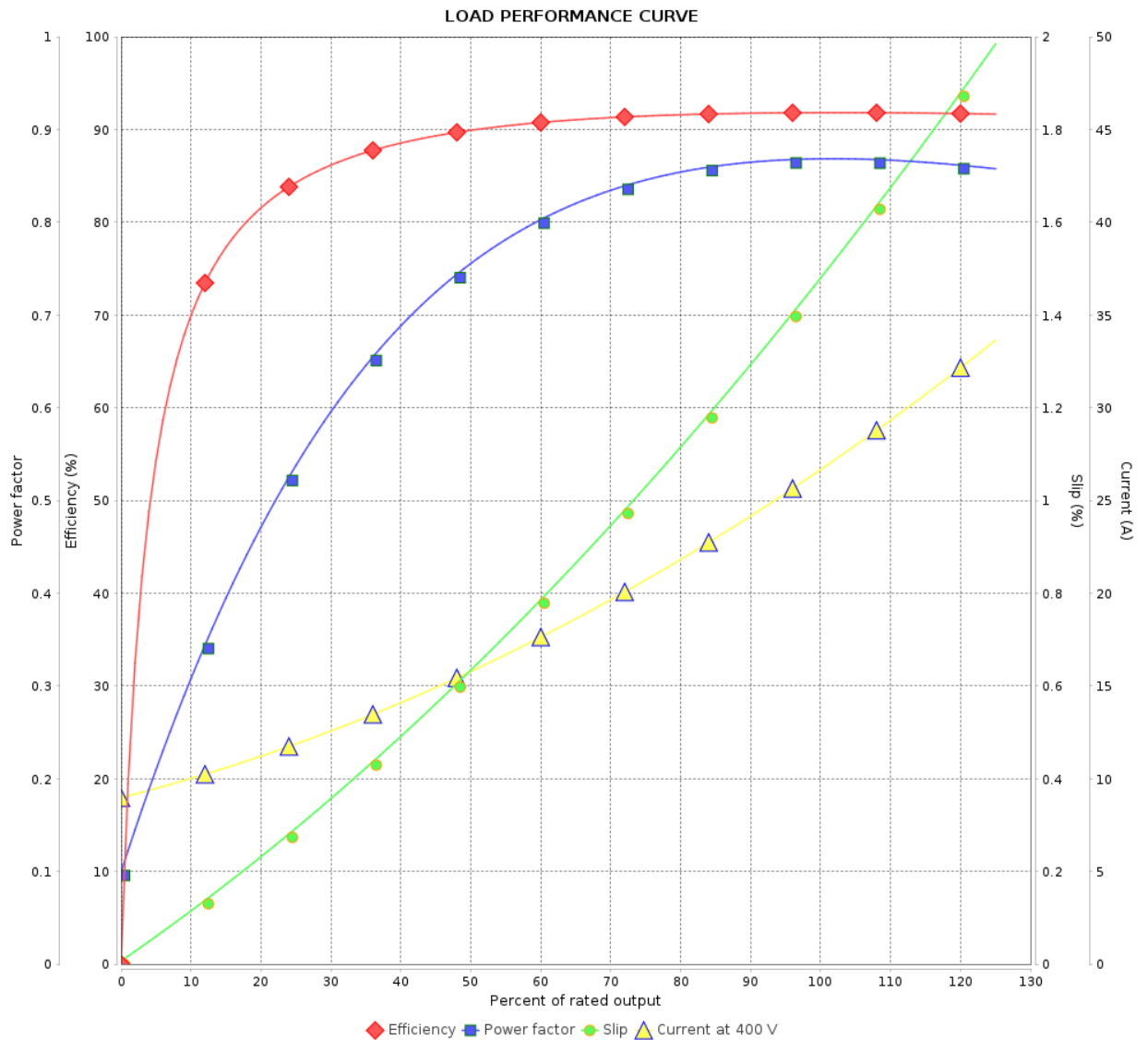
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447102



Performance : 400 V 50 Hz 2P IE3

Rated current	: 27.1 A	Moment of inertia (J)	: 0.1135 kgm ²
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 4.91 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2951 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 5 / 9 Revision		
Checked by				
Date	21/10/2024			

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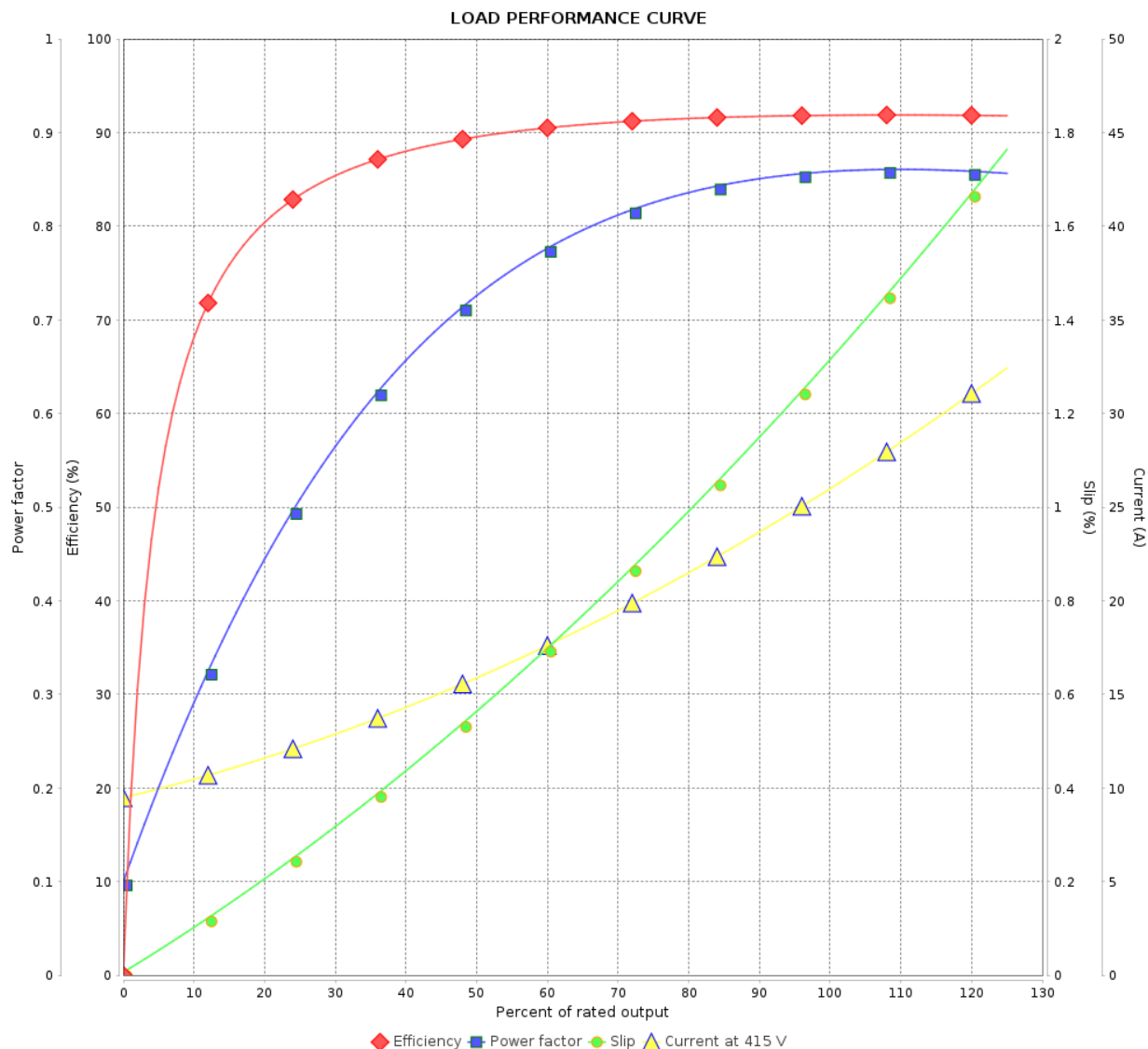
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447102



Performance : 415 V 50 Hz 2P IE3

Rated current : 26.4 A
LRC : 7.5
Rated torque : 4.90 kgfm
Locked rotor torque : 240 %
Breakdown torque : 260 %
Rated speed : 2956 rpm

Moment of inertia (J) : 0.1135 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				6 / 9	
Date					

LOAD PERFORMANCE CURVE

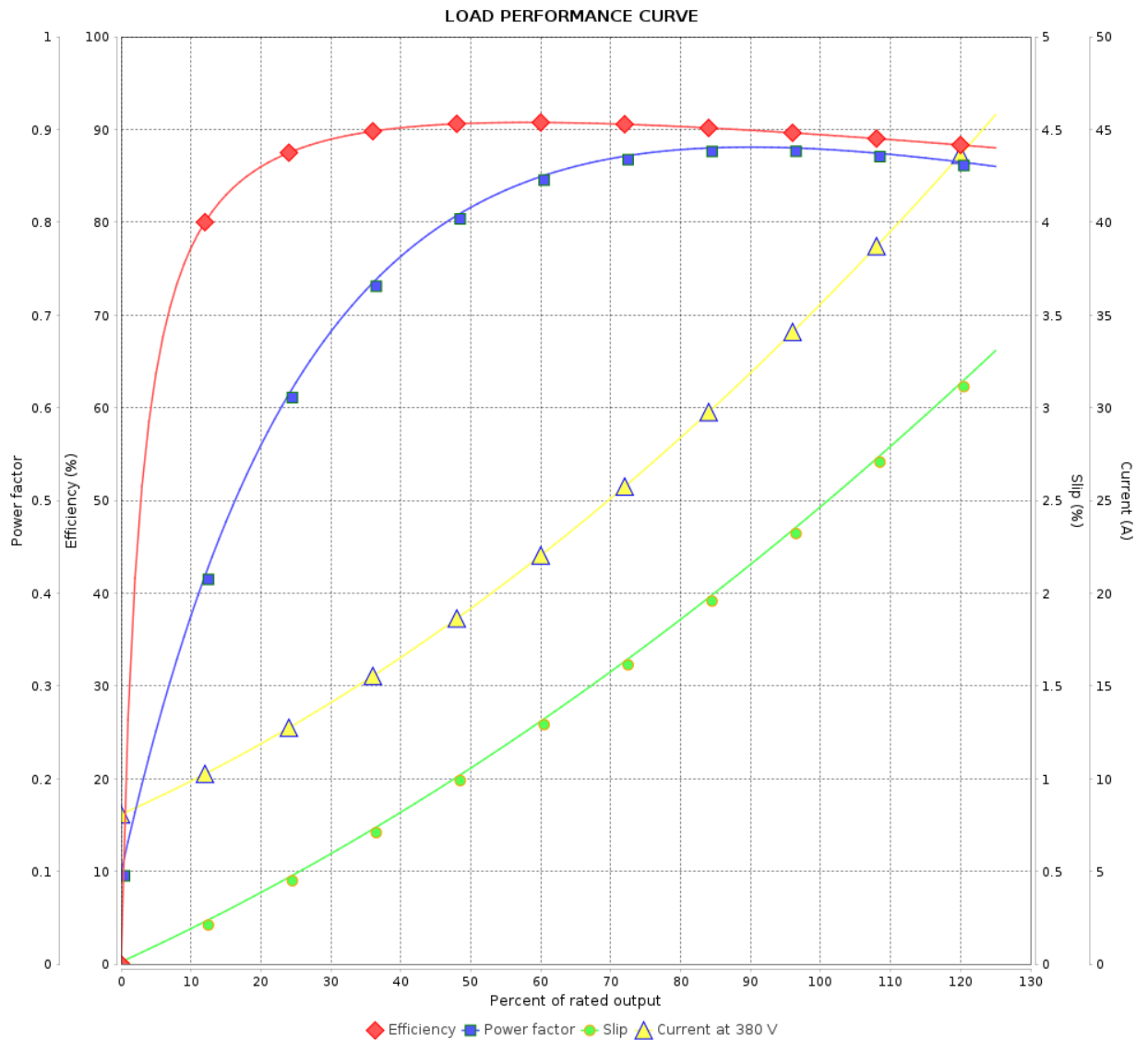
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447102



Performance : 380 V 50 Hz 2P IE1

Rated current	: 35.3 A	Moment of inertia (J)	: 0.1135 kgm ²
LRC	: 4.9	Duty cycle	: Cont.(S1)
Rated torque	: 6.20 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 170 %	Temperature rise	: 105 K
Rated speed	: 2915 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	21/10/2024			

Page	Revision
7 / 9	

LOAD PERFORMANCE CURVE

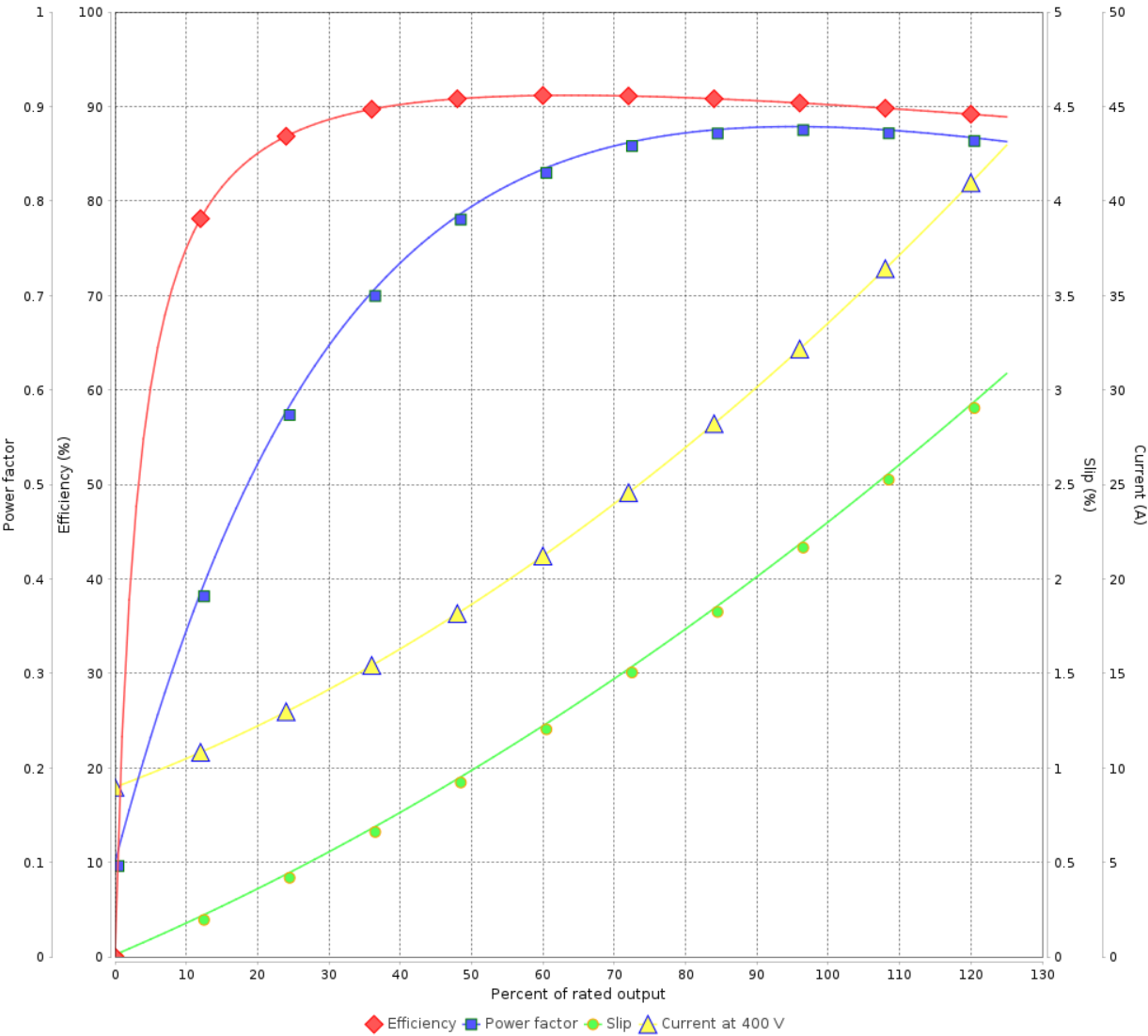
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12447102

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Performance : 400 V 50 Hz 2P IE1

Rated current	: 33.6 A	Moment of inertia (J)	: 0.1135 kgm ²
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 6.19 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 190 %	Temperature rise	: 105 K
Rated speed	: 2930 rpm	Design	: B

Rev.	Changes Summary		Performed	Checked	Date
Performed by		Page 8 / 9 Revision			
Checked by					
Date	21/10/2024				

LOAD PERFORMANCE CURVE

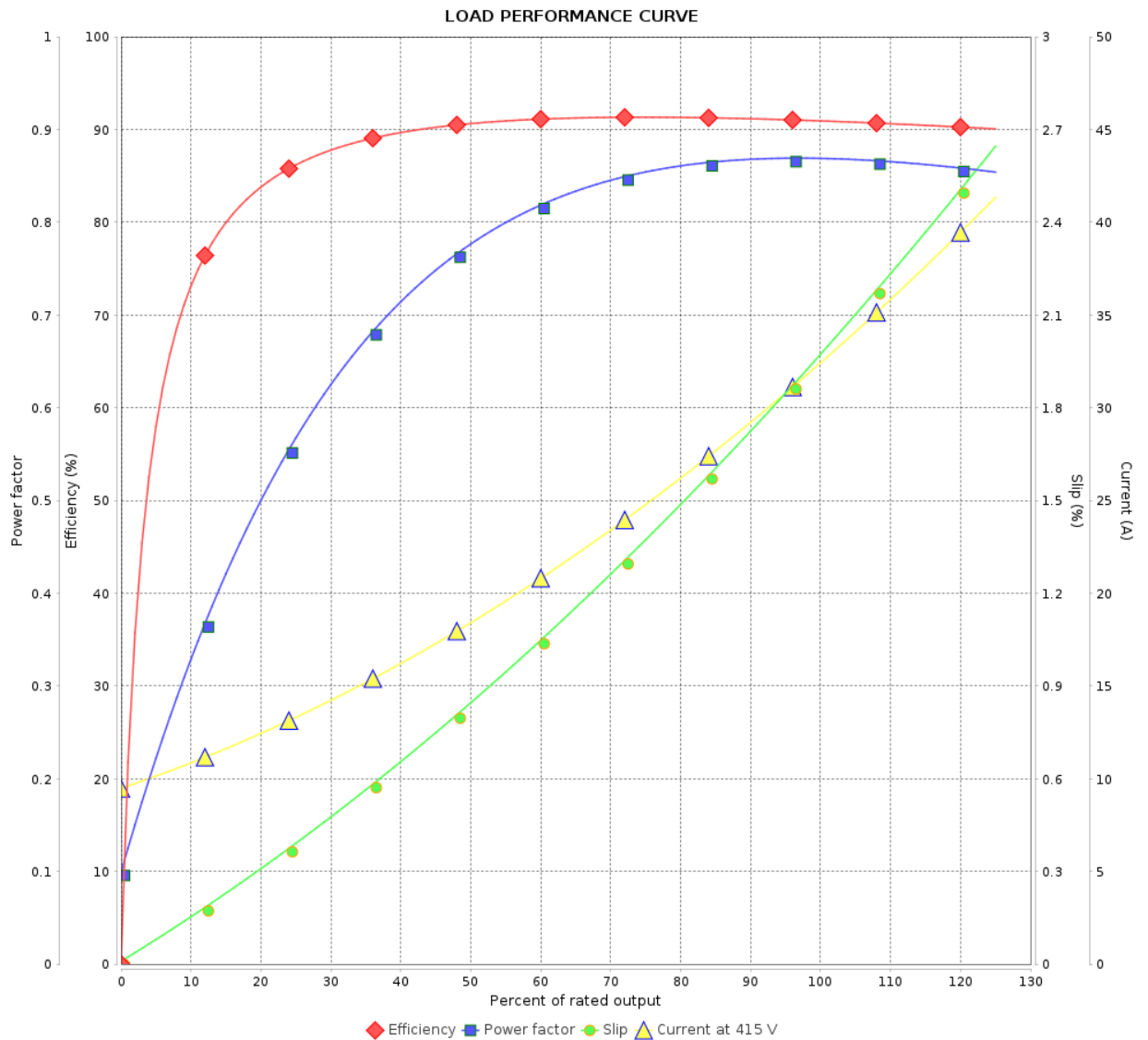
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447102



Performance : 415 V 50 Hz 2P IE2

Rated current : 32.1 A
LRC : 6.2
Rated torque : 6.17 kgfm
Locked rotor torque : 190 %
Breakdown torque : 210 %
Rated speed : 2940 rpm

Moment of inertia (J) : 0.1135 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 9 / 9 Revision		
Checked by				
Date	21/10/2024			

