

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12447101

Frame : 284/6TSC	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 : 168 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 : 101 kgf
Sealing :	V'Ring	V'Ring	Max. compression : 269 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.

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Three Phase Induction Motor - Squirrel Cage



Customer :

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

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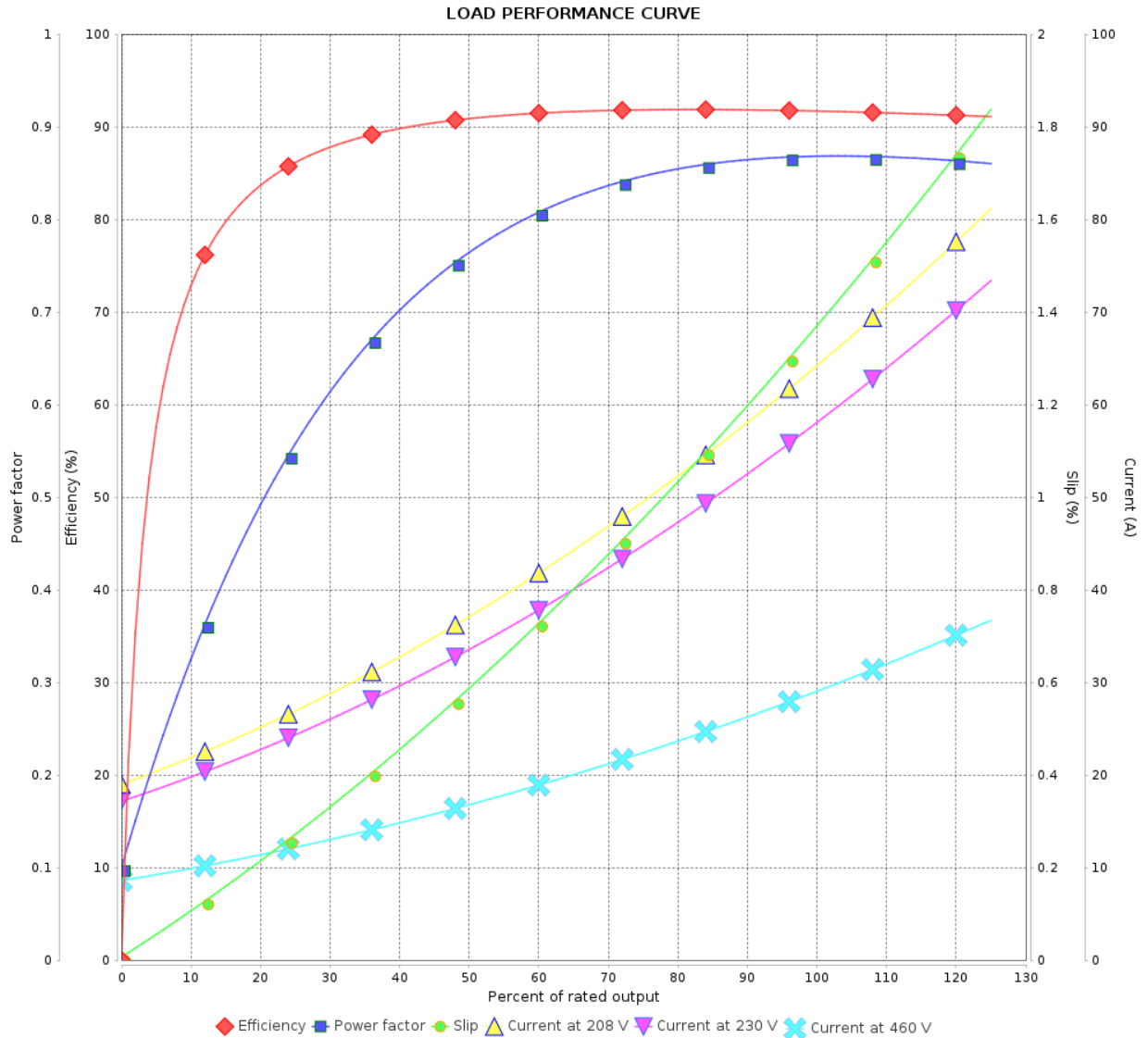
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447101



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

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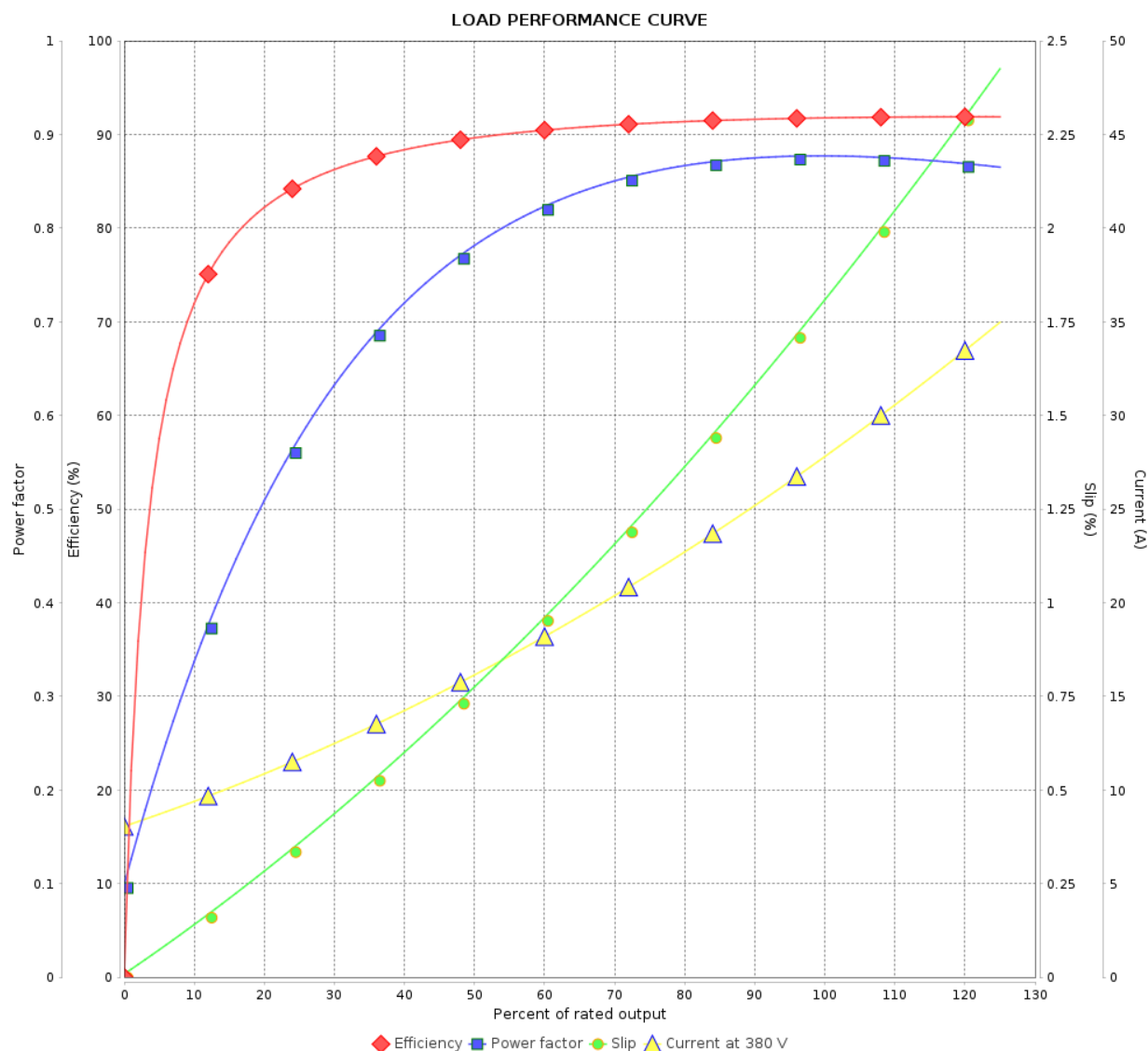
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447101



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

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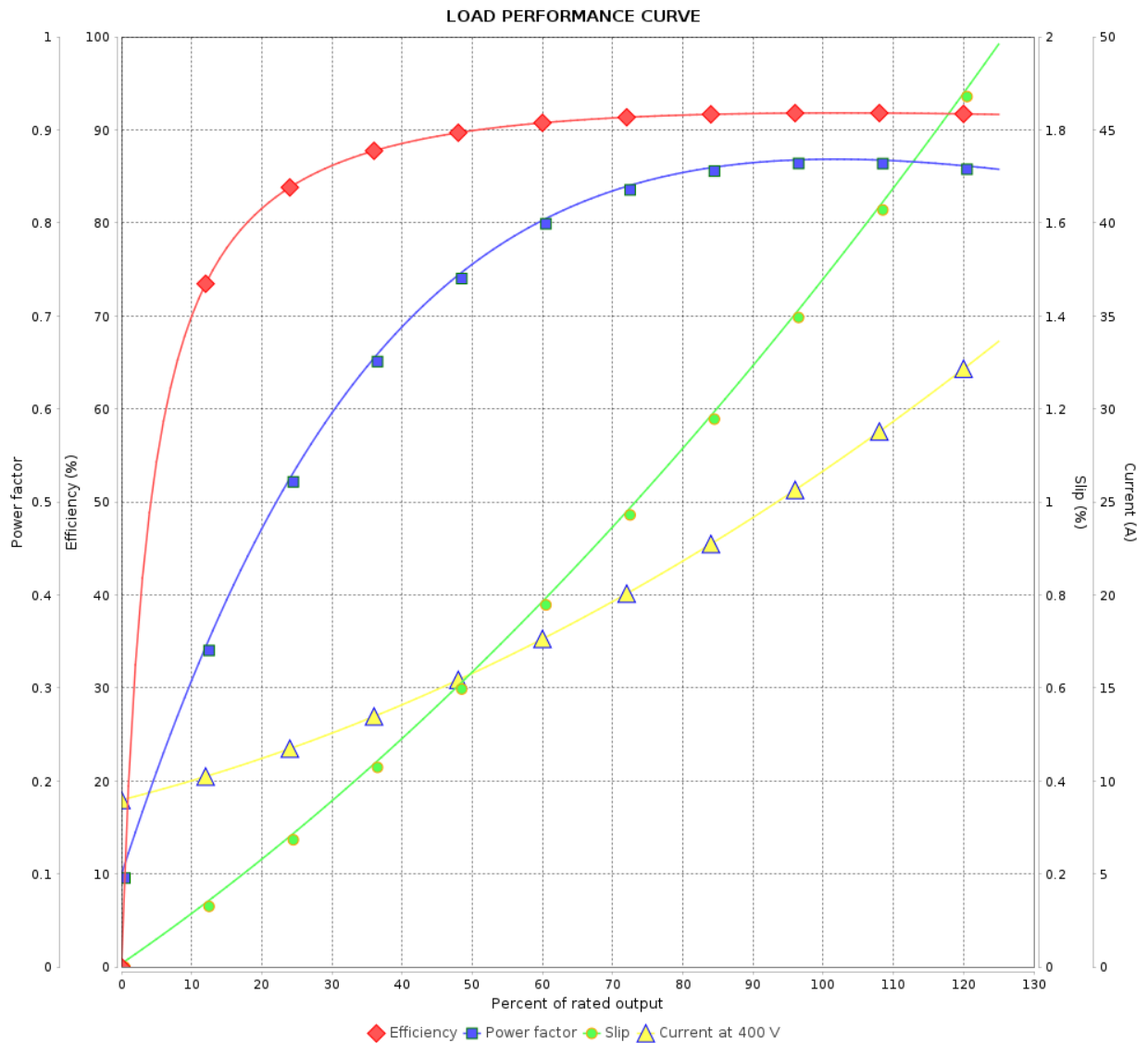
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447101



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

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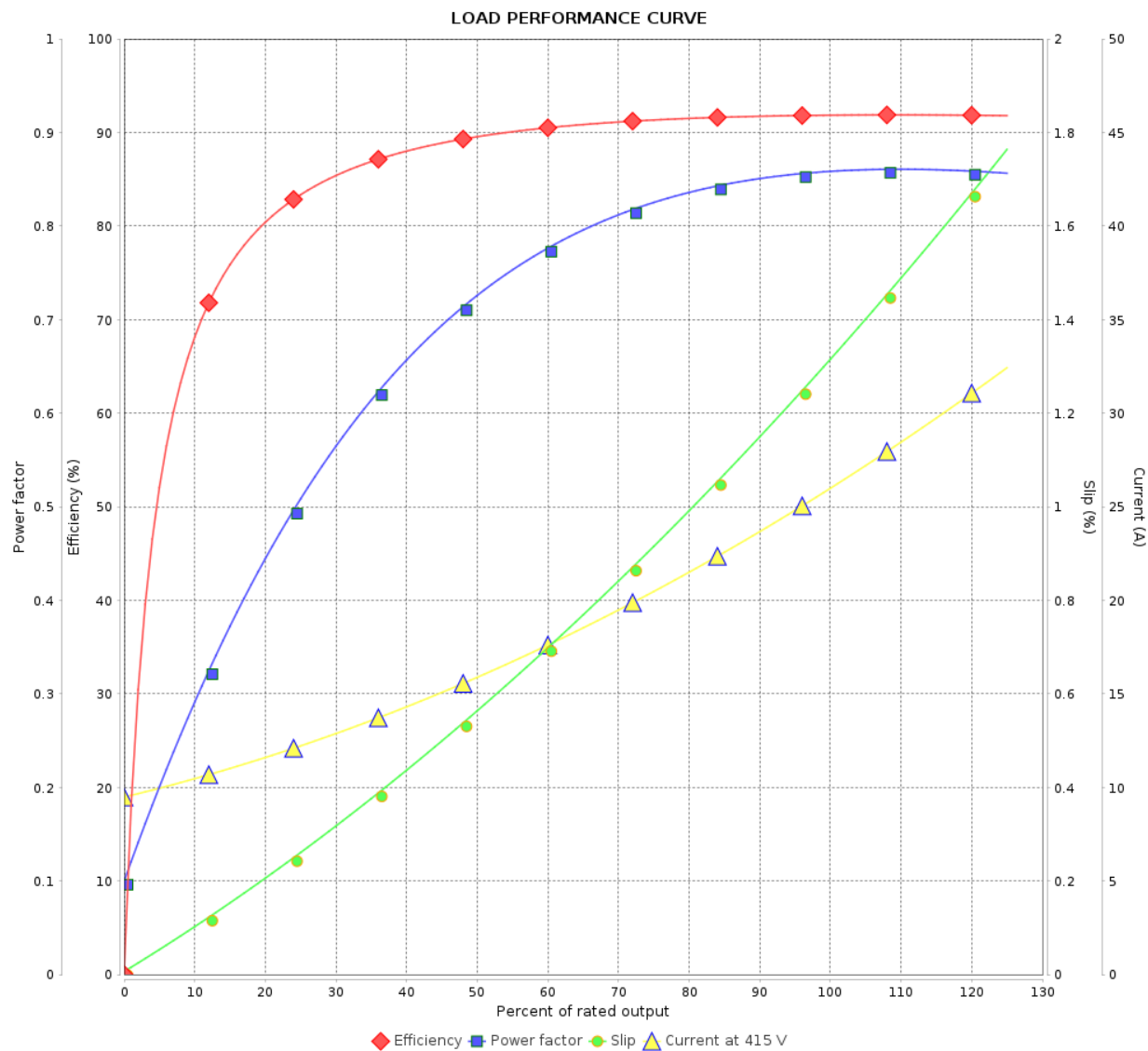
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447101



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

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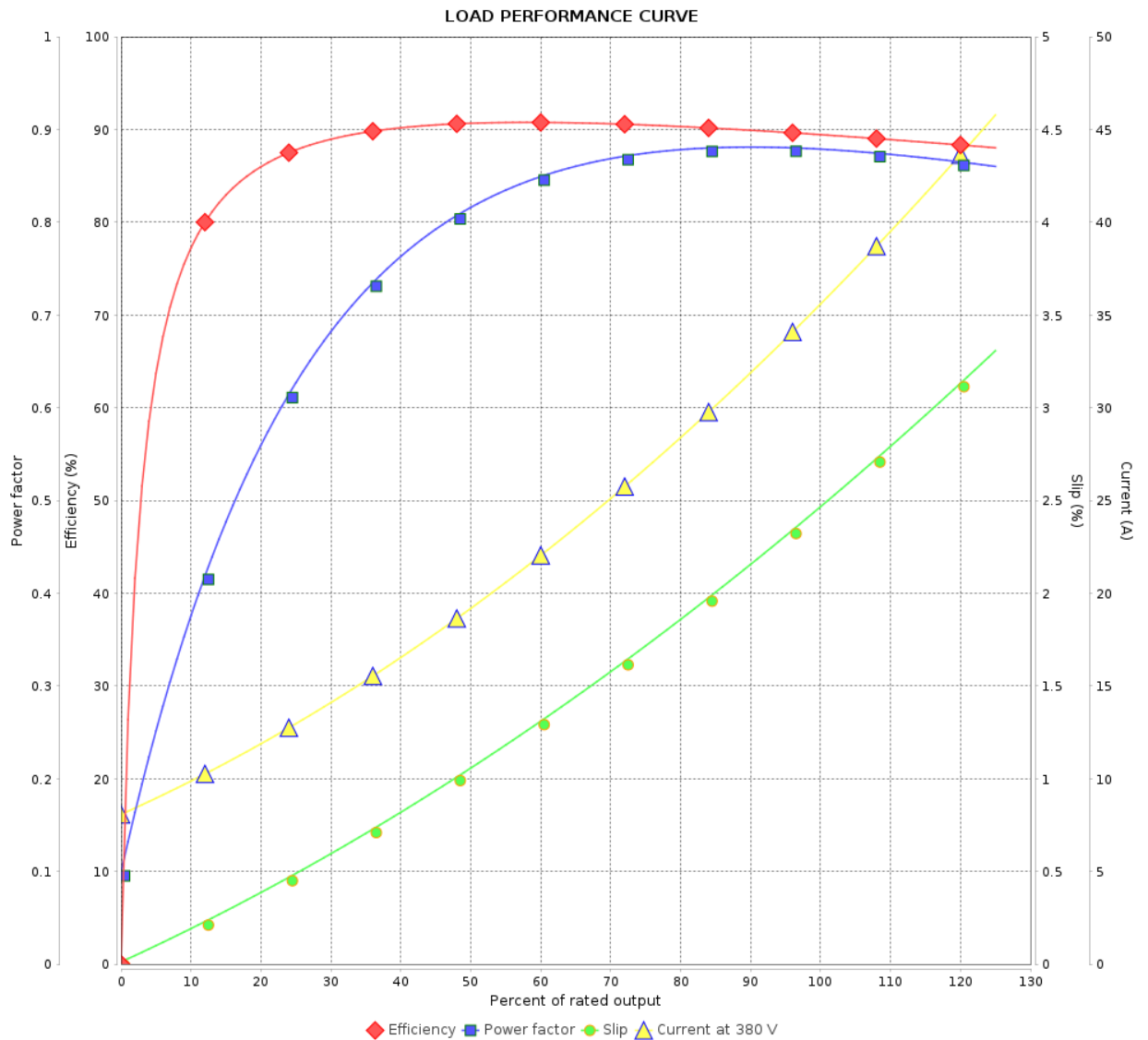
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447101



Performance : 380 V 50 Hz 2P IE1

Rated current : 35.3 A
LRC : 4.9
Rated torque : 6.20 kgfm
Locked rotor torque : 160 %
Breakdown torque : 170 %
Rated speed : 2915 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

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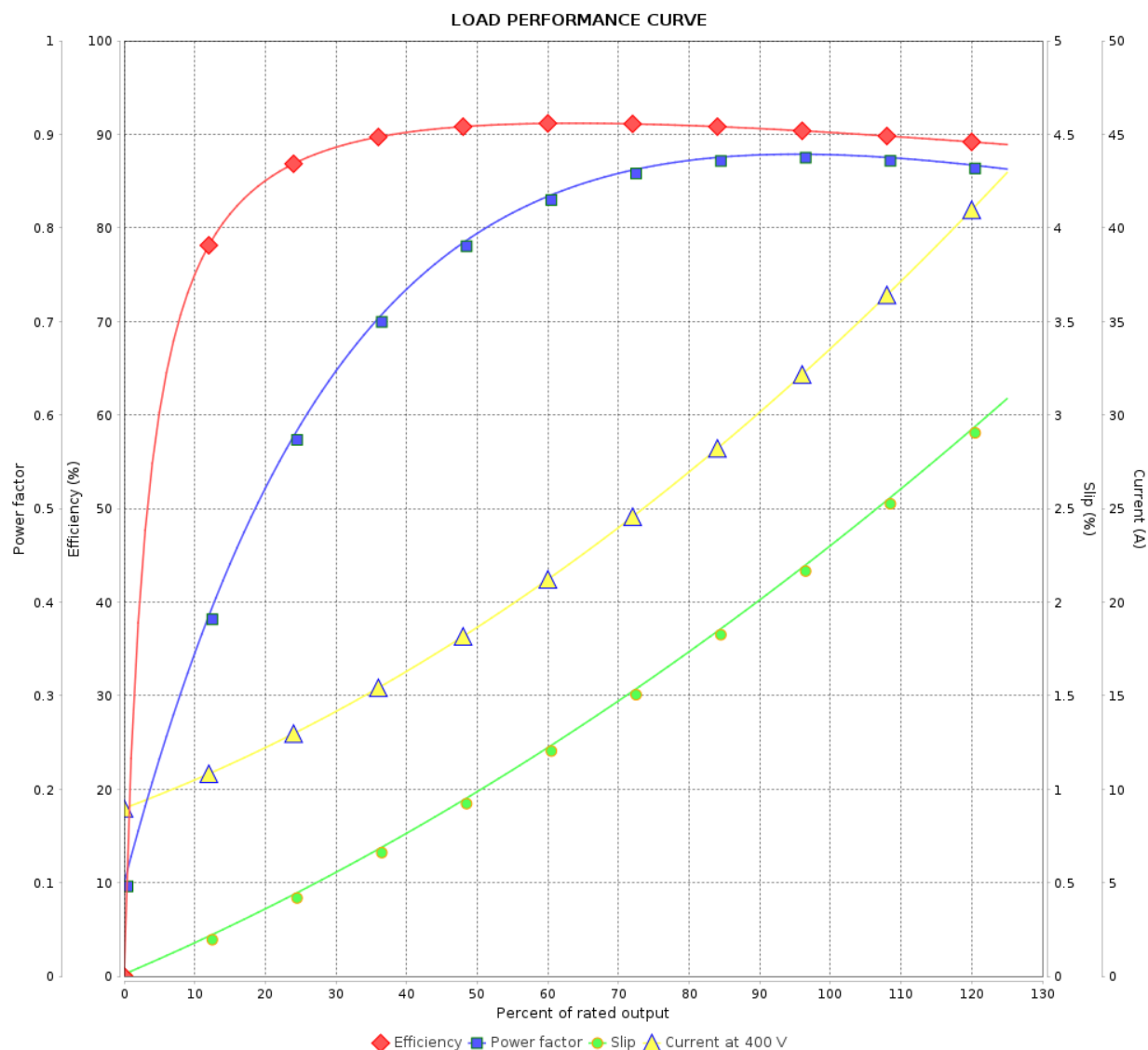
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447101



Performance : 400 V 50 Hz 2P IE1

Rated current : 33.6 A
LRC : 5.5
Rated torque : 6.19 kgfm
Locked rotor torque : 180 %
Breakdown torque : 190 %
Rated speed : 2930 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

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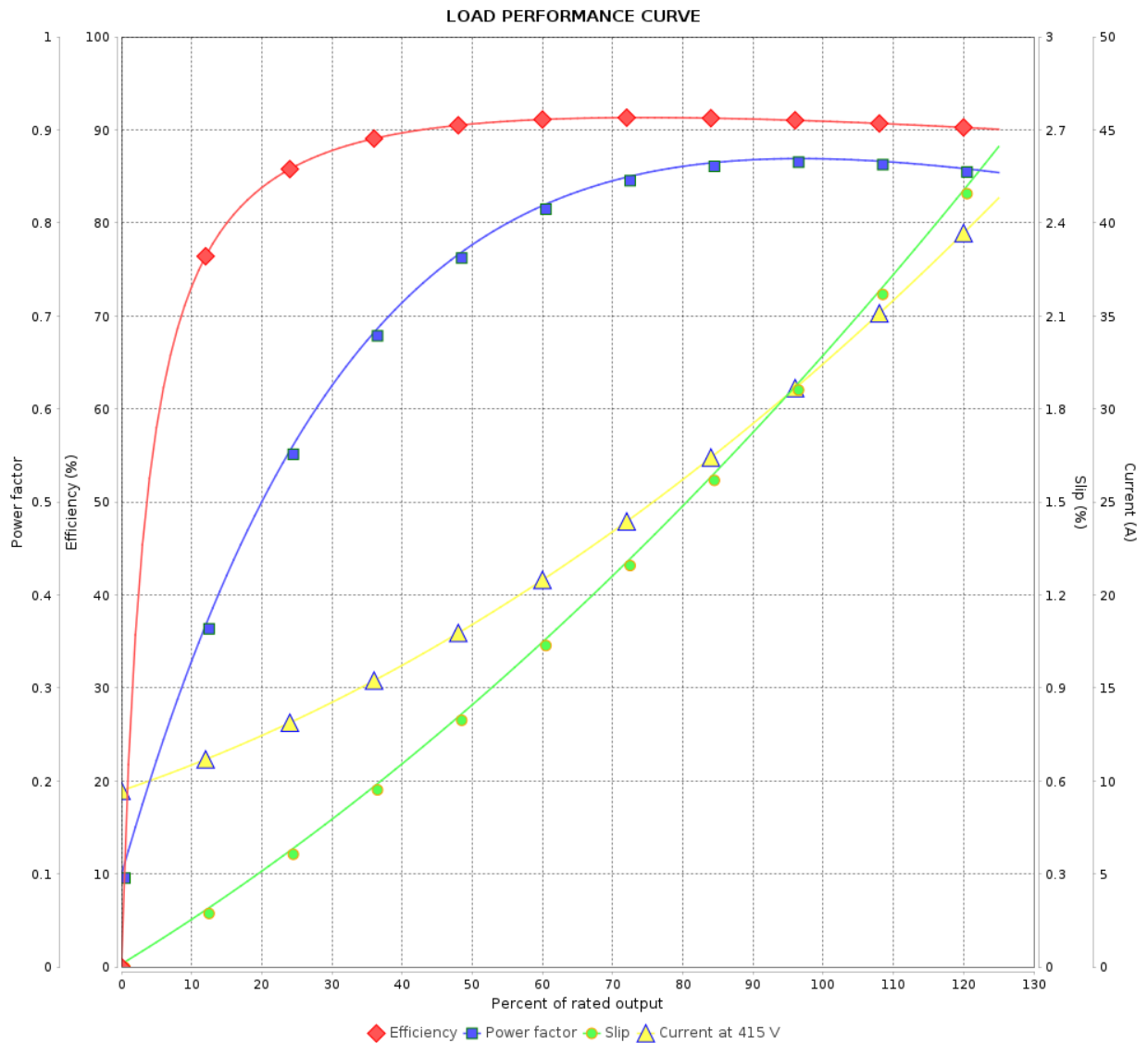
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447101



Performance : 415 V 50 Hz 2P IE2

Rated current	: 32.1 A	Moment of inertia (J)	: 0.1135 kgm ²
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 6.17 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 2940 rpm	Design	: B

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