

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943229

Frame : 404/5T	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 : 0.0 kg
Protection degree : IP55	Moment of inertia (J) : 1.46 kgm ²
Design : B	

Output [HP]	50	40	40	40	50	50	50
Poles	8	8	8	8	8	8	8
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	60.2	59.4	57.6	56.8	73.3	69.9	68.2
L. R. Amperes [A]	433	404	420	443	403	419	443
LRC [A]	7.2x(Code H)	6.8x(Code H)	7.3x(Code J)	7.8x(Code J)	5.5x(Code F)	6.0x(Code G)	6.5x(Code H)
No load current [A]	24.5	23.5	25.0	26.0	23.0	25.0	26.0
Rated speed [RPM]	880	730	733	735	720	725	725
Slip [%]	2.22	2.67	2.27	2.00	4.00	3.33	3.33
Rated torque [kgfm]	41.2	39.8	39.6	39.5	50.4	50.1	50.1
Locked rotor torque [%]	170	170	200	229	140	160	180
Breakdown torque [%]	260	240	290	310	200	229	250
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	52s (cold) 29s (hot)	57s (cold) 32s (hot)	54s (cold) 30s (hot)	50s (cold) 28s (hot)	36s (cold) 20s (hot)	37s (cold) 21s (hot)	36s (cold) 20s (hot)
Noise level ²	60.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%						
	50%	93.0	92.9	91.8	91.8	92.4	92.4
	75%	93.0	92.3	92.2	92.2	91.7	91.7
	100%	93.0	91.3	91.7	91.8	90.2	91.0
Power Factor	25%						
	50%	0.68	0.65	0.63	0.60	0.74	0.68
	75%	0.78	0.78	0.76	0.73	0.82	0.78
	100%	0.83	0.84	0.82	0.80	0.85	0.83

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

Losses (%)	P1 (0,9;1,0)	7.3	7.3	7.3	7.3	7.3	7.3
	P2 (0,5;1,0)	6.3	6.3	6.3	6.3	6.3	6.3
	P3 (0,25;1,0)	6.3	6.3	6.3	6.3	6.3	6.3
	P4 (0,9;0,5)	3.0	3.0	3.0	3.0	3.0	3.0
	P5 (0,5;0,5)	2.2	2.2	2.2	2.2	2.2	2.2
	P6 (0,5;0,25)	1.3	1.3	1.3	1.3	1.3	1.3
	P7 (0,25;0,25)	0.9	0.9	0.9	0.9	0.9	0.9

Bearing type	: 6316 C3	6314 C3	Foundation loads
Sealing	: Taconite	Taconite	Max. traction : 1232 kgf
	Labyrinth	Labyrinth	Max. compression : 1232 kgf
Lubrication interval	: 20000 h	20000 h	
Lubricant amount	: 34 g	27 g	
Lubricant type	: Mobil Polyrex EM		

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Notes

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.

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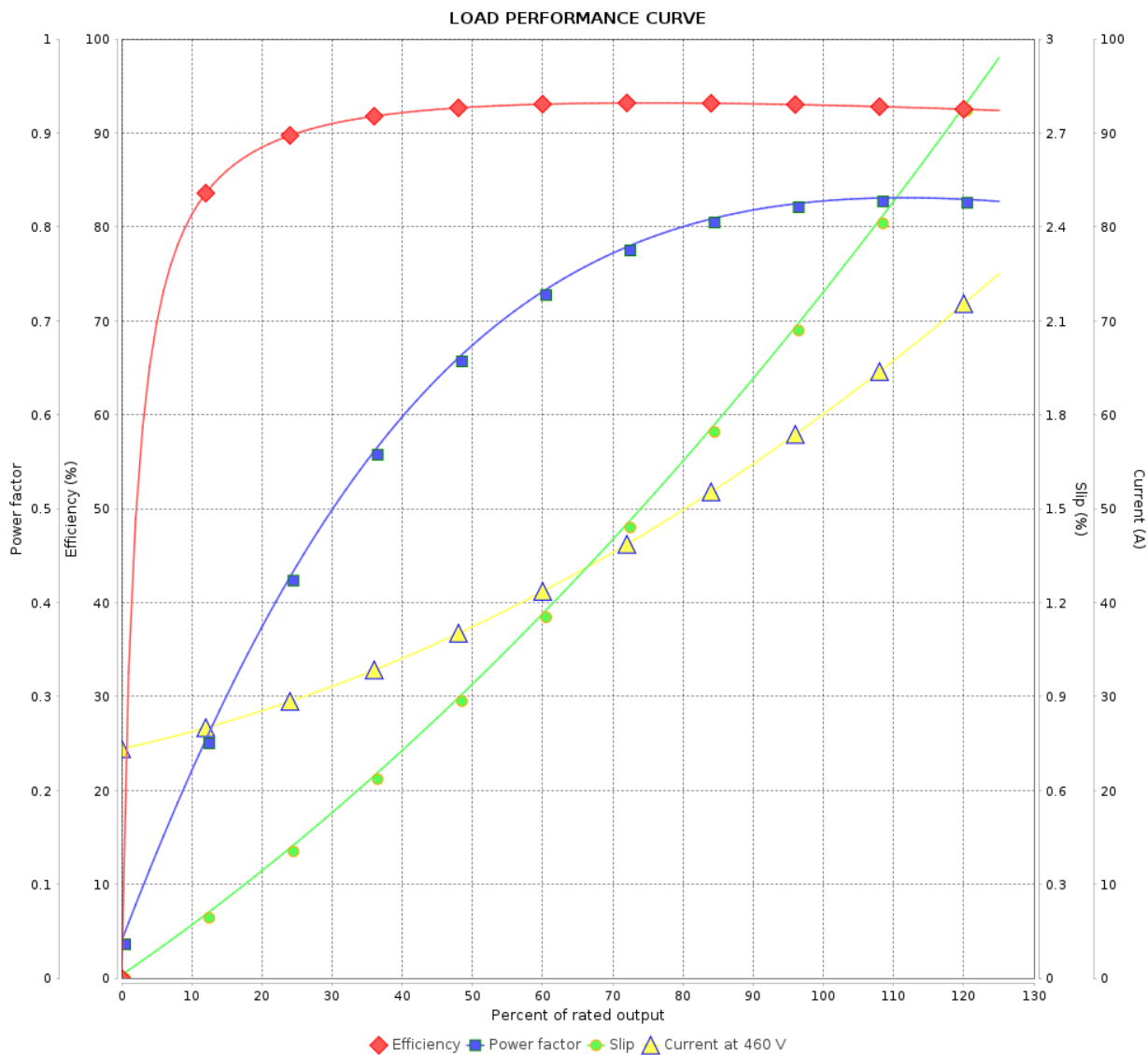
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 11943229



Performance : 460 V 60 Hz 8P

Rated current : 60.2 A
LRC : 7.2
Rated torque : 41.2 kgfm
Locked rotor torque : 170 %
Breakdown torque : 260 %
Rated speed : 880 rpm

Moment of inertia (J) : 1.46 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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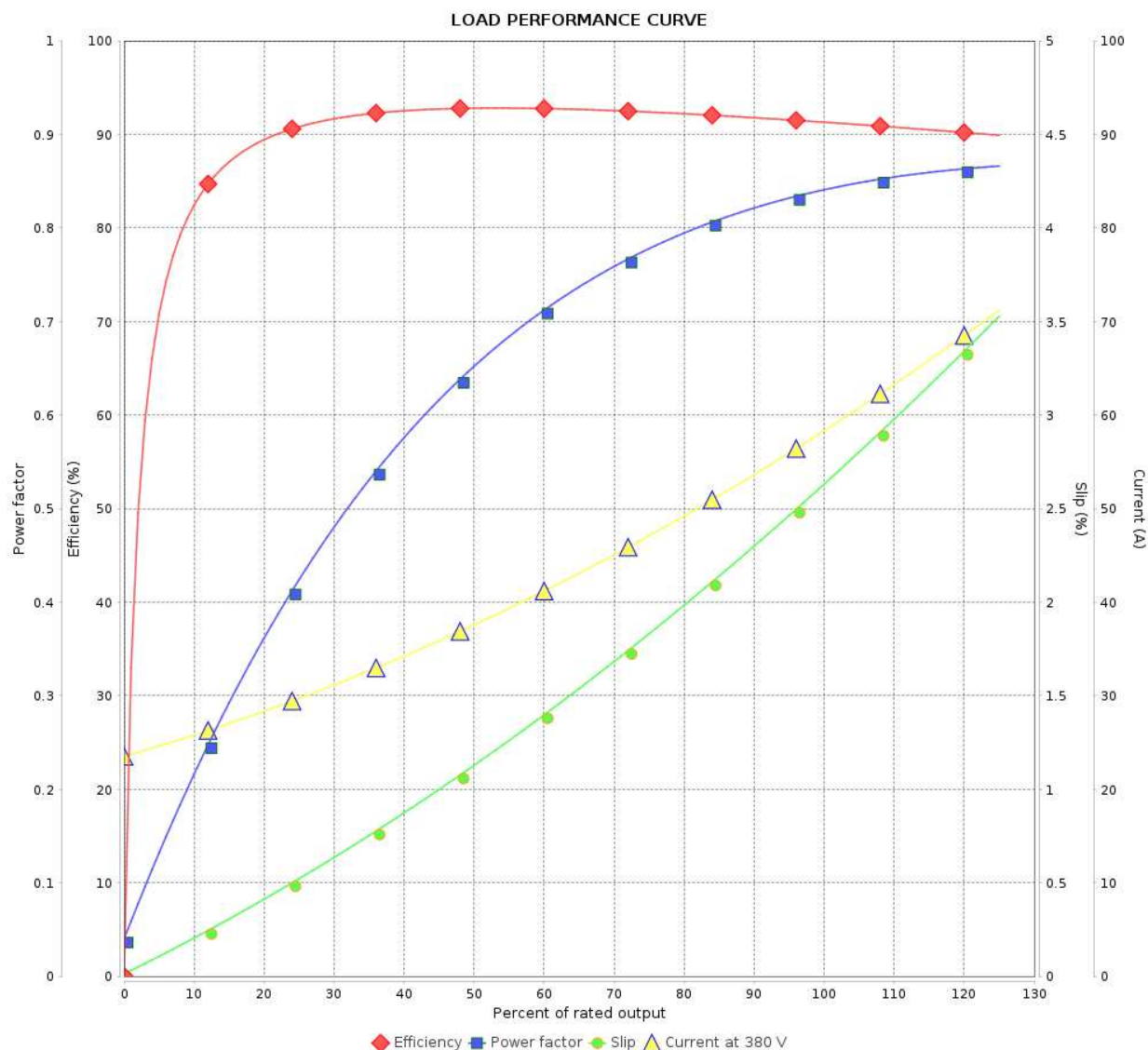
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 11943229



Performance : 380 V 50 Hz 8P IE3

Rated current : 59.4 A
LRC : 6.8
Rated torque : 39.8 kgfm
Locked rotor torque : 170 %
Breakdown torque : 240 %
Rated speed : 730 rpm

Moment of inertia (J) : 1.46 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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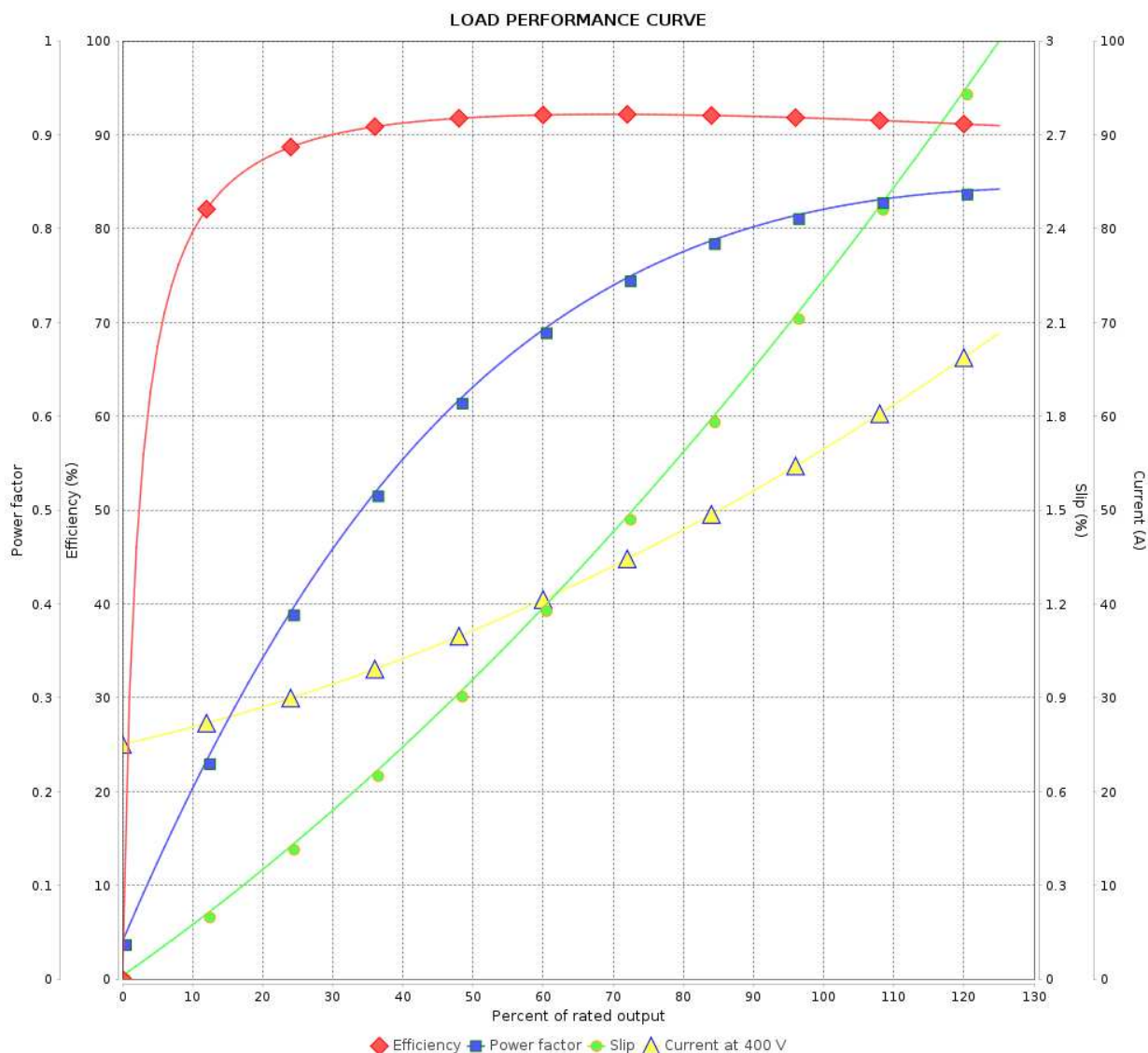
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 11943229



Performance : 400 V 50 Hz 8P IE3

Rated current : 57.6 A
LRC : 7.3
Rated torque : 39.6 kgfm
Locked rotor torque : 200 %
Breakdown torque : 290 %
Rated speed : 733 rpm

Moment of inertia (J) : 1.46 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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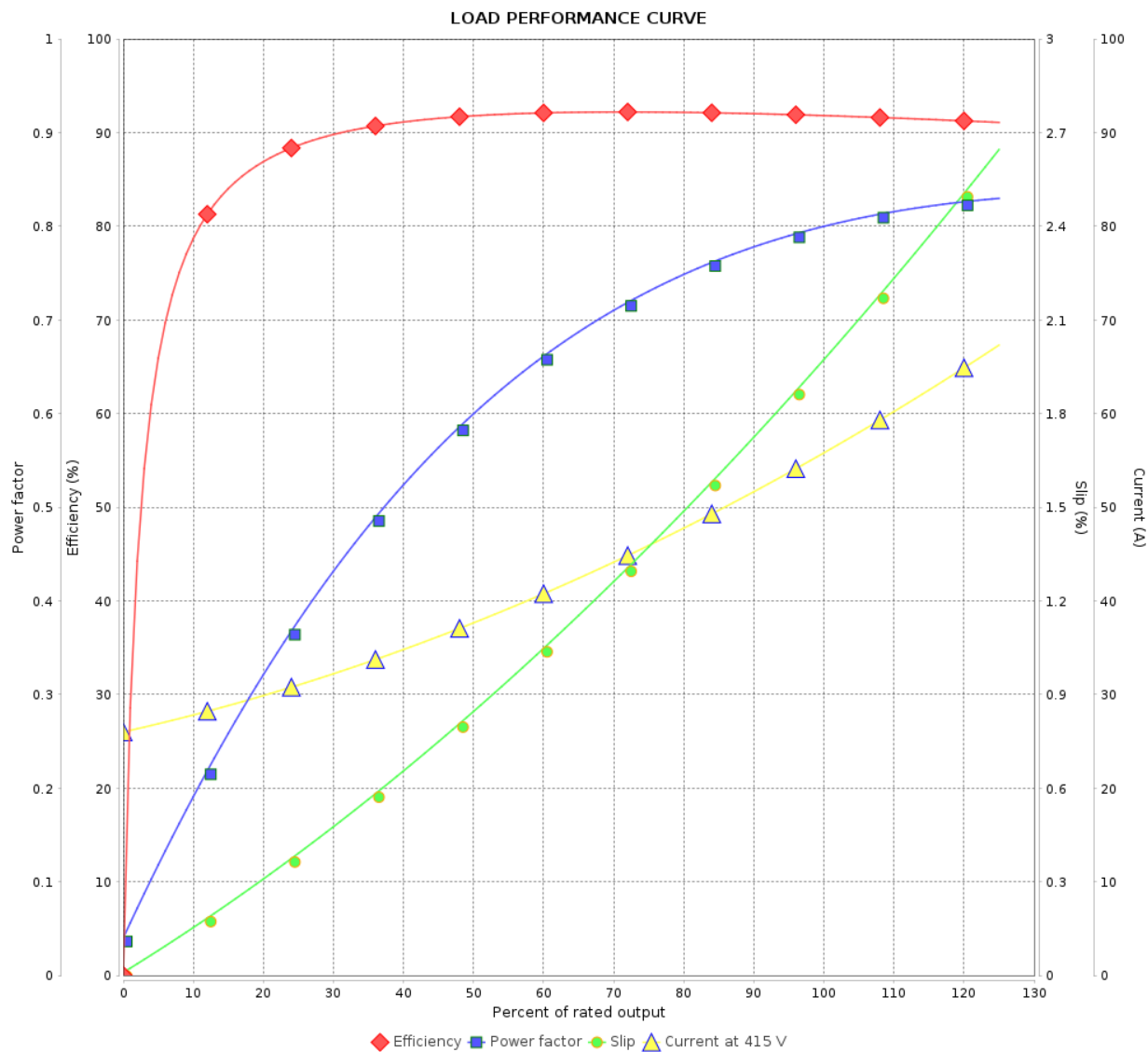
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 11943229



Performance : 415 V 50 Hz 8P IE3

Rated current : 56.8 A
LRC : 7.8
Rated torque : 39.5 kgfm
Locked rotor torque : 229 %
Breakdown torque : 310 %
Rated speed : 735 rpm

Moment of inertia (J) : 1.46 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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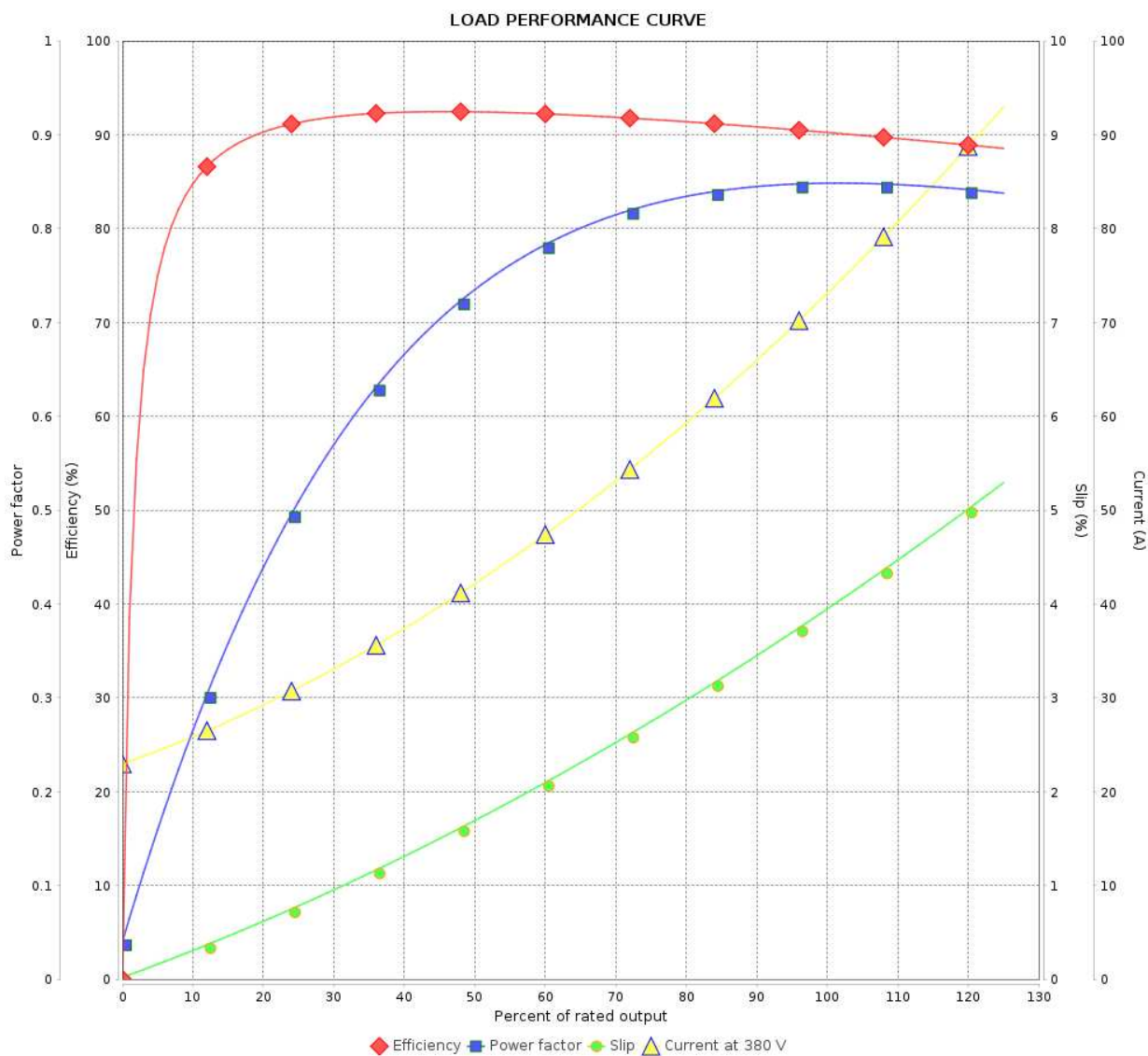
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 11943229



Performance : 380 V 50 Hz 8P IE1

Rated current : 73.3 A
LRC : 5.5
Rated torque : 50.4 kgfm
Locked rotor torque : 140 %
Breakdown torque : 200 %
Rated speed : 720 rpm

Moment of inertia (J) : 1.46 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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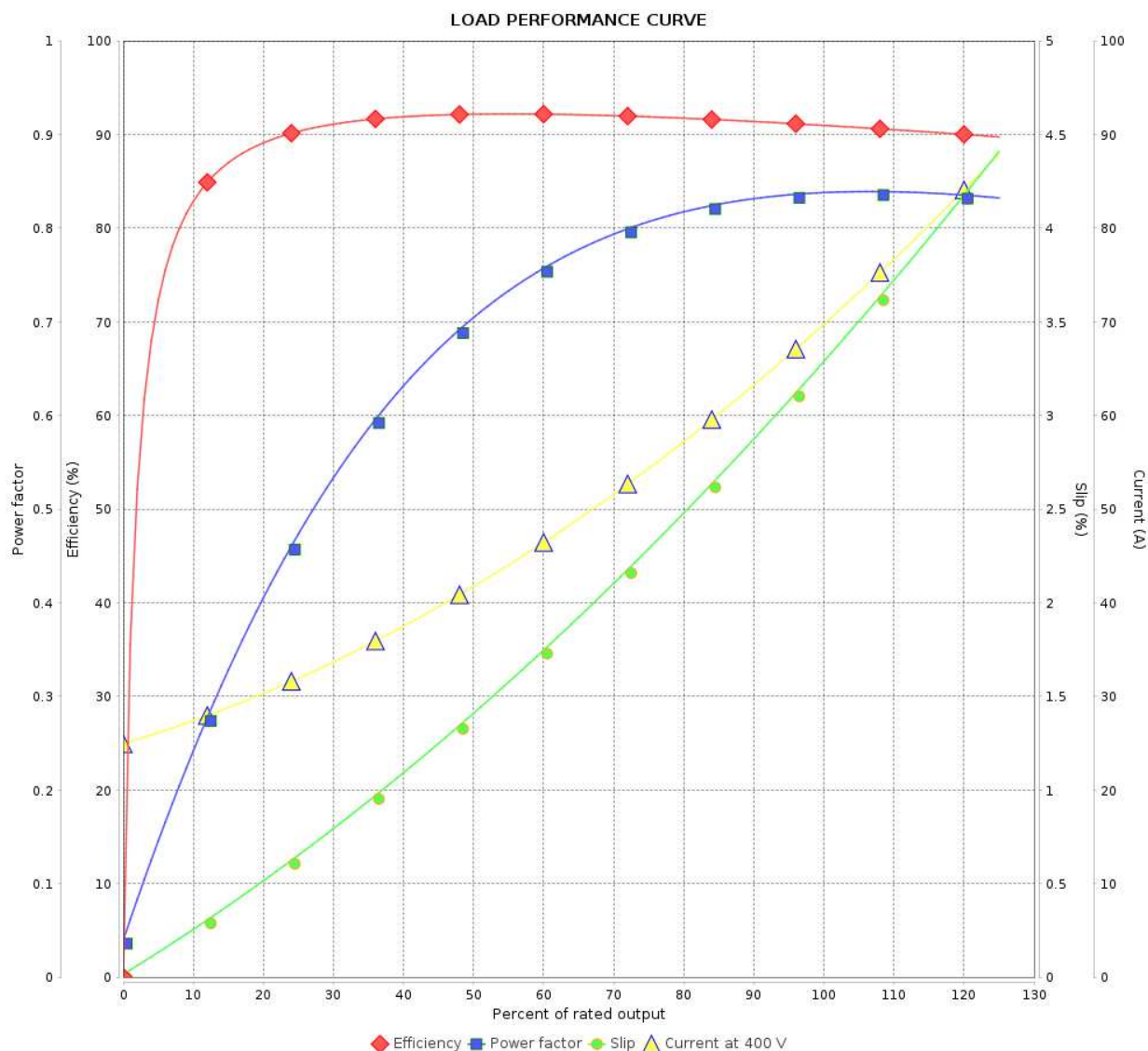
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 11943229



Performance : 400 V 50 Hz 8P IE2

Rated current : 69.9 A
LRC : 6.0
Rated torque : 50.1 kgfm
Locked rotor torque : 160 %
Breakdown torque : 229 %
Rated speed : 725 rpm

Moment of inertia (J) : 1.46 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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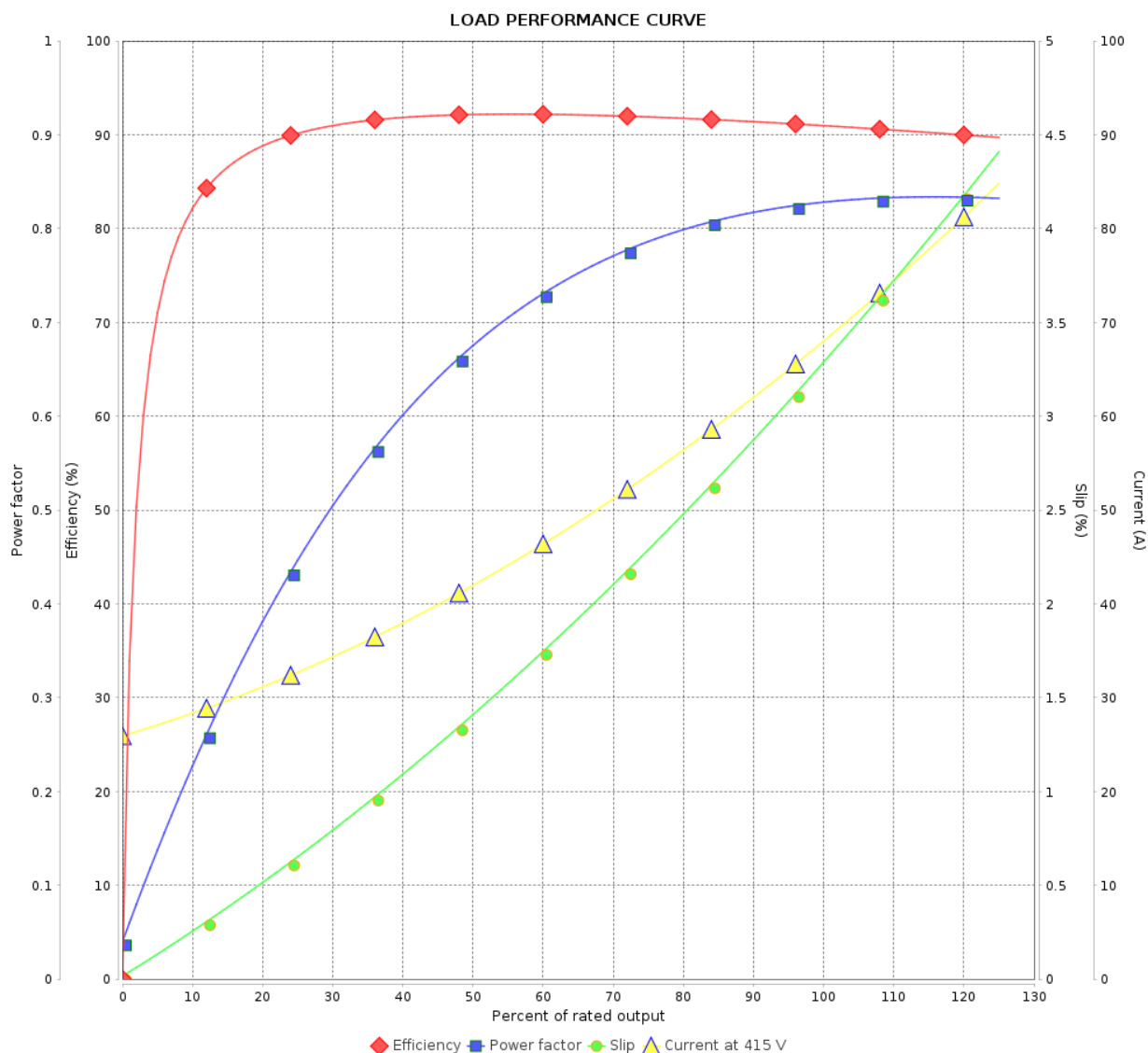
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
Efficiency Three-Phase

Product code : 11943229



Performance : 415 V 50 Hz 8P IE2

Rated current : 68.2 A
LRC : 6.5
Rated torque : 50.1 kgfm
Locked rotor torque : 180 %
Breakdown torque : 250 %
Rated speed : 725 rpm

Moment of inertia (J) : 1.46 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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