

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943378

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)	: 1.69 kgm ²
Design	: B		

Output [HP]	60	50	50	50	60	60	60
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]	73.0	72.9	70.9	69.2	89.2	85.0	82.9
L. R. Amperes [A]	475	445	475	505	455	485	514
LRC [A]	6.5x(Code H)	6.1x(Code G)	6.7x(Code H)	7.3x(Code J)	5.1x(Code E)	5.7x(Code F)	6.2x(Code G)
No load current [A]	30.0	29.7	32.0	33.9	29.7	32.0	33.9
Rated speed [RPM]	880	725	730	730	720	725	725
Slip [%]	2.22	3.33	2.67	2.67	4.00	3.33	3.33
Rated torque [kgfm]	49.5	50.1	49.7	49.7	60.5	60.1	60.1
Locked rotor torque [%]	180	180	210	229	150	170	190
Breakdown torque [%]	270	250	290	310	210	240	260
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	23s (cold) 13s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (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	92.4	91.9	91.9	92.4	92.4
	75%	93.0	92.1	92.1	92.2	91.7	91.7
	100%	93.0	91.8	91.8	91.8	90.2	91.0
Power Factor	25%						
	50%	0.68	0.67	0.64	0.61	0.74	0.68
	75%	0.78	0.79	0.77	0.74	0.82	0.78
	100%	0.83	0.84	0.82	0.81	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)	6.4	6.4	6.4	6.4	6.4	6.4
	P3 (0,25;1,0)	6.4	6.4	6.4	6.4	6.4	6.4
	P4 (0,9;0,5)	3.1	3.1	3.1	3.1	3.1	3.1
	P5 (0,5;0,5)	2.3	2.3	2.3	2.3	2.3	2.3
	P6 (0,5;0,25)	1.3	1.3	1.3	1.3	1.3	1.3
	P7 (0,25;0,25)	1.0	1.0	1.0	1.0	1.0	1.0

Bearing type	: 6316 C3	Non drive end	6314 C3	Foundation loads	
Sealing	: Taconite		Taconite	Max. traction	: 1538 kgf
	: Labyrinth		Labyrinth	Max. compression	: 1538 kgf
Lubrication interval	: 20000 h		20000 h		
Lubricant amount	: 34 g		27 g		
Lubricant type	: Mobil Polyrex EM				

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Customer

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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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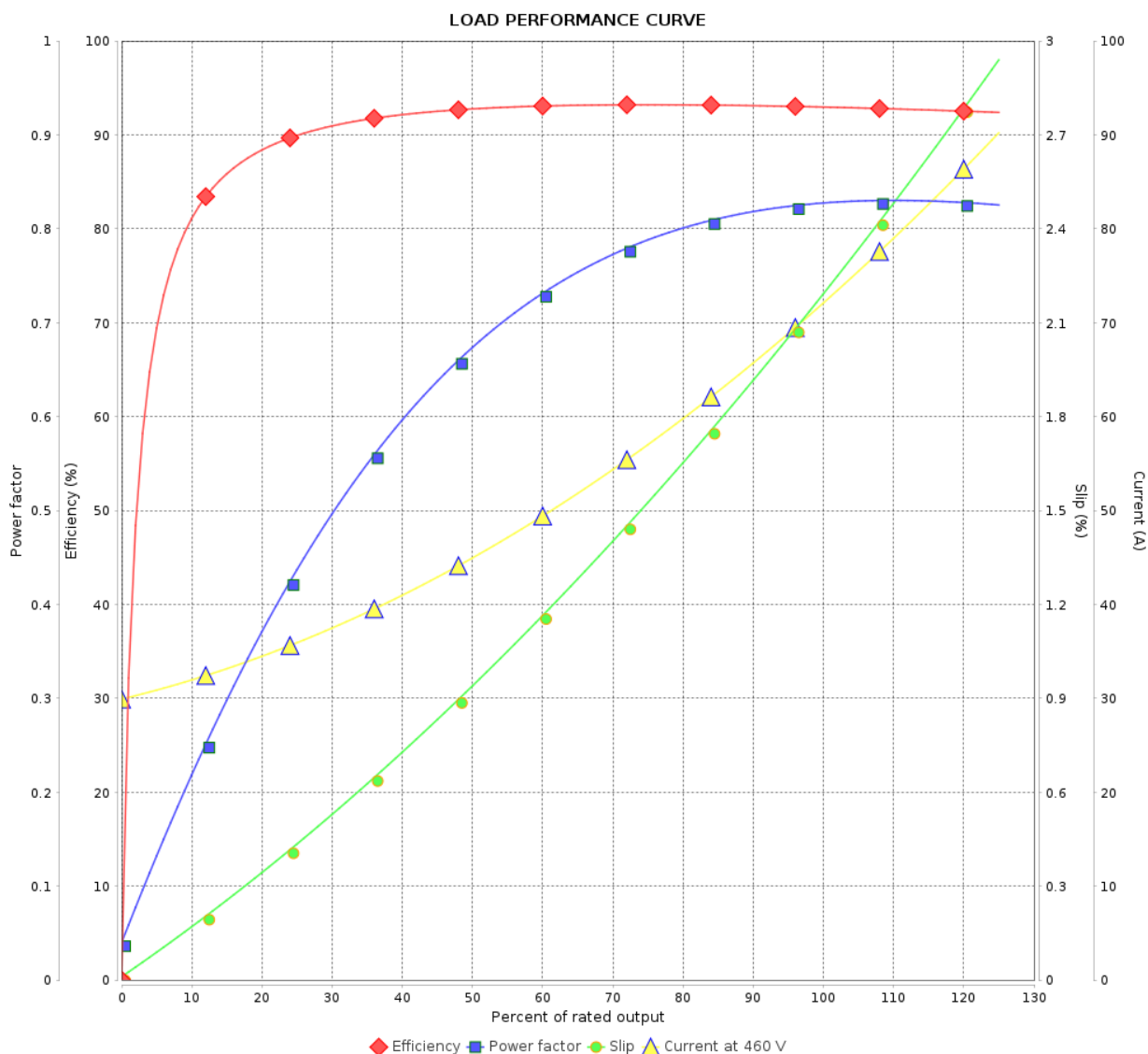
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943378



Performance : 460 V 60 Hz 8P

Rated current : 73.0 A
LRC : 6.5
Rated torque : 49.5 kgfm
Locked rotor torque : 180 %
Breakdown torque : 270 %
Rated speed : 880 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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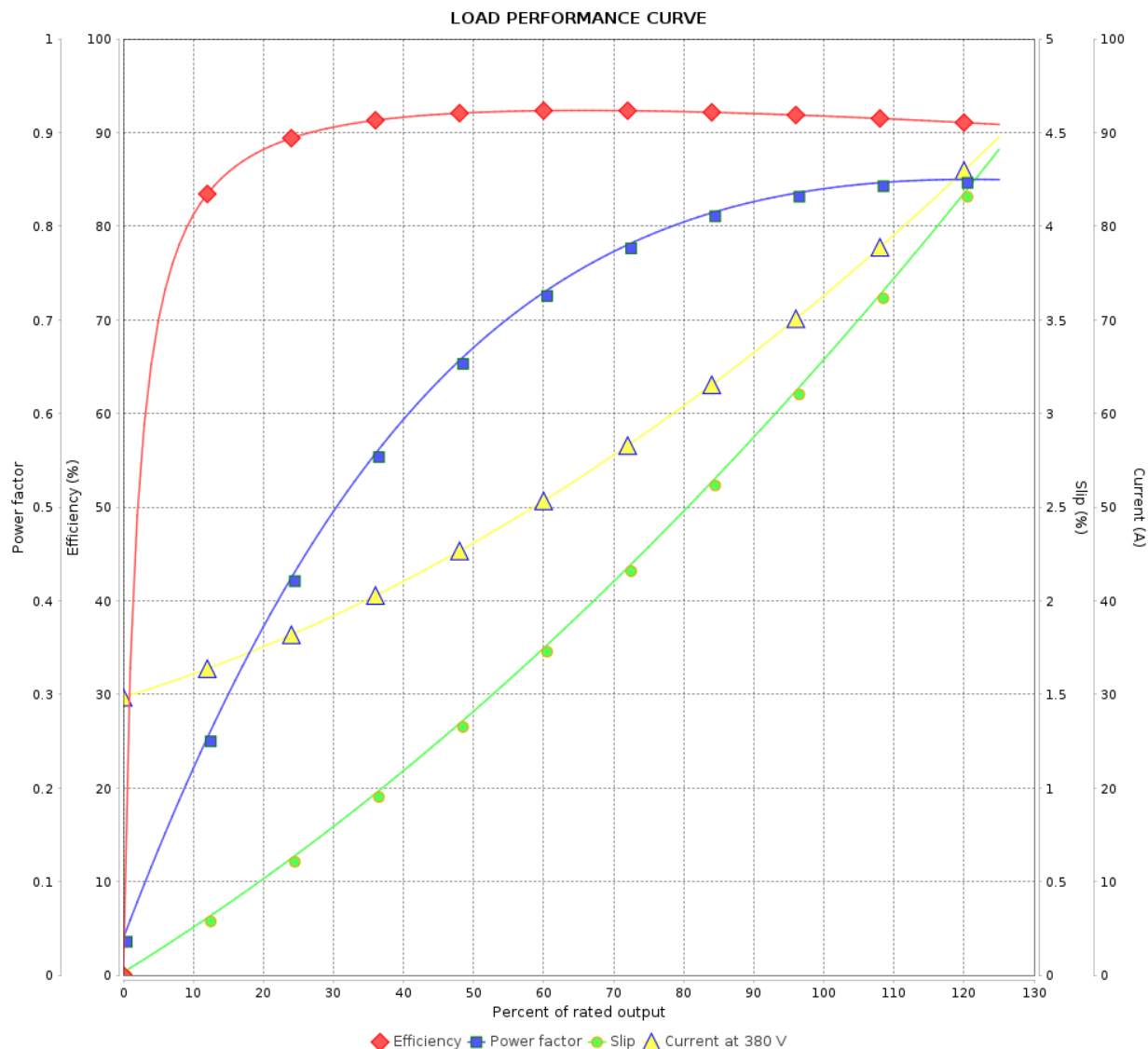
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943378



Performance : 380 V 50 Hz 8P IE3

Rated current	: 72.9 A	Moment of inertia (J)	: 1.69 kgm ²
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 50.1 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 725 rpm	Design	: B

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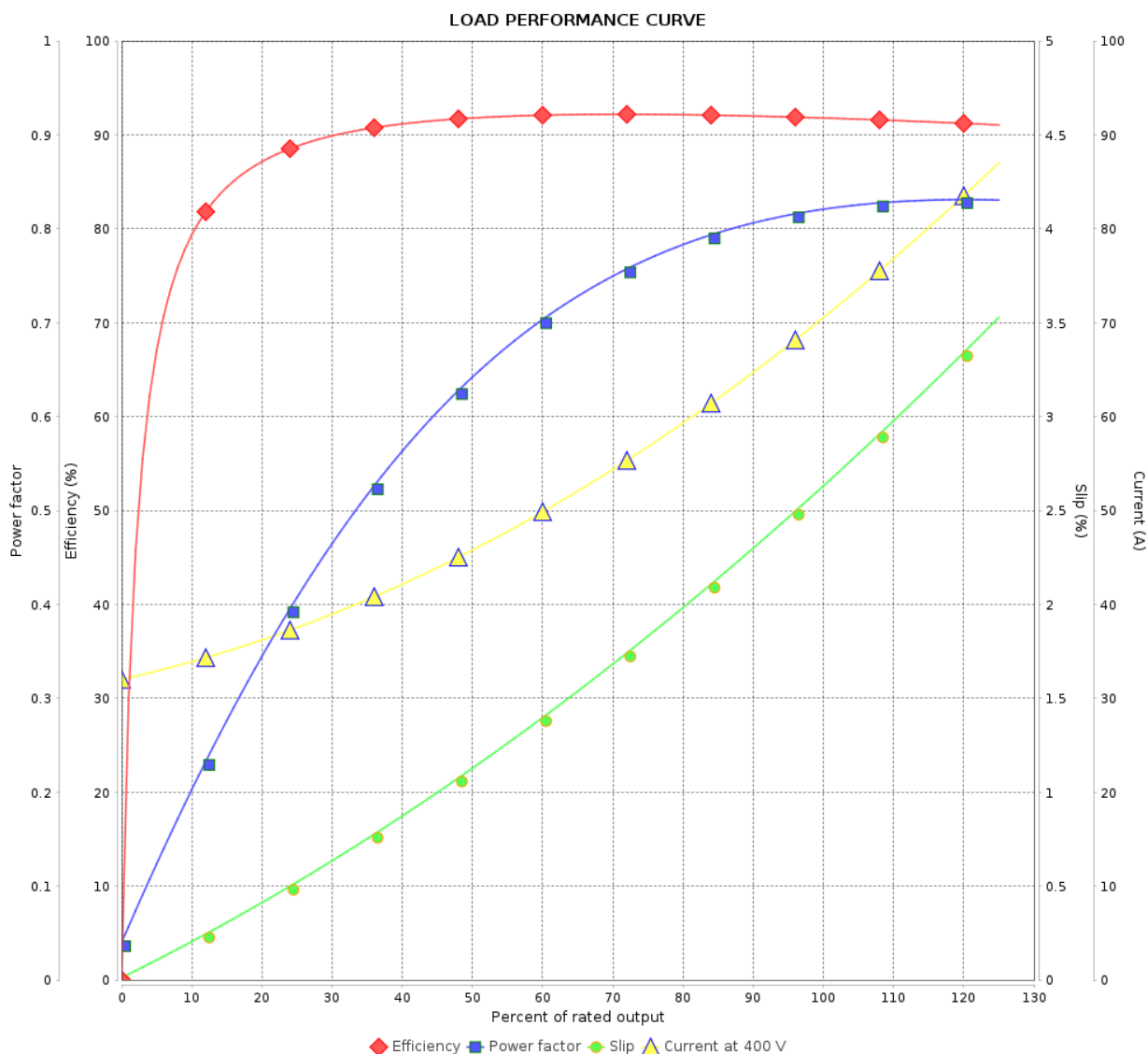
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943378



Performance : 400 V 50 Hz 8P IE3

Rated current : 70.9 A
LRC : 6.7
Rated torque : 49.7 kgfm
Locked rotor torque : 210 %
Breakdown torque : 290 %
Rated speed : 730 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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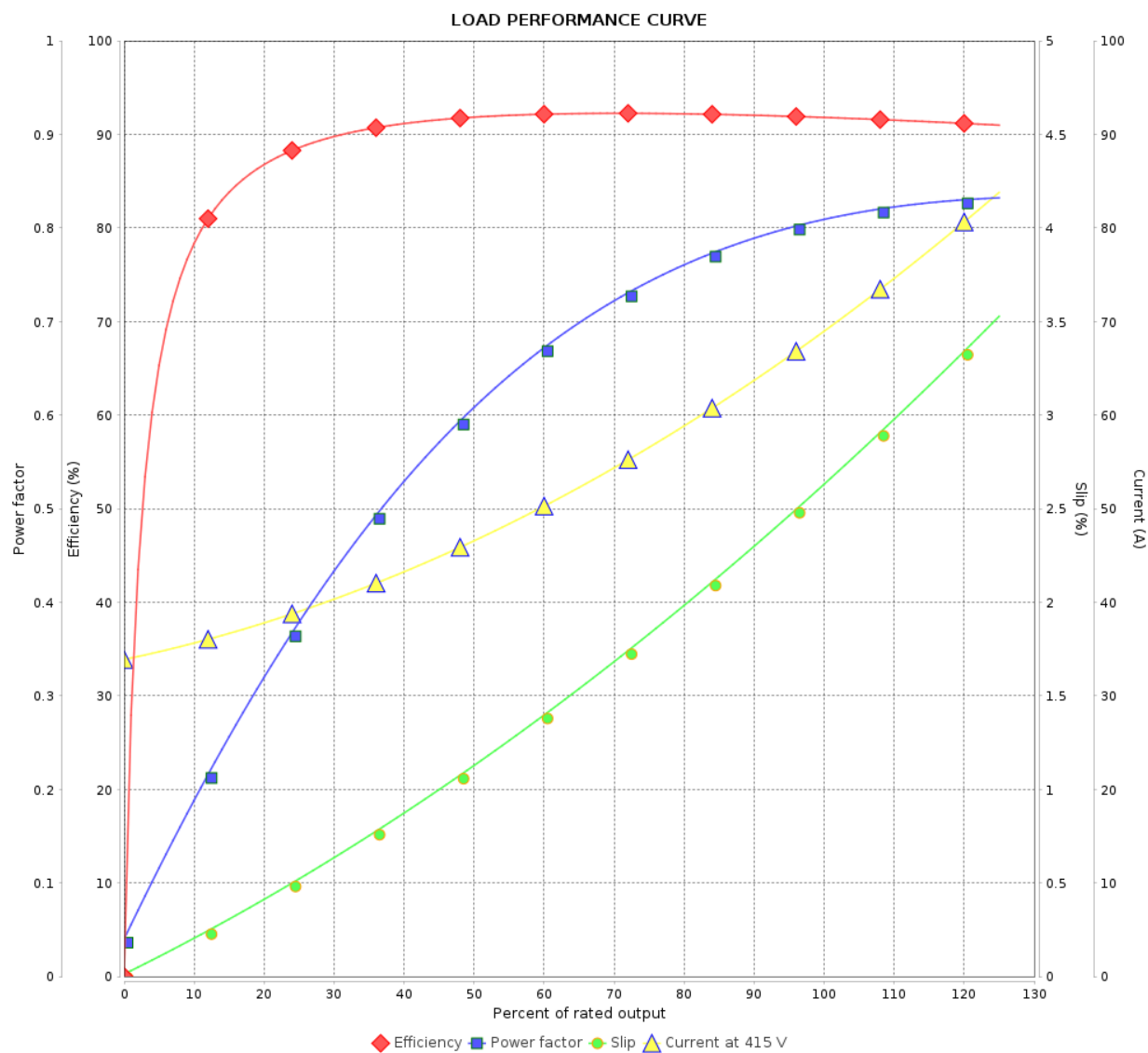
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943378



Performance : 415 V 50 Hz 8P IE3

Rated current	: 69.2 A	Moment of inertia (J)	: 1.69 kgm ²
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 49.7 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 730 rpm	Design	: B

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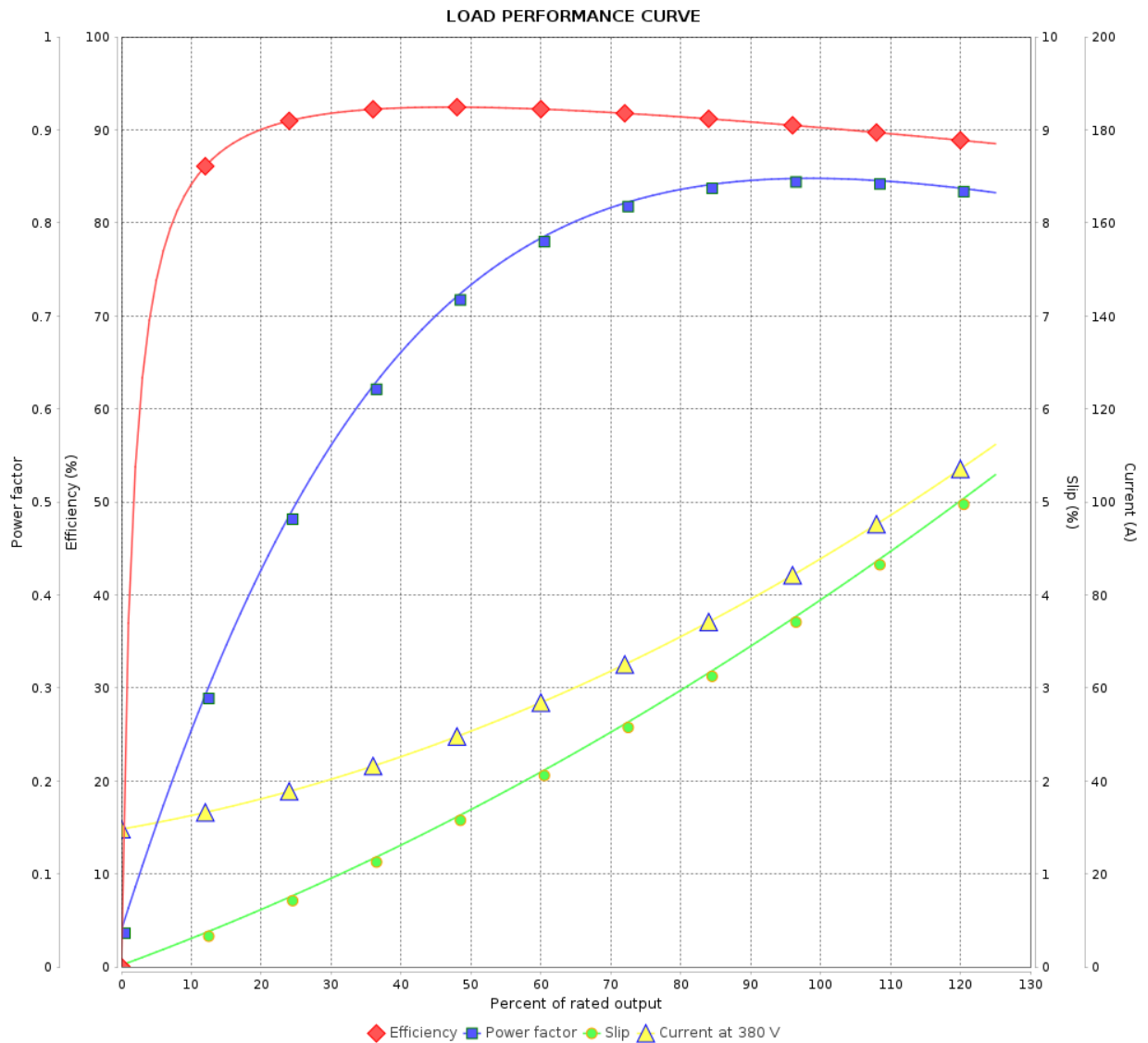
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943378



Performance : 380 V 50 Hz 8P IE1

Rated current : 89.2 A
LRC : 5.1
Rated torque : 60.5 kgfm
Locked rotor torque : 150 %
Breakdown torque : 210 %
Rated speed : 720 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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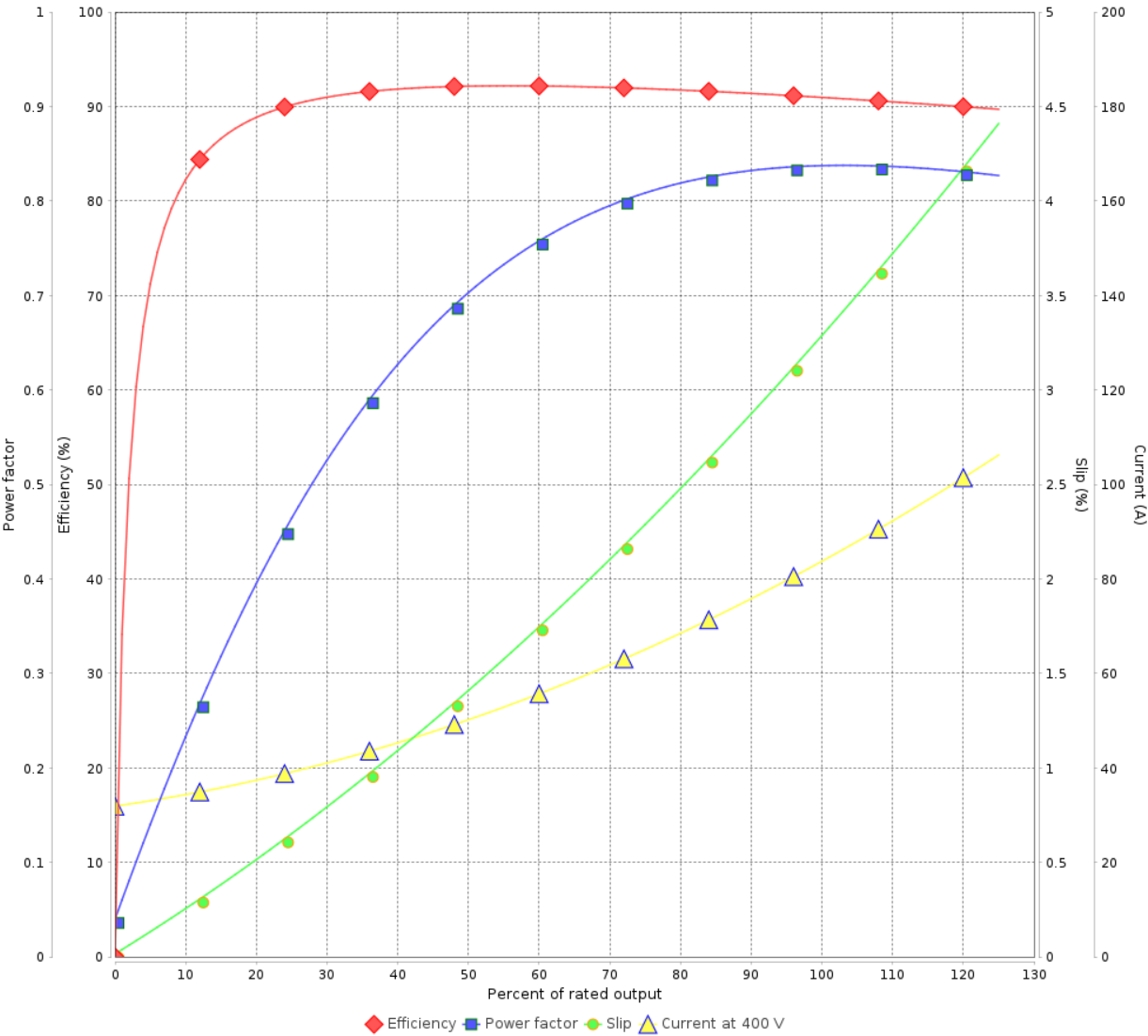
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943378

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Performance : 400 V 50 Hz 8P IE2

Rated current	: 85.0 A	Moment of inertia (J)	: 1.69 kgm ²
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 60.1 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 105 K
Rated speed	: 725 rpm	Design	: B

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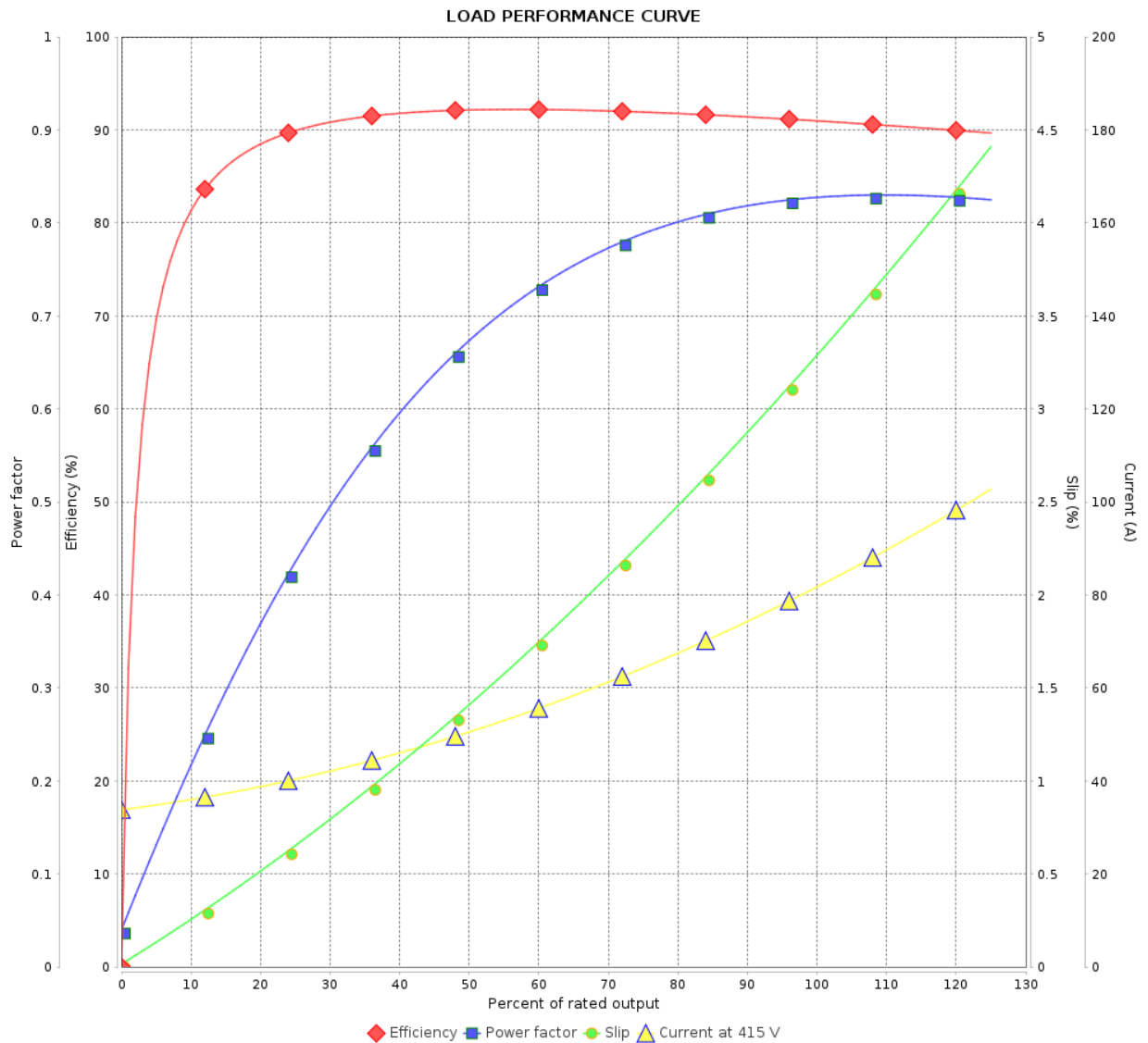
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943378



Performance : 415 V 50 Hz 8P IE2

Rated current	: 82.9 A	Moment of inertia (J)	: 1.69 kgm ²
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 60.1 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 725 rpm	Design	: B

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