

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943602

Frame	: 444/5TC	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)	: 3.68 kgm ²
Design	: B		

Output [HP]	100	75	75	75	100	100	100
Poles	6	6	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	121	107	104	102	145	139	135
L. R. Amperes [A]	725	716	767	809	725	763	812
LRC [A]	6.0x(Code G)	6.7x(Code G)	7.4x(Code H)	7.9x(Code J)	5.0x(Code E)	5.5x(Code F)	6.0x(Code G)
No load current [A]	38.0	37.0	41.0	43.0	38.0	41.0	43.0
Rated speed [RPM]	1189	991	992	993	985	987	988
Slip [%]	0.92	0.90	0.80	0.70	1.50	1.30	1.20
Rated torque [kgfm]	61.0	54.9	54.9	54.8	73.7	73.5	73.5
Locked rotor torque [%]	220	229	250	270	170	190	200
Breakdown torque [%]	229	250	280	310	180	200	220
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	36s (cold) 20s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)
Noise level ²	69.0 dB(A)	65.0 dB(A)	65.0 dB(A)	65.0 dB(A)	65.0 dB(A)	65.0 dB(A)	65.0 dB(A)
Efficiency (%)	25%						
	50%	94.5	93.8	93.8	93.7	94.5	94.5
	75%	95.0	94.3	94.6	94.6	94.0	94.5
	100%	95.0	94.2	94.5	94.6	93.6	94.0
Power Factor	25%						
	50%	0.68	0.64	0.60	0.57	0.74	0.68
	75%	0.78	0.77	0.74	0.71	0.82	0.78
	100%	0.82	0.83	0.81	0.79	0.84	0.82

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

Losses (%)	P1 (0,9;1,0)	5.0	5.8	5.5	5.4	6.5	6.1	6.1
	P2 (0,5;1,0)	3.8	4.4	4.1	4.1	4.9	4.6	4.6
	P3 (0,25;1,0)	3.3	3.9	3.7	3.6	4.3	4.0	4.0
	P4 (0,9;0,5)	2.5	2.9	2.7	2.7	3.2	3.0	3.0
	P5 (0,5;0,5)	1.5	1.8	1.7	1.6	2.0	1.8	1.8
	P6 (0,5;0,25)	1.0	1.2	1.1	1.1	1.3	1.2	1.2
	P7 (0,25;0,25)	0.6	0.7	0.7	0.7	0.8	0.7	0.7

Bearing type	: 6319 C3	Non drive end	6316 C3	Foundation loads	
Sealing	: Taconite		Taconite	Max. traction	: 1413 kgf
	: Labyrinth		Labyrinth	Max. compression	: 1413 kgf
Lubrication interval	: 13000 h		16000 h		
Lubricant amount	: 45 g		34 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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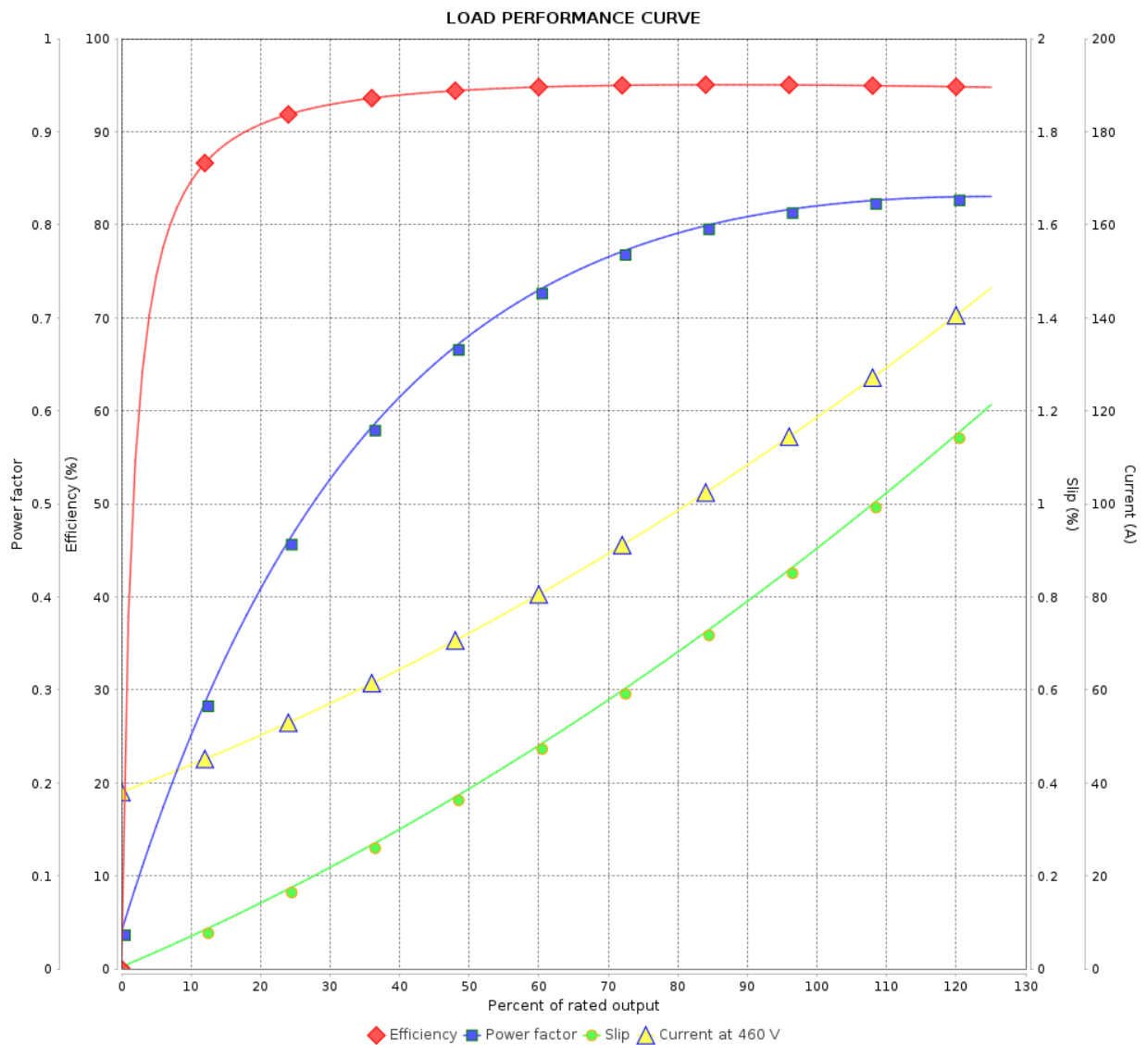
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943602



Performance : 460 V 60 Hz 6P

Rated current : 121 A
LRC : 6.0
Rated torque : 61.0 kgfm
Locked rotor torque : 220 %
Breakdown torque : 229 %
Rated speed : 1189 rpm

Moment of inertia (J) : 3.68 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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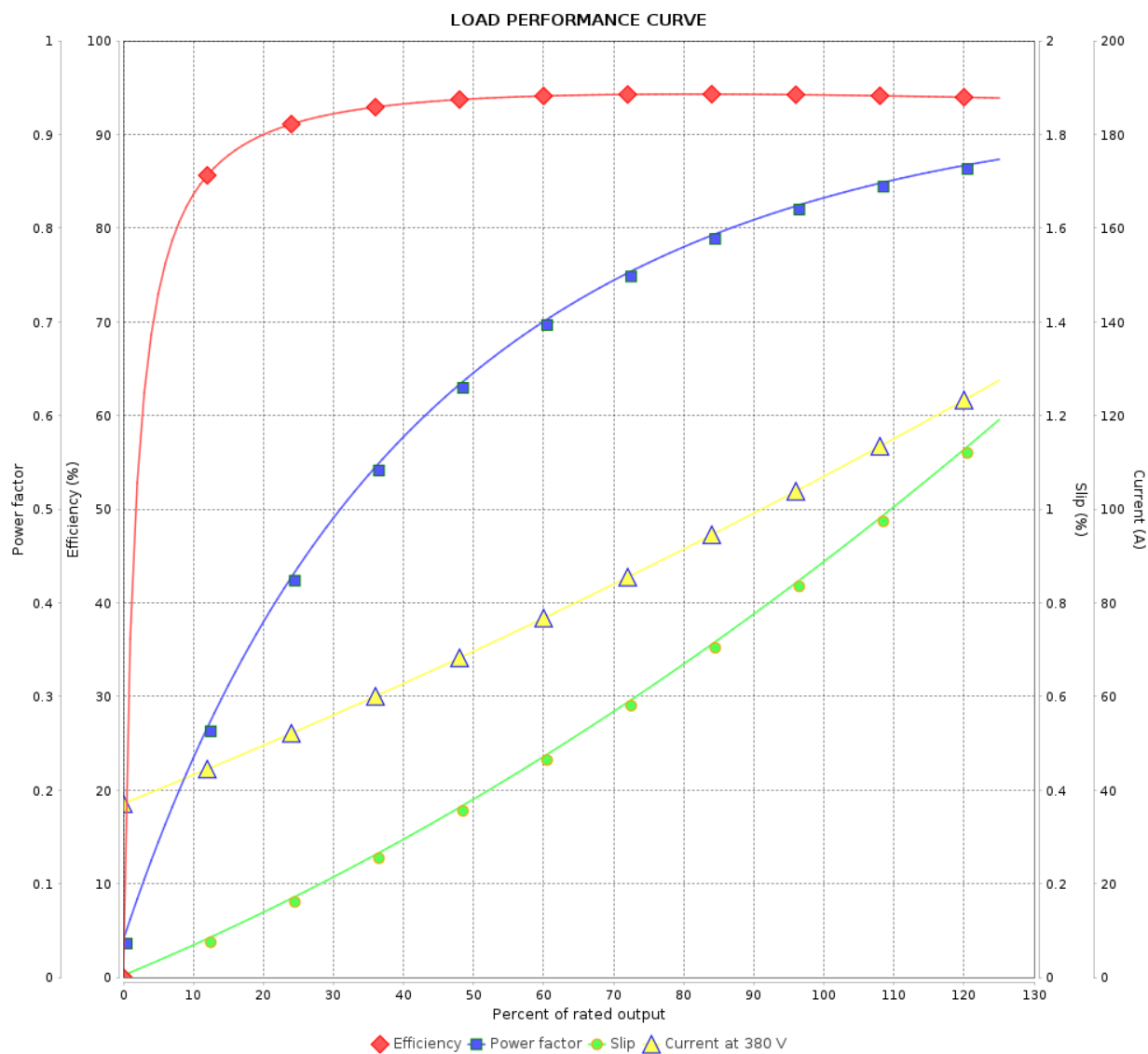
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943602



Performance : 380 V 50 Hz 6P IE3

Rated current : 107 A
LRC : 6.7
Rated torque : 54.9 kgfm
Locked rotor torque : 229 %
Breakdown torque : 250 %
Rated speed : 991 rpm

Moment of inertia (J) : 3.68 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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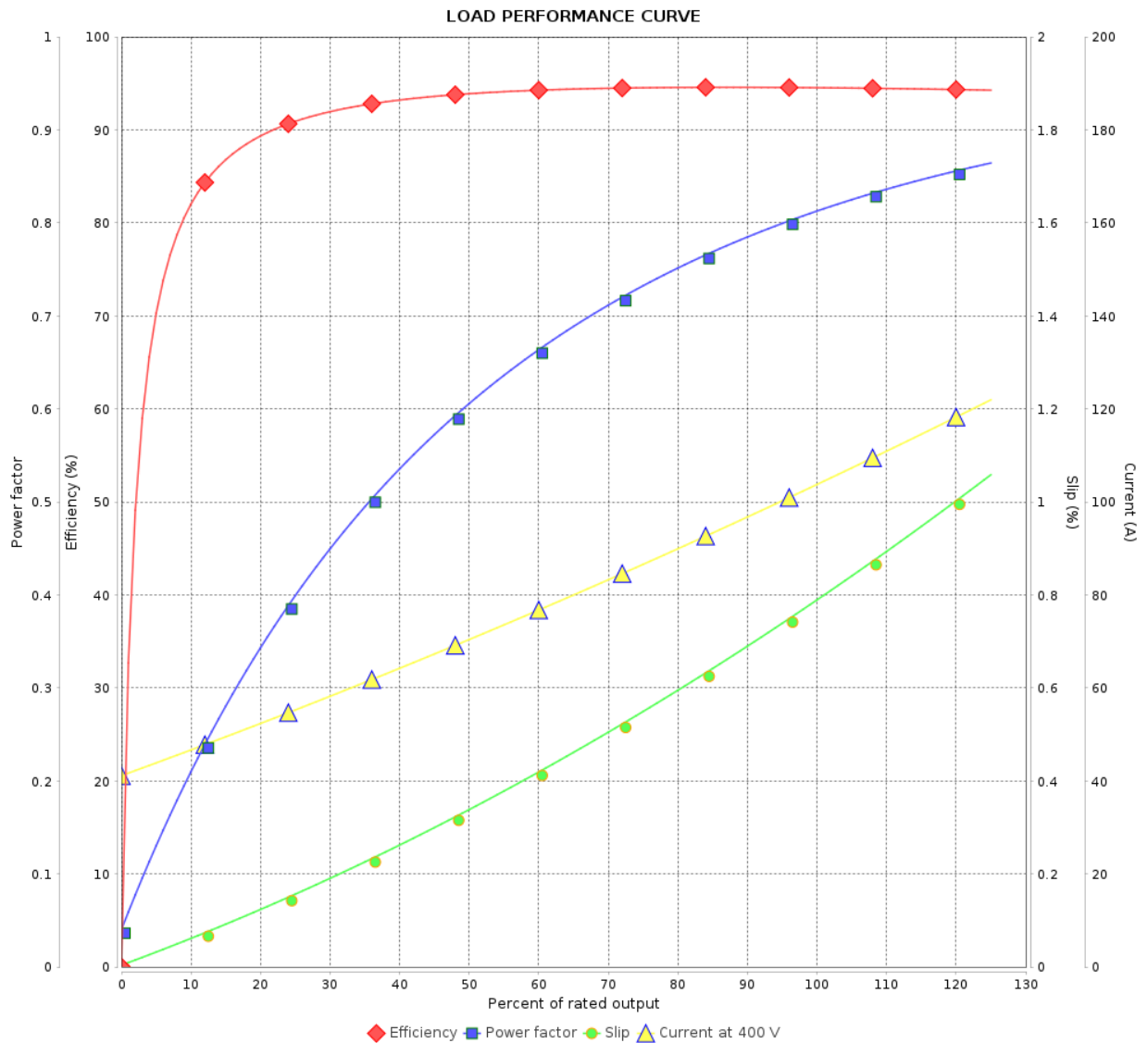
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943602



Performance : 400 V 50 Hz 6P IE3

Rated current	: 104 A	Moment of inertia (J)	: 3.68 kgm ²
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 54.9 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 992 rpm	Design	: B

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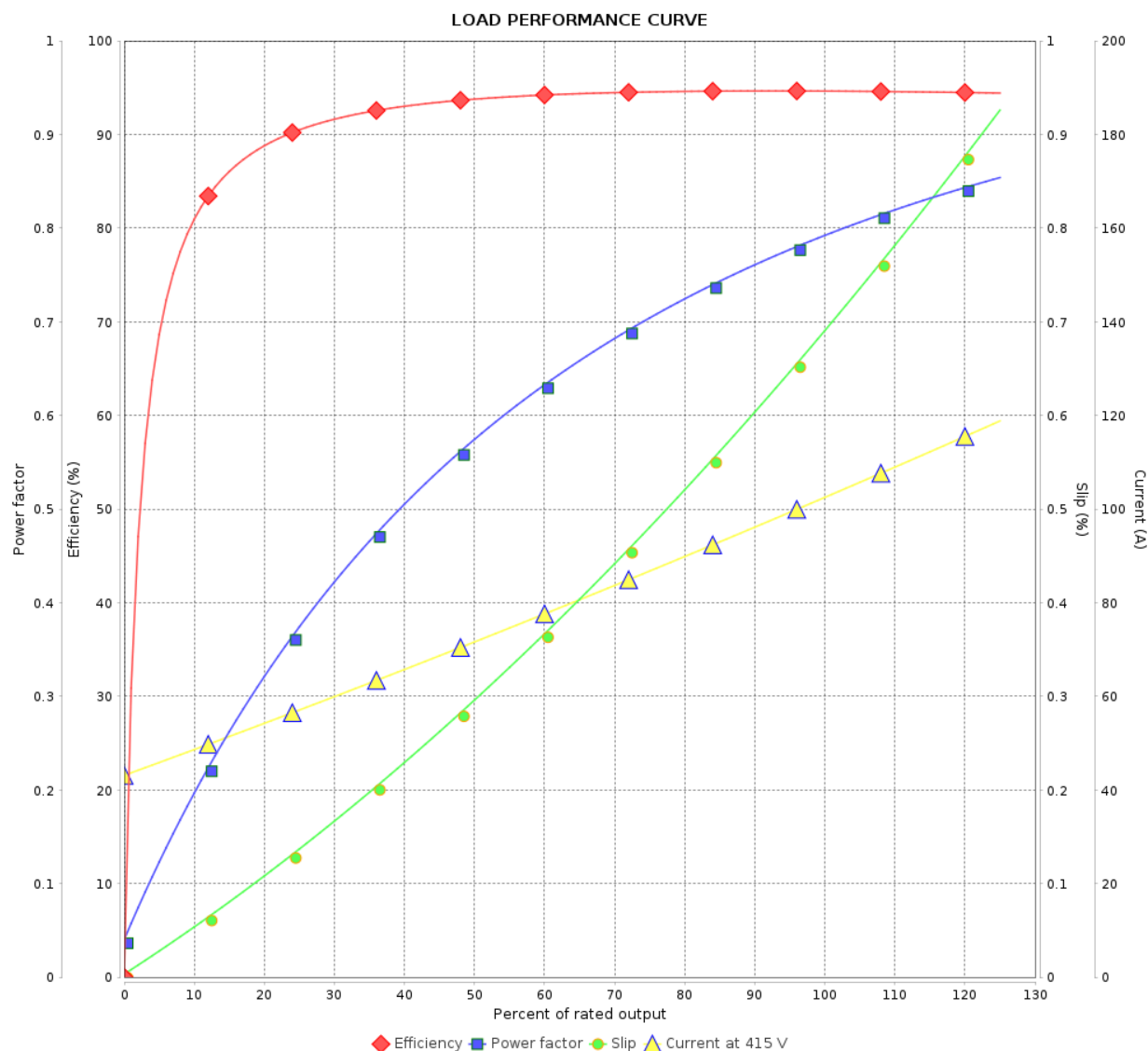
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943602



Performance : 415 V 50 Hz 6P IE3

Rated current	: 102 A	Moment of inertia (J)	: 3.68 kgm ²
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 54.8 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 993 rpm	Design	: B

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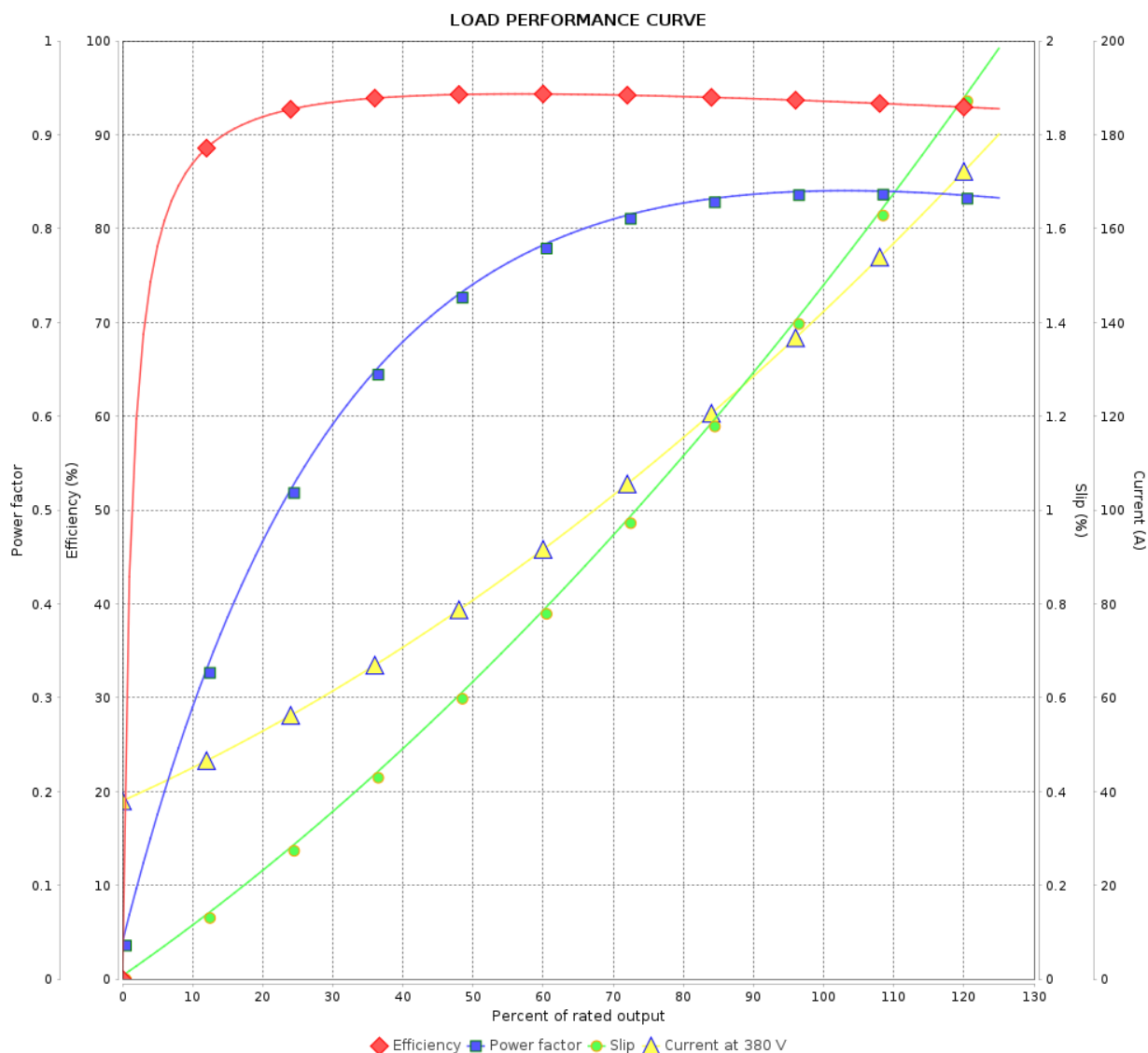
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943602



Performance : 380 V 50 Hz 6P IE1

Rated current : 145 A
LRC : 5.0
Rated torque : 73.7 kgfm
Locked rotor torque : 170 %
Breakdown torque : 180 %
Rated speed : 985 rpm

Moment of inertia (J) : 3.68 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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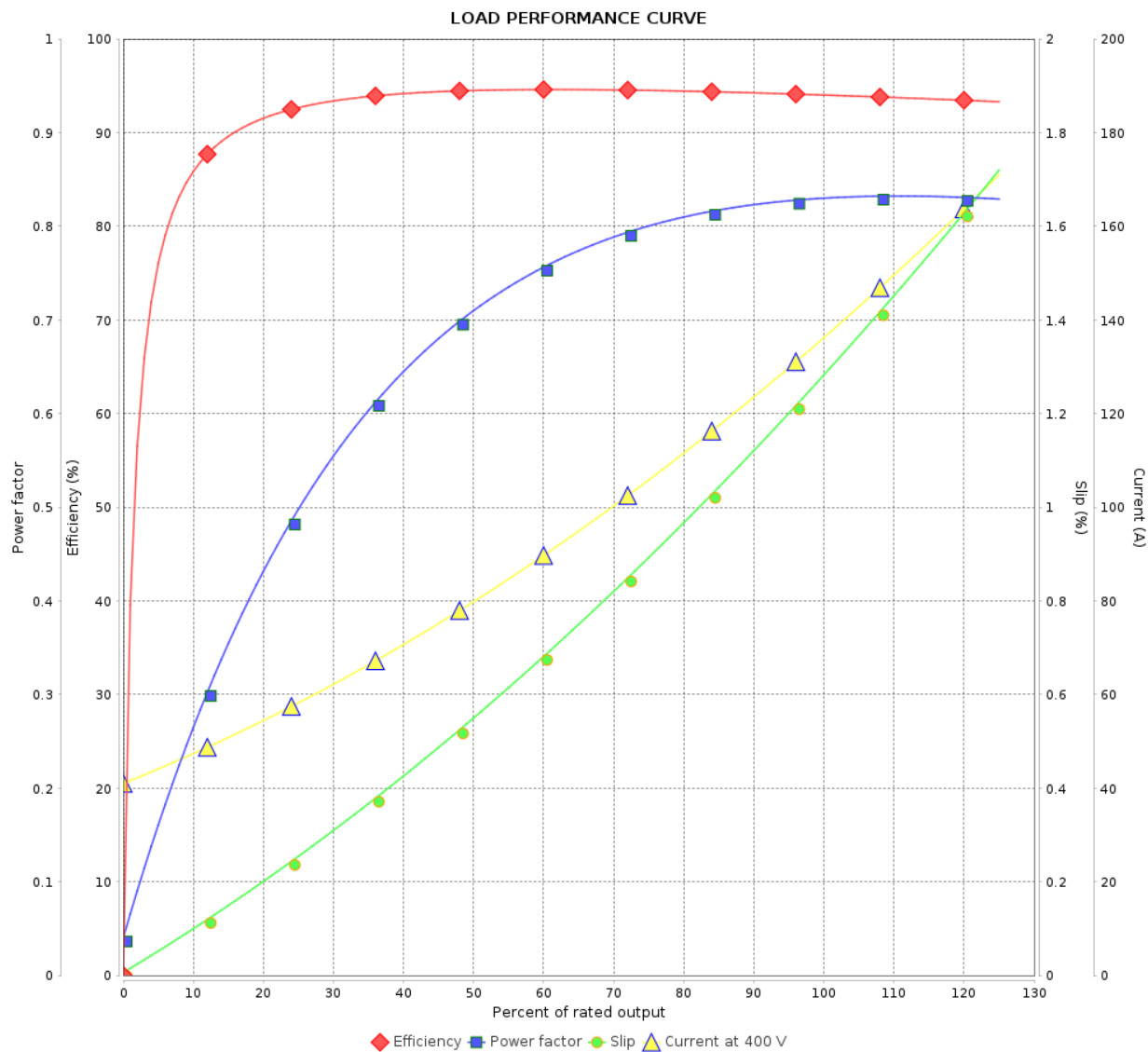
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943602



Performance : 400 V 50 Hz 6P IE2

Rated current : 139 A
LRC : 5.5
Rated torque : 73.5 kgfm
Locked rotor torque : 190 %
Breakdown torque : 200 %
Rated speed : 987 rpm

Moment of inertia (J) : 3.68 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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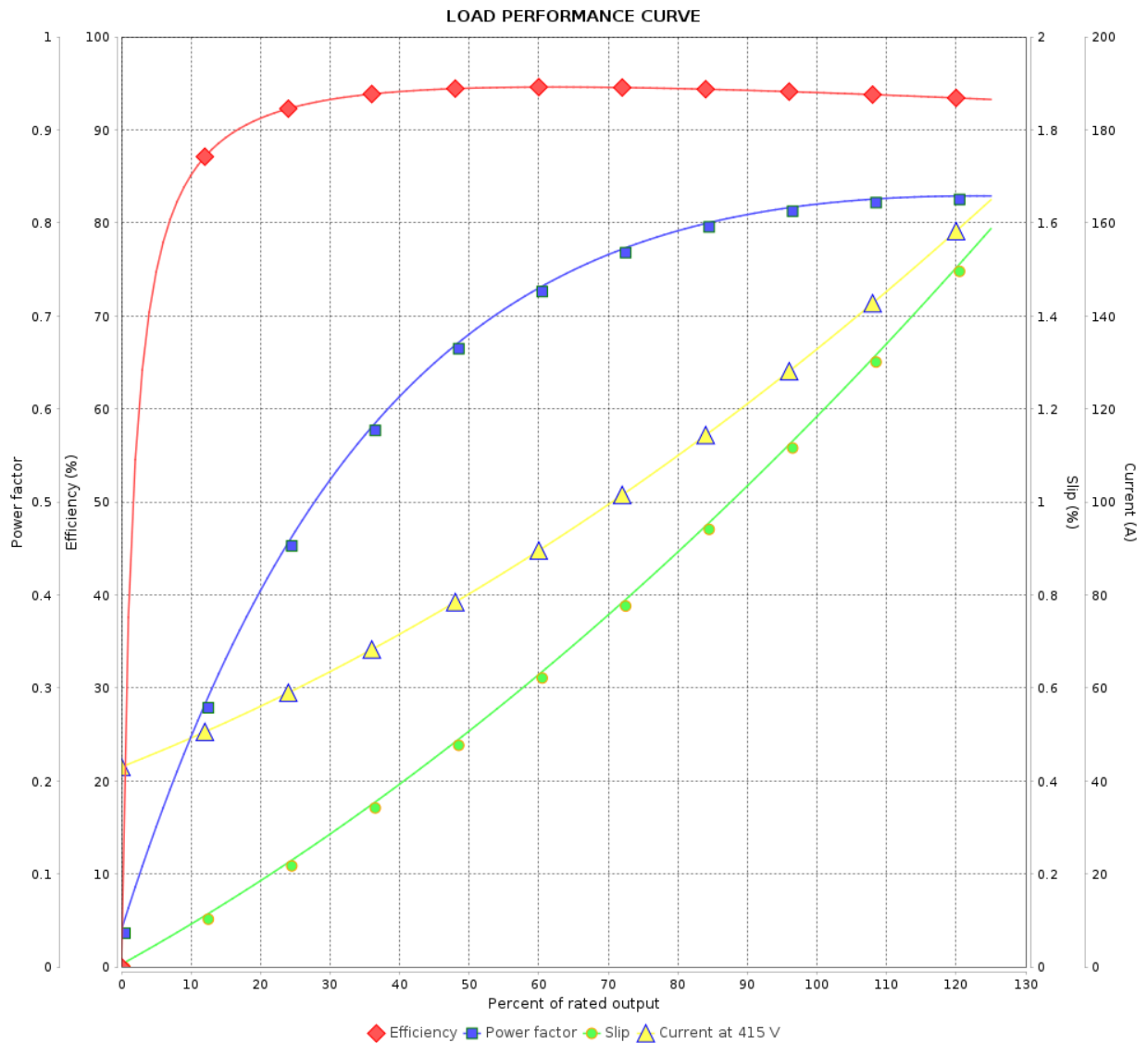
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943602



Performance : 415 V 50 Hz 6P IE2

Rated current	: 135 A	Moment of inertia (J)	: 3.68 kgm ²
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 73.5 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 988 rpm	Design	: B

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