

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943462

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]	75	50	50	50	75	75	75
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]	84.9	71.7	69.0	68.1	104	99.3	95.7
L. R. Amperes [A]	544	516	545	579	541	556	593
LRC [A]	6.4x(Code G)	7.2x(Code H)	7.9x(Code J)	8.5x(Code K)	5.2x(Code E)	5.6x(Code F)	6.2x(Code G)
No load current [A]	28.0	28.0	30.0	31.0	28.5	30.0	31.0
Rated speed [RPM]	1184	988	989	990	976	980	982
Slip [%]	1.33	1.20	1.10	1.00	2.40	2.00	1.80
Rated torque [kgfm]	46.0	36.7	36.7	36.7	55.8	55.5	55.4
Locked rotor torque [%]	220	229	260	290	150	170	190
Breakdown torque [%]	229	270	300	330	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	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	68.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)
Efficiency (%)	25%						
	50%	94.1	90.6	91.1	91.0	91.8	92.4
	75%	94.5	91.7	92.3	92.3	92.2	92.8
	100%	94.5	93.3	93.3	93.3	92.4	93.0
Power Factor	25%						
	50%	0.74	0.66	0.62	0.60	0.79	0.76
	75%	0.83	0.79	0.75	0.74	0.85	0.84
	100%	0.86	0.84	0.83	0.81	0.87	0.86

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

Losses (%)	P1 (0,9;1,0)	5.6	6.9	6.9	6.9	8.0	7.3	7.3
	P2 (0,5;1,0)	4.7	5.8	5.8	5.8	6.7	6.1	6.1
	P3 (0,25;1,0)	4.6	5.7	5.7	5.7	6.5	5.9	5.9
	P4 (0,9;0,5)	2.5	3.0	3.0	3.0	3.5	3.2	3.2
	P5 (0,5;0,5)	1.7	2.1	2.1	2.1	2.4	2.2	2.2
	P6 (0,5;0,25)	1.0	1.3	1.3	1.3	1.5	1.3	1.3
	P7 (0,25;0,25)	0.7	0.9	0.9	0.9	1.0	0.9	0.9

Bearing type	: 6316 C3	6314 C3	Foundation loads
Sealing	: Taconite	Taconite	Max. traction : 1201 kgf
	Labyrinth	Labyrinth	Max. compression : 1201 kgf
Lubrication interval	: 16000 h	17000 h	
Lubricant amount	: 34 g	27 g	
Lubricant type	: Mobil Polyrex EM		

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	23/10/2024		1 / 9	

DATA SHEET

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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.

Rev.	Changes Summary		Performed	Checked	Date
Performed by			Page		Revision
Checked by					
Date	23/10/2024				

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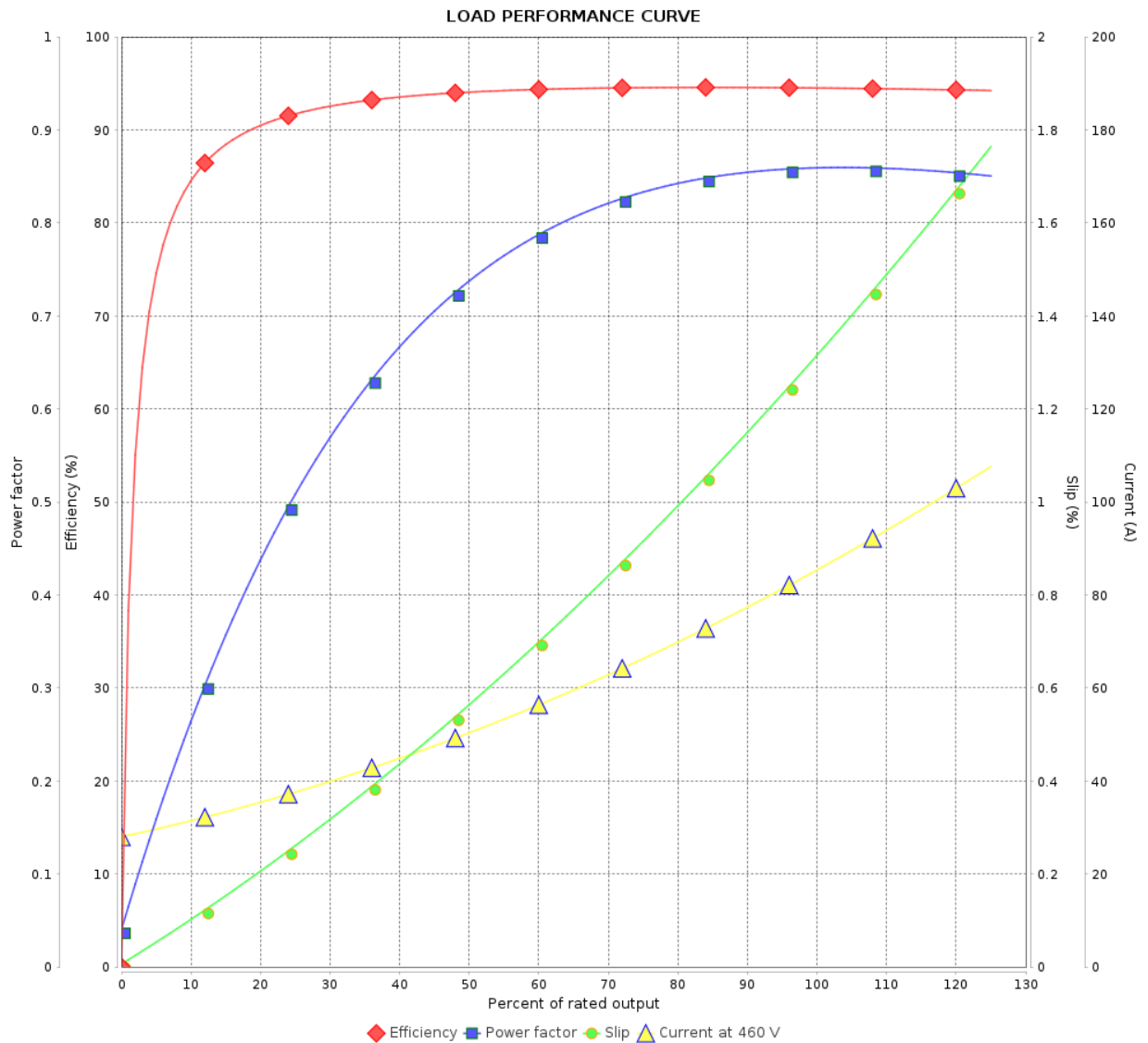
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943462



Performance : 460 V 60 Hz 6P

Rated current : 84.9 A
LRC : 6.4
Rated torque : 46.0 kgfm
Locked rotor torque : 220 %
Breakdown torque : 229 %
Rated speed : 1184 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

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 3 / 9	Revision
Checked by					
Date	23/10/2024				

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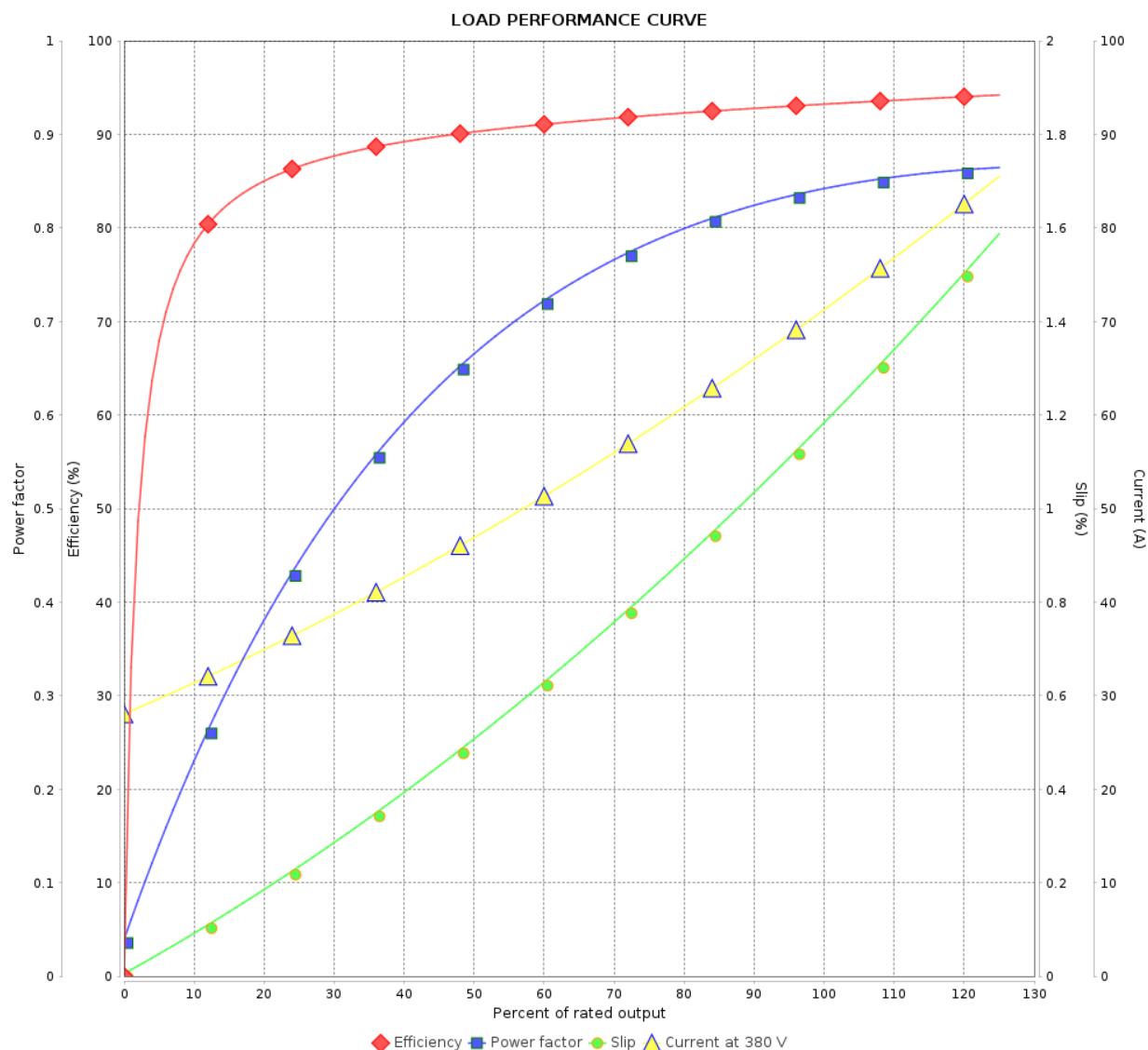
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943462



Performance : 380 V 50 Hz 6P IE3

Rated current	: 71.7 A	Moment of inertia (J)	: 1.69 kgm ²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 36.7 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 988 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	23/10/2024		Page 4 / 9	Revision

LOAD PERFORMANCE CURVE

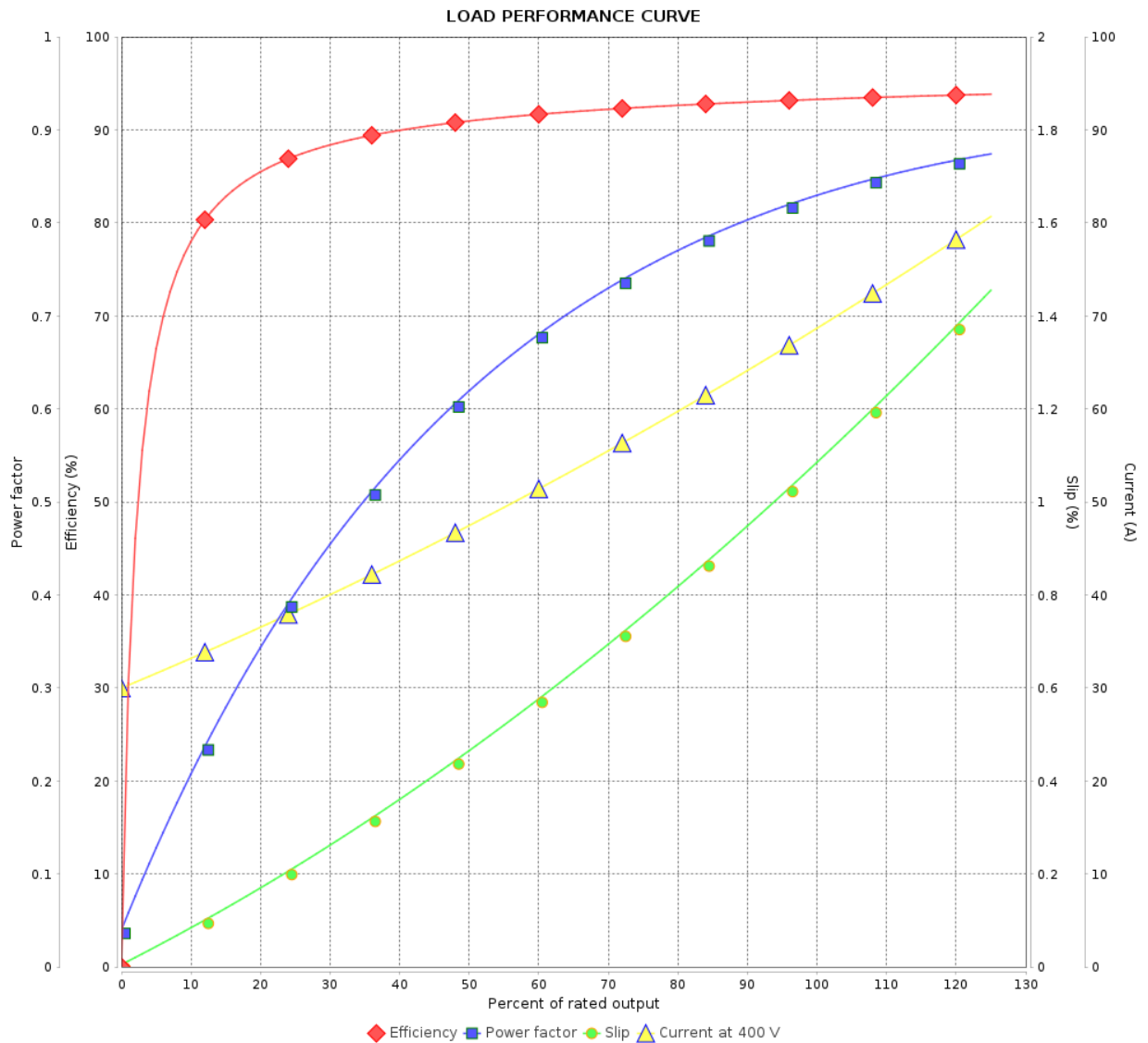
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943462



Performance : 400 V 50 Hz 6P IE3

Rated current : 69.0 A
LRC : 7.9
Rated torque : 36.7 kgfm
Locked rotor torque : 260 %
Breakdown torque : 300 %
Rated speed : 989 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

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 5 / 9	Revision
Checked by					
Date	23/10/2024				

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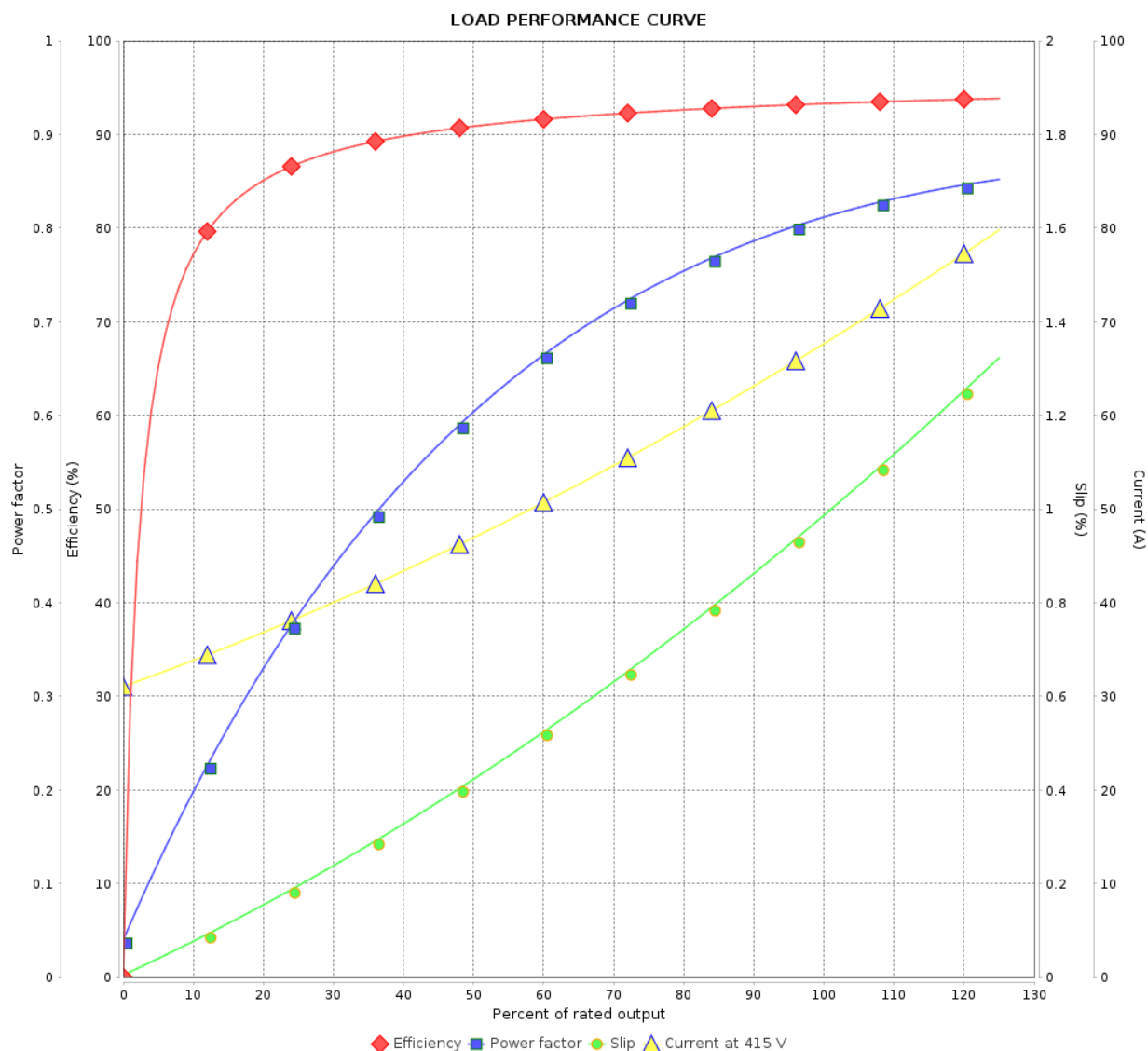
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943462



Performance : 415 V 50 Hz 6P IE3

Rated current	: 68.1 A	Moment of inertia (J)	: 1.69 kgm ²
LRC	: 8.5	Duty cycle	: Cont.(S1)
Rated torque	: 36.7 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 6 / 9Revision		
Checked by				
Date	23/10/2024			

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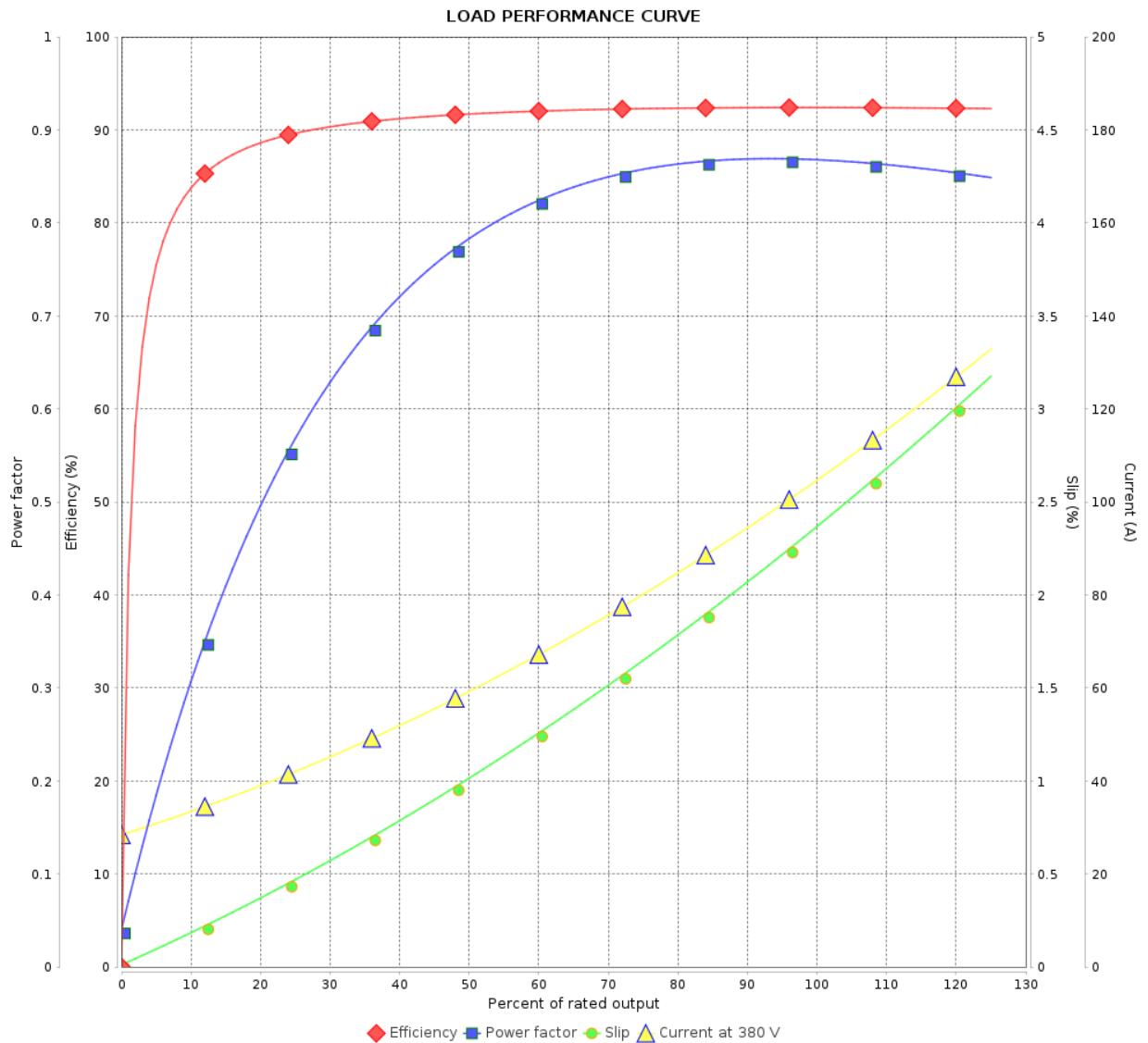
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943462



Performance : 380 V 50 Hz 6P IE1

Rated current : 104 A
LRC : 5.2
Rated torque : 55.8 kgfm
Locked rotor torque : 150 %
Breakdown torque : 180 %
Rated speed : 976 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

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 7 / 9Revision		
Checked by				
Date	23/10/2024			

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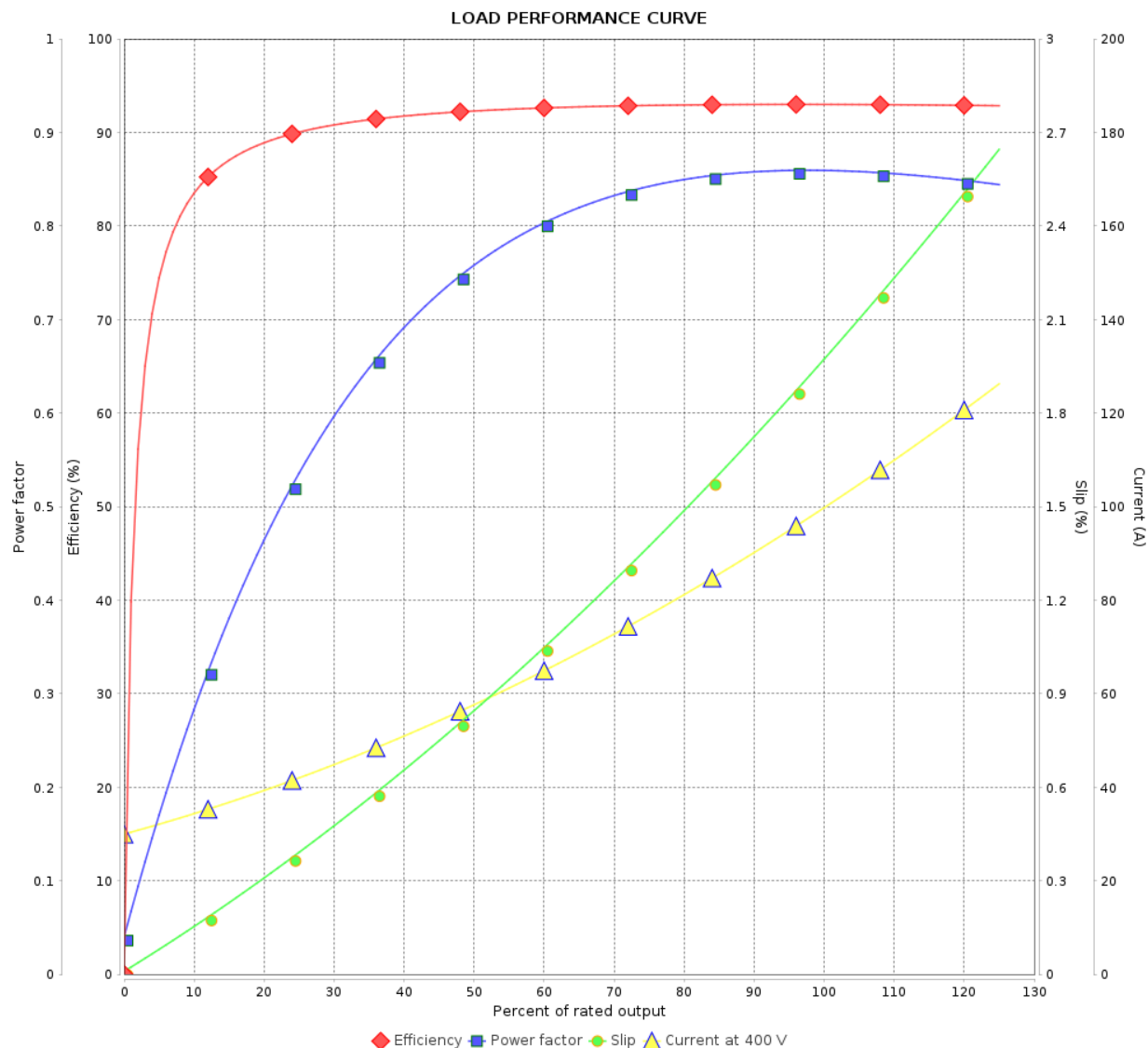
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943462



Performance : 400 V 50 Hz 6P IE1

Rated current : 99.3 A
LRC : 5.6
Rated torque : 55.5 kgfm
Locked rotor torque : 170 %
Breakdown torque : 200 %
Rated speed : 980 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

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

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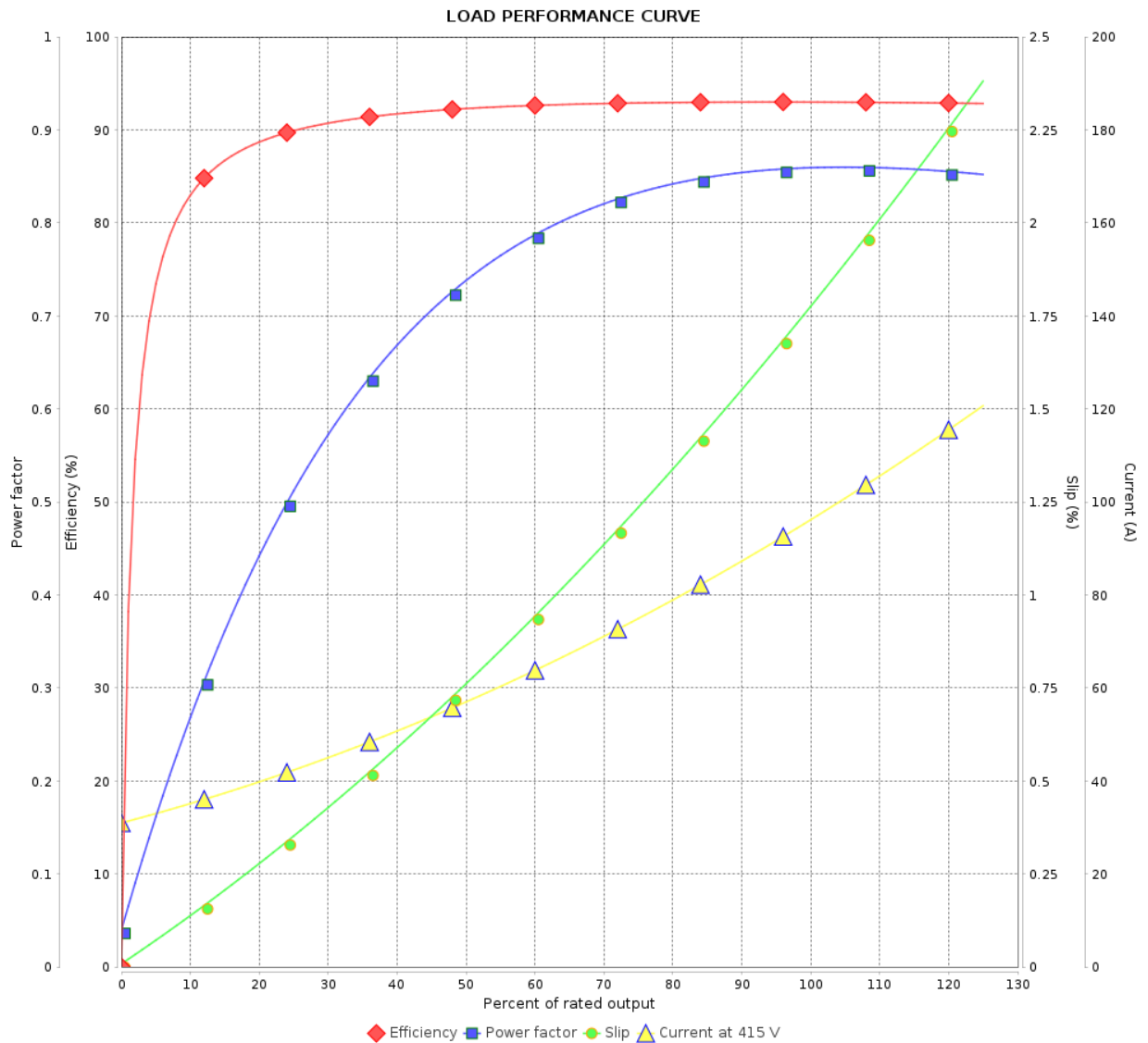
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943462



Performance : 415 V 50 Hz 6P IE1

Rated current	: 95.7 A	Moment of inertia (J)	: 1.69 kgm ²
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 55.4 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 982 rpm	Design	: B

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	23/10/2024		Page 9 / 9	Revision