

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11165649

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	: 544 kg
Protection degree	: IP55	Moment of inertia (J)	: 1.69 kgm ²
Design	: B		

Output [HP]	75	60	60	60	75	75	75
Poles	6	6	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	170/84.9	85.5	83.2	82.1	104	99.3	95.7
L. R. Amperes [A]	1087/543	547	574	599	541	566	593
LRC [A]	6.4x(Code G)	6.4x(Code G)	6.9x(Code H)	7.3x(Code J)	5.2x(Code E)	5.7x(Code F)	6.2x(Code G)
No load current [A]	60.0/30.0	29.7	31.8	33.5	29.7	31.8	33.5
Rated speed [RPM]	1184	985	985	985	978	981	983
Slip [%]	1.33	1.50	1.50	1.50	2.20	1.90	1.70
Rated torque [kgfm]	46.0	44.2	44.2	44.2	55.7	55.5	55.4
Locked rotor torque [%]	229	200	240	270	170	190	210
Breakdown torque [%]	229	240	270	290	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)	61s (cold) 34s (hot)	57s (cold) 32s (hot)	54s (cold) 30s (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	93.5	93.5	93.5	91.8	92.4
	75%	94.5	94.0	94.0	94.0	92.2	92.8
	100%	94.5	94.1	94.1	94.1	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	0.85	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)	6.3	6.8	6.8	6.8	9.0	8.2	8.2
	P2 (0,5;1,0)	5.0	5.5	5.5	5.5	7.6	6.8	6.8
	P3 (0,25;1,0)	4.5	4.9	4.9	4.9	7.0	6.3	6.3
	P4 (0,9;0,5)	3.5	3.7	3.7	3.7	4.7	4.4	4.4
	P5 (0,5;0,5)	2.3	2.5	2.5	2.5	3.3	3.0	3.0
	P6 (0,5;0,25)	1.7	1.8	1.8	1.8	2.4	2.2	2.2
	P7 (0,25;0,25)	1.1	1.2	1.2	1.2	1.6	1.5	1.5

Bearing type	: NU-316 C3	6314 C3	Foundation loads	
Sealing	: WSeal	WSeal	Max. traction	: 928 kgf
Lubrication interval	: 12000 h	17000 h	Max. compression	: 1471 kgf
Lubricant amount	: 34 g	27 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 188A SF 1.10 SFA 207A

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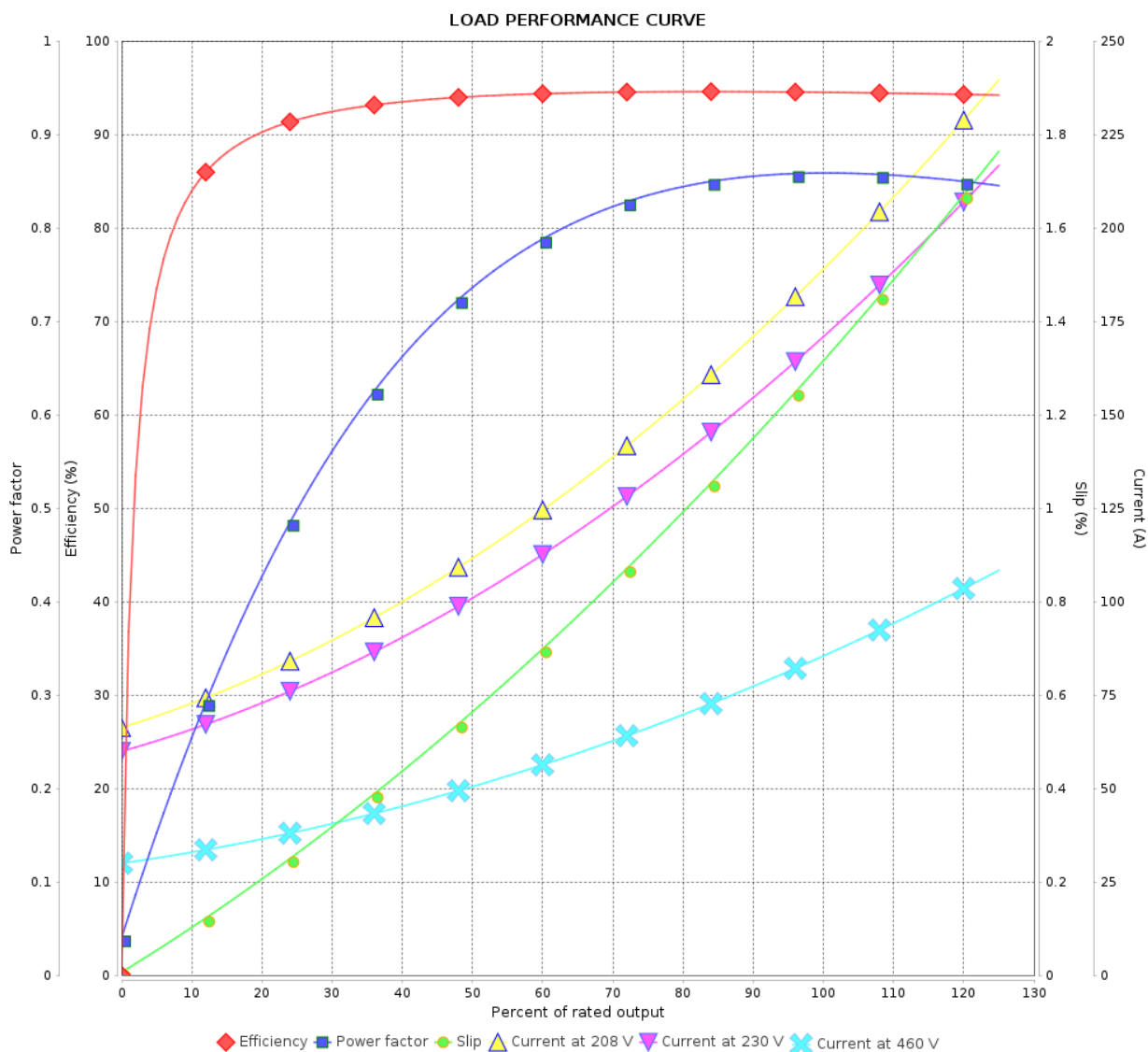
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165649



Performance : 230/460 V 60 Hz 6P

Rated current : 170/84.9 A
LRC : 6.4
Rated torque : 46.0 kgfm
Locked rotor torque : 229 %
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

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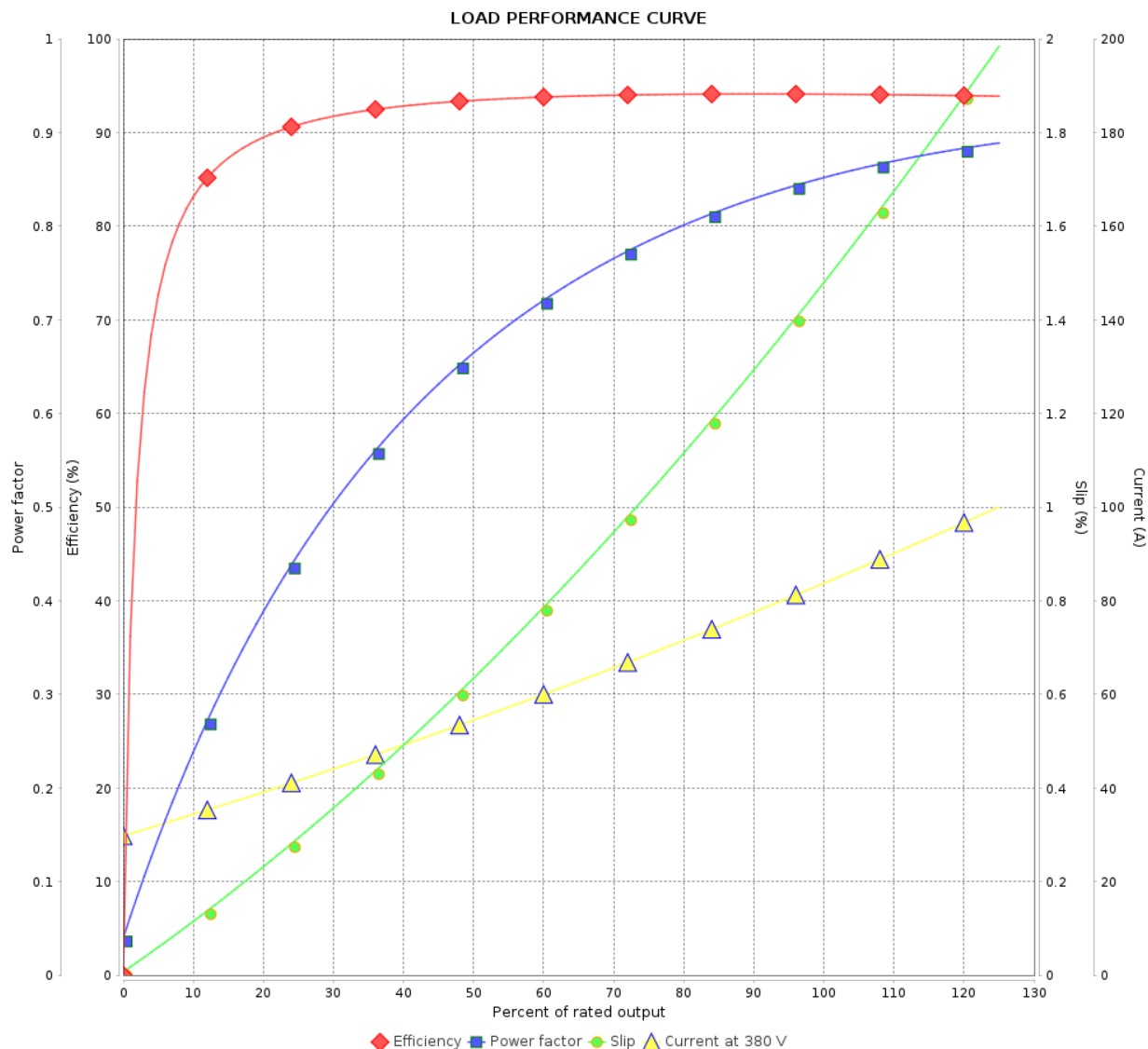
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165649



Performance : 380 V 50 Hz 6P IE3

Rated current : 85.5 A
LRC : 6.4
Rated torque : 44.2 kgfm
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 985 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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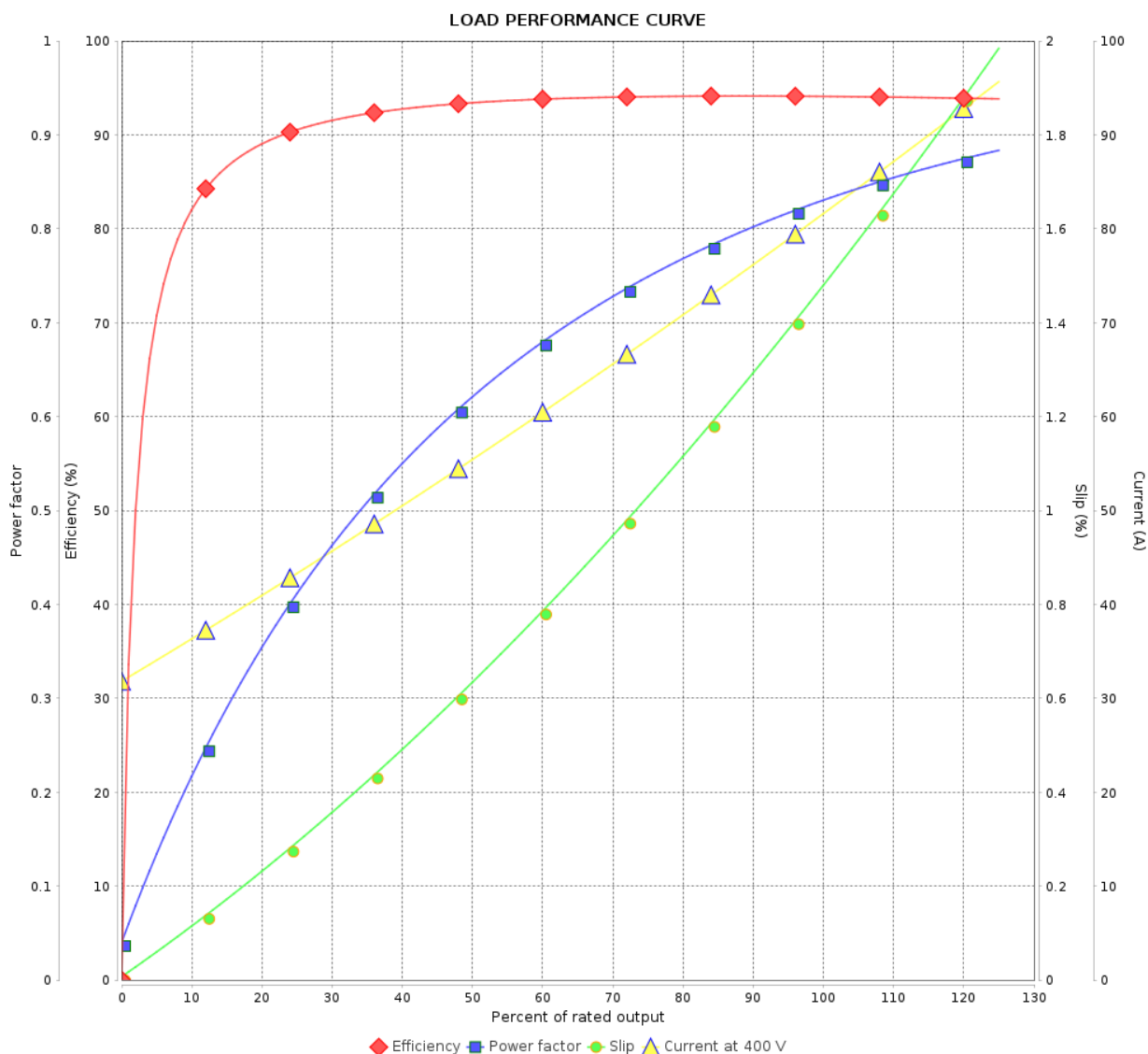
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165649



Performance : 400 V 50 Hz 6P IE3

Rated current : 83.2 A
LRC : 6.9
Rated torque : 44.2 kgfm
Locked rotor torque : 240 %
Breakdown torque : 270 %
Rated speed : 985 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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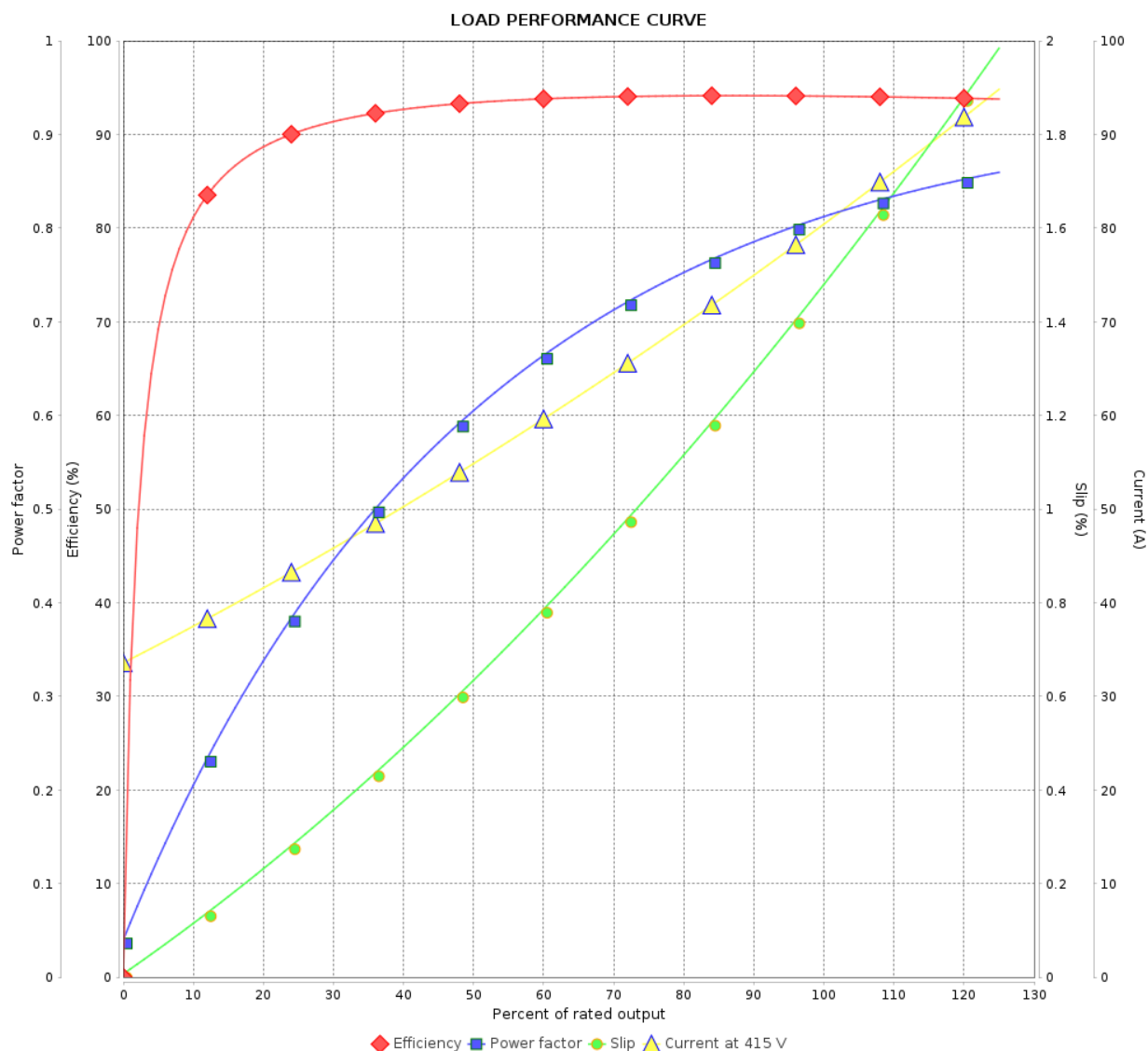
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165649



Performance : 415 V 50 Hz 6P IE3

Rated current : 82.1 A
LRC : 7.3
Rated torque : 44.2 kgfm
Locked rotor torque : 270 %
Breakdown torque : 290 %
Rated speed : 985 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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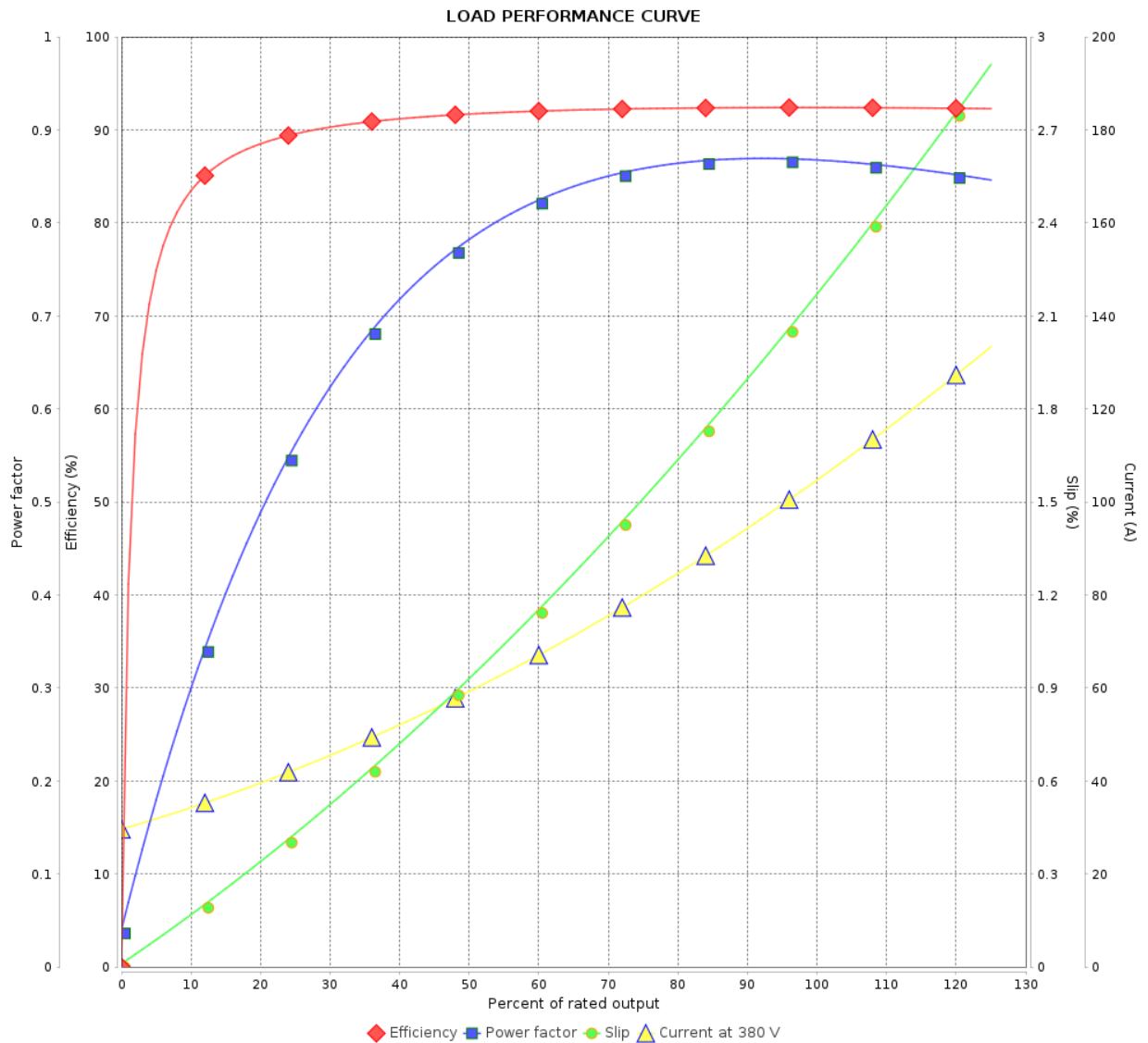
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165649



Performance : 380 V 50 Hz 6P IE1

Rated current	: 104 A	Moment of inertia (J)	: 1.69 kgm ²
LRC	: 5.2	Duty cycle	: Cont.(S1)
Rated torque	: 55.7 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 180 %	Temperature rise	: 105 K
Rated speed	: 978 rpm	Design	: B

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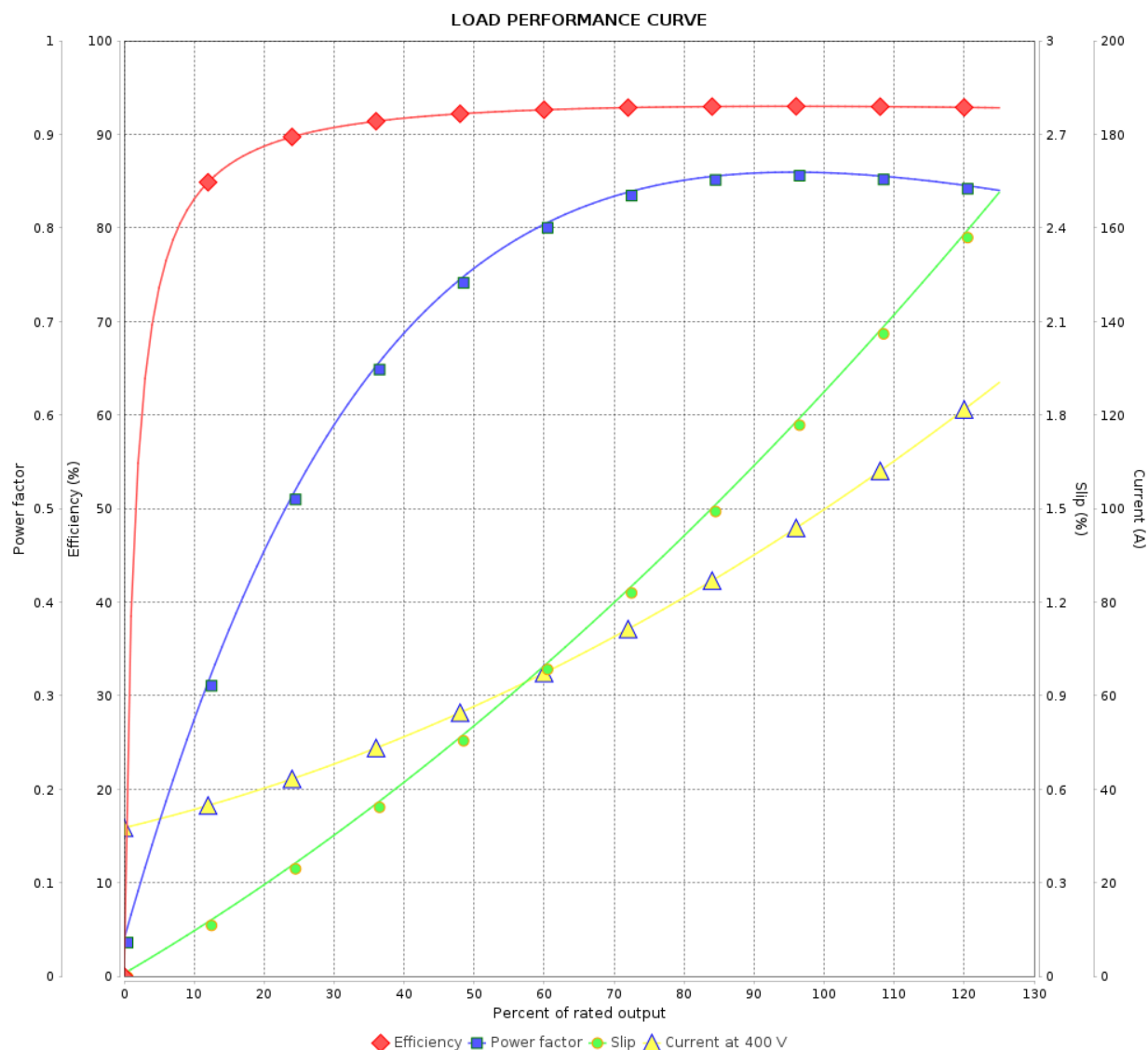
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165649



Performance : 400 V 50 Hz 6P IE1

Rated current : 99.3 A
LRC : 5.7
Rated torque : 55.5 kgfm
Locked rotor torque : 190 %
Breakdown torque : 200 %
Rated speed : 981 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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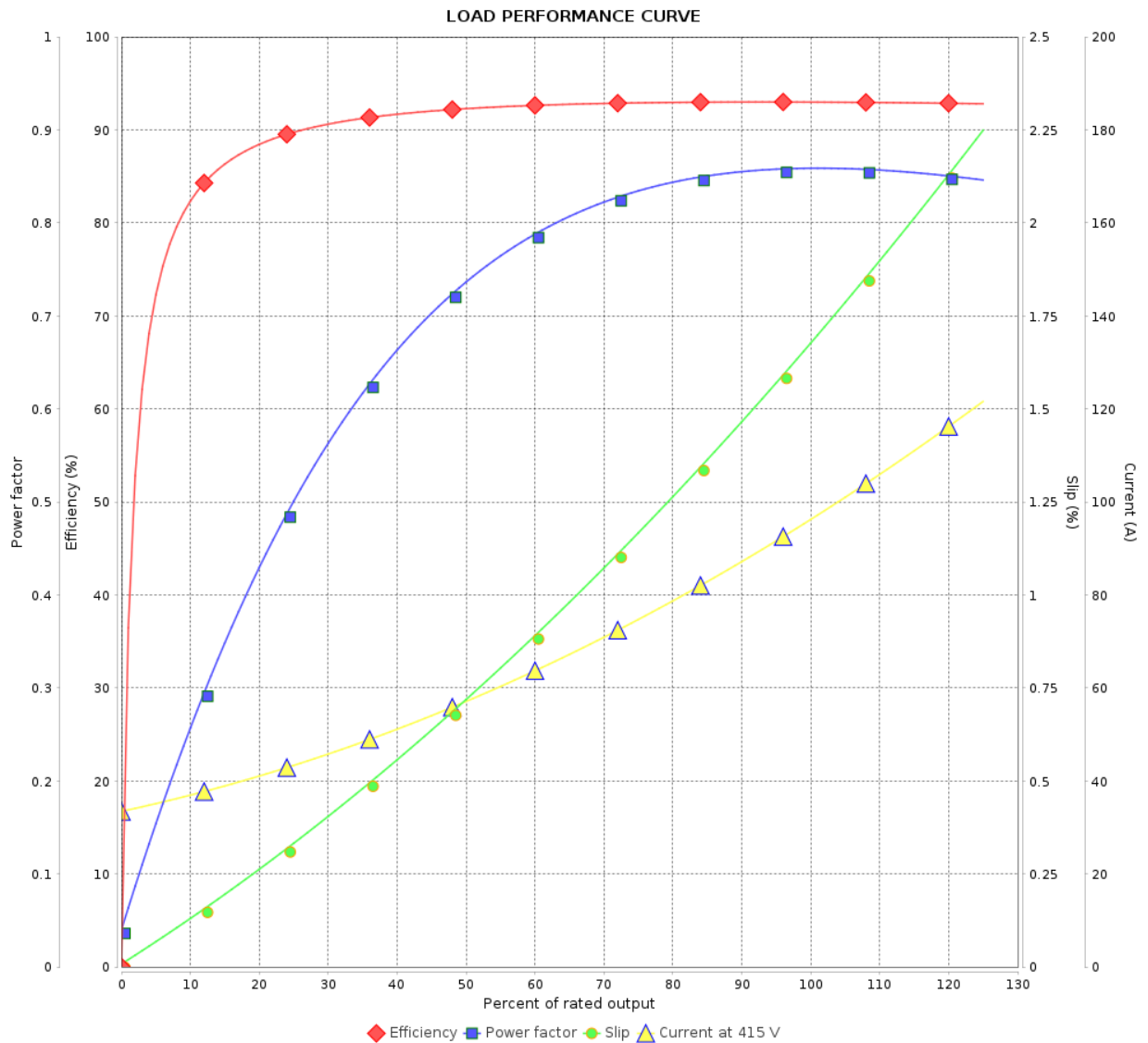
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165649



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	: 210 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 983 rpm	Design	: B

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