

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11165654

Frame : 504/5T	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 ² : 1094 kg
Protection degree : IP55	Moment of inertia (J) : 5.63 kgm ²
Design : B	

Output [HP]	150	125	125	125	150	150	150
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]	352/176	176	170	168	209	201	196
L. R. Amperes [A]	2182/1091	1041	1103	1173	1045	1106	1176
LRC [A]	6.2x(Code G)	5.9x(Code F)	6.5x(Code G)	7.0x(Code H)	5.0x(Code E)	5.5x(Code F)	6.0x(Code G)
No load current [A]	150/75.0	74.0	80.0	85.2	74.0	80.0	85.2
Rated speed [RPM]	1190	985	990	990	985	990	990
Slip [%]	0.83	1.50	1.00	1.00	1.50	1.00	1.00
Rated torque [kgfm]	91.5	92.1	91.6	91.6	111	110	110
Locked rotor torque [%]	229	220	240	260	180	200	220
Breakdown torque [%]	250	240	260	290	200	220	240
Service factor	1.15	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)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (hot)
Noise level ²	70.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)
Efficiency (%)	25%						
	50%	94.5	94.4	93.9	93.9	95.0	94.5
	75%	95.4	95.1	94.9	94.9	95.0	95.0
	100%	95.8	95.1	95.1	95.1	95.0	95.0
Power Factor	25%						
	50%	0.67	0.67	0.63	0.60	0.73	0.69
	75%	0.78	0.79	0.76	0.73	0.82	0.80
	100%	0.82	0.83	0.82	0.80	0.84	0.83

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

Losses (%)	P1 (0,9;1,0)	5.1	5.5	5.5	5.5	6.1	6.1	6.1
	P2 (0,5;1,0)	3.8	4.3	4.3	4.3	4.8	4.8	4.8
	P3 (0,25;1,0)	3.4	3.8	3.8	3.8	4.3	4.3	4.3
	P4 (0,9;0,5)	2.9	3.1	3.1	3.1	3.4	3.4	3.4
	P5 (0,5;0,5)	1.9	2.0	2.0	2.0	2.3	2.3	2.3
	P6 (0,5;0,25)	1.4	1.5	1.5	1.5	1.7	1.7	1.7
	P7 (0,25;0,25)	0.8	0.9	0.9	0.9	1.0	1.0	1.0

Bearing type : NU-319 C3	Drive end	Non drive end	6316 C3	Foundation loads Max. traction : 1531 kgf Max. compression : 2624 kgf
Sealing : WSeal	WSeal	WSeal		
Lubrication interval : 9000 h	16000 h			
Lubricant amount : 45 g	34 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



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Notes
USABLE @208V 389A SF 1.00 SFA 389A

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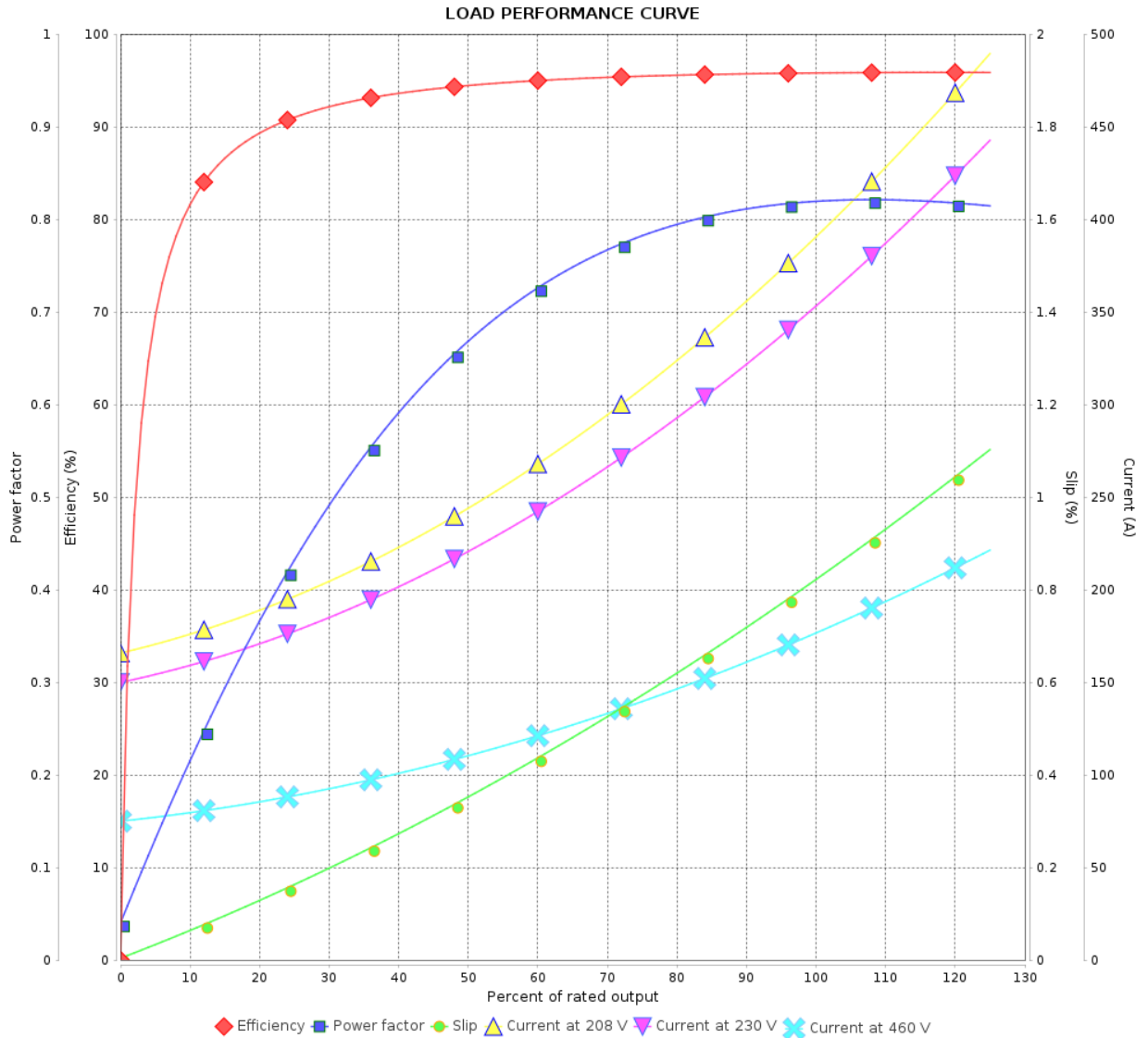
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165654



Performance : 230/460 V 60 Hz 6P

Rated current : 352/176 A
 LRC : 6.2
 Rated torque : 91.5 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 250 %
 Rated speed : 1190 rpm

Moment of inertia (J) : 5.63 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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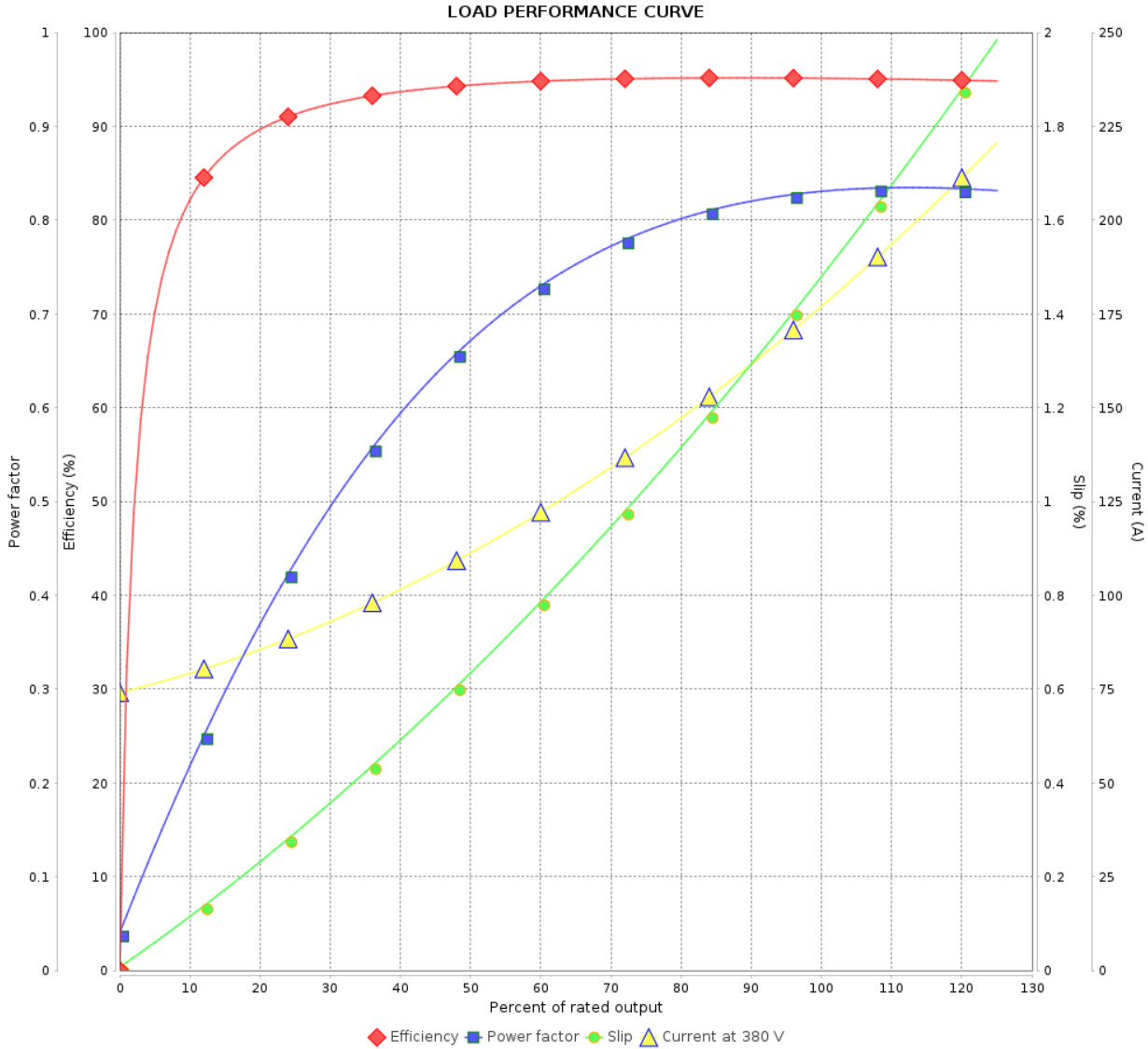
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165654



Performance : 380 V 50 Hz 6P IE3

Rated current	: 176 A	Moment of inertia (J)	: 5.63 kgm ²
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 92.1 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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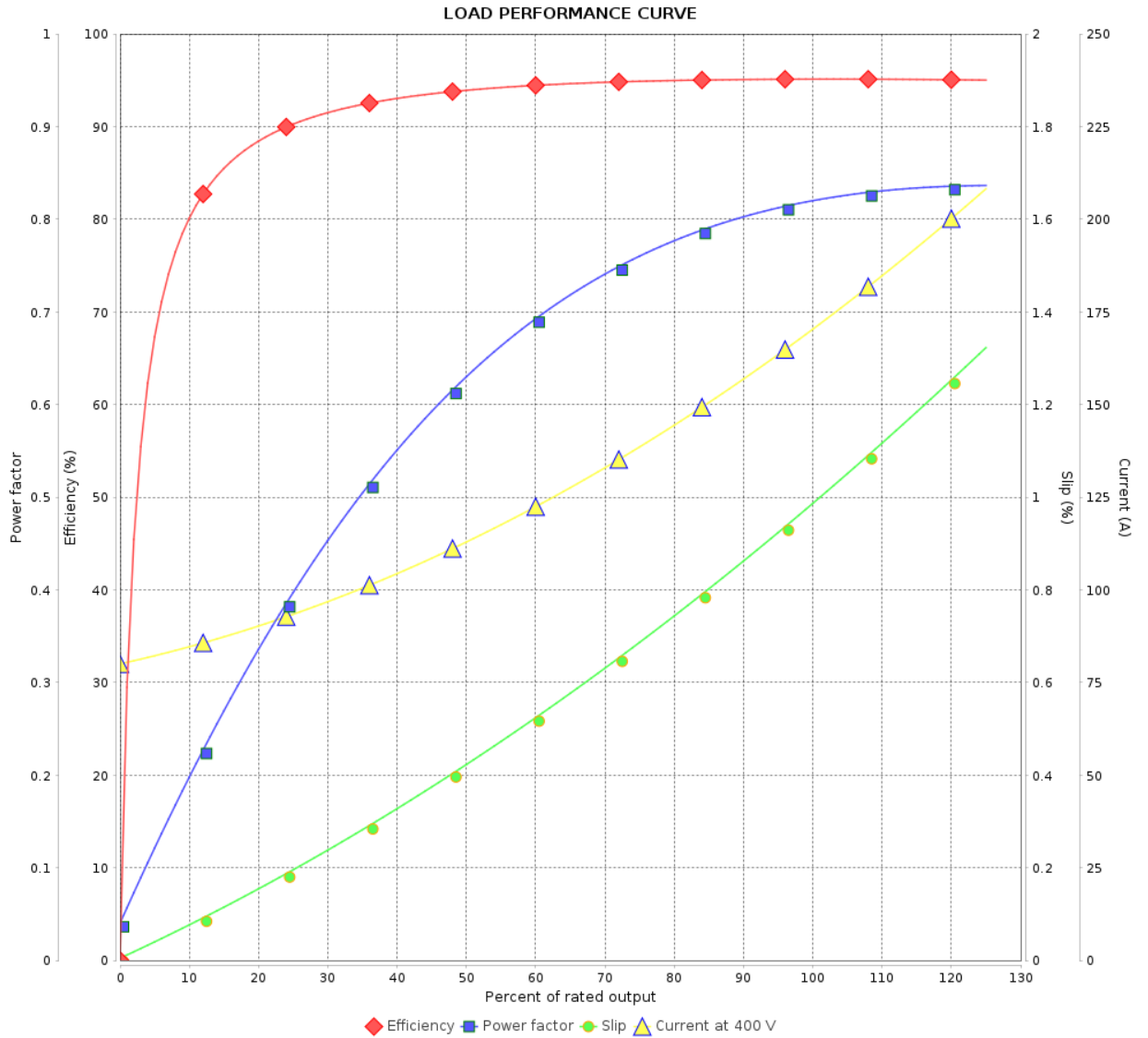
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165654



Performance : 400 V 50 Hz 6P IE3

Rated current : 170 A
 LRC : 6.5
 Rated torque : 91.6 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 990 rpm

Moment of inertia (J) : 5.63 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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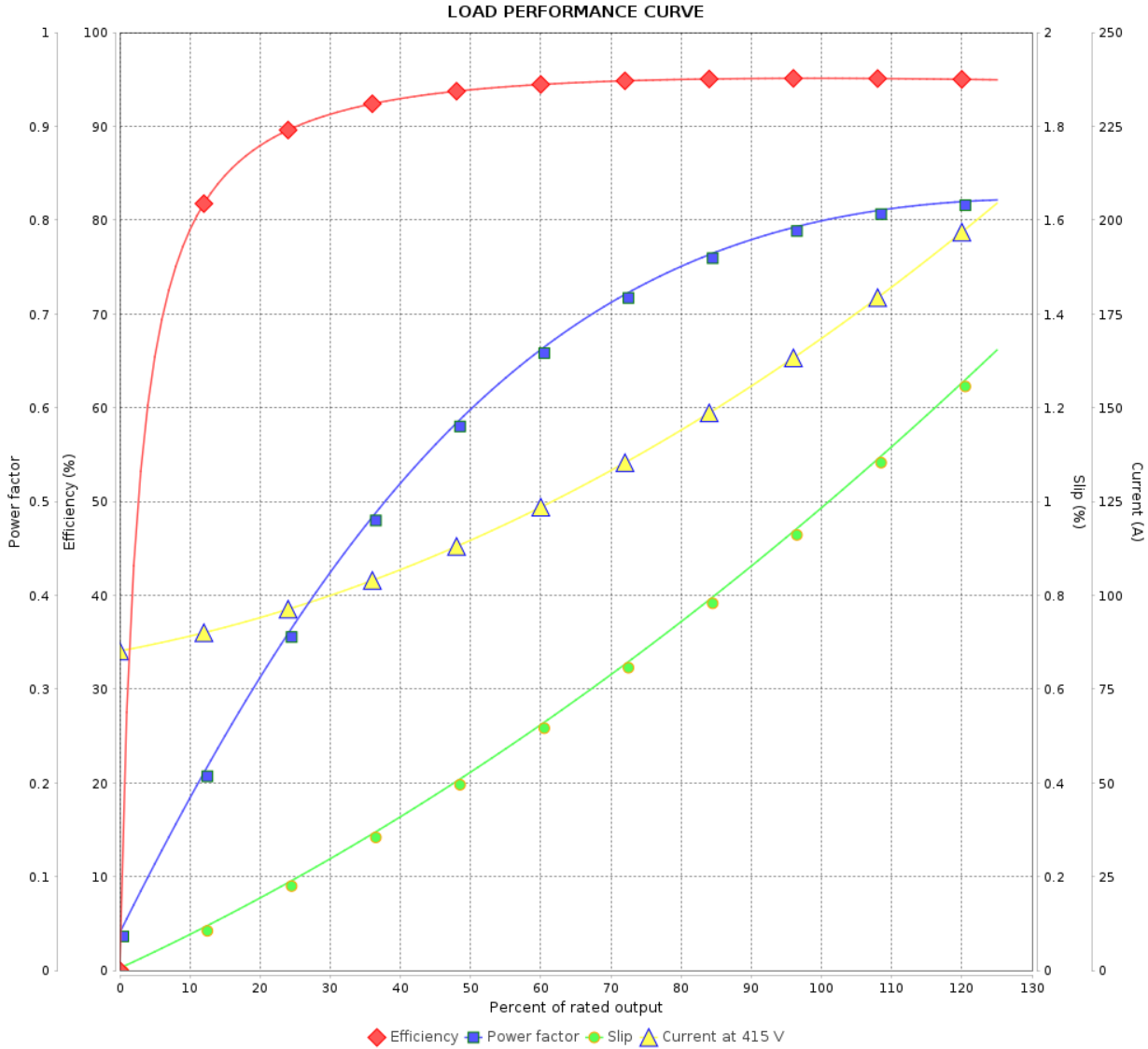
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165654



Performance : 415 V 50 Hz 6P IE3

Rated current : 168 A
 LRC : 7.0
 Rated torque : 91.6 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 290 %
 Rated speed : 990 rpm

Moment of inertia (J) : 5.63 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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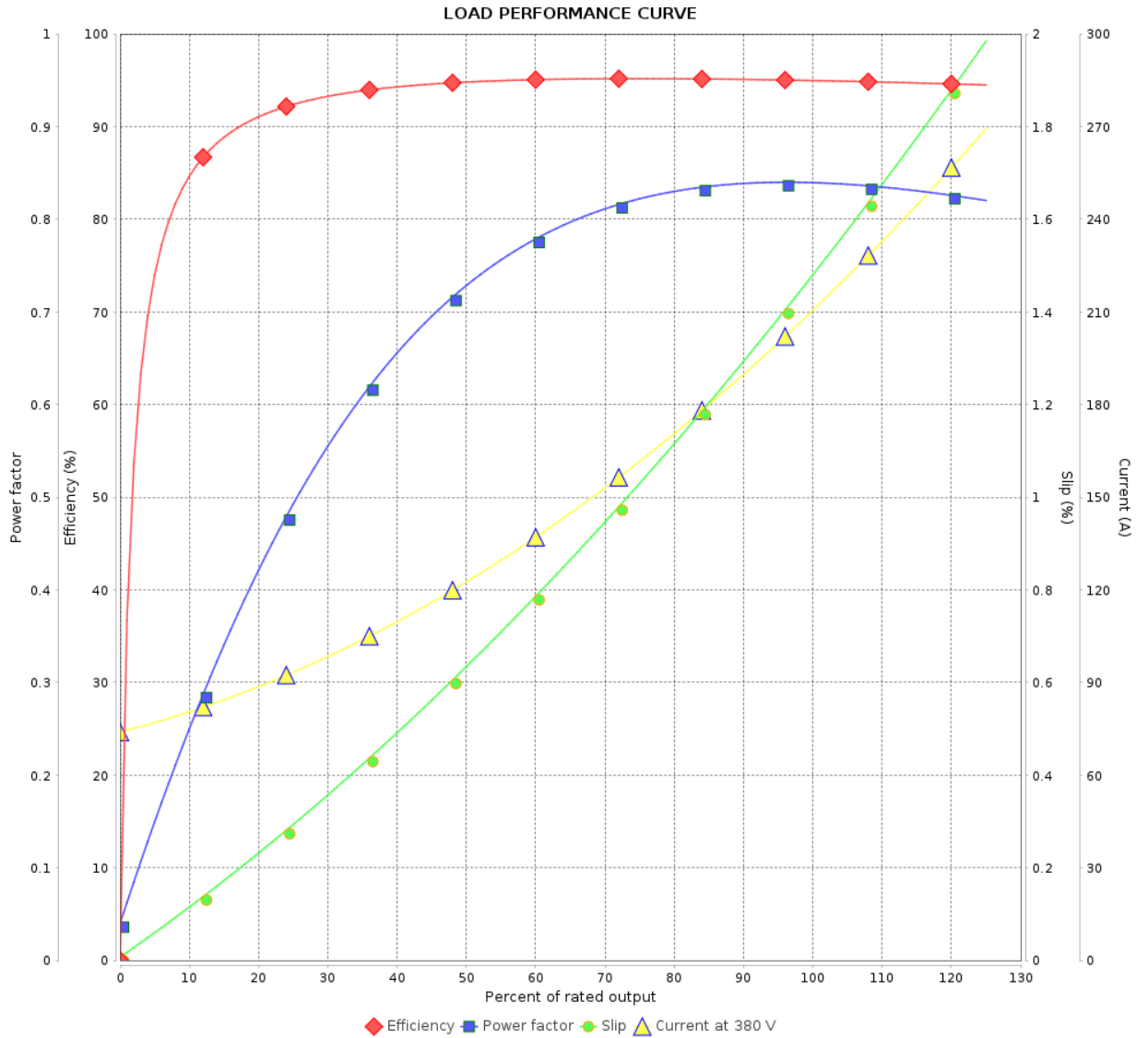
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165654



Performance : 380 V 50 Hz 6P IE2

Rated current : 209 A
 LRC : 5.0
 Rated torque : 111 kgfm
 Locked rotor torque : 180 %
 Breakdown torque : 200 %
 Rated speed : 985 rpm

Moment of inertia (J) : 5.63 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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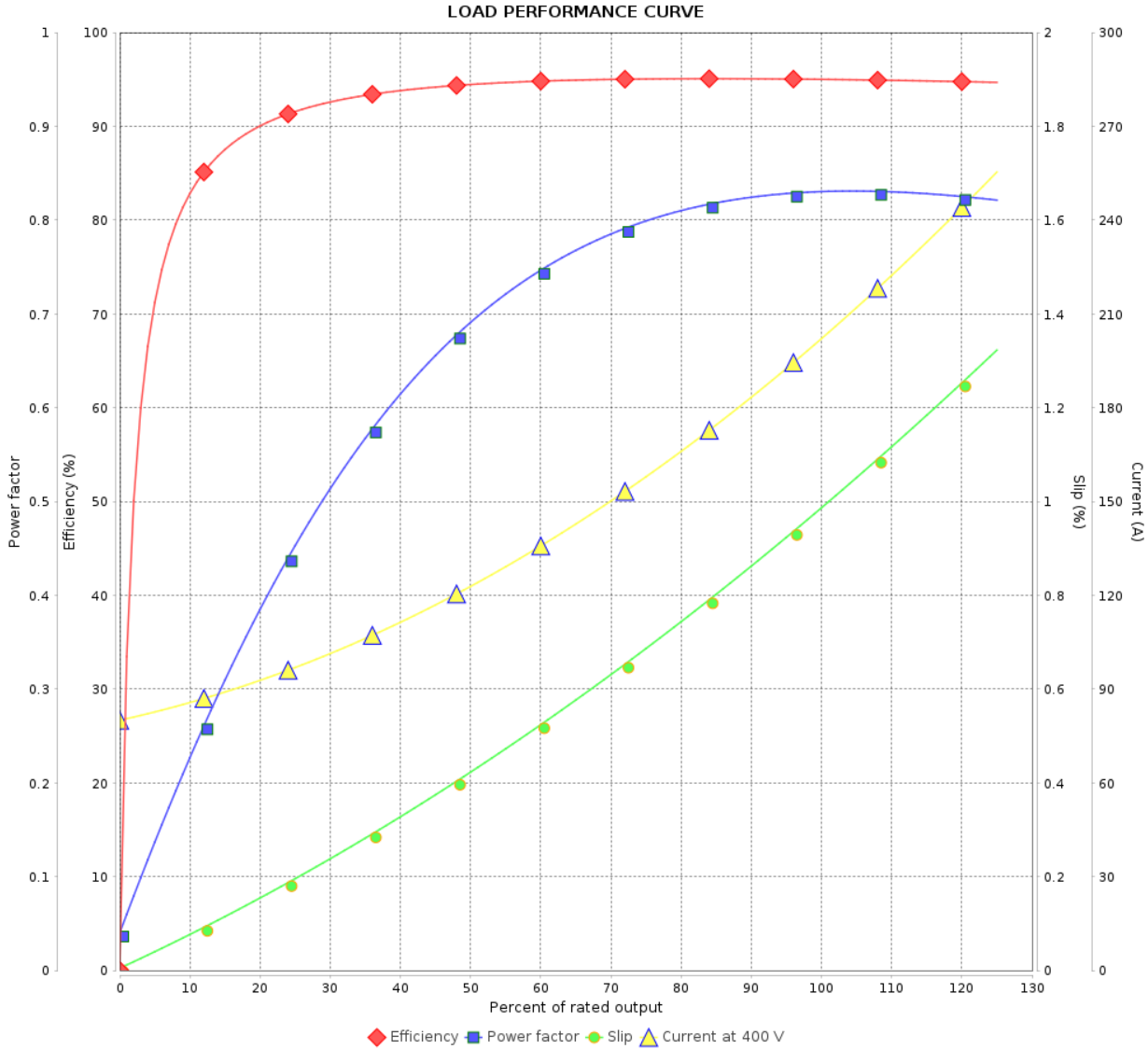
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165654



Performance : 400 V 50 Hz 6P IE2

Rated current	: 201 A	Moment of inertia (J)	: 5.63 kgm ²
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 110 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 990 rpm	Design	: B

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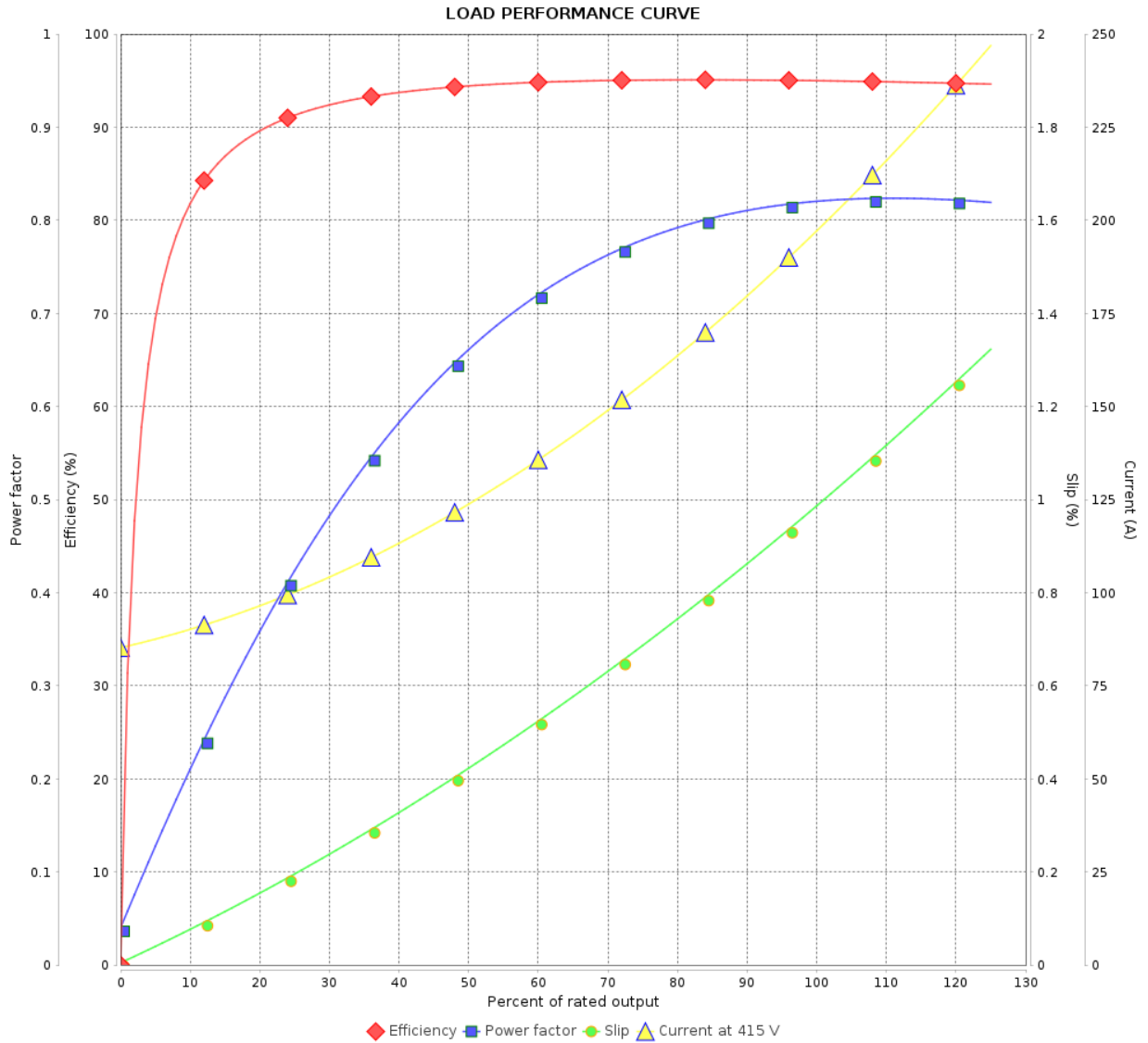
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165654



Performance : 415 V 50 Hz 6P IE2

Rated current : 196 A
 LRC : 6.0
 Rated torque : 110 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 240 %
 Rated speed : 990 rpm

Moment of inertia (J) : 5.63 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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