

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11165650

Frame	: 444/5T	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	: 708 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]	230/460	380	400	415	380	400	415
Rated current [A]	242/121	110	106	105	147	139	135
L. R. Amperes [A]	1498/749	723	766	809	733	763	812
LRC [A]	6.2x(Code G)	6.6x(Code H)	7.2x(Code H)	7.7x(Code J)	5.0x(Code E)	5.5x(Code F)	6.0x(Code G)
No load current [A]	90.0/45.0	45.0	48.0	55.0	45.0	48.0	50.0
Rated speed [RPM]	1189	990	991	992	984	985	987
Slip [%]	0.92	1.00	0.90	0.80	1.60	1.50	1.30
Rated torque [kgfm]	61.0	55.0	54.9	54.9	73.8	73.7	73.5
Locked rotor torque [%]	220	229	250	270	170	190	200
Breakdown torque [%]	250	280	310	340	190	229	250
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%	94.4	93.8	93.8	93.6	94.8	93.9
	50%	94.5	93.8	93.8	93.7	94.5	94.0
	75%	95.0	94.3	94.6	94.6	94.0	94.0
	100%	95.0	94.2	94.5	94.6	93.6	94.0
Power Factor	25%	0.44	0.40	0.37	0.34	0.49	0.43
	50%	0.68	0.64	0.60	0.57	0.73	0.68
	75%	0.78	0.75	0.72	0.71	0.81	0.77
	100%	0.82	0.81	0.79	0.77	0.83	0.82

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

Losses (%)	P1 (0,9;1,0)	5.2	6.1	5.8	5.7	6.8	6.3	6.3
	P2 (0,5;1,0)	4.2	4.9	4.6	4.5	5.4	5.1	5.1
	P3 (0,25;1,0)	3.8	4.5	4.2	4.1	5.0	4.6	4.6
	P4 (0,9;0,5)	2.8	3.2	3.1	3.0	3.6	3.4	3.4
	P5 (0,5;0,5)	1.8	2.2	2.0	2.0	2.4	2.2	2.2
	P6 (0,5;0,25)	1.3	1.5	1.4	1.4	1.7	1.6	1.6
	P7 (0,25;0,25)	0.9	1.0	1.0	0.9	1.1	1.0	1.0

Bearing type	: NU-319 C3	6316 C3	Foundation loads	Max. traction	: 1254 kgf
	: WSeal	WSeal		Max. compression	: 1962 kgf
	: 9000 h	16000 h			
	: 45 g	34 g			
	: 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 268A SF 1.10 SFA 294A

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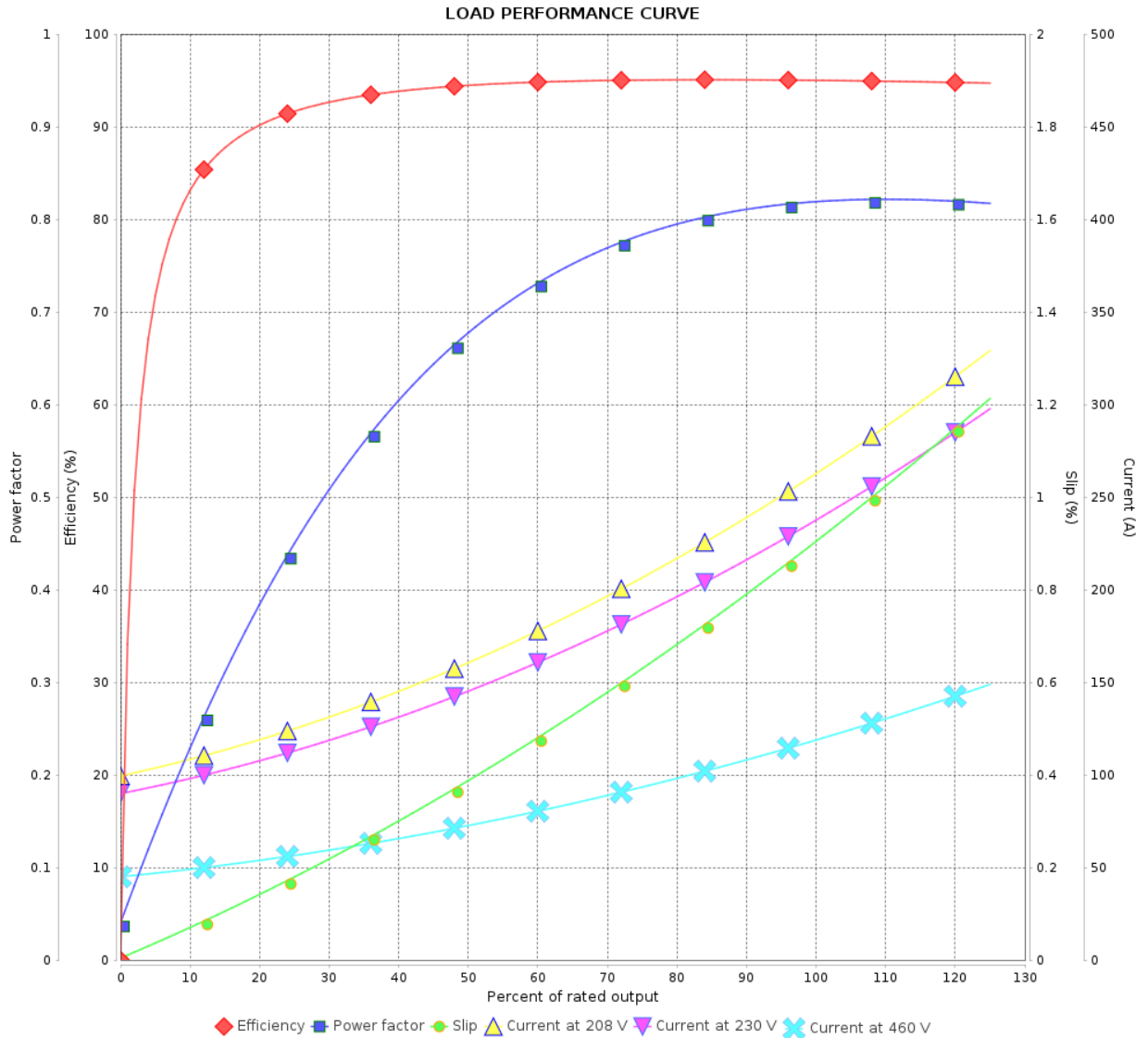
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165650



Performance : 230/460 V 60 Hz 6P

Rated current : 242/121 A
 LRC : 6.2
 Rated torque : 61.0 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 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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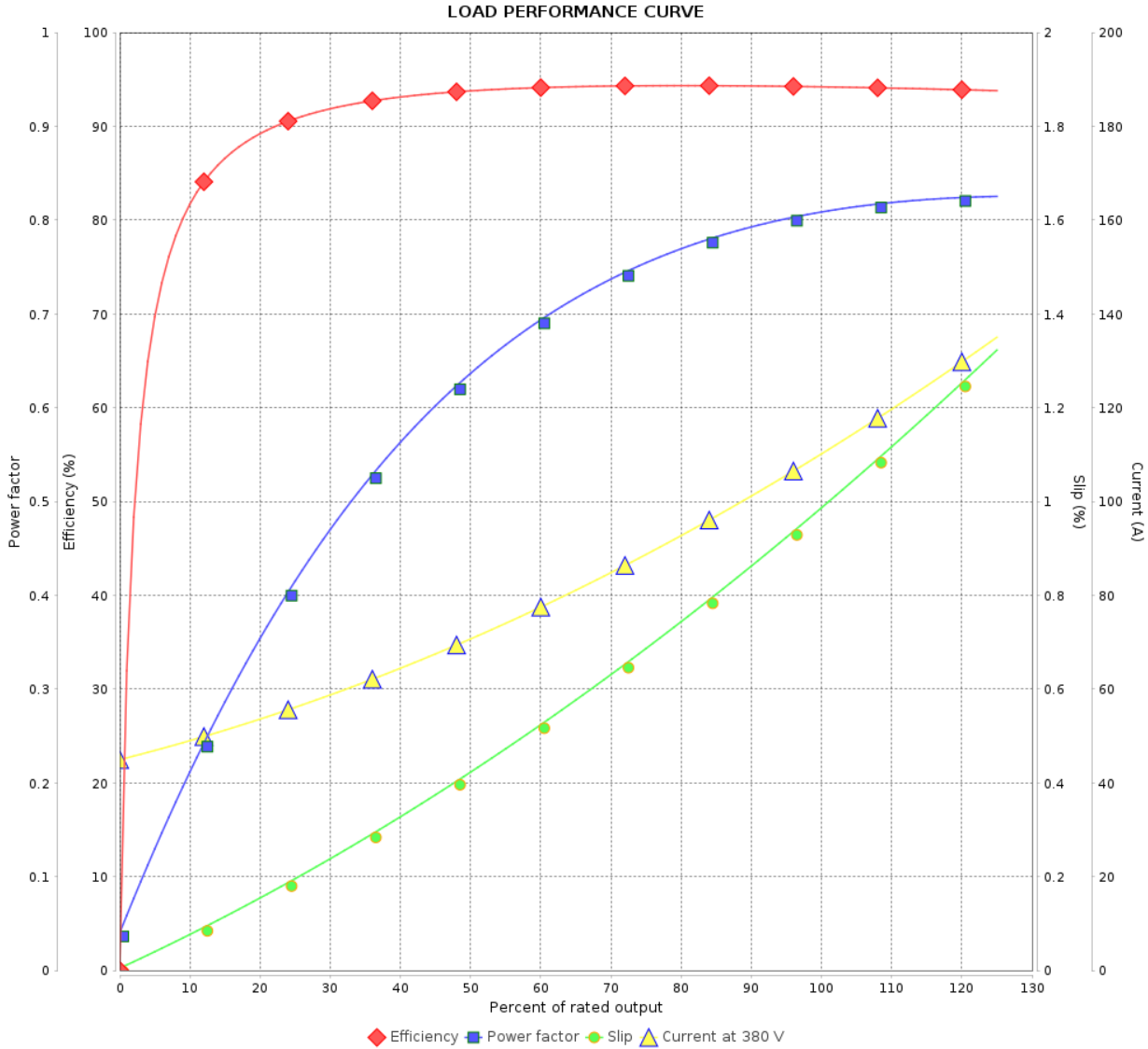
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165650



Performance : 380 V 50 Hz 6P IE3

Rated current	: 110 A	Moment of inertia (J)	: 3.68 kgm ²
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 55.0 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: B

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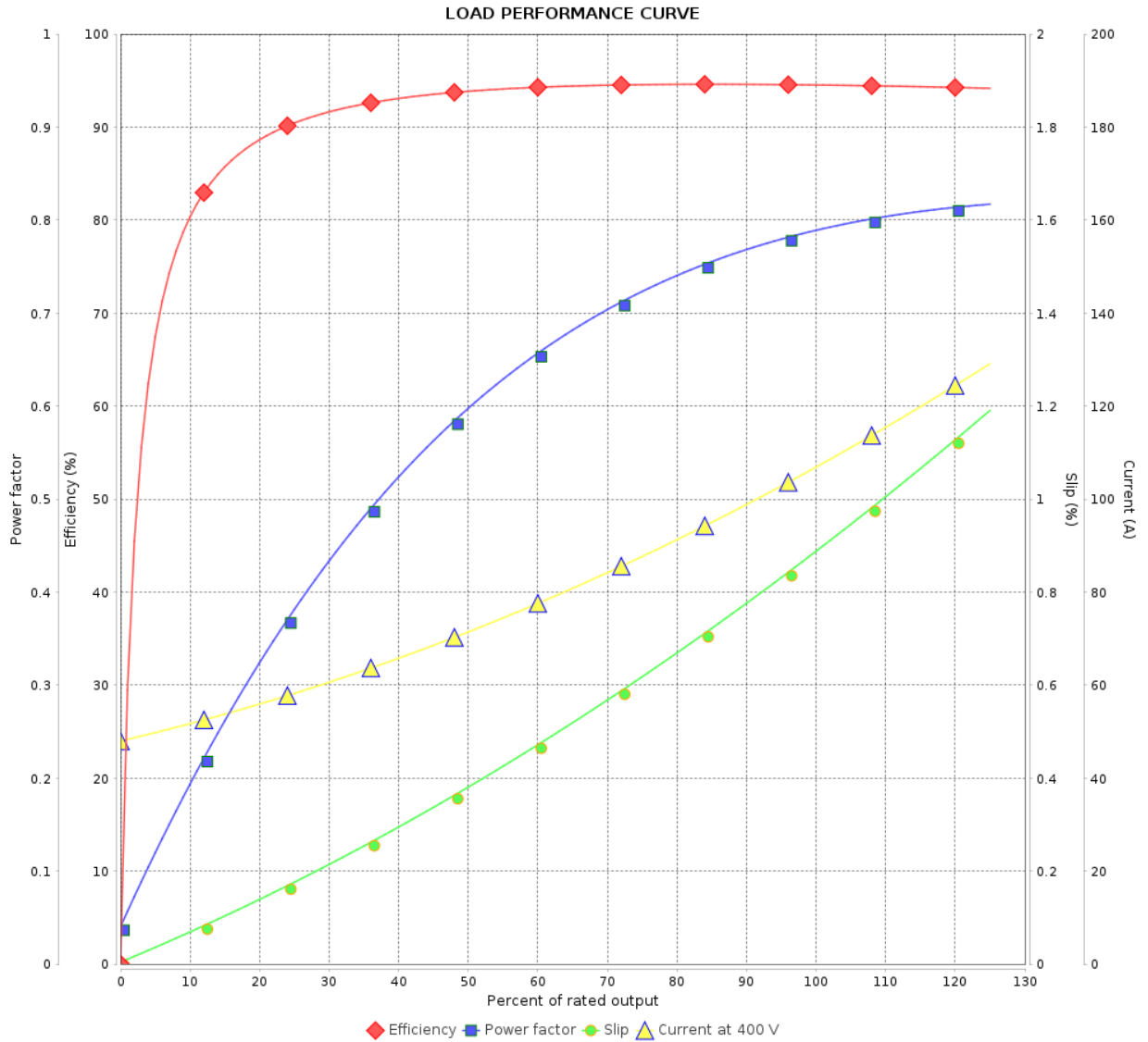
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165650



Performance : 400 V 50 Hz 6P IE3

Rated current : 106 A
 LRC : 7.2
 Rated torque : 54.9 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 310 %
 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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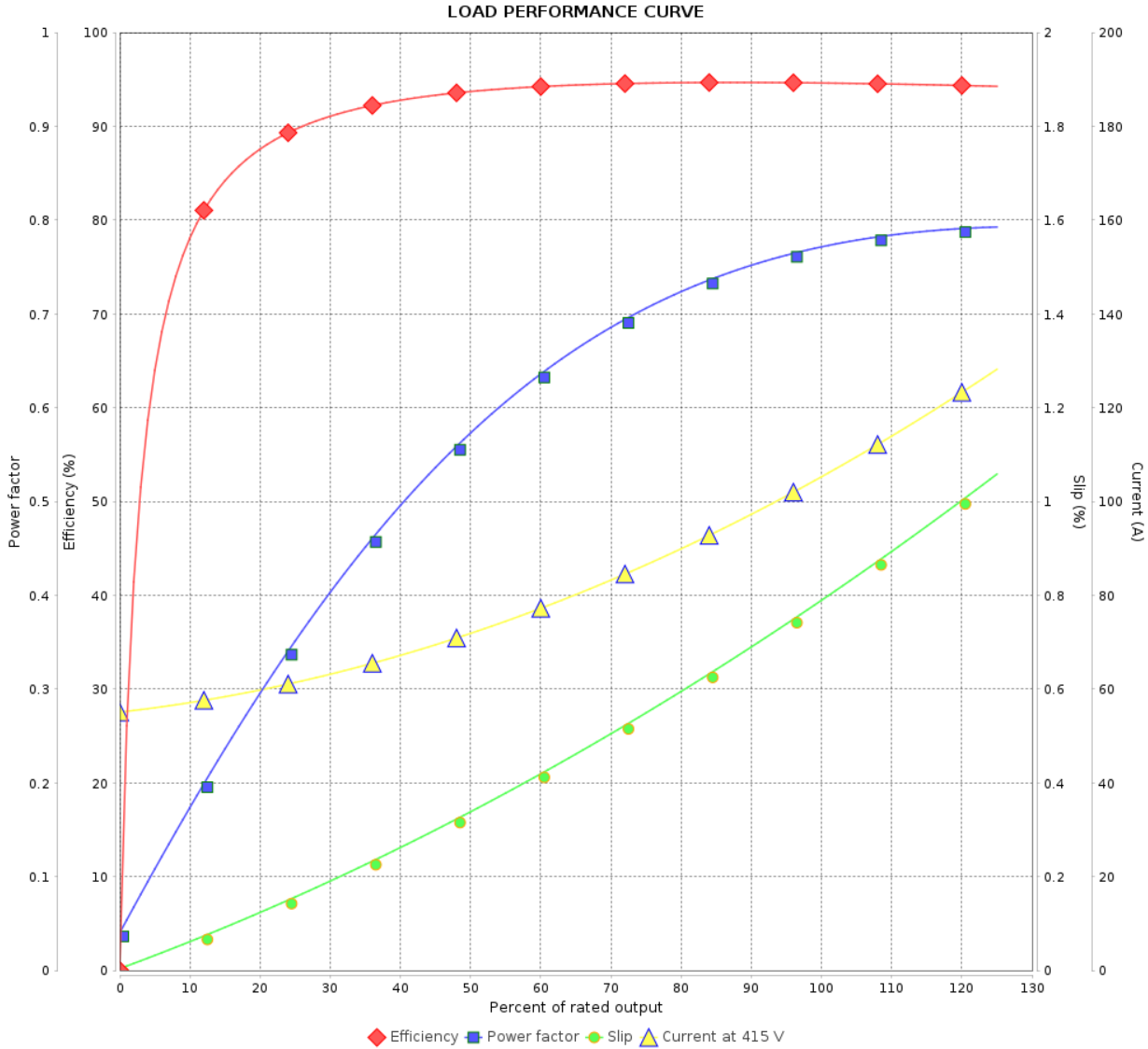
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165650



Performance : 415 V 50 Hz 6P IE3

Rated current : 105 A
 LRC : 7.7
 Rated torque : 54.9 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 340 %
 Rated speed : 992 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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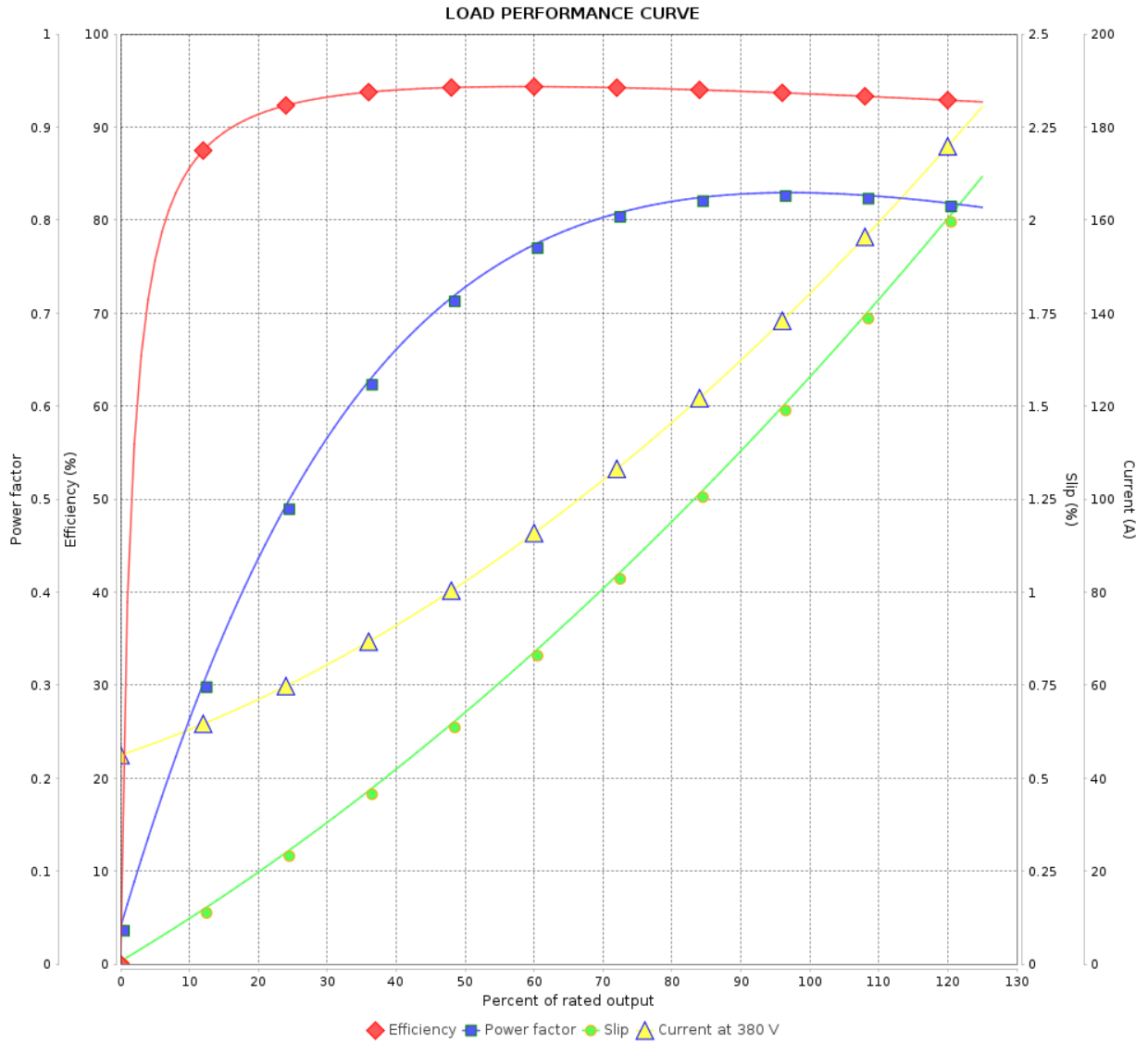
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165650



Performance : 380 V 50 Hz 6P IE1

Rated current : 147 A
 LRC : 5.0
 Rated torque : 73.8 kgfm
 Locked rotor torque : 170 %
 Breakdown torque : 190 %
 Rated speed : 984 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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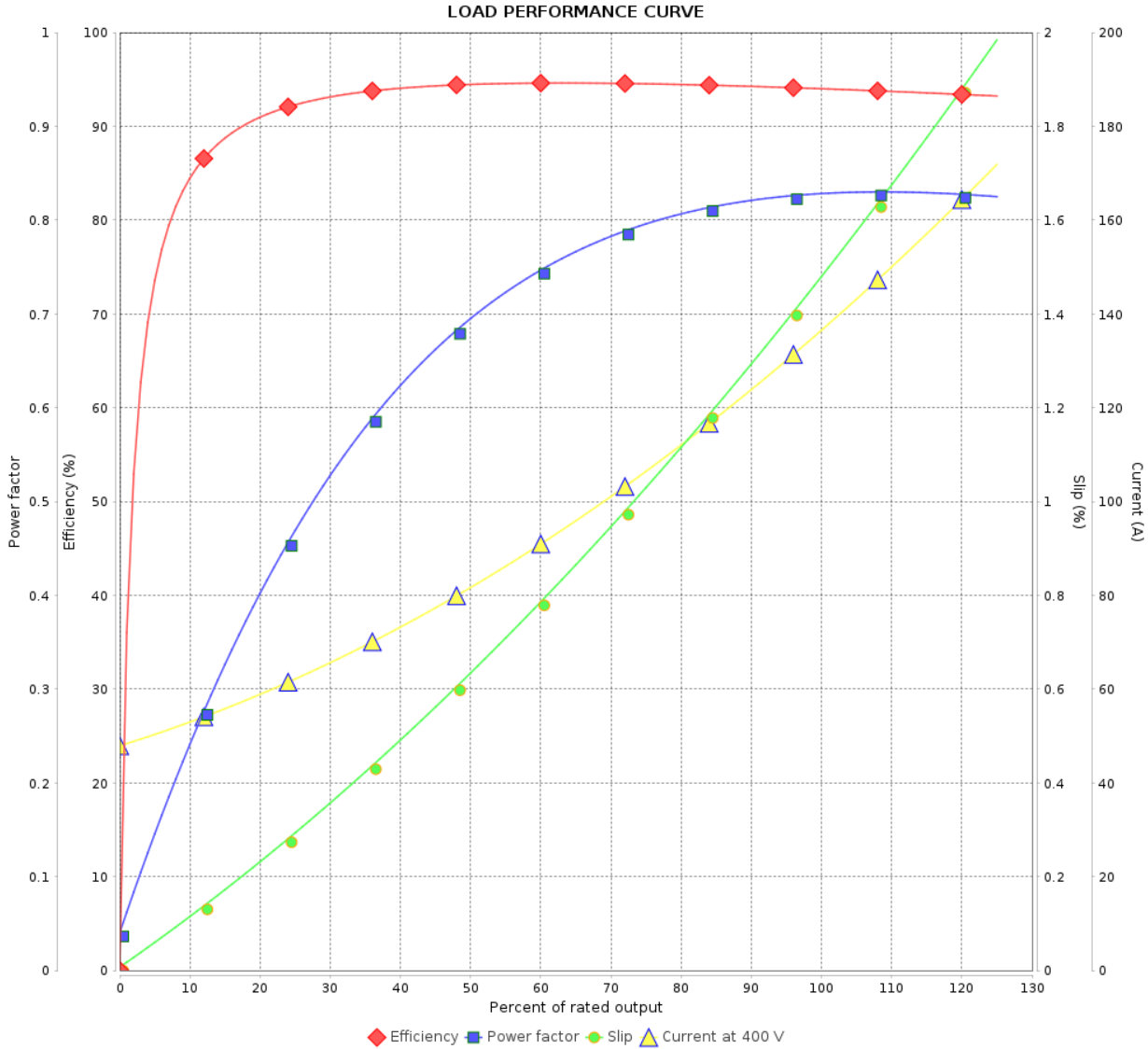
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165650



Performance : 400 V 50 Hz 6P IE2

Rated current	: 139 A	Moment of inertia (J)	: 3.68 kgm ²
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 73.7 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 985 rpm	Design	: B

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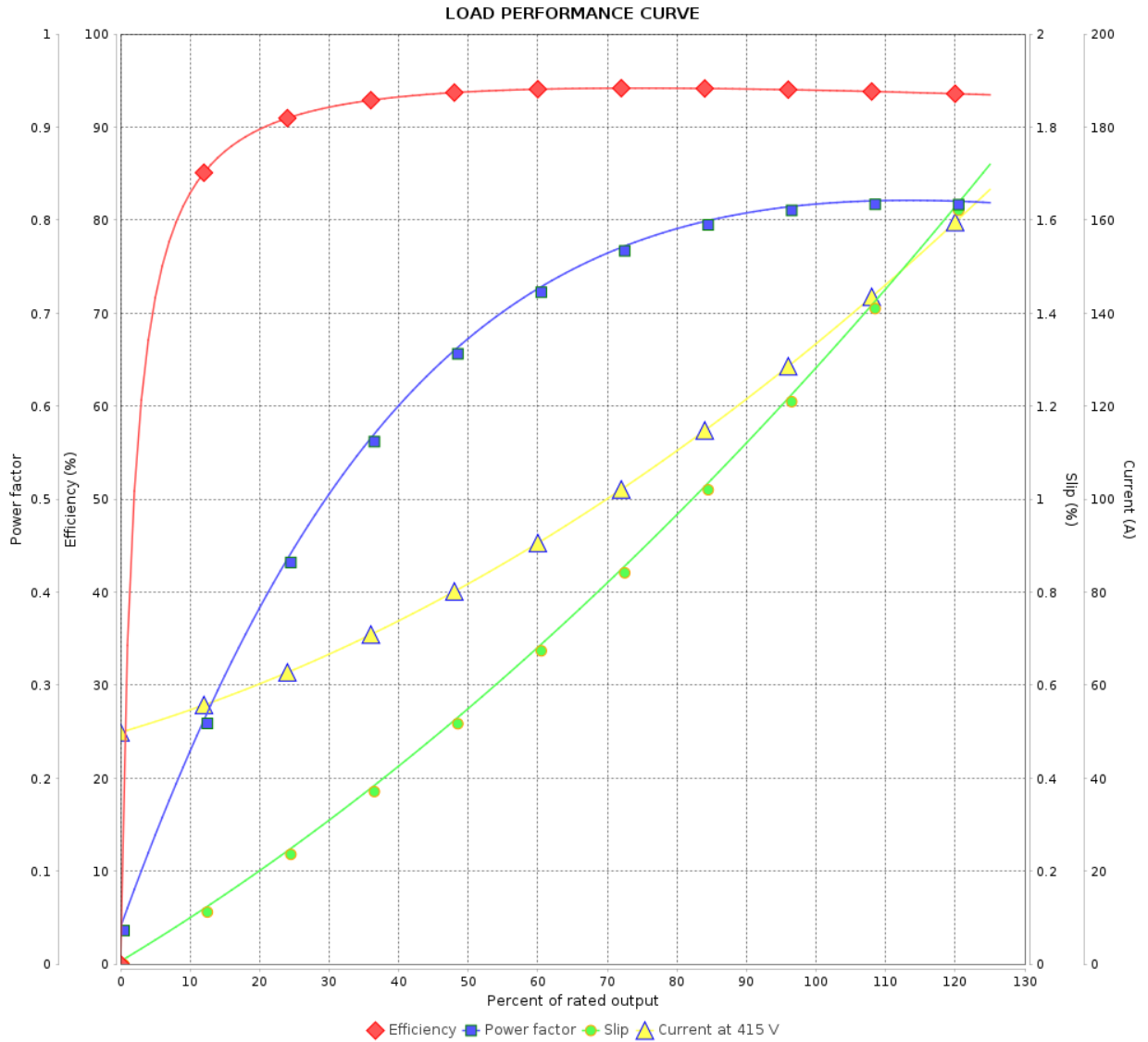
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11165650



Performance : 415 V 50 Hz 6P IE2

Rated current : 135 A
 LRC : 6.0
 Rated torque : 73.5 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 250 %
 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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