

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11165651

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	: 823 kg
Protection degree	: IP55	Moment of inertia (J)	: 4.37 kgm ²
Design	: B		

Output [HP]	125	100	100	100	125	125	125
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]	290/145	147	141	138	174	169	162
L. R. Amperes [A]	1856/928	940	1003	1004	887	965	1006
LRC [A]	6.4x(Code G)	6.4x(Code G)	7.1x(Code H)	7.3x(Code J)	5.1x(Code E)	5.7x(Code F)	6.2x(Code G)
No load current [A]	116/58.0	57.0	62.0	65.0	58.0	62.0	65.0
Rated speed [RPM]	1188	988	990	990	984	986	987
Slip [%]	1.00	1.20	1.00	1.00	1.60	1.40	1.30
Rated torque [kgfm]	76.4	73.5	73.3	73.3	92.2	92.0	91.9
Locked rotor torque [%]	210	200	229	250	160	180	200
Breakdown torque [%]	240	240	260	290	190	210	229
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	34s (cold) 19s (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%	95.0	94.8	94.7	94.7	95.0	95.0
	75%	95.4	94.9	94.9	95.1	94.5	95.0
	100%	95.0	94.6	94.6	94.8	93.6	94.1
Power Factor	25%						
	50%	0.70	0.68	0.65	0.62	0.73	0.69
	75%	0.79	0.78	0.76	0.74	0.81	0.78
	100%	0.82	0.82	0.81	0.80	0.84	0.82

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

Losses (%)	P1 (0,9;1,0)	5.2	5.6	5.6	5.4	6.7	6.7	6.1
	P2 (0,5;1,0)	4.1	4.5	4.5	4.3	5.4	5.4	4.9
	P3 (0,25;1,0)	3.8	4.1	4.1	4.0	5.0	5.0	4.5
	P4 (0,9;0,5)	2.7	2.9	2.9	2.8	3.4	3.4	3.2
	P5 (0,5;0,5)	1.8	1.9	1.9	1.8	2.3	2.3	2.1
	P6 (0,5;0,25)	1.2	1.3	1.3	1.3	1.6	1.6	1.5
	P7 (0,25;0,25)	0.8	0.9	0.9	0.9	1.1	1.1	1.0

Bearing type	: NU-319 C3	Non drive end	6316 C3	Foundation loads	
Sealing	: WSeal	WSeal		Max. traction	: 1438 kgf
Lubrication interval	: 9000 h	16000 h		Max. compression	: 2260 kgf
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



Customer : _____

Notes
USABLE @208V 316A SF 1.00 SFA 316A

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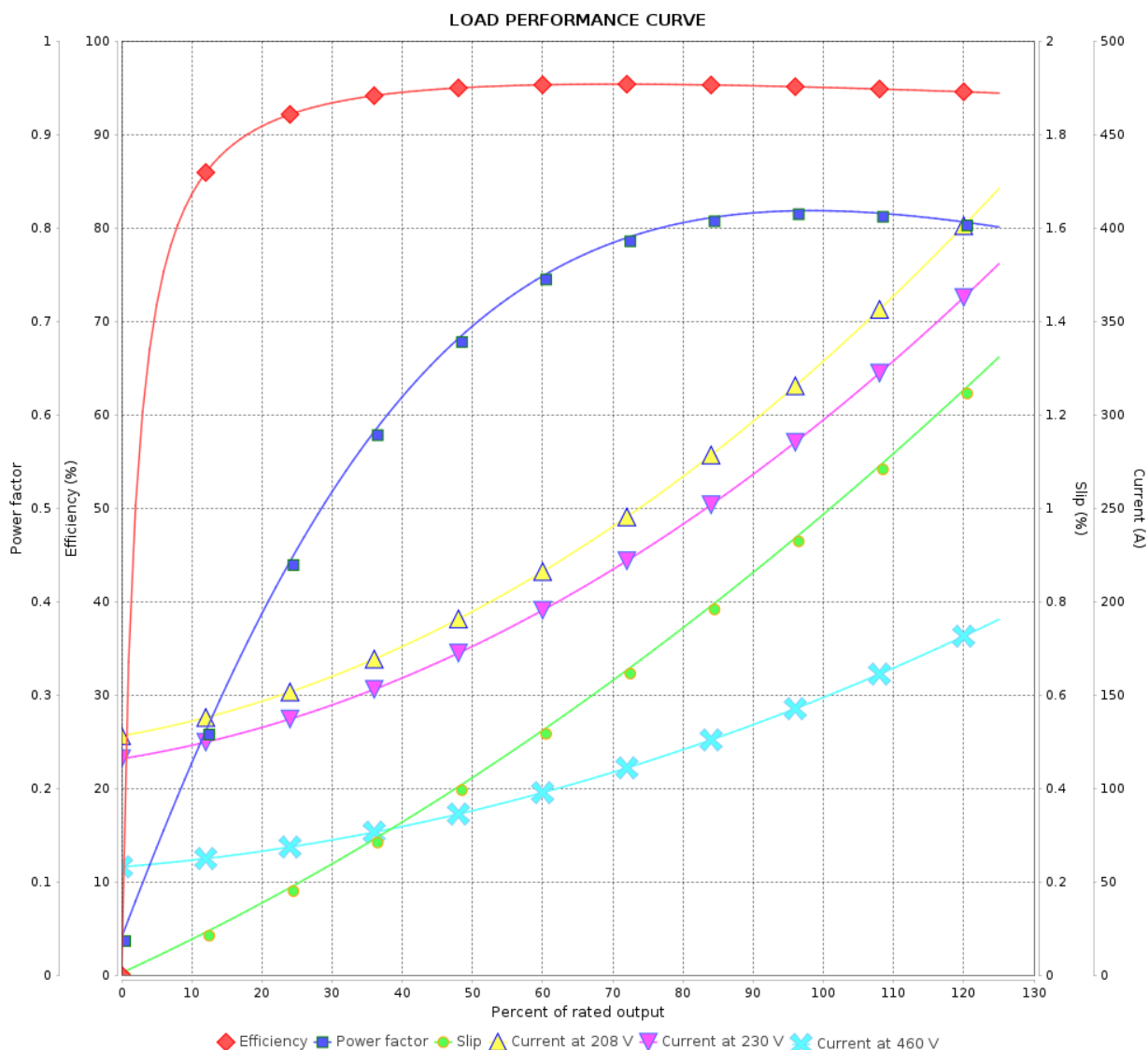
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165651



Performance : 230/460 V 60 Hz 6P

Rated current : 290/145 A
LRC : 6.4
Rated torque : 76.4 kgfm
Locked rotor torque : 210 %
Breakdown torque : 240 %
Rated speed : 1188 rpm

Moment of inertia (J) : 4.37 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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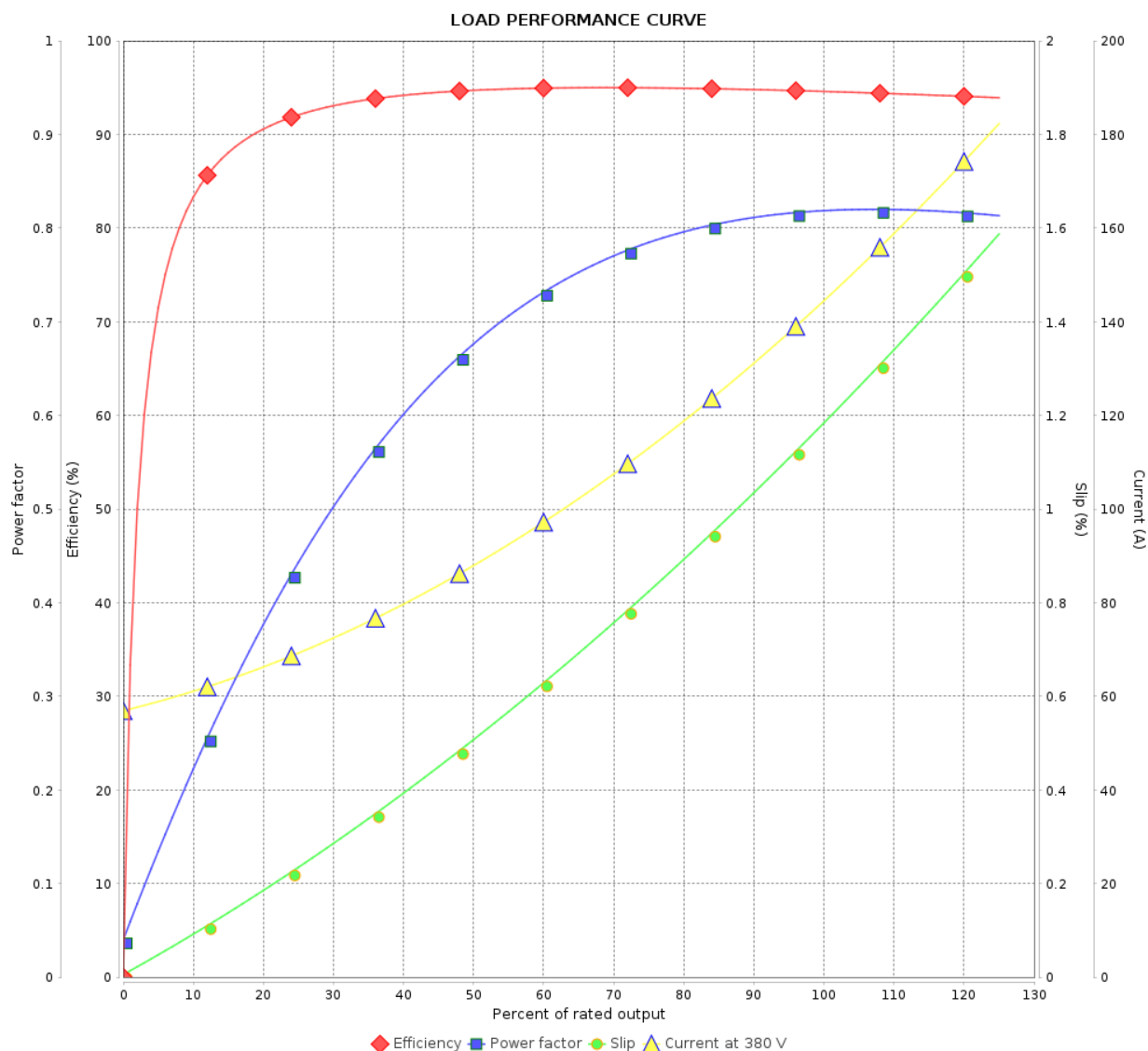
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165651



Performance : 380 V 50 Hz 6P IE3

Rated current : 147 A
LRC : 6.4
Rated torque : 73.5 kgfm
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 988 rpm

Moment of inertia (J) : 4.37 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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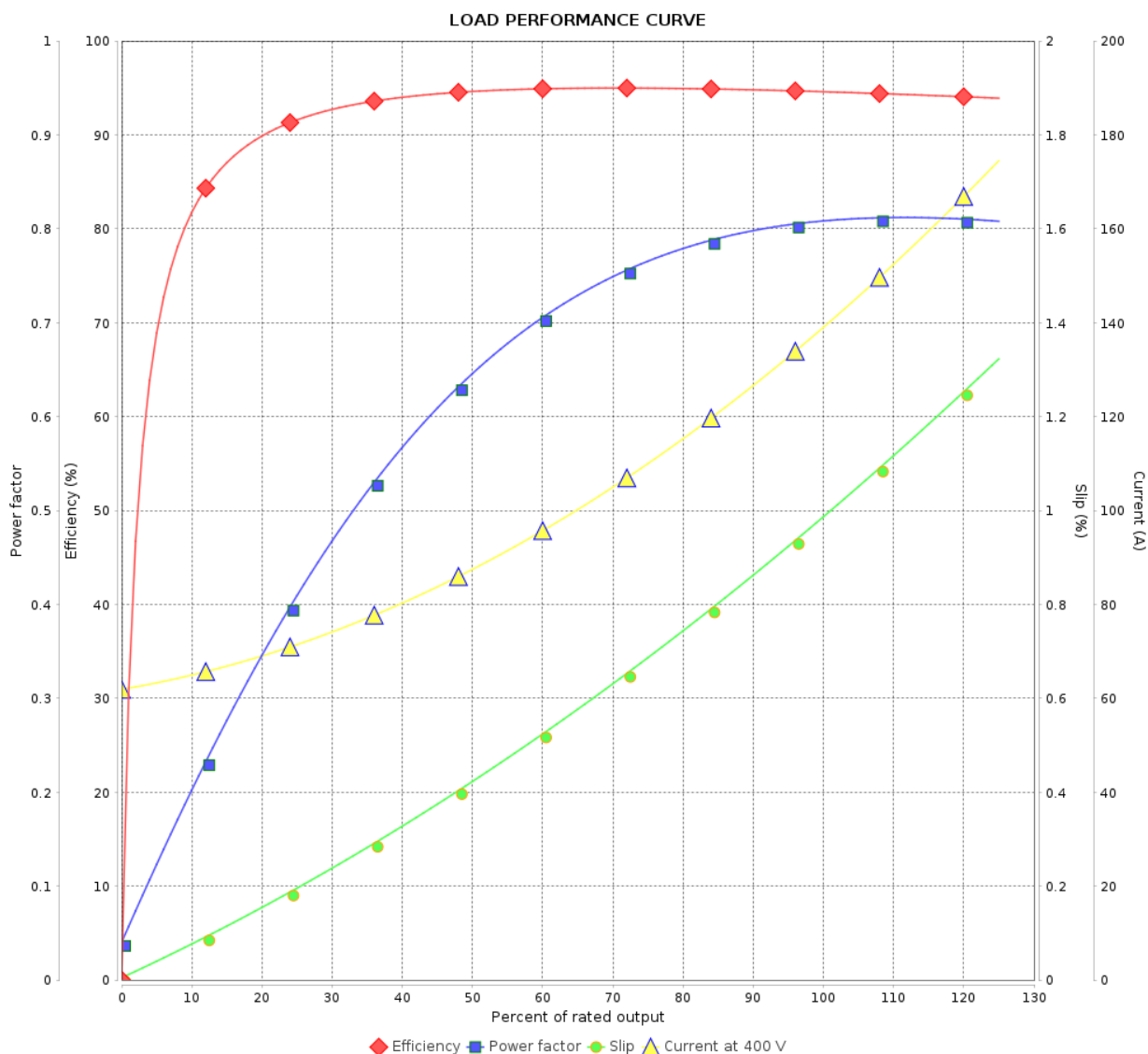
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165651



Performance : 400 V 50 Hz 6P IE3

Rated current : 141 A
LRC : 7.1
Rated torque : 73.3 kgfm
Locked rotor torque : 229 %
Breakdown torque : 260 %
Rated speed : 990 rpm

Moment of inertia (J) : 4.37 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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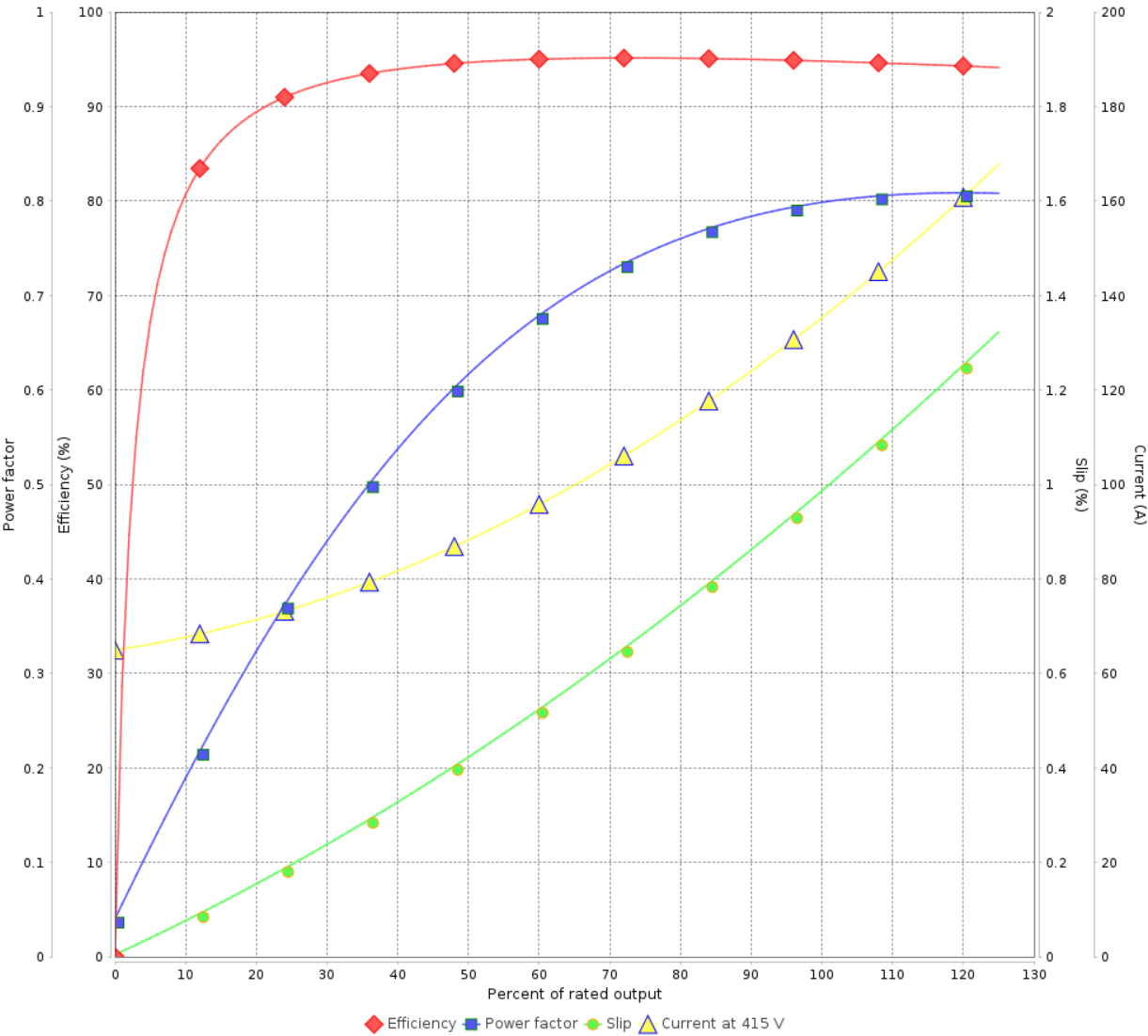
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11165651

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Performance : 415 V 50 Hz 6P IE3

Rated current	: 138 A	Moment of inertia (J)	: 4.37 kgm ²
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 73.3 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: B

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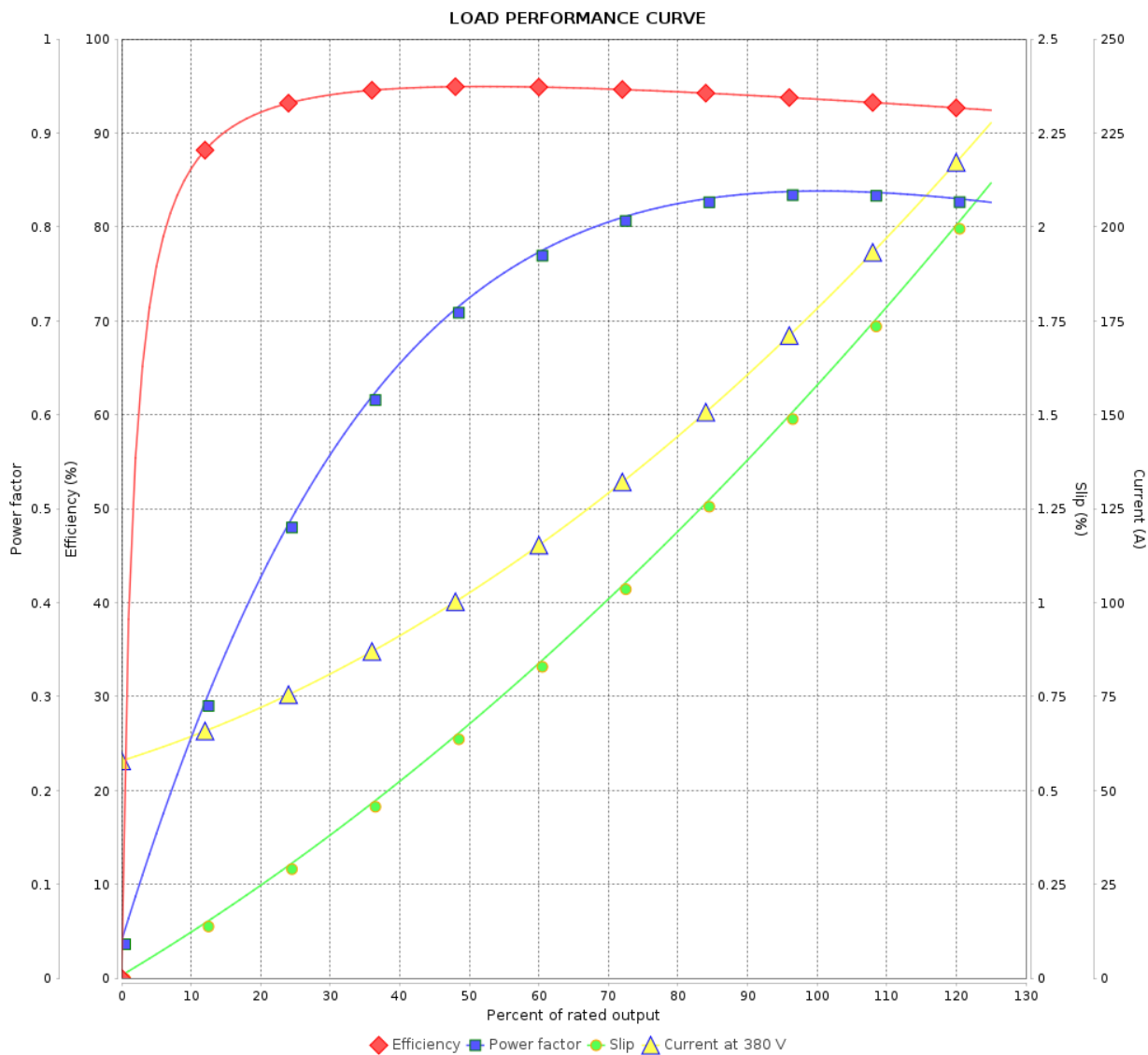
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165651



Performance : 380 V 50 Hz 6P IE1

Rated current : 174 A
LRC : 5.1
Rated torque : 92.2 kgfm
Locked rotor torque : 160 %
Breakdown torque : 190 %
Rated speed : 984 rpm

Moment of inertia (J) : 4.37 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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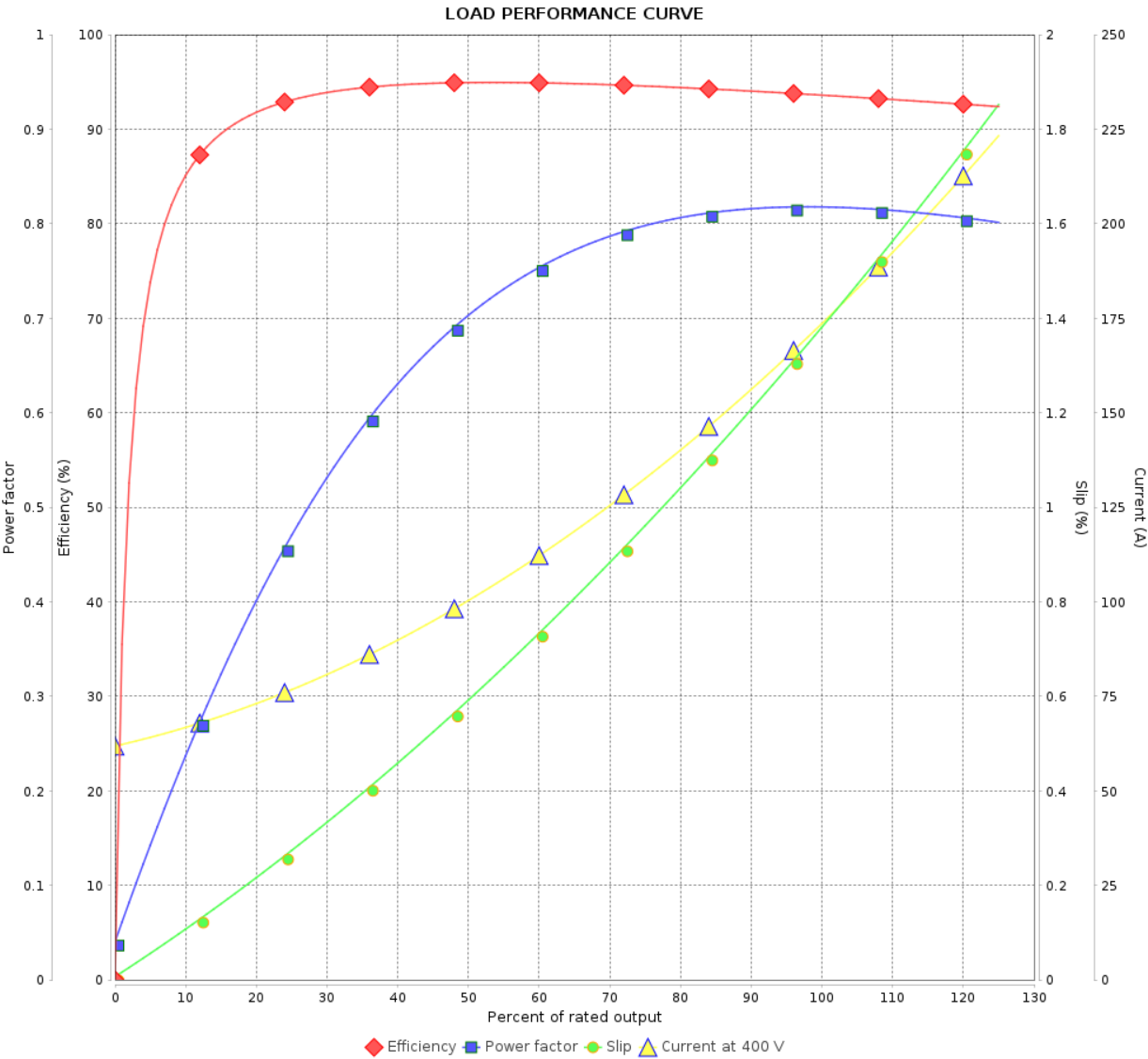
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Product code : 11165651
Three-Phase



Performance : 400 V 50 Hz 6P IE1

Rated current	: 169 A	Moment of inertia (J)	: 4.37 kgm ²
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 92.0 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 986 rpm	Design	: B

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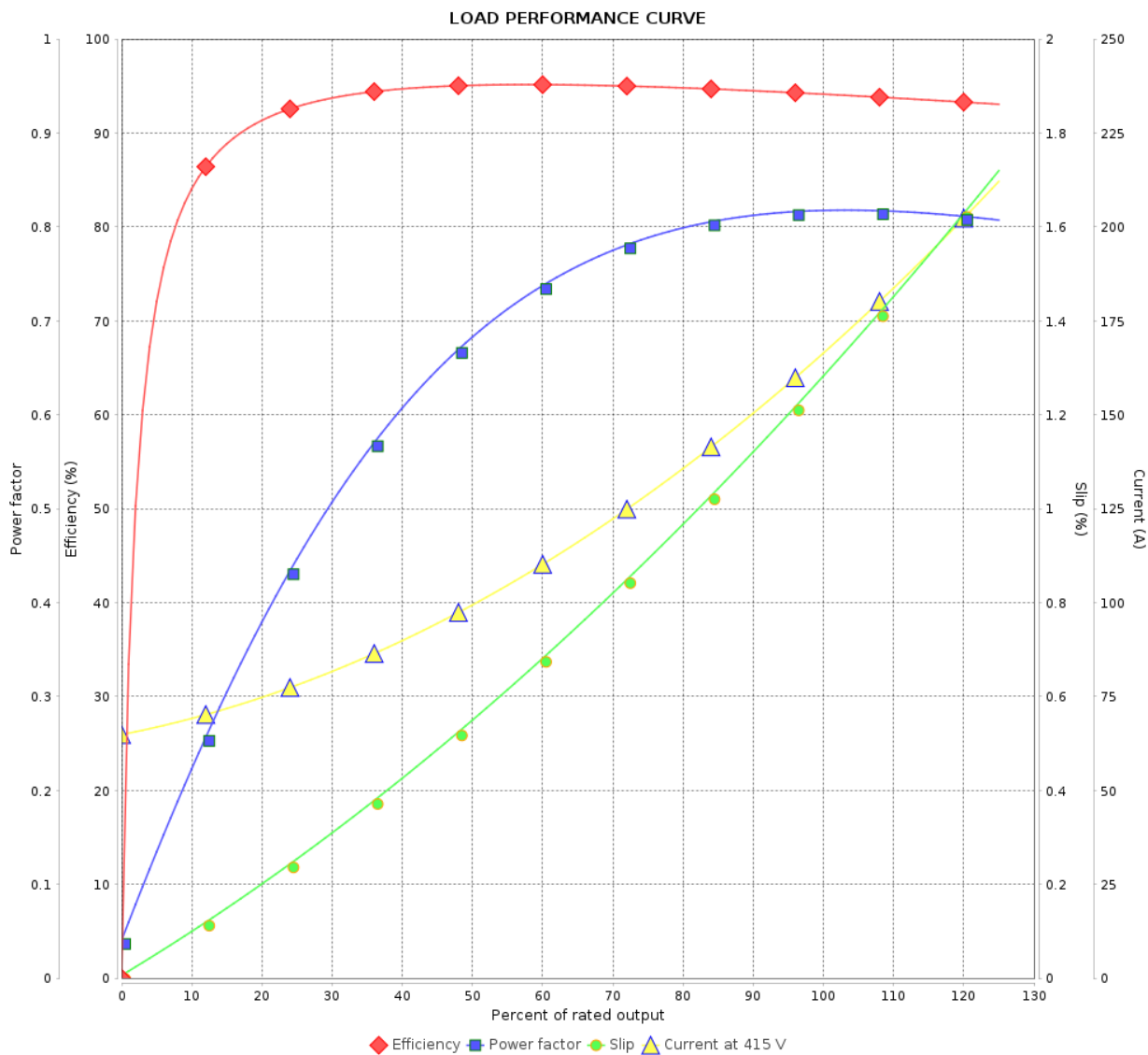
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11165651



Performance : 415 V 50 Hz 6P IE2

Rated current : 162 A
LRC : 6.2
Rated torque : 91.9 kgfm
Locked rotor torque : 200 %
Breakdown torque : 229 %
Rated speed : 987 rpm

Moment of inertia (J) : 4.37 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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