

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12140630

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 : 521 kg
Protection degree : IP55	Moment of inertia (J) : 1.55 kgm ²
Design : B	

Output [HP]	60	50	50	50	60	60	60
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]	139/69.5	69.3	66.5	64.8	85.1	80.3	78.3
L. R. Amperes [A]	987/493	457	485	505	477	498	525
LRC [A]	7.1x(Code H)	6.6x(Code G)	7.3x(Code H)	7.8x(Code J)	5.6x(Code F)	6.2x(Code G)	6.7x(Code G)
No load current [A]	50.0/25.0	24.7	26.4	27.7	24.7	26.4	27.7
Rated speed [RPM]	1185	985	985	985	980	980	985
Slip [%]	1.25	1.50	1.50	1.50	2.00	2.00	1.50
Rated torque [kgfm]	36.7	36.8	36.8	36.8	44.4	44.4	44.2
Locked rotor torque [%]	200	180	220	229	150	180	190
Breakdown torque [%]	229	220	240	260	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	36s (cold) 20s (hot)	28s (cold) 16s (hot)	28s (cold) 16s (hot)	28s (cold) 16s (hot)	28s (cold) 16s (hot)	28s (cold) 16s (hot)	28s (cold) 16s (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	93.3	93.3	93.3	93.6	93.6
	75%	94.5	93.4	93.7	93.7	93.0	93.6
	100%	94.5	93.3	93.4	93.4	92.4	93.0
Power Factor	25%						
	50%	0.74	0.73	0.70	0.67	0.79	0.77
	75%	0.82	0.83	0.82	0.79	0.85	0.84
	100%	0.86	0.87	0.86	0.85	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	5.6	5.6	5.6	5.6	5.6
	P2 (0,5;1,0)	4.6	4.6	4.6	4.6	4.6	4.6
	P3 (0,25;1,0)	4.3	4.3	4.3	4.3	4.3	4.3
	P4 (0,9;0,5)	2.6	2.6	2.6	2.6	2.6	2.6
	P5 (0,5;0,5)	1.8	1.8	1.8	1.8	1.8	1.8
	P6 (0,5;0,25)	1.1	1.1	1.1	1.1	1.1	1.1
	P7 (0,25;0,25)	0.7	0.7	0.7	0.7	0.7	0.7

	Drive end	Non drive end	Foundation loads
Bearing type :	NU-316 C3	6314 C3	Max. traction : 697 kgf
Sealing :	WSeal	WSeal	Max. compression : 1218 kgf
Lubrication interval :	12000 h	17000 h	
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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Customer :

Notes
USABLE @208V 154A SF 1.10 SFA 169A

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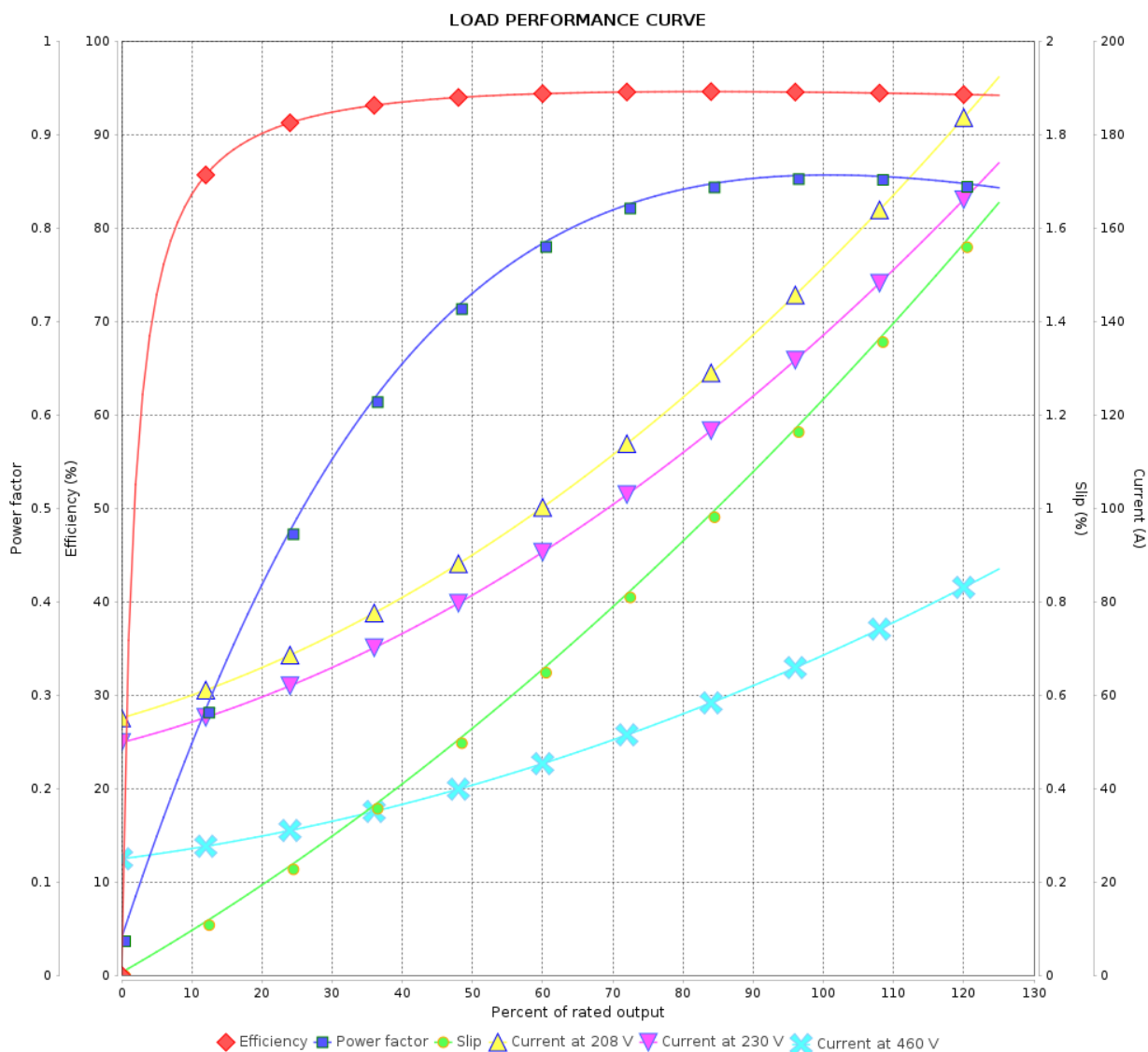
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12140630



Performance : 230/460 V 60 Hz 6P

Rated current : 139/69.5 A
LRC : 7.1
Rated torque : 36.7 kgfm
Locked rotor torque : 200 %
Breakdown torque : 229 %
Rated speed : 1185 rpm

Moment of inertia (J) : 1.55 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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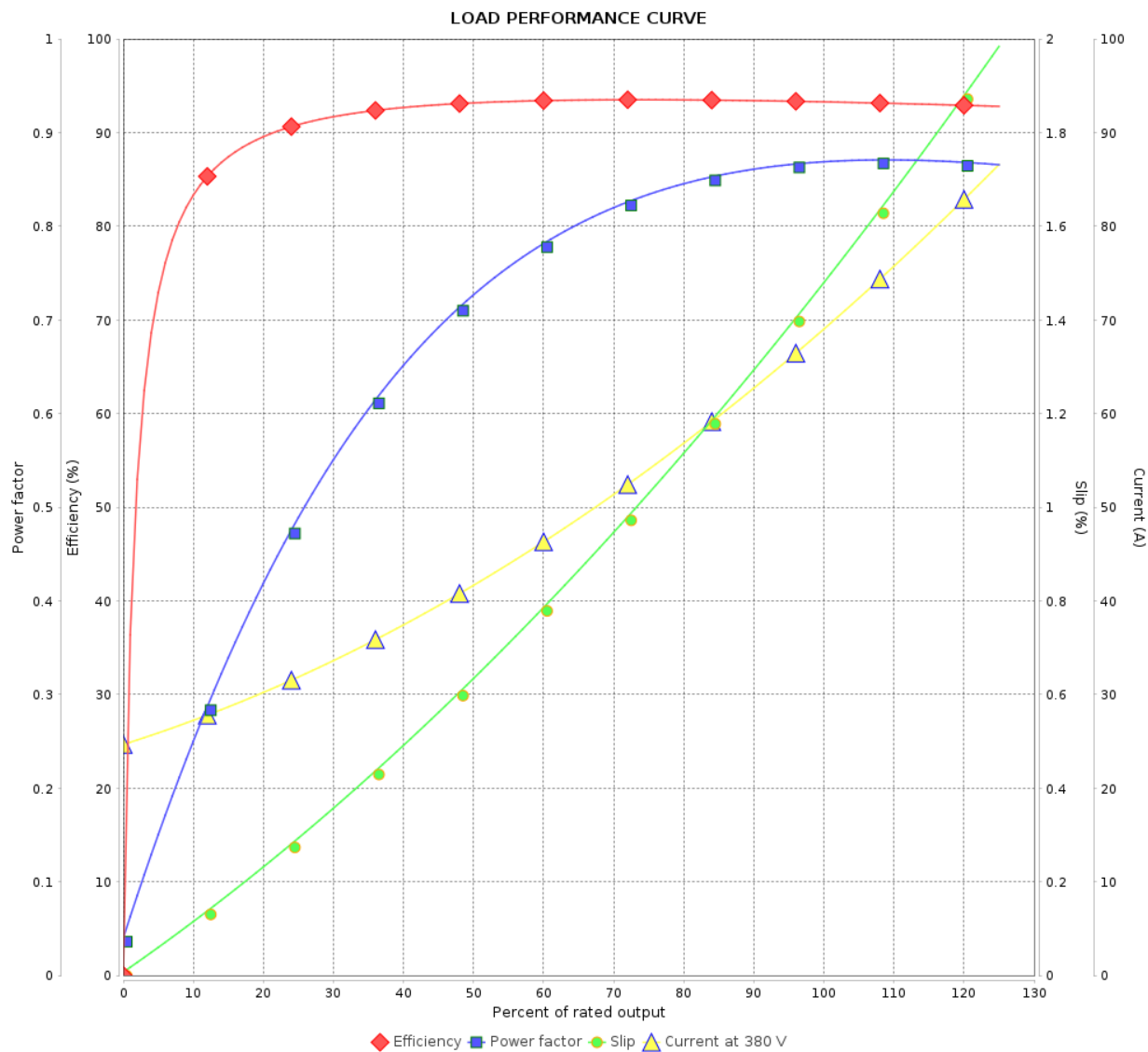
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12140630



Performance : 380 V 50 Hz 6P IE3

Rated current : 69.3 A
LRC : 6.6
Rated torque : 36.8 kgfm
Locked rotor torque : 180 %
Breakdown torque : 220 %
Rated speed : 985 rpm

Moment of inertia (J) : 1.55 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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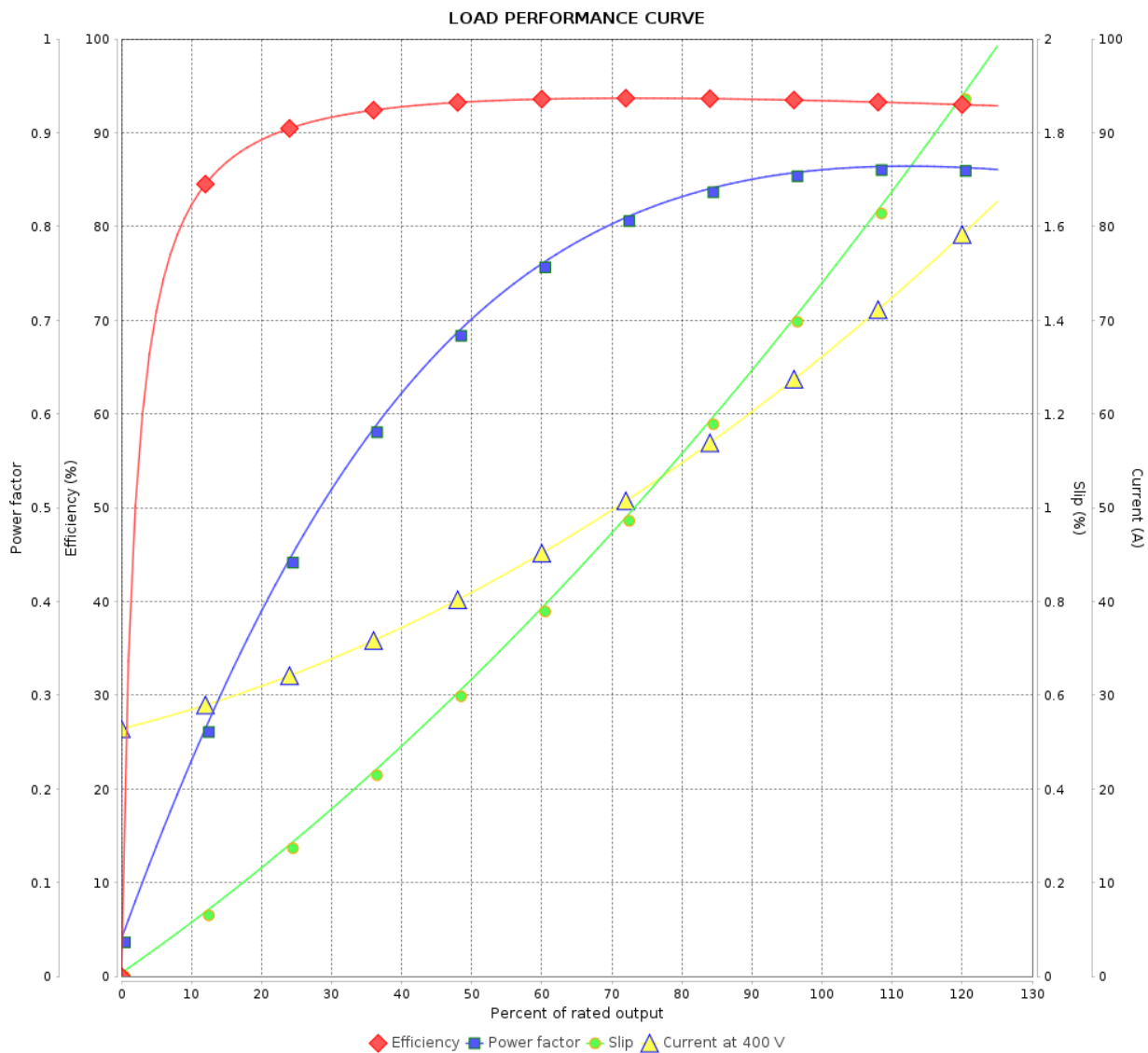
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12140630



Performance : 400 V 50 Hz 6P IE3

Rated current : 66.5 A
LRC : 7.3
Rated torque : 36.8 kgfm
Locked rotor torque : 220 %
Breakdown torque : 240 %
Rated speed : 985 rpm

Moment of inertia (J) : 1.55 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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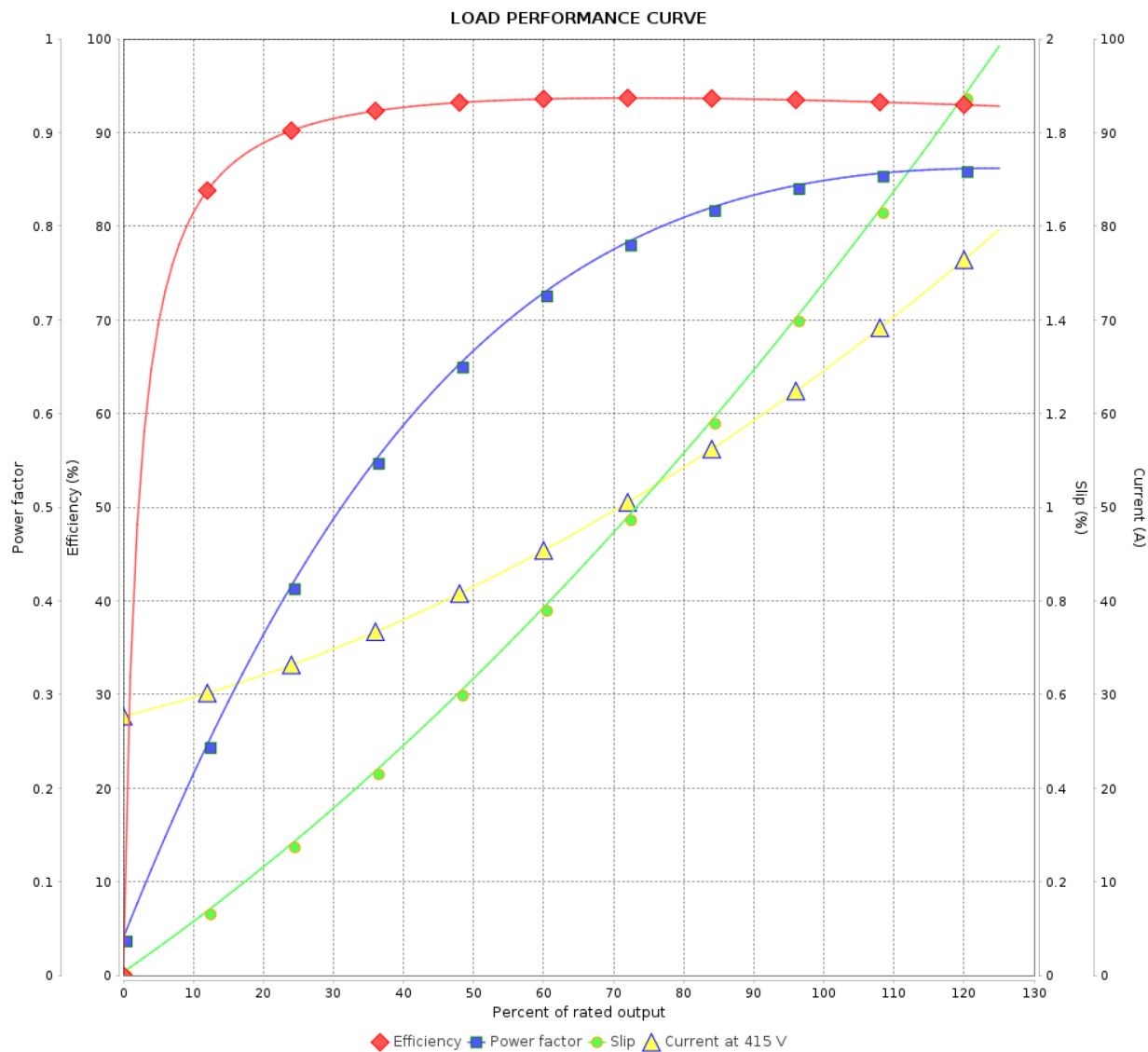
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12140630



Performance : 415 V 50 Hz 6P IE3

Rated current : 64.8 A
LRC : 7.8
Rated torque : 36.8 kgfm
Locked rotor torque : 229 %
Breakdown torque : 260 %
Rated speed : 985 rpm

Moment of inertia (J) : 1.55 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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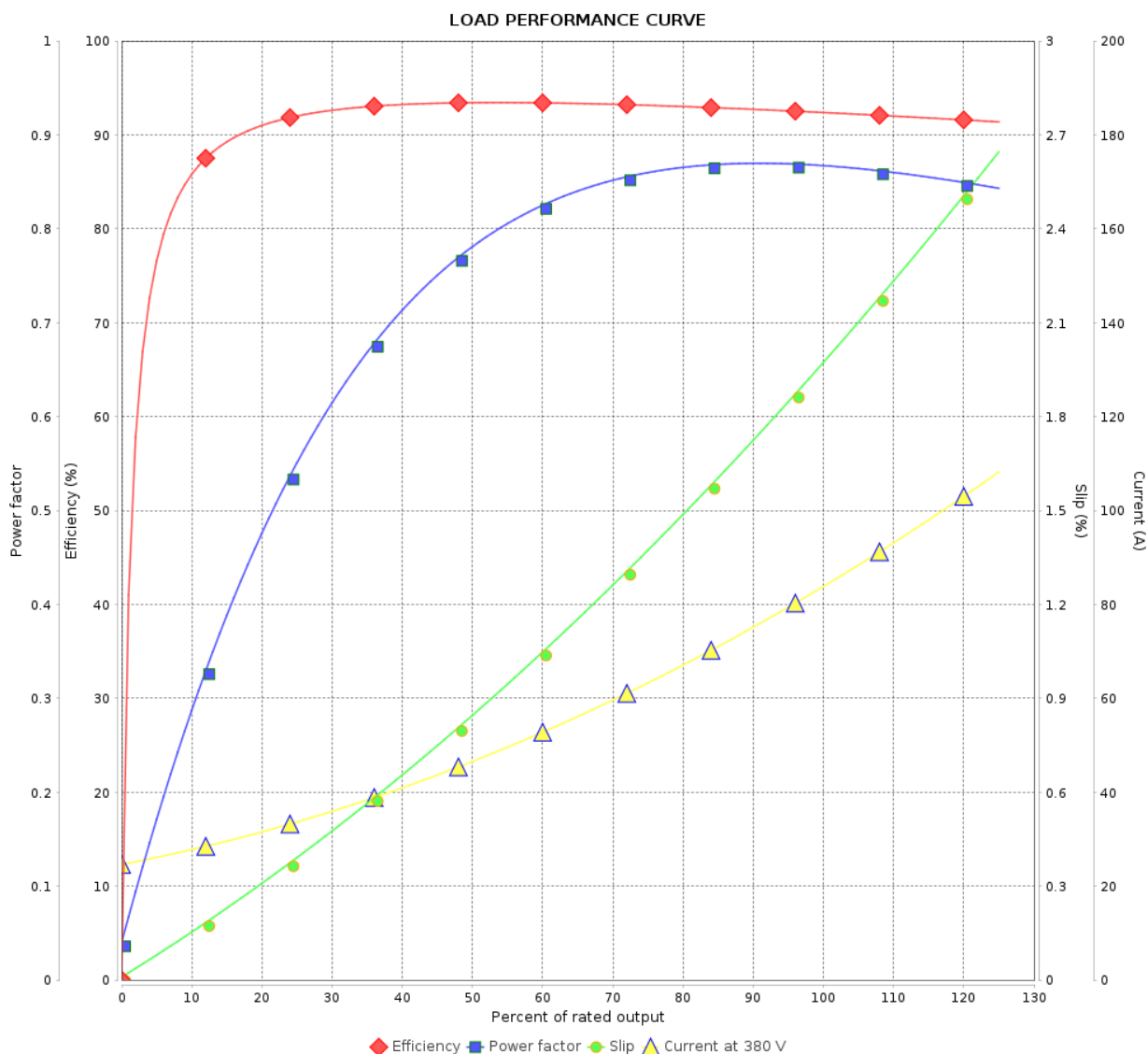
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12140630



Performance : 380 V 50 Hz 6P IE1

Rated current : 85.1 A
LRC : 5.6
Rated torque : 44.4 kgfm
Locked rotor torque : 150 %
Breakdown torque : 180 %
Rated speed : 980 rpm

Moment of inertia (J) : 1.55 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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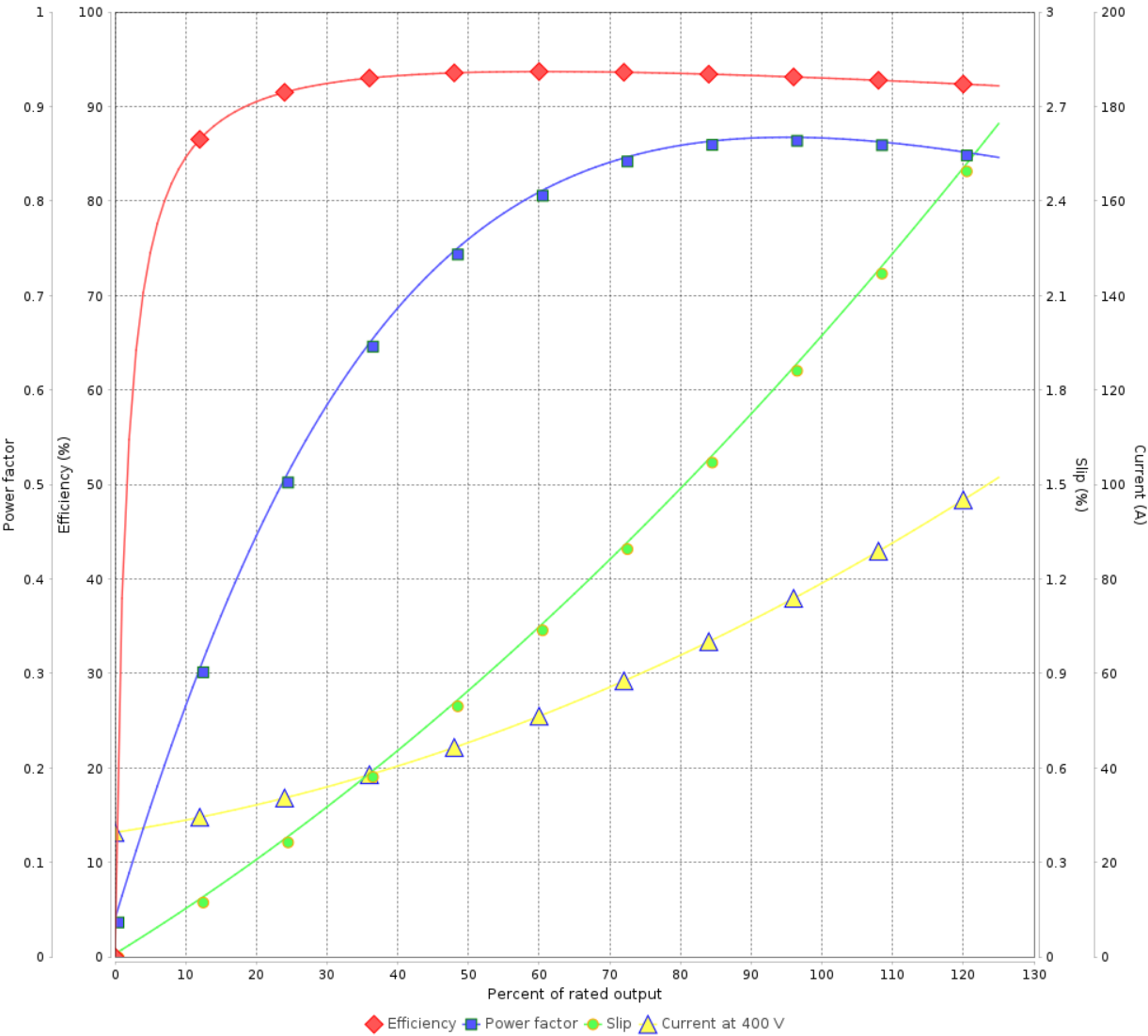
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12140630

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Performance : 400 V 50 Hz 6P IE2			
Rated current	: 80.3 A	Moment of inertia (J)	: 1.55 kgm ²
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 44.4 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 980 rpm	Design	: B

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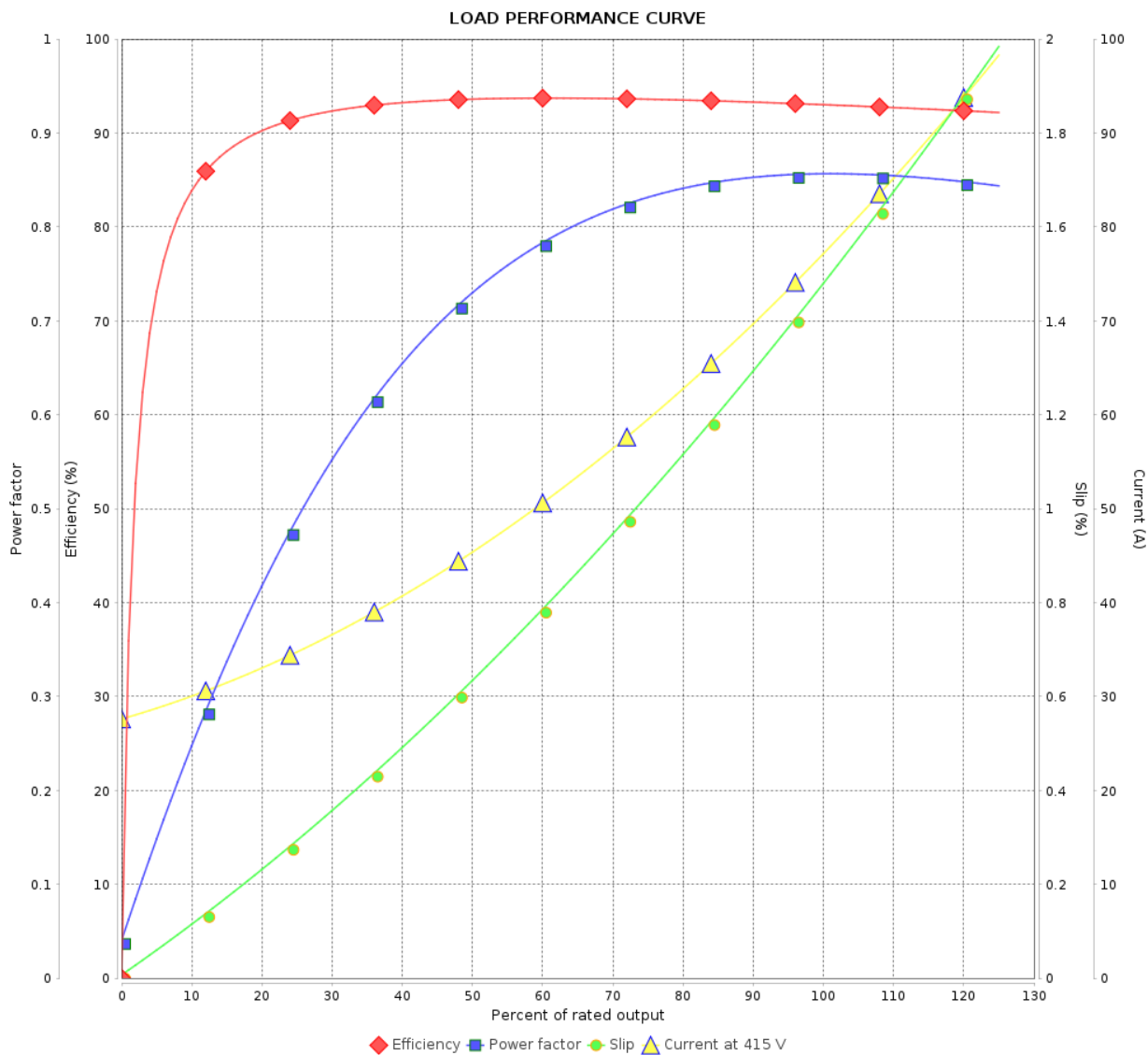
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12140630



Performance : 415 V 50 Hz 6P IE2

Rated current : 78.3 A
LRC : 6.7
Rated torque : 44.2 kgfm
Locked rotor torque : 190 %
Breakdown torque : 220 %
Rated speed : 985 rpm

Moment of inertia (J) : 1.55 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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