

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12438231

Frame : 143/5T	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 : 20.2 kg
Protection degree : IP55	Moment of inertia (J) : 0.0020 kgm ²
Design : B	

Output [HP]	1.5	1	1	1	1.5	1.5	1.5
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	3.92/1.96	1.69	1.66	1.65	2.36	2.24	2.21
L. R. Amperes [A]	34.9/17.4	15.5	16.1	16.8	15.8	16.6	17.5
LRC [A]	8.9x(Code L)	9.2x(Code M)	9.7x(Code M)	10.2x(Code N)	6.7x(Code H)	7.4x(Code J)	7.9x(Code K)
No load current [A]	1.66/0.830	0.780	0.840	0.900	0.780	0.840	0.900
Rated speed [RPM]	3480	2905	2915	2920	2835	2860	2870
Slip [%]	3.33	3.17	2.83	2.67	5.50	4.67	4.33
Rated torque [kgfm]	0.313	0.250	0.249	0.249	0.384	0.381	0.379
Locked rotor torque [%]	310	340	380	420	220	260	280
Breakdown torque [%]	370	390	440	480	260	290	310
Service factor	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	37s (cold) 21s (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	68.0 dB(A)						
Efficiency (%)	25%						
	50%	81.5	80.5	79.3	78.9	81.0	82.0
	75%	84.0	83.2	82.8	82.7	81.5	82.5
	100%	84.0	83.4	83.4	83.4	81.5	82.5
Power Factor	25%						
	50%	0.68	0.63	0.58	0.55	0.75	0.70
	75%	0.78	0.74	0.71	0.68	0.84	0.80
	100%	0.84	0.81	0.78	0.76	0.87	0.84

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

Losses (%)	P1 (0,9;1,0)	17.7	17.7	17.7	17.7	17.7	17.7
	P2 (0,5;1,0)	13.3	13.3	13.3	13.3	13.3	13.3
	P3 (0,25;1,0)	12.1	12.1	12.1	12.1	12.1	12.1
	P4 (0,9;0,5)	9.8	9.8	9.8	9.8	9.8	9.8
	P5 (0,5;0,5)	5.6	5.6	5.6	5.6	5.6	5.6
	P6 (0,5;0,25)	3.8	3.8	3.8	3.8	3.8	3.8
	P7 (0,25;0,25)	2.4	2.4	2.4	2.4	2.4	2.4

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6205 ZZ	6204 ZZ	Max. traction : 23 kgf
Sealing :	V'Ring	V'Ring	Max. compression : 43 kgf
Lubrication interval :	-	-	
Lubricant amount :	-	-	
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 4.20A SF 1.15 SFA 4.83A

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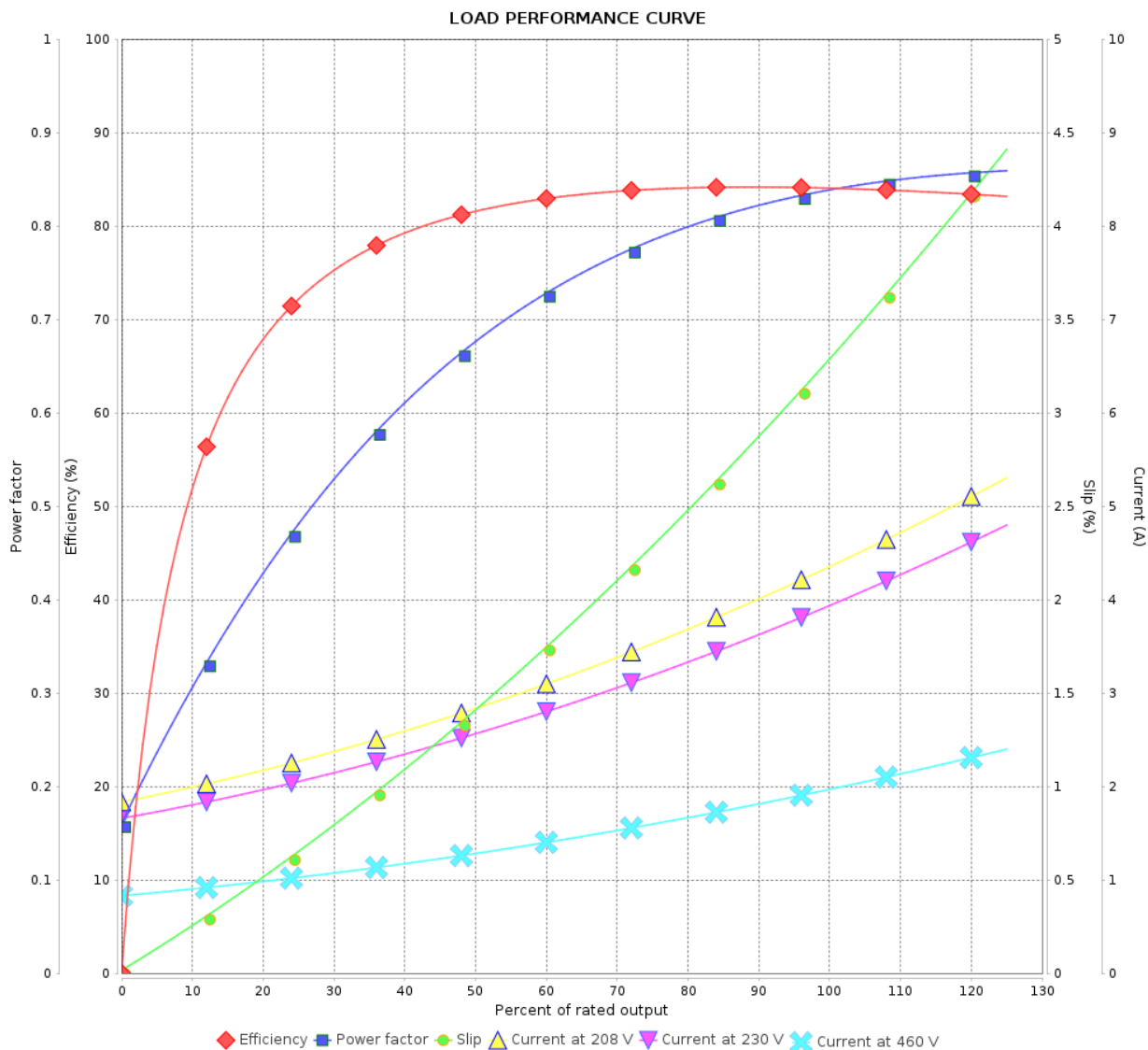
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12438231



Performance : 230/460 V 60 Hz 2P

Rated current : 3.92/1.96 A
LRC : 8.9
Rated torque : 0.313 kgfm
Locked rotor torque : 310 %
Breakdown torque : 370 %
Rated speed : 3480 rpm

Moment of inertia (J) : 0.0020 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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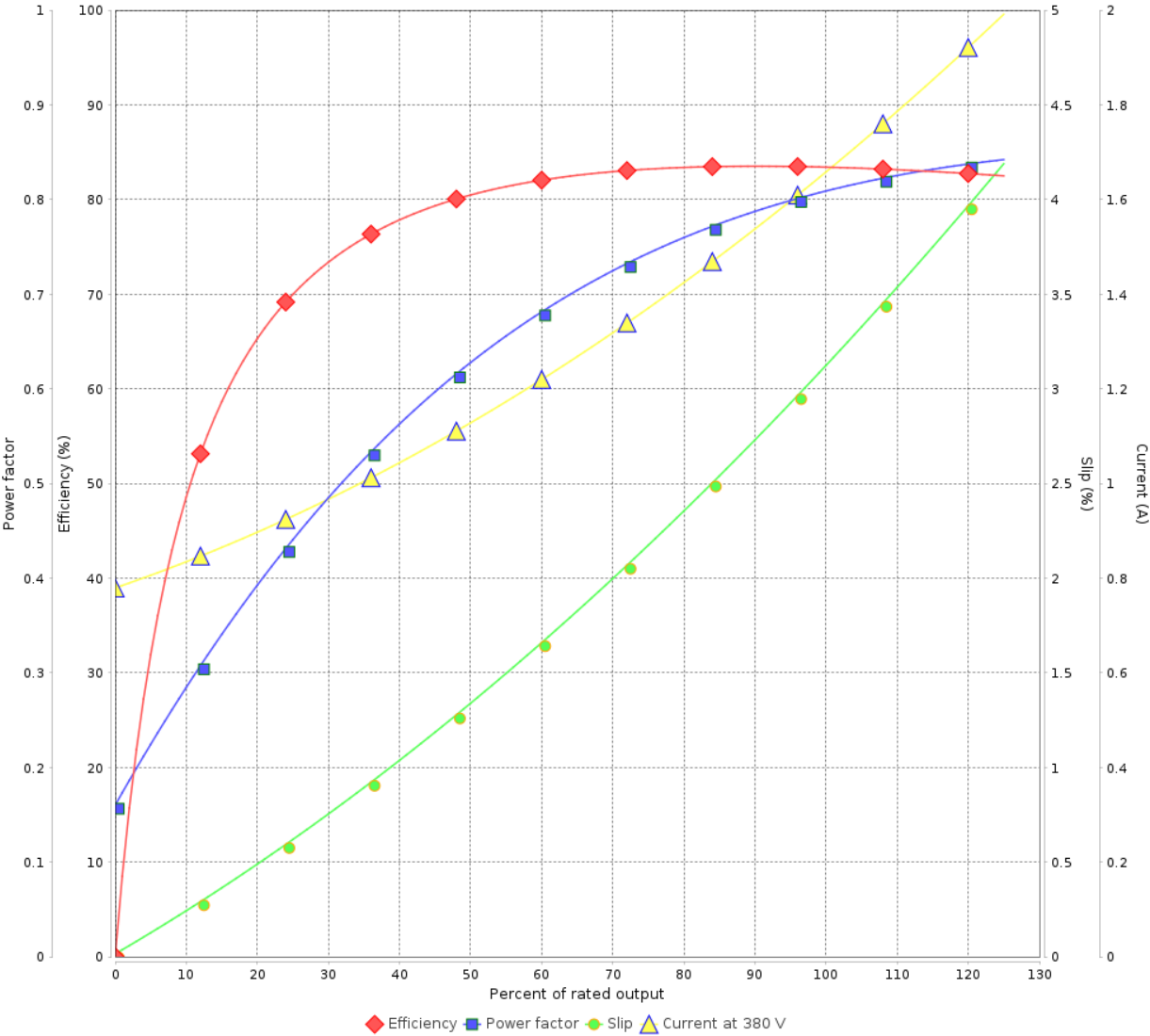
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12438231

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Performance : 380 V 50 Hz 2P IE3			
Rated current	: 1.69 A	Moment of inertia (J)	: 0.0020 kgm ²
LRC	: 9.2	Duty cycle	: Cont.(S1)
Rated torque	: 0.250 kgfm	Insulation class	: F
Locked rotor torque	: 340 %	Service factor	: 1.25
Breakdown torque	: 390 %	Temperature rise	: 80 K
Rated speed	: 2905 rpm	Design	: B

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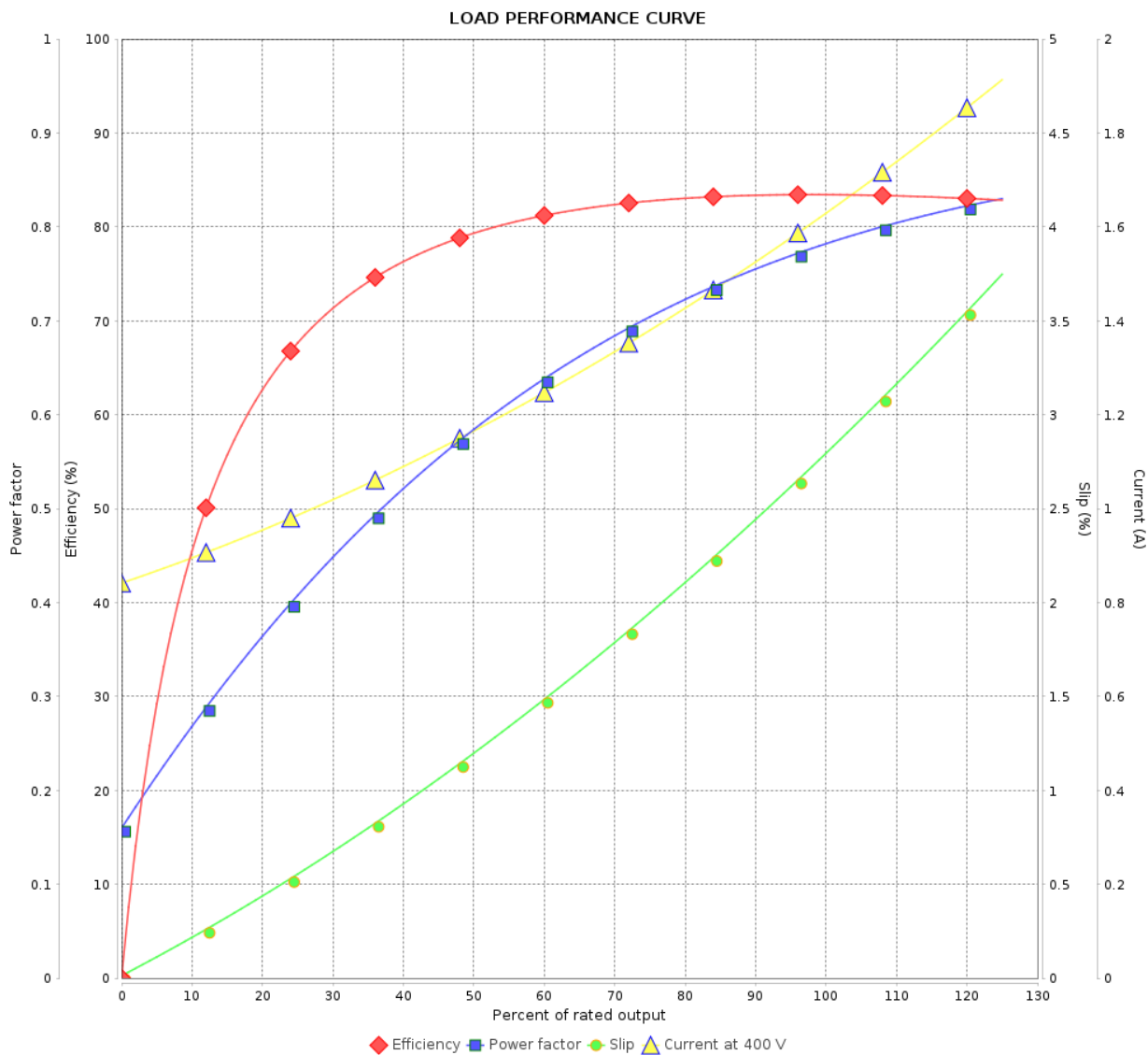
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12438231



Performance : 400 V 50 Hz 2P IE3

Rated current : 1.66 A
LRC : 9.7
Rated torque : 0.249 kgfm
Locked rotor torque : 380 %
Breakdown torque : 440 %
Rated speed : 2915 rpm

Moment of inertia (J) : 0.0020 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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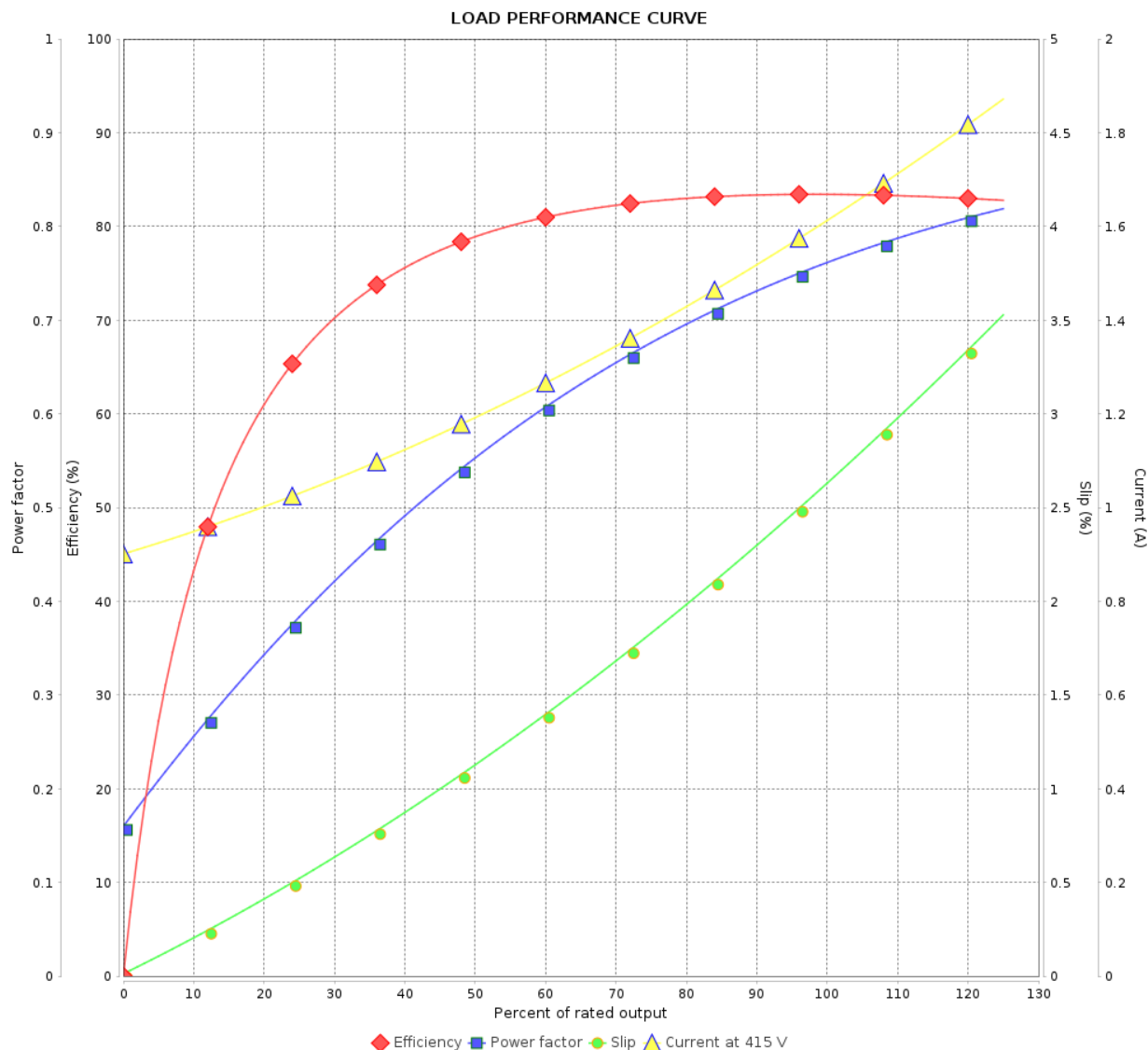
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12438231



Performance : 415 V 50 Hz 2P IE3

Rated current : 1.65 A
LRC : 10.2
Rated torque : 0.249 kgfm
Locked rotor torque : 420 %
Breakdown torque : 480 %
Rated speed : 2920 rpm

Moment of inertia (J) : 0.0020 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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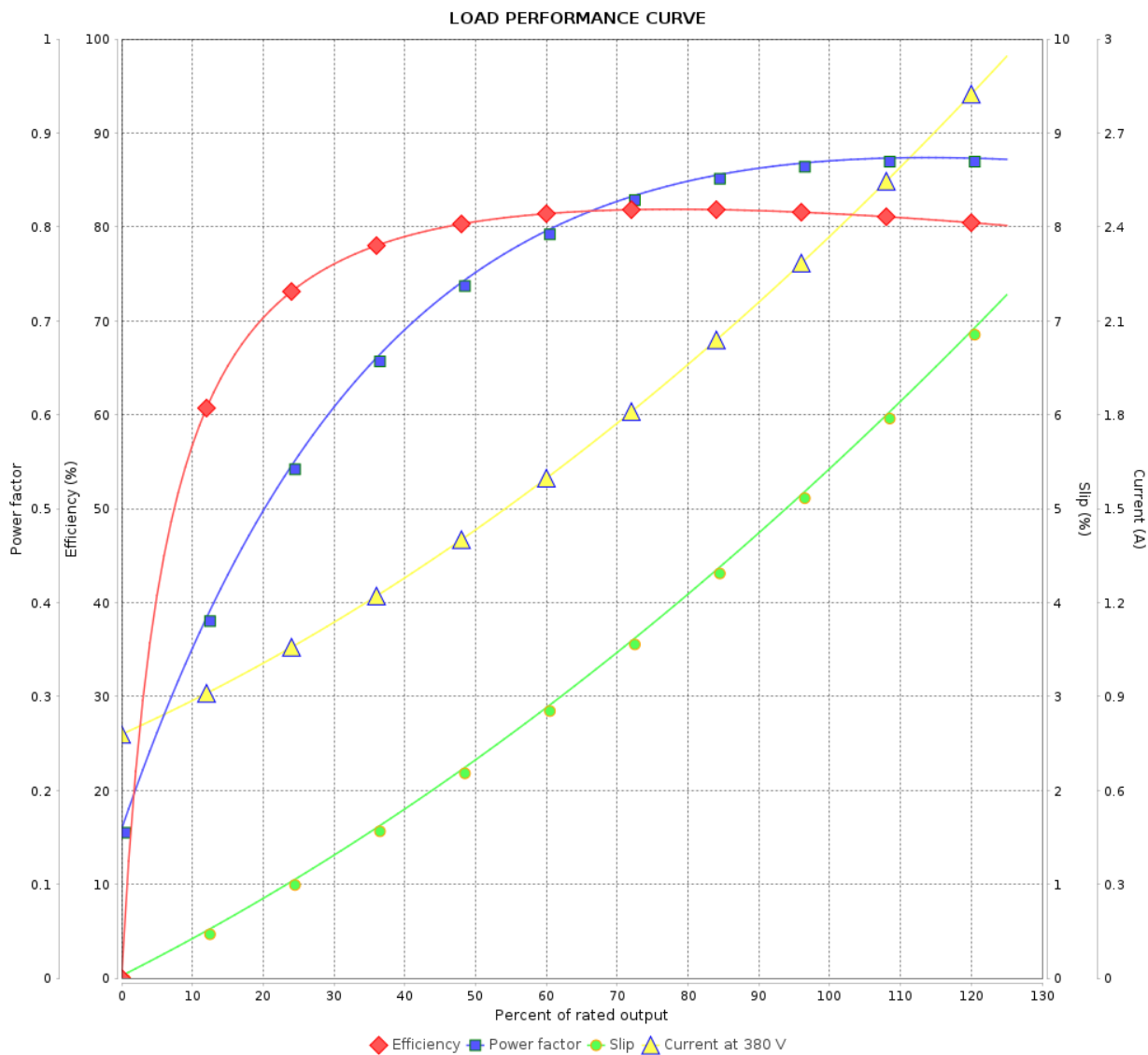
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 2P IE2

Rated current : 2.36 A
LRC : 6.7
Rated torque : 0.384 kgfm
Locked rotor torque : 220 %
Breakdown torque : 260 %
Rated speed : 2835 rpm

Moment of inertia (J) : 0.0020 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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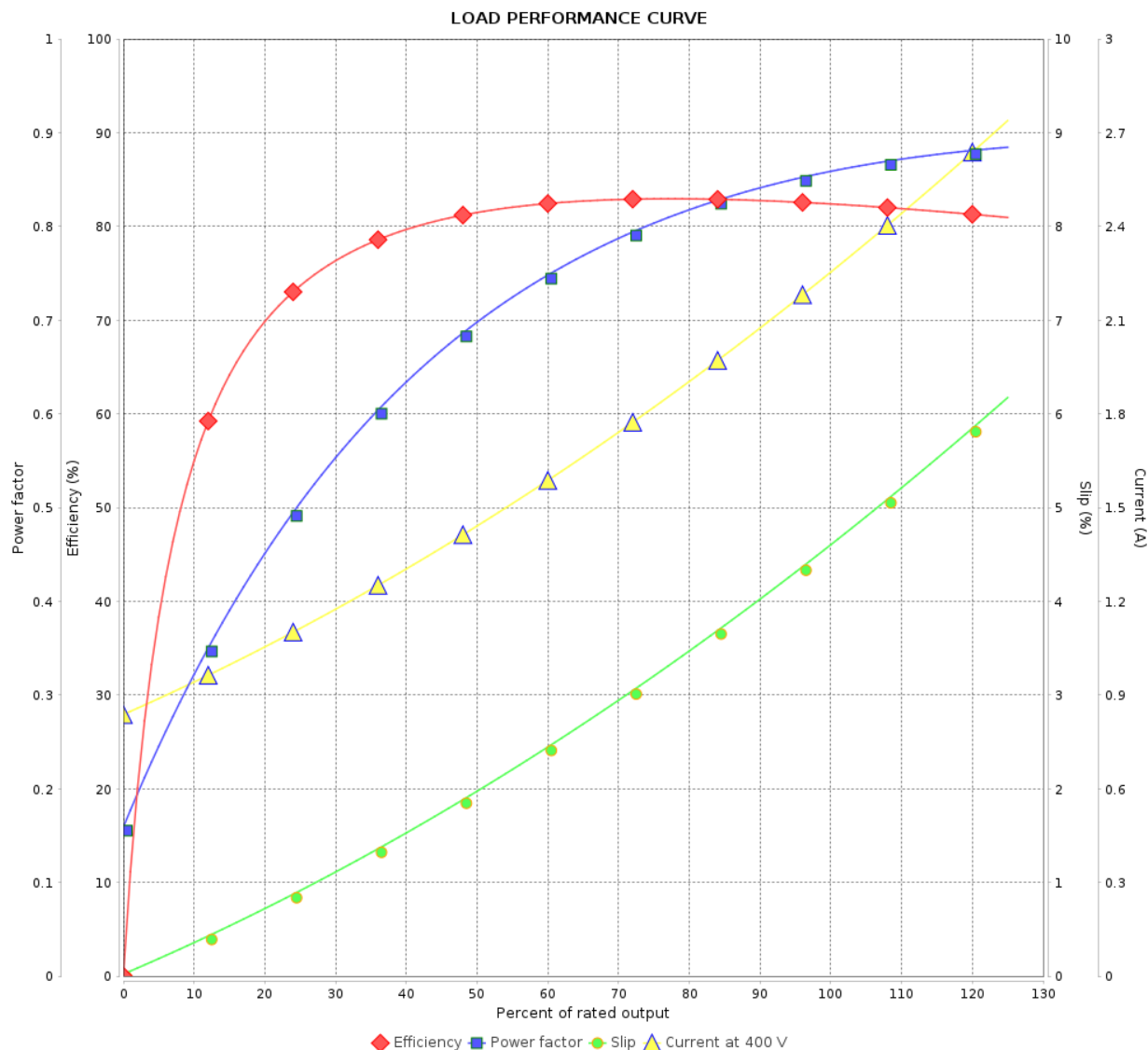
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

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Performance : 400 V 50 Hz 2P IE2

Rated current : 2.24 A
LRC : 7.4
Rated torque : 0.381 kgfm
Locked rotor torque : 260 %
Breakdown torque : 290 %
Rated speed : 2860 rpm

Moment of inertia (J) : 0.0020 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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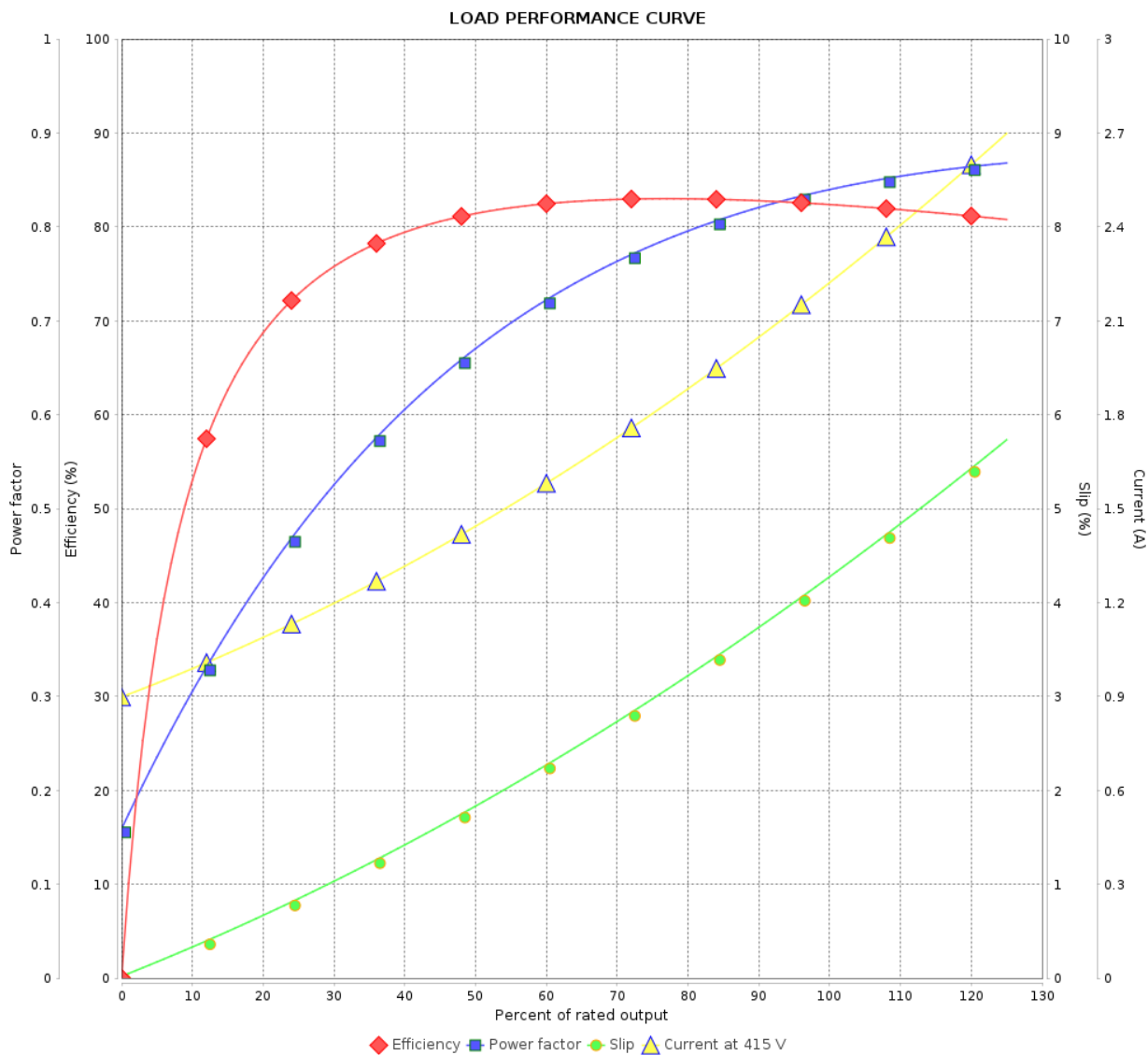
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12438231



Performance : 415 V 50 Hz 2P IE2

Rated current : 2.21 A
LRC : 7.9
Rated torque : 0.379 kgfm
Locked rotor torque : 280 %
Breakdown torque : 310 %
Rated speed : 2870 rpm

Moment of inertia (J) : 0.0020 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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