

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12710807

Frame : 143/5TC	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 : 22.0 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]	4.10/2.05	1.80	1.80	1.84	2.41	2.35	2.32
L. R. Amperes [A]	36.5/18.2	16.6	17.6	19.0	16.4	17.6	18.3
LRC [A]	8.9x(Code L)	9.2x(Code M)	9.8x(Code N)	10.3x(Code P)	6.8x(Code J)	7.5x(Code K)	7.9x(Code K)
No load current [A]	2.20/1.10	1.10	1.20	1.30	1.10	1.20	1.30
Rated speed [RPM]	3515	2930	2935	2940	2885	2900	2910
Slip [%]	2.36	2.33	2.17	2.00	3.83	3.33	3.00
Rated torque [kgfm]	0.310	0.248	0.247	0.247	0.377	0.375	0.374
Locked rotor torque [%]	270	310	330	360	210	240	250
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	23s (cold) 13s (hot)	27s (cold) 15s (hot)	25s (cold) 14s (hot)	21s (cold) 12s (hot)	23s (cold) 13s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level ²	68.0 dB(A)						
Efficiency (%)	25%						
	50%	81.0	78.0	78.0	76.5	81.0	81.0
	75%	84.0	83.2	82.8	82.0	81.5	82.5
	100%	84.0	83.4	83.4	83.4	81.5	82.5
Power Factor	25%						
	50%	0.60	0.55	0.50	0.47	0.67	0.59
	75%	0.72	0.68	0.62	0.59	0.78	0.71
	100%	0.80	0.76	0.72	0.68	0.85	0.80

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

Losses (%)	P1 (0,9;1,0)	17.3	18.1	18.1	18.1	20.6	19.3	19.3
	P2 (0,5;1,0)	12.9	13.4	13.4	13.4	15.3	14.3	14.3
	P3 (0,25;1,0)	12.9	13.5	13.5	13.5	15.4	14.4	14.4
	P4 (0,9;0,5)	11.1	11.6	11.6	11.6	13.2	12.3	12.3
	P5 (0,5;0,5)	6.6	6.9	6.9	6.9	7.9	7.3	7.3
	P6 (0,5;0,25)	5.3	5.5	5.5	5.5	6.3	5.9	5.9
	P7 (0,25;0,25)	3.5	3.7	3.7	3.7	4.2	3.9	3.9

Bearing type : 6205 ZZ	Non drive end : 6204 ZZ	Foundation loads
Sealing : V'Ring	V'Ring	Max. traction : 22 kgf
Lubrication interval : -	-	Max. compression : 44 kgf
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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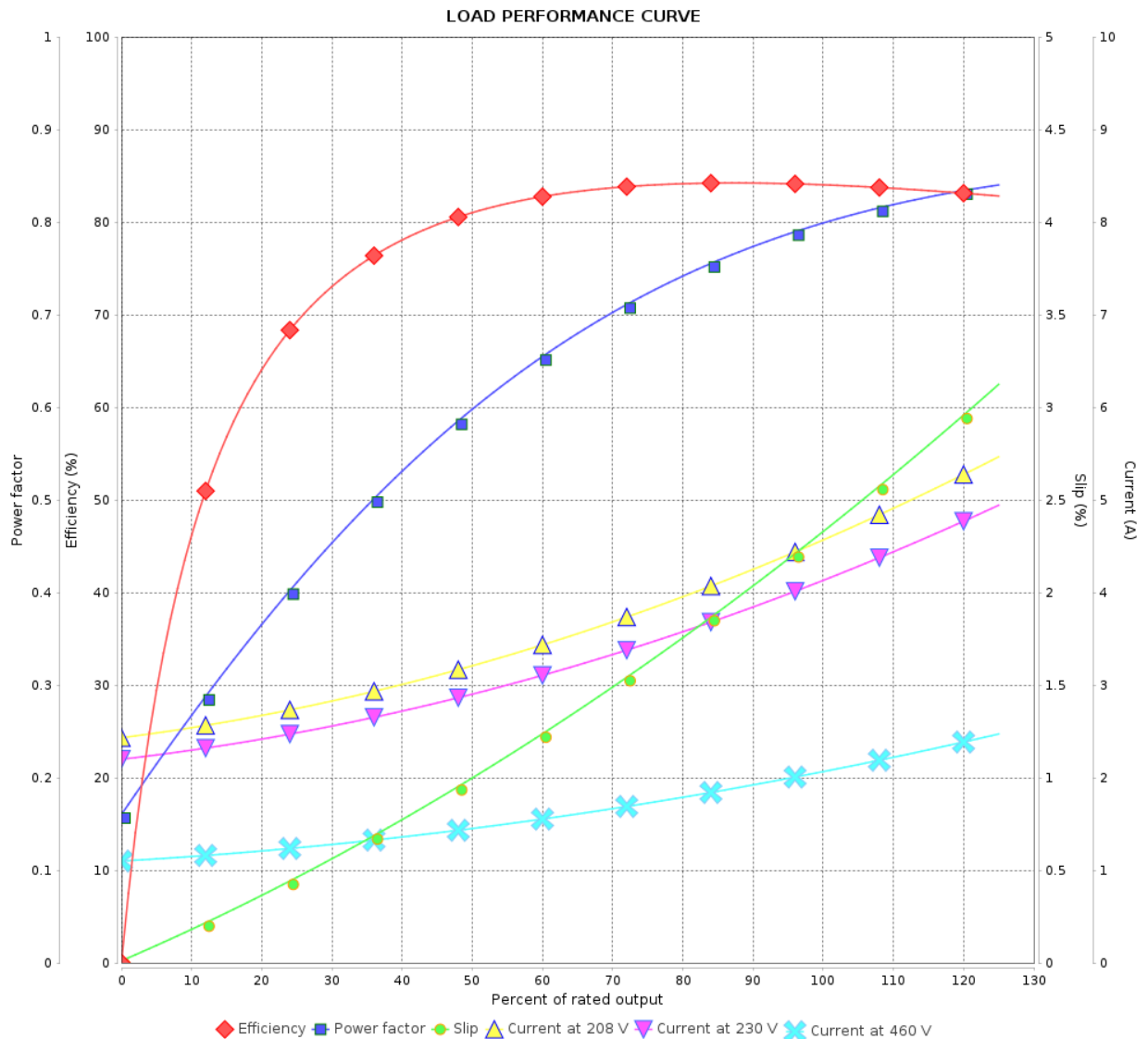
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12710807



Performance : 230/460 V 60 Hz 2P

Rated current : 4.10/2.05 A
LRC : 8.9
Rated torque : 0.310 kgfm
Locked rotor torque : 270 %
Breakdown torque : 370 %
Rated speed : 3515 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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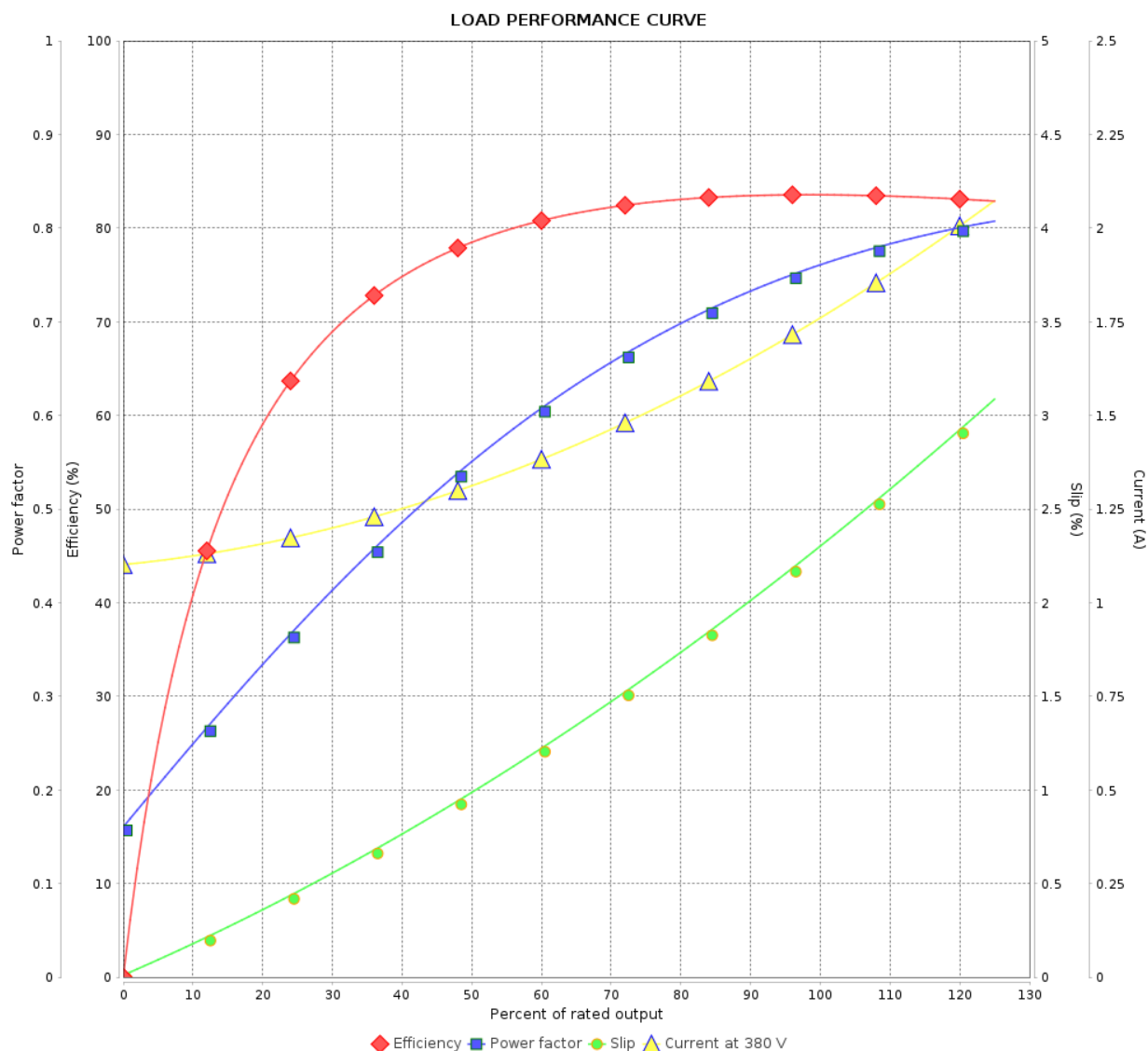
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12710807



Performance : 380 V 50 Hz 2P IE3

Rated current : 1.80 A
LRC : 9.2
Rated torque : 0.248 kgfm
Locked rotor torque : 310 %
Breakdown torque : 390 %
Rated speed : 2930 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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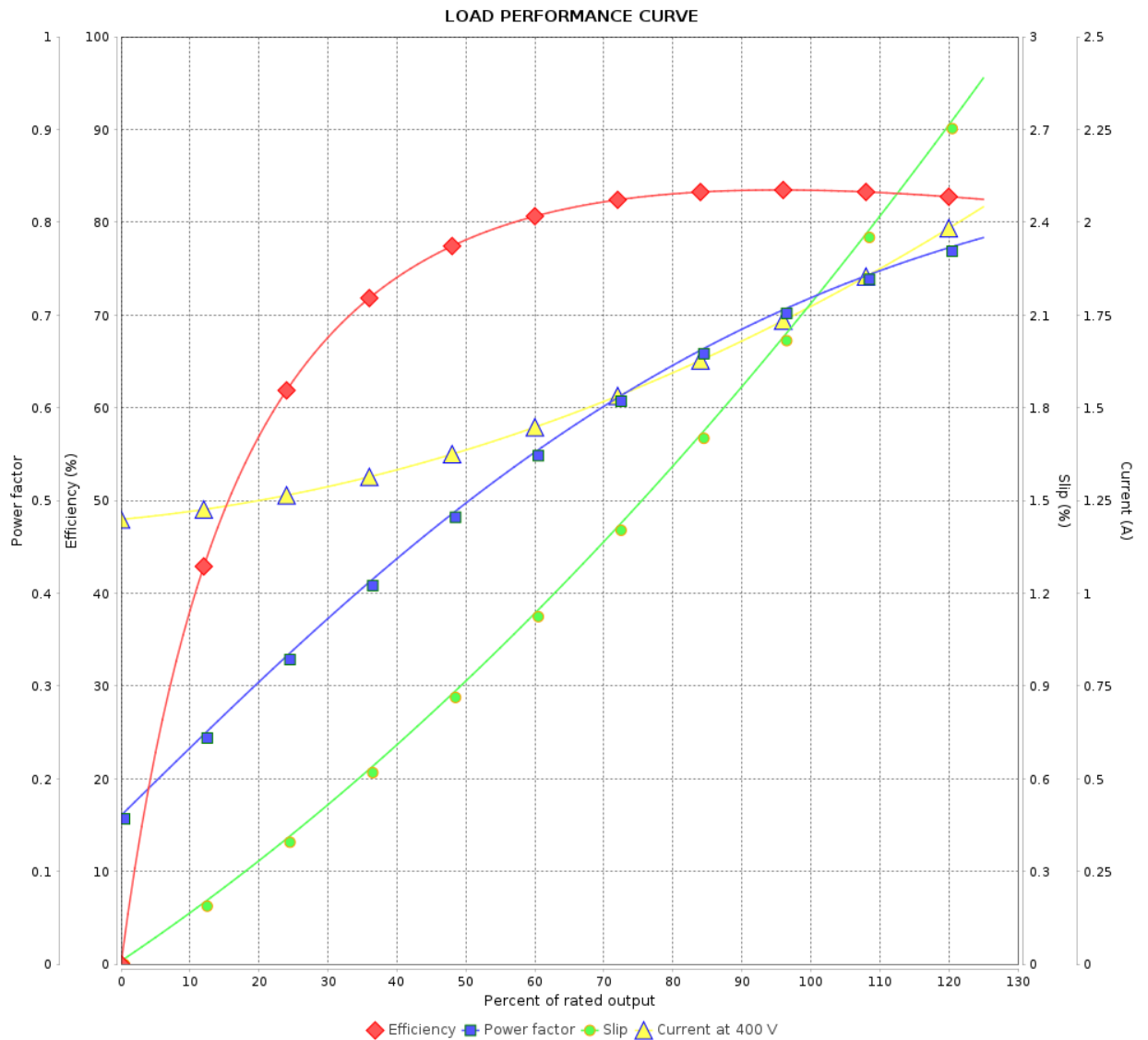
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
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Product code : 12710807



Performance : 400 V 50 Hz 2P IE3

Rated current	: 1.80 A	Moment of inertia (J)	: 0.0020 kgm ²
LRC	: 9.8	Duty cycle	: Cont.(S1)
Rated torque	: 0.247 kgfm	Insulation class	: F
Locked rotor torque	: 330 %	Service factor	: 1.25
Breakdown torque	: 440 %	Temperature rise	: 80 K
Rated speed	: 2935 rpm	Design	: B

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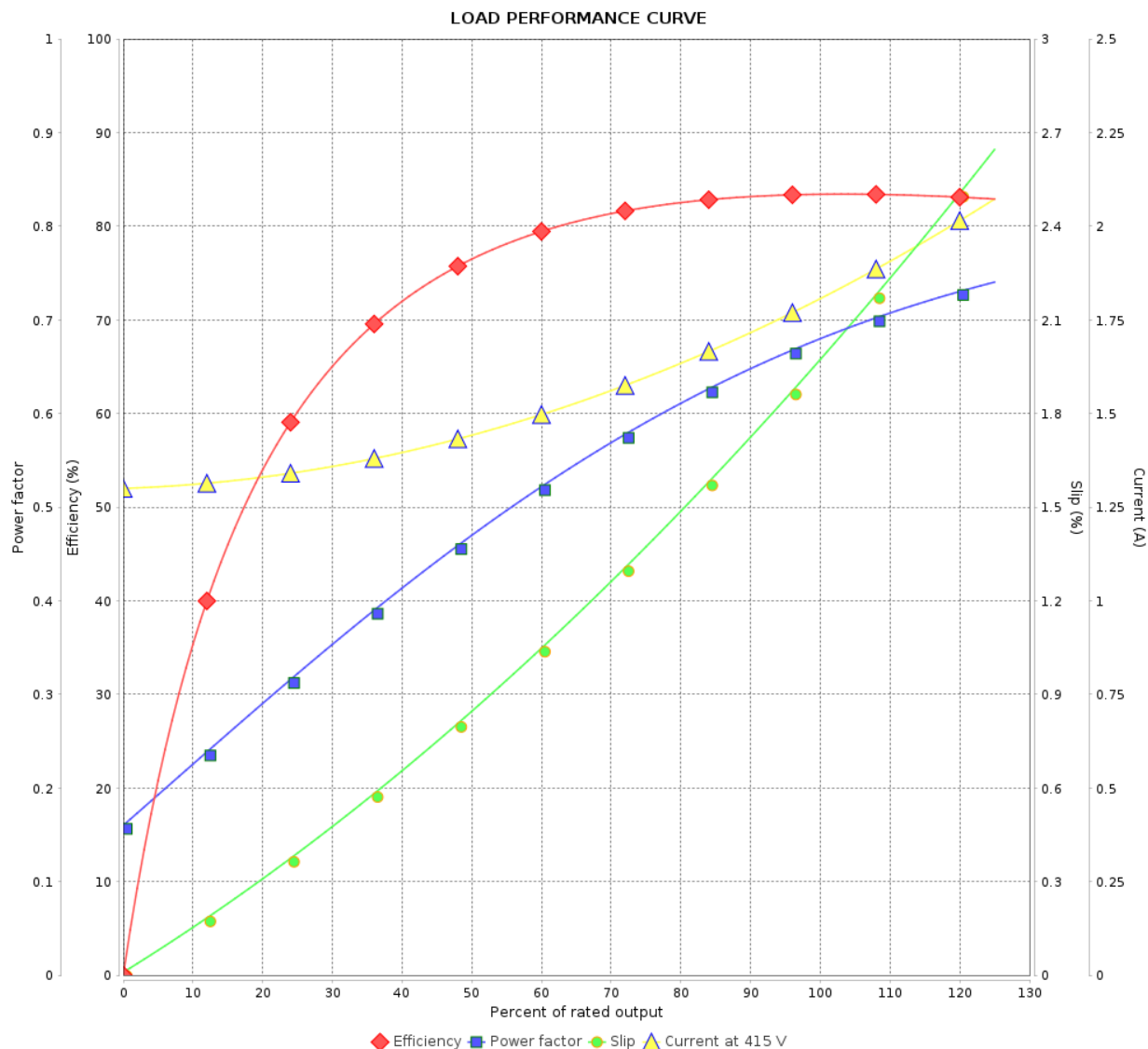
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12710807



Performance : 415 V 50 Hz 2P IE3

Rated current : 1.84 A
LRC : 10.3
Rated torque : 0.247 kgfm
Locked rotor torque : 360 %
Breakdown torque : 480 %
Rated speed : 2940 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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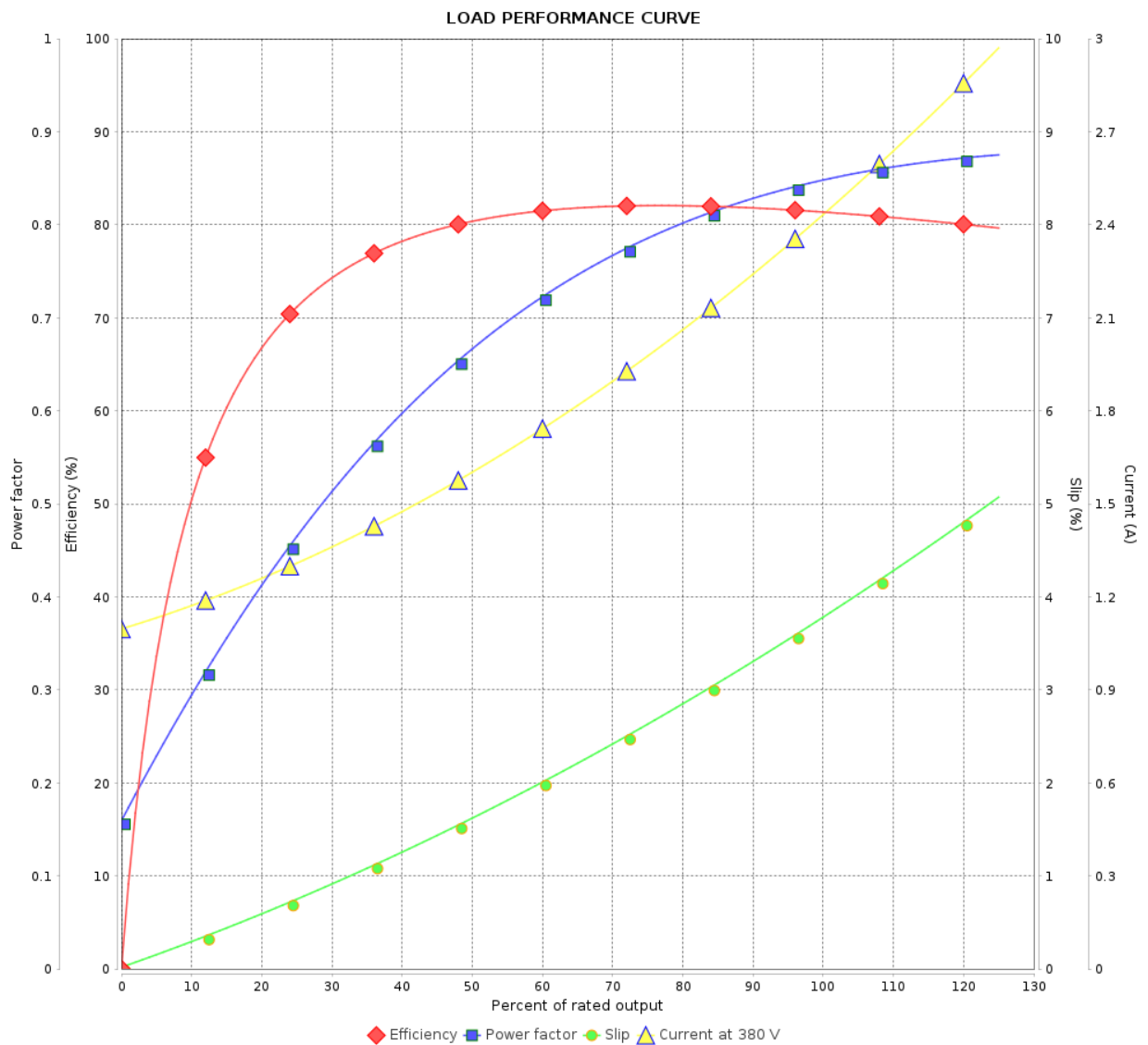
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
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Performance : 380 V 50 Hz 2P IE2

Rated current : 2.41 A
LRC : 6.8
Rated torque : 0.377 kgfm
Locked rotor torque : 210 %
Breakdown torque : 260 %
Rated speed : 2885 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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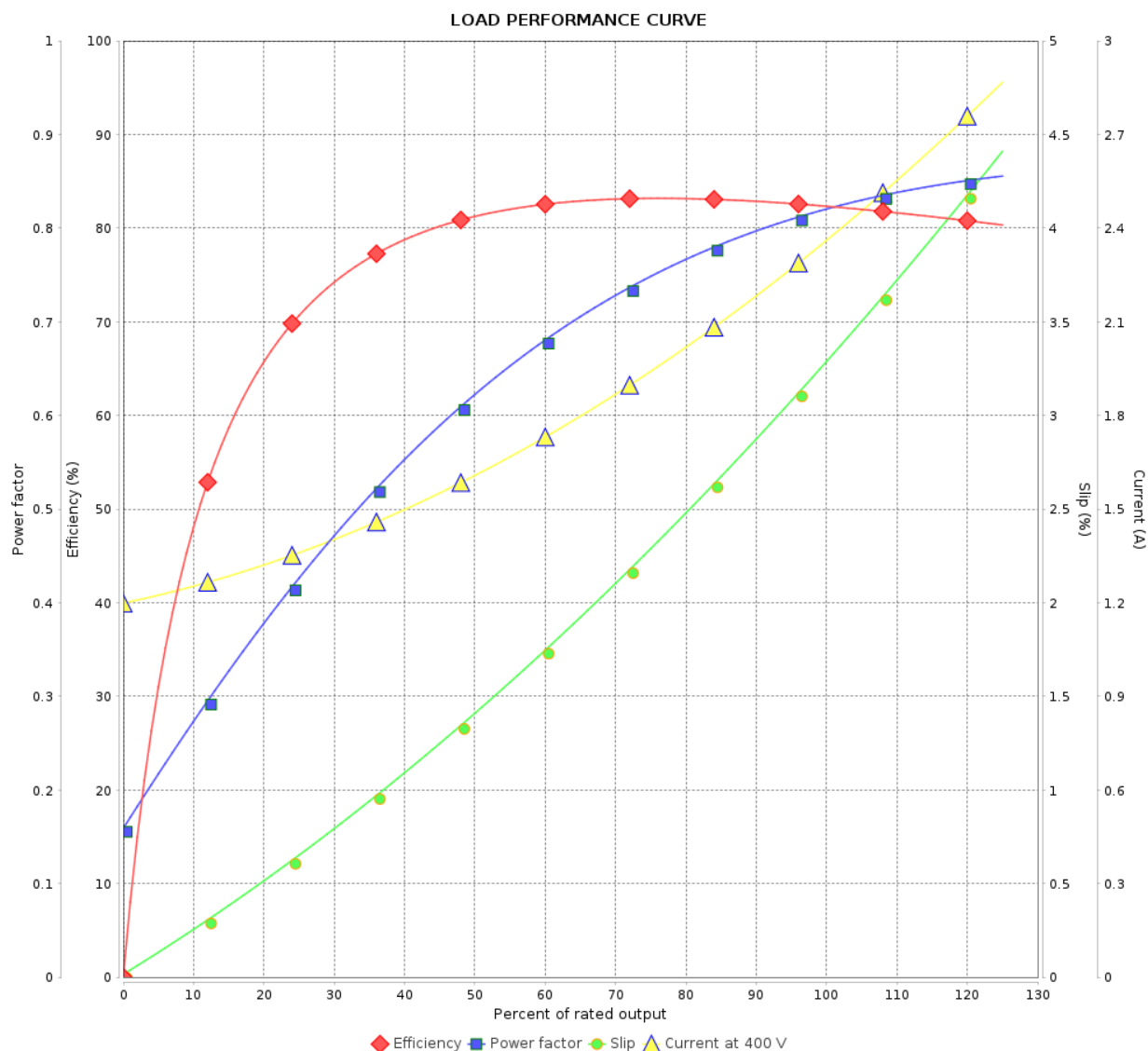
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Performance : 400 V 50 Hz 2P IE2

Rated current : 2.35 A
LRC : 7.5
Rated torque : 0.375 kgfm
Locked rotor torque : 240 %
Breakdown torque : 290 %
Rated speed : 2900 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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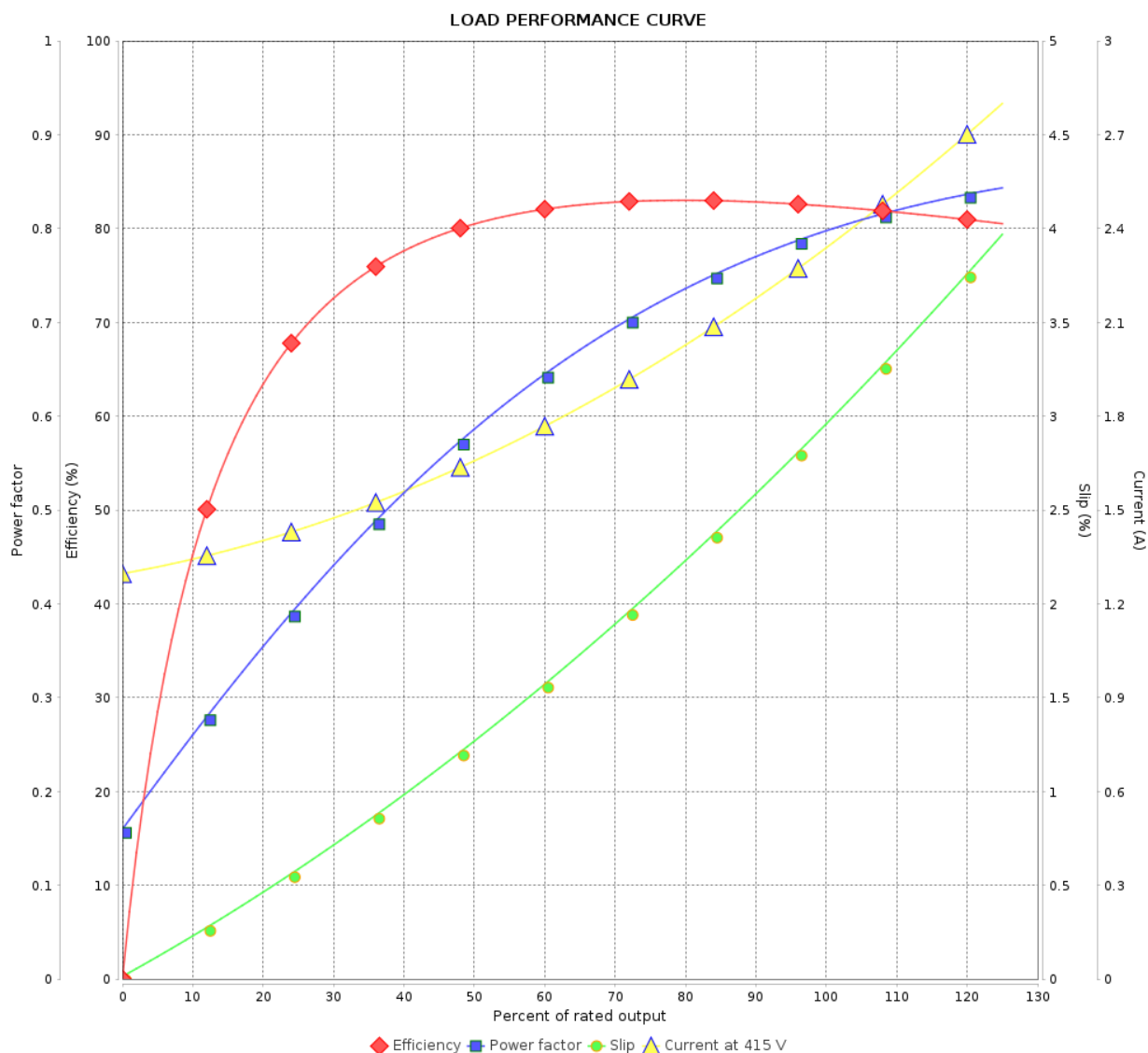
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12710807



Performance : 415 V 50 Hz 2P IE2

Rated current : 2.32 A
LRC : 7.9
Rated torque : 0.374 kgfm
Locked rotor torque : 250 %
Breakdown torque : 310 %
Rated speed : 2910 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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