

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12378663

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 : 17.7 kg
Protection degree : IP55	Moment of inertia (J) : 0.0014 kgm ²

Output [HP]	1	0.75	0.75	0.75	1	1	1
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]	2.94/1.47	1.34	1.32	1.33	1.71	1.65	1.63
L. R. Amperes [A]	24.1/12.1	11.5	11.9	12.5	11.5	11.9	12.6
LRC [A]	8.2x(Code L)	8.6x(Code M)	9.0x(Code M)	9.4x(Code N)	6.7x(Code J)	7.2x(Code K)	7.7x(Code L)
No load current [A]	1.54/0.770	0.740	0.820	0.880	0.740	0.820	0.880
Rated speed [RPM]	3500	2910	2920	2925	2865	2885	2895
Slip [%]	2.78	3.00	2.67	2.50	4.50	3.83	3.50
Rated torque [kgfm]	0.207	0.187	0.186	0.186	0.253	0.252	0.251
Locked rotor torque [%]	220	229	250	270	170	190	200
Breakdown torque [%]	310	310	340	360	220	250	270
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	36s (cold) 20s (hot)	46s (cold) 26s (hot)	43s (cold) 24s (hot)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)
Noise level ²	68.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)
Efficiency (%)	25%						
	50%	75.0	72.9	72.3	71.7	77.0	77.0
	75%	79.0	77.6	77.6	77.6	78.5	78.5
	100%	80.0	80.0	80.0	80.0	78.5	80.0
Power Factor	25%						
	50%	0.63	0.58	0.53	0.50	0.68	0.63
	75%	0.74	0.70	0.66	0.63	0.78	0.75
	100%	0.80	0.78	0.75	0.72	0.85	0.80

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

Losses (%)	P1 (0,9;1,0)	22.8	22.8	22.8	22.8	22.8	22.8	22.8
	P2 (0,5;1,0)	16.9	16.9	16.9	16.9	16.9	16.9	16.9
	P3 (0,25;1,0)	16.0	16.0	16.0	16.0	16.0	16.0	16.0
	P4 (0,9;0,5)	14.5	14.5	14.5	14.5	14.5	14.5	14.5
	P5 (0,5;0,5)	8.4	8.4	8.4	8.4	8.4	8.4	8.4
	P6 (0,5;0,25)	6.7	6.7	6.7	6.7	6.7	6.7	6.7
	P7 (0,25;0,25)	4.4	4.4	4.4	4.4	4.4	4.4	4.4

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6205 ZZ	6204 ZZ	Max. traction : 10 kgf
Sealing :	V'Ring	V'Ring	Max. compression : 28 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.

(2) Measured at 1m and with tolerance of +3dB(A).

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 3.16A SF 1.15 SFA 3.64A

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LOAD PERFORMANCE CURVE

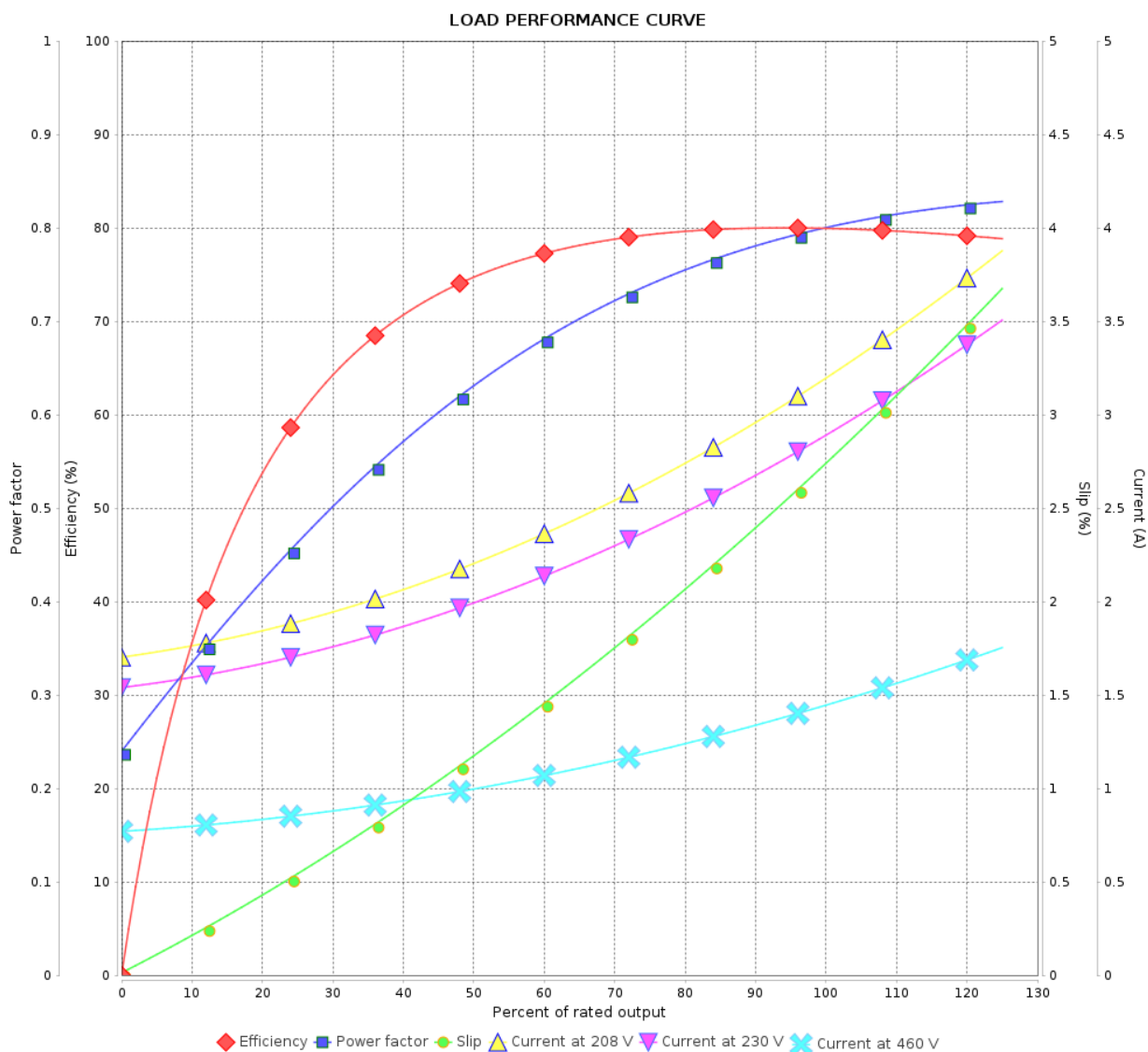
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12378663



Performance : 230/460 V 60 Hz 2P

Rated current : 2.94/1.47 A
LRC : 8.2
Rated torque : 0.207 kgfm
Locked rotor torque : 220 %
Breakdown torque : 310 %
Rated speed : 3500 rpm

Moment of inertia (J) : 0.0014 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K

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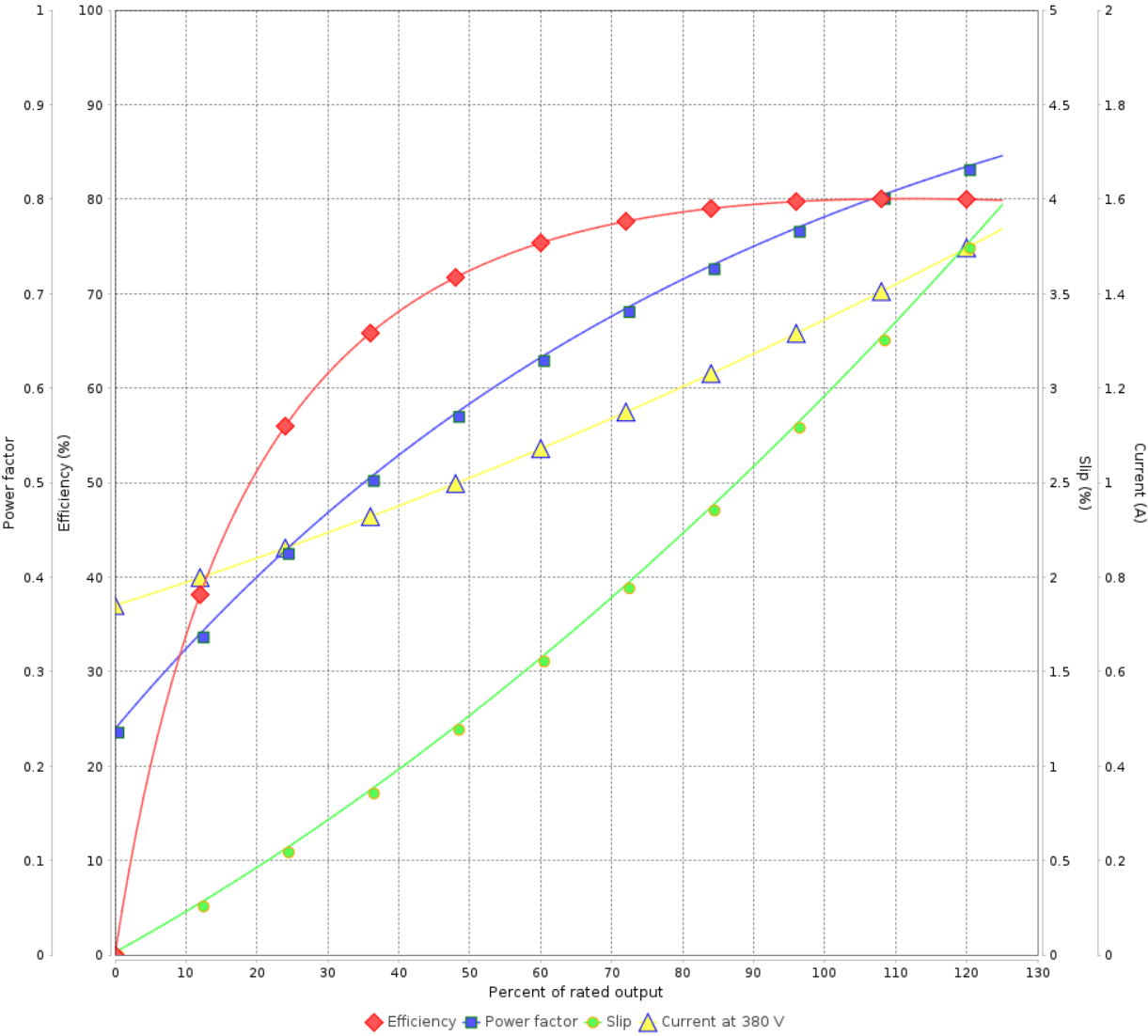
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12378663

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Performance : 380 V 50 Hz 2P IE3			
Rated current	: 1.34 A	Moment of inertia (J)	: 0.0014 kgm²
LRC	: 8.6	Duty cycle	: Cont.(S1)
Rated torque	: 0.187 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.25
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2910 rpm		

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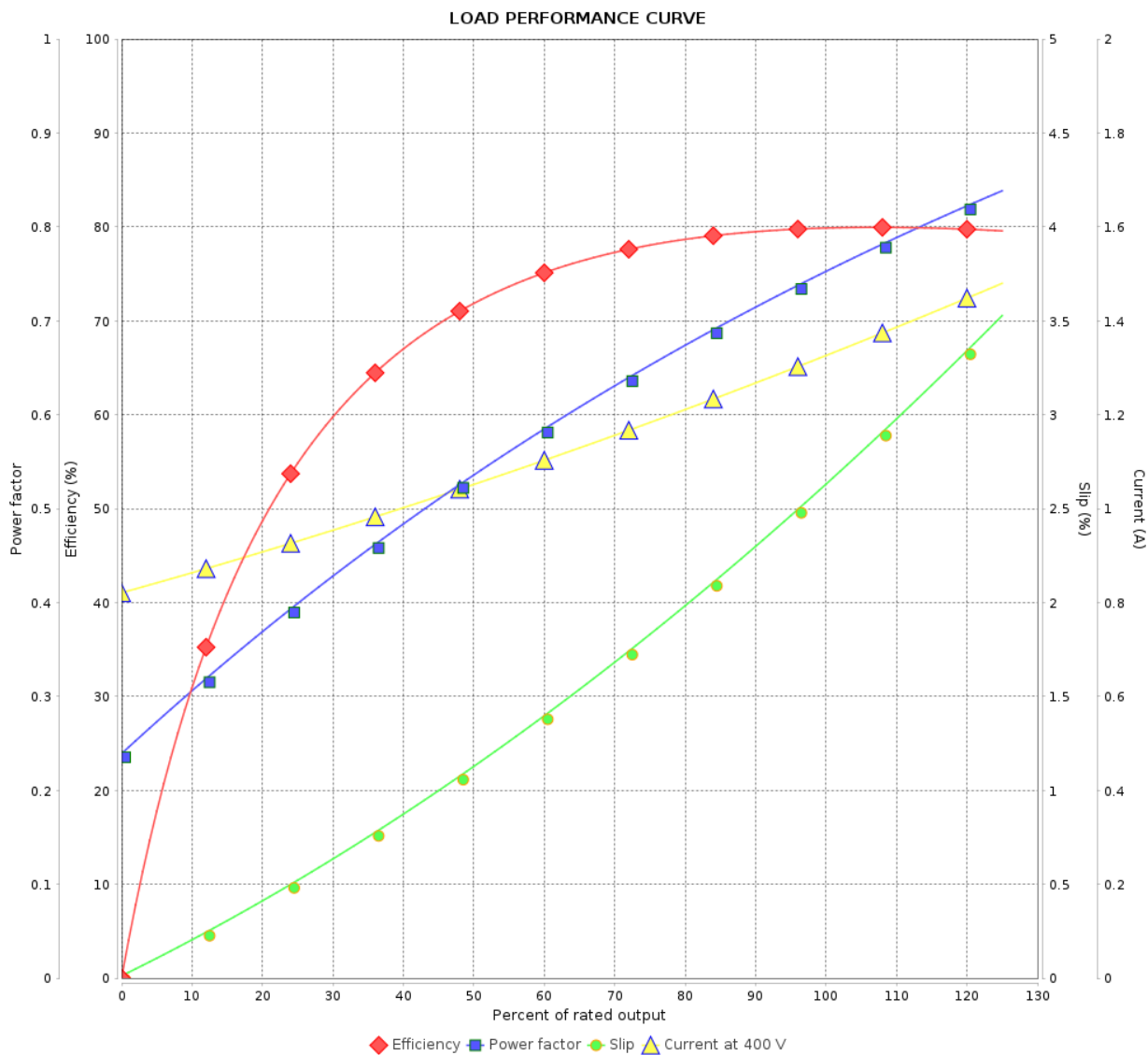
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12378663



Performance : 400 V 50 Hz 2P IE3

Rated current : 1.32 A
LRC : 9.0
Rated torque : 0.186 kgfm
Locked rotor torque : 250 %
Breakdown torque : 340 %
Rated speed : 2920 rpm

Moment of inertia (J) : 0.0014 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K

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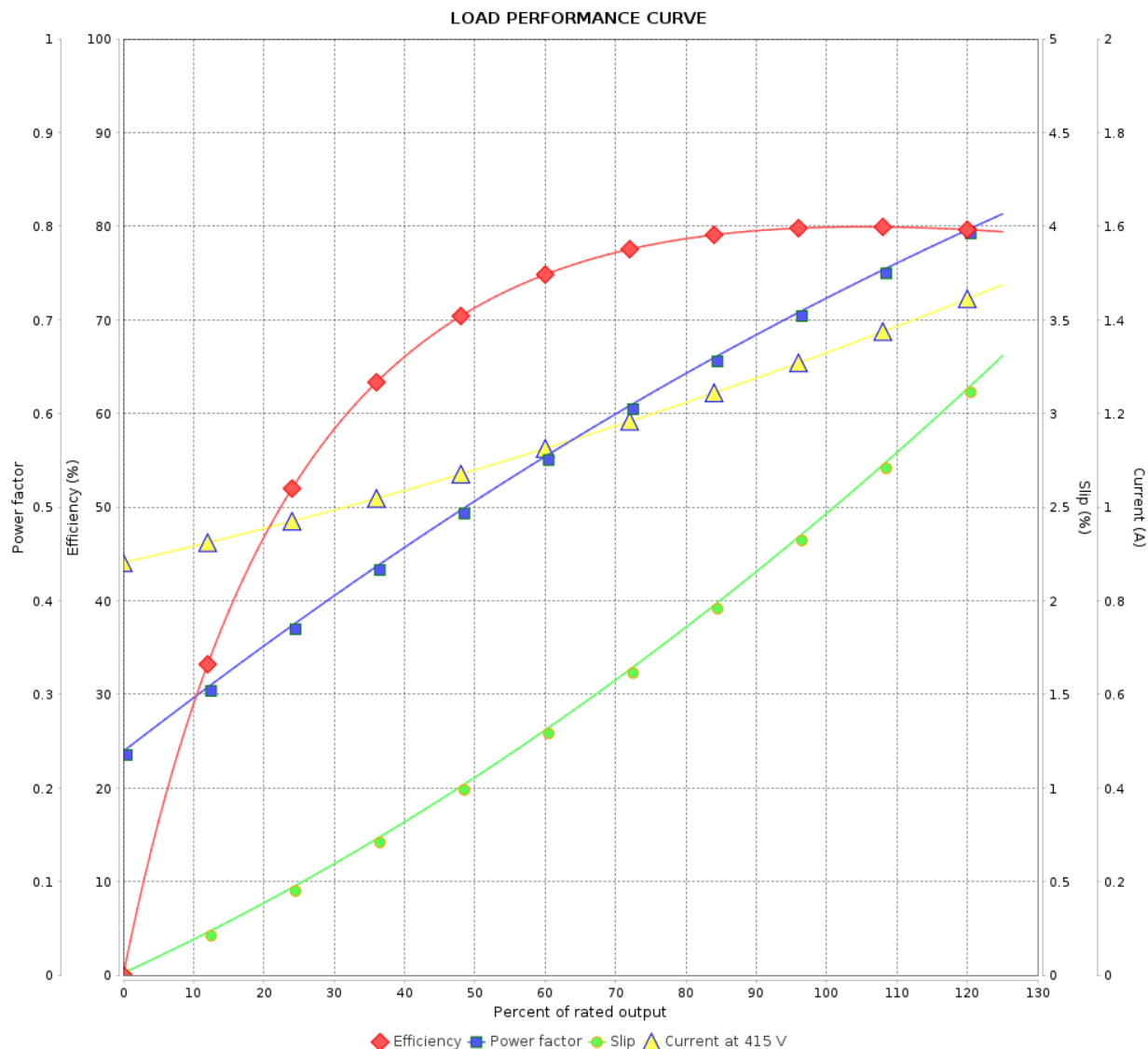
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12378663



Performance : 415 V 50 Hz 2P IE3

Rated current : 1.33 A
LRC : 9.4
Rated torque : 0.186 kgfm
Locked rotor torque : 270 %
Breakdown torque : 360 %
Rated speed : 2925 rpm

Moment of inertia (J) : 0.0014 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K

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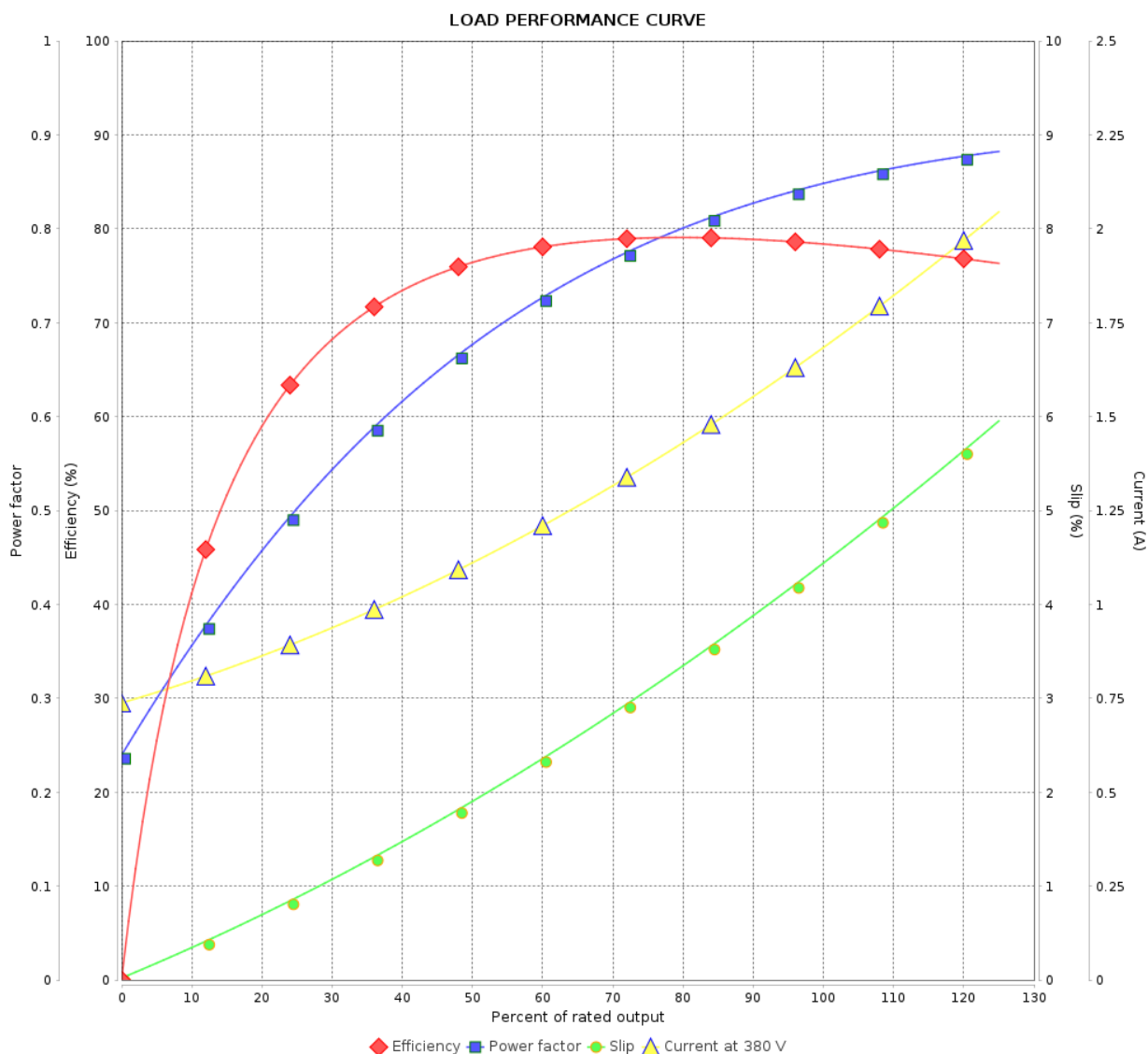
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Rated current : 1.71 A
LRC : 6.7
Rated torque : 0.253 kgfm
Locked rotor torque : 170 %
Breakdown torque : 220 %
Rated speed : 2865 rpm

Moment of inertia (J) : 0.0014 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K

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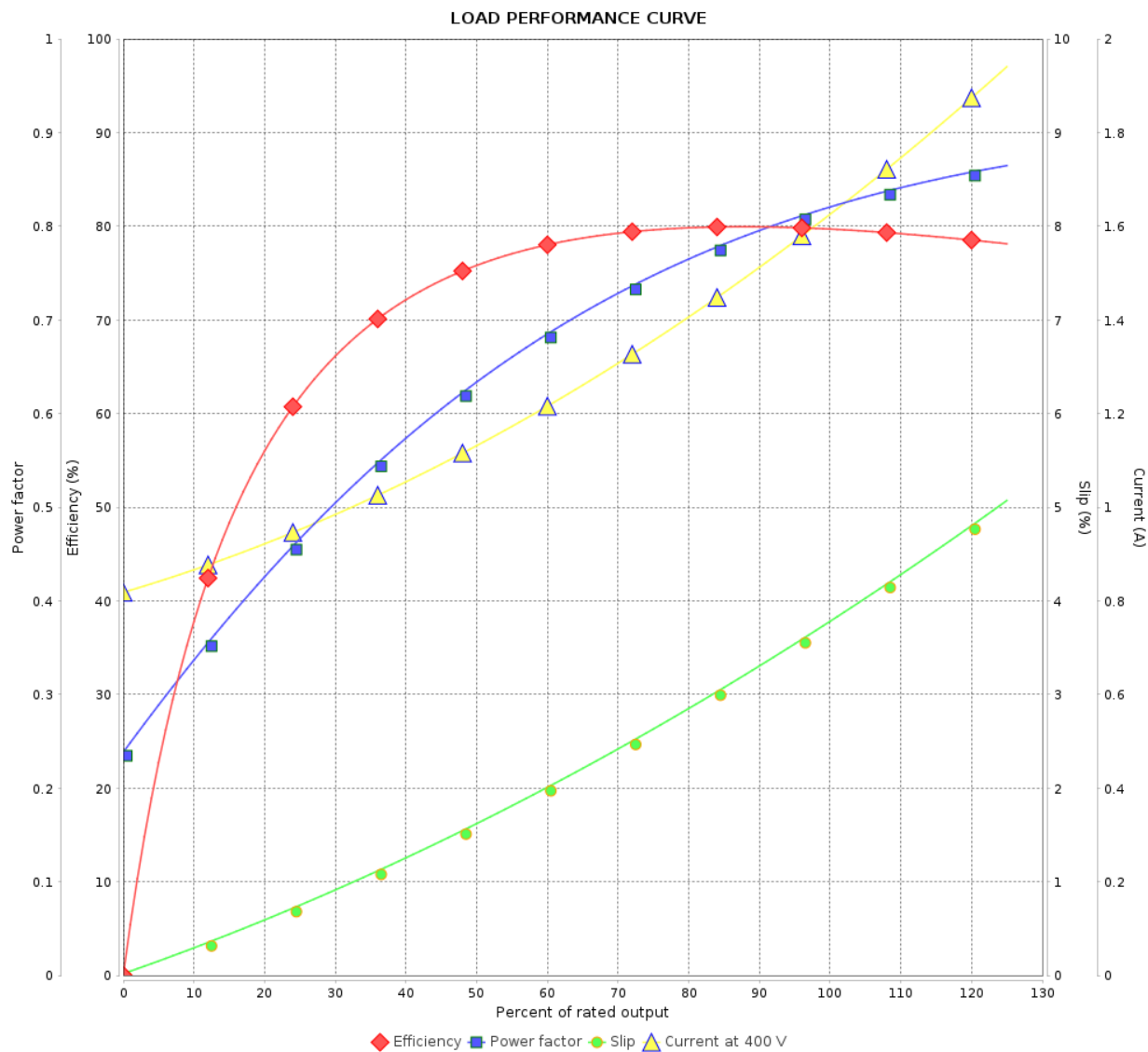
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12378663



Performance : 400 V 50 Hz 2P IE2

Rated current : 1.65 A
LRC : 7.2
Rated torque : 0.252 kgfm
Locked rotor torque : 190 %
Breakdown torque : 250 %
Rated speed : 2885 rpm

Moment of inertia (J) : 0.0014 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K

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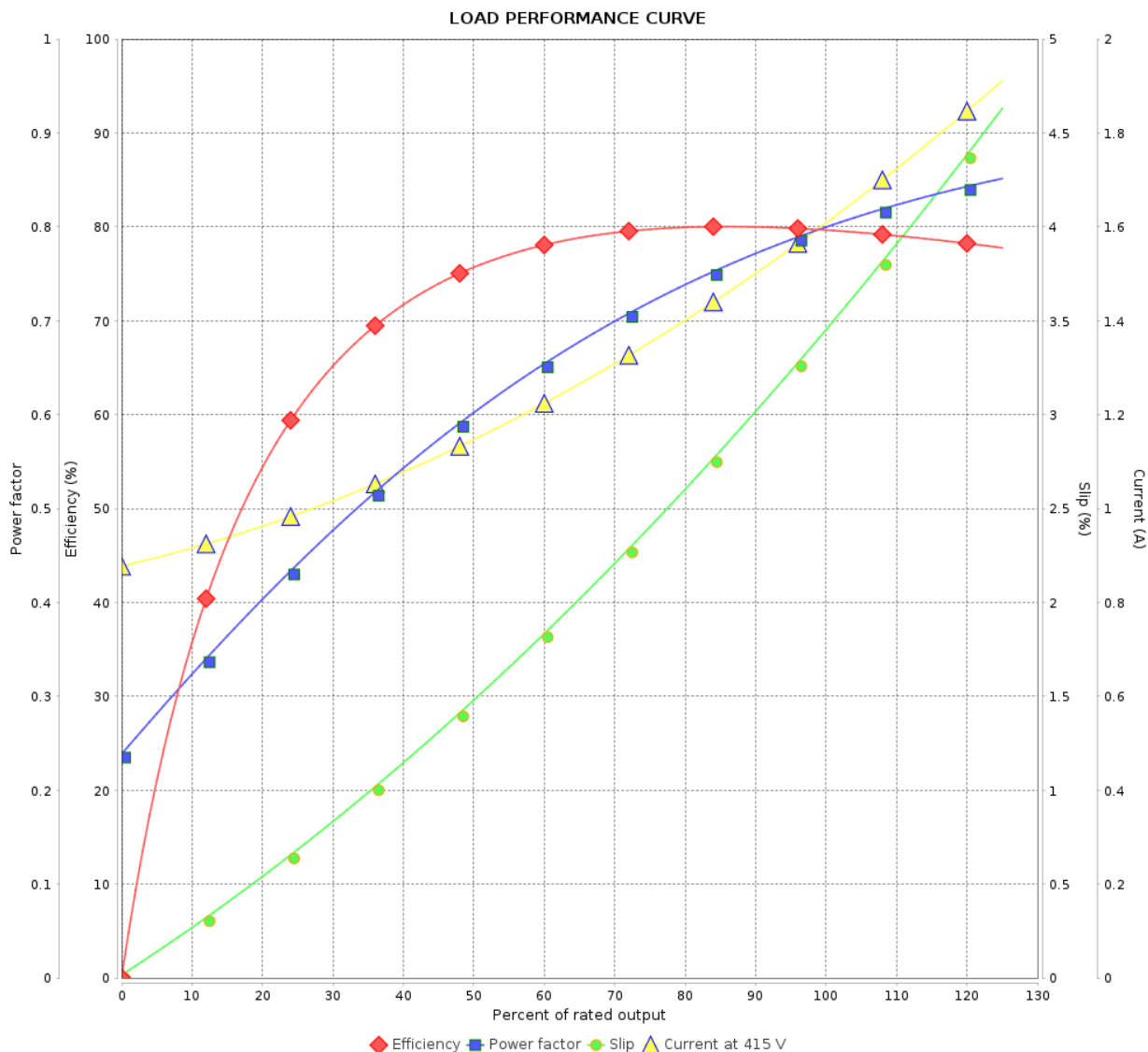
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12378663



Performance : 415 V 50 Hz 2P IE2

Rated current : 1.63 A
LRC : 7.7
Rated torque : 0.251 kgfm
Locked rotor torque : 200 %
Breakdown torque : 270 %
Rated speed : 2895 rpm

Moment of inertia (J) : 0.0014 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K

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