

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12375663

Frame : 254/6T	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 : 107 kg
Protection degree : IP55	Moment of inertia (J) : 0.0530 kgm ²
Design : B	

Output [HP]	15	10	10	10	15	15	15
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]	34.5/17.2	14.5	14.0	13.7	21.0	19.9	19.3
L. R. Amperes [A]	231/116	109	117	116	107	112	118
LRC [A]	6.7x(Code G)	7.5x(Code J)	8.3x(Code K)	8.5x(Code K)	5.1x(Code E)	5.6x(Code F)	6.1x(Code G)
No load current [A]	10.0/5.00	4.90	5.30	5.50	4.90	5.30	5.50
Rated speed [RPM]	3535	2950	2955	2960	2900	2915	2925
Slip [%]	1.81	1.67	1.50	1.33	3.33	2.83	2.50
Rated torque [kgfm]	3	2	2	2	3	3	3
Locked rotor torque [%]	200	200	229	250	160	180	200
Breakdown torque [%]	260	310	350	380	200	229	240
Service factor	1.25	1.25	1.25	1.25	1.00	1.00	1.15
Temperature rise	80 K	80 K	80 K	80 K	105 K	105 K	105 K
Locked rotor time	36s (cold) 20s (hot)	50s (cold) 28s (hot)	45s (cold) 25s (hot)	41s (cold) 23s (hot)	25s (cold) 14s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)
Noise level ²	72.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)
Efficiency (%)	25%	0.000					
	50%	89.5	90.3	90.1	89.9	89.5	90.2
	75%	91.0	90.5	90.7	90.8	90.2	90.2
	100%	91.0	90.5	90.7	90.8	88.5	89.5
Power Factor	25%	0.00					
	50%	0.77	0.73	0.69	0.67	0.82	0.80
	75%	0.85	0.83	0.80	0.78	0.88	0.87
	100%	0.88	0.87	0.85	0.84	0.90	0.89

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

Losses (%)	P1 (0,9;1,0)	8.5	9.3	9.3	9.4	7.9	8.5	8.4
	P2 (0,5;1,0)	6.3	6.9	6.9	6.9	5.8	6.3	6.2
	P3 (0,25;1,0)	5.9	6.4	6.4	6.4	5.4	5.8	5.8
	P4 (0,9;0,5)	5.2	5.6	5.6	5.7	4.8	5.1	5.1
	P5 (0,5;0,5)	3.0	3.2	3.2	3.3	2.7	2.9	2.9
	P6 (0,5;0,25)	2.2	2.4	2.4	2.4	2.0	2.2	2.2
	P7 (0,25;0,25)	1.4	1.5	1.5	1.5	1.3	1.4	1.4

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6309 C3	6209 C3	Max. traction : 81 kgf
Sealing :	V'Ring	V'Ring	Max. compression : 199 kgf
Lubrication interval :	19000 h	20000 h	
Lubricant amount :	13 g	9 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 38.0A SF 1.15 SFA 43.7A

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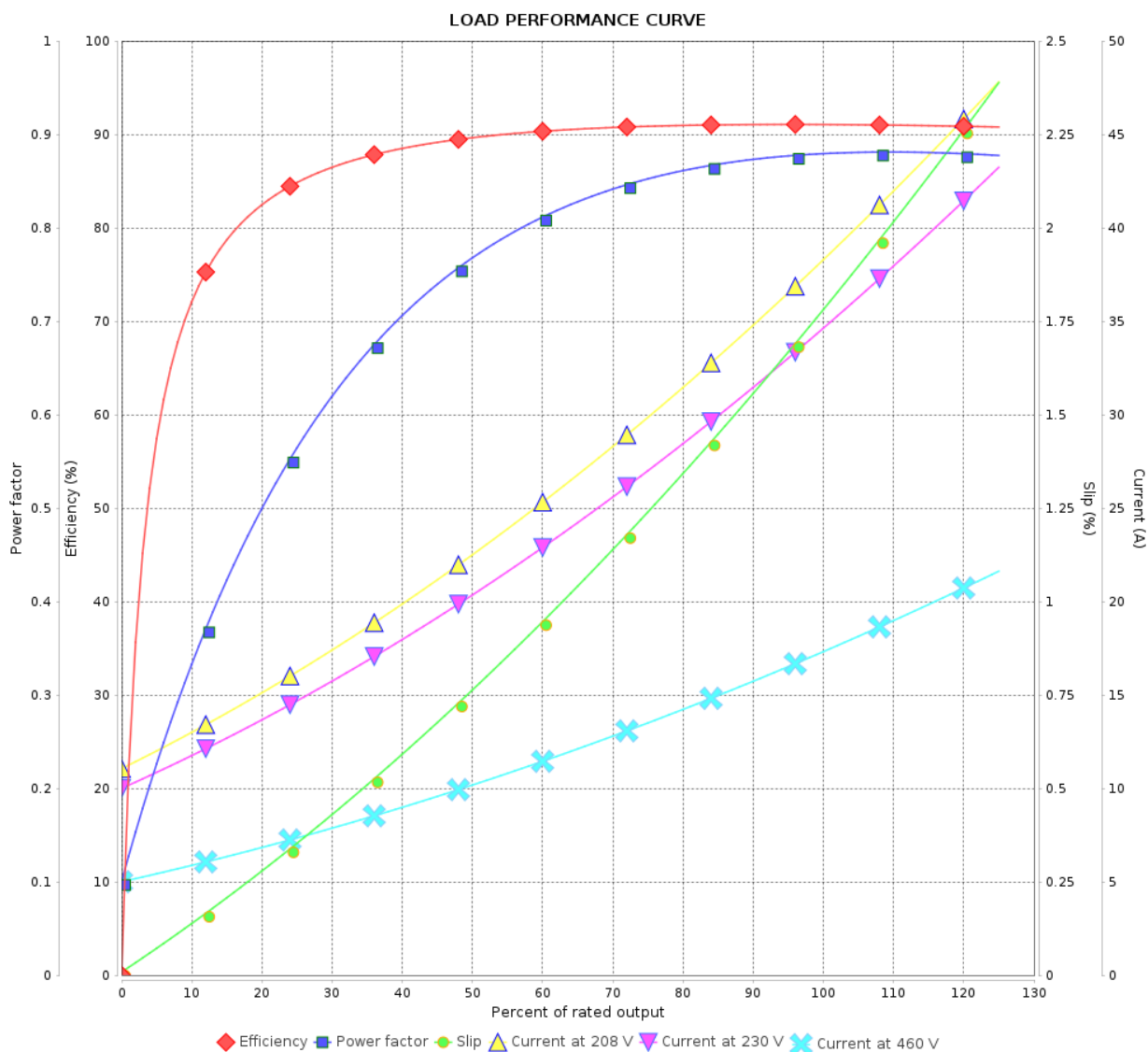
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12375663



Performance : 230/460 V 60 Hz 2P

Rated current : 34.5/17.2 A
LRC : 6.7
Rated torque : 3 kgfm
Locked rotor torque : 200 %
Breakdown torque : 260 %
Rated speed : 3535 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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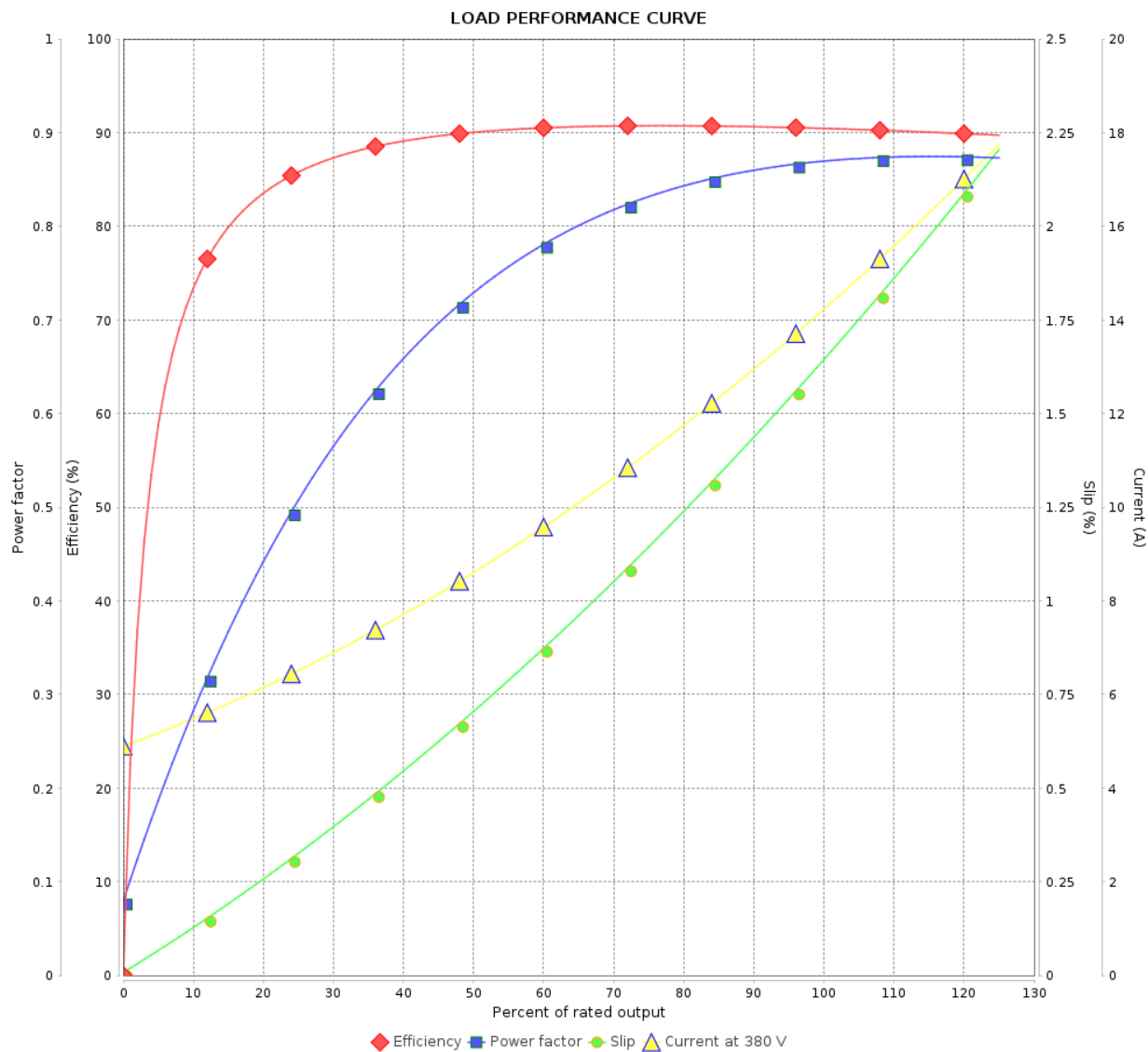
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12375663



Performance : 380 V 50 Hz 2P IE3

Rated current : 14.5 A
LRC : 7.5
Rated torque : 2 kgfm
Locked rotor torque : 200 %
Breakdown torque : 310 %
Rated speed : 2950 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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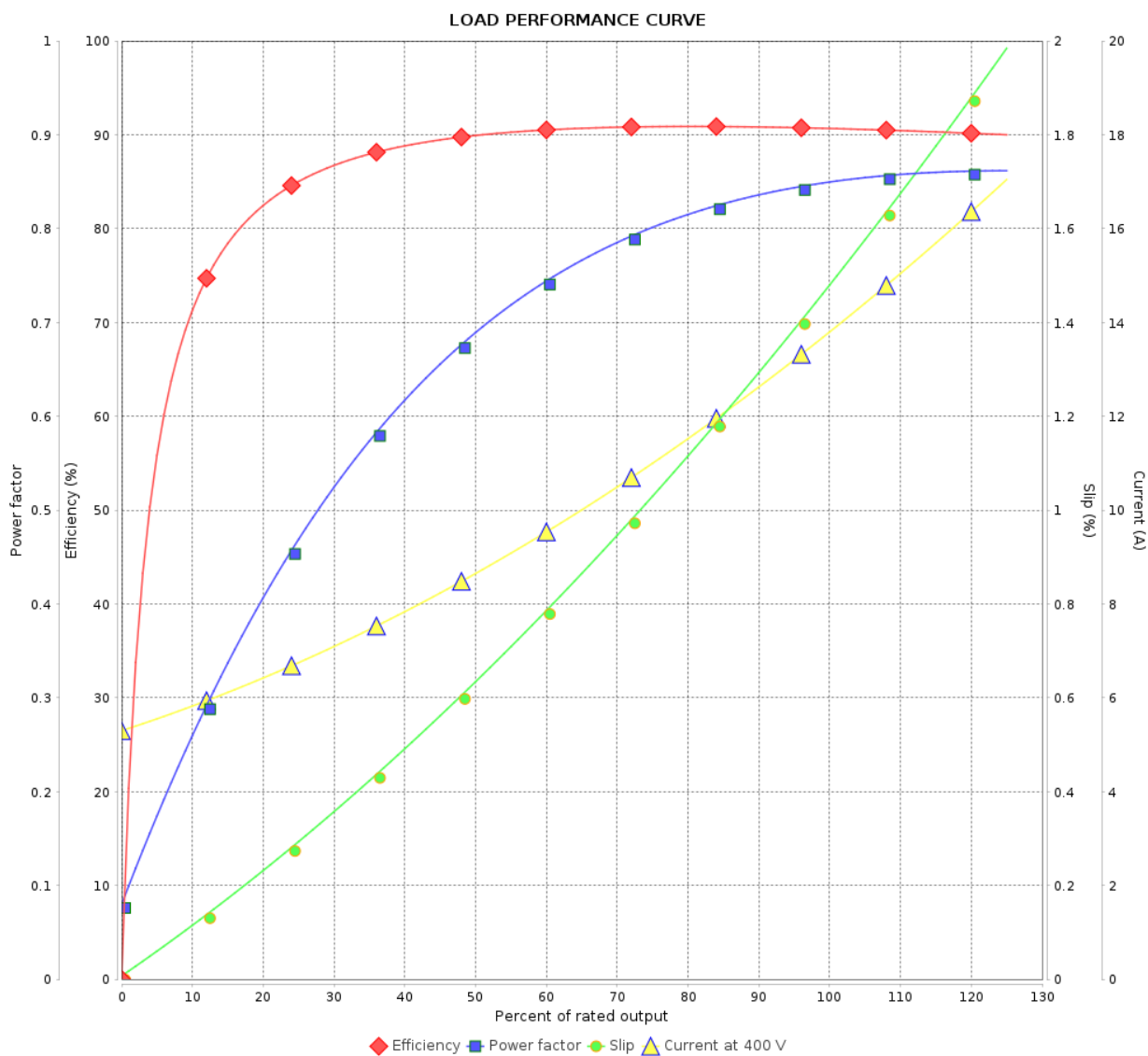
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12375663



Performance : 400 V 50 Hz 2P IE3

Rated current : 14.0 A
LRC : 8.3
Rated torque : 2 kgfm
Locked rotor torque : 229 %
Breakdown torque : 350 %
Rated speed : 2955 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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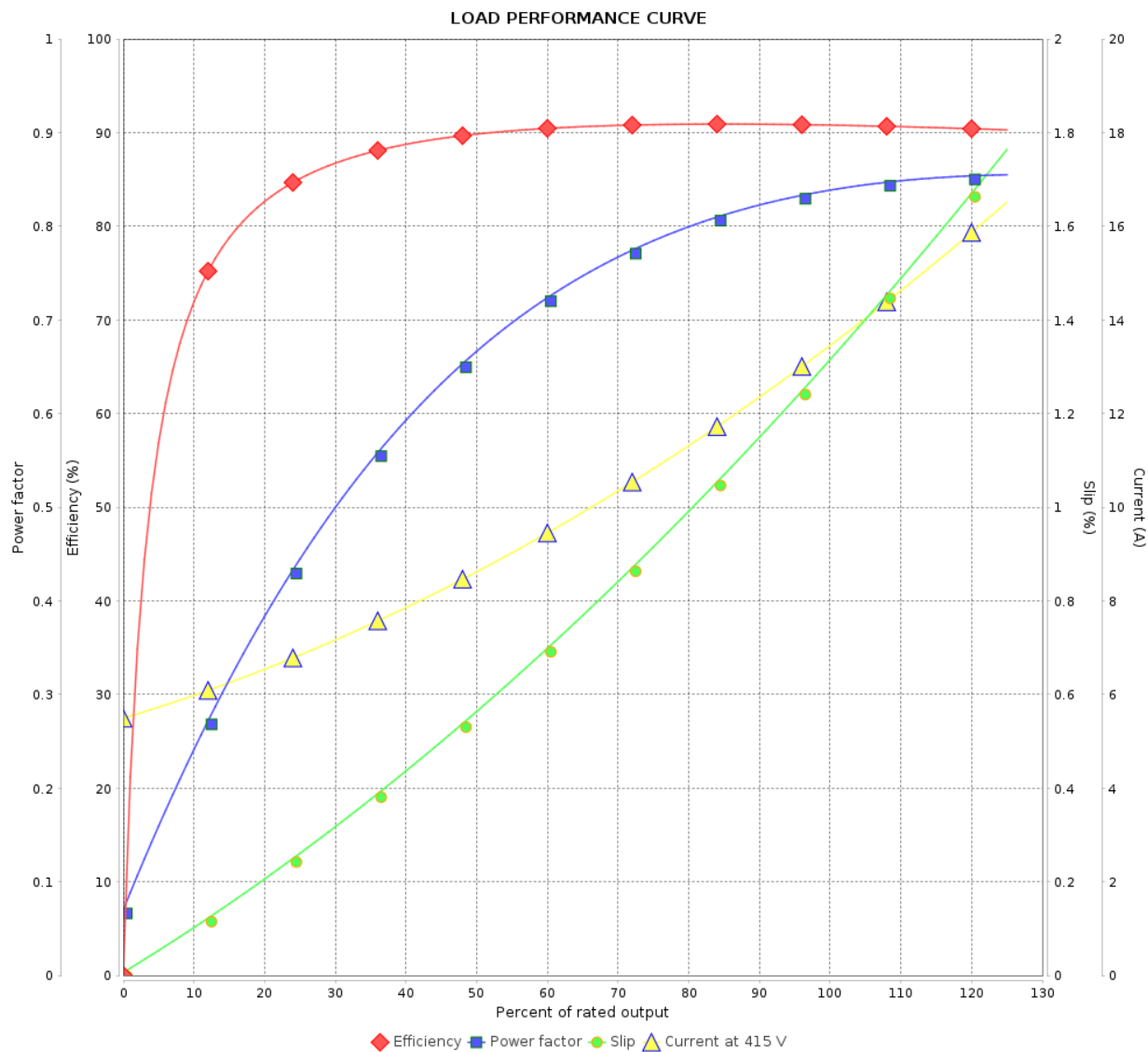
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12375663



Performance : 415 V 50 Hz 2P IE3

Rated current : 13.7 A
LRC : 8.5
Rated torque : 2 kgfm
Locked rotor torque : 250 %
Breakdown torque : 380 %
Rated speed : 2960 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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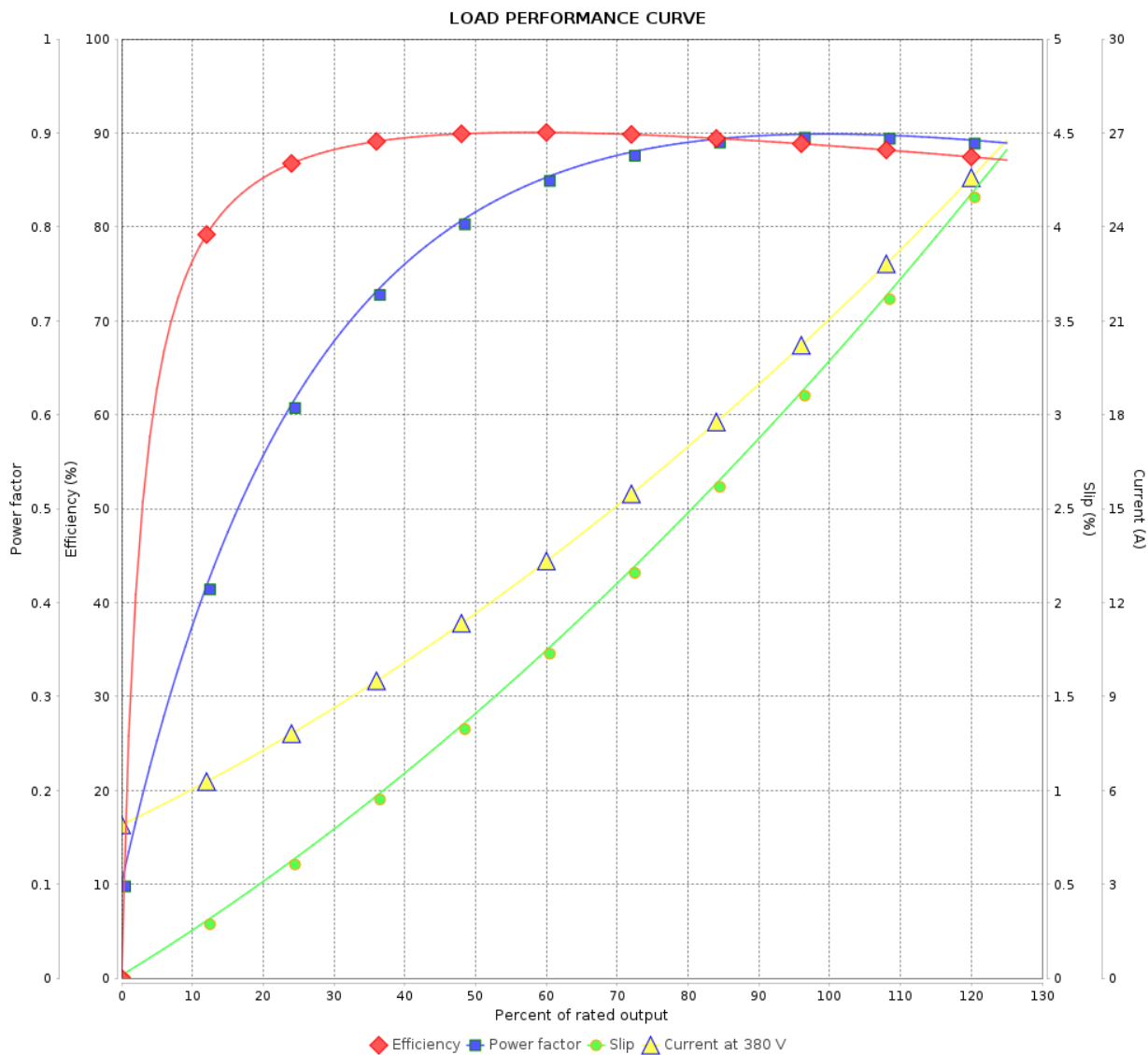
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12375663



Performance : 380 V 50 Hz 2P IE1

Rated current : 21.0 A
LRC : 5.1
Rated torque : 3 kgfm
Locked rotor torque : 160 %
Breakdown torque : 200 %
Rated speed : 2900 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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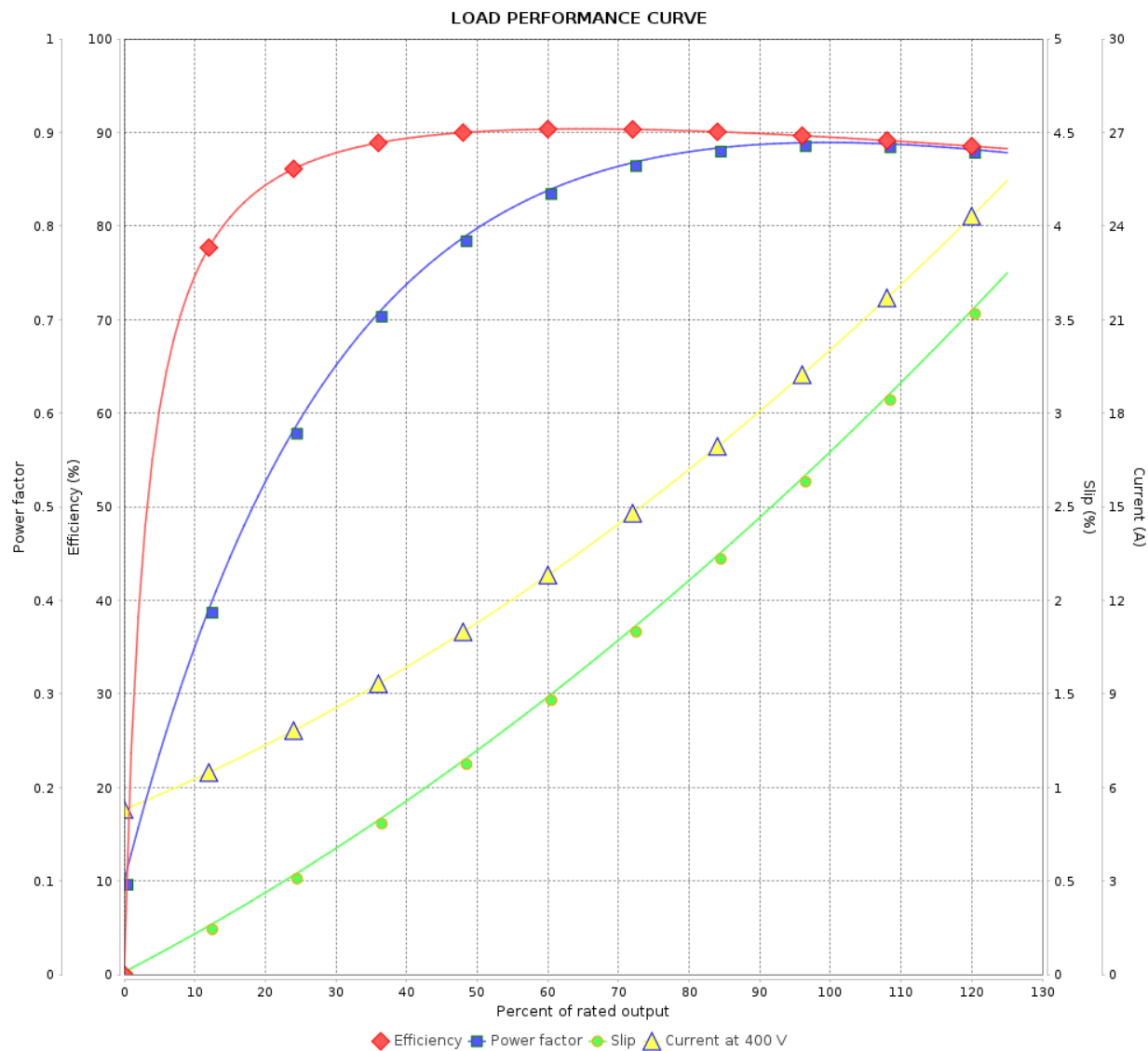
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12375663



Performance : 400 V 50 Hz 2P IE2

Rated current : 19.9 A
LRC : 5.6
Rated torque : 3 kgfm
Locked rotor torque : 180 %
Breakdown torque : 229 %
Rated speed : 2915 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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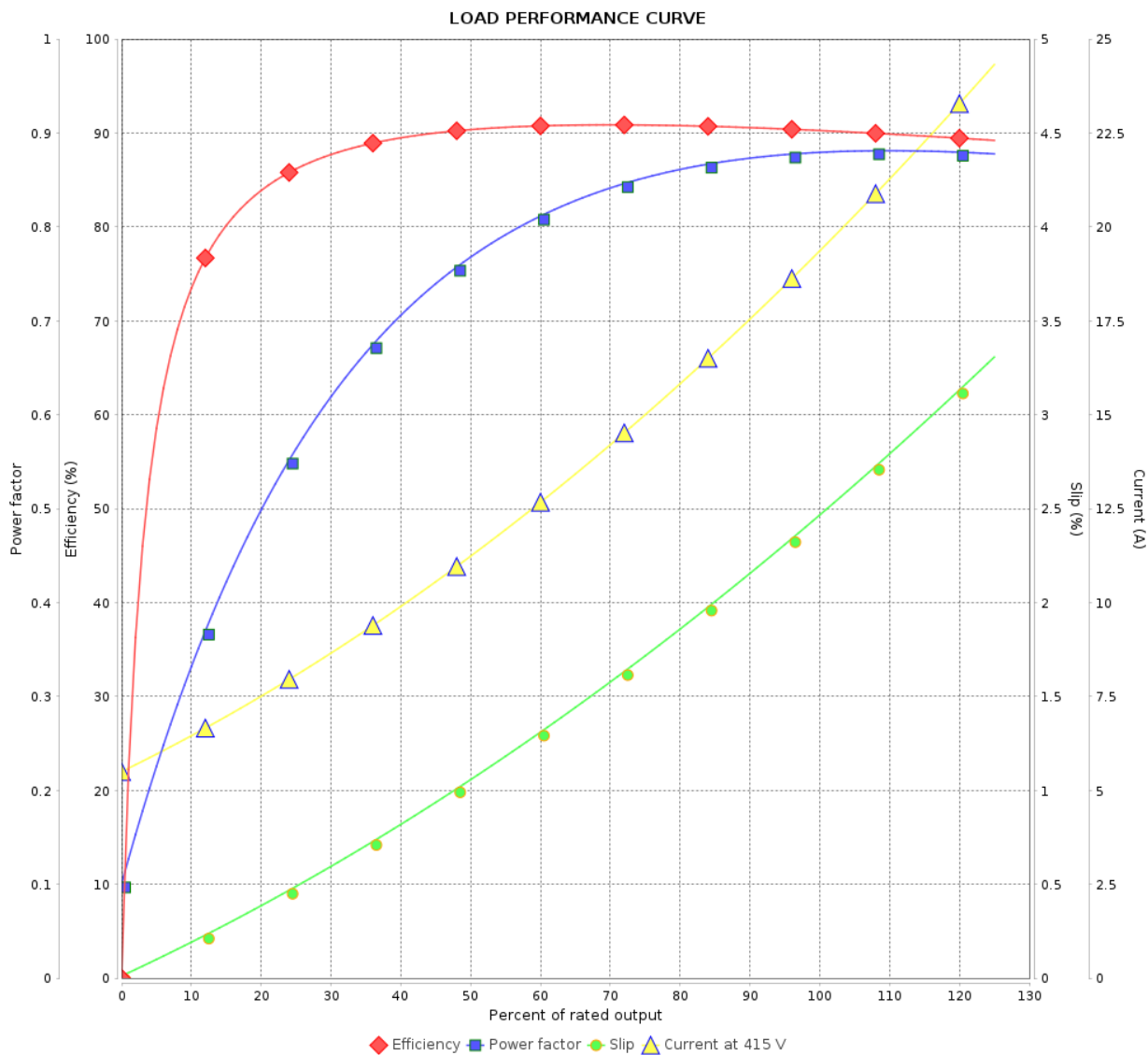
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12375663



Performance : 415 V 50 Hz 2P IE2

Rated current : 19.3 A
LRC : 6.1
Rated torque : 3 kgfm
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 2925 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 105 K
Design : B

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