

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11441988

Frame	: 213/5TC	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	: 80.0 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0636 kgm ²
Design	: B		

Output [HP]	10	7.5	7.5	7.5	10	10	10
Poles	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	25.3/12.7	11.5	11.4	11.3	15.2	14.4	14.1
L. R. Amperes [A]	162/81.1	86.2	91.5	96.1	90.9	93.6	98.8
LRC [A]	6.4x(Code H)	7.5x(Code J)	8.0x(Code K)	8.5x(Code L)	6.0x(Code G)	6.5x(Code H)	7.0x(Code H)
No load current [A]	11.6/5.80	5.60	6.00	6.35	5.60	6.00	6.35
Rated speed [RPM]	1765	1470	1475	1475	1450	1455	1460
Slip [%]	1.94	2.00	1.67	1.67	3.33	3.00	2.67
Rated torque [kgfm]	4.11	3.70	3.69	3.69	5.01	4.99	4.97
Locked rotor torque [%]	240	200	240	260	165	180	190
Breakdown torque [%]	295	300	340	360	220	250	270
Service factor	1.25	1.15	1.15	1.15	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	30s (cold) 17s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	0s (cold) 0s (hot)
Noise level ²	58.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%						
	50%	91.0	90.0	89.2	88.7	88.0	90.3
	75%	91.7	90.0	89.9	89.8	88.5	90.2
	100%	91.7	89.8	90.1	90.3	88.5	90.2
Power Factor	25%						
	50%	0.65	0.61	0.57	0.53	0.72	0.64
	75%	0.76	0.74	0.70	0.67	0.81	0.76
	100%	0.81	0.81	0.77	0.75	0.85	0.82

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

Losses (%)	P1 (0,9;1,0)	8.8	11.0	10.7	10.4	12.6	11.4	10.5
	P2 (0,5;1,0)	7.3	9.2	8.9	8.7	10.5	9.5	8.8
	P3 (0,25;1,0)	7.1	8.9	8.6	8.4	10.2	9.2	8.5
	P4 (0,9;0,5)	4.6	5.7	5.6	5.4	6.6	5.9	5.5
	P5 (0,5;0,5)	3.2	4.0	3.8	3.8	4.5	4.1	3.8
	P6 (0,5;0,25)	2.2	2.8	2.7	2.6	3.2	2.9	2.7
	P7 (0,25;0,25)	1.5	1.9	1.9	1.8	2.2	2.0	1.9

Bearing type	Drive end	Non drive end	Foundation loads
	: 6308 ZZ	: 6207 ZZ	
	Sealing	V'Ring	
	: V'Ring	: V'Ring	
	Lubrication interval	-	
Lubricant amount	: -	: -	Max. traction : 208 kgf
	: -	: -	Max. compression : 288 kgf
	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 27.4A SF 1.15 SFA 31.5A

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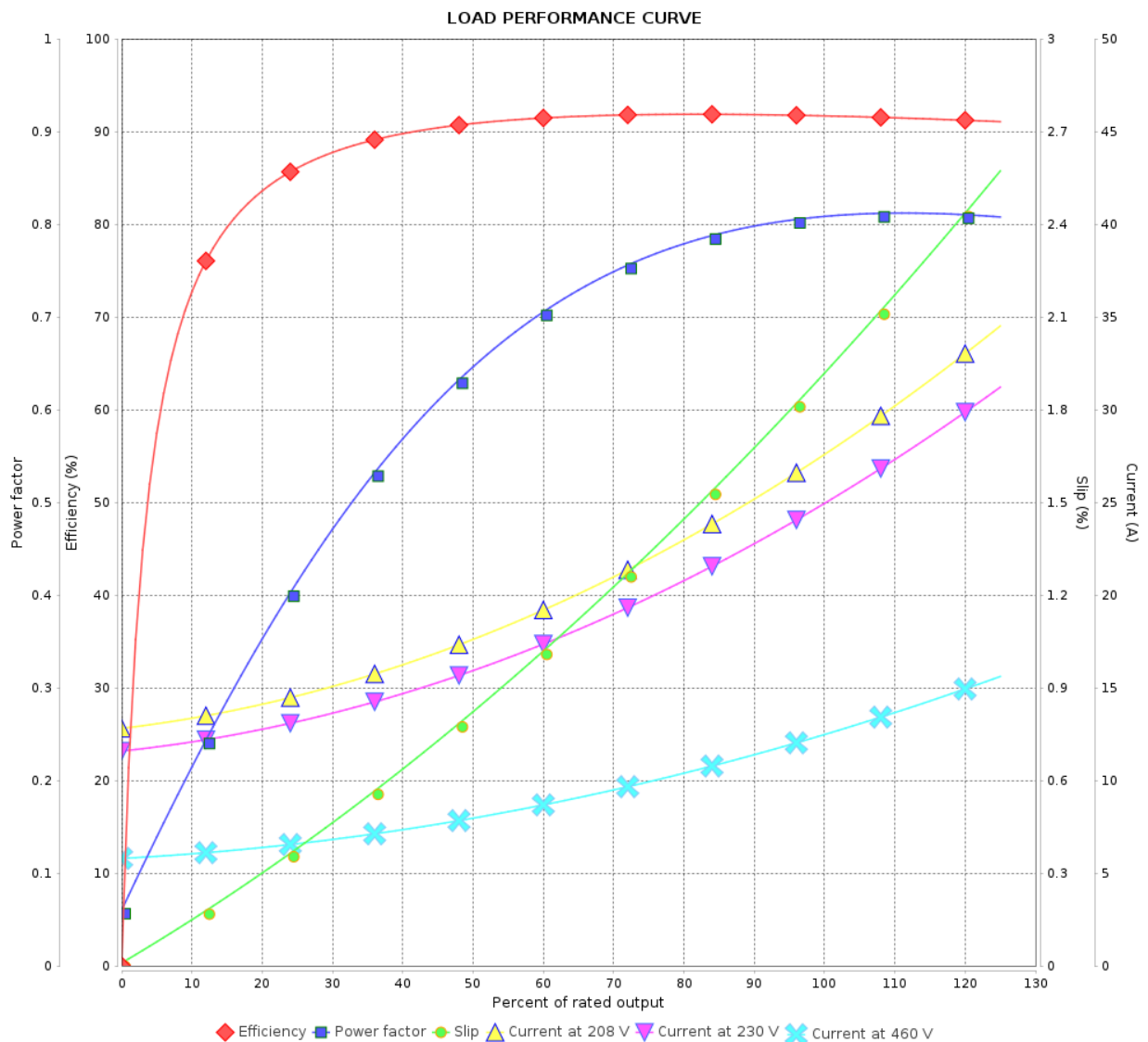
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11441988



Performance : 230/460 V 60 Hz 4P

Rated current : 25.3/12.7 A
LRC : 6.4
Rated torque : 4.11 kgfm
Locked rotor torque : 240 %
Breakdown torque : 295 %
Rated speed : 1765 rpm

Moment of inertia (J) : 0.0636 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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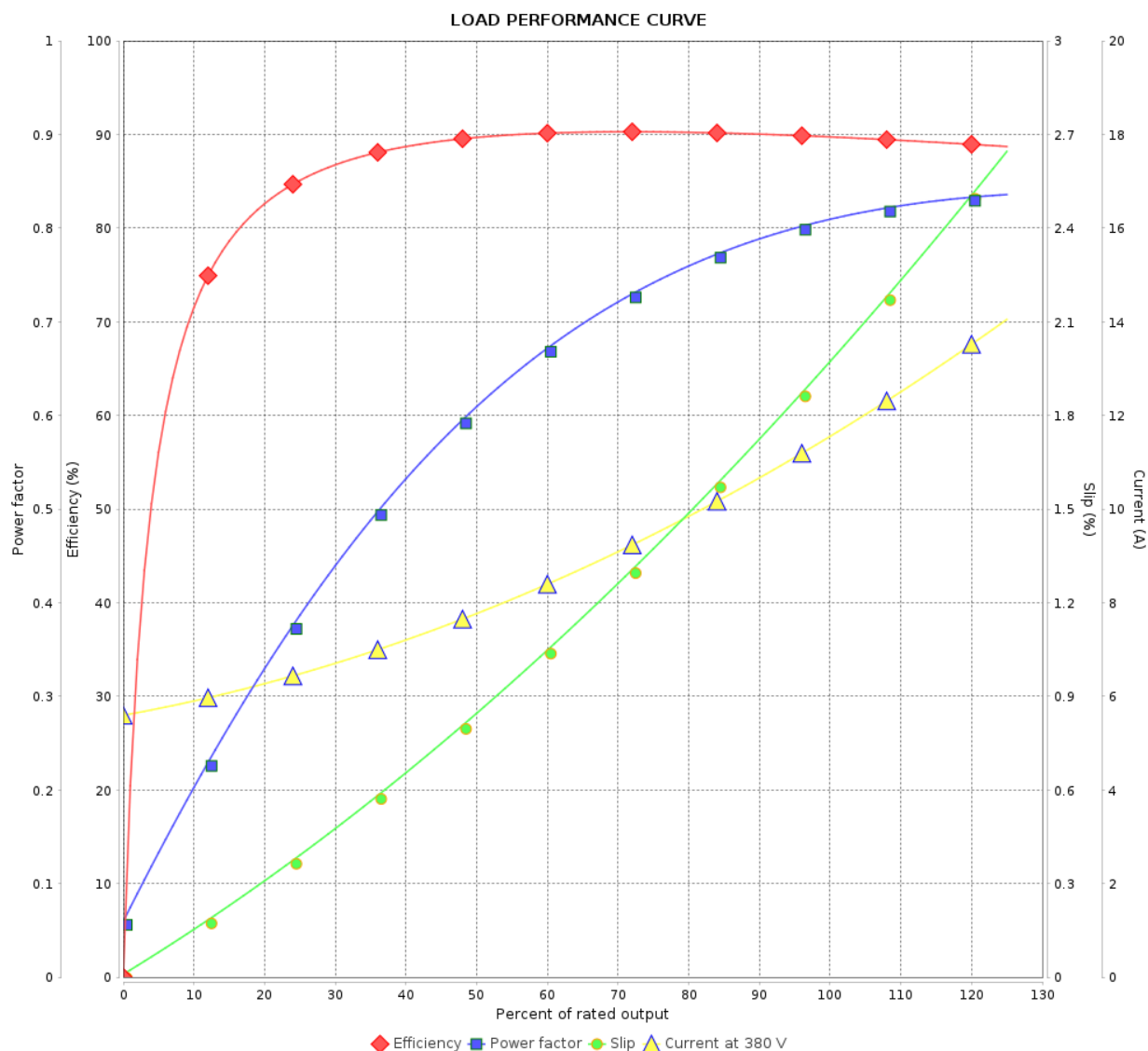
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11441988



Performance : 380 V 50 Hz 4P IE3

Rated current : 11.5 A
LRC : 7.5
Rated torque : 3.70 kgfm
Locked rotor torque : 200 %
Breakdown torque : 300 %
Rated speed : 1470 rpm

Moment of inertia (J) : 0.0636 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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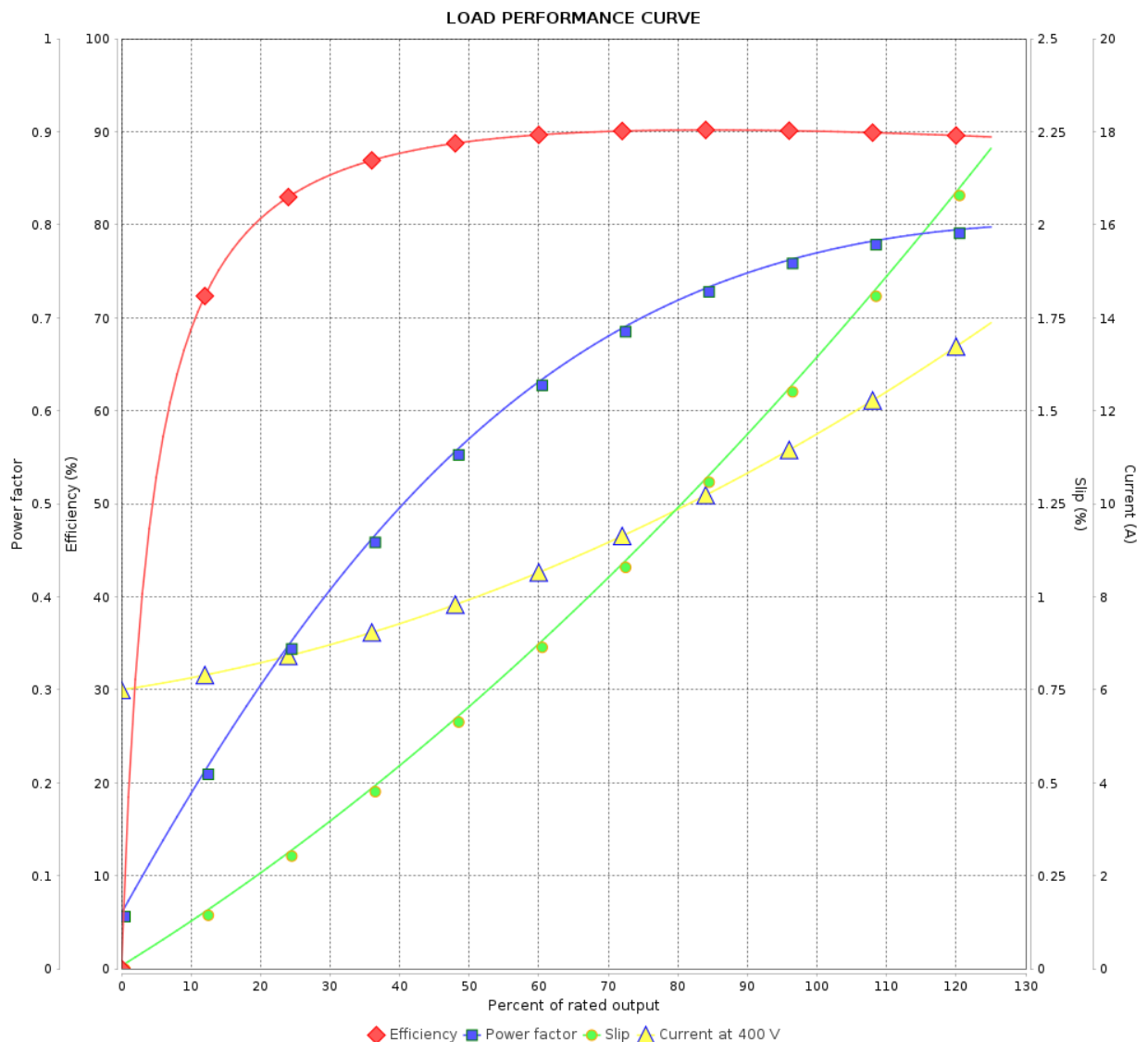
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11441988



Performance : 400 V 50 Hz 4P IE3

Rated current : 11.4 A
LRC : 8.0
Rated torque : 3.69 kgfm
Locked rotor torque : 240 %
Breakdown torque : 340 %
Rated speed : 1475 rpm

Moment of inertia (J) : 0.0636 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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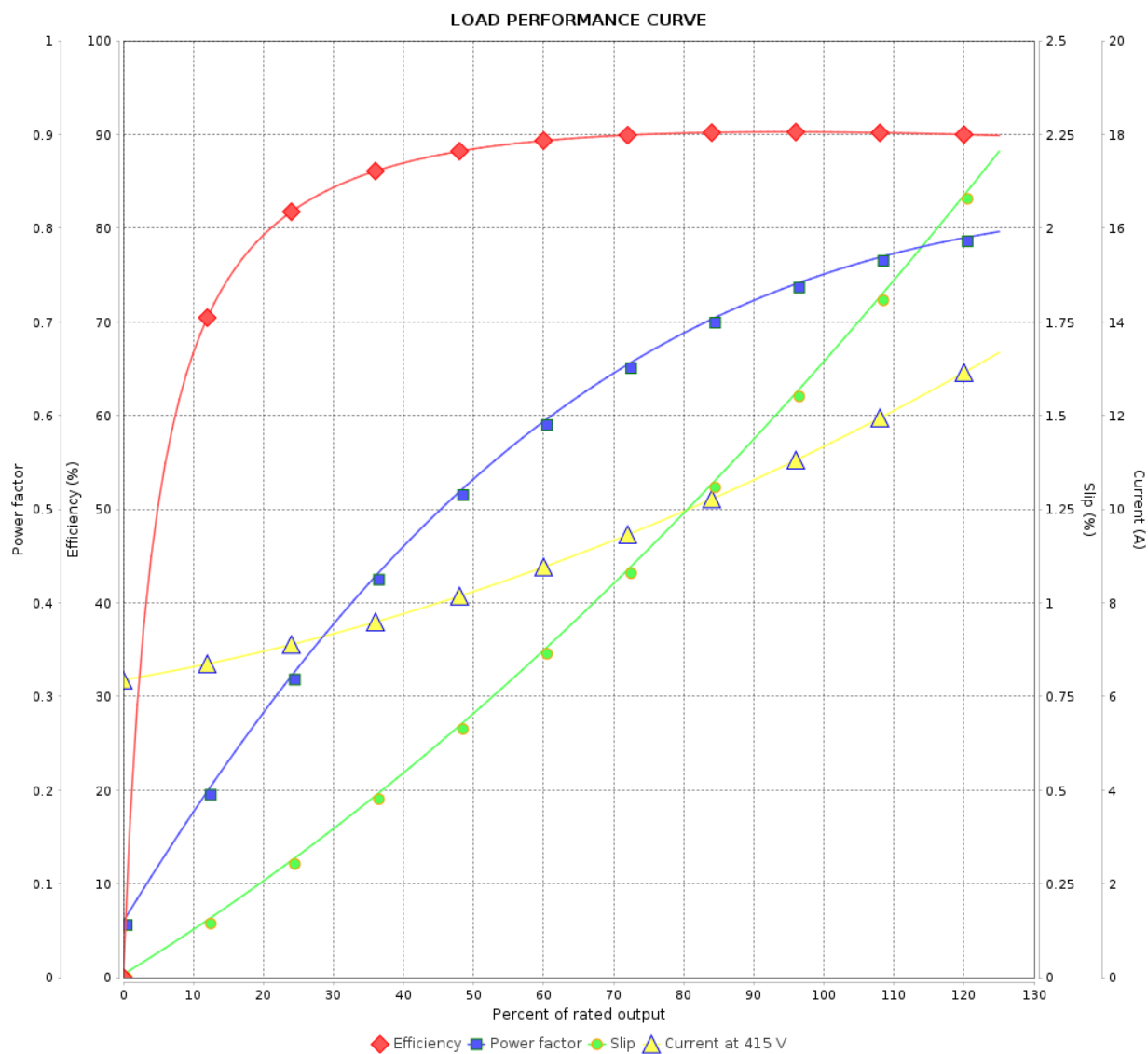
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11441988



Performance : 415 V 50 Hz 4P IE3

Rated current : 11.3 A
LRC : 8.5
Rated torque : 3.69 kgfm
Locked rotor torque : 260 %
Breakdown torque : 360 %
Rated speed : 1475 rpm

Moment of inertia (J) : 0.0636 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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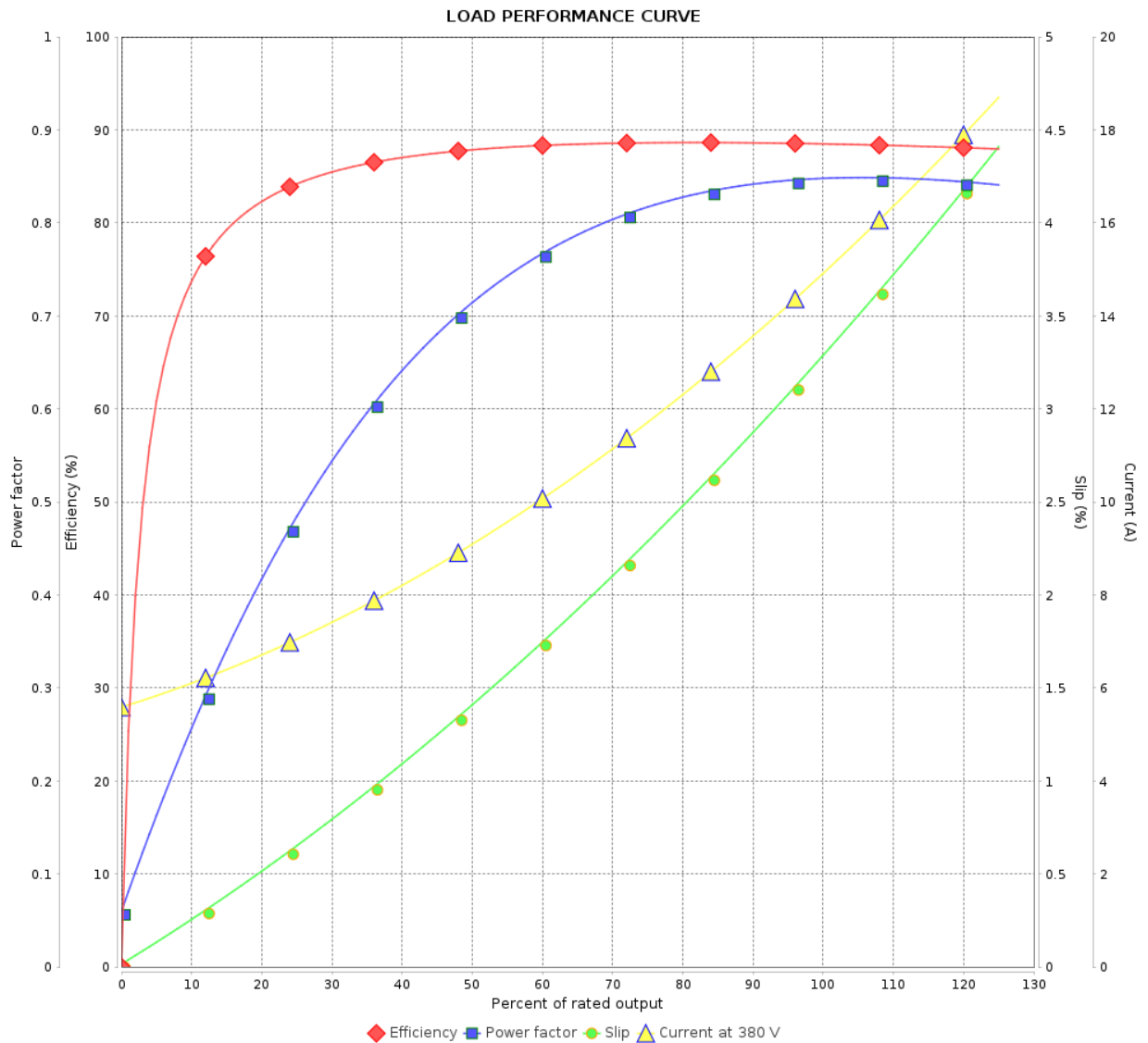
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11441988



Performance : 380 V 50 Hz 4P IE1

Rated current	: 15.2 A	Moment of inertia (J)	: 0.0636 kgm ²
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 5.01 kgfm	Insulation class	: F
Locked rotor torque	: 165 %	Service factor	: 1.15
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: B

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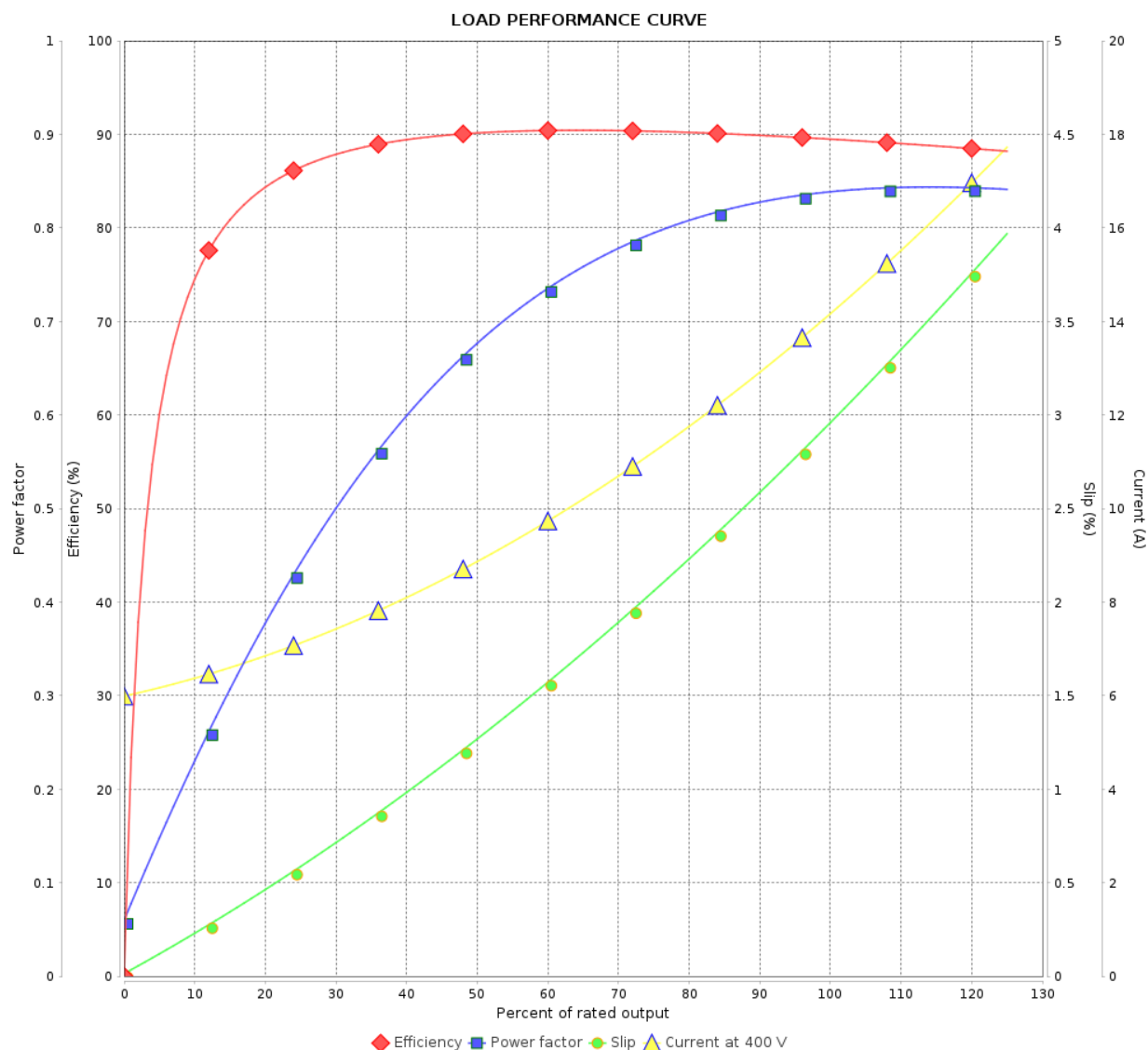
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11441988



Performance : 400 V 50 Hz 4P IE2

Rated current : 14.4 A
LRC : 6.5
Rated torque : 4.99 kgfm
Locked rotor torque : 180 %
Breakdown torque : 250 %
Rated speed : 1455 rpm

Moment of inertia (J) : 0.0636 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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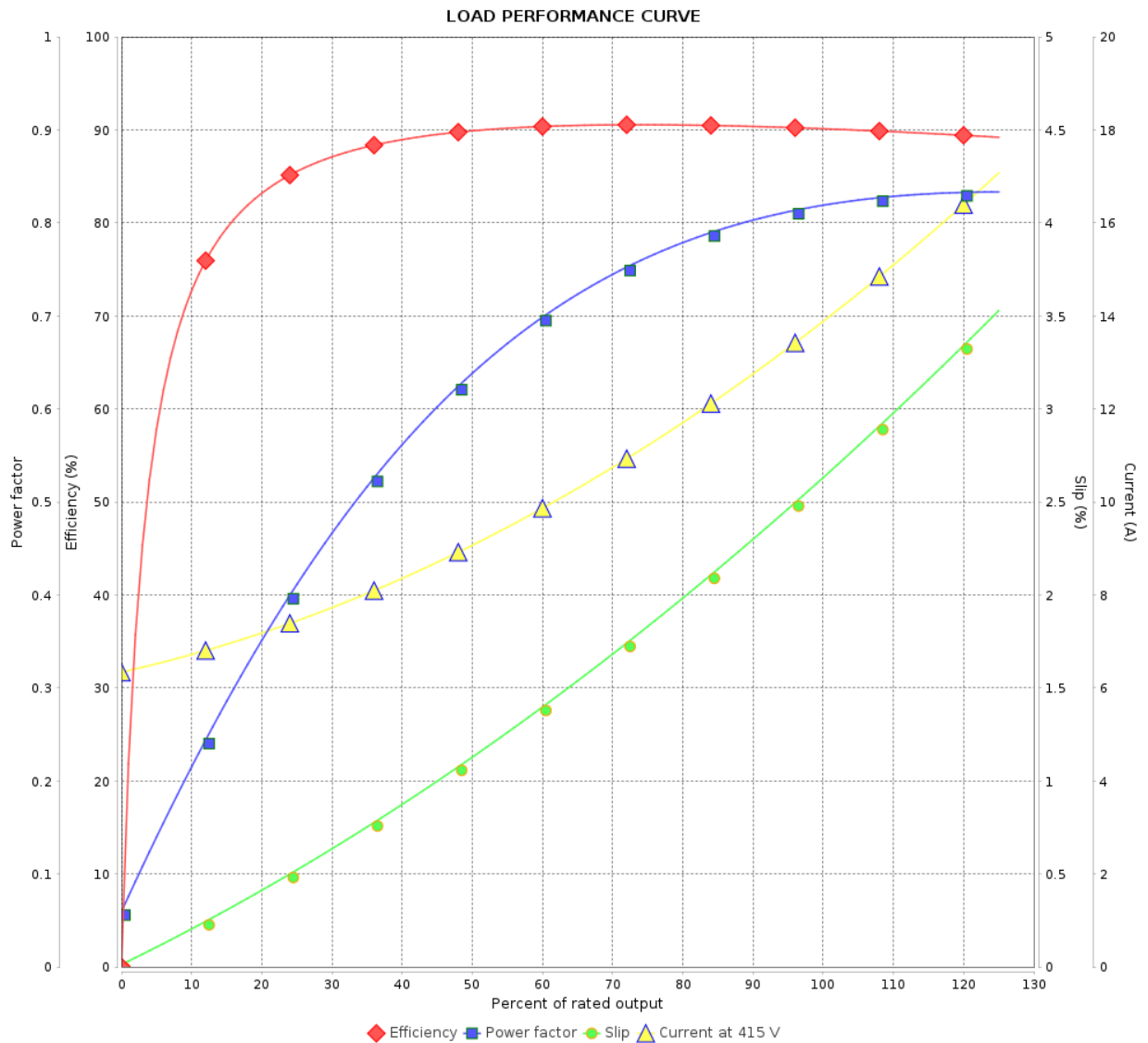
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 11441988



Performance : 415 V 50 Hz 4P IE2

Rated current : 14.1 A
LRC : 7.0
Rated torque : 4.97 kgfm
Locked rotor torque : 190 %
Breakdown torque : 270 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.0636 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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