

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12264594

Frame : 182/4TD	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 : 47.5 kg
Protection degree : IP55	Moment of inertia (J) : 0.0169 kgm ²
Design : B	

Output [HP]	5	4	4	4	5	5	5
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]	13.0/6.49	6.42	6.21	6.23	7.74	7.44	7.35
L. R. Amperes [A]	97.4/48.7	44.9	47.8	51.1	44.9	47.6	50.7
LRC [A]	7.5x(Code J)	7.0x(Code J)	7.7x(Code K)	8.2x(Code L)	5.8x(Code G)	6.4x(Code H)	6.9x(Code J)
No load current [A]	5.80/2.90	2.80	3.10	3.30	2.80	3.10	3.30
Rated speed [RPM]	1750	1455	1455	1460	1430	1440	1445
Slip [%]	2.78	3.00	3.00	2.67	4.67	4.00	3.67
Rated torque [kgfm]	2.07	2.00	2.00	1.99	2.54	2.52	2.51
Locked rotor torque [%]	229	229	260	290	185	210	229
Breakdown torque [%]	290	300	320	350	225	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	27s (cold) 15s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level ²	56.0 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%	0.000			0.000		
	50%	88.5	87.5	86.7	86.5	88.5	87.5
	75%	89.5	88.2	88.2	88.2	87.5	88.5
	100%	89.5	87.7	88.2	88.2	86.5	87.5
Power Factor	25%	0.00			0.00		
	50%	0.62	0.61	0.57	0.53	0.69	0.65
	75%	0.74	0.75	0.71	0.67	0.80	0.77
	100%	0.80	0.81	0.79	0.76	0.84	0.82

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

Losses (%)	P1 (0,9;1,0)	11.2	13.4	12.8	12.8	14.9	13.6	13.6
	P2 (0,5;1,0)	9.4	11.2	10.7	10.7	12.5	11.4	11.4
	P3 (0,25;1,0)	8.7	10.3	9.9	9.9	11.5	10.5	10.5
	P4 (0,9;0,5)	5.3	6.4	6.1	6.1	7.1	6.5	6.5
	P5 (0,5;0,5)	3.7	4.4	4.2	4.2	4.9	4.4	4.4
	P6 (0,5;0,25)	2.4	2.9	2.7	2.7	3.2	2.9	2.9
	P7 (0,25;0,25)	1.7	2.1	2.0	2.0	2.3	2.1	2.1

Bearing type	: Drive end 6207 ZZ Non drive end 6206 ZZ	Foundation loads	
Sealing	: V'Ring V'Ring	Max. traction	: 118 kgf
Lubrication interval	: - -	Max. compression	: 166 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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Notes
USABLE @208V 14.3A SF 1.15 SFA 16.4A

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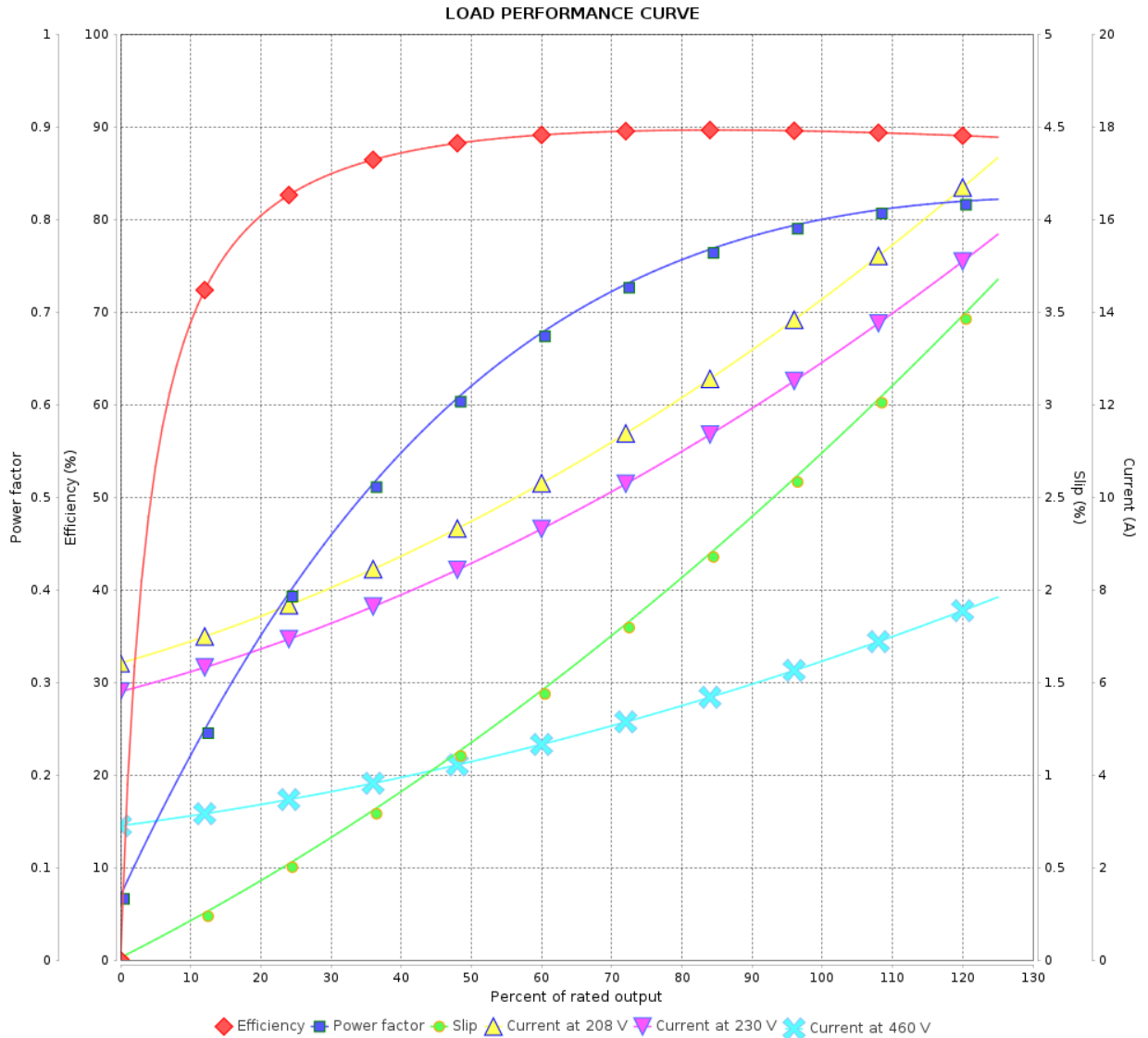
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12264594



Performance : 230/460 V 60 Hz 4P

Rated current : 13.0/6.49 A
 LRC : 7.5
 Rated torque : 2.07 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 290 %
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.0169 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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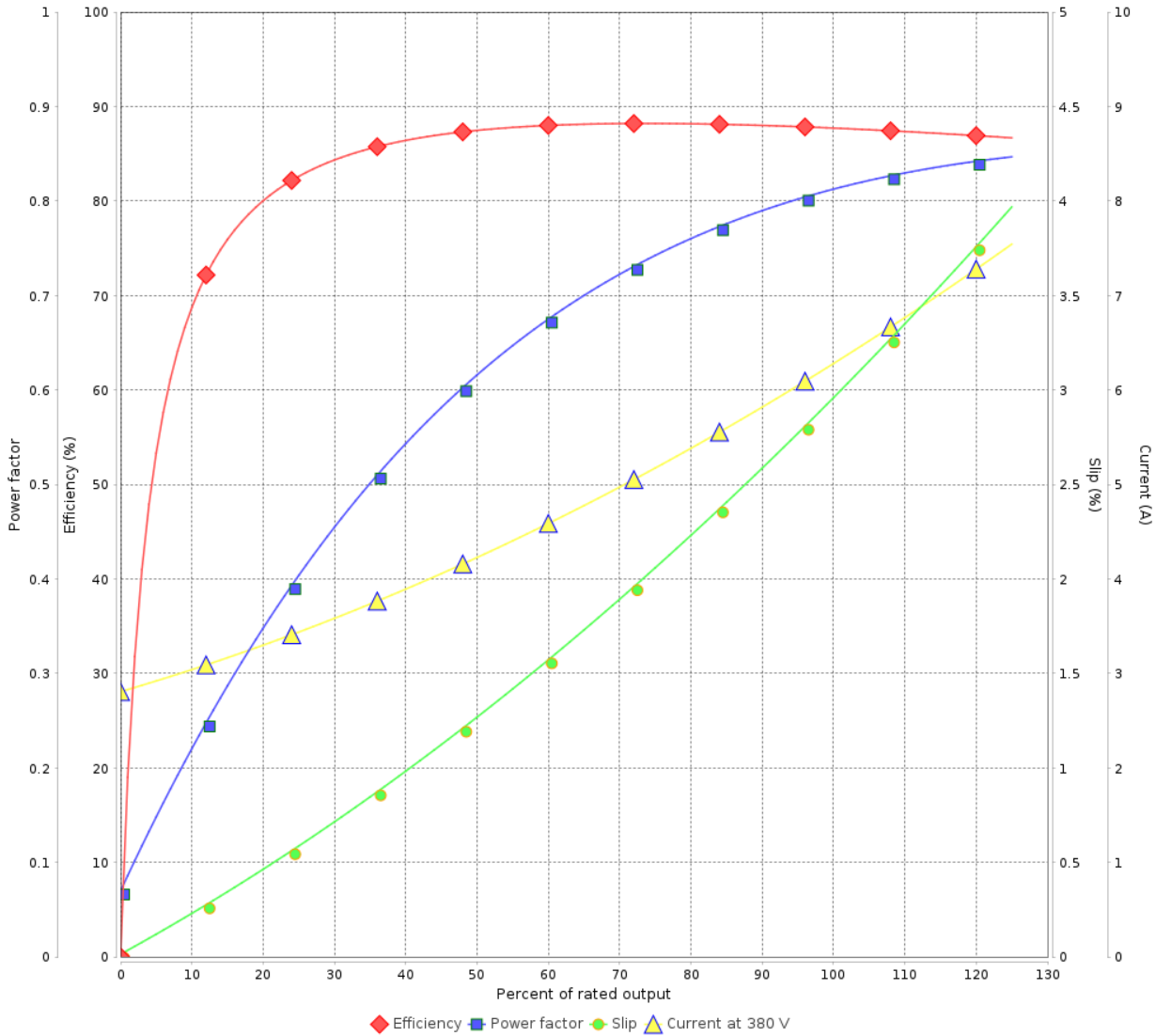
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12264594

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Performance : 380 V 50 Hz 4P IE3

Rated current	: 6.42 A	Moment of inertia (J)	: 0.0169 kgm ²
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 2.00 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

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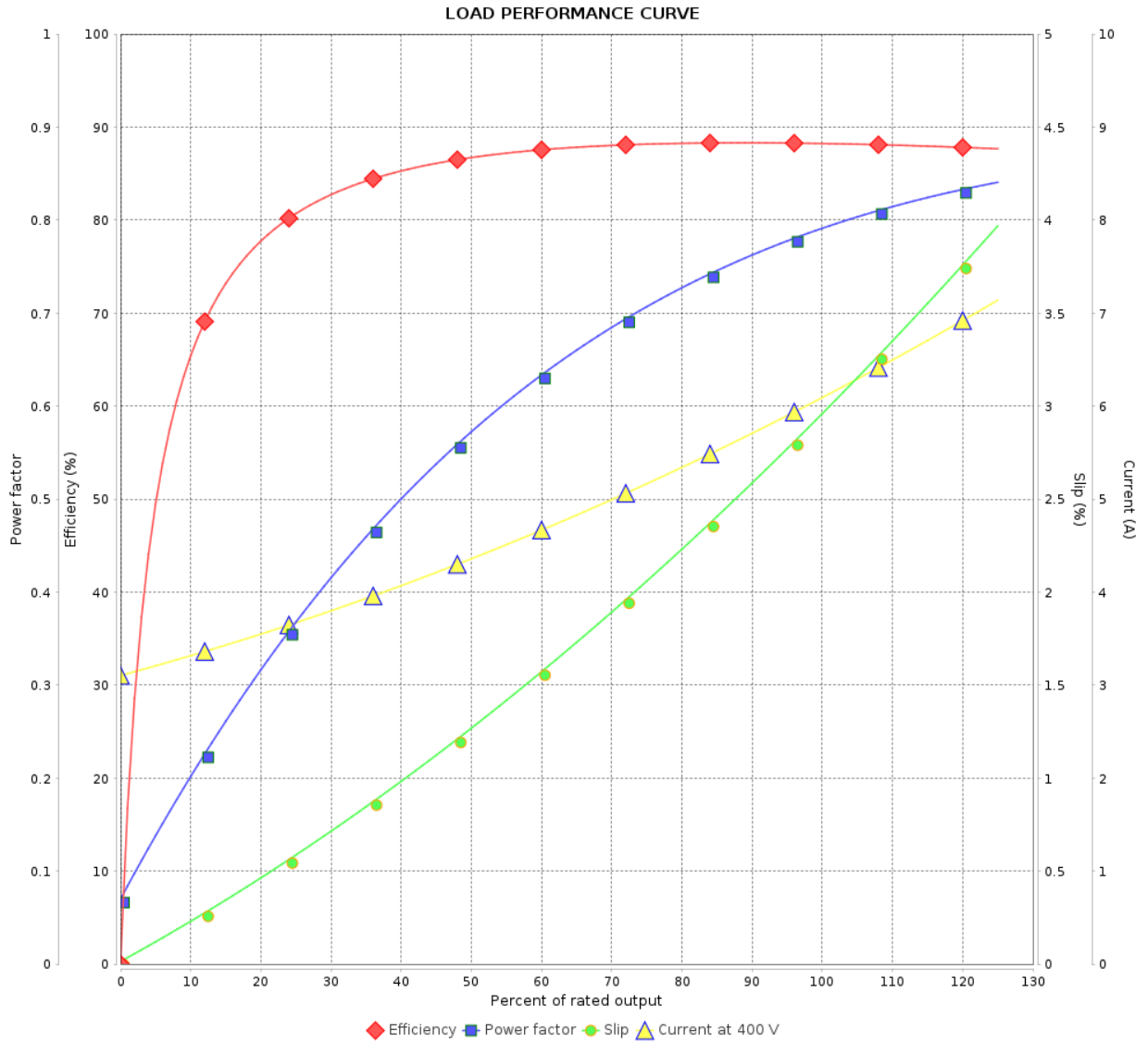
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12264594



Performance : 400 V 50 Hz 4P IE3

Rated current : 6.21 A
 LRC : 7.7
 Rated torque : 2.00 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 320 %
 Rated speed : 1455 rpm

Moment of inertia (J) : 0.0169 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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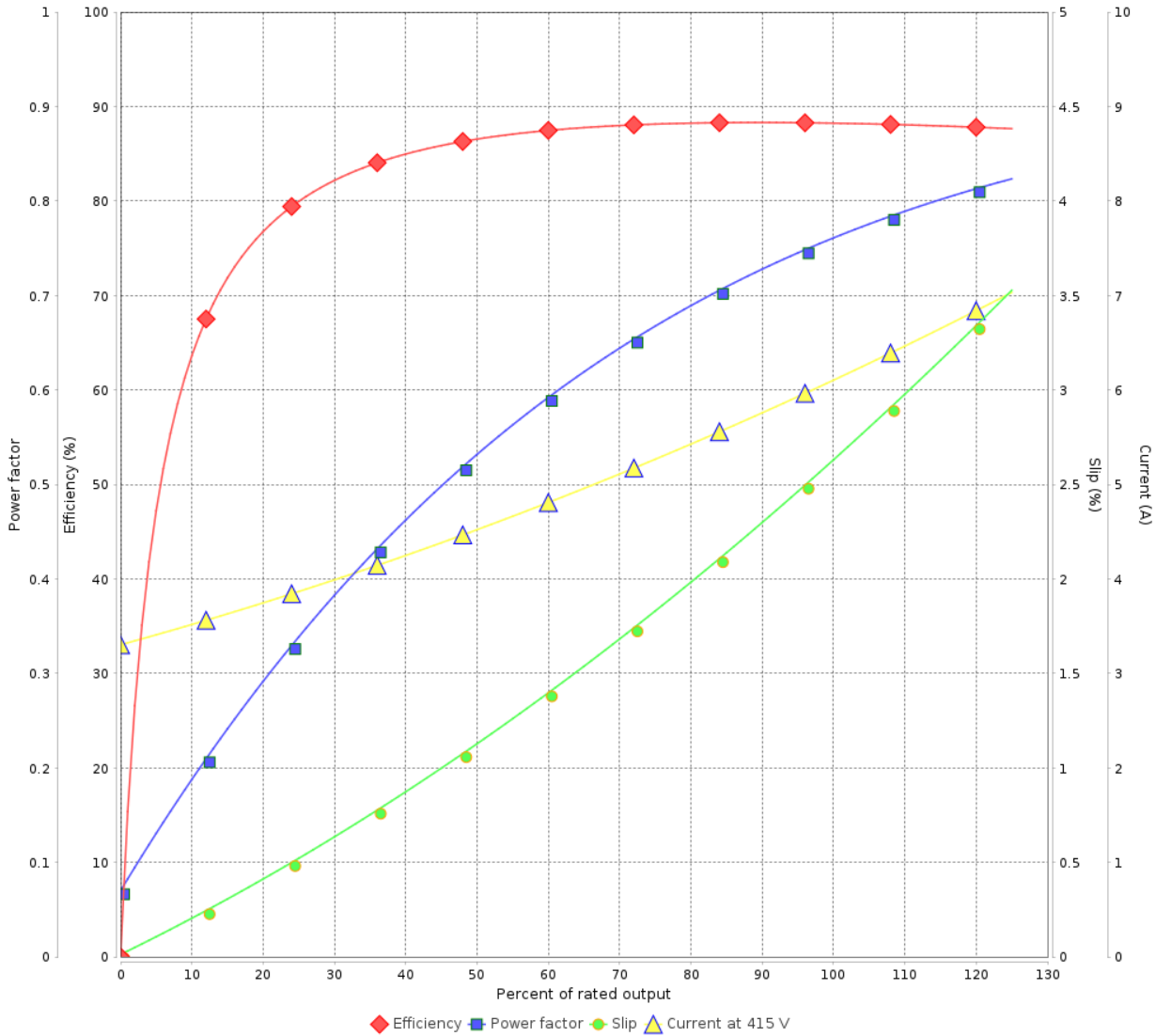
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12264594

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Performance : 415 V 50 Hz 4P IE3

Rated current	: 6.23 A	Moment of inertia (J)	: 0.0169 kgm ²
LRC	: 8.2	Duty cycle	: Cont.(S1)
Rated torque	: 1.99 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.15
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

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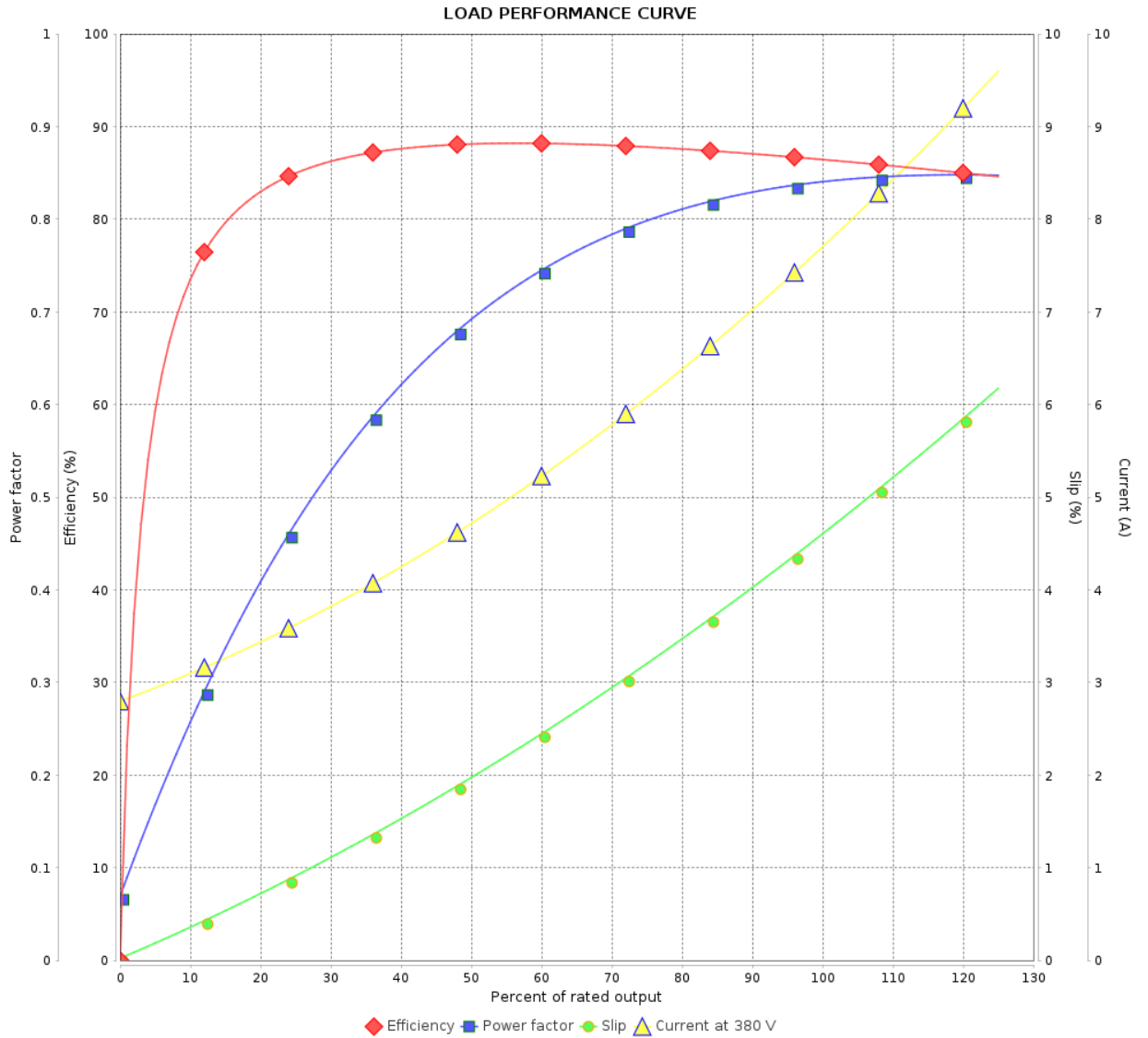
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12264594



Performance : 380 V 50 Hz 4P IE2

Rated current : 7.74 A
 LRC : 5.8
 Rated torque : 2.54 kgfm
 Locked rotor torque : 185 %
 Breakdown torque : 225 %
 Rated speed : 1430 rpm

Moment of inertia (J) : 0.0169 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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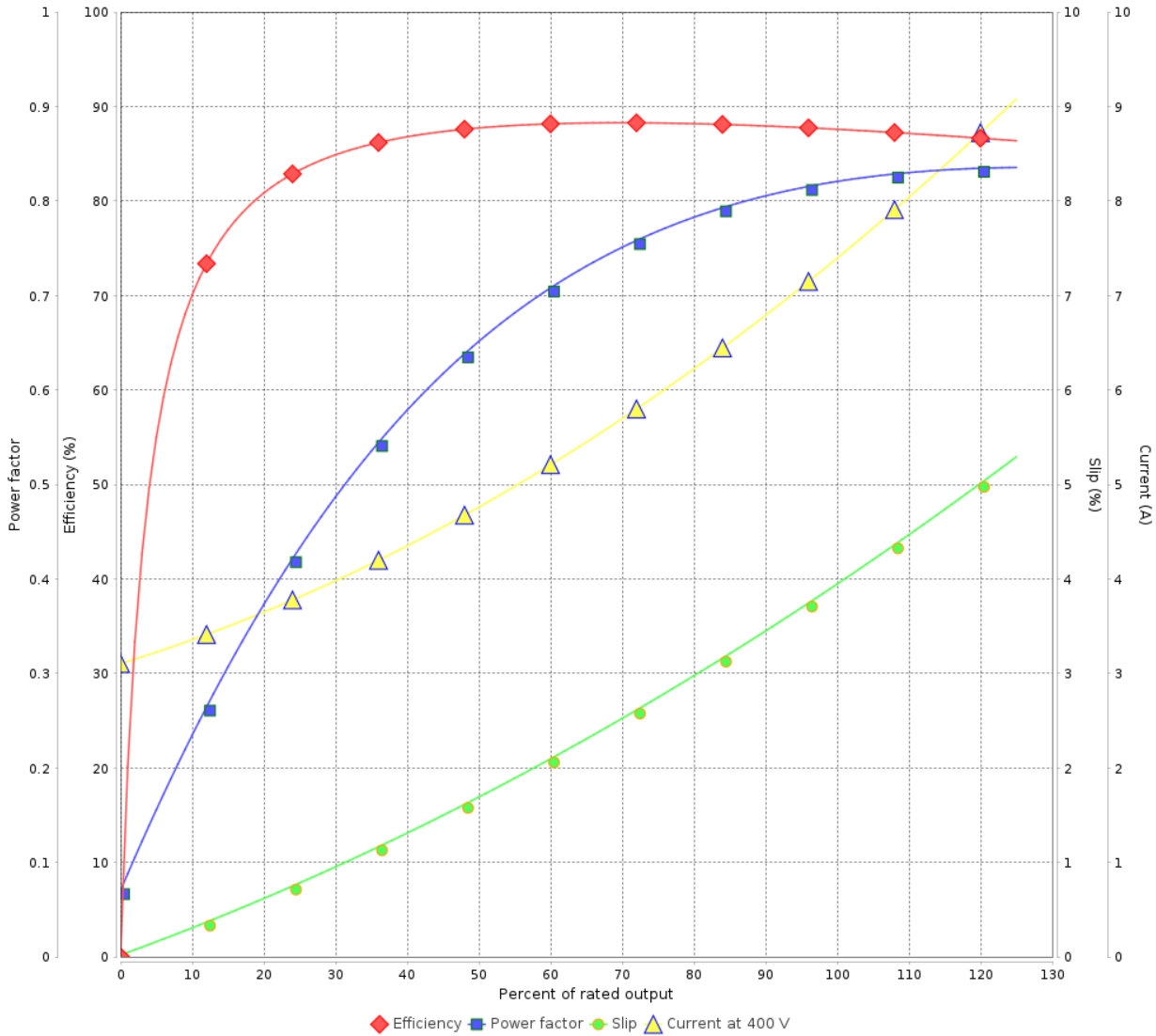
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Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12264594

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Performance : 400 V 50 Hz 4P IE2

Rated current	: 7.44 A	Moment of inertia (J)	: 0.0169 kgm ²
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 2.52 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1440 rpm	Design	: B

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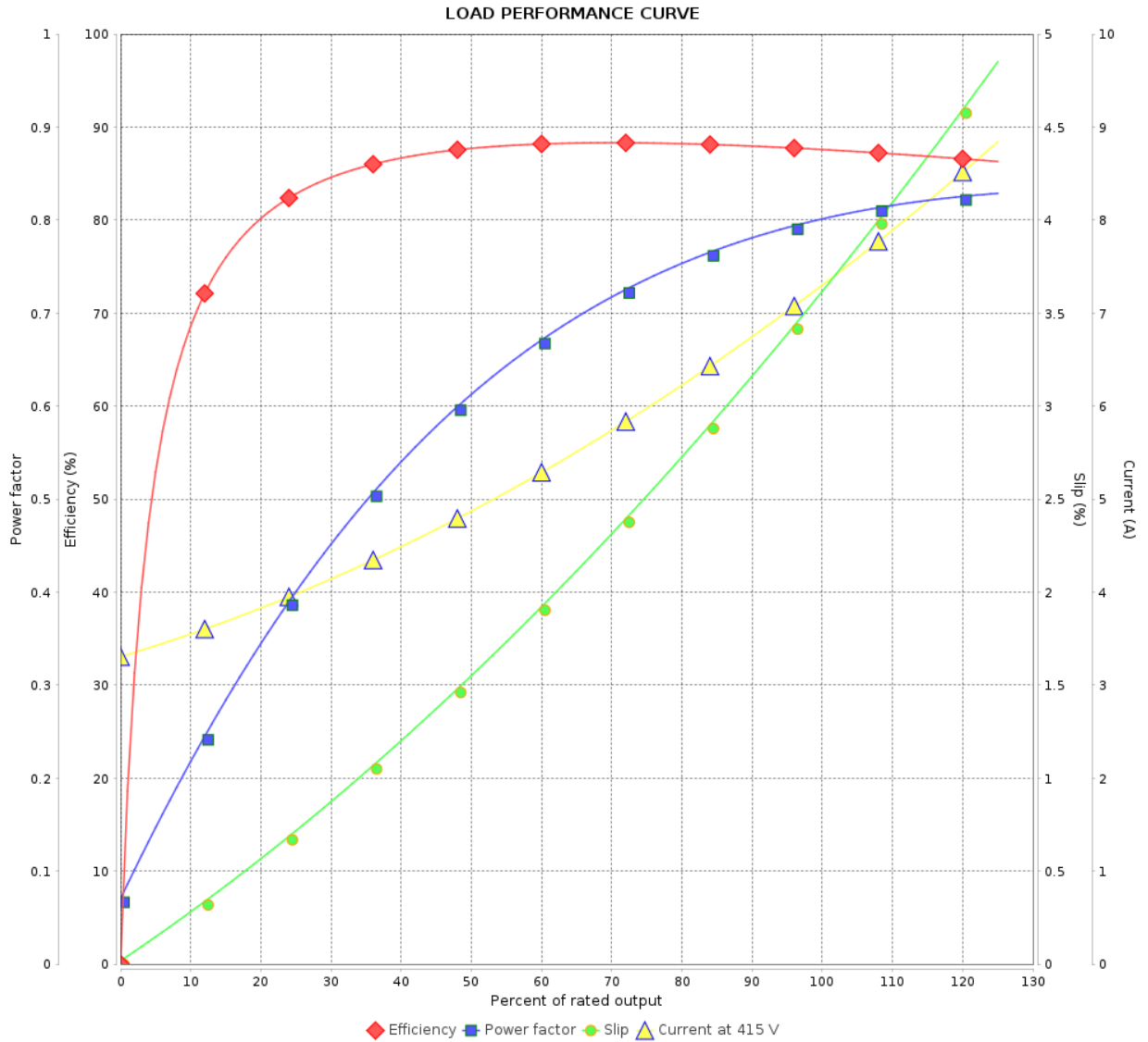
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12264594



Performance : 415 V 50 Hz 4P IE2

Rated current : 7.35 A
 LRC : 6.9
 Rated torque : 2.51 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 270 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.0169 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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