

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12447815

Frame	: 324/6TS	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	: 246 kg
Protection degree	: IP56	Moment of inertia (J)	: 0.2063 kgm ²
Design	: B		

Output [HP]	40	30	30	30	40	40	40	
Poles	2	2	2	2	2	2	2	
Frequency [Hz]	60	50	50	50	50	50	50	
Rated voltage [V]	460	380	400	415	380	400	415	
Rated current [A]	46.3	41.0	39.4	38.4	56.9	53.7	51.7	
L. R. Amperes [A]	292	295	296	292	285	301	321	
LRC [A]	6.3x(Code G)	7.2x(Code H)	7.5x(Code H)	7.6x(Code H)	5.0x(Code E)	5.6x(Code F)	6.2x(Code G)	
No load current [A]	11.0	12.0	11.0	12.0	10.0	11.0	12.0	
Rated speed [RPM]	3555	2960	2965	2970	2930	2940	2950	
Slip [%]	1.25	1.33	1.17	1.00	2.33	2.00	1.67	
Rated torque [kgfm]	8.17	7.36	7.34	7.33	9.91	9.87	9.84	
Locked rotor torque [%]	250	240	270	290	180	200	220	
Breakdown torque [%]	240	250	280	310	200	210	229	
Service factor	1.25	1.00	1.00	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	105 K	105 K	105 K	
Locked rotor time	39s (cold) 22s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	
Noise level ²	76.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)	72.0 dB(A)	
Efficiency (%)	25%	91.5	89.9	89.2	90.0	92.2	91.5	92.1
	50%	91.7	90.9	90.3	90.7	91.7	91.7	91.7
	75%	92.4	91.8	91.7	92.1	91.7	91.7	92.4
	100%	92.4	92.7	92.7	92.7	91.0	91.7	91.7
Power Factor	25%	0.58	0.54	0.53	0.50	0.66	0.62	0.58
	50%	0.80	0.77	0.75	0.73	0.84	0.82	0.80
	75%	0.86	0.85	0.83	0.82	0.88	0.87	0.86
	100%	0.88	0.88	0.87	0.86	0.88	0.88	0.88

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

Losses (%)	P1 (0,9;1,0)	8.9	8.6	8.6	8.6	10.8	9.9	9.9
	P2 (0,5;1,0)	7.3	6.9	6.9	6.9	9.0	8.2	8.2
	P3 (0,25;1,0)	6.5	6.2	6.2	6.2	8.3	7.4	7.4
	P4 (0,9;0,5)	4.4	4.2	4.2	4.2	5.2	4.8	4.8
	P5 (0,5;0,5)	2.8	2.7	2.7	2.7	3.4	3.1	3.1
	P6 (0,5;0,25)	1.8	1.7	1.7	1.7	2.2	2.0	2.0
	P7 (0,25;0,25)	1.2	1.1	1.1	1.1	1.5	1.4	1.4

Bearing type	: 6312 C3	6212 C3	Foundation loads			
	Sealing	Inpro/Seal		Inpro/Seal	Max. traction	: 161 kgf
	Lubrication interval	: 12000 h		15000 h	Max. compression	: 408 kgf
	Lubricant amount	: 21 g		13 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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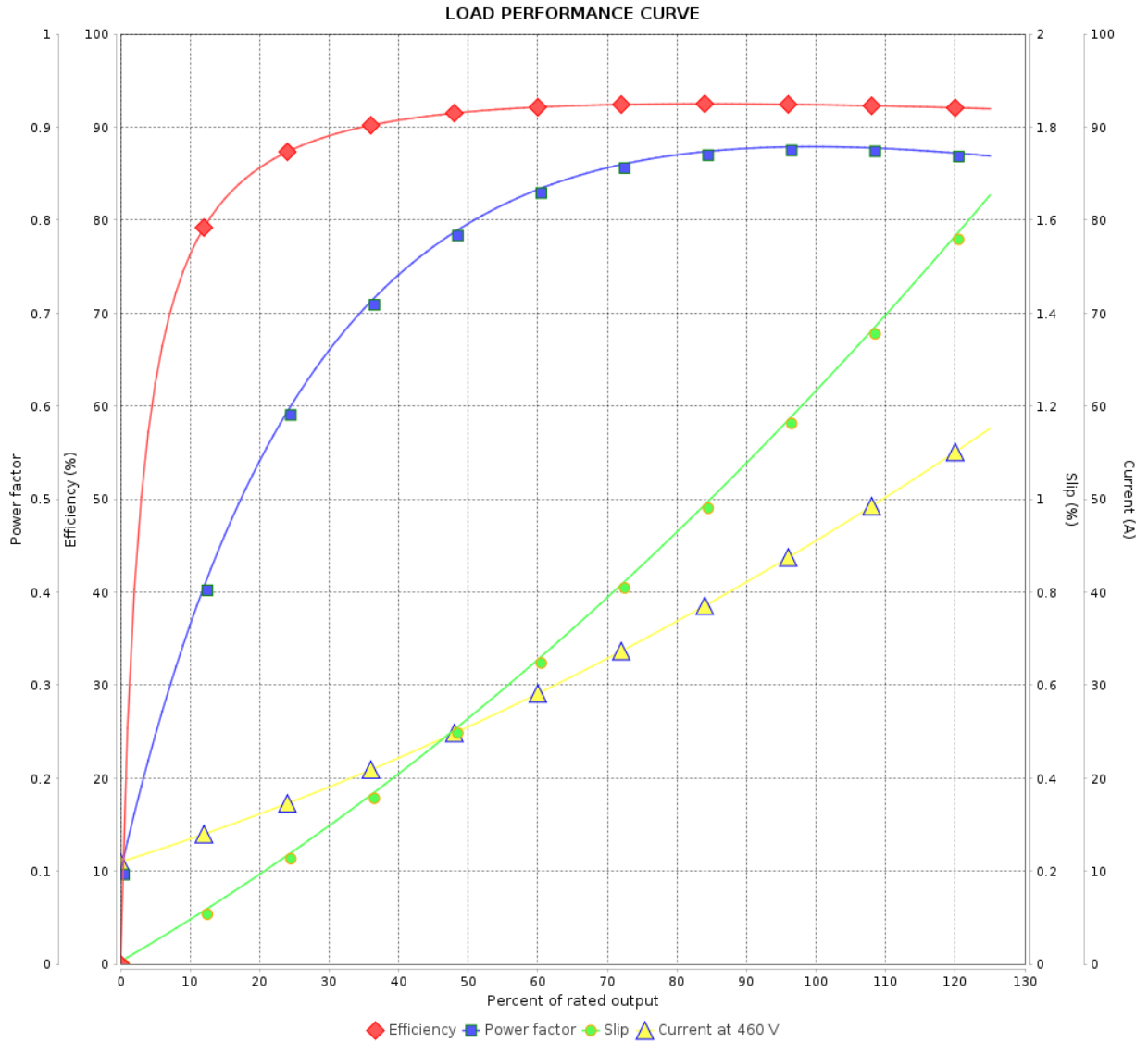
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12447815



Performance : 460 V 60 Hz 2P

Rated current	: 46.3 A	Moment of inertia (J)	: 0.2063 kgm ²
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 8.17 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 3555 rpm	Design	: B

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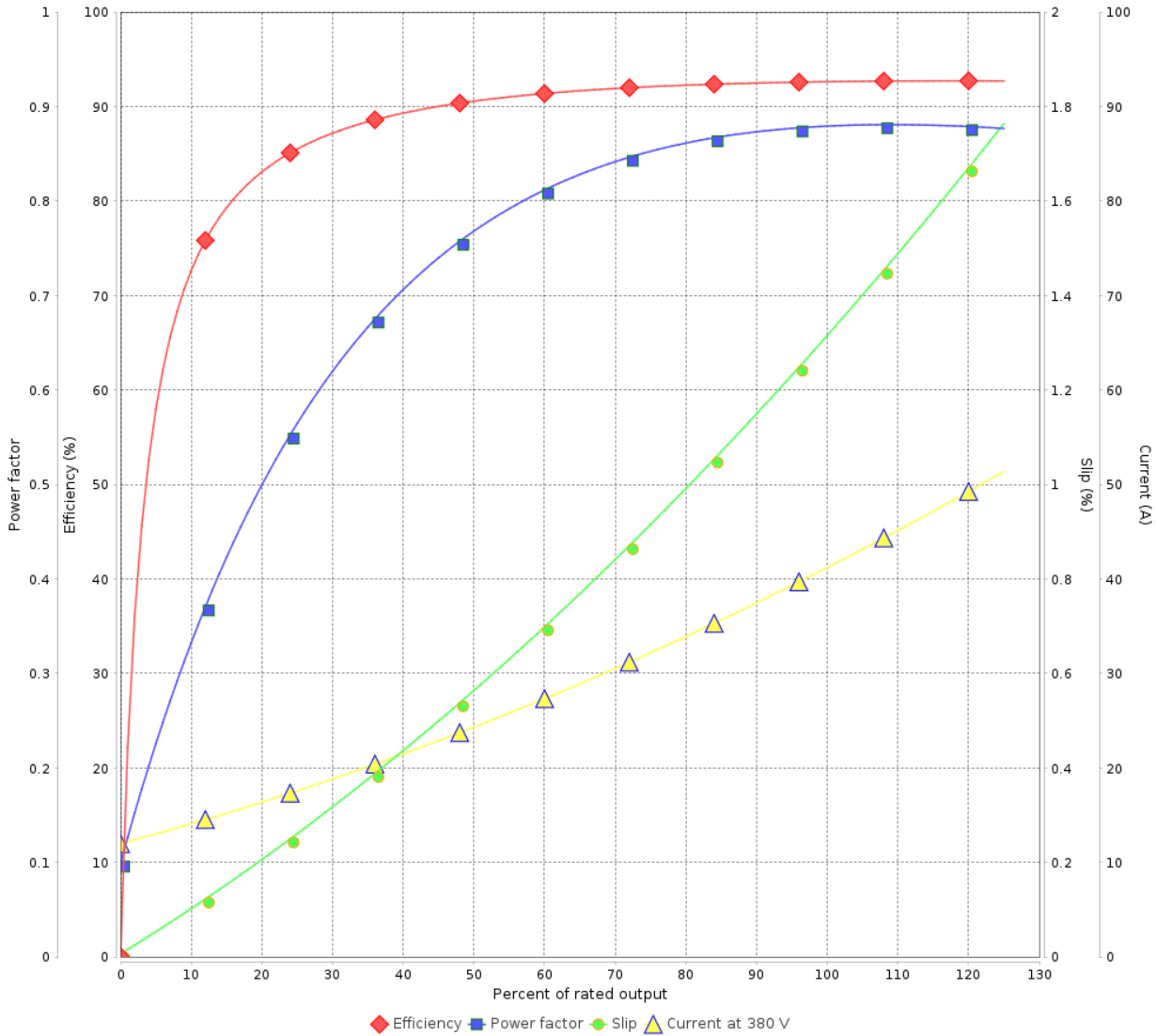
Three Phase Induction Motor - Squirrel Cage



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Performance : 380 V 50 Hz 2P IE3

Rated current	: 41.0 A	Moment of inertia (J)	: 0.2063 kgm ²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 7.36 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

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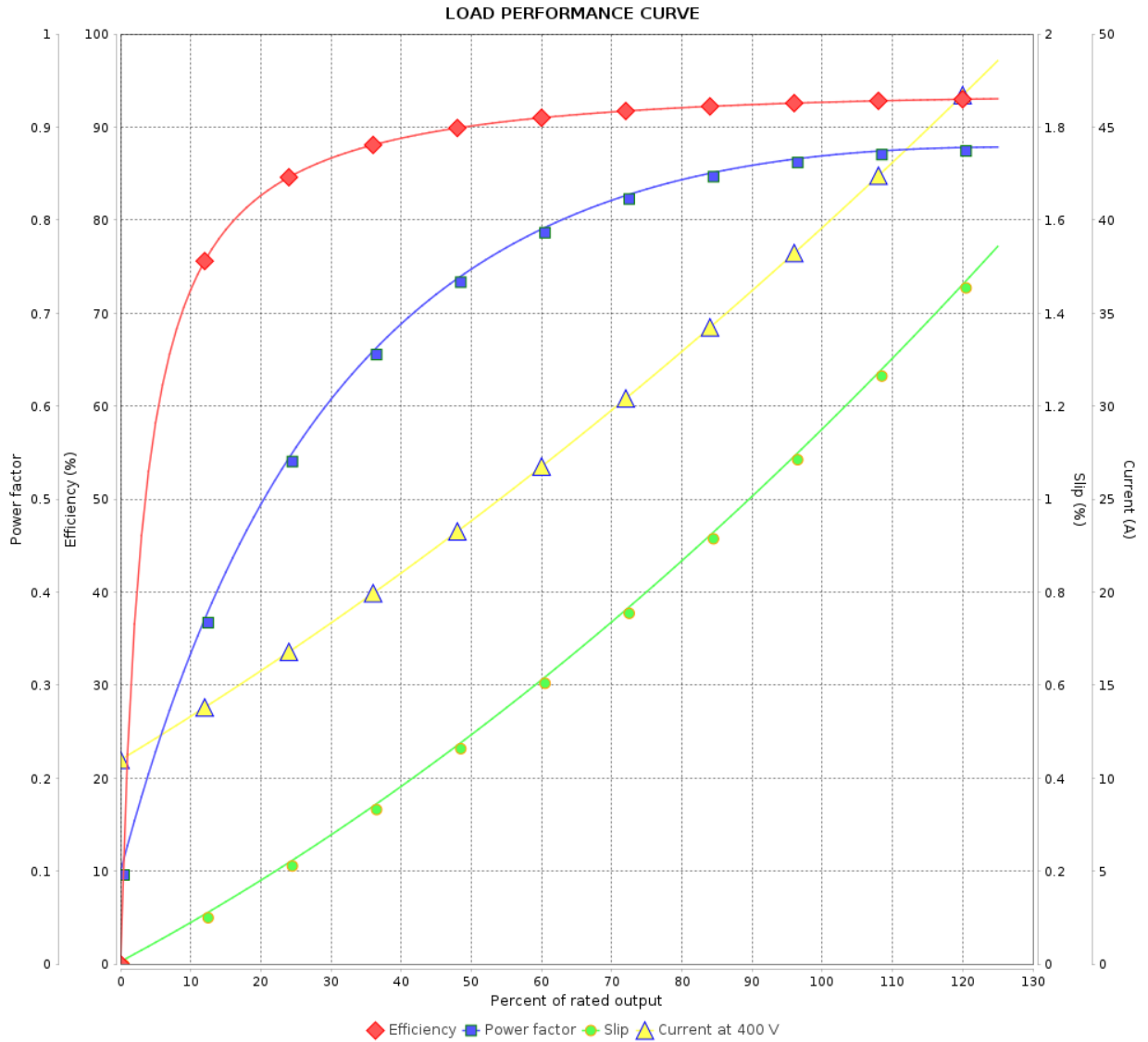
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 2P IE3

Rated current : 39.4 A
 LRC : 7.5
 Rated torque : 7.34 kgfm
 Locked rotor torque : 270 %
 Breakdown torque : 280 %
 Rated speed : 2965 rpm

Moment of inertia (J) : 0.2063 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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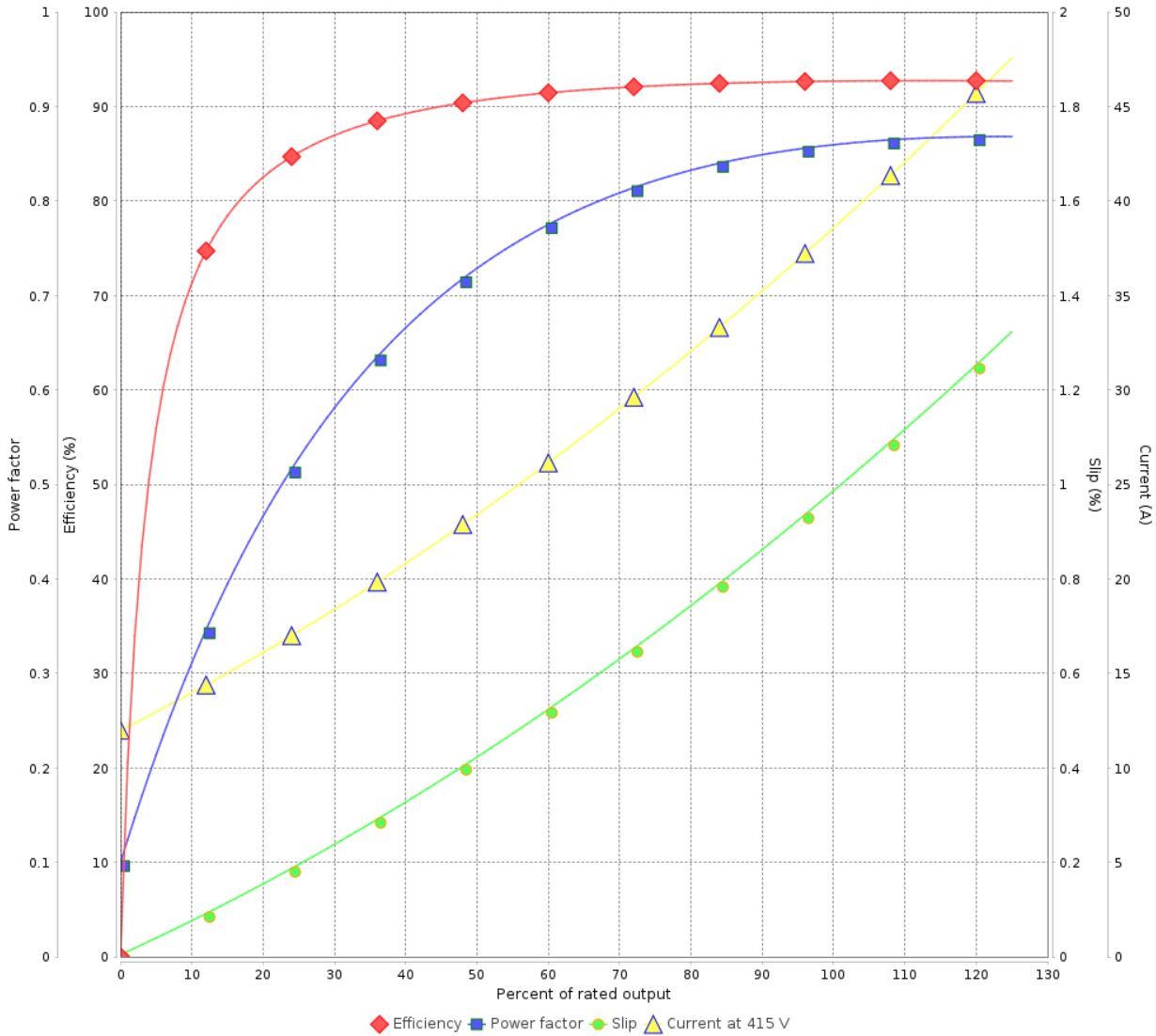
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Performance : 415 V 50 Hz 2P IE3

Rated current : 38.4 A	Moment of inertia (J) : 0.2063 kgm ²
LRC : 7.6	Duty cycle : Cont.(S1)
Rated torque : 7.33 kgfm	Insulation class : F
Locked rotor torque : 290 %	Service factor : 1.00
Breakdown torque : 310 %	Temperature rise : 80 K
Rated speed : 2970 rpm	Design : B

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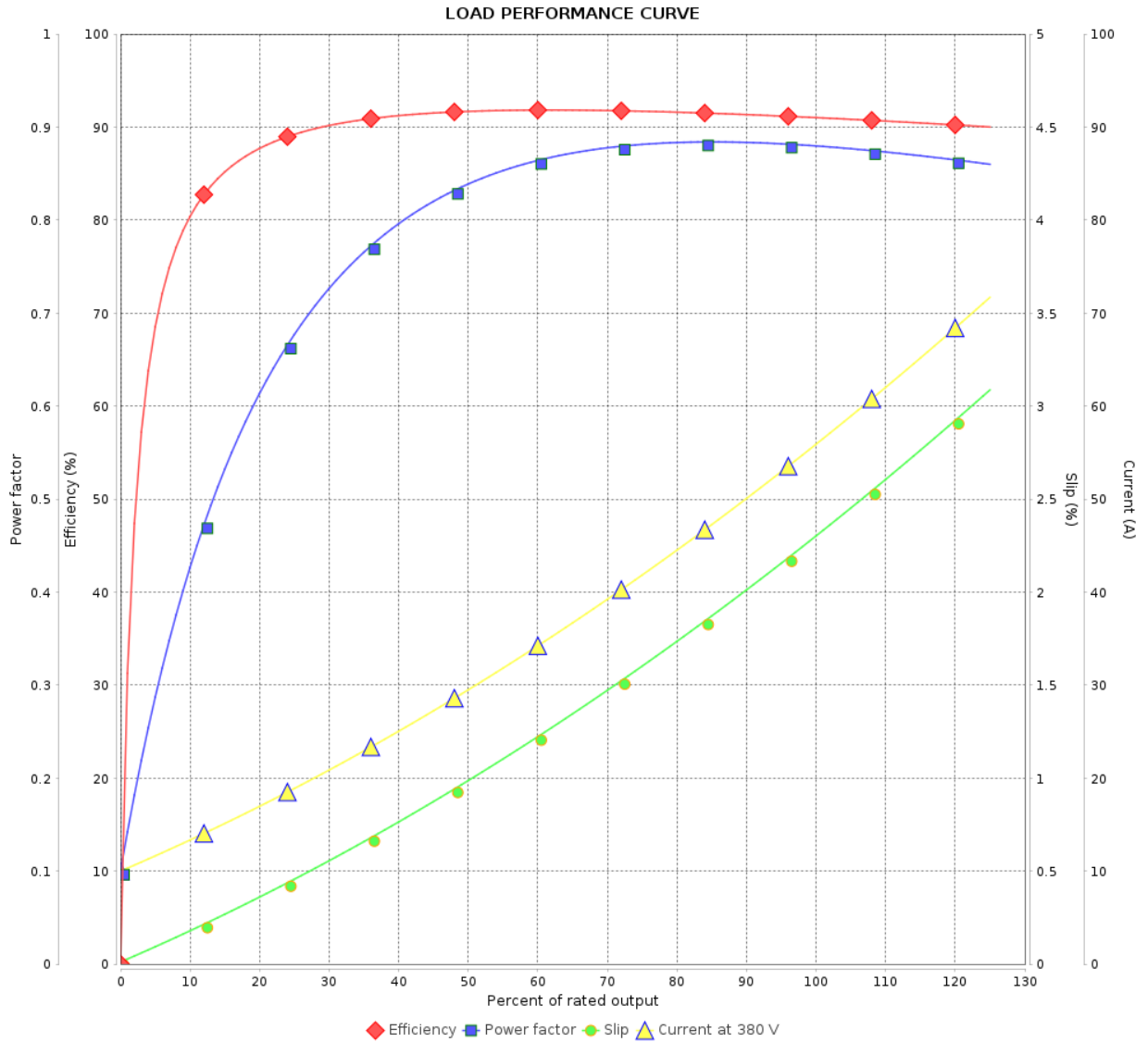
Three Phase Induction Motor - Squirrel Cage



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Product code : 12447815



Performance : 380 V 50 Hz 2P IE1

Rated current : 56.9 A
 LRC : 5.0
 Rated torque : 9.91 kgfm
 Locked rotor torque : 180 %
 Breakdown torque : 200 %
 Rated speed : 2930 rpm

Moment of inertia (J) : 0.2063 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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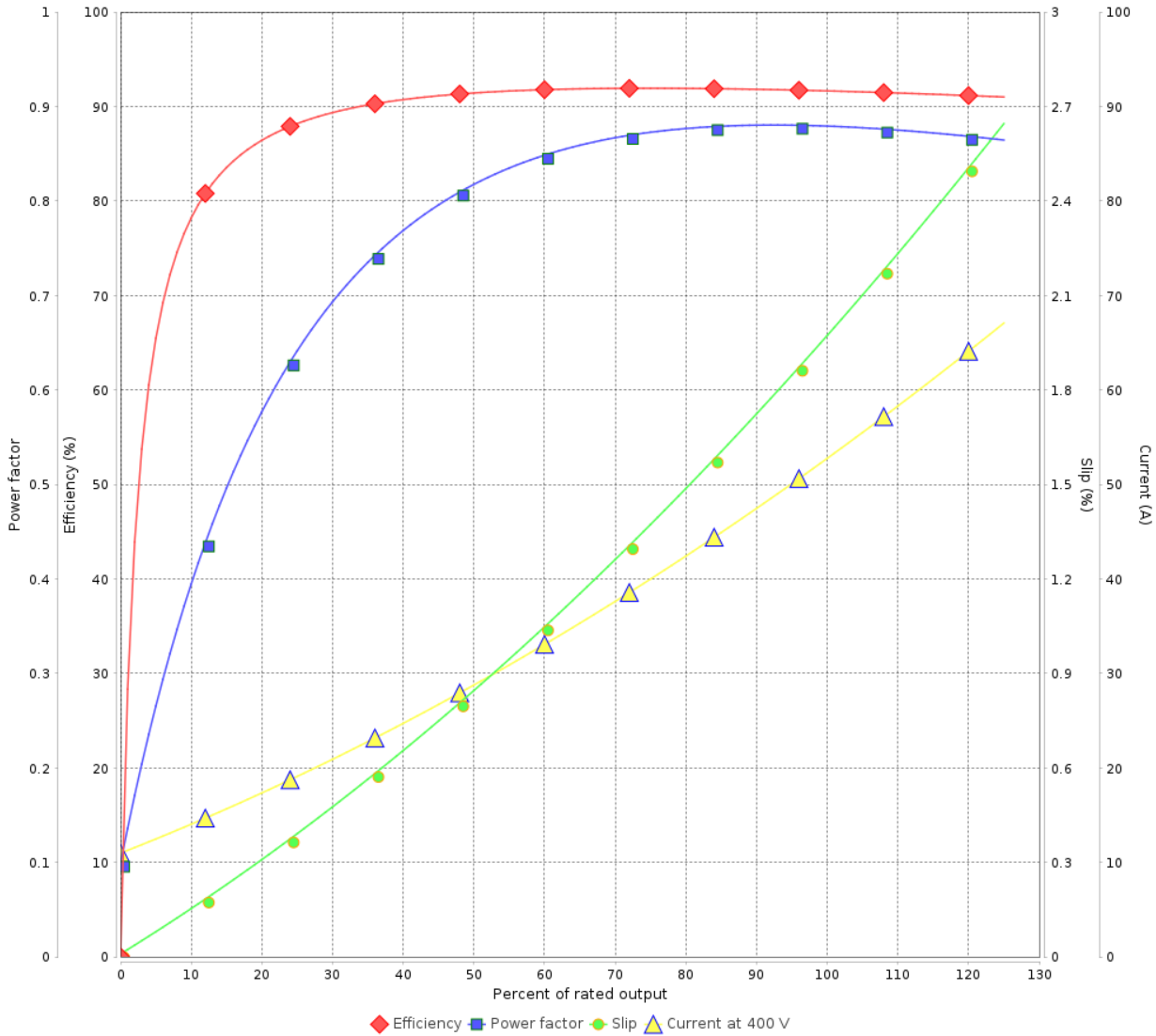
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Performance : 400 V 50 Hz 2P IE1

Rated current	: 53.7 A	Moment of inertia (J)	: 0.2063 kgm ²
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 9.87 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 105 K
Rated speed	: 2940 rpm	Design	: B

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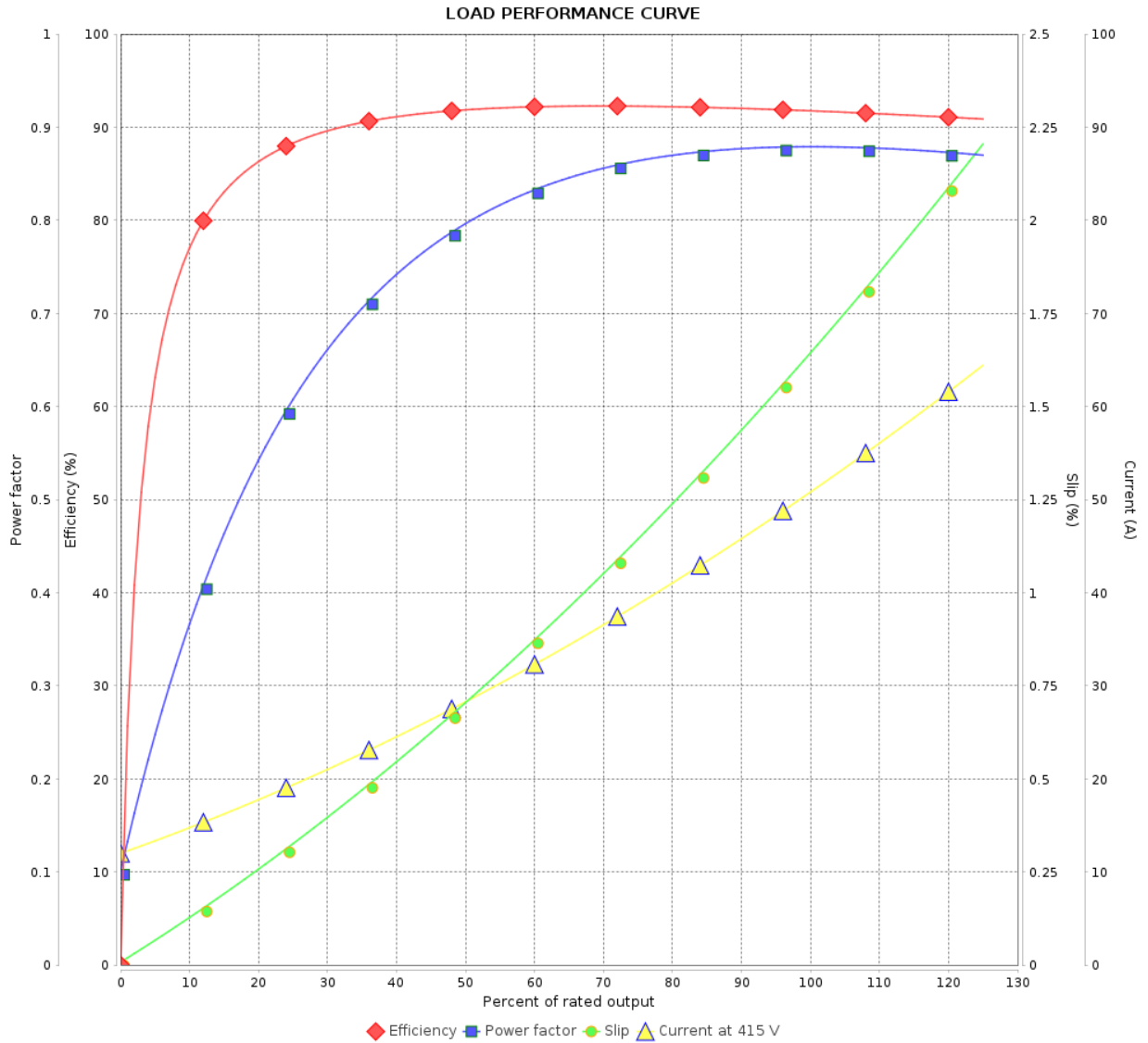
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency
Three-Phase

Product code : 12447815



Performance : 415 V 50 Hz 2P IE1

Rated current : 51.7 A
 LRC : 6.2
 Rated torque : 9.84 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 229 %
 Rated speed : 2950 rpm

Moment of inertia (J) : 0.2063 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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