

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431928

Frame	: 284/6TS	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	: 194 kg
Protection degree	: IP56	Moment of inertia (J)	: 0.1419 kgm ²
Design	: B		

Output [HP]	30	25	25	25	30	30	30
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]	34.6	34.6	33.2	32.4	42.0	40.0	38.2
L. R. Amperes [A]	218	215	232	233	206	220	237
LRC [A]	6.3x(Code G)	6.2x(Code G)	7.0x(Code H)	7.2x(Code H)	4.9x(Code E)	5.5x(Code F)	6.2x(Code G)
No load current [A]	9.90	9.40	10.0	10.6	9.40	10.0	10.6
Rated speed [RPM]	3540	2935	2945	2950	2910	2930	2935
Slip [%]	1.67	2.17	1.83	1.67	3.00	2.33	2.17
Rated torque [kgfm]	6.15	6.18	6.16	6.15	7.48	7.43	7.42
Locked rotor torque [%]	240	220	260	229	180	200	220
Breakdown torque [%]	250	229	270	290	200	220	240
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	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	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%	91.6	90.0	90.1	90.5	88.7	90.8
	50%	91.7	91.0	91.1	91.2	89.0	91.0
	75%	91.7	91.5	91.5	91.8	89.5	90.2
	100%	91.7	92.4	92.4	92.4	89.5	90.2
Power Factor	25%	0.54	0.57	0.52	0.50	0.62	0.55
	50%	0.77	0.80	0.76	0.74	0.83	0.78
	75%	0.85	0.86	0.84	0.82	0.88	0.85
	100%	0.87	0.88	0.87	0.86	0.89	0.88

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

Losses (%)	P1 (0,9;1,0)	8.7	8.7	8.7	8.7	8.7	8.7
	P2 (0,5;1,0)	7.0	7.0	7.0	7.0	7.0	7.0
	P3 (0,25;1,0)	6.1	6.1	6.1	6.1	6.1	6.1
	P4 (0,9;0,5)	4.3	4.3	4.3	4.3	4.3	4.3
	P5 (0,5;0,5)	2.6	2.6	2.6	2.6	2.6	2.6
	P6 (0,5;0,25)	1.6	1.6	1.6	1.6	1.6	1.6
	P7 (0,25;0,25)	1.0	1.0	1.0	1.0	1.0	1.0

Bearing type	: 6311 C3	6211 C3	Foundation loads	
	: Inpro/Seal	Inpro/Seal		Max. traction : 158 kgf
	: 14000 h	17000 h		Max. compression : 351 kgf
	: 18 g	11 g		
	: 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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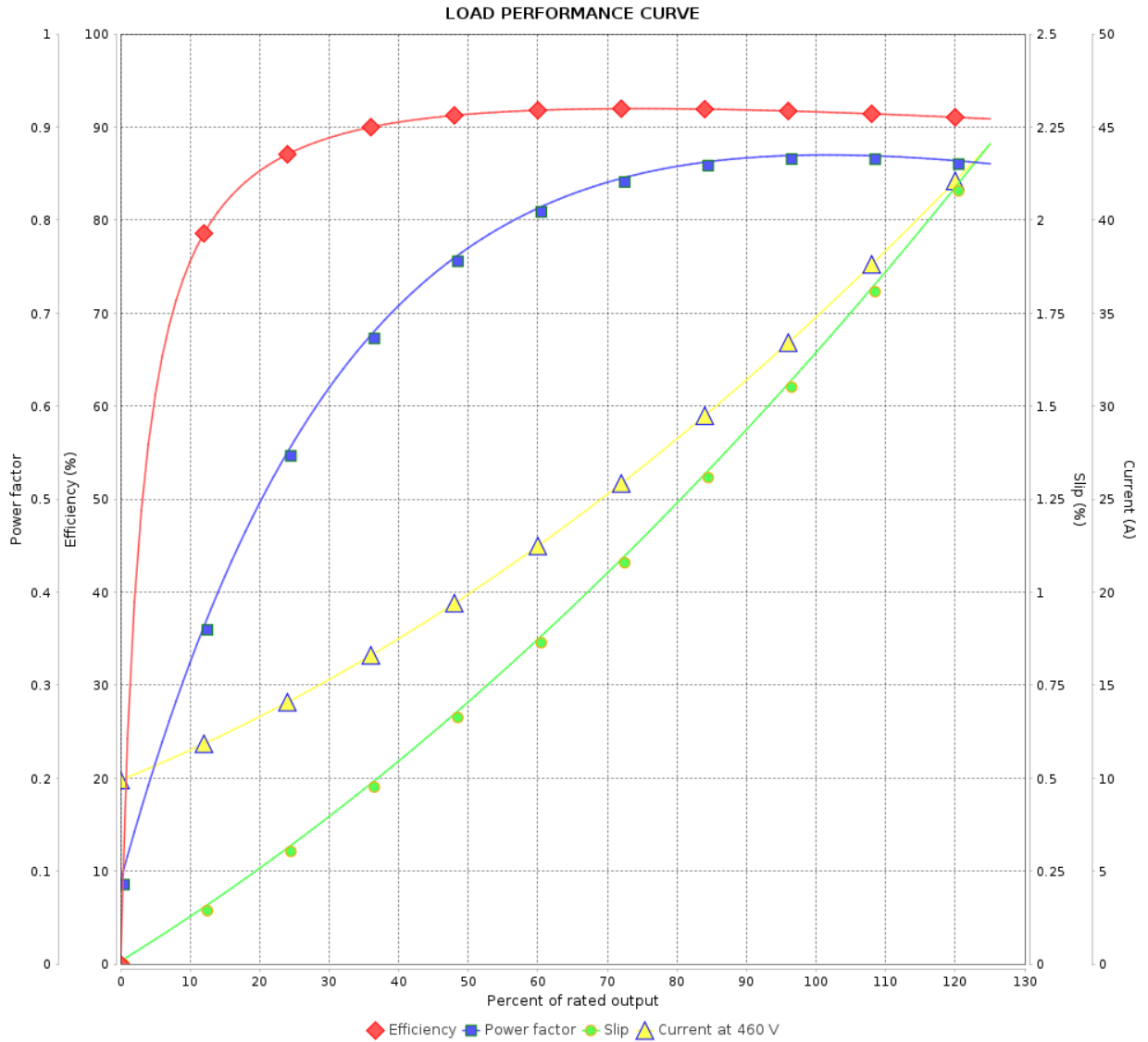
Three Phase Induction Motor - Squirrel Cage



Customer : _____

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

Product code : 11431928



Performance : 460 V 60 Hz 2P

Rated current : 34.6 A
 LRC : 6.3
 Rated torque : 6.15 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 250 %
 Rated speed : 3540 rpm

Moment of inertia (J) : 0.1419 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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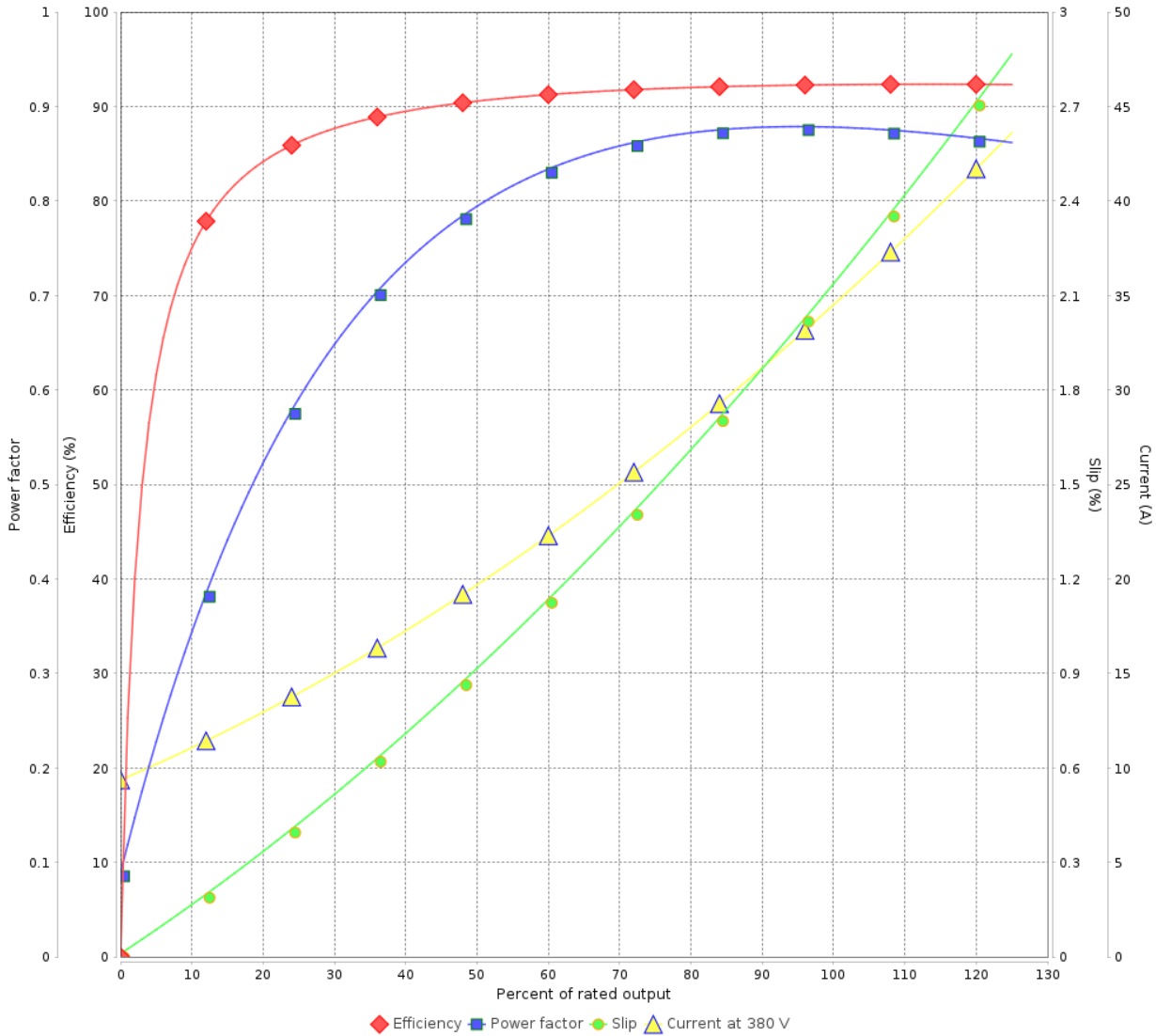
Three Phase Induction Motor - Squirrel Cage



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Performance : 380 V 50 Hz 2P IE3

Rated current	: 34.6 A	Moment of inertia (J)	: 0.1419 kgm ²
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 6.18 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 2935 rpm	Design	: B

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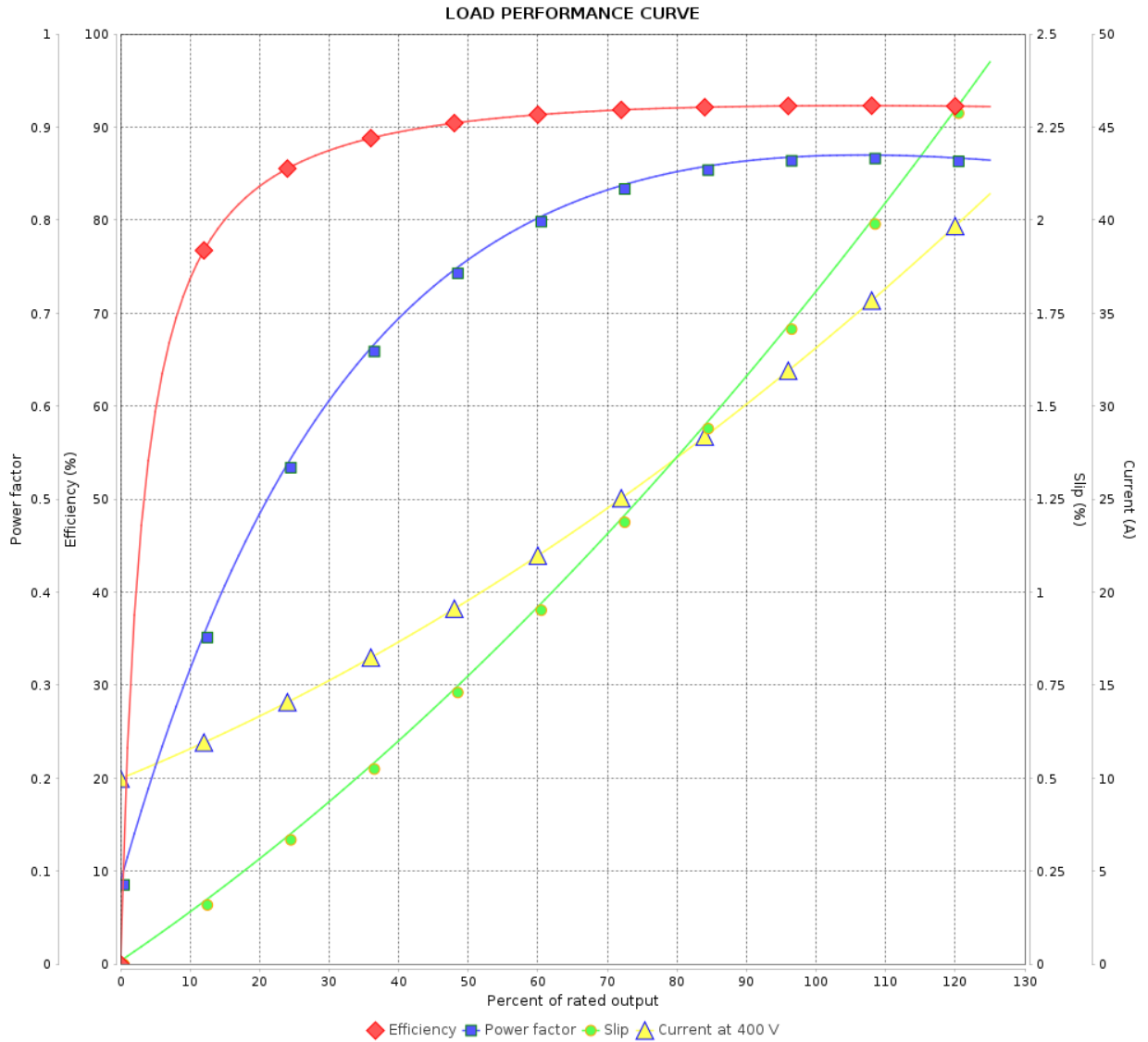
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Three Phase Induction Motor - Squirrel Cage



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Performance : 400 V 50 Hz 2P IE3

Rated current : 33.2 A
 LRC : 7.0
 Rated torque : 6.16 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 270 %
 Rated speed : 2945 rpm

Moment of inertia (J) : 0.1419 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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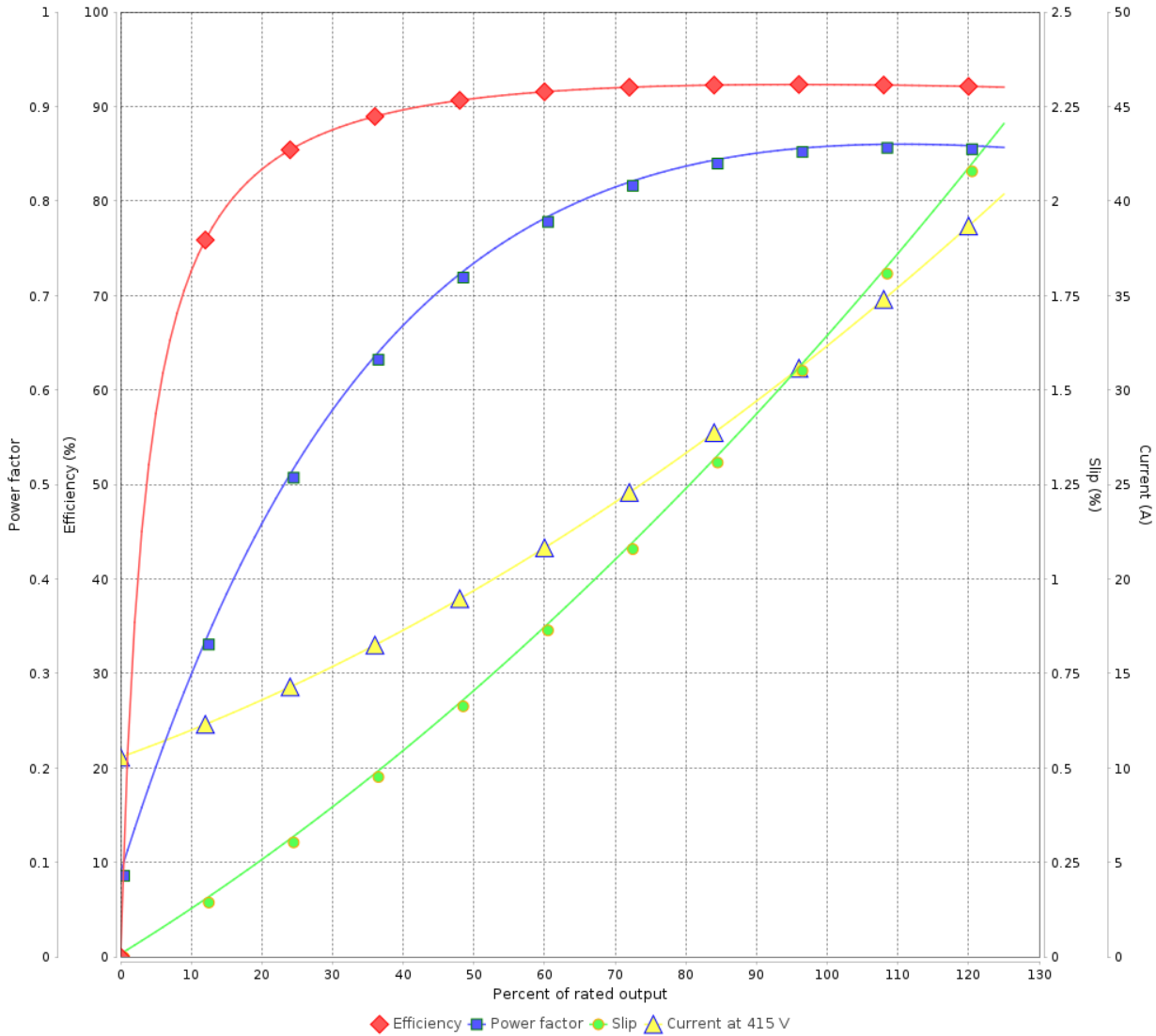
Three Phase Induction Motor - Squirrel Cage



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Performance : 415 V 50 Hz 2P IE3

Rated current	: 32.4 A	Moment of inertia (J)	: 0.1419 kgm ²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 6.15 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: B

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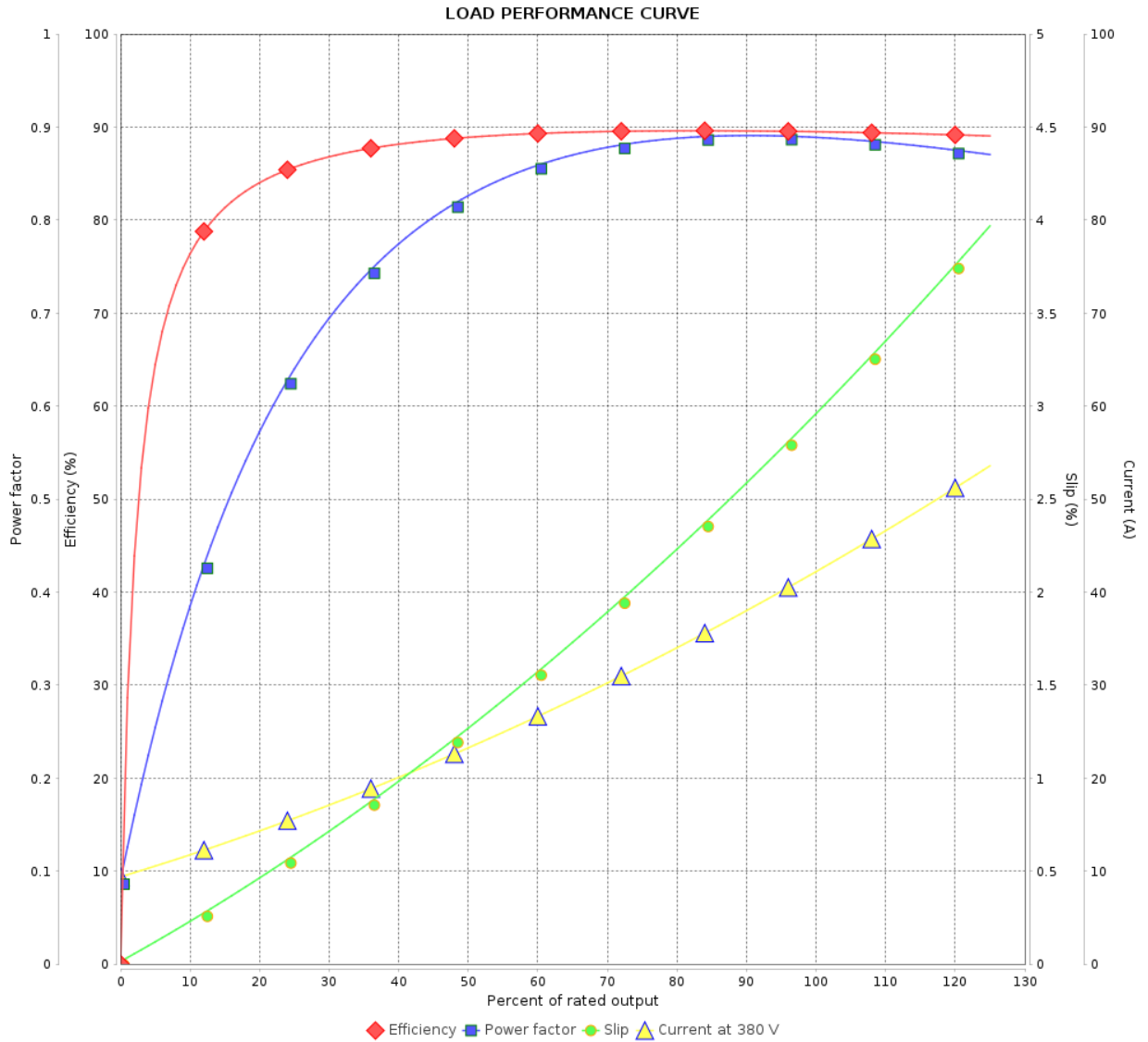
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Performance : 380 V 50 Hz 2P

Rated current : 42.0 A
 LRC : 4.9
 Rated torque : 7.48 kgfm
 Locked rotor torque : 180 %
 Breakdown torque : 200 %
 Rated speed : 2910 rpm

Moment of inertia (J) : 0.1419 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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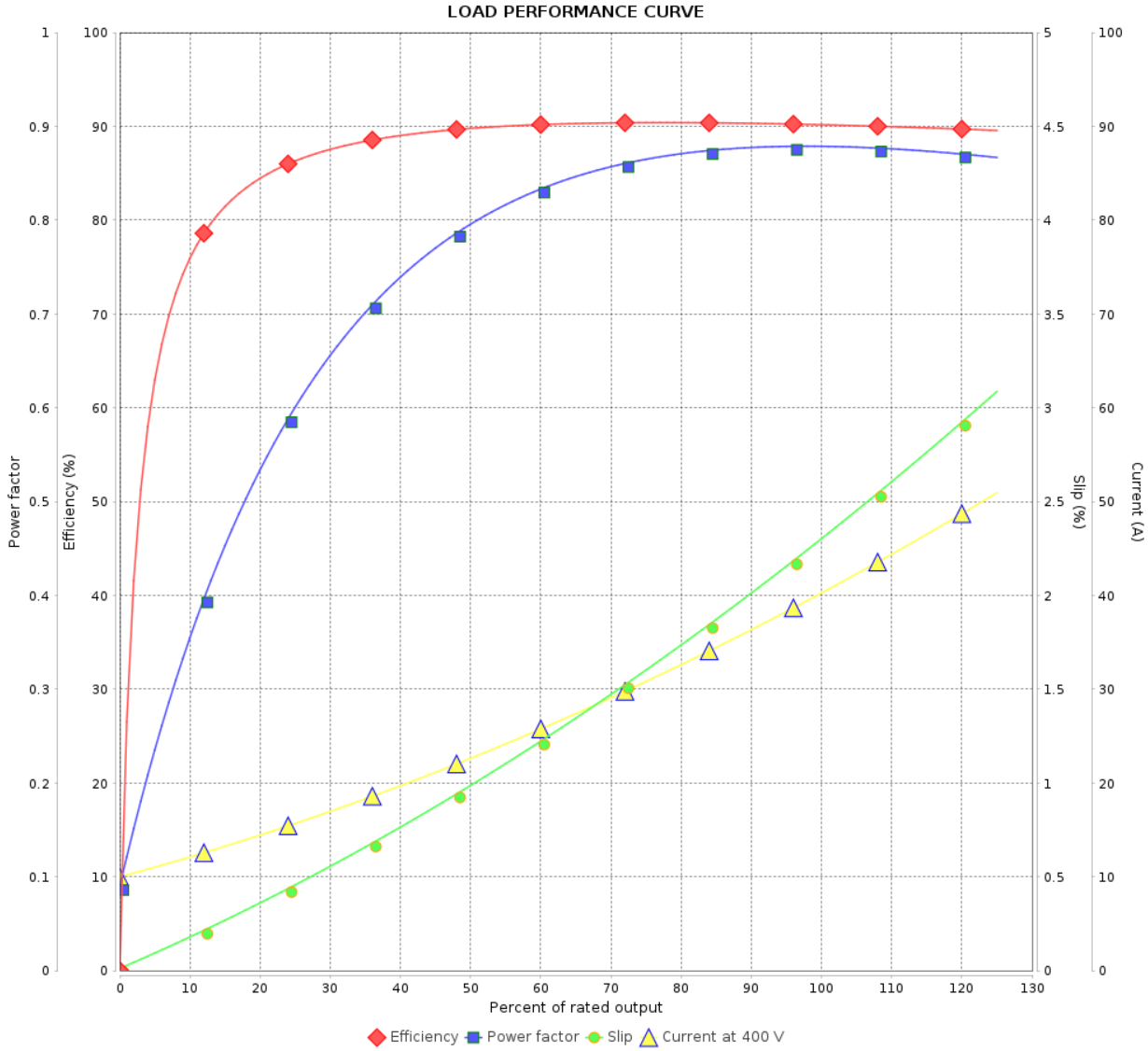
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Performance : 400 V 50 Hz 2P IE1

Rated current	: 40.0 A	Moment of inertia (J)	: 0.1419 kgm ²
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 7.43 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 2930 rpm	Design	: B

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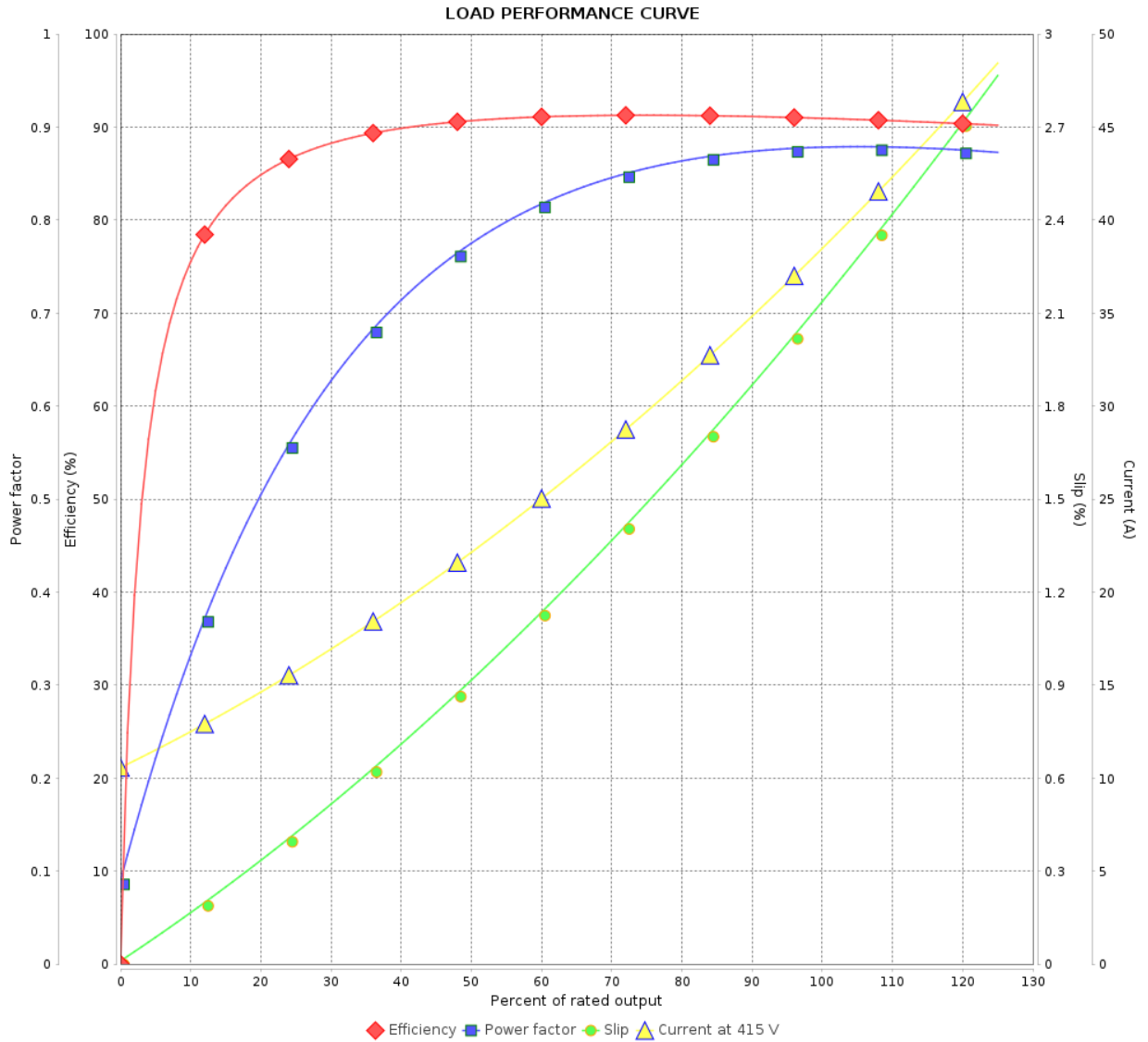
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11431928



Performance : 415 V 50 Hz 2P IE1

Rated current : 38.2 A
 LRC : 6.2
 Rated torque : 7.42 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 240 %
 Rated speed : 2935 rpm

Moment of inertia (J) : 0.1419 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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