

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12761613

Frame	: 182/4TC	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	: 48.2 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0080 kgm ²
Design	: B		

Output [HP]	3	2	2	2	3	3	3
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]	3.63	3.09	3.00	2.96	4.34	4.17	4.07
L. R. Amperes [A]	31.2	29.7	32.1	32.9	29.5	31.7	33.0
LRC [A]	8.6x(Code K)	9.6x(Code L)	10.7x(Code M)	11.1x(Code N)	6.8x(Code H)	7.6x(Code J)	8.1x(Code J)
No load current [A]	1.30	1.25	1.35	1.40	1.25	1.35	1.40
Rated speed [RPM]	3510	2930	2935	2940	2880	2890	2900
Slip [%]	2.50	2.33	2.17	2.00	4.00	3.67	3.33
Rated torque [kgfm]	0.620	0.495	0.495	0.494	0.756	0.753	0.751
Locked rotor torque [%]	250	300	340	370	210	240	260
Breakdown torque [%]	380	430	480	520	290	320	350
Service factor	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	73s (cold) 41s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)
Noise level ²	66.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)	62.0 dB(A)
Efficiency (%)	25%						
	50%	82.5	81.0	80.6	79.7	84.0	84.0
	75%	86.5	84.5	84.5	84.1	86.5	86.5
	100%	86.5	85.8	85.8	85.9	85.5	85.5
Power Factor	25%						
	50%	0.75	0.68	0.65	0.63	0.80	0.77
	75%	0.84	0.79	0.77	0.75	0.87	0.86
	100%	0.88	0.86	0.84	0.82	0.90	0.88

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

Losses (%)	P1 (0,9;1,0)	14.1	14.1	14.1	14.1	14.1	14.1	14.1
	P2 (0,5;1,0)	9.5	9.5	9.5	9.5	9.5	9.5	9.5
	P3 (0,25;1,0)	8.5	8.5	8.5	8.5	8.5	8.5	8.5
	P4 (0,9;0,5)	8.7	8.7	8.7	8.7	8.7	8.7	8.7
	P5 (0,5;0,5)	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	P6 (0,5;0,25)	3.3	3.3	3.3	3.3	3.3	3.3	3.3
	P7 (0,25;0,25)	1.7	1.7	1.7	1.7	1.7	1.7	1.7

Bearing type	: 6207 C3	Non drive end	6206 C3	Foundation loads	
Sealing	: Taconite		Taconite	Max. traction	: 31 kgf
	: Labyrinth		Labyrinth	Max. compression	: 79 kgf
Lubrication interval	: 20000 h		20000 h		
Lubricant amount	: 7 g		5 g		
Lubricant type	: Mobil Polyrex EM				

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Notes

This revision replaces and cancel the previous one, which must be eliminated.
(1) Looking the motor from the shaft end.
(2) Measured at 1m and with tolerance of +3dB(A).
(3) Approximate weight subject to changes after manufacturing process.
(4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

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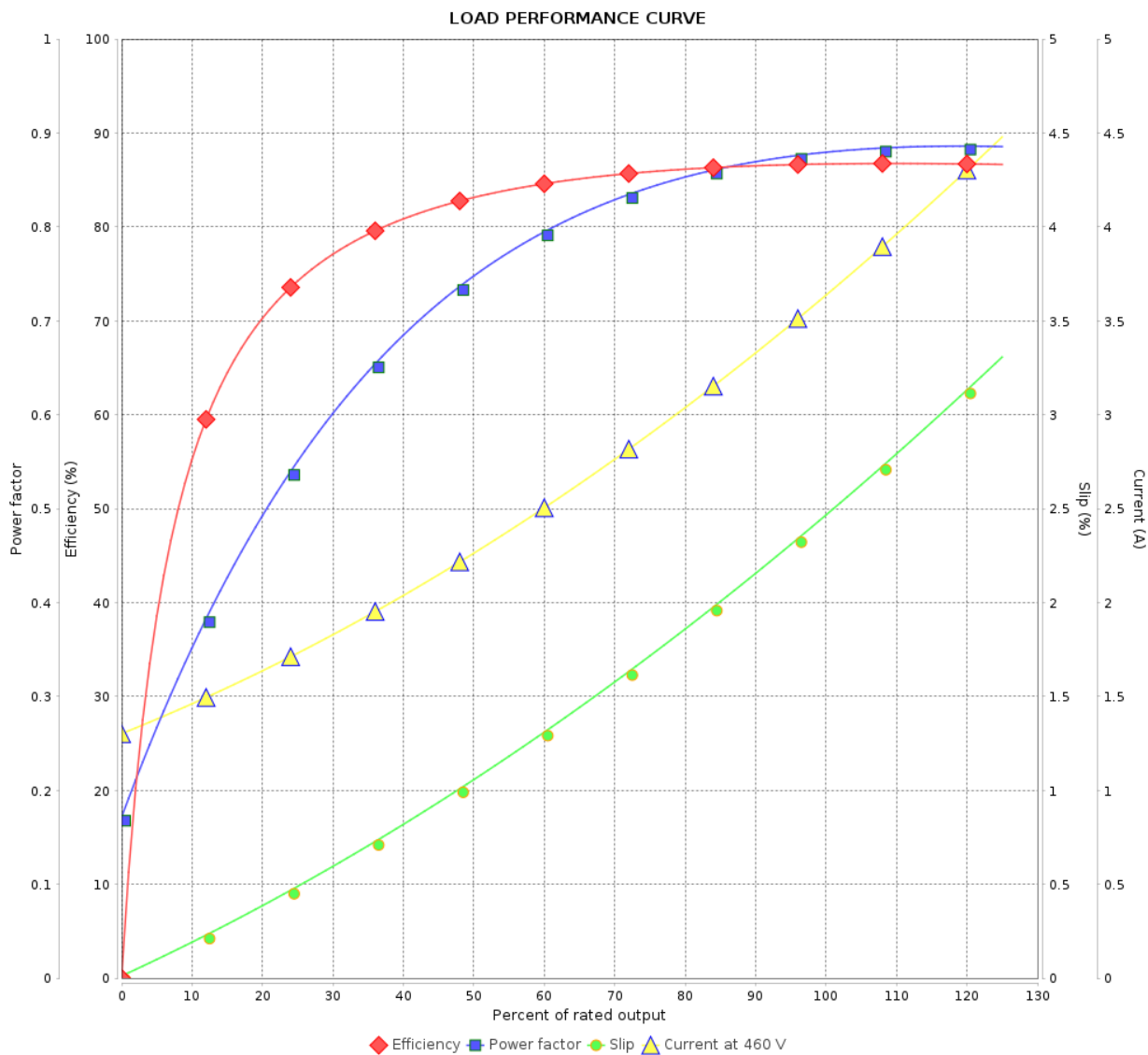
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12761613



Performance : 460 V 60 Hz 2P

Rated current : 3.63 A
LRC : 8.6
Rated torque : 0.620 kgfm
Locked rotor torque : 250 %
Breakdown torque : 380 %
Rated speed : 3510 rpm

Moment of inertia (J) : 0.0080 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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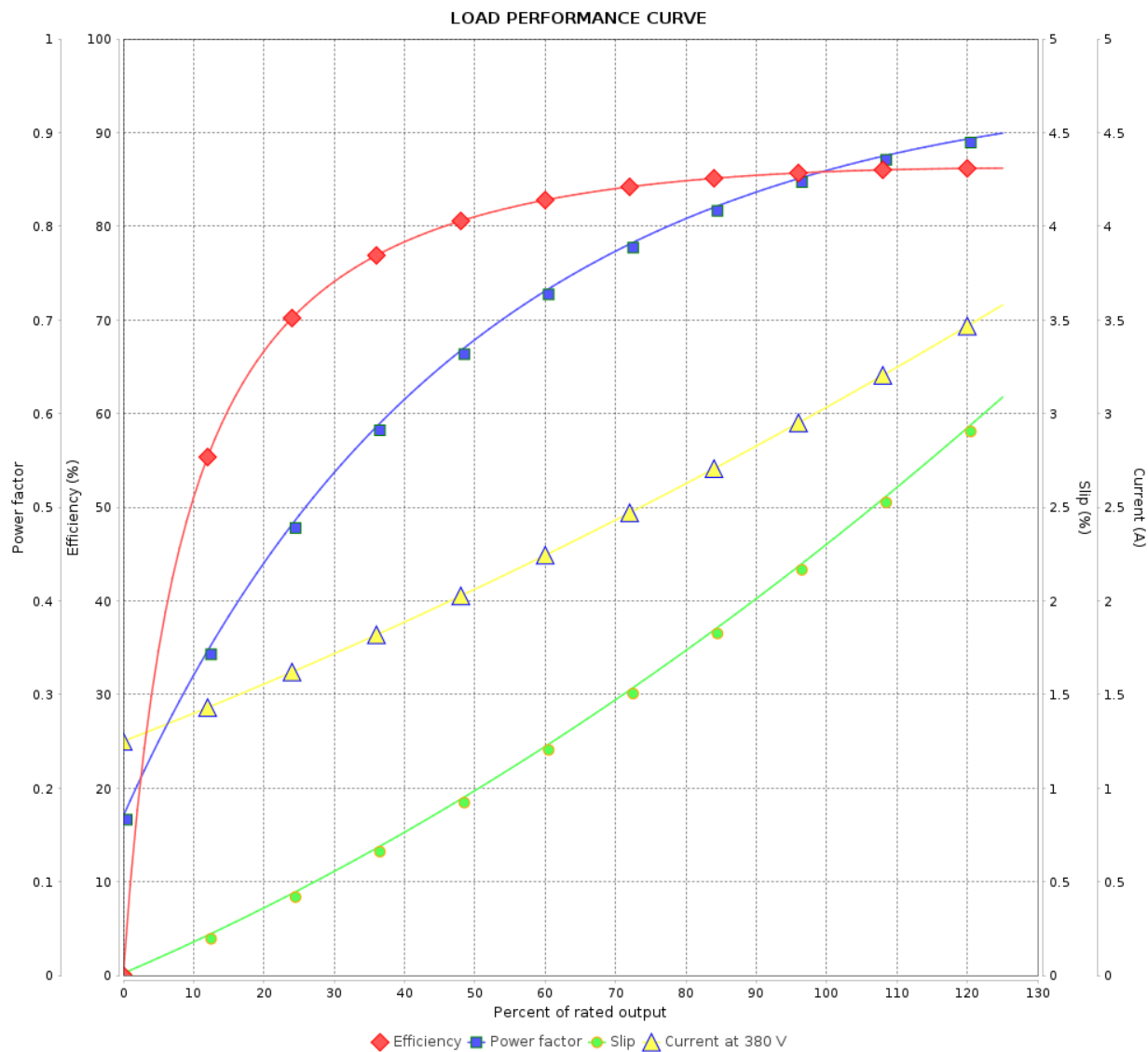
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 2P IE3

Rated current : 3.09 A
LRC : 9.6
Rated torque : 0.495 kgfm
Locked rotor torque : 300 %
Breakdown torque : 430 %
Rated speed : 2930 rpm

Moment of inertia (J) : 0.0080 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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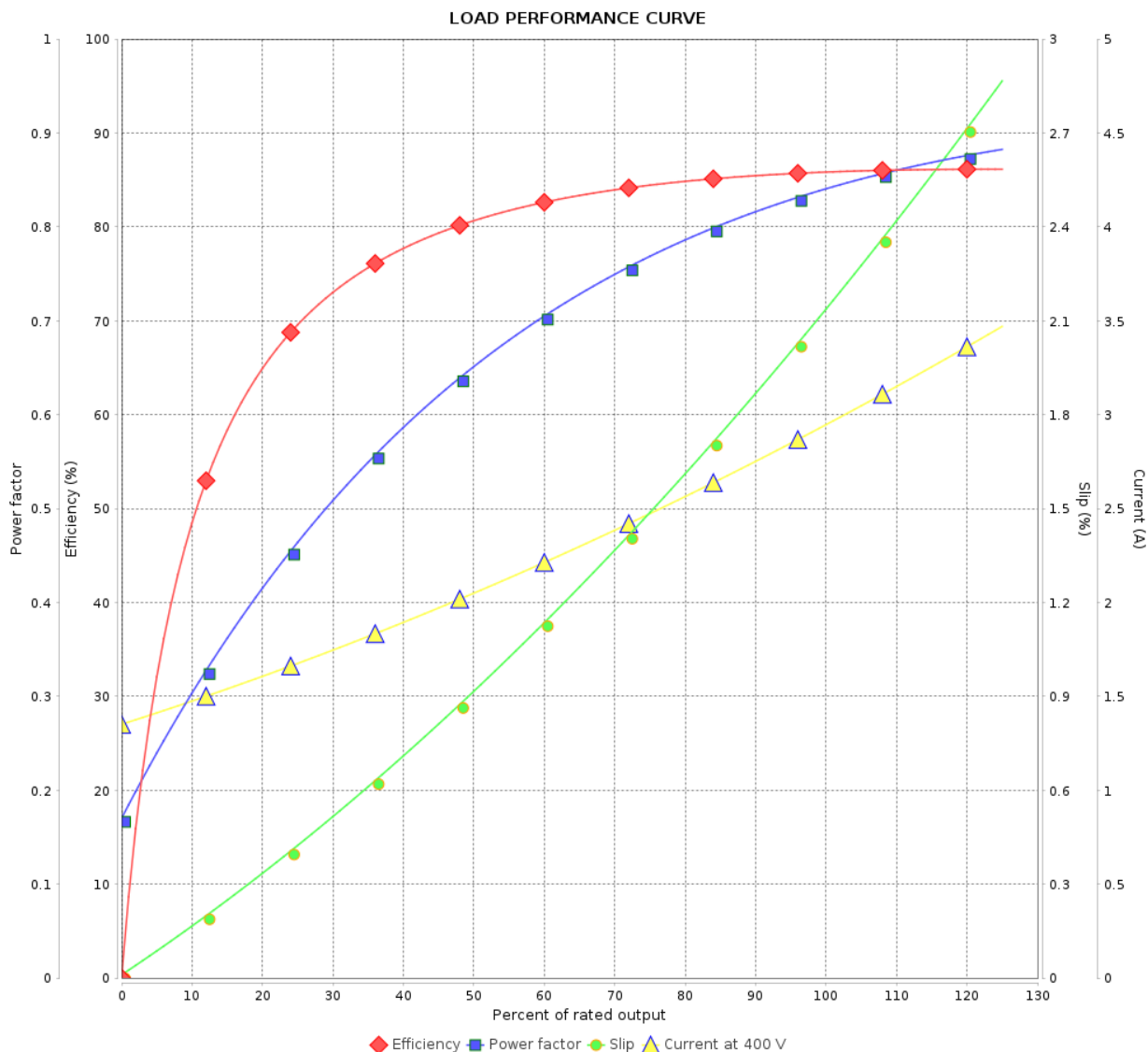
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 2P IE3

Rated current : 3.00 A
LRC : 10.7
Rated torque : 0.495 kgfm
Locked rotor torque : 340 %
Breakdown torque : 480 %
Rated speed : 2935 rpm

Moment of inertia (J) : 0.0080 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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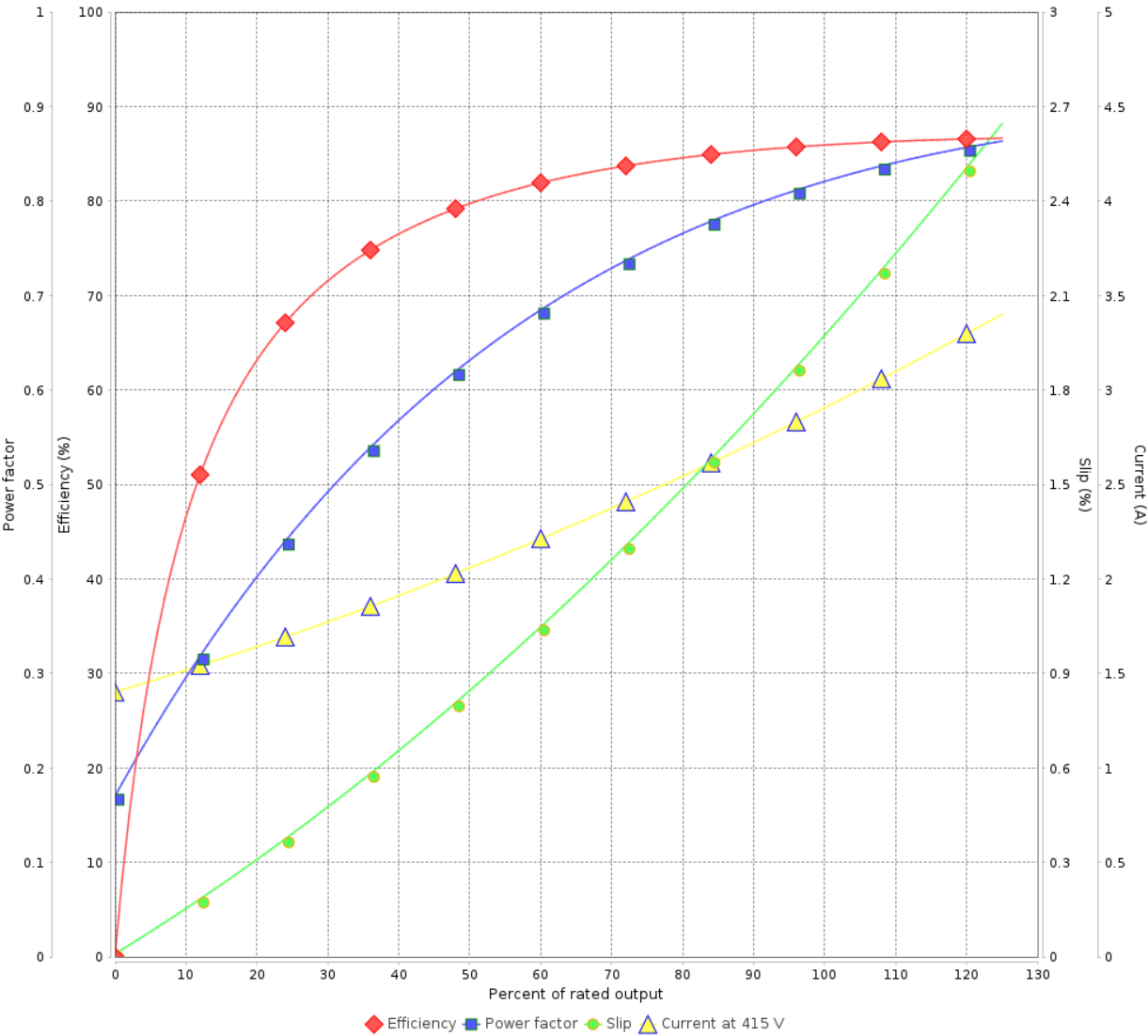
Three Phase Induction Motor - Squirrel Cage



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Performance : 415 V 50 Hz 2P IE3

Rated current	: 2.96 A	Moment of inertia (J)	: 0.0080 kgm ²
LRC	: 11.1	Duty cycle	: Cont.(S1)
Rated torque	: 0.494 kgfm	Insulation class	: F
Locked rotor torque	: 370 %	Service factor	: 1.25
Breakdown torque	: 520 %	Temperature rise	: 80 K
Rated speed	: 2940 rpm	Design	: B

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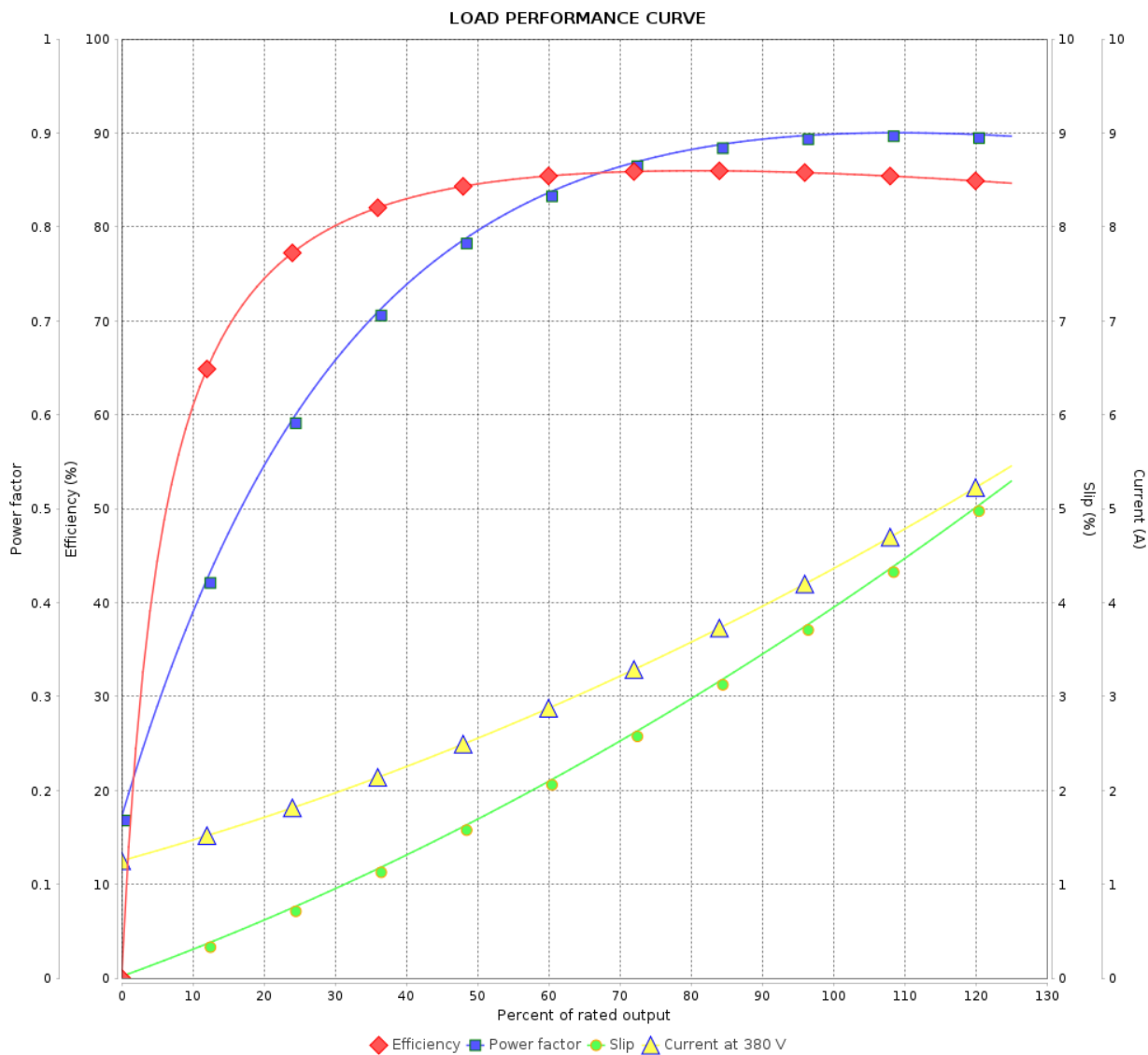
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Performance : 380 V 50 Hz 2P IE2

Rated current : 4.34 A
LRC : 6.8
Rated torque : 0.756 kgfm
Locked rotor torque : 210 %
Breakdown torque : 290 %
Rated speed : 2880 rpm

Moment of inertia (J) : 0.0080 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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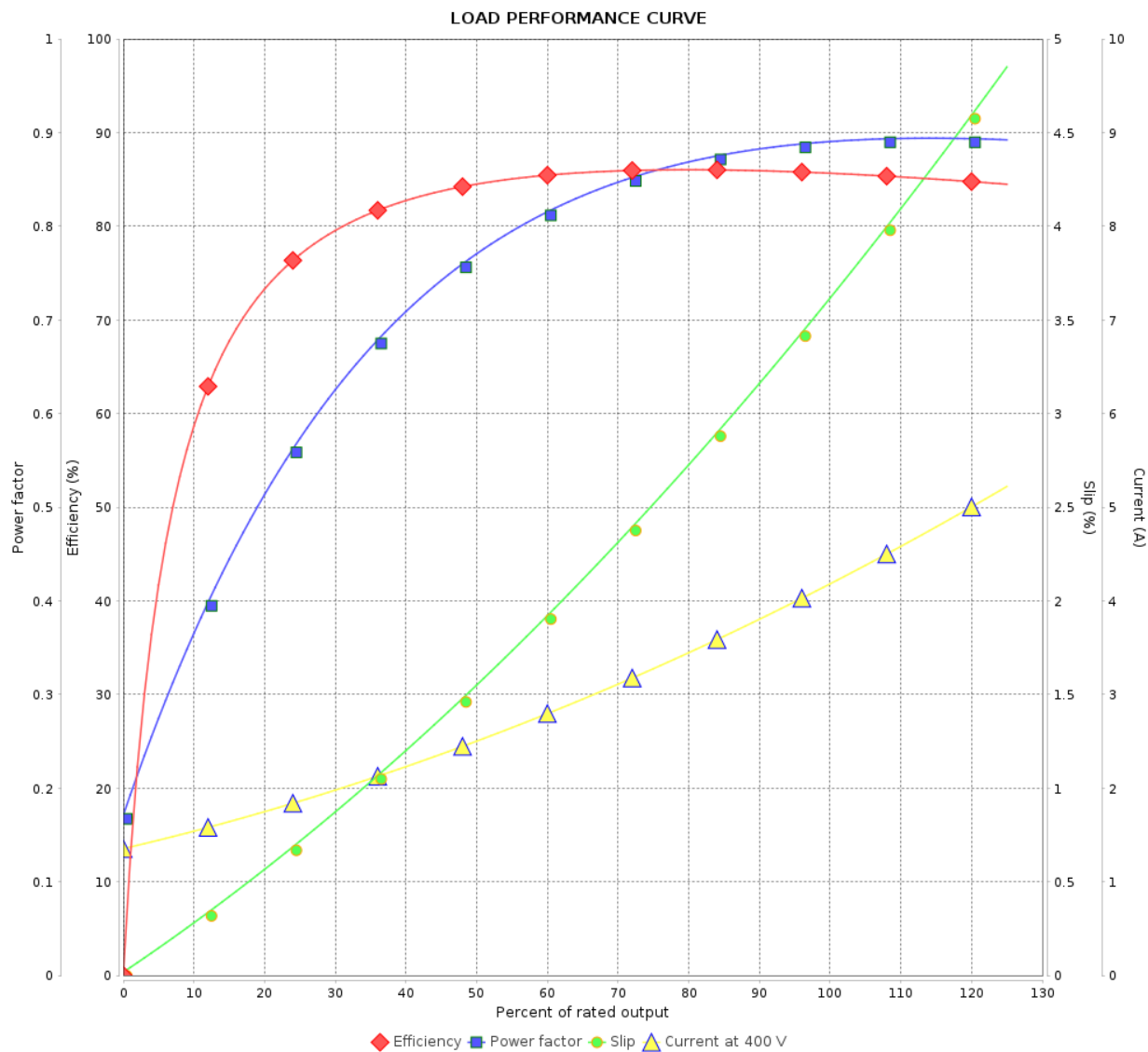
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Performance : 400 V 50 Hz 2P IE2

Rated current : 4.17 A
LRC : 7.6
Rated torque : 0.753 kgfm
Locked rotor torque : 240 %
Breakdown torque : 320 %
Rated speed : 2890 rpm

Moment of inertia (J) : 0.0080 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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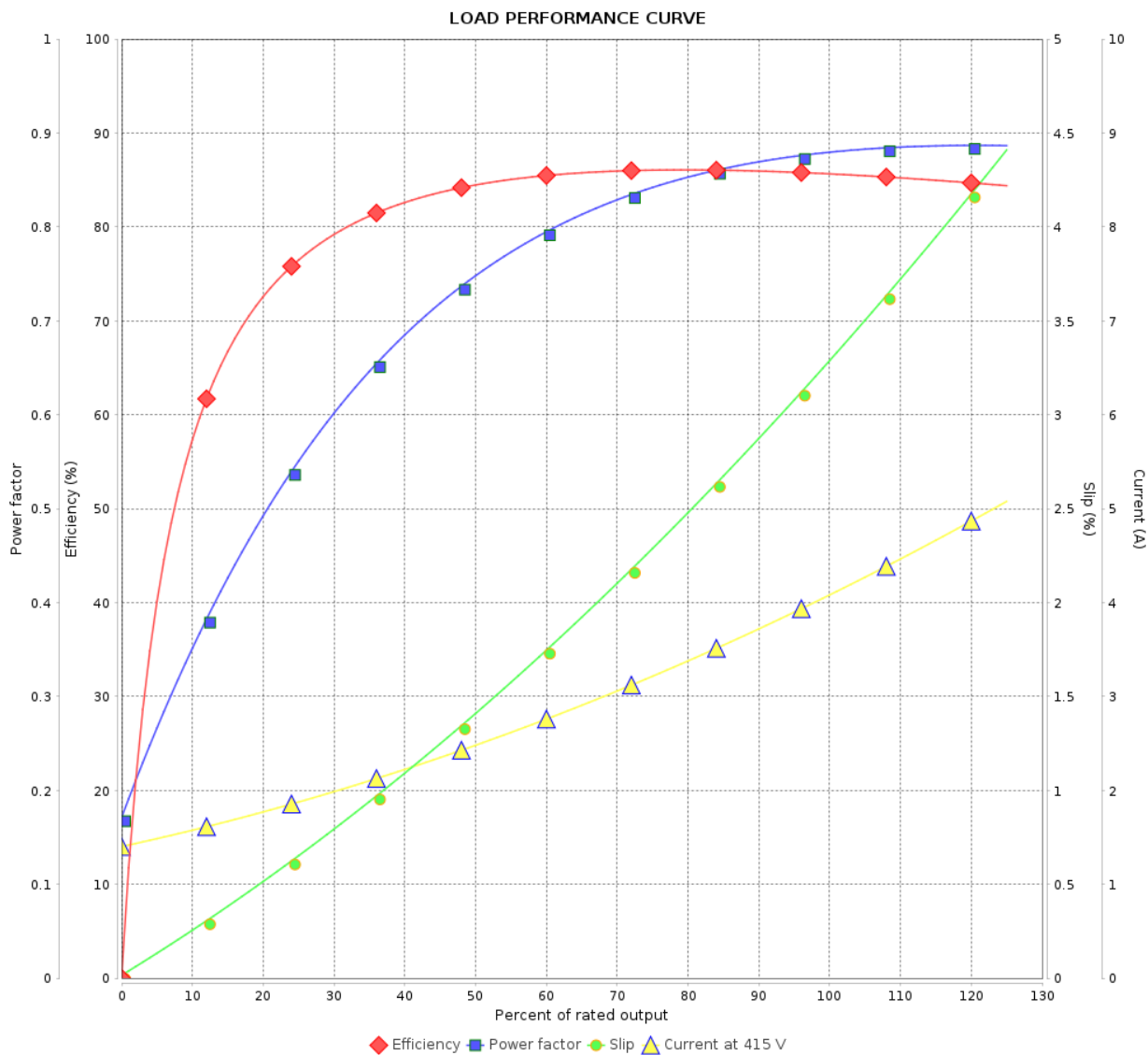
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Performance : 415 V 50 Hz 2P IE2

Rated current : 4.07 A
LRC : 8.1
Rated torque : 0.751 kgfm
Locked rotor torque : 260 %
Breakdown torque : 350 %
Rated speed : 2900 rpm

Moment of inertia (J) : 0.0080 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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