

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM NEMA Premium Efficiency Three-Phase Product code : 12602714

Frame	: 284/6JM	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	: 160 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.1135 kgm ²
Design	: B		

Output [HP]	25	20	20	20	25	25	25
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	57.5/28.8	28.2	27.1	26.4	35.3	33.6	32.1
L. R. Amperes [A]	363/181	175	187	198	173	185	199
LRC [A]	6.3x(Code G)	6.2x(Code G)	6.9x(Code H)	7.5x(Code J)	4.9x(Code E)	5.5x(Code F)	6.2x(Code G)
No load current [A]	16.3/8.15	7.70	8.40	9.00	7.70	8.40	9.00
Rated speed [RPM]	3545	2945	2951	2956	2915	2930	2940
Slip [%]	1.53	1.83	1.63	1.47	2.83	2.33	2.00
Rated torque [kgfm]	5.12	4.93	4.92	4.91	6.22	6.19	6.17
Locked rotor torque [%]	200	200	229	240	160	180	190
Breakdown torque [%]	250	240	280	300	190	210	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	30s (cold) 17s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (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%	90.8	89.0	89.4	88.9	91.5	90.9
	50%	91.0	90.2	90.3	89.8	91.0	91.0
	75%	91.7	90.7	91.1	91.1	90.2	91.0
	100%	91.7	91.9	91.9	91.9	89.5	90.2
Power Factor	25%	0.54	0.56	0.52	0.48	0.62	0.55
	50%	0.78	0.79	0.76	0.73	0.83	0.79
	75%	0.85	0.86	0.84	0.82	0.88	0.85
	100%	0.88	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)	8.1	7.9	7.9	7.9	10.6	9.8	8.9
	P2 (0,5;1,0)	5.6	5.5	5.5	5.5	7.3	6.7	6.1
	P3 (0,25;1,0)	4.9	4.8	4.8	4.8	6.3	5.9	5.3
	P4 (0,9;0,5)	4.8	4.6	4.6	4.6	6.2	5.7	5.2
	P5 (0,5;0,5)	2.5	2.4	2.4	2.4	3.2	2.9	2.7
	P6 (0,5;0,25)	1.7	1.7	1.7	1.7	2.2	2.1	1.9
	P7 (0,25;0,25)	0.9	0.9	0.9	0.9	1.2	1.1	1.0

Bearing type	: 6311 C3	6211 C3	Foundation loads	
	: V'Ring	V'Ring		Max. traction : 132 kgf
	: 14000 h	17000 h		Max. compression : 292 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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Notes
USABLE @208V 63.0A SF 1.10 SFA 69.3A

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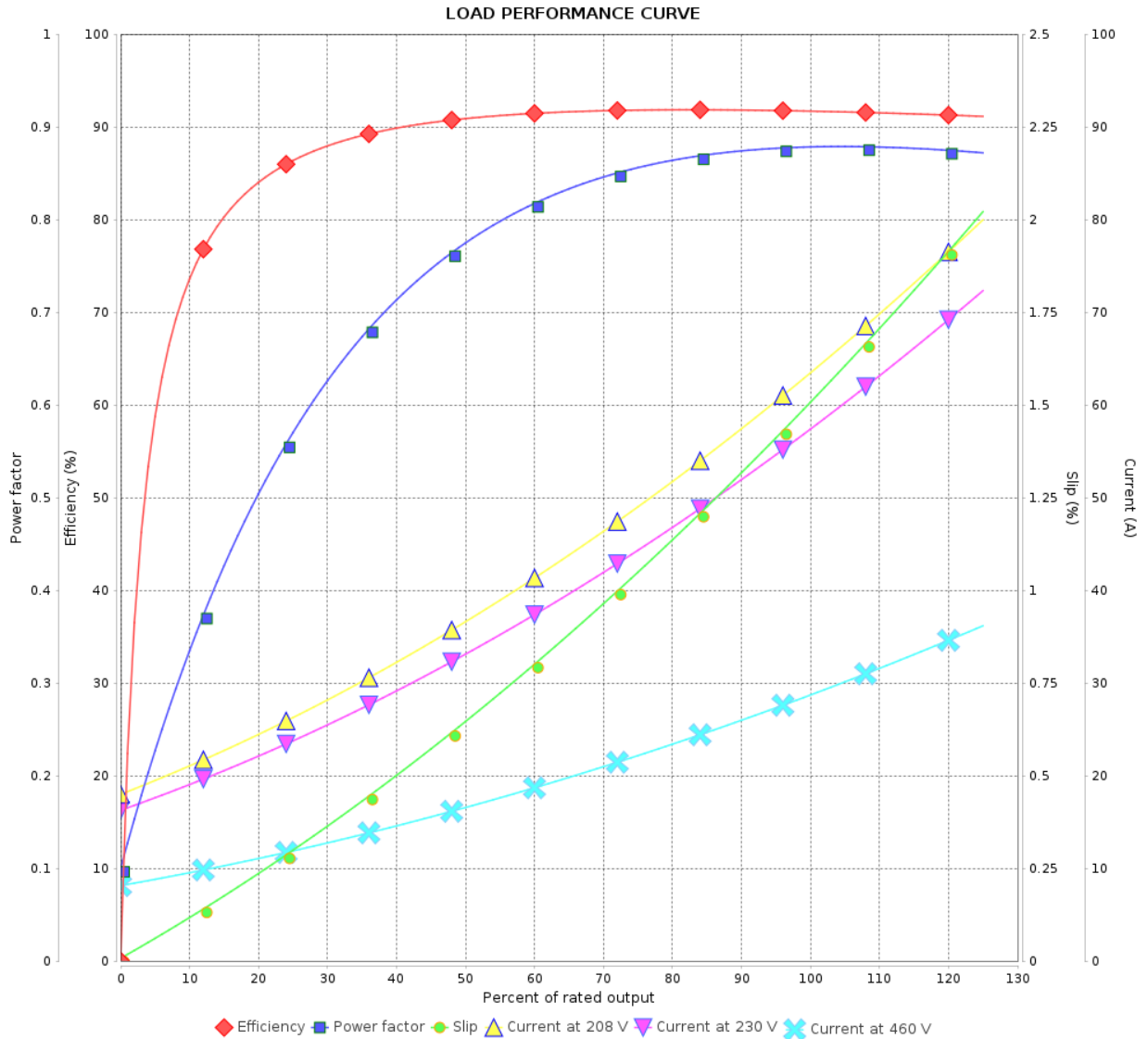
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM NEMA
Premium Efficiency Three-Phase

Product code : 12602714



Performance : 230/460 V 60 Hz 2P

Rated current : 57.5/28.8 A
 LRC : 6.3
 Rated torque : 5.12 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 250 %
 Rated speed : 3545 rpm

Moment of inertia (J) : 0.1135 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

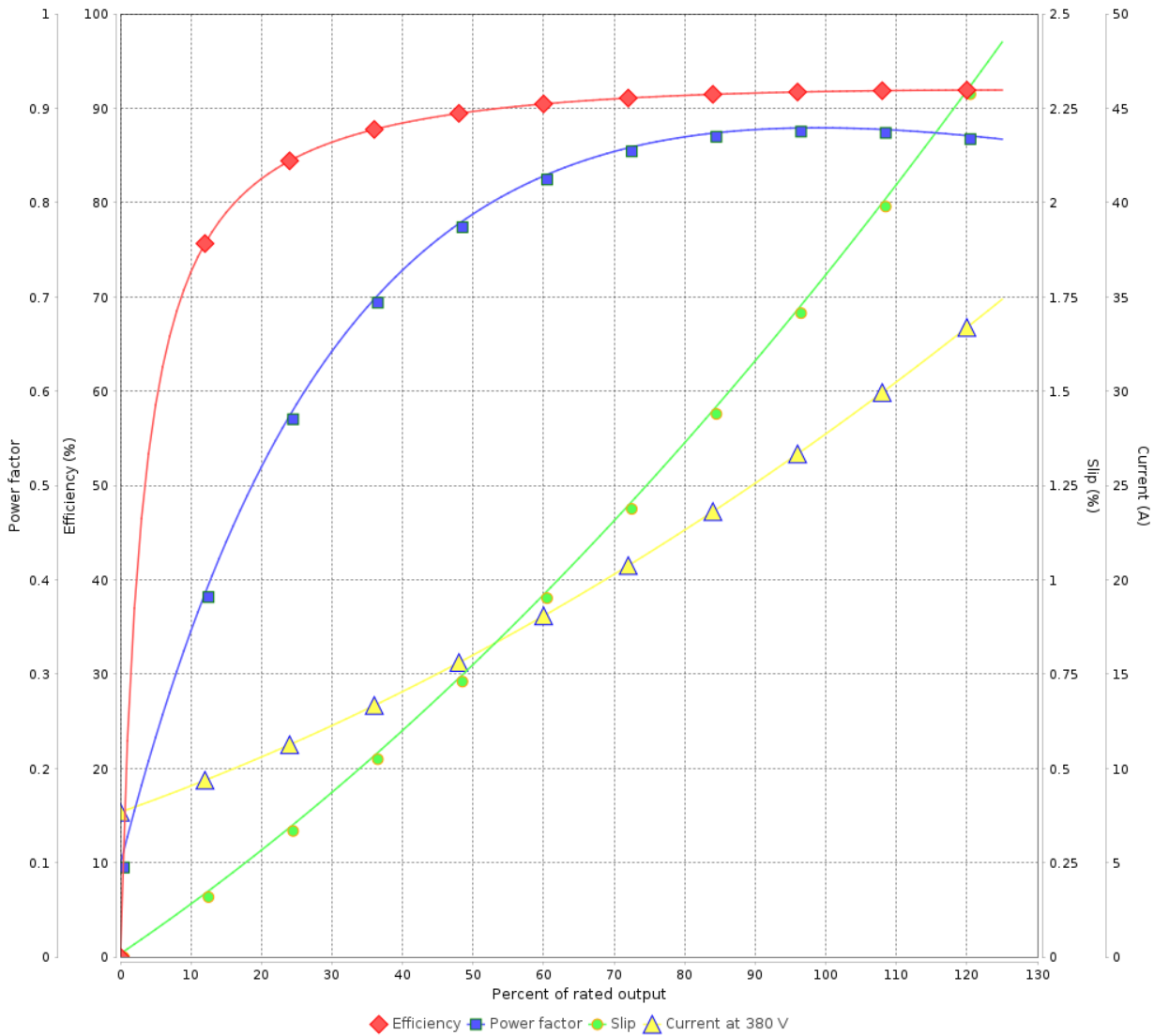


Customer :

Product line : W22 Close Coupled Pump JM NEMA
Premium Efficiency Three-Phase

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Performance : 380 V 50 Hz 2P IE3

Rated current : 28.2 A
LRC : 6.2
Rated torque : 4.93 kgfm
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 2945 rpm

Moment of inertia (J) : 0.1135 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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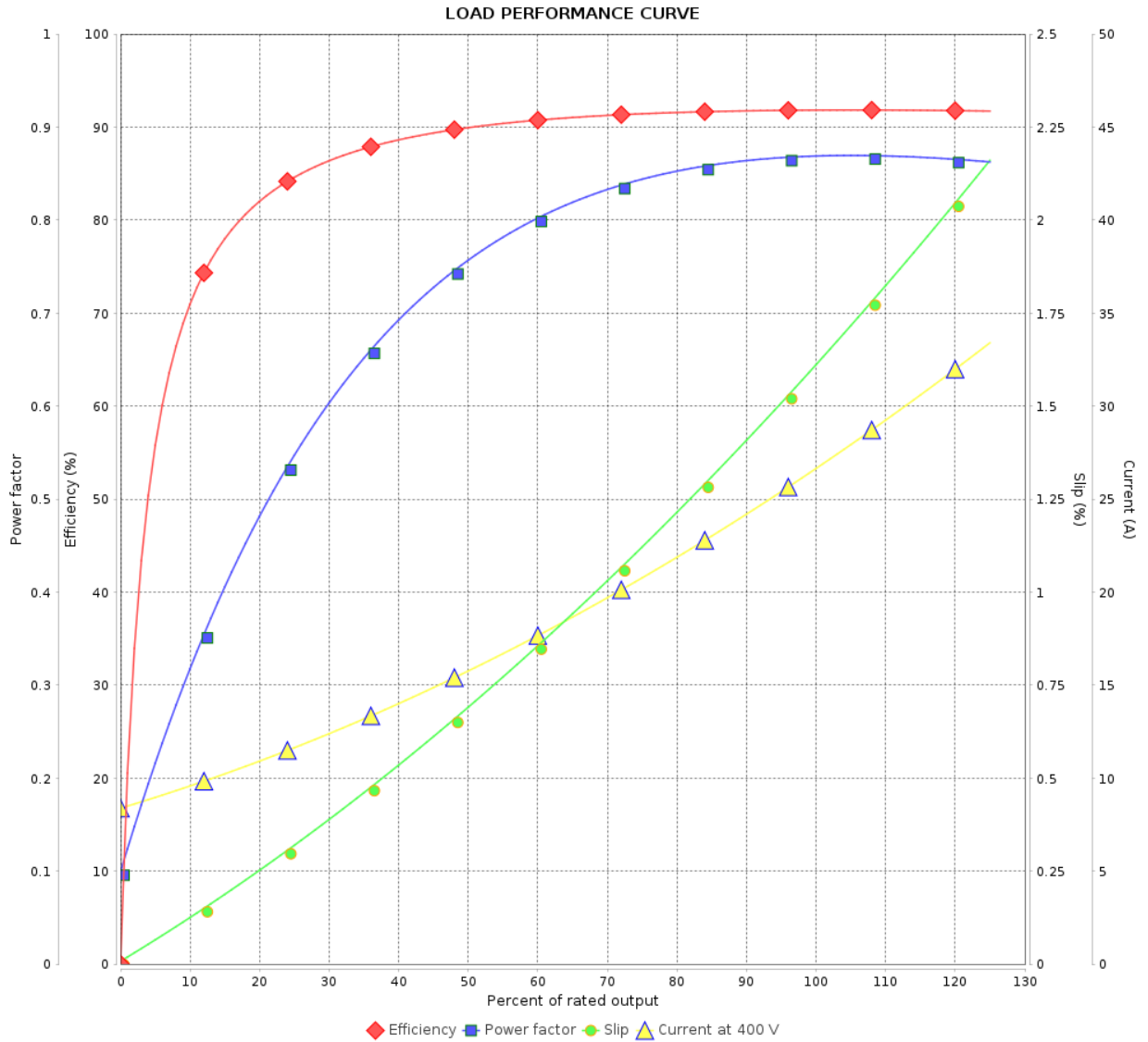
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 Close Coupled Pump JM NEMA
Premium Efficiency Three-Phase

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Performance : 400 V 50 Hz 2P IE3

Rated current : 27.1 A
 LRC : 6.9
 Rated torque : 4.92 kgfm
 Locked rotor torque : 229 %
 Breakdown torque : 280 %
 Rated speed : 2951 rpm

Moment of inertia (J) : 0.1135 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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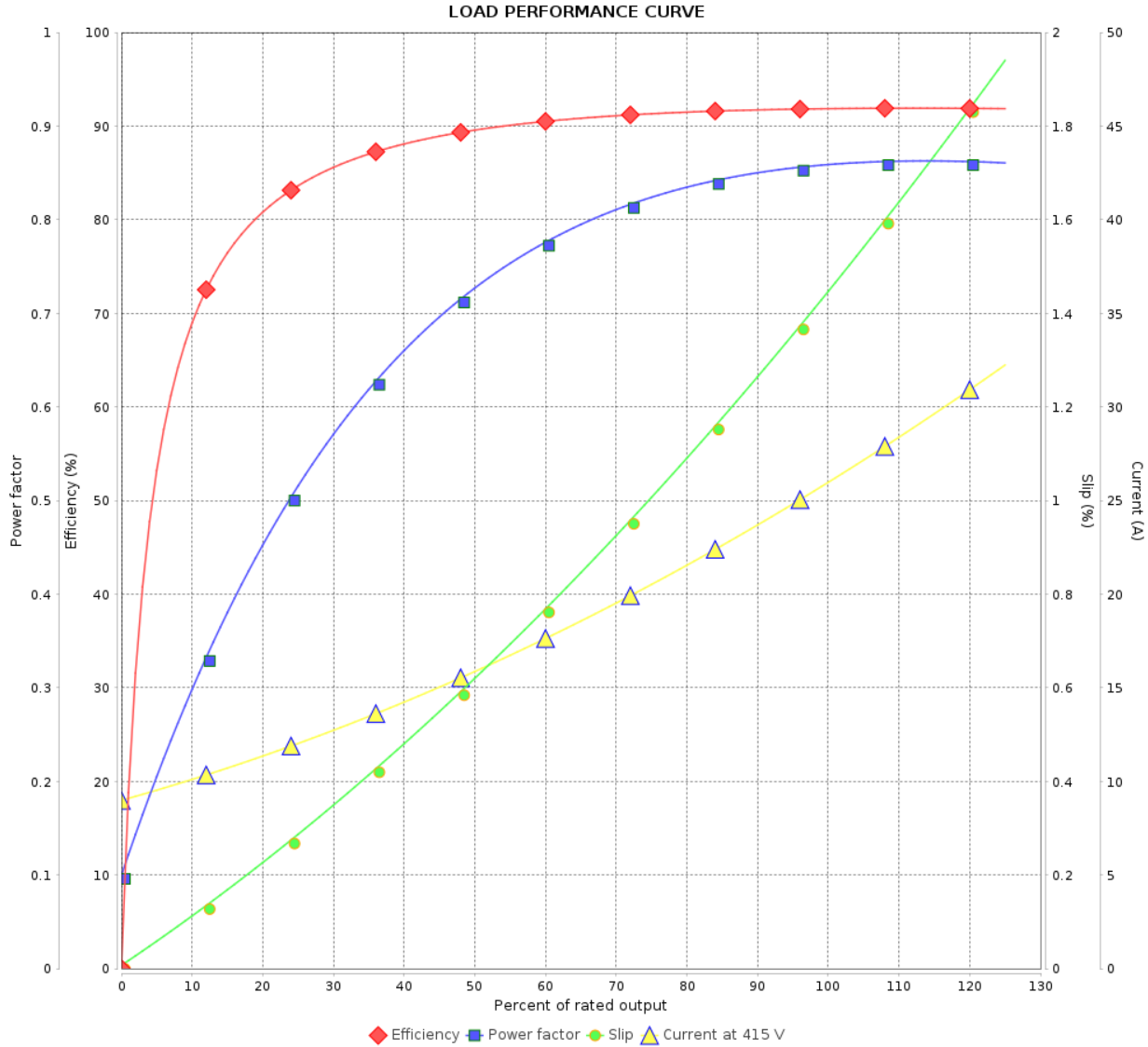
Three Phase Induction Motor - Squirrel Cage



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Product line : W22 Close Coupled Pump JM NEMA
Premium Efficiency Three-Phase

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Performance : 415 V 50 Hz 2P IE3

Rated current : 26.4 A
 LRC : 7.5
 Rated torque : 4.91 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 300 %
 Rated speed : 2956 rpm

Moment of inertia (J) : 0.1135 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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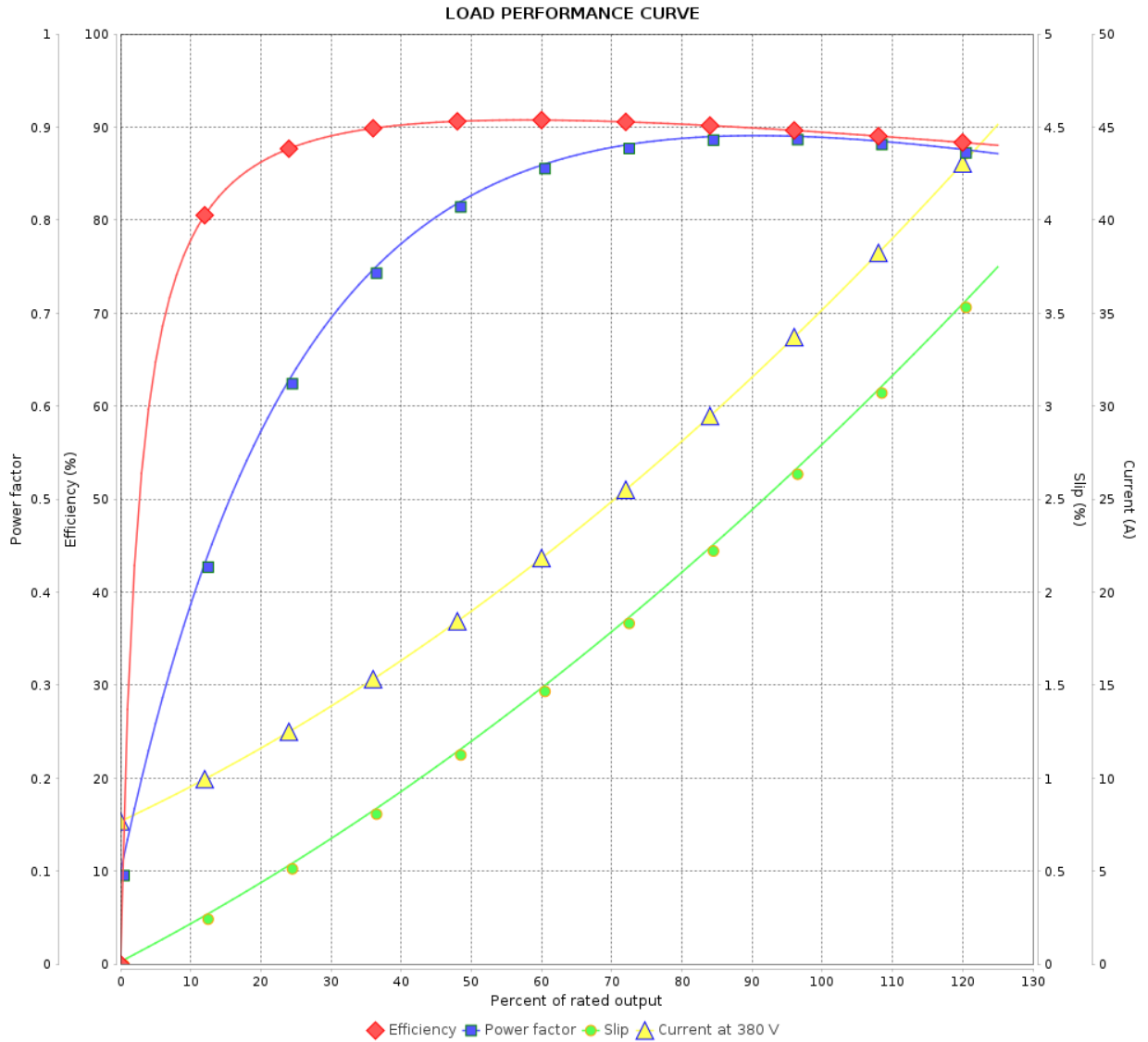
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Performance : 380 V 50 Hz 2P IE1

Rated current : 35.3 A
 LRC : 4.9
 Rated torque : 6.22 kgfm
 Locked rotor torque : 160 %
 Breakdown torque : 190 %
 Rated speed : 2915 rpm

Moment of inertia (J) : 0.1135 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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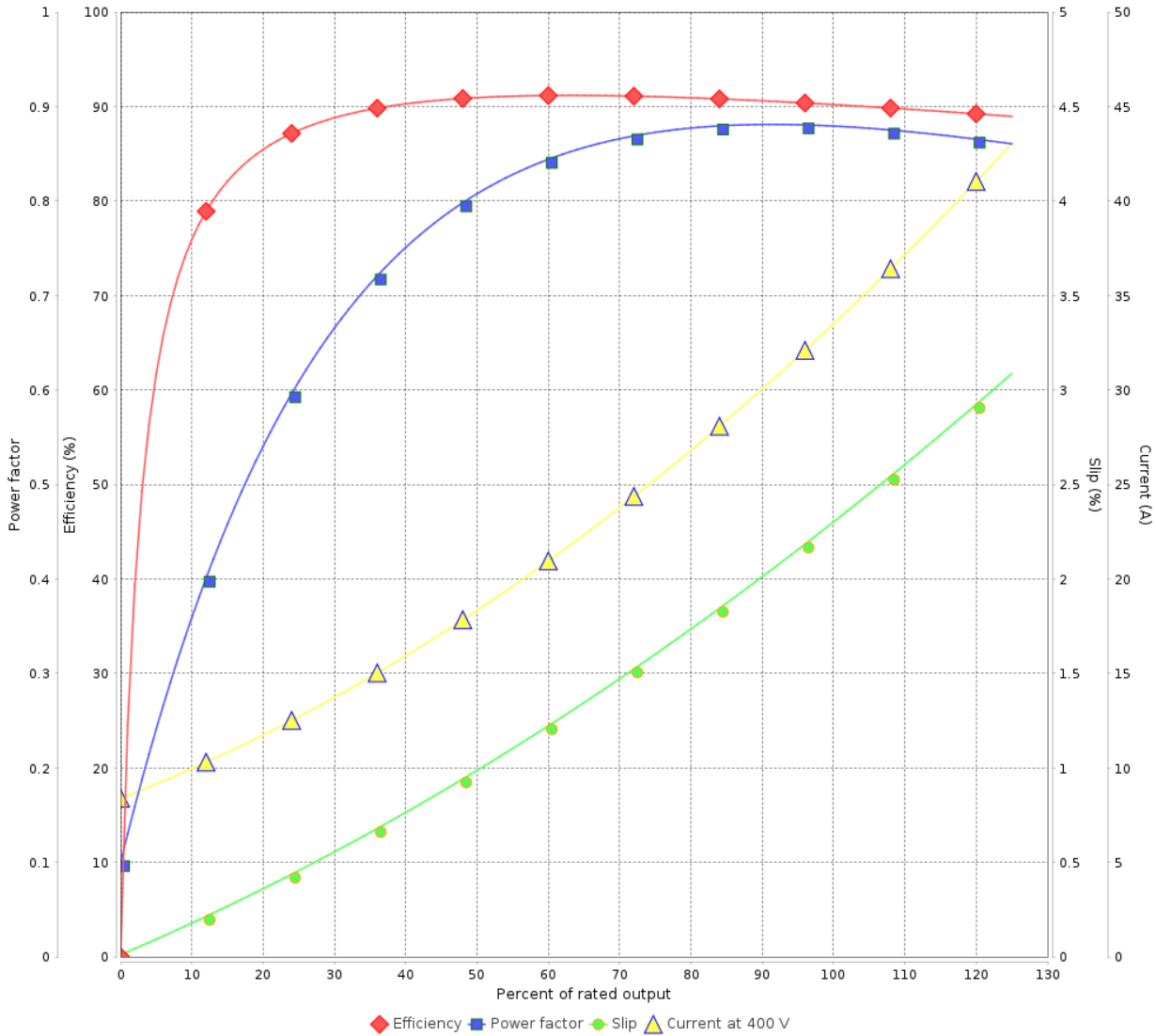


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Performance : 400 V 50 Hz 2P IE1

Rated current : 33.6 A
LRC : 5.5
Rated torque : 6.19 kgfm
Locked rotor torque : 180 %
Breakdown torque : 210 %
Rated speed : 2930 rpm

Moment of inertia (J) : 0.1135 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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