

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11921930

Frame	: 143/5TC	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	: 24.9 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.0067 kgm ²
Design	: B		

Output [HP]	1	0.75	0.75	0.75	1	1	1
Poles	6	6	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	1.73	1.60	1.62	1.66	1.96	1.94	1.95
L. R. Amperes [A]	10.7	9.28	9.88	10.5	9.41	10.1	10.7
LRC [A]	6.2x(Code K)	5.8x(Code K)	6.1x(Code L)	6.3x(Code M)	4.8x(Code G)	5.2x(Code H)	5.5x(Code J)
No load current [A]	1.10	1.05	1.15	1.25	1.05	1.15	1.25
Rated speed [RPM]	1160	960	970	970	940	950	950
Slip [%]	3.33	4.00	3.00	3.00	6.00	5.00	5.00
Rated torque [kgfm]	0.626	0.567	0.561	0.561	0.772	0.764	0.764
Locked rotor torque [%]	260	280	300	320	200	229	250
Breakdown torque [%]	300	310	330	340	220	260	280
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	80 K	80 K	80 K
Locked rotor time	50s (cold) 28s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)
Noise level ²	50.0 dB(A)	45.0 dB(A)	45.0 dB(A)	45.0 dB(A)	45.0 dB(A)	45.0 dB(A)	45.0 dB(A)
Efficiency (%)	25%						
	50%	77.0	74.8	73.2	70.7	77.0	74.0
	75%	82.0	78.4	77.5	75.8	80.0	78.5
	100%	82.5	79.3	78.9	77.9	78.5	78.5
Power Factor	25%						
	50%	0.45	0.44	0.41	0.38	0.53	0.46
	75%	0.57	0.57	0.53	0.50	0.66	0.59
	100%	0.66	0.66	0.62	0.59	0.74	0.68

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

Losses (%)	P1 (0,9;1,0)	20.0	20.0	20.0	20.0	20.0	20.0
	P2 (0,5;1,0)	16.7	16.7	16.7	16.7	16.7	16.7
	P3 (0,25;1,0)	16.9	16.9	16.9	16.9	16.9	16.9
	P4 (0,9;0,5)	12.6	12.6	12.6	12.6	12.6	12.6
	P5 (0,5;0,5)	9.2	9.2	9.2	9.2	9.2	9.2
	P6 (0,5;0,25)	7.6	7.6	7.6	7.6	7.6	7.6
	P7 (0,25;0,25)	5.8	5.8	5.8	5.8	5.8	5.8

Bearing type	: 6205 C3	Non drive end	6204 C3	Foundation loads	
Sealing	: Taconite		Taconite	Max. traction	: 48 kgf
	: Labyrinth		Labyrinth	Max. compression	: 73 kgf
Lubrication interval	: 20000 h		20000 h		
Lubricant amount	: 4 g		4 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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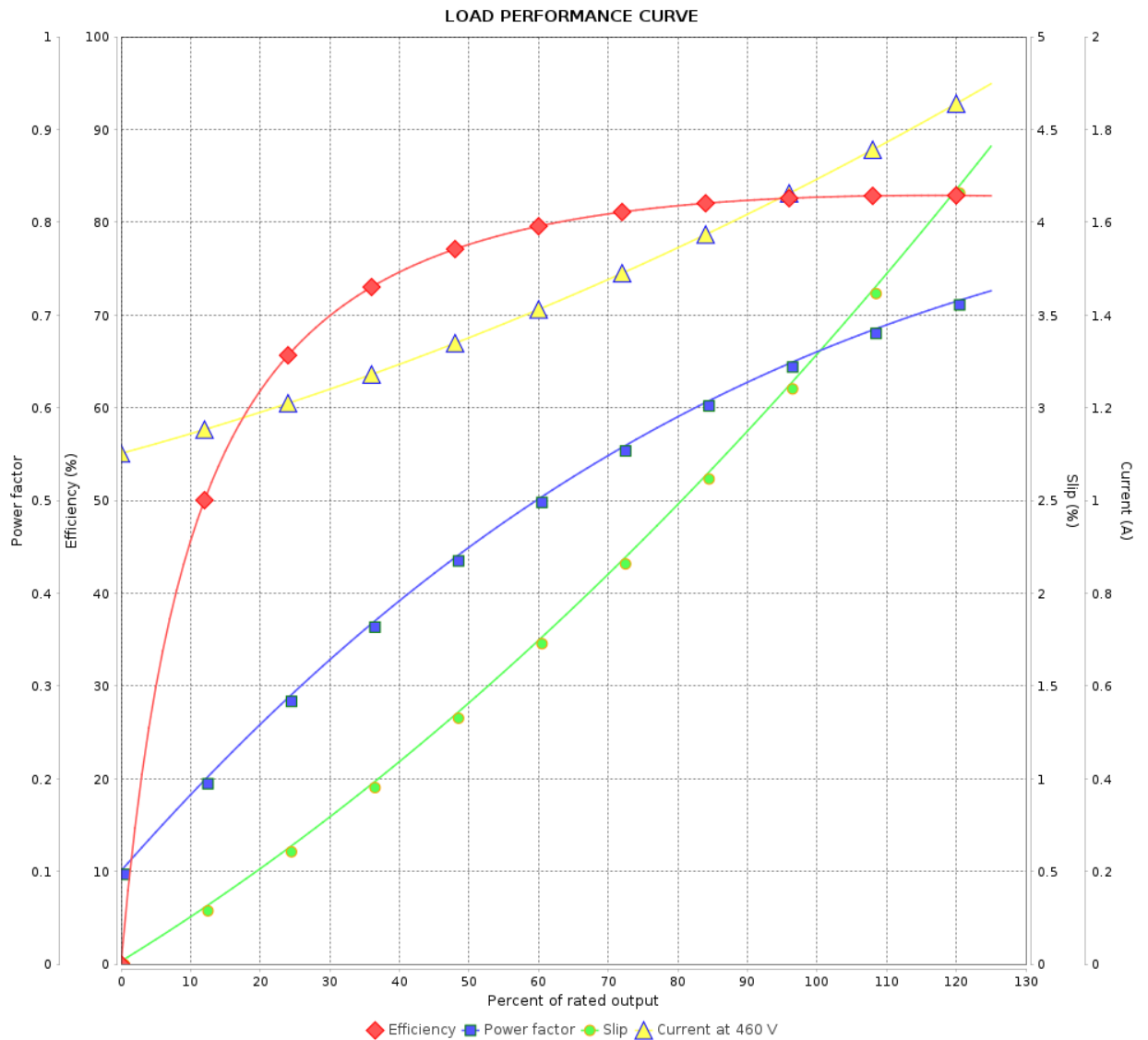
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11921930



Performance : 460 V 60 Hz 6P

Rated current	: 1.73 A	Moment of inertia (J)	: 0.0067 kgm ²
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 0.626 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.25
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1160 rpm	Design	: B

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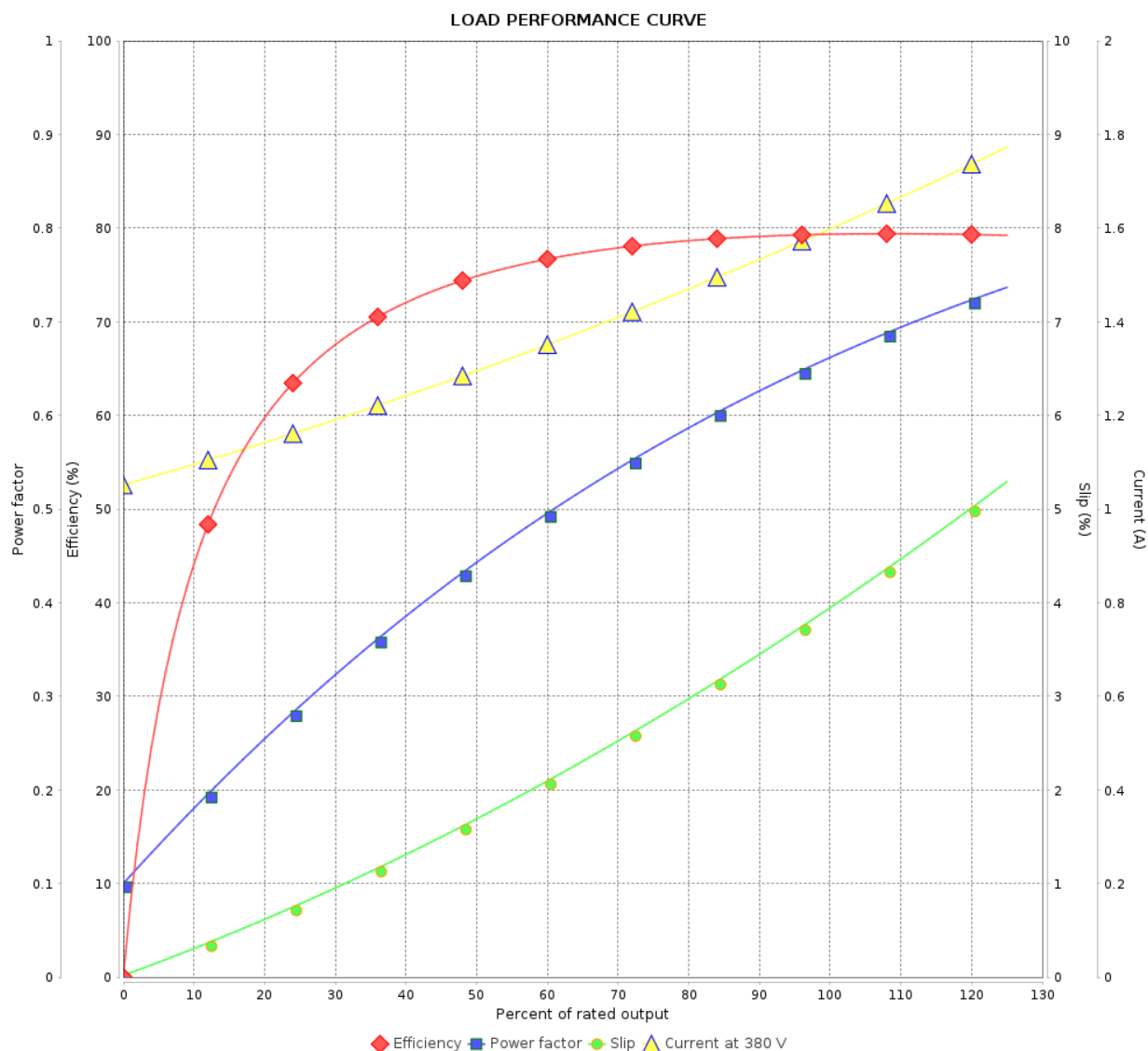
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
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Performance : 380 V 50 Hz 6P IE3

Rated current : 1.60 A
LRC : 5.8
Rated torque : 0.567 kgfm
Locked rotor torque : 280 %
Breakdown torque : 310 %
Rated speed : 960 rpm

Moment of inertia (J) : 0.0067 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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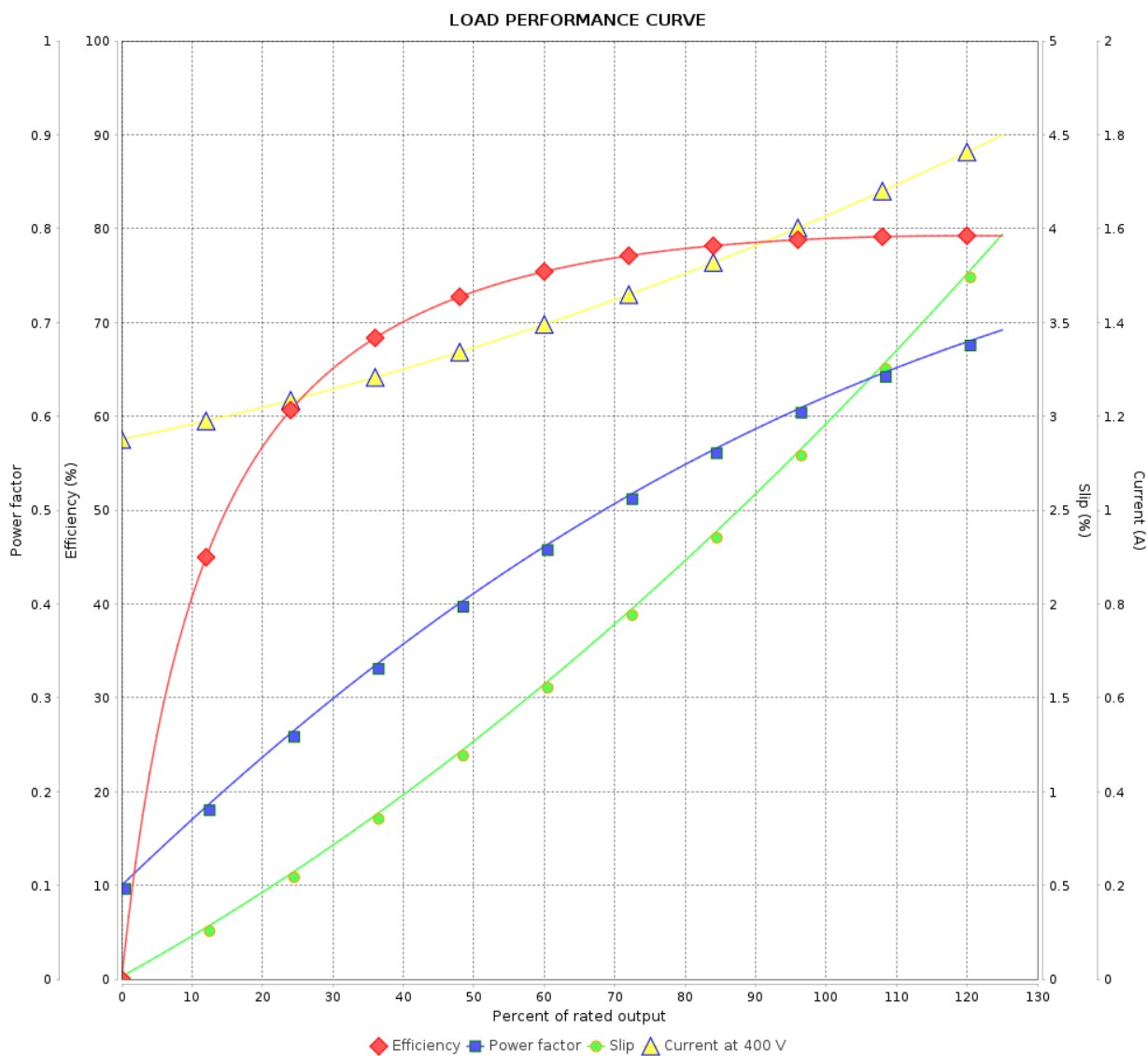
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 6P IE3

Rated current : 1.62 A
LRC : 6.1
Rated torque : 0.561 kgfm
Locked rotor torque : 300 %
Breakdown torque : 330 %
Rated speed : 970 rpm

Moment of inertia (J) : 0.0067 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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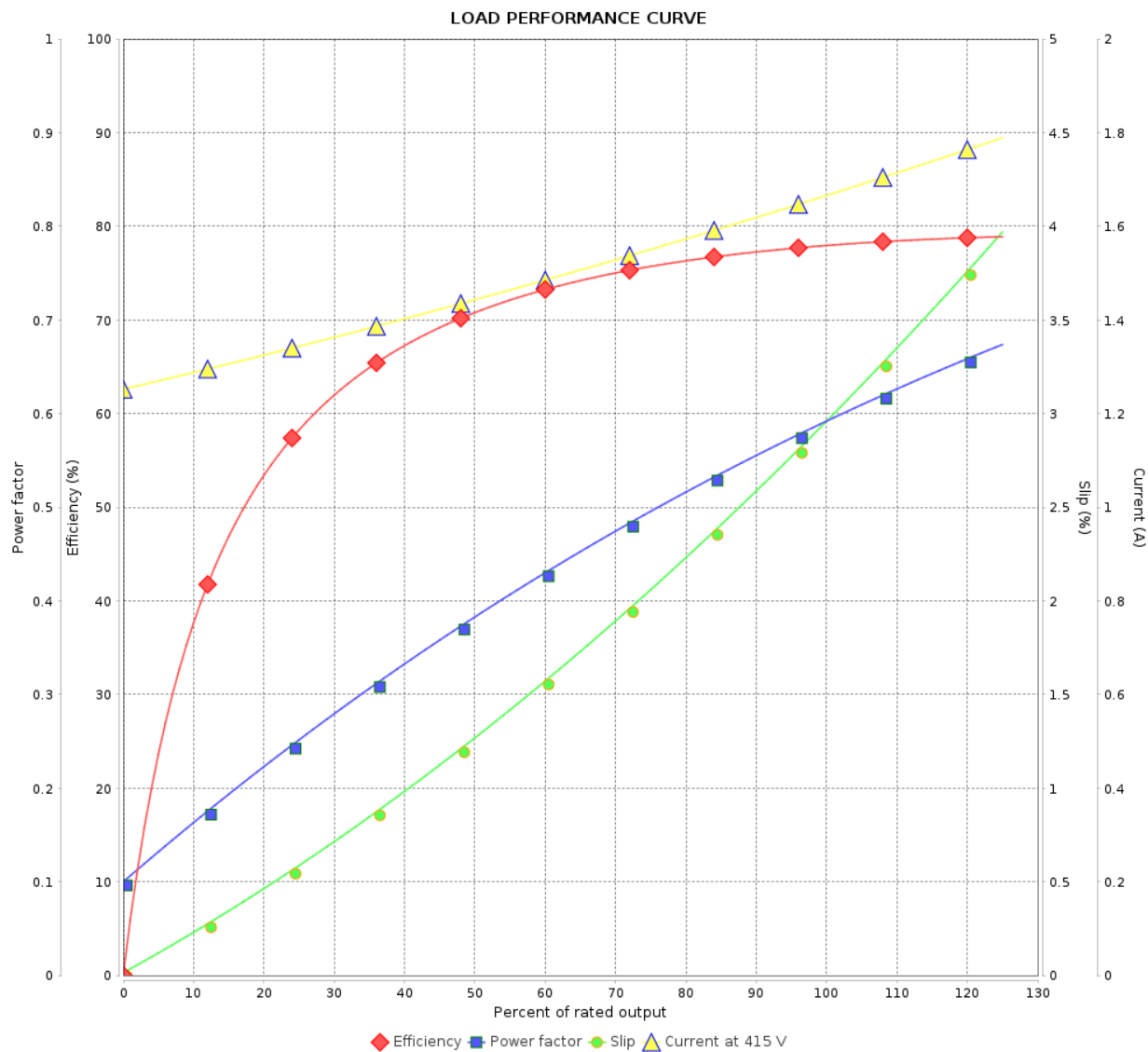
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 415 V 50 Hz 6P IE3

Rated current : 1.66 A
LRC : 6.3
Rated torque : 0.561 kgfm
Locked rotor torque : 320 %
Breakdown torque : 340 %
Rated speed : 970 rpm

Moment of inertia (J) : 0.0067 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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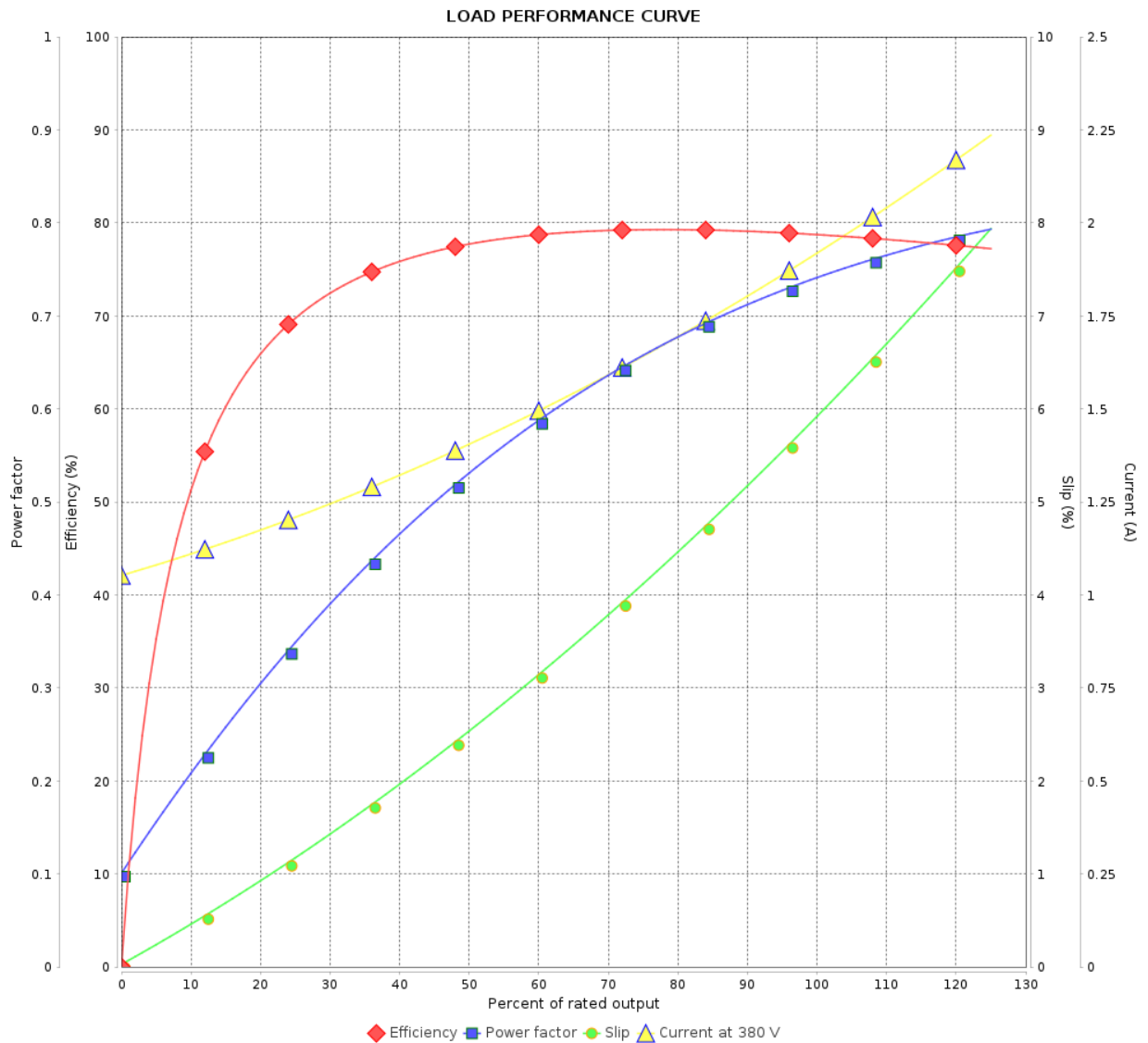
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 6P IE2

Rated current	: 1.96 A	Moment of inertia (J)	: 0.0067 kgm ²
LRC	: 4.8	Duty cycle	: Cont.(S1)
Rated torque	: 0.772 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 940 rpm	Design	: B

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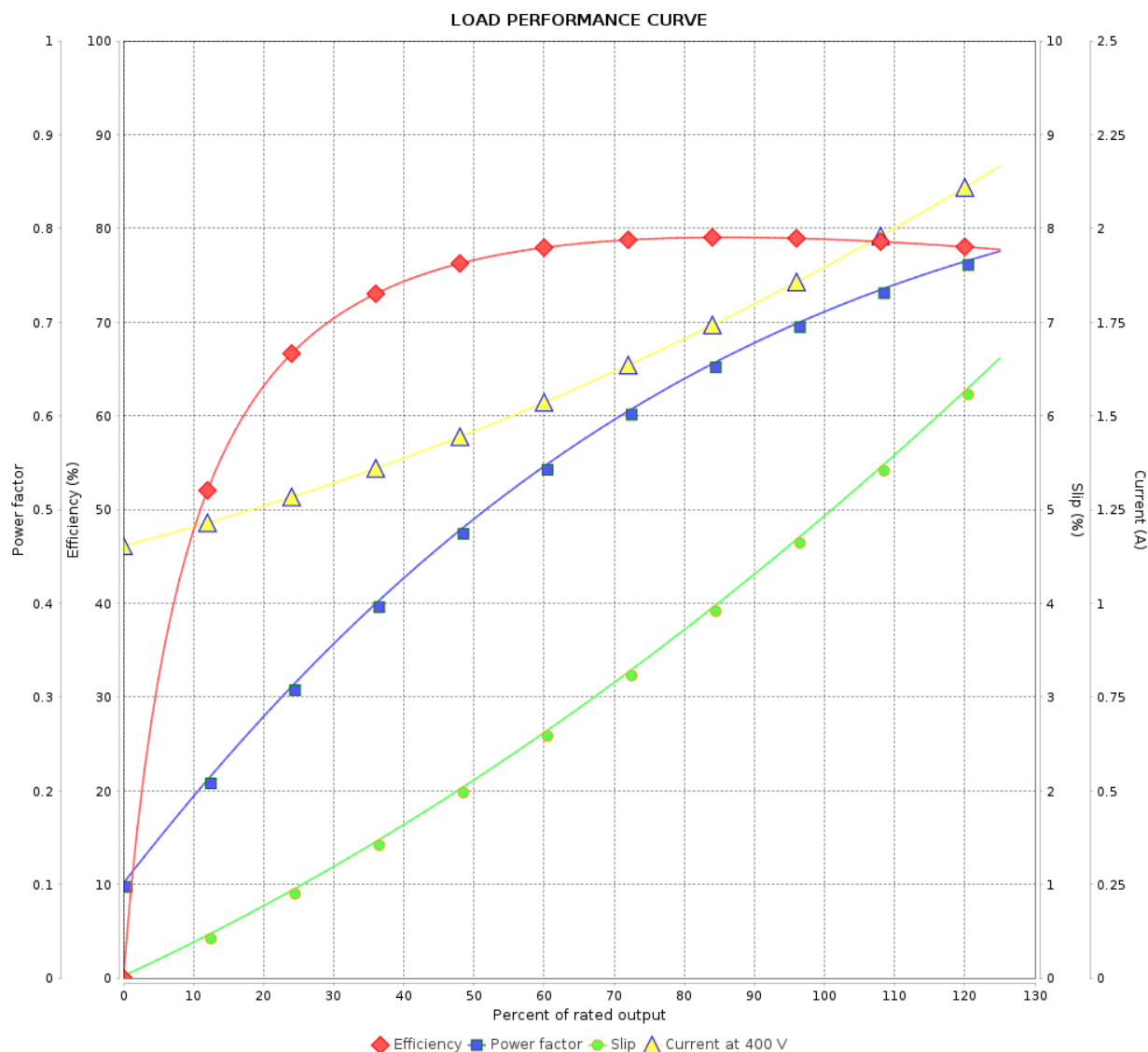
Three Phase Induction Motor - Squirrel Cage



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Performance : 400 V 50 Hz 6P IE2

Rated current : 1.94 A
LRC : 5.2
Rated torque : 0.764 kgfm
Locked rotor torque : 229 %
Breakdown torque : 260 %
Rated speed : 950 rpm

Moment of inertia (J) : 0.0067 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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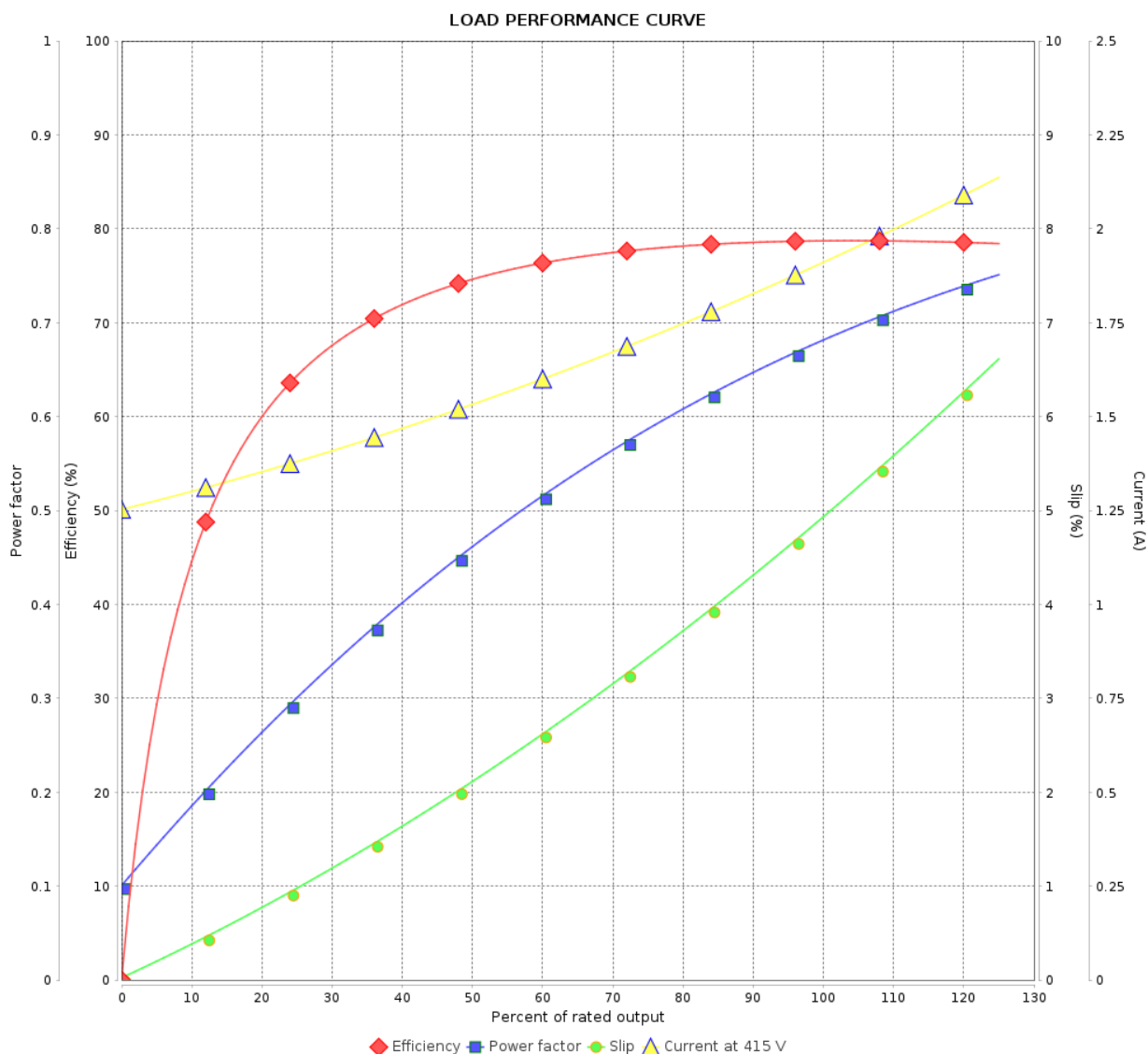
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 415 V 50 Hz 6P IE2

Rated current : 1.95 A
LRC : 5.5
Rated torque : 0.764 kgfm
Locked rotor torque : 250 %
Breakdown torque : 280 %
Rated speed : 950 rpm

Moment of inertia (J) : 0.0067 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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