

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431316

Frame	: 182/4T	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	: 48.8 kg
Protection degree	: IP56	Moment of inertia (J)	: 0.0169 kgm ²
Design	: B		

Output [HP]	5	4	4	4	5	5	5
Poles	4	4	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	460	380	400	415	380	400	415
Rated current [A]	6.49	6.42	6.21	6.23	7.74	7.44	7.35
L. R. Amperes [A]	50.0	44.9	47.8	51.1	44.9	47.6	50.7
LRC [A]	7.7x(Code J)	7.0x(Code J)	7.7x(Code K)	8.2x(Code L)	5.8x(Code G)	6.4x(Code H)	6.9x(Code J)
No load current [A]	2.90	2.80	3.10	3.30	2.80	3.10	3.30
Rated speed [RPM]	1750	1455	1455	1460	1430	1440	1445
Slip [%]	2.78	3.00	3.00	2.67	4.67	4.00	3.67
Rated torque [kgfm]	2.07	2.00	2.00	1.99	2.54	2.52	2.51
Locked rotor torque [%]	229	229	260	290	185	210	229
Breakdown torque [%]	290	300	300	350	225	250	270
Service factor	1.25	1.15	1.15	1.15	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	21s (cold) 12s (hot)	54s (cold) 30s (hot)	48s (cold) 27s (hot)	43s (cold) 24s (hot)	41s (cold) 23s (hot)	39s (cold) 22s (hot)	36s (cold) 20s (hot)
Noise level ²	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%						
	50%	88.5	87.5	86.7	86.5	88.5	87.5
	75%	89.5	88.2	88.2	88.2	87.5	88.5
	100%	89.5	87.7	88.2	88.2	86.5	87.5
Power Factor	25%						
	50%	0.62	0.61	0.57	0.53	0.69	0.61
	75%	0.74	0.75	0.71	0.67	0.80	0.74
	100%	0.80	0.81	0.79	0.76	0.84	0.80

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

Losses (%)	P1 (0,9;1,0)	11.3	13.6	12.9	12.9	15.1	13.8	13.8
	P2 (0,5;1,0)	9.5	11.4	10.9	10.9	12.7	11.6	11.6
	P3 (0,25;1,0)	8.7	10.4	10.0	10.0	11.6	10.6	10.6
	P4 (0,9;0,5)	5.5	6.5	6.2	6.2	7.3	6.7	6.7
	P5 (0,5;0,5)	3.8	4.5	4.3	4.3	5.0	4.6	4.6
	P6 (0,5;0,25)	2.5	3.0	2.9	2.9	3.4	3.1	3.1
	P7 (0,25;0,25)	1.8	2.2	2.1	2.1	2.4	2.2	2.2

Bearing type	Drive end	Non drive end	Foundation loads
	: 6207 C3	6206 C3	
	Sealing	Inpro/Seal	
	: Inpro/Seal	Inpro/Seal	
	Lubrication interval	20000 h	
Lubricant amount	: 20000 h	20000 h	Max. traction : 117 kgf
	Lubricant type	7 g	
	: Mobil Polyrex EM	5 g	
Max. compression			: 166 kgf

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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Customer :

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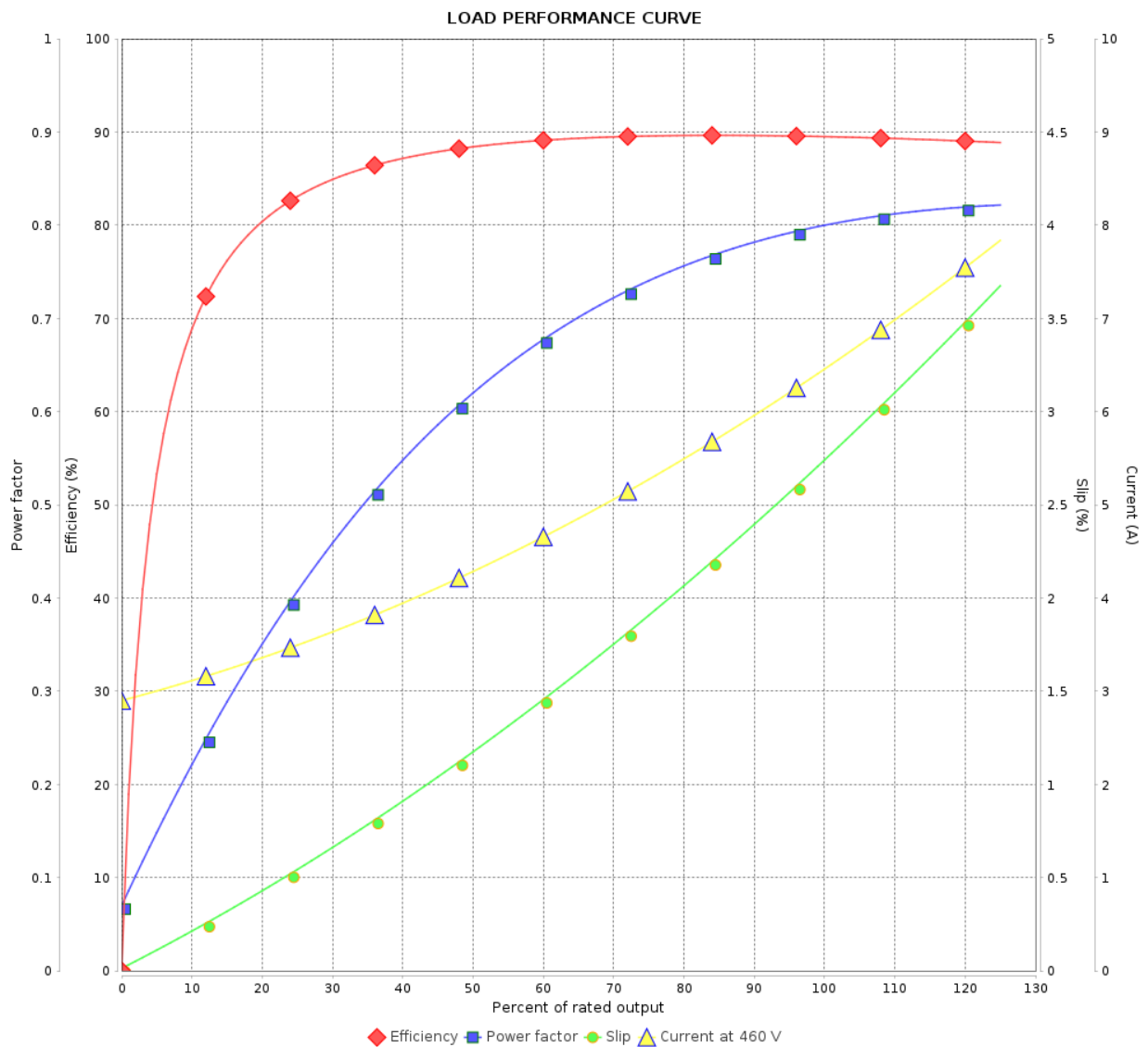
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11431316



Performance : 460 V 60 Hz 4P

Rated current : 6.49 A
LRC : 7.7
Rated torque : 2.07 kgfm
Locked rotor torque : 229 %
Breakdown torque : 290 %
Rated speed : 1750 rpm

Moment of inertia (J) : 0.0169 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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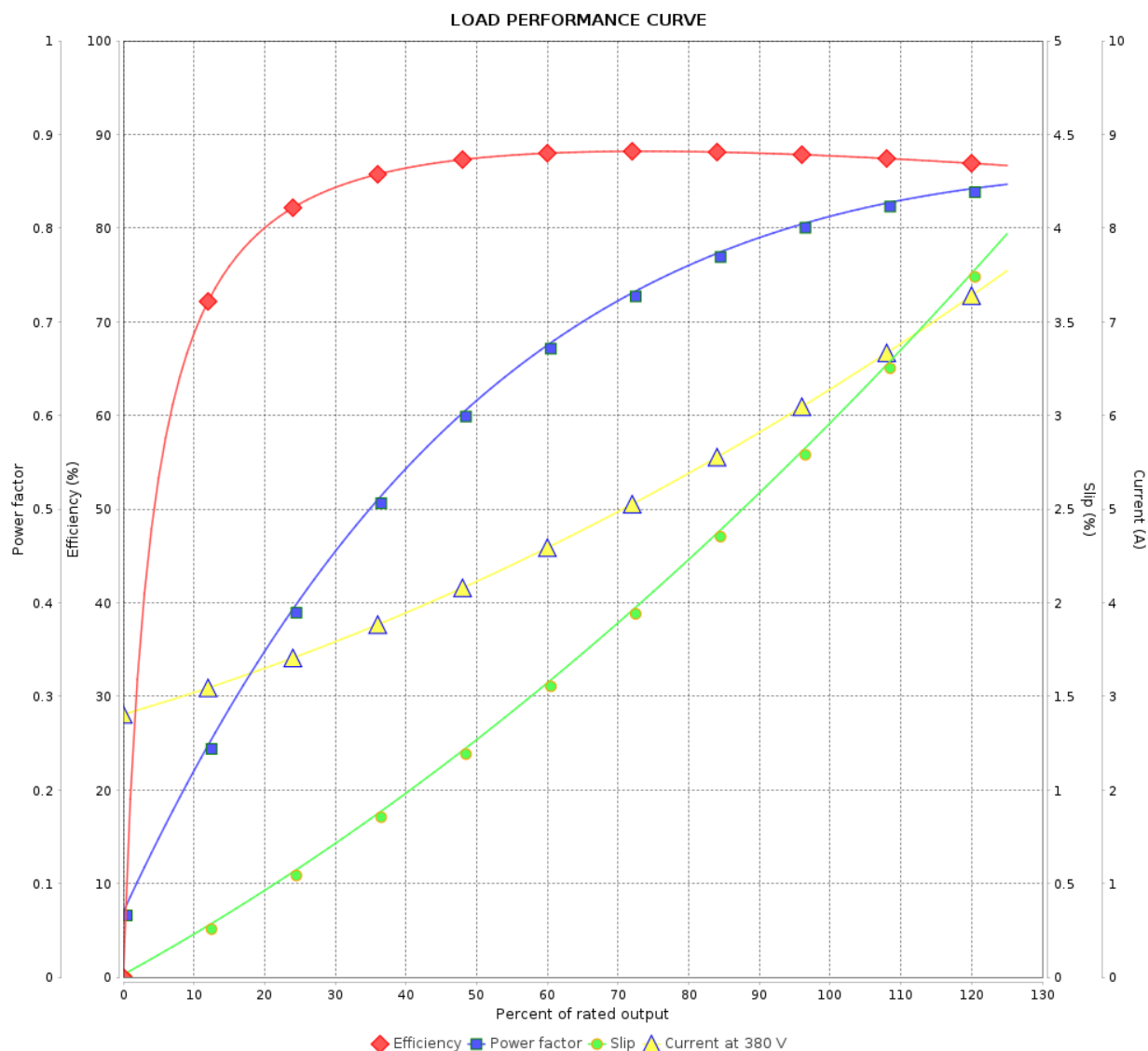
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
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Product code : 11431316



Performance : 380 V 50 Hz 4P IE3

Rated current : 6.42 A
LRC : 7.0
Rated torque : 2.00 kgfm
Locked rotor torque : 229 %
Breakdown torque : 300 %
Rated speed : 1455 rpm

Moment of inertia (J) : 0.0169 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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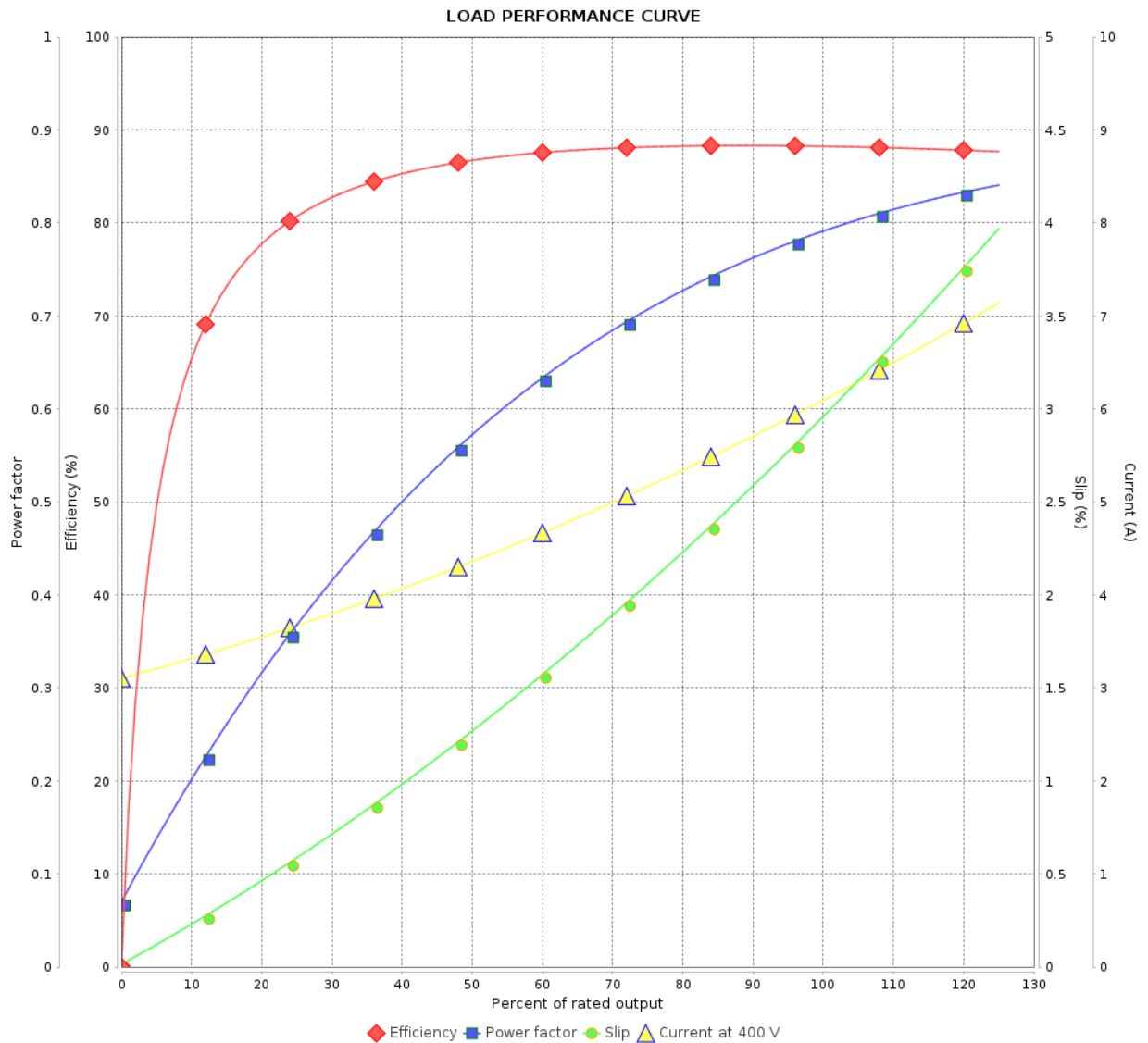
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11431316



Performance : 400 V 50 Hz 4P IE3

Rated current	: 6.21 A	Moment of inertia (J)	: 0.0169 kgm ²
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 2.00 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

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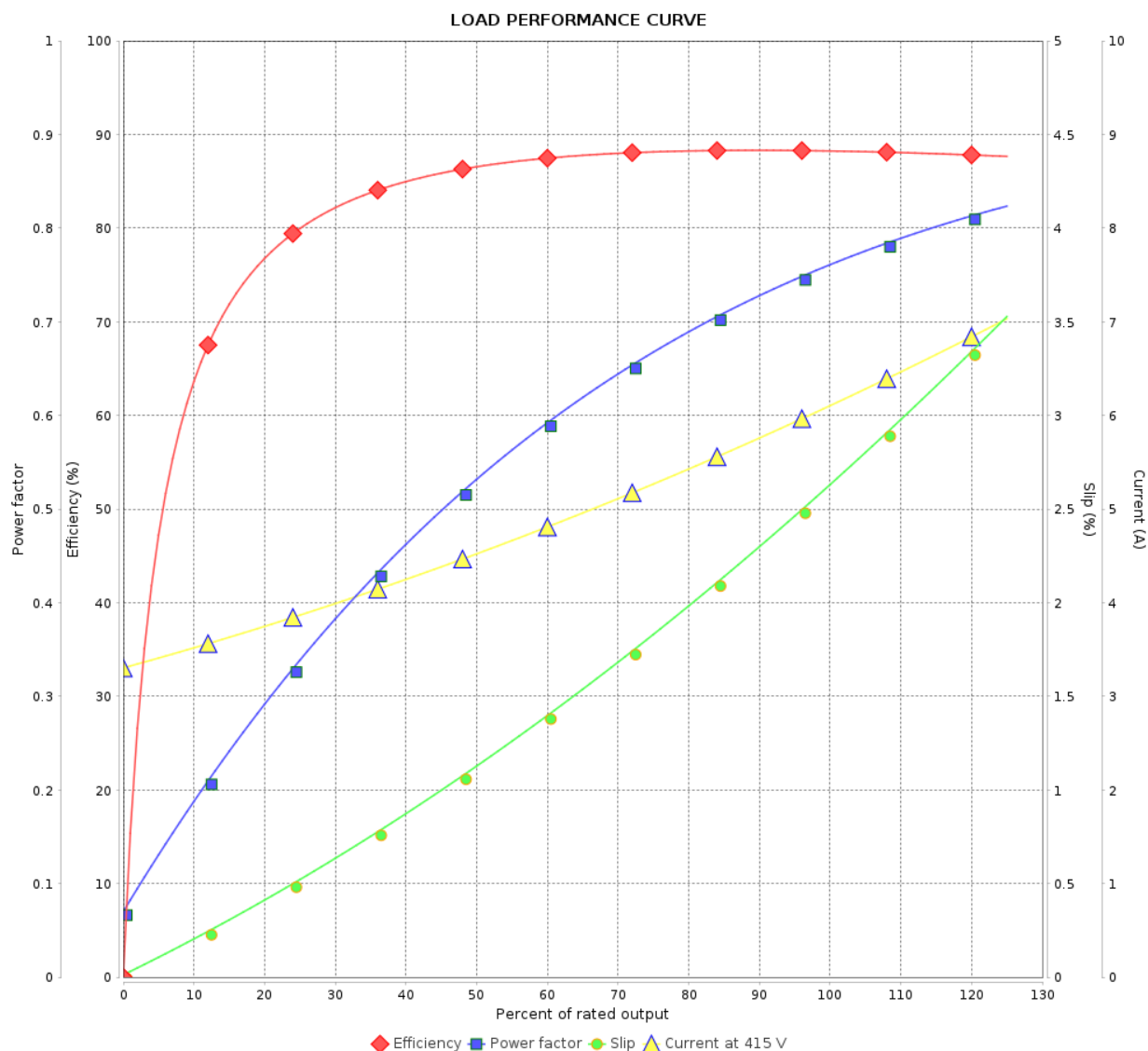
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11431316



Performance : 415 V 50 Hz 4P IE3

Rated current : 6.23 A
LRC : 8.2
Rated torque : 1.99 kgfm
Locked rotor torque : 290 %
Breakdown torque : 350 %
Rated speed : 1460 rpm

Moment of inertia (J) : 0.0169 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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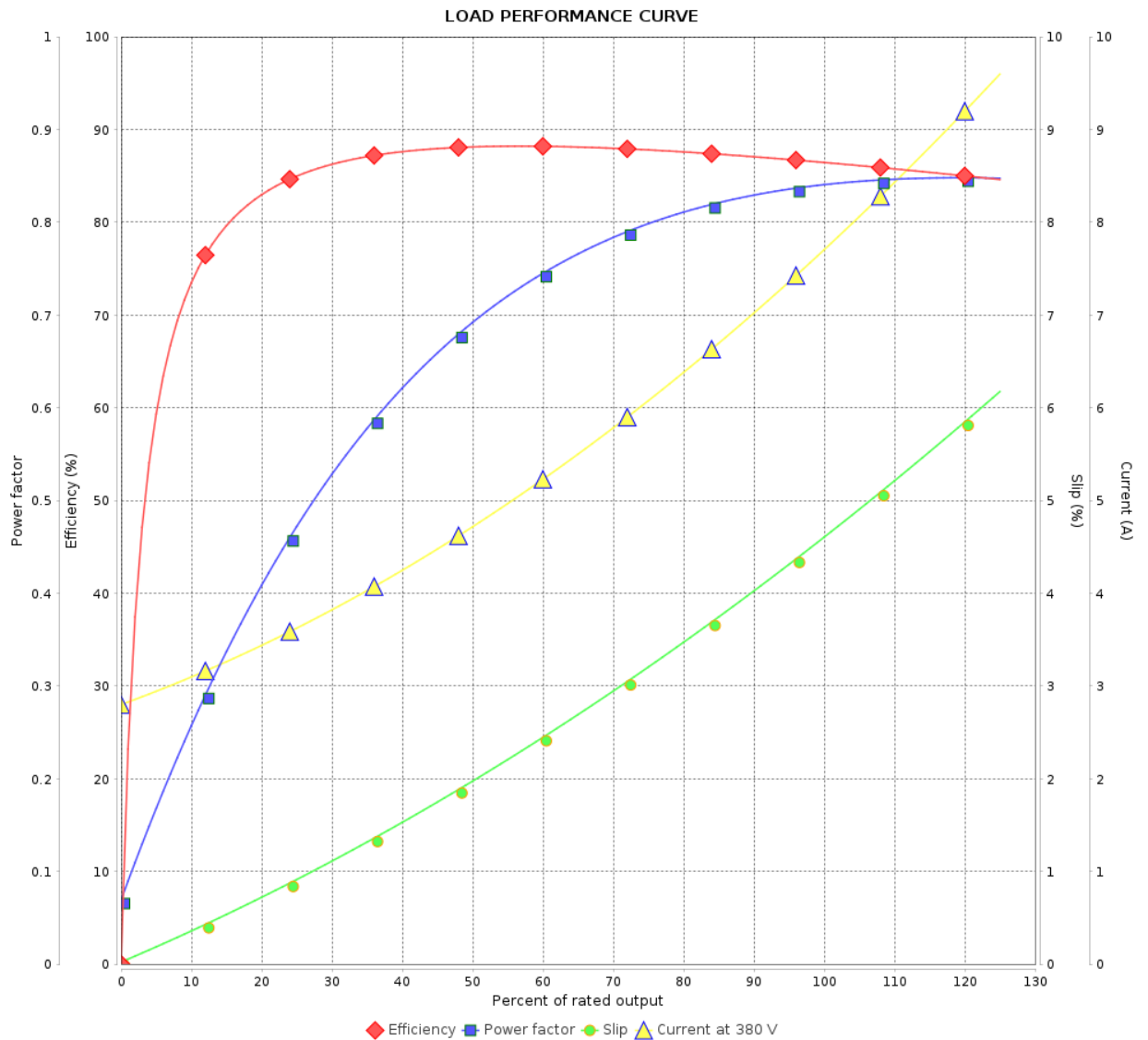
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 4P IE2

Rated current	: 7.74 A	Moment of inertia (J)	: 0.0169 kgm ²
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 2.54 kgfm	Insulation class	: F
Locked rotor torque	: 185 %	Service factor	: 1.15
Breakdown torque	: 225 %	Temperature rise	: 80 K
Rated speed	: 1430 rpm	Design	: B

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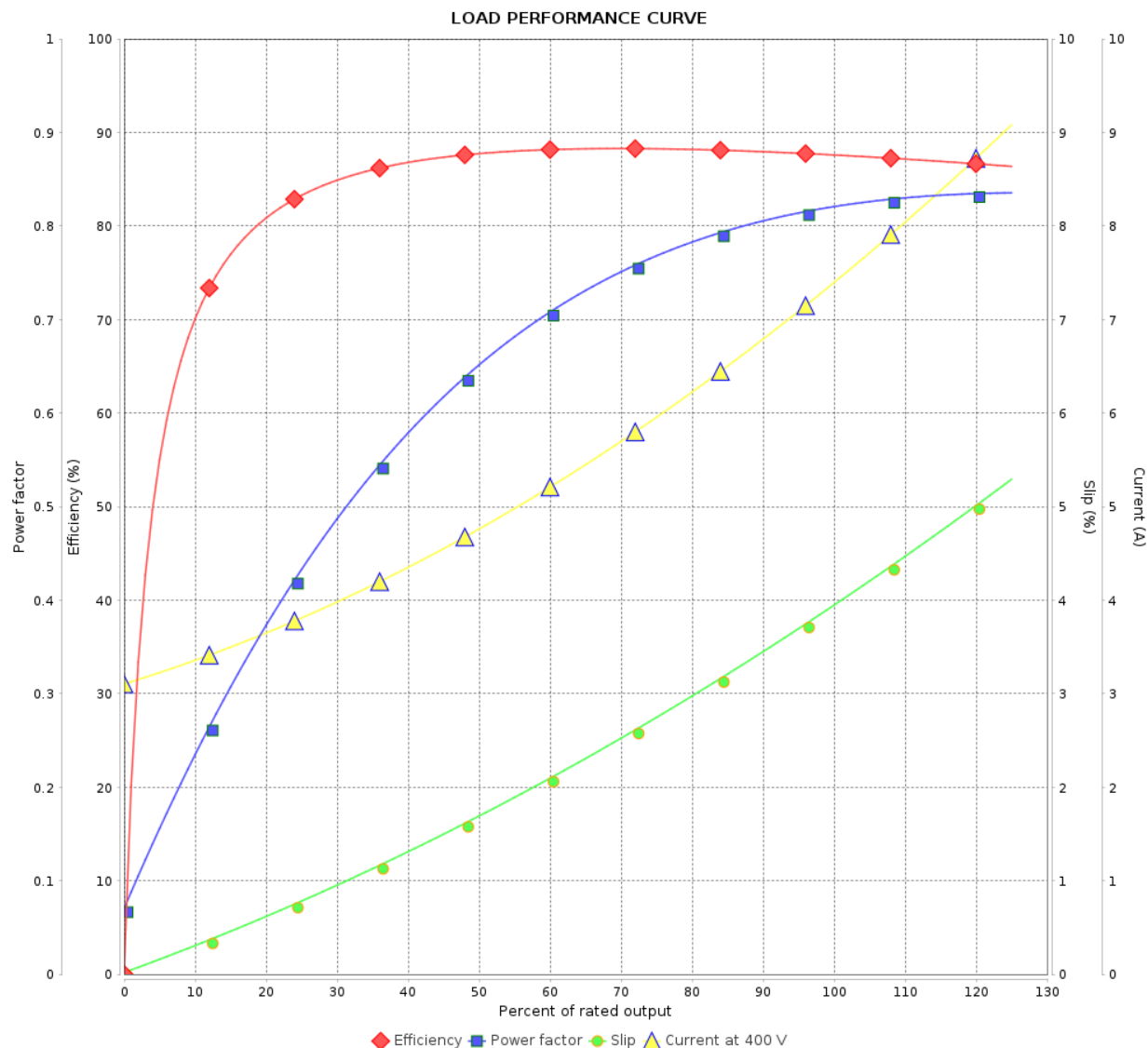
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11431316



Performance : 400 V 50 Hz 4P IE2

Rated current : 7.44 A
LRC : 6.4
Rated torque : 2.52 kgfm
Locked rotor torque : 210 %
Breakdown torque : 250 %
Rated speed : 1440 rpm

Moment of inertia (J) : 0.0169 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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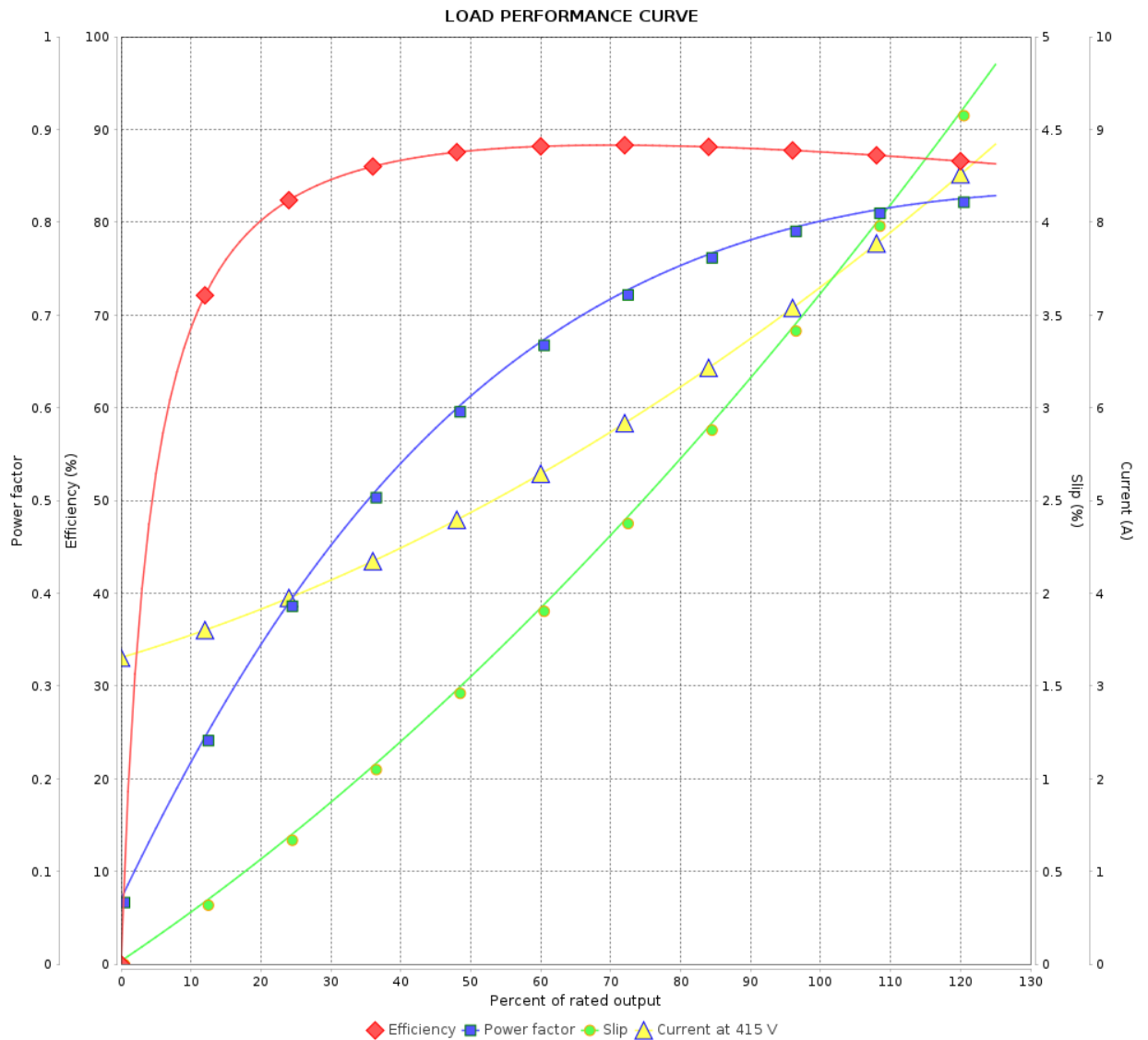
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11431316



Performance : 415 V 50 Hz 4P IE2

Rated current : 7.35 A
LRC : 6.9
Rated torque : 2.51 kgfm
Locked rotor torque : 229 %
Breakdown torque : 270 %
Rated speed : 1445 rpm

Moment of inertia (J) : 0.0169 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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