

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11433391

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 ²	: 50.2 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%	88.2	87.7	86.4	86.2	89.1	88.0	88.0
	50%	88.5	87.5	86.7	86.5	88.5	87.5	87.5
	75%	89.5	88.2	88.2	88.2	87.5	88.5	88.5
	100%	89.5	87.7	88.2	88.2	86.5	87.5	87.5
Power Factor	25%	0.38	0.38	0.34	0.31	0.45	0.41	0.38
	50%	0.62	0.61	0.57	0.53	0.69	0.65	0.61
	75%	0.74	0.75	0.71	0.67	0.80	0.77	0.74
	100%	0.80	0.81	0.79	0.76	0.84	0.82	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	: 6207 C3	6206 C3	Foundation loads			
	Sealing	Inpro/Seal		Inpro/Seal	Max. traction	: 117 kgf
	Lubrication interval	: 20000 h		20000 h	Max. compression	: 167 kgf
	Lubricant amount	: 7 g		5 g		
	Lubricant type	: 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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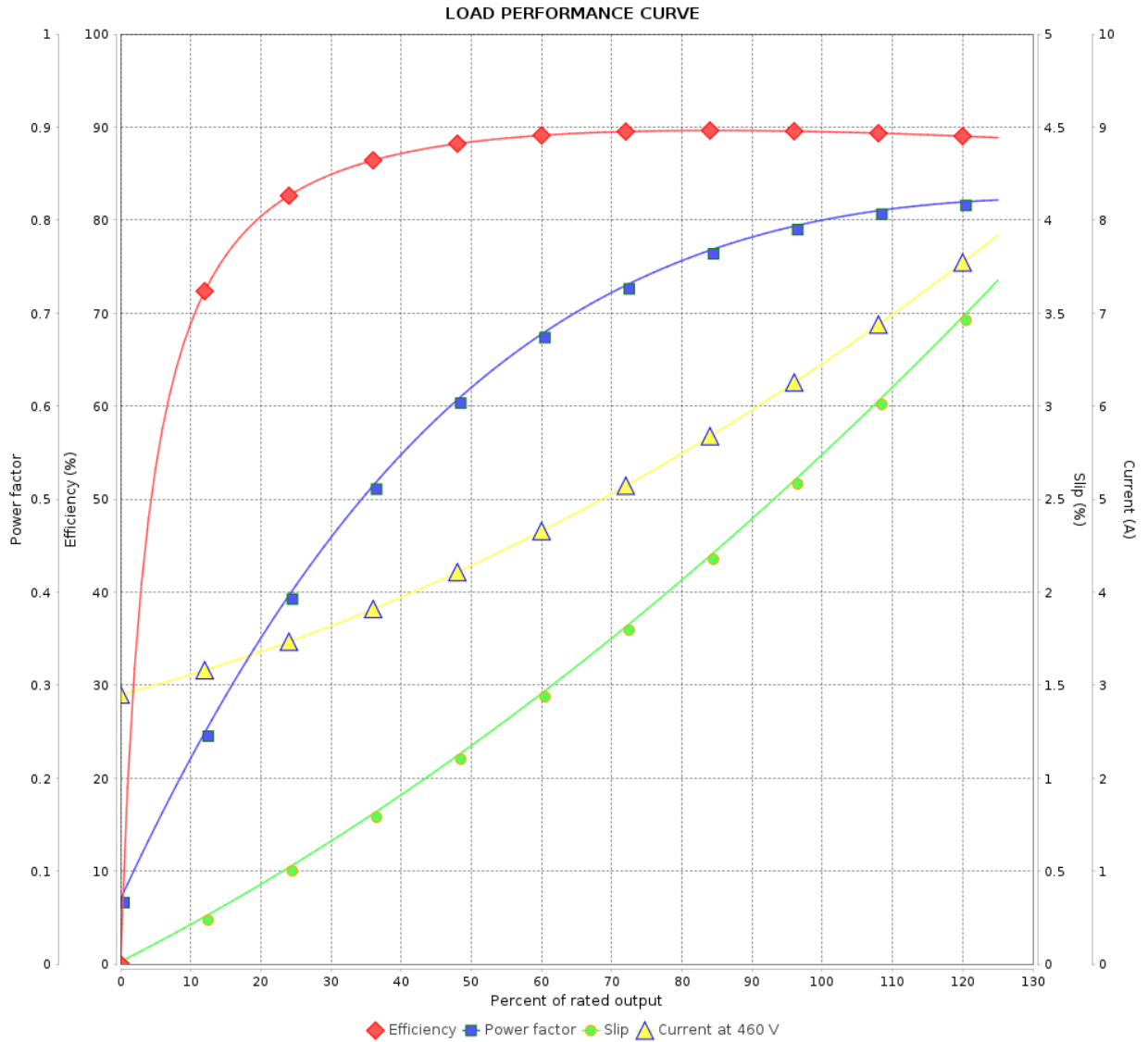
Three Phase Induction Motor - Squirrel Cage



Customer : _____

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

Product code : 11433391



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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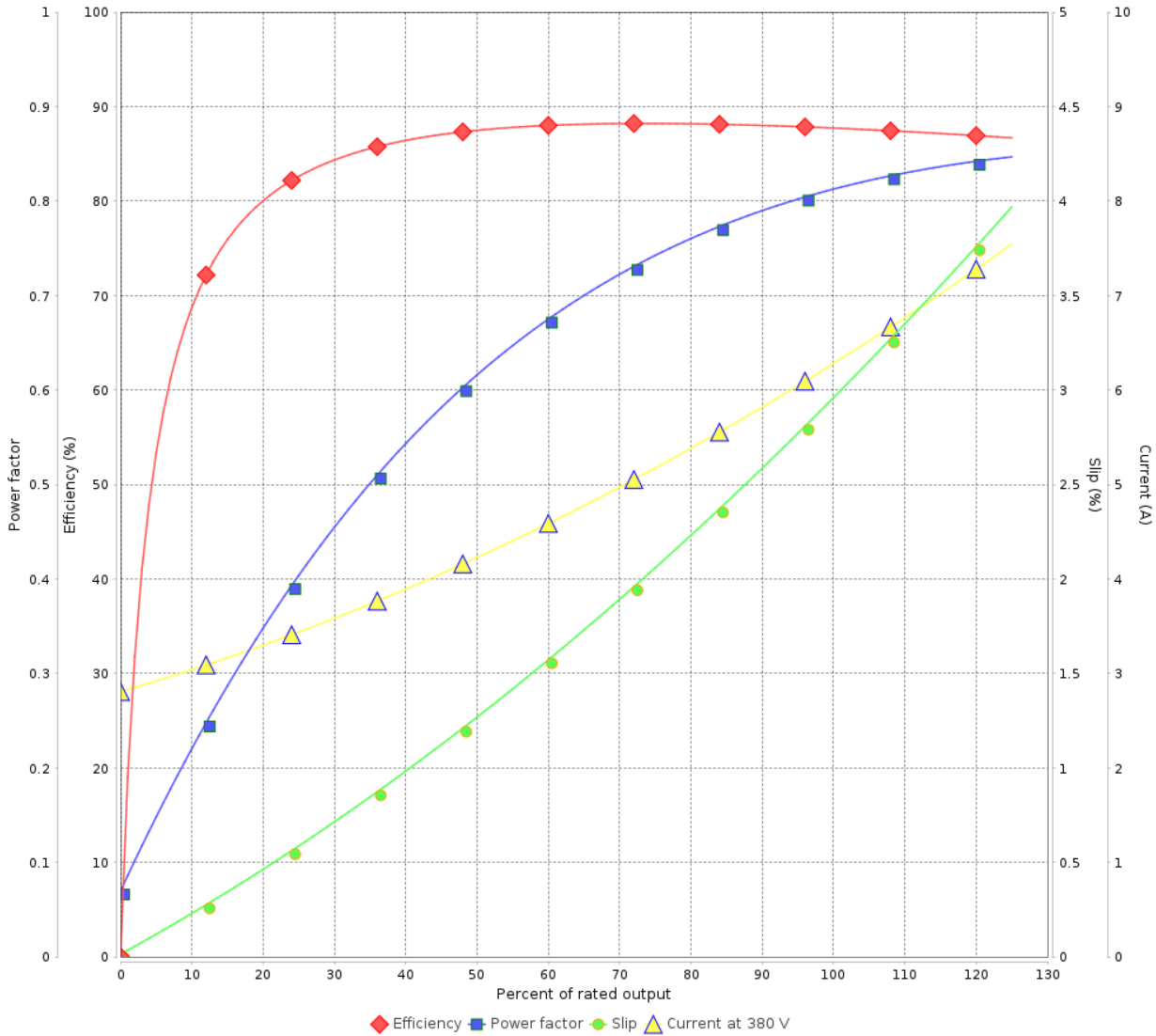
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 4P IE3

Rated current	: 6.42 A	Moment of inertia (J)	: 0.0169 kgm ²
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 2.00 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

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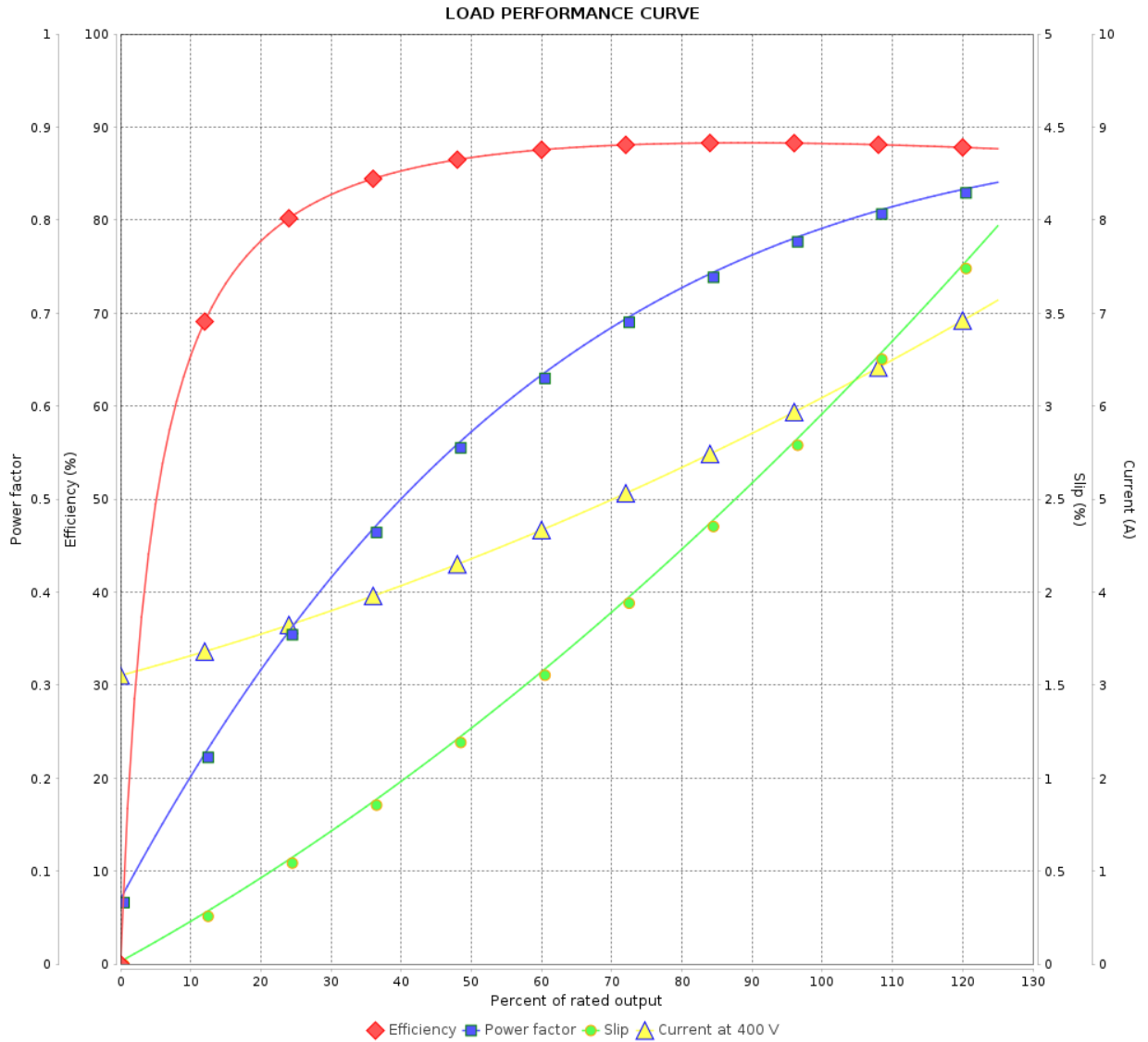
Three Phase Induction Motor - Squirrel Cage



Customer : _____

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

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Performance : 400 V 50 Hz 4P IE3

Rated current : 6.21 A
 LRC : 7.7
 Rated torque : 2.00 kgfm
 Locked rotor torque : 260 %
 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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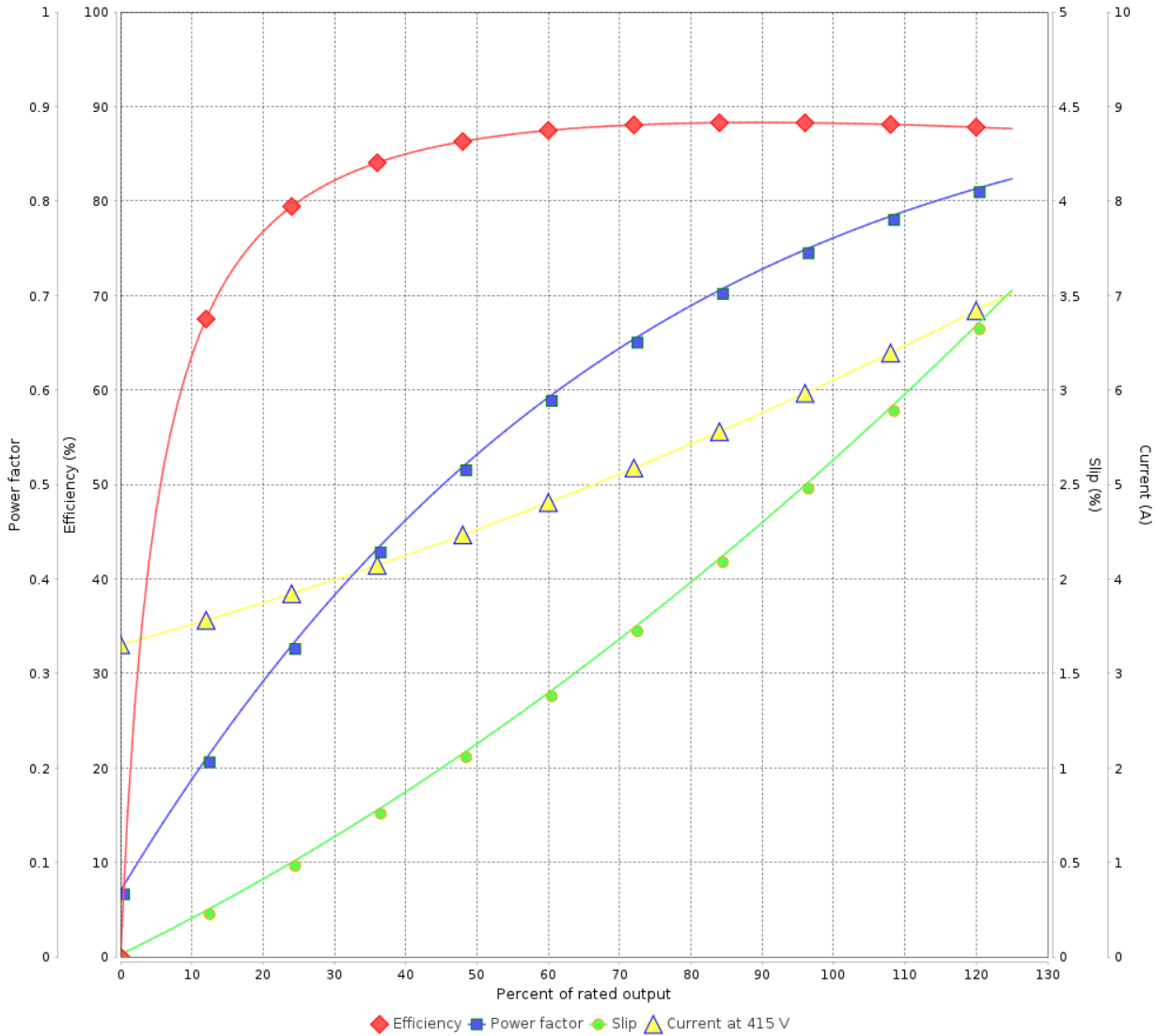
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11433391

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Performance : 415 V 50 Hz 4P IE3

Rated current	: 6.23 A	Moment of inertia (J)	: 0.0169 kgm ²
LRC	: 8.2	Duty cycle	: Cont.(S1)
Rated torque	: 1.99 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.15
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

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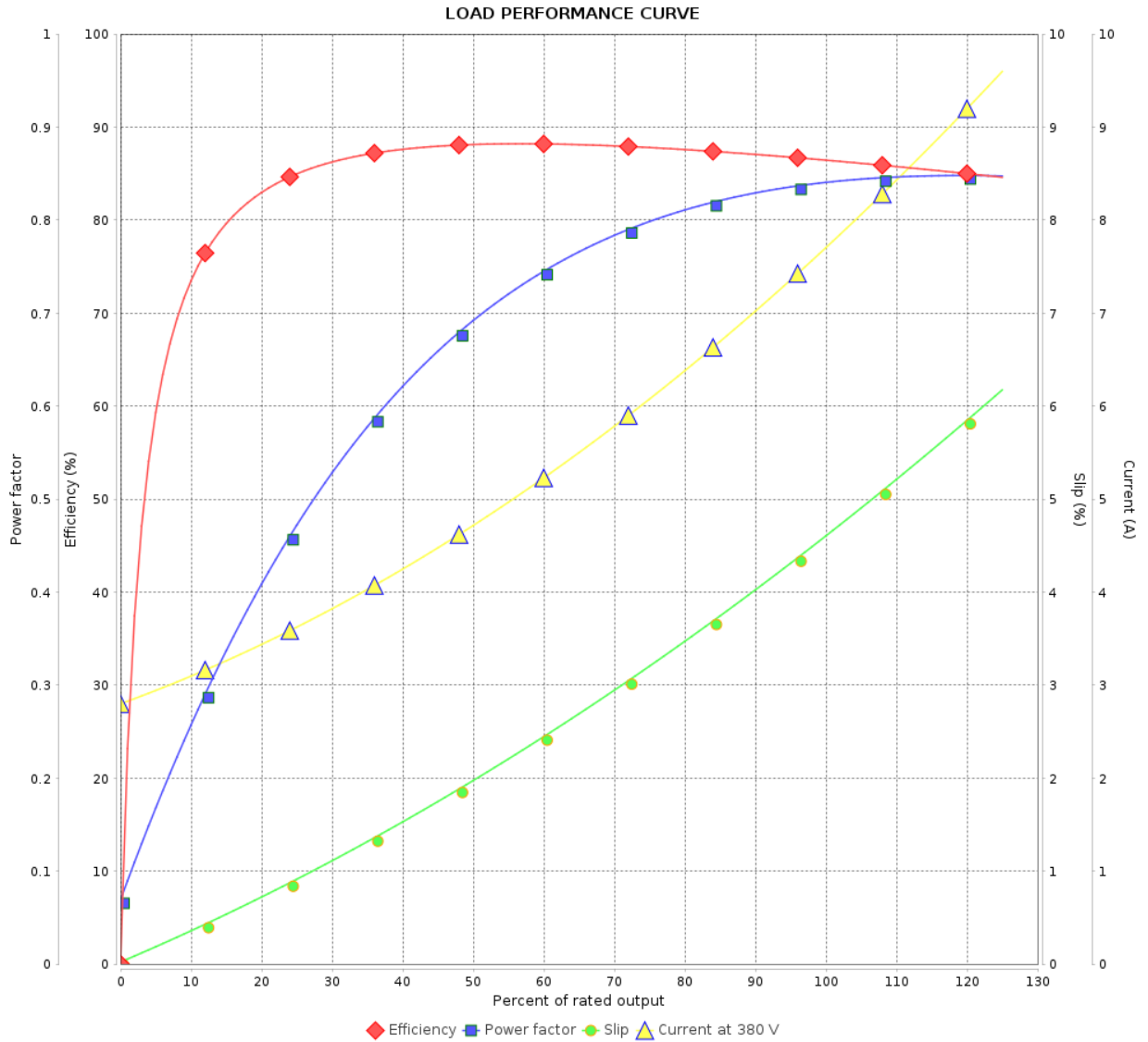
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Performance : 380 V 50 Hz 4P IE2

Rated current : 7.74 A
 LRC : 5.8
 Rated torque : 2.54 kgfm
 Locked rotor torque : 185 %
 Breakdown torque : 225 %
 Rated speed : 1430 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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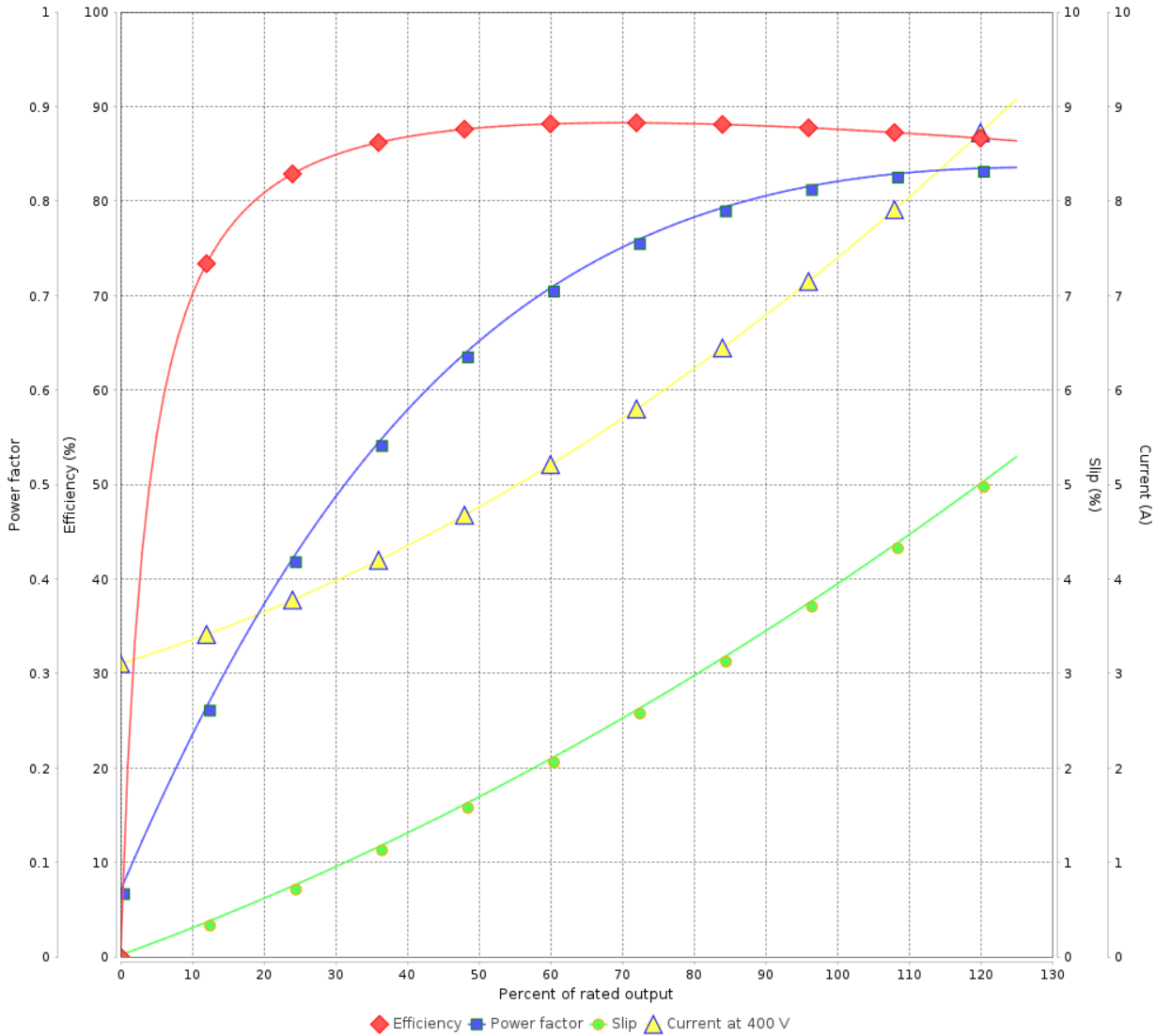
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Performance : 400 V 50 Hz 4P IE2

Rated current : 7.44 A	Moment of inertia (J) : 0.0169 kgm ²
LRC : 6.4	Duty cycle : Cont.(S1)
Rated torque : 2.52 kgfm	Insulation class : F
Locked rotor torque : 210 %	Service factor : 1.15
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 1440 rpm	Design : B

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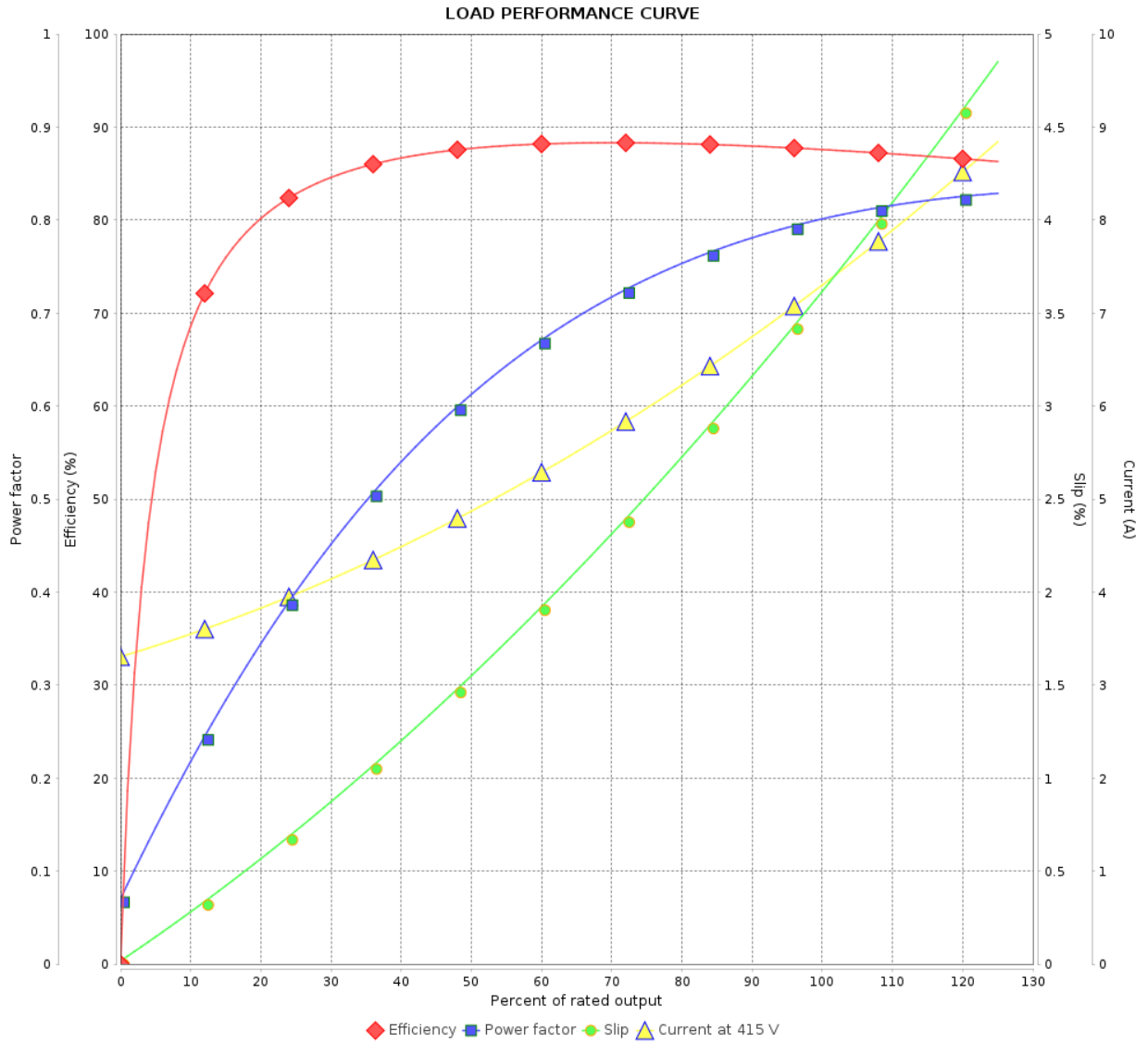
Three Phase Induction Motor - Squirrel Cage



Customer : _____

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

Product code : 11433391



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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