

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431671

Frame	: 364/5TS	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	: 383 kg
Protection degree	: IP56	Moment of inertia (J)	: 0.4485 kgm ²
Design	: B		

Output [HP]	60	50	50	50	60	60	60
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]	67.0	66.6	63.7	62.1	81.3	77.6	74.8
L. R. Amperes [A]	429	406	433	447	407	435	449
LRC [A]	6.4x(Code G)	6.1x(Code F)	6.8x(Code G)	7.2x(Code H)	5.0x(Code D)	5.6x(Code F)	6.0x(Code F)
No load current [A]	15.0	15.0	16.2	17.4	15.0	16.2	17.4
Rated speed [RPM]	3550	2945	2950	2955	2935	2940	2945
Slip [%]	1.39	1.83	1.67	1.50	2.17	2.00	1.83
Rated torque [kgfm]	12.3	12.3	12.3	12.3	14.8	14.8	14.8
Locked rotor torque [%]	190	180	210	220	150	170	180
Breakdown torque [%]	250	240	270	290	200	220	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	25s (cold) 14s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level ²	79.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)
Efficiency (%)	25%						
	50%	91.7	92.1	91.7	91.6	92.4	92.4
	75%	93.0	92.8	92.8	92.9	93.0	93.0
	100%	93.6	92.8	93.1	93.1	92.4	93.0
Power Factor	25%						
	50%	0.81	0.81	0.79	0.76	0.85	0.83
	75%	0.88	0.88	0.87	0.85	0.90	0.89
	100%	0.90	0.91	0.90	0.89	0.91	0.90

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

Losses (%)	P1 (0,9;1,0)	7.4	8.4	8.0	8.0	8.9	8.2	8.2
	P2 (0,5;1,0)	5.8	6.8	6.4	6.4	7.3	6.5	6.5
	P3 (0,25;1,0)	5.1	6.1	5.7	5.7	6.5	5.8	5.8
	P4 (0,9;0,5)	3.7	4.1	4.0	4.0	4.4	4.0	4.0
	P5 (0,5;0,5)	2.3	2.6	2.5	2.5	2.8	2.5	2.5
	P6 (0,5;0,25)	1.4	1.7	1.6	1.6	1.8	1.6	1.6
	P7 (0,25;0,25)	0.9	1.1	1.0	1.0	1.2	1.0	1.0

Bearing type	: 6314 C3	Non drive end	6314 C3	Foundation loads	
Sealing	: Inpro/Seal	Inpro/Seal		Max. traction	: 206 kgf
Lubrication interval	: 4000 h	4000 h		Max. compression	: 590 kgf
Lubricant amount	: 27 g	27 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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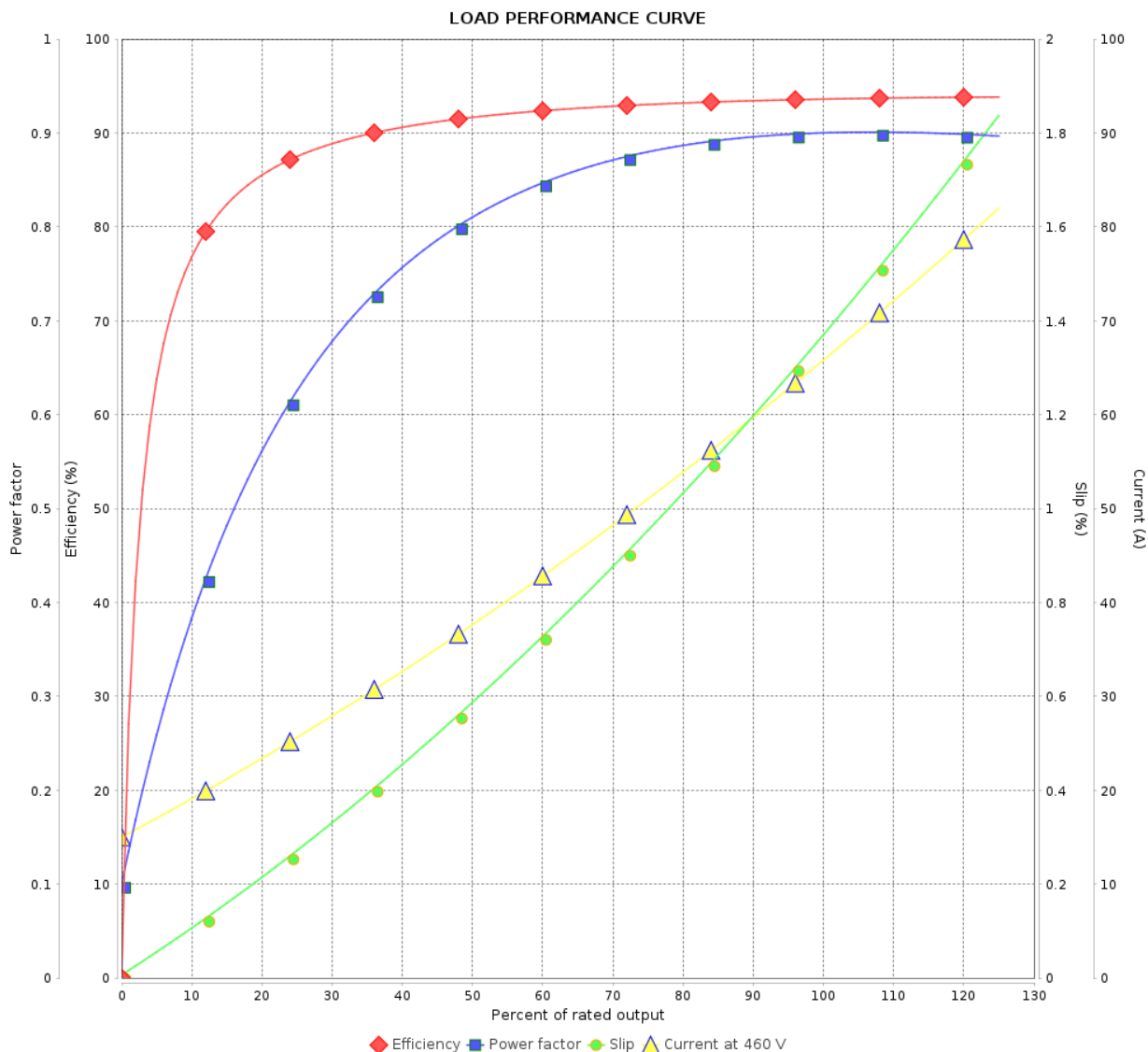
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11431671



Performance : 460 V 60 Hz 2P

Rated current : 67.0 A
LRC : 6.4
Rated torque : 12.3 kgfm
Locked rotor torque : 190 %
Breakdown torque : 250 %
Rated speed : 3550 rpm

Moment of inertia (J) : 0.4485 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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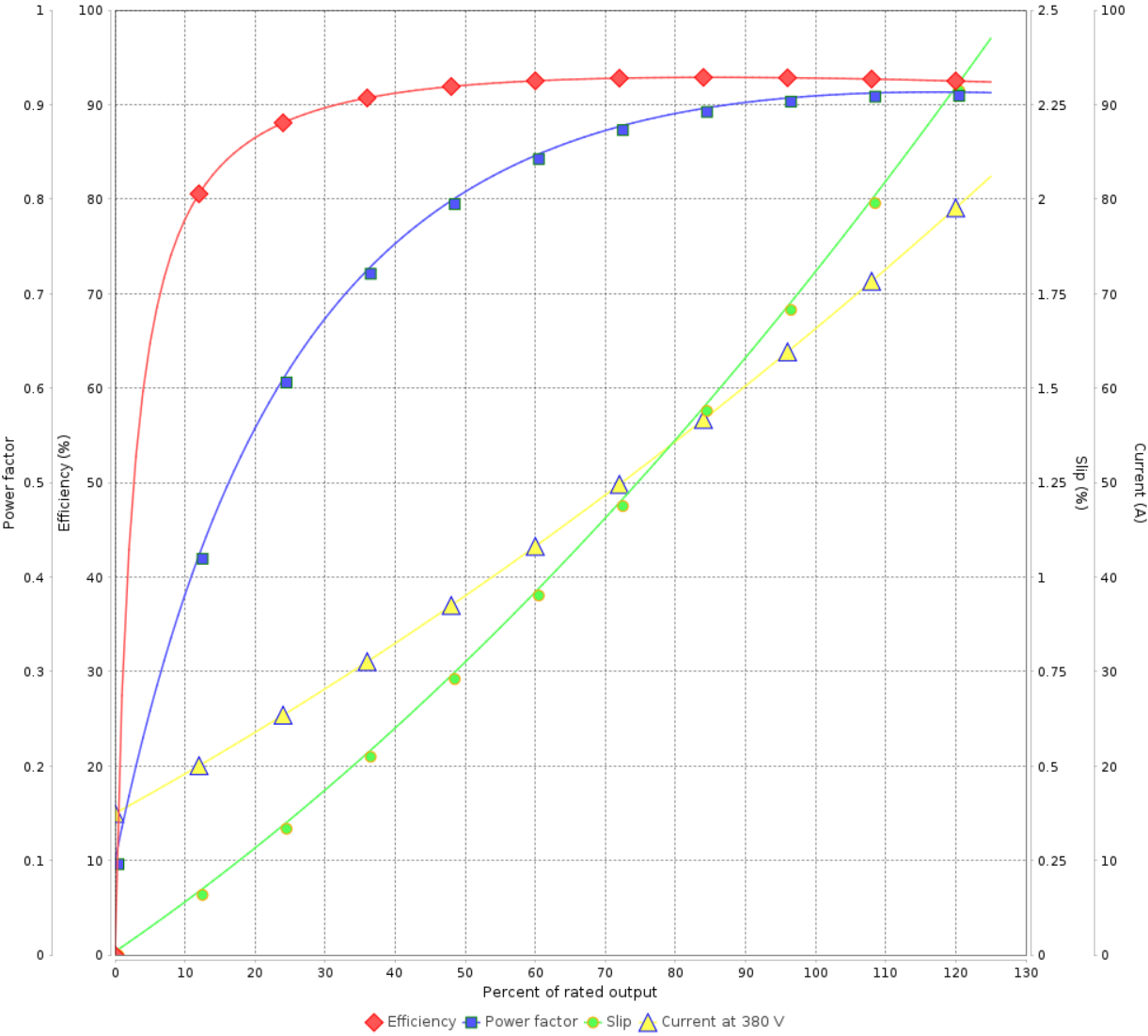
Three Phase Induction Motor - Squirrel Cage



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Performance : 380 V 50 Hz 2P IE2			
Rated current	: 66.6 A	Moment of inertia (J)	: 0.4485 kgm ²
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 12.3 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2945 rpm	Design	: B

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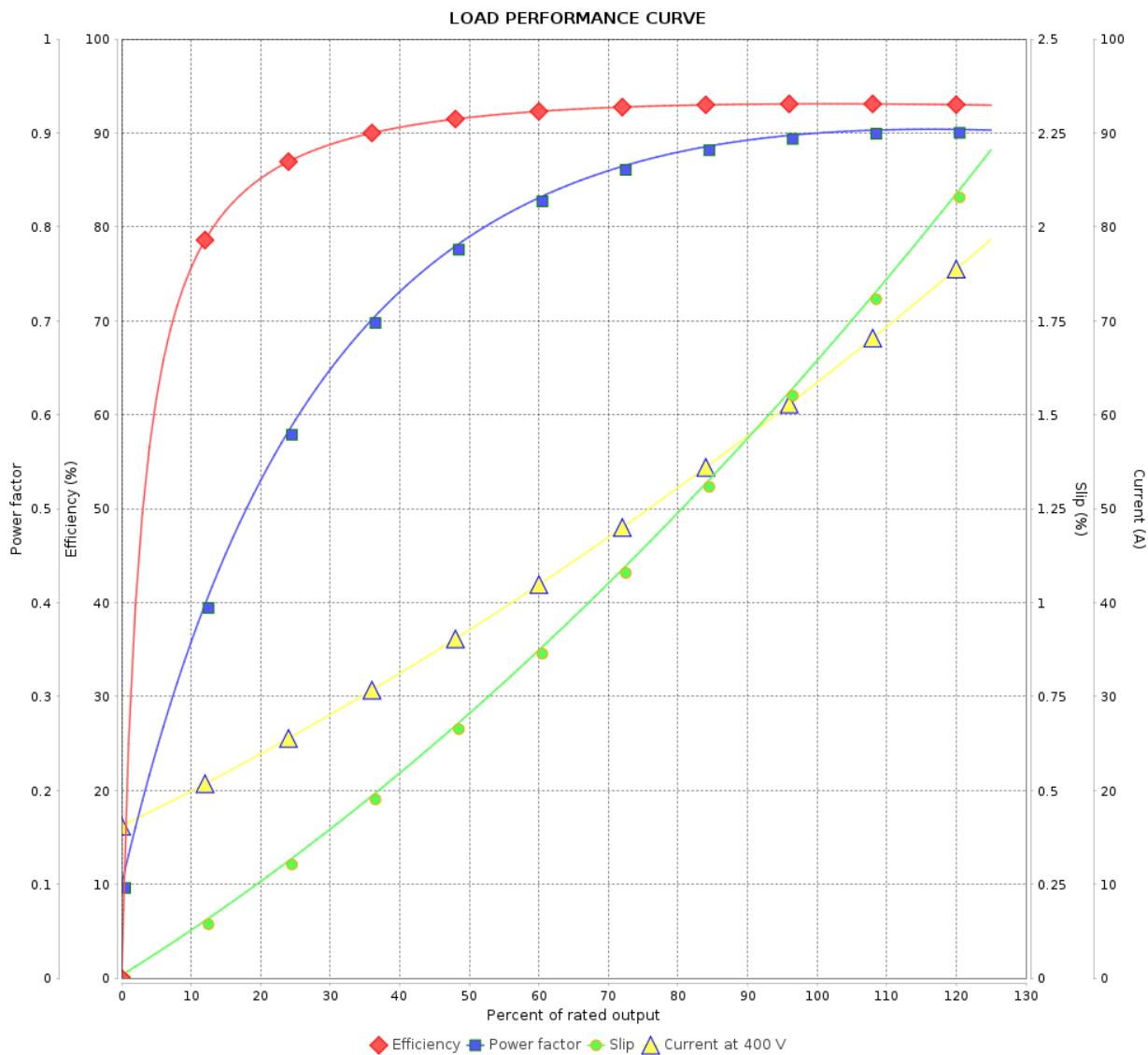
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 400 V 50 Hz 2P IE2

Rated current : 63.7 A
LRC : 6.8
Rated torque : 12.3 kgfm
Locked rotor torque : 210 %
Breakdown torque : 270 %
Rated speed : 2950 rpm

Moment of inertia (J) : 0.4485 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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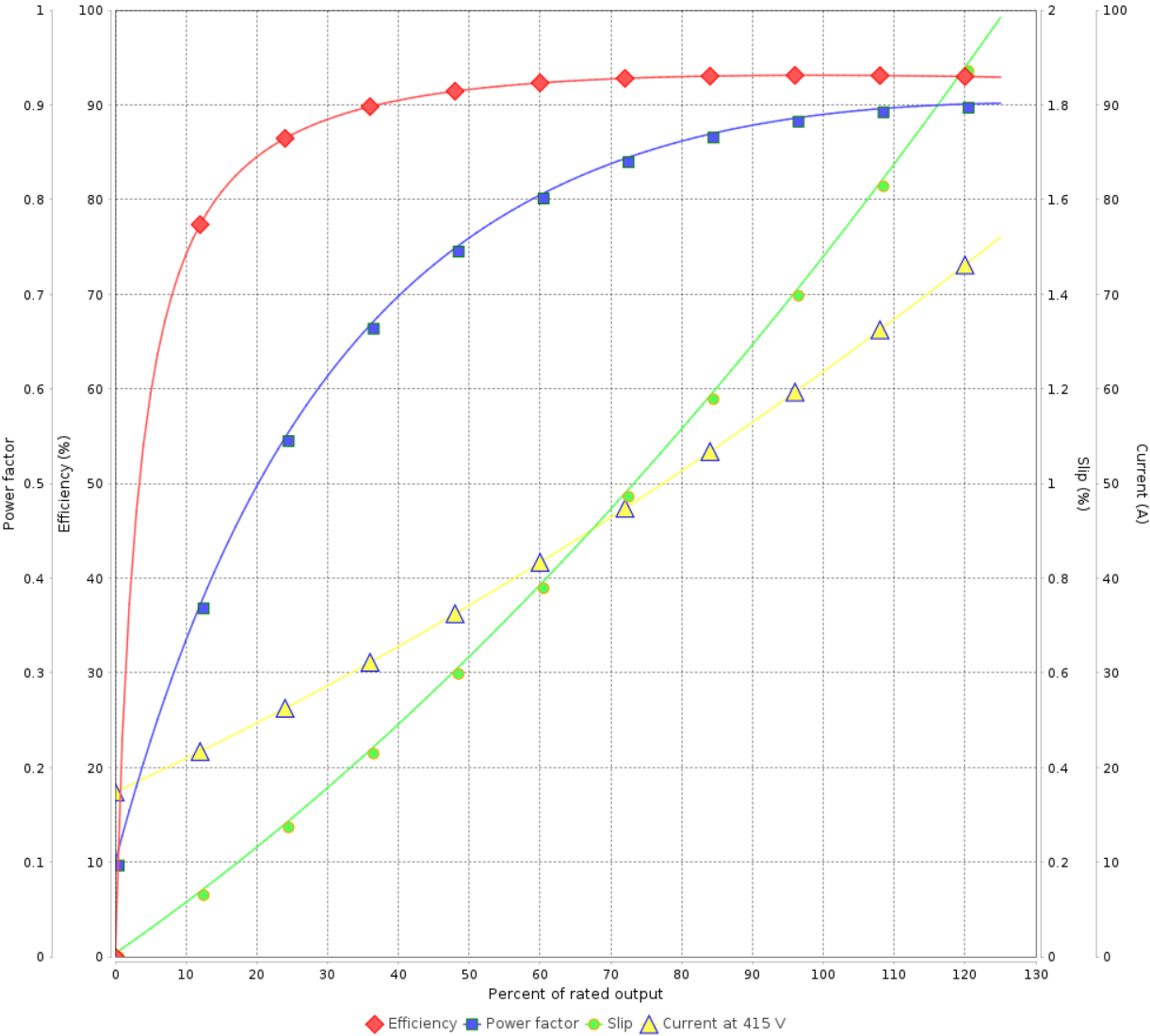
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 415 V 50 Hz 2P IE2			
Rated current	: 62.1 A	Moment of inertia (J)	: 0.4485 kgm²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 12.3 kgfm	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

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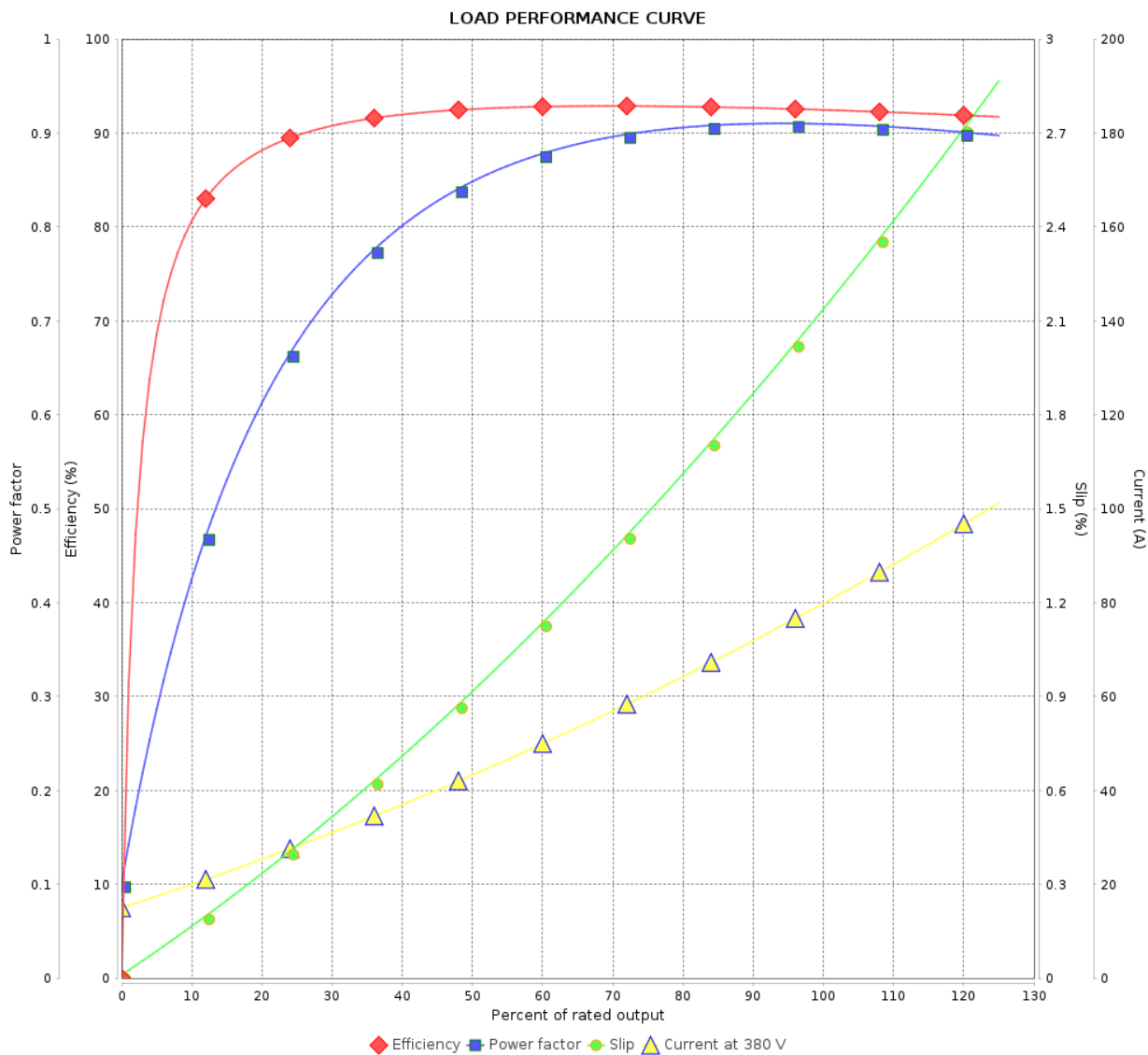
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Performance : 380 V 50 Hz 2P IE1

Rated current : 81.3 A
LRC : 5.0
Rated torque : 14.8 kgfm
Locked rotor torque : 150 %
Breakdown torque : 200 %
Rated speed : 2935 rpm

Moment of inertia (J) : 0.4485 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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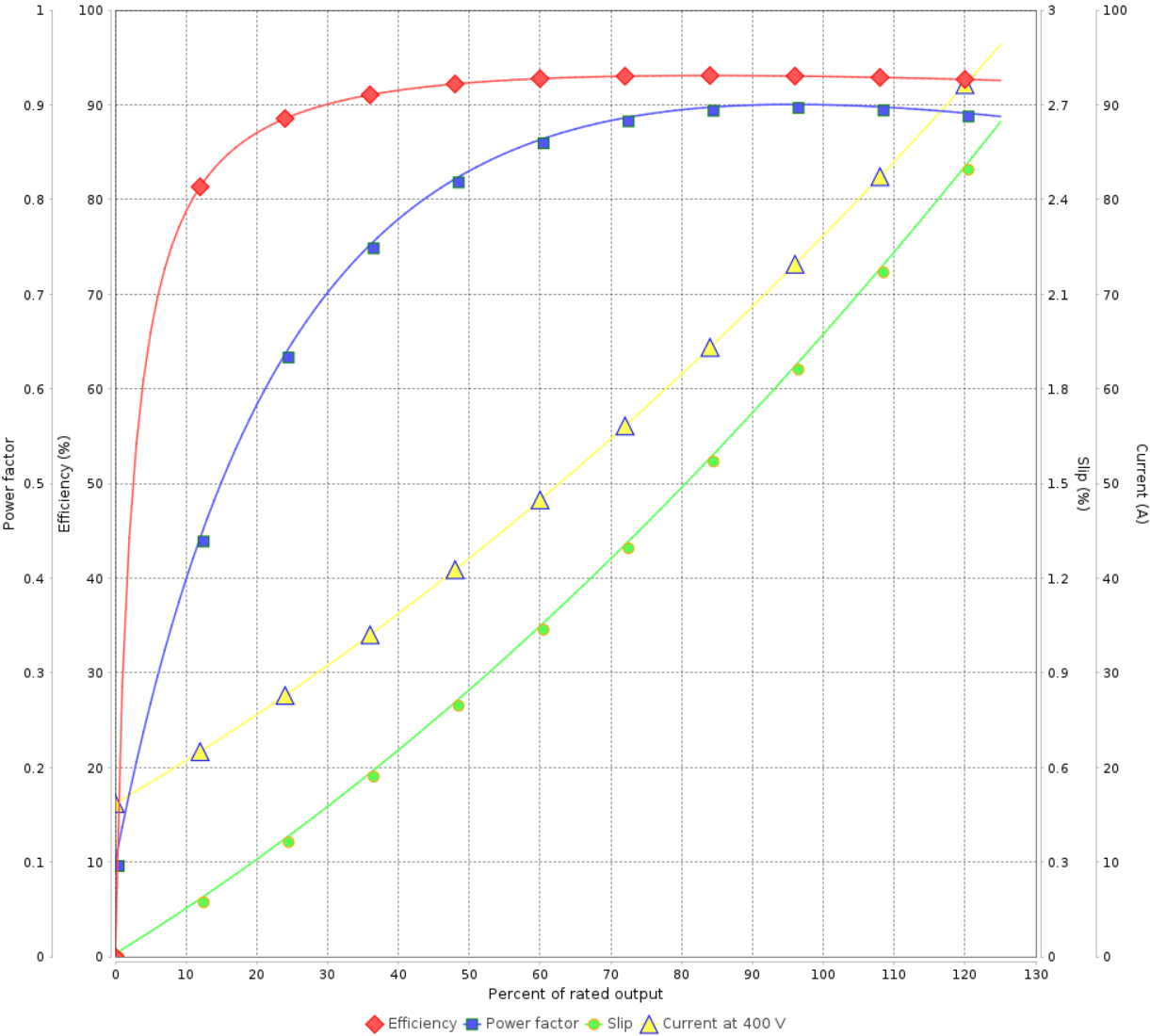
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11431671

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Performance : 400 V 50 Hz 2P IE2			
Rated current	: 77.6 A	Moment of inertia (J)	: 0.4485 kgm ²
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 14.8 kgfm	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 2940 rpm	Design	: B

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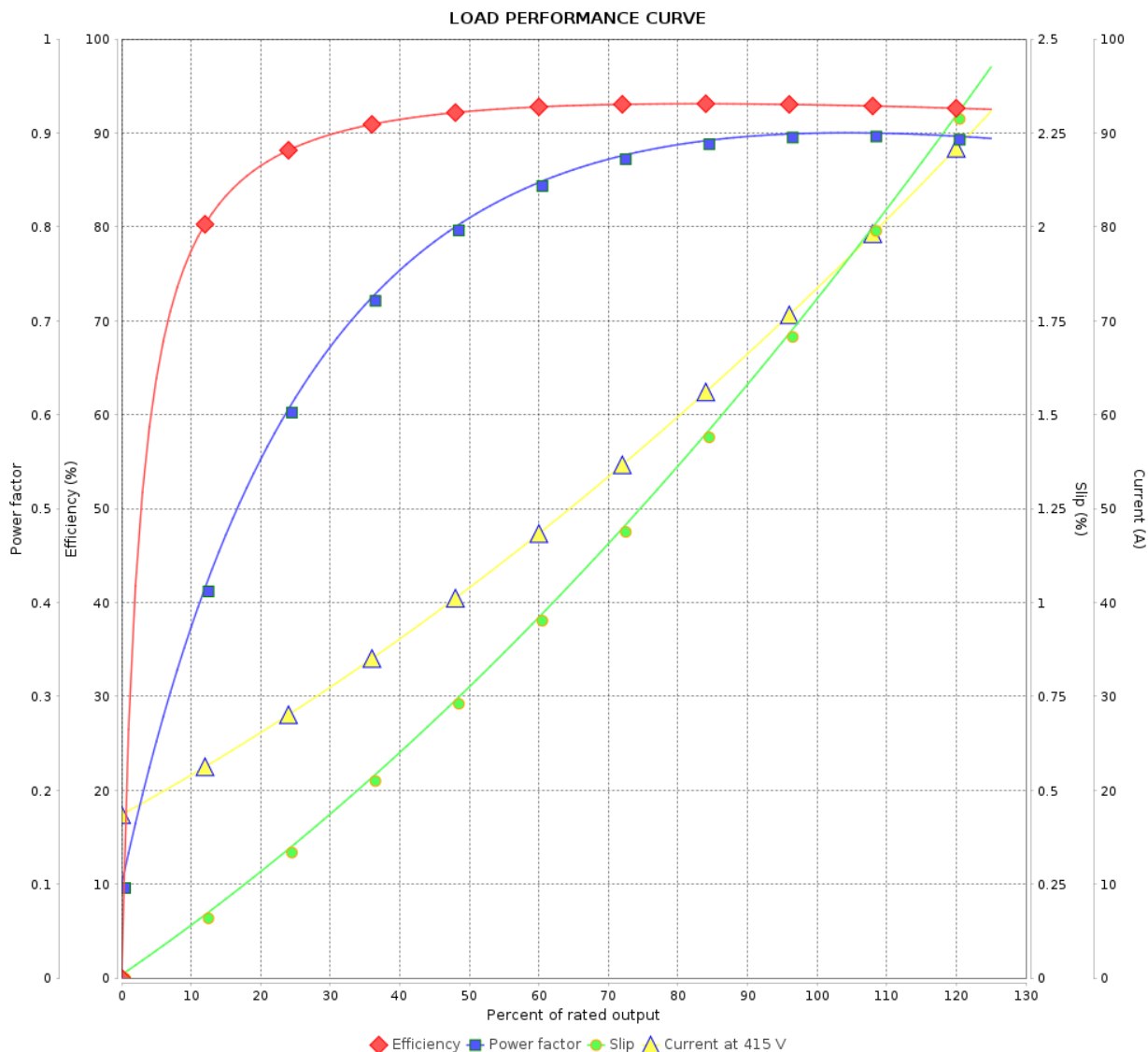
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11431671



Performance : 415 V 50 Hz 2P IE2

Rated current : 74.8 A
LRC : 6.0
Rated torque : 14.8 kgfm
Locked rotor torque : 180 %
Breakdown torque : 240 %
Rated speed : 2945 rpm

Moment of inertia (J) : 0.4485 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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