

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943424

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 : 0.0 kg
Protection degree : IP55	Moment of inertia (J) : 0.5023 kgm ²
Design : B	

Output [HP]	75	50	50	50	75	75	75
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]	81.9	66.7	64.8	62.4	100	94.8	91.4
L. R. Amperes [A]	541	520	551	568	520	550	567
LRC [A]	6.6x(Code G)	7.8x(Code H)	8.5x(Code J)	9.1x(Code K)	5.2x(Code E)	5.8x(Code F)	6.2x(Code F)
No load current [A]	19.0	18.0	19.0	20.0	18.0	19.0	20.0
Rated speed [RPM]	3550	2960	2965	2970	2930	2940	2950
Slip [%]	1.39	1.33	1.17	1.00	2.33	2.00	1.67
Rated torque [kgfm]	15.3	12.3	12.2	12.2	18.6	18.5	18.5
Locked rotor torque [%]	220	240	260	290	160	175	190
Breakdown torque [%]	270	320	350	380	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	18s (cold) 10s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (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%	92.4	91.2	91.5	91.8	92.4	93.0
	75%	93.6	92.5	93.0	93.1	93.0	93.6
	100%	93.6	93.7	93.7	93.7	92.4	93.0
Power Factor	25%						
	50%	0.83	0.75	0.72	0.70	0.86	0.83
	75%	0.88	0.85	0.83	0.82	0.90	0.88
	100%	0.90	0.90	0.88	0.88	0.90	0.90

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

Losses (%)	P1 (0,9;1,0)	6.4	6.4	6.4	6.4	6.4	6.4
	P2 (0,5;1,0)	4.9	4.9	4.9	4.9	4.9	4.9
	P3 (0,25;1,0)	4.7	4.7	4.7	4.7	4.7	4.7
	P4 (0,9;0,5)	3.1	3.1	3.1	3.1	3.1	3.1
	P5 (0,5;0,5)	1.8	1.8	1.8	1.8	1.8	1.8
	P6 (0,5;0,25)	1.0	1.0	1.0	1.0	1.0	1.0
	P7 (0,25;0,25)	0.6	0.6	0.6	0.6	0.6	0.6

Bearing type	: 6314 C3	Non drive end 6314 C3	Foundation loads
Sealing	: Taconite	Taconite	Max. traction : 497 kgf
	Labyrinth	Labyrinth	Max. compression : 497 kgf
Lubrication interval	: 4000 h	4000 h	
Lubricant amount	: 27 g	27 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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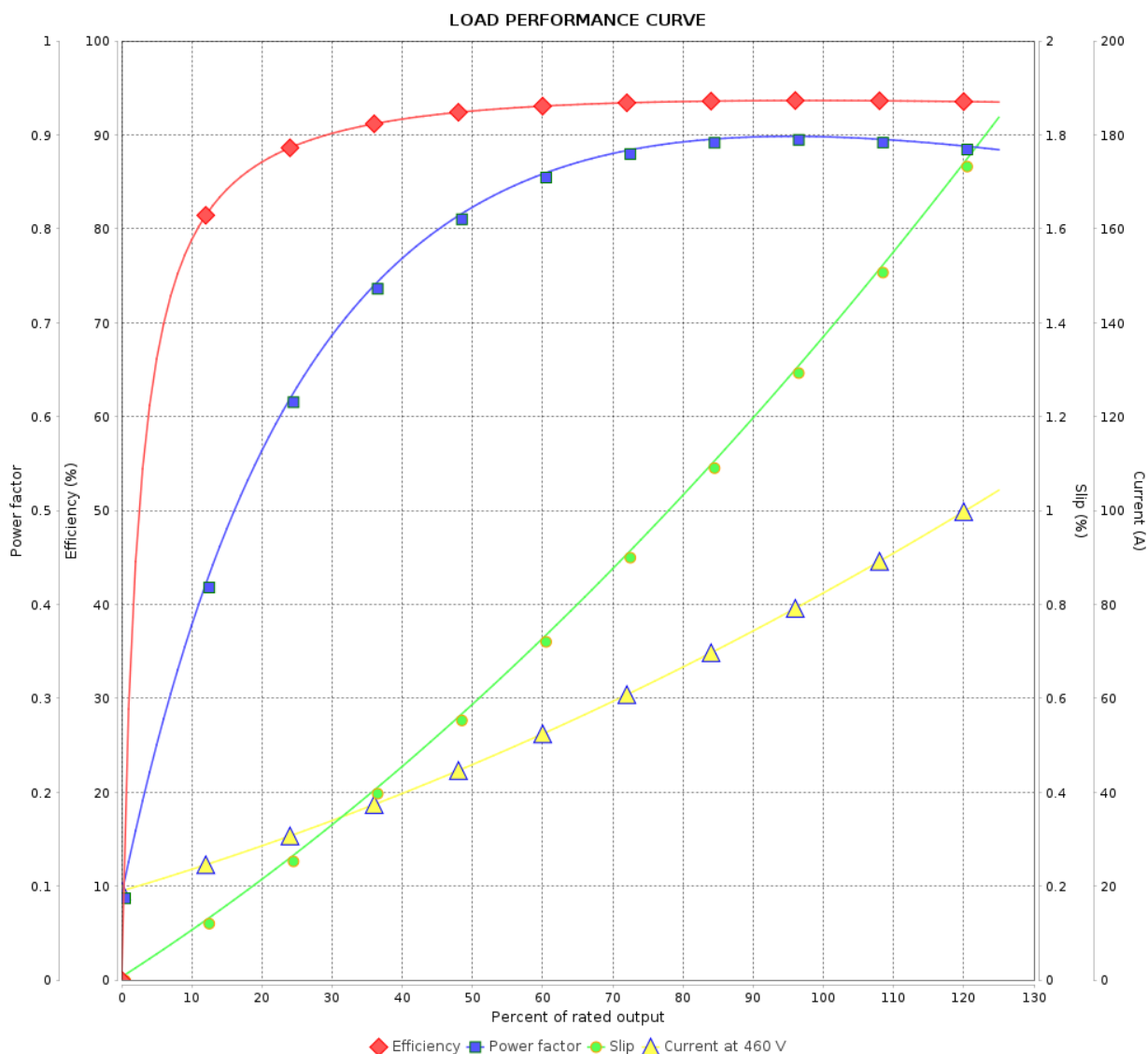
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943424



Performance : 460 V 60 Hz 2P

Rated current : 81.9 A
LRC : 6.6
Rated torque : 15.3 kgfm
Locked rotor torque : 220 %
Breakdown torque : 270 %
Rated speed : 3550 rpm

Moment of inertia (J) : 0.5023 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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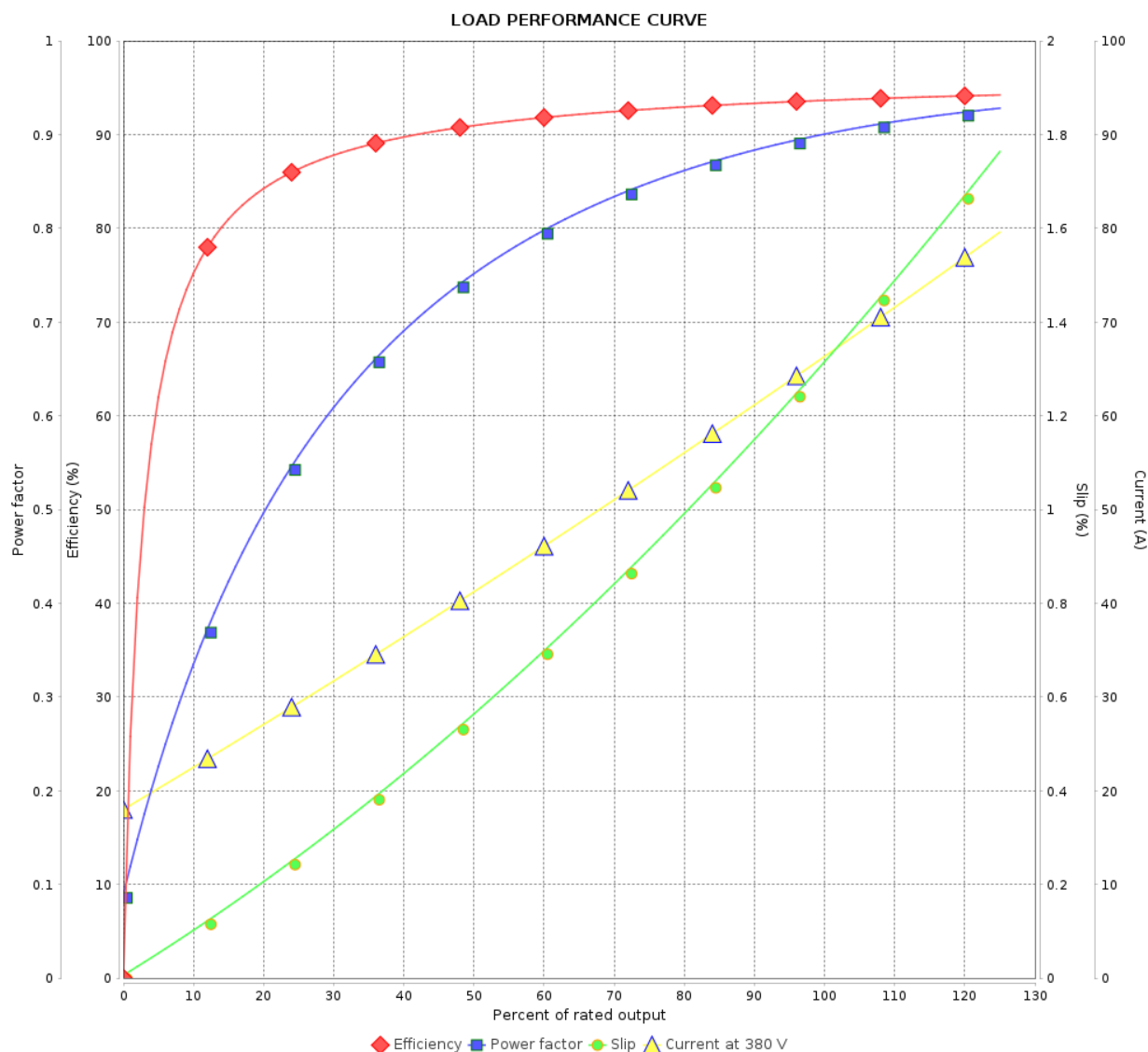
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943424



Performance : 380 V 50 Hz 2P IE3

Rated current : 66.7 A
LRC : 7.8
Rated torque : 12.3 kgfm
Locked rotor torque : 240 %
Breakdown torque : 320 %
Rated speed : 2960 rpm

Moment of inertia (J) : 0.5023 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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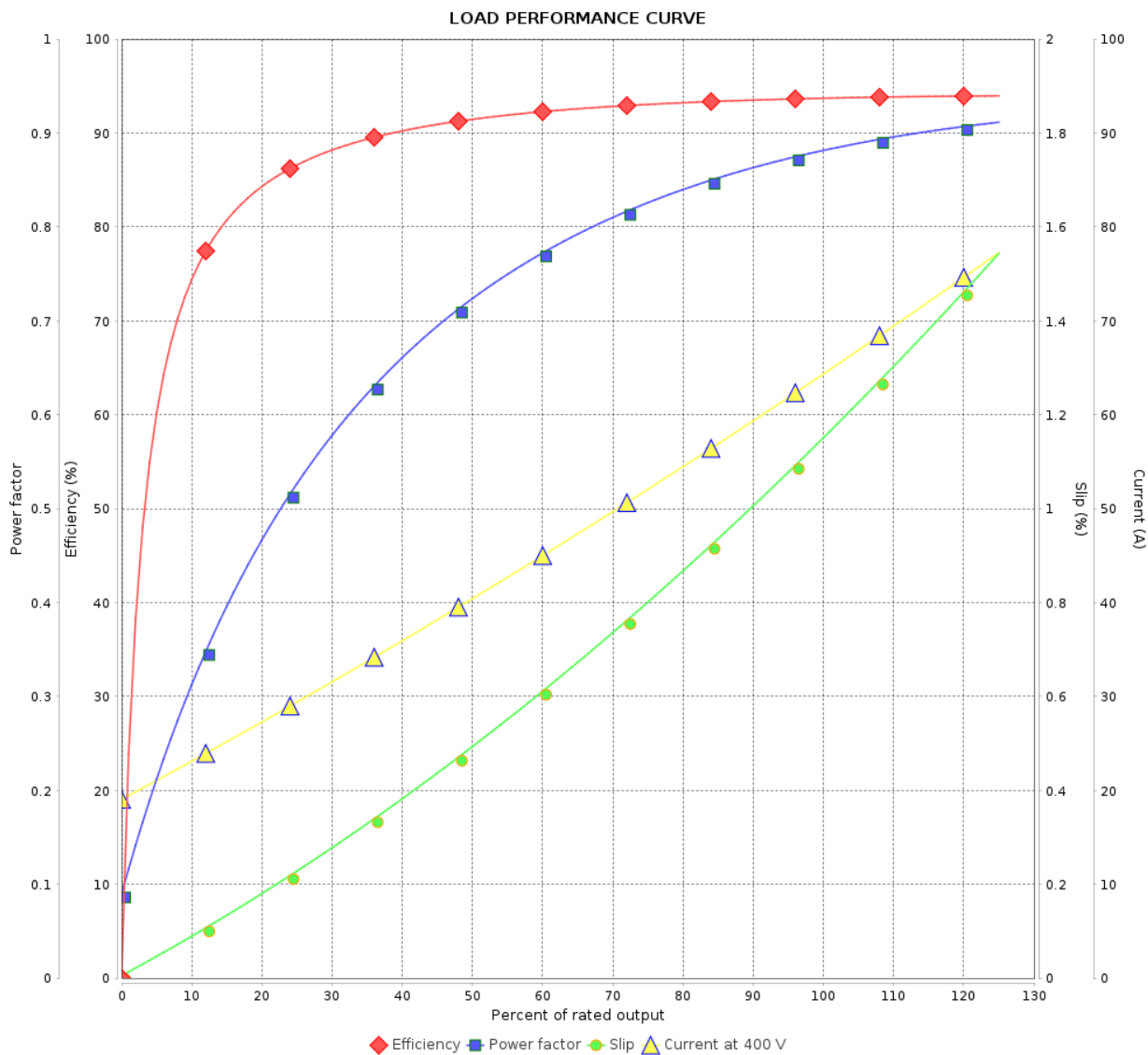
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943424



Performance : 400 V 50 Hz 2P IE3

Rated current : 64.8 A
LRC : 8.5
Rated torque : 12.2 kgfm
Locked rotor torque : 260 %
Breakdown torque : 350 %
Rated speed : 2965 rpm

Moment of inertia (J) : 0.5023 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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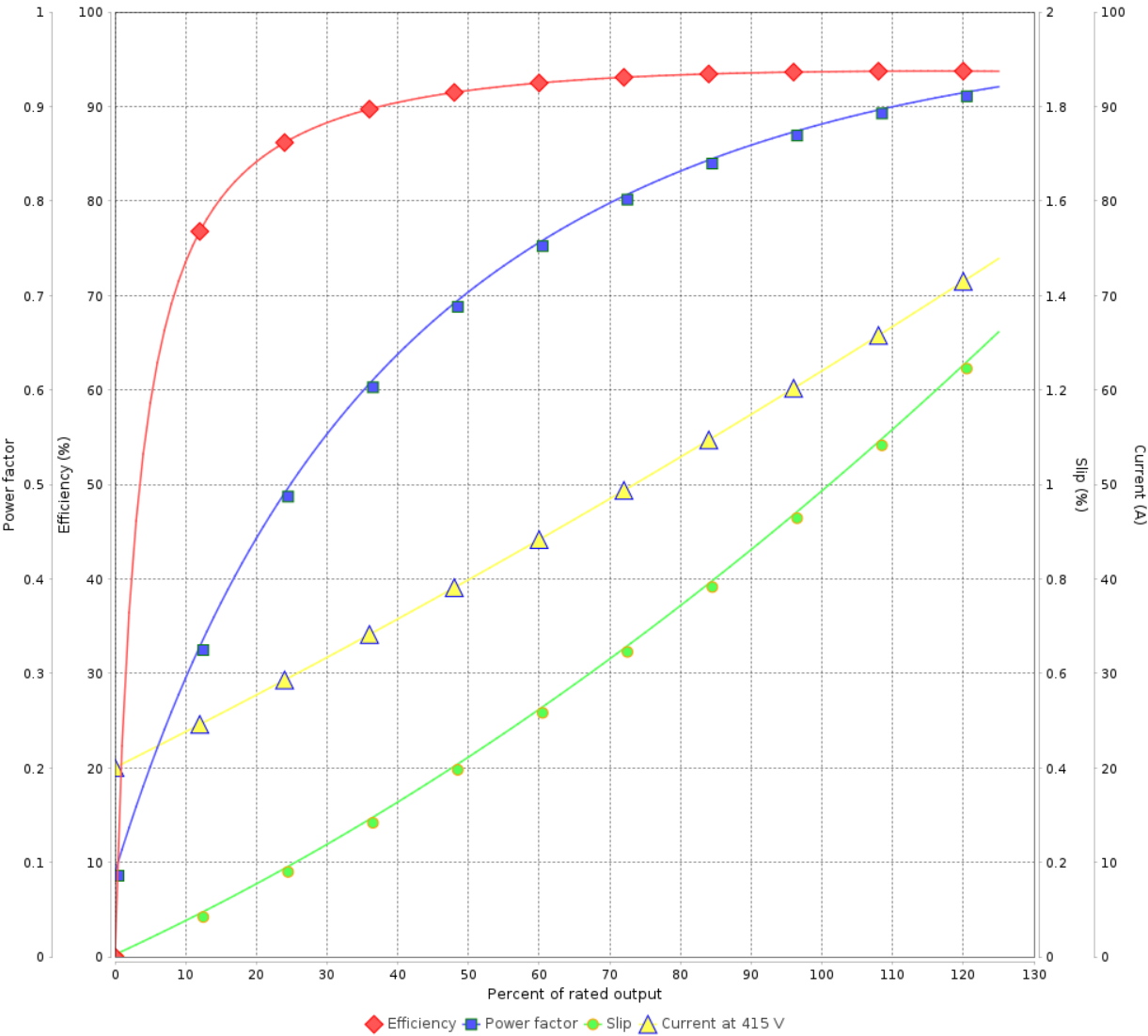
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 415 V 50 Hz 2P IE3

Rated current	: 62.4 A	Moment of inertia (J)	: 0.5023 kgm ²
LRC	: 9.1	Duty cycle	: Cont.(S1)
Rated torque	: 12.2 kgfm	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 2970 rpm	Design	: B

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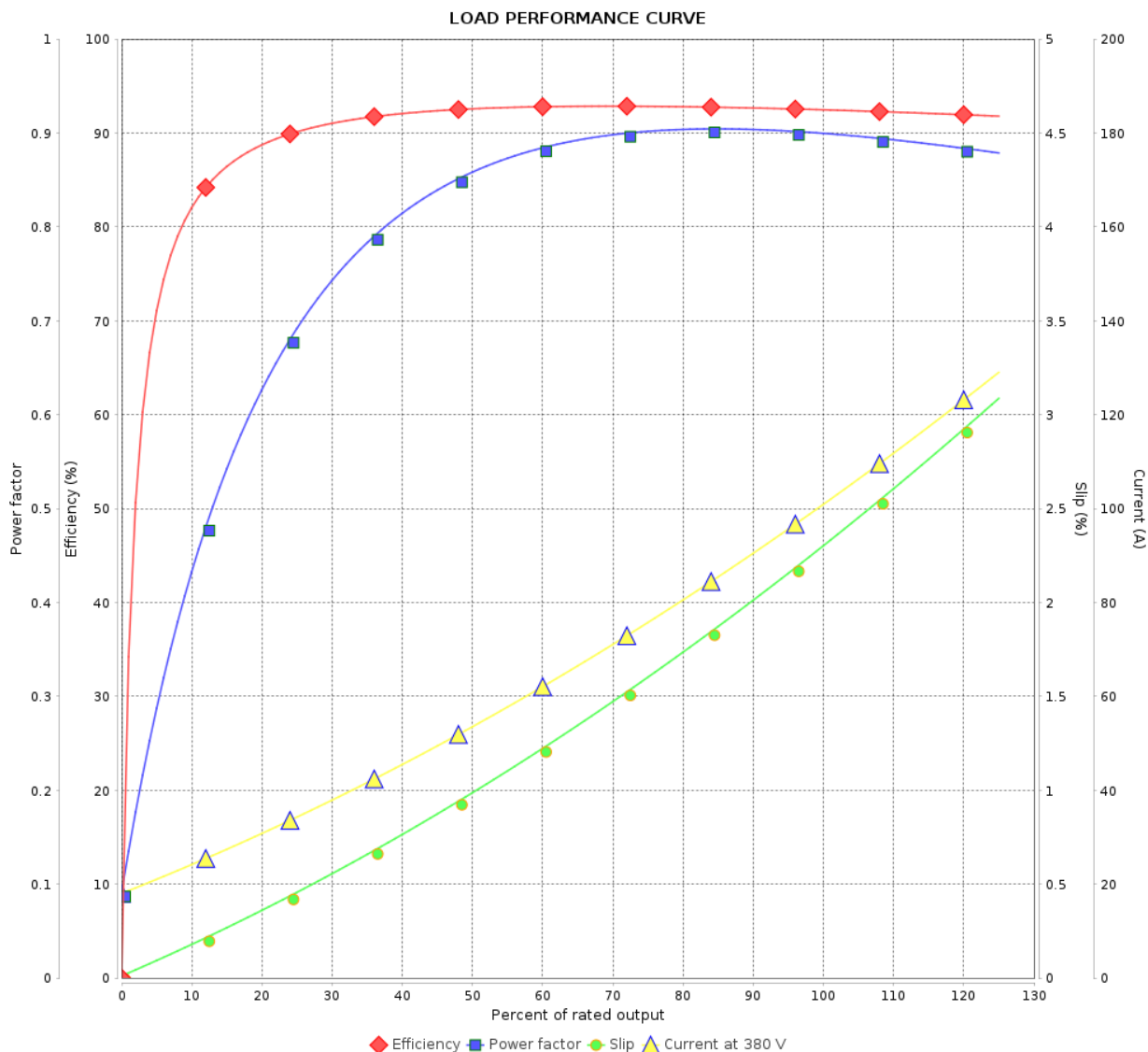
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 2P IE1

Rated current : 100 A
LRC : 5.2
Rated torque : 18.6 kgfm
Locked rotor torque : 160 %
Breakdown torque : 200 %
Rated speed : 2930 rpm

Moment of inertia (J) : 0.5023 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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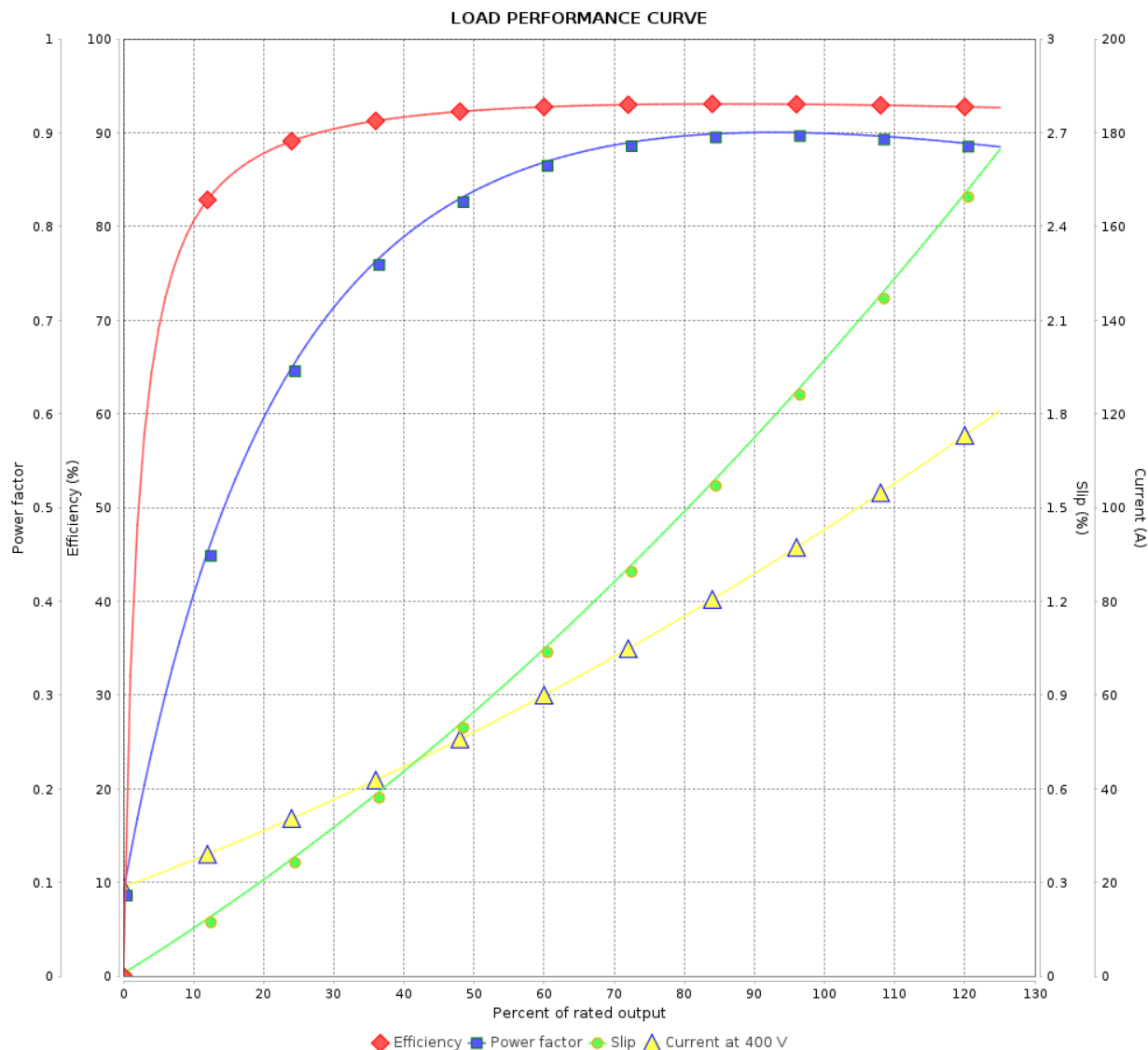
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium
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Product code : 11943424



Performance : 400 V 50 Hz 2P IE1

Rated current : 94.8 A
LRC : 5.8
Rated torque : 18.5 kgfm
Locked rotor torque : 175 %
Breakdown torque : 220 %
Rated speed : 2940 rpm

Moment of inertia (J) : 0.5023 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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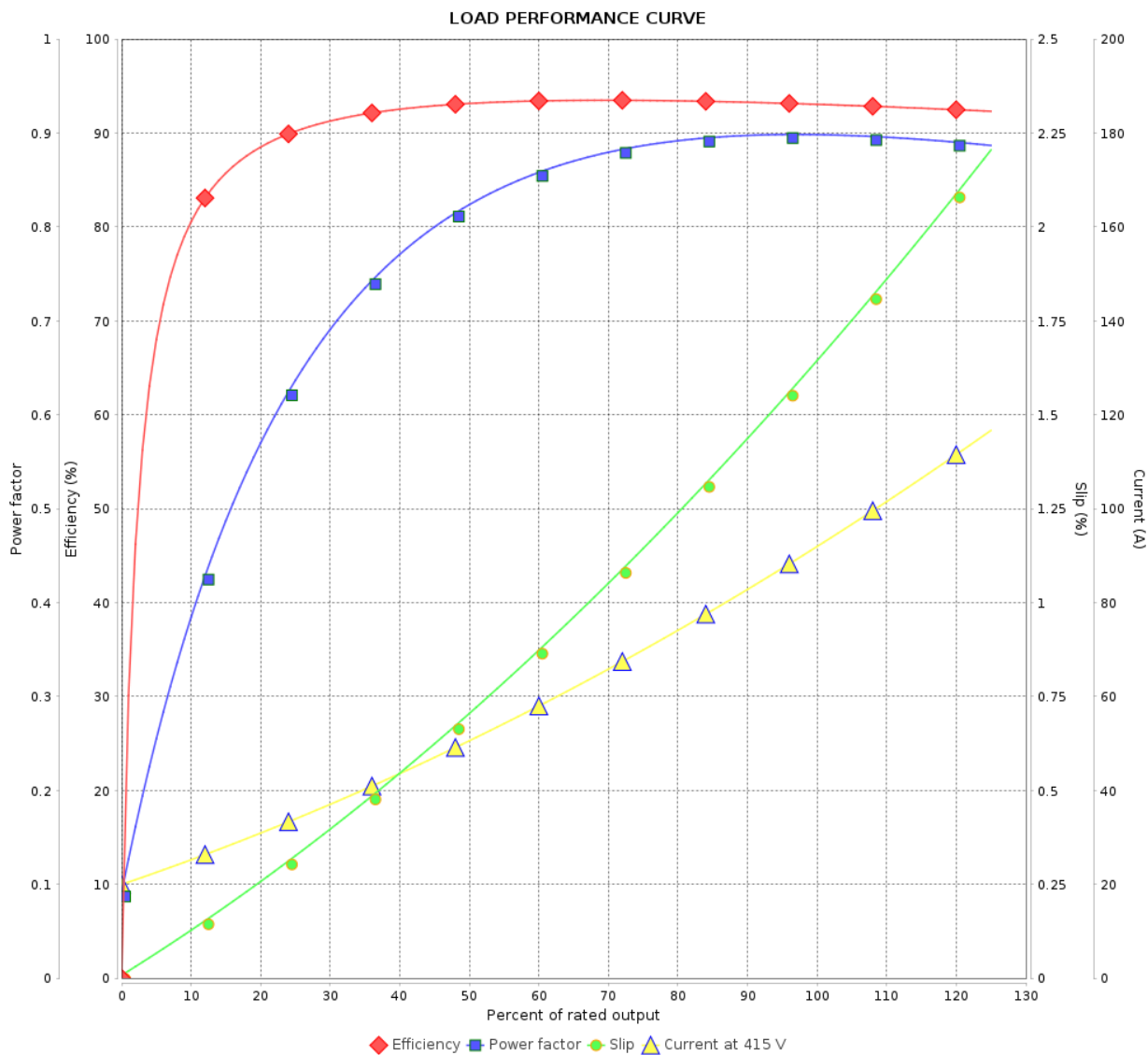
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943424



Performance : 415 V 50 Hz 2P IE1

Rated current : 91.4 A
LRC : 6.2
Rated torque : 18.5 kgfm
Locked rotor torque : 190 %
Breakdown torque : 240 %
Rated speed : 2950 rpm

Moment of inertia (J) : 0.5023 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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