

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943354

Frame : 364/5TS	Cooling method : IC411 - TEFC
Insulation class : F	Mounting : F-1
Duty cycle : Cont.(S1)	Rotation <sup>1</sup> : Both (CW and CCW)
Ambient temperature : -20°C to +40°C	Starting method : Direct On Line
Altitude : 1000 m.a.s.l.	Approx. weight <sup>3</sup> : 0.0 kg
Protection degree : IP55	Moment of inertia (J) : 0.4485 kgm <sup>2</sup>
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 <sup>2</sup>	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	: Taconite	Taconite	Max. traction : 398 kgf
	Labyrinth	Labyrinth	Max. compression : 398 kgf
Lubrication interval	: 4000 h	4000 h	
Lubricant amount	: 27 g	27 g	
Lubricant type	: Mobil Polyrex EM		

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## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

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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# LOAD PERFORMANCE CURVE

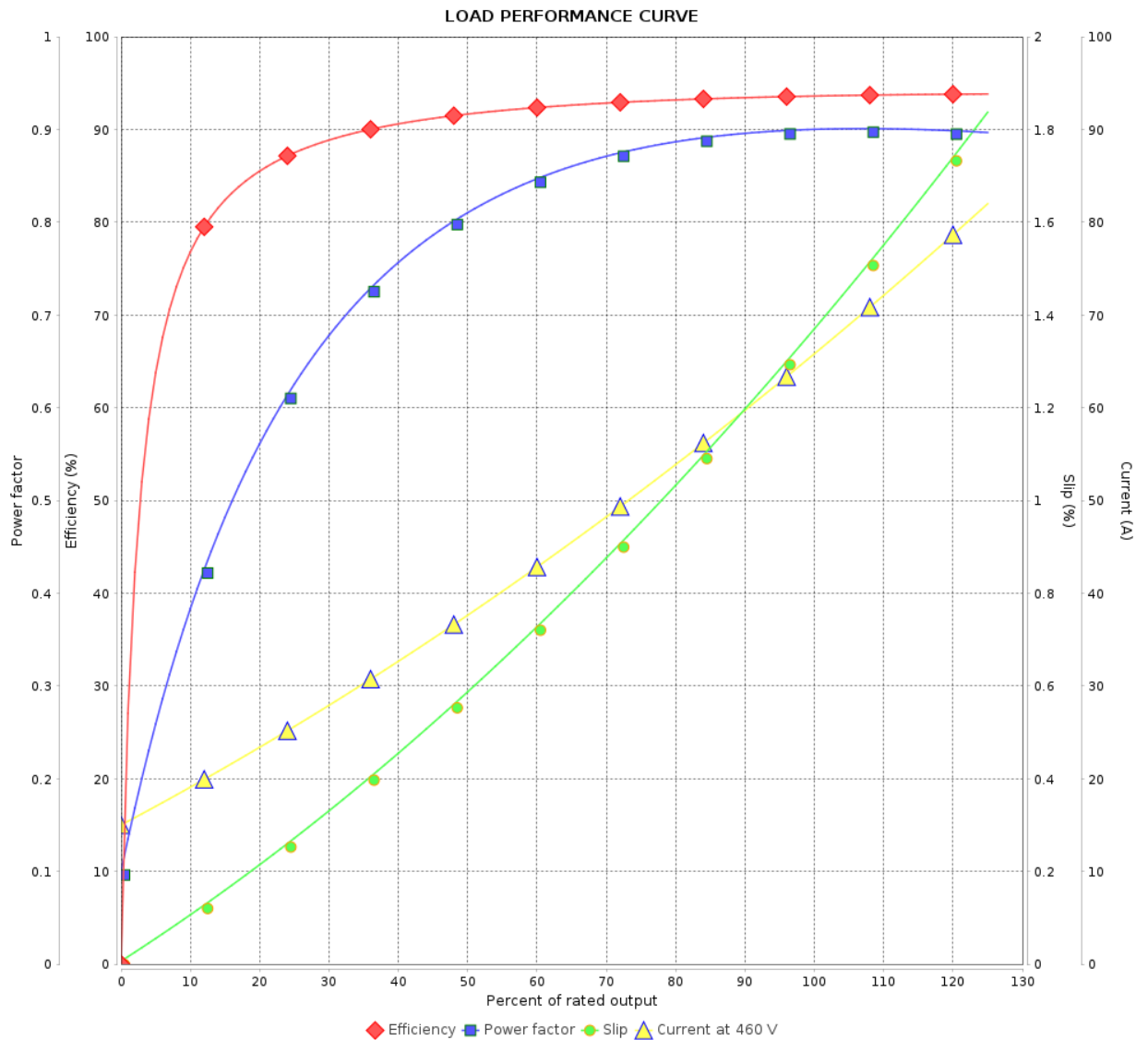
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943354



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 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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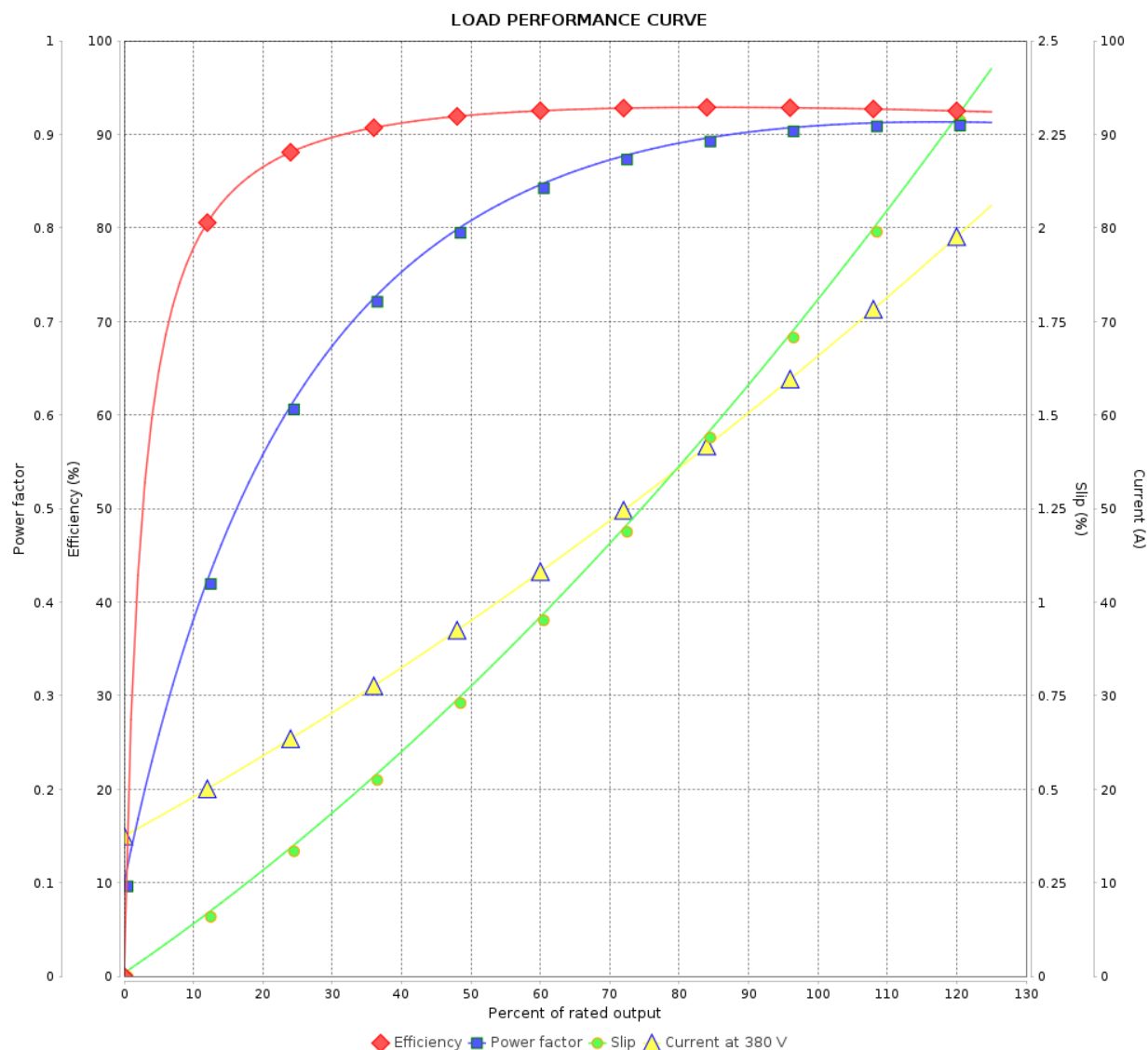
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943354



Performance : 380 V 50 Hz 2P IE2

Rated current : 66.6 A  
LRC : 6.1  
Rated torque : 12.3 kgfm  
Locked rotor torque : 180 %  
Breakdown torque : 240 %  
Rated speed : 2945 rpm

Moment of inertia (J) : 0.4485 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

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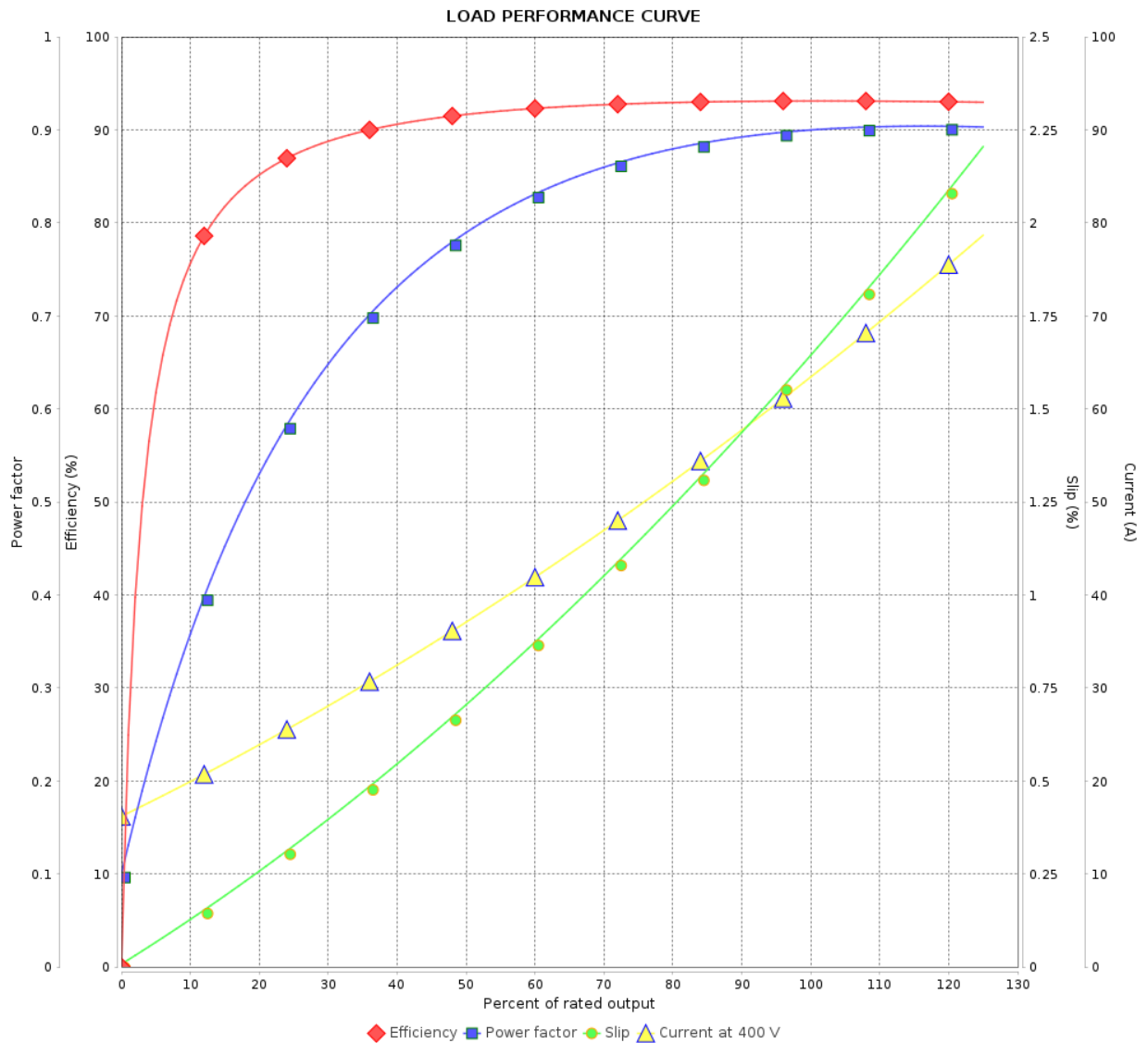
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943354



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 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

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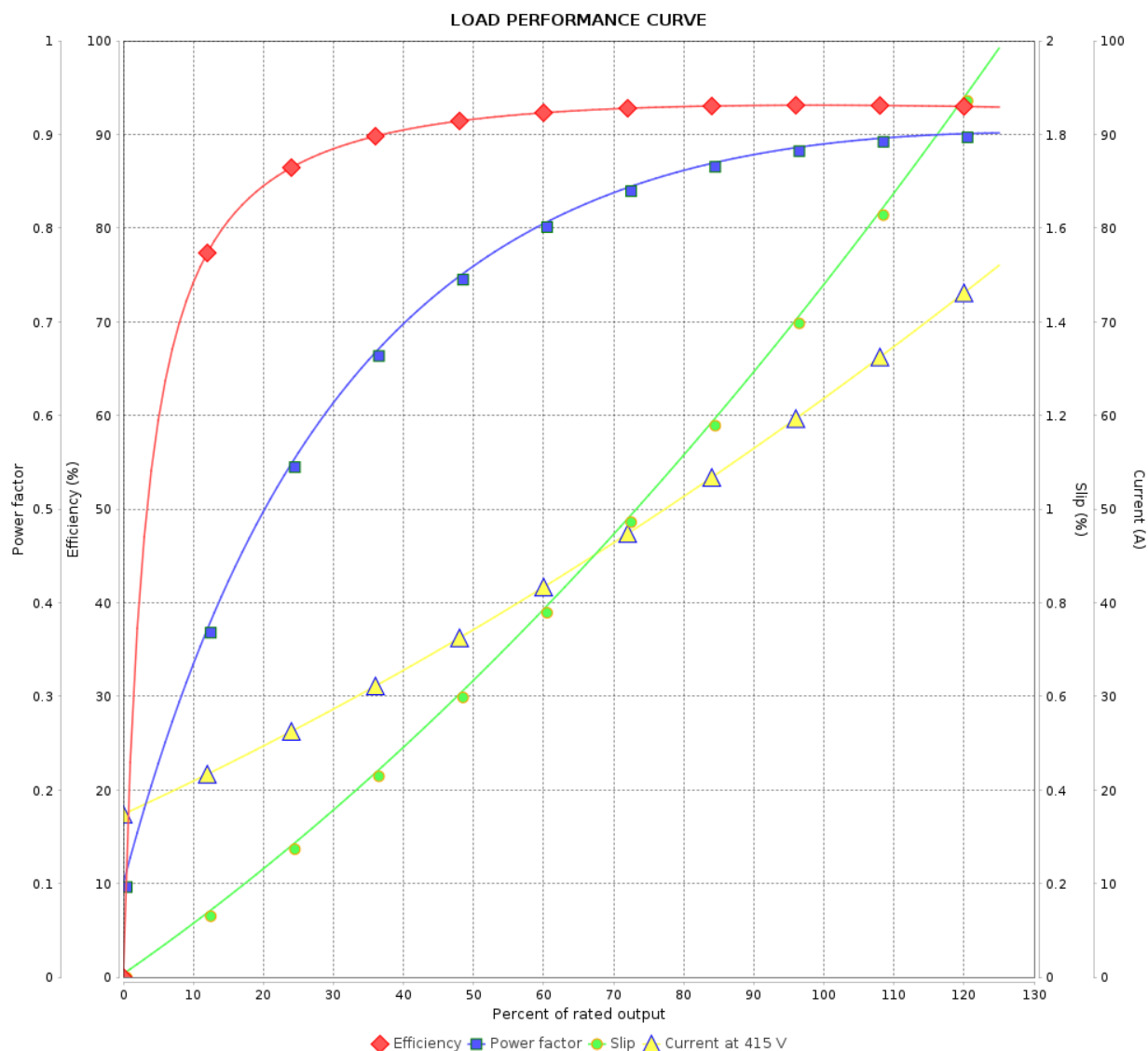
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943354



Performance : 415 V 50 Hz 2P IE2

Rated current : 62.1 A  
LRC : 7.2  
Rated torque : 12.3 kgfm  
Locked rotor torque : 220 %  
Breakdown torque : 290 %  
Rated speed : 2955 rpm

Moment of inertia (J) : 0.4485 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

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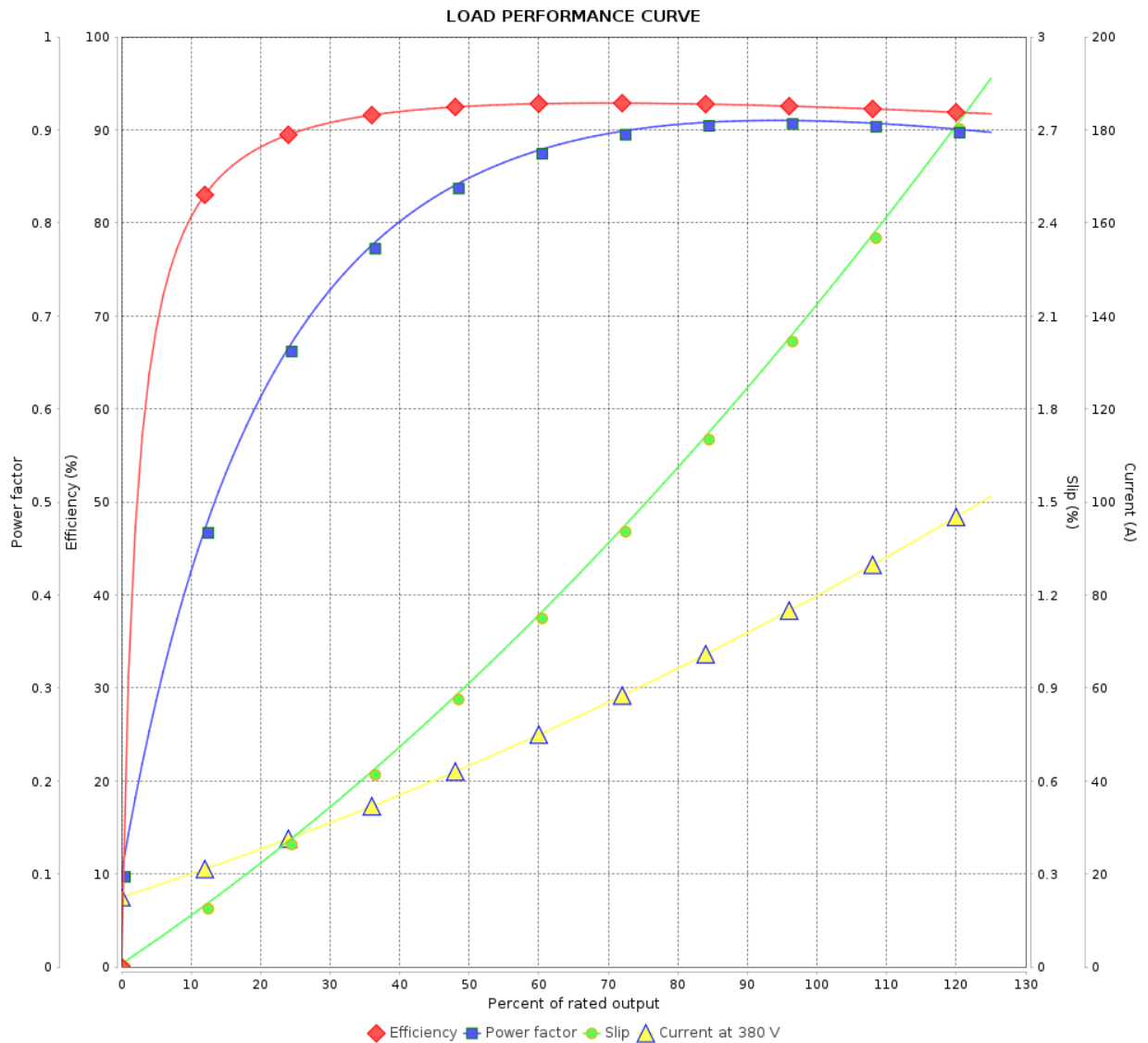
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943354



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 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

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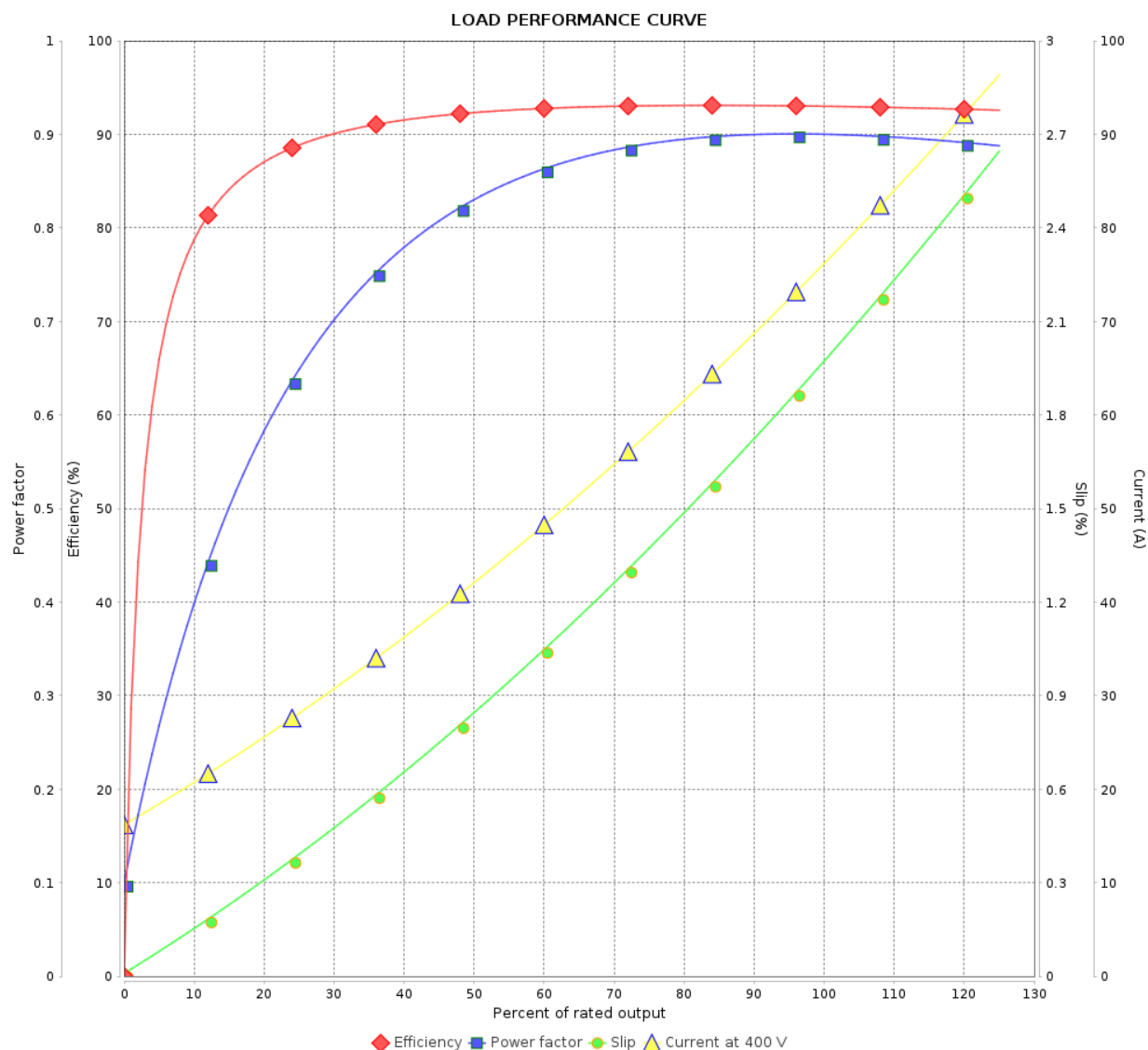
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943354



Performance : 400 V 50 Hz 2P IE2

Rated current : 77.6 A  
LRC : 5.6  
Rated torque : 14.8 kgfm  
Locked rotor torque : 170 %  
Breakdown torque : 220 %  
Rated speed : 2940 rpm

Moment of inertia (J) : 0.4485 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

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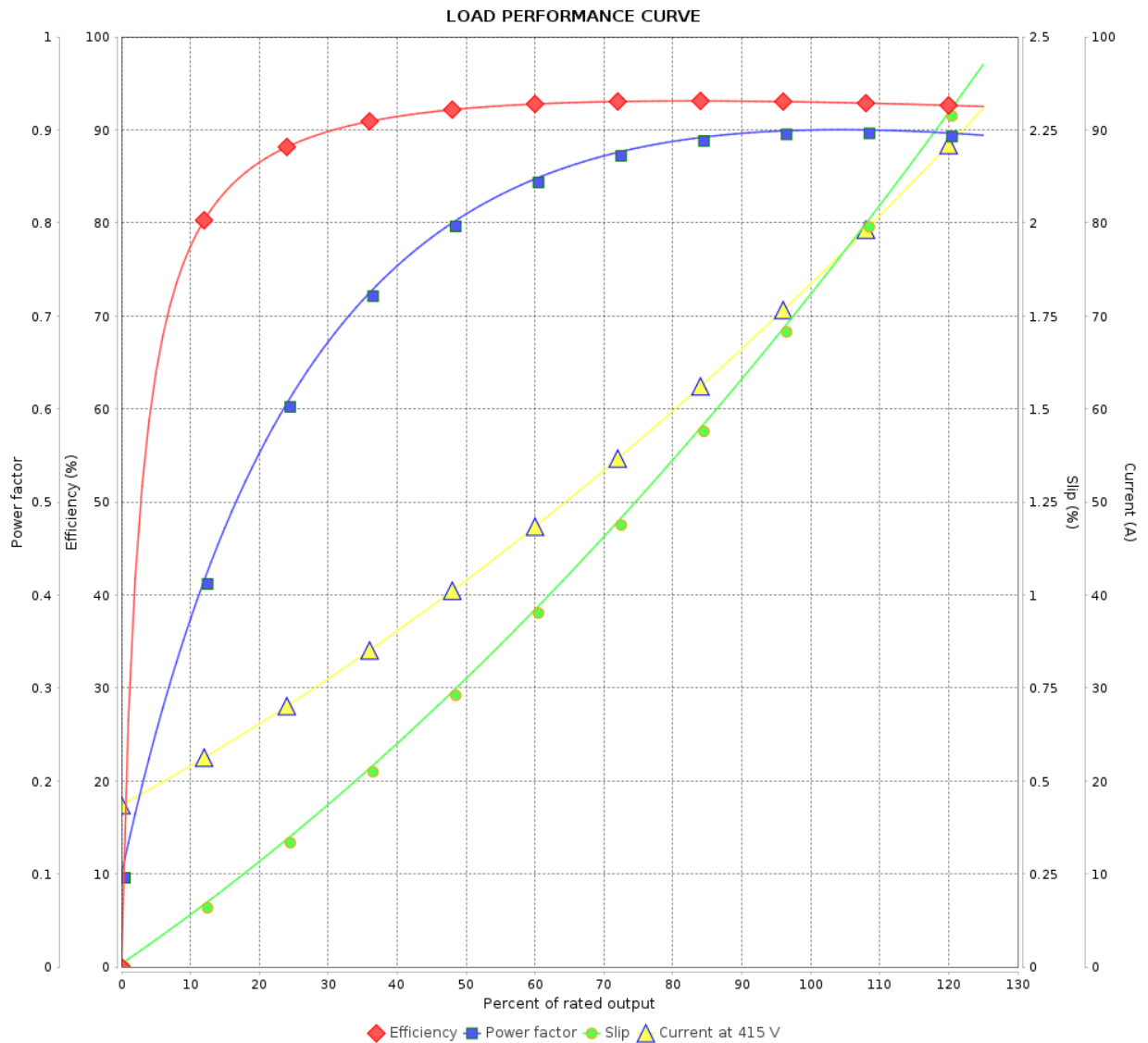
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11943354



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 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

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