

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11415953

Frame : 364/5TSC	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> : 398 kg
Protection degree : IP55	Moment of inertia (J) : 0.5023 kgm <sup>2</sup>
Design : B	

Output [HP]	75	60	60	60	75	75	75
Poles	2	2	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50	50	50
Rated voltage [V]	230/460	380	400	415	380	400	415
Rated current [A]	164/81.9	80.8	78.5	75.7	100	94.8	91.4
L. R. Amperes [A]	1097/549	525	557	598	520	559	594
LRC [A]	6.7x(Code G)	6.5x(Code G)	7.1x(Code H)	7.9x(Code J)	5.2x(Code E)	5.9x(Code F)	6.5x(Code G)
No load current [A]	40.0/20.0	19.0	20.0	21.5	19.0	20.0	21.5
Rated speed [RPM]	3555	2955	2960	2965	2930	2945	2950
Slip [%]	1.25	1.50	1.33	1.17	2.33	1.83	1.67
Rated torque [kgfm]	15.3	14.7	14.7	14.7	18.6	18.5	18.5
Locked rotor torque [%]	200	210	229	250	160	175	190
Breakdown torque [%]	250	260	390	310	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)	39s (cold) 22s (hot)	39s (cold) 22s (hot)	37s (cold) 21s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (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%	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	94.0	94.0	94.0	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	0.89	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)	4.8	4.8	4.8	4.8	4.8	4.8
	P3 (0,25;1,0)	4.5	4.5	4.5	4.5	4.5	4.5
	P4 (0,9;0,5)	3.2	3.2	3.2	3.2	3.2	3.2
	P5 (0,5;0,5)	1.8	1.8	1.8	1.8	1.8	1.8
	P6 (0,5;0,25)	1.1	1.1	1.1	1.1	1.1	1.1
	P7 (0,25;0,25)	0.6	0.6	0.6	0.6	0.6	0.6

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6314 C3	6314 C3	Max. traction : 298 kgf
Sealing :	Oil Seal	Oil Seal	Max. compression : 696 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  
USABLE @208V 181A SF 1.10 SFA 199A

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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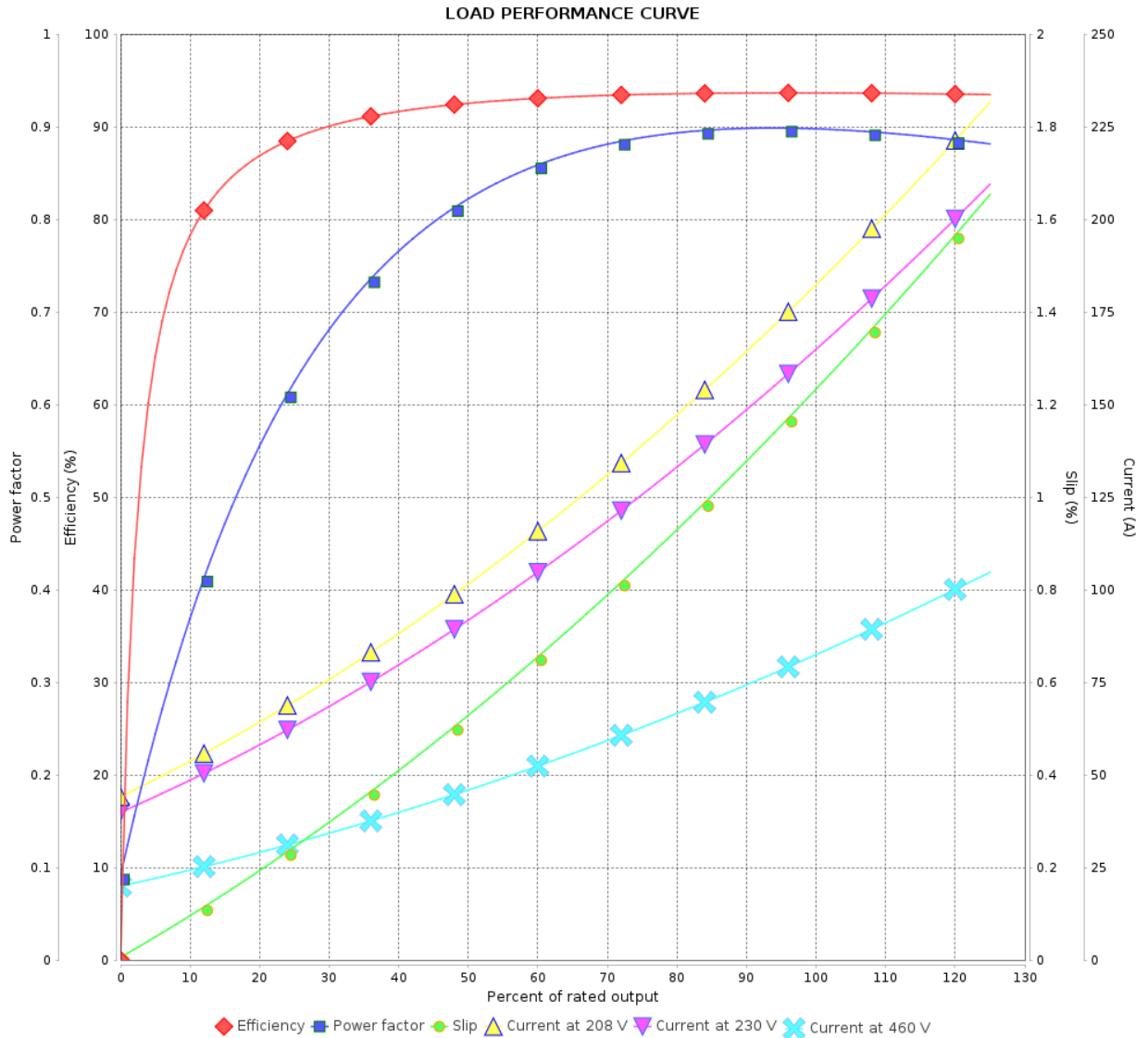
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11415953



Performance : 230/460 V 60 Hz 2P

Rated current : 164/81.9 A  
 LRC : 6.7  
 Rated torque : 15.3 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 3555 rpm

Moment of inertia (J) : 0.5023 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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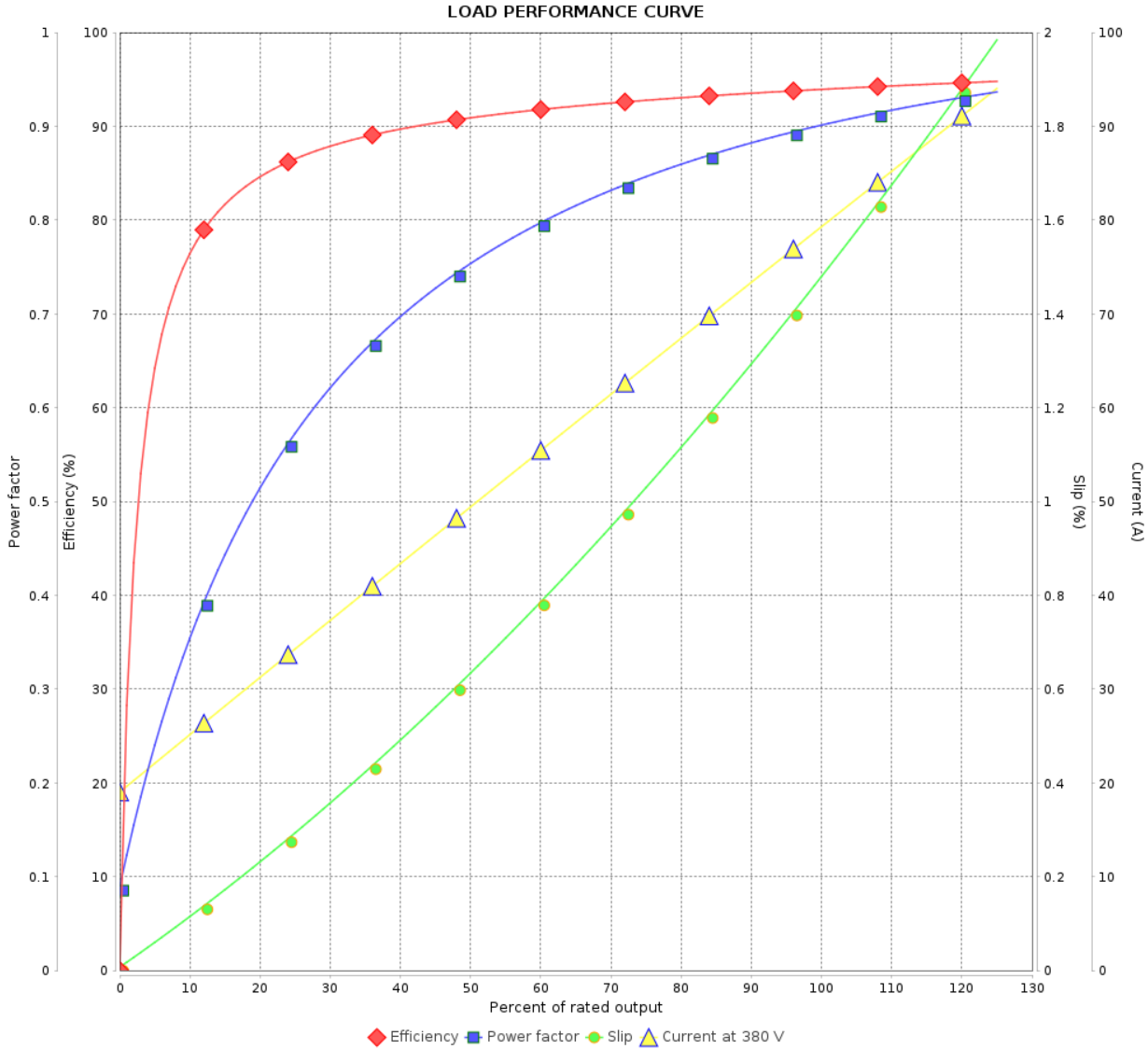
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 11415953



Performance : 380 V 50 Hz 2P IE3

Rated current	: 80.8 A	Moment of inertia (J)	: 0.5023 kgm <sup>2</sup>
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 14.7 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

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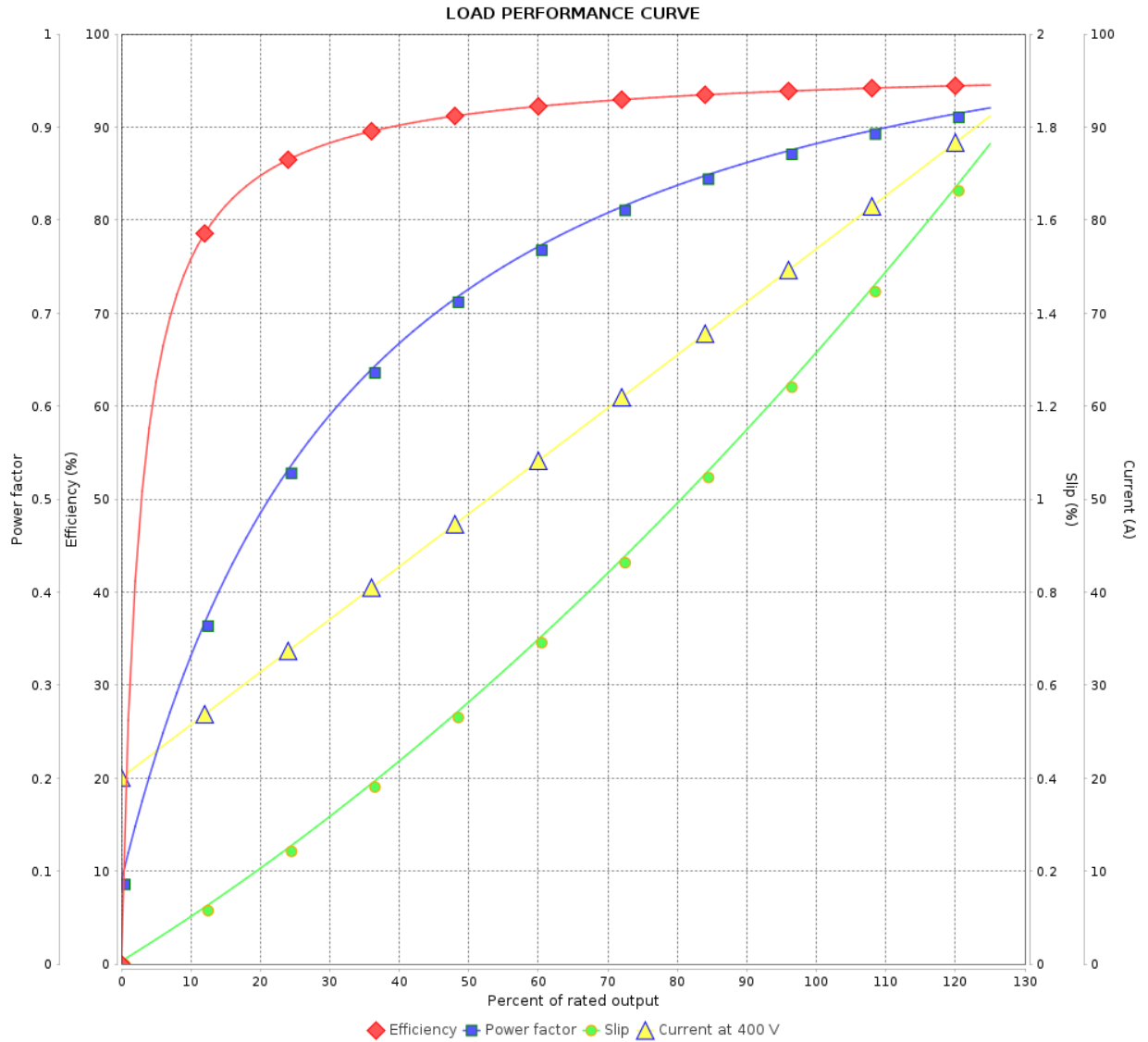
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 11415953



Performance : 400 V 50 Hz 2P IE3

Rated current	: 78.5 A	Moment of inertia (J)	: 0.5023 kgm <sup>2</sup>
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 14.7 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 390 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

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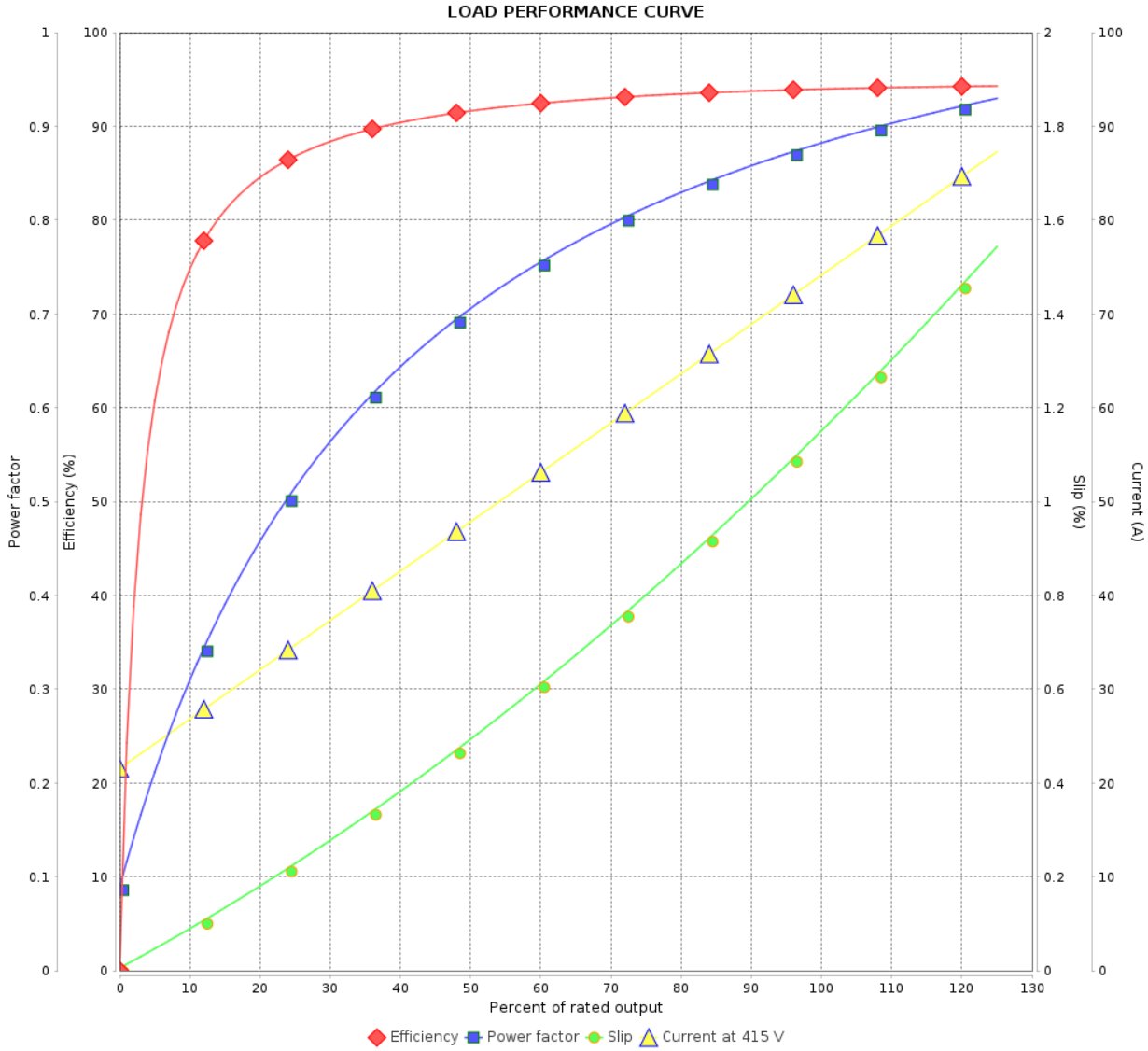
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Three Phase Induction Motor - Squirrel Cage



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

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 11415953



Performance : 415 V 50 Hz 2P IE3

Rated current	: 75.7 A	Moment of inertia (J)	: 0.5023 kgm <sup>2</sup>
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 14.7 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

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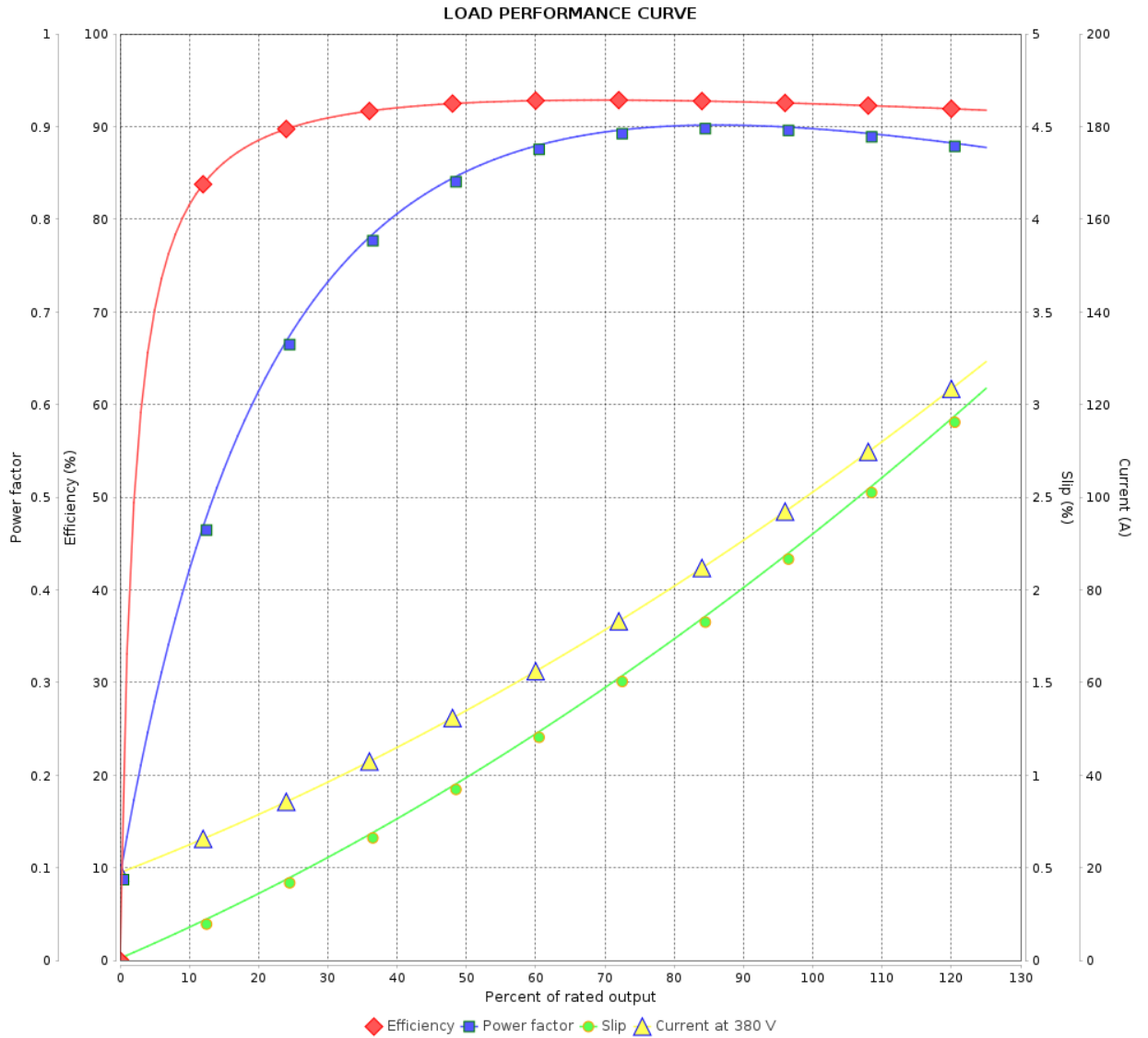
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11415953



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 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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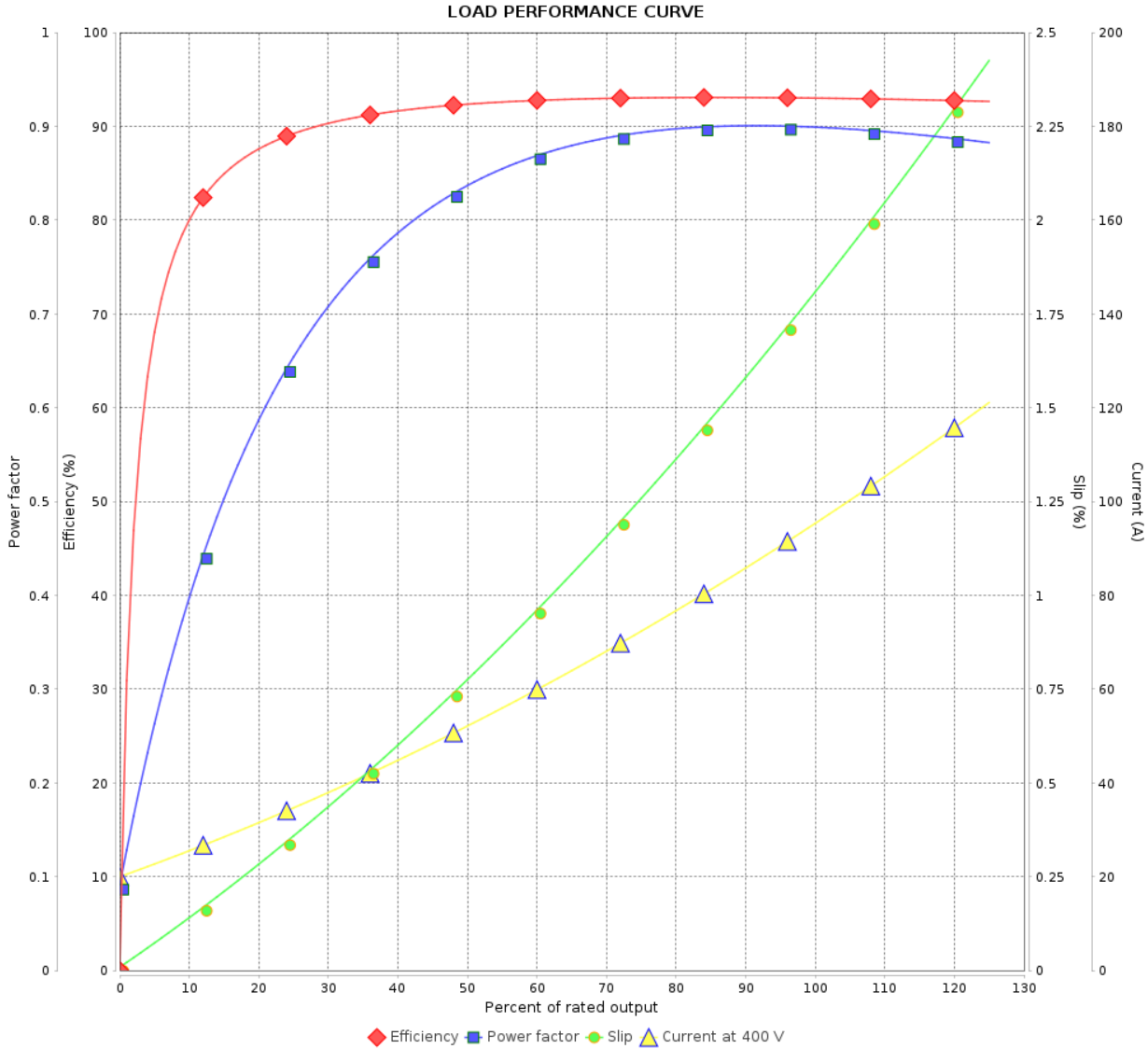
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 11415953



Performance : 400 V 50 Hz 2P IE1

Rated current	: 94.8 A	Moment of inertia (J)	: 0.5023 kgm <sup>2</sup>
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 18.5 kgfm	Insulation class	: F
Locked rotor torque	: 175 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 2945 rpm	Design	: B

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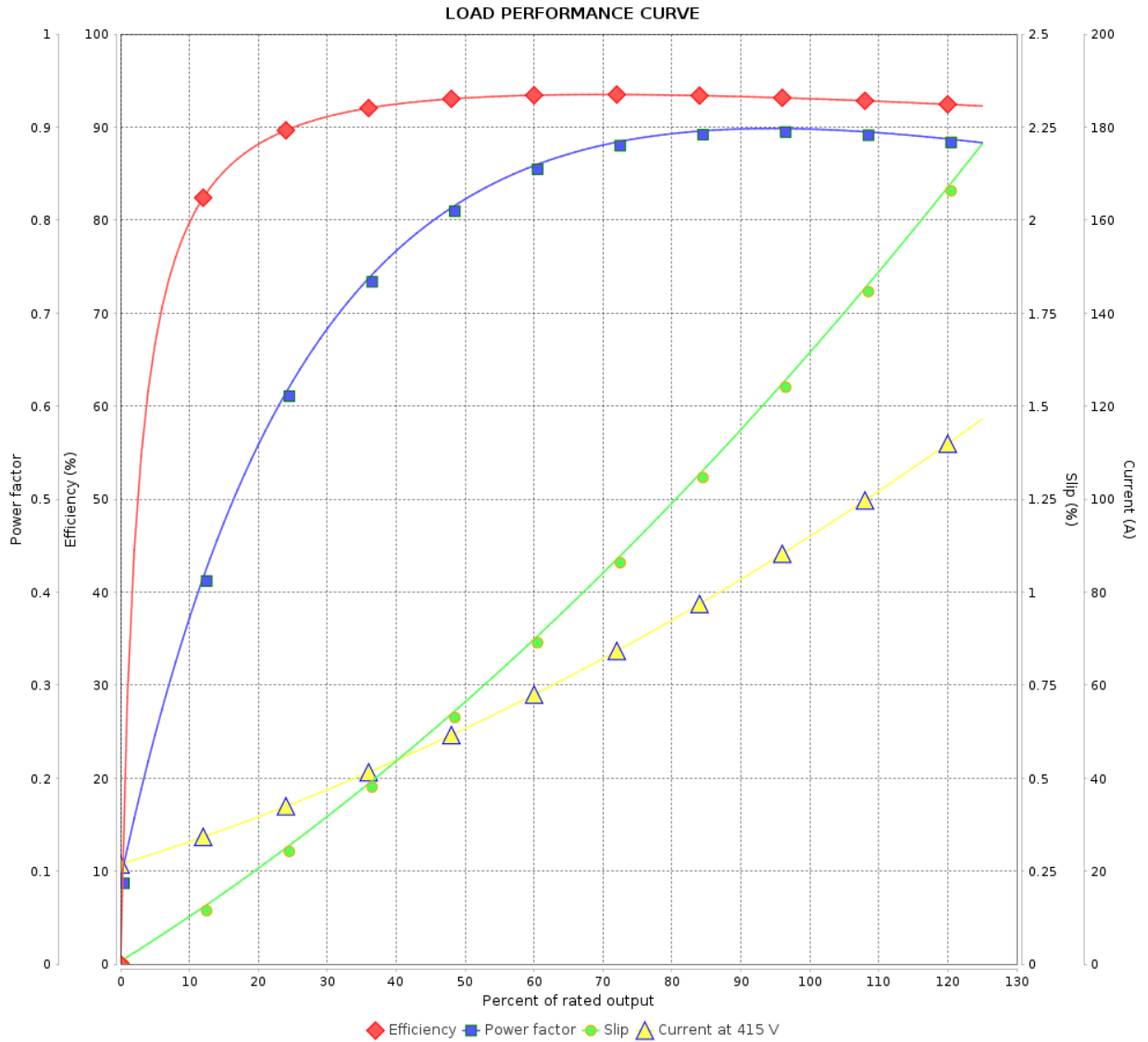
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11415953



Performance : 415 V 50 Hz 2P IE1

Rated current : 91.4 A  
 LRC : 6.5  
 Rated torque : 18.5 kgfm  
 Locked rotor torque : 190 %  
 Breakdown torque : 240 %  
 Rated speed : 2950 rpm

Moment of inertia (J) : 0.5023 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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