

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 11996595

Frame	: 256TC	Cooling method	: IC01 - ODP
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	: IP23	Moment of inertia (J)	: 0.0778 kgm <sup>2</sup>
Design	: B		

Output [HP]	20	20	20	20
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	51.0/25.5	31.0	31.7	30.6
L. R. Amperes [A]	286/143	115	130	138
LRC [A]	5.6x(Code G)	3.7x(Code C)	4.1x(Code E)	4.5x(Code E)
No load current [A]	21.8/10.9	11.1	12.4	13.7
Rated speed [RPM]	1765	1440	1450	1455
Slip [%]	1.94	4.00	3.33	3.00
Rated torque [kgfm]	8.22	10.1	10.0	9.98
Locked rotor torque [%]	229	160	180	200
Breakdown torque [%]	250	160	180	200
Service factor	1.15	1.00	1.00	1.00
Temperature rise	105 K	105 K	105 K	105 K
Locked rotor time	21s (cold) 12s (hot)	27s (cold) 15s (hot)	25s (cold) 14s (hot)	23s (cold) 13s (hot)
Noise level <sup>2</sup>	60.0 dB(A)			
Efficiency (%)	25%			
	50%	90.2	87.5	87.5
	75%	91.0	88.5	88.5
	100%	91.0	87.5	88.5
Power Factor	25%			
	50%	0.64	0.72	0.62
	75%	0.75	0.81	0.74
	100%	0.81	0.84	0.78

Bearing type	: Drive end	6309 Z C3	Non drive end	6209 Z C3	Foundation loads	Max. traction : 314 kgf	Max. compression : 314 kgf
	: Sealing	Without	Without				
Lubrication interval	: Bearing Seal	20000 h	Bearing Seal	20000 h			
Lubricant amount	: Lubricant type	13 g	9 g				
		Mobil Polyrex EM					

Notes  
USABLE @208V 56.4A SF 1.15 SFA 64.9A

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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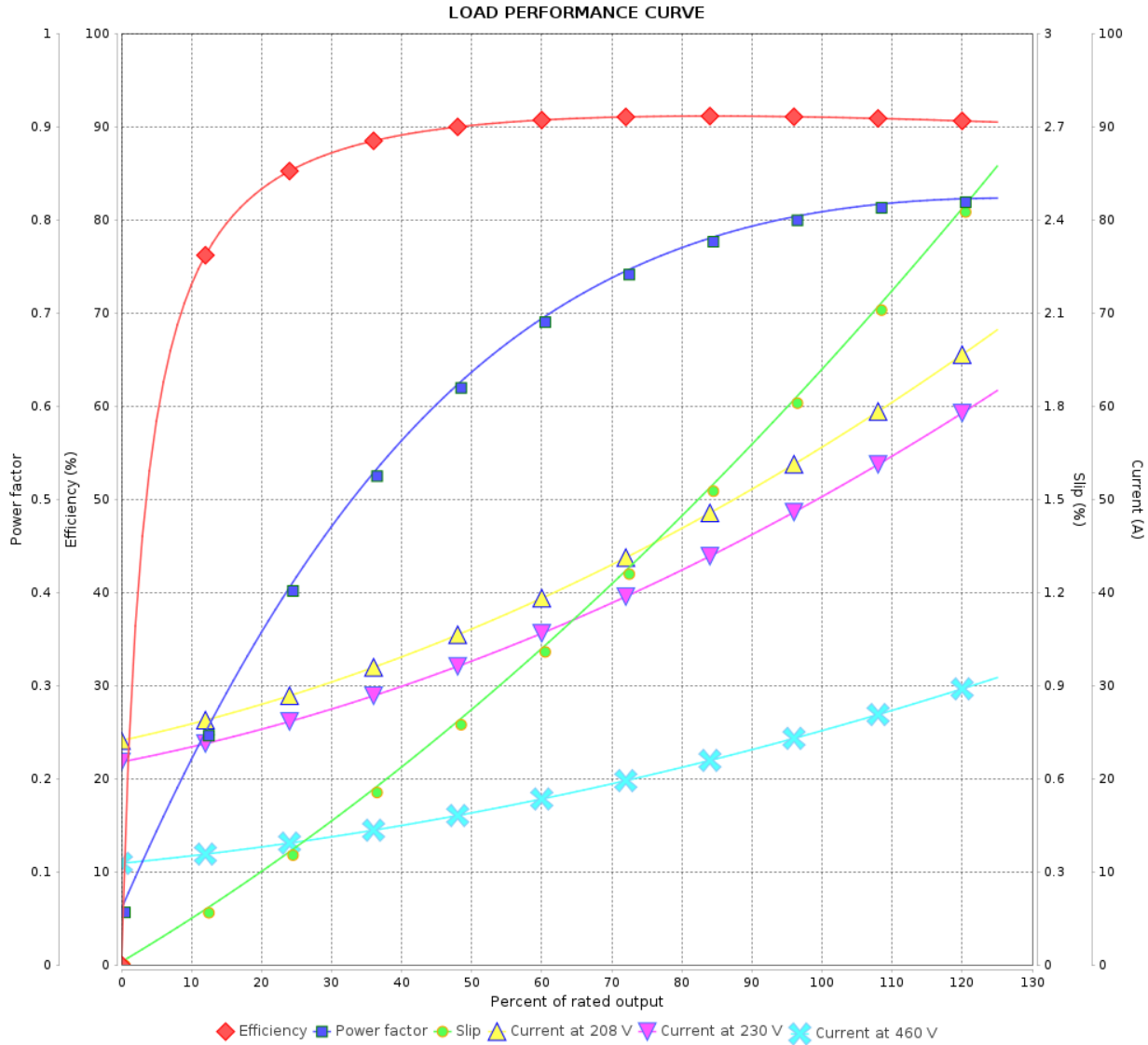
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 11996595



Performance : 230/460 V 60 Hz 4P

Rated current : 51.0/25.5 A  
 LRC : 5.6  
 Rated torque : 8.22 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 250 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.0778 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 105 K  
 Design : B

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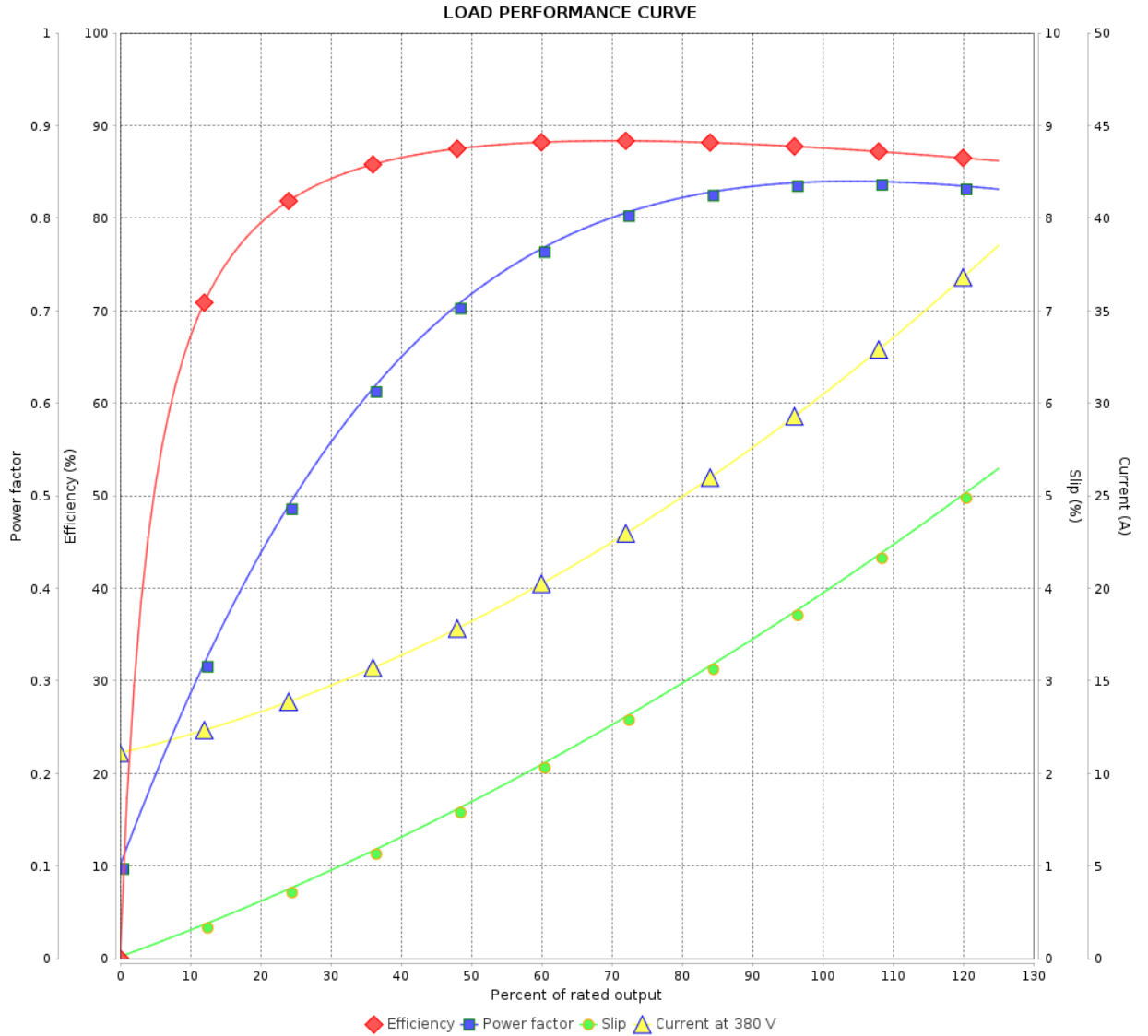
# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : ODP High Efficiency Three-Phase      Product code : 11996595



Performance : 380 V 50 Hz 4P

Rated current	: 31.0 A	Moment of inertia (J)	: 0.0778 kgm <sup>2</sup>
LRC	: 3.7	Duty cycle	: Cont.(S1)
Rated torque	: 10.1 kgfm	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 160 %	Temperature rise	: 105 K
Rated speed	: 1440 rpm	Design	: B

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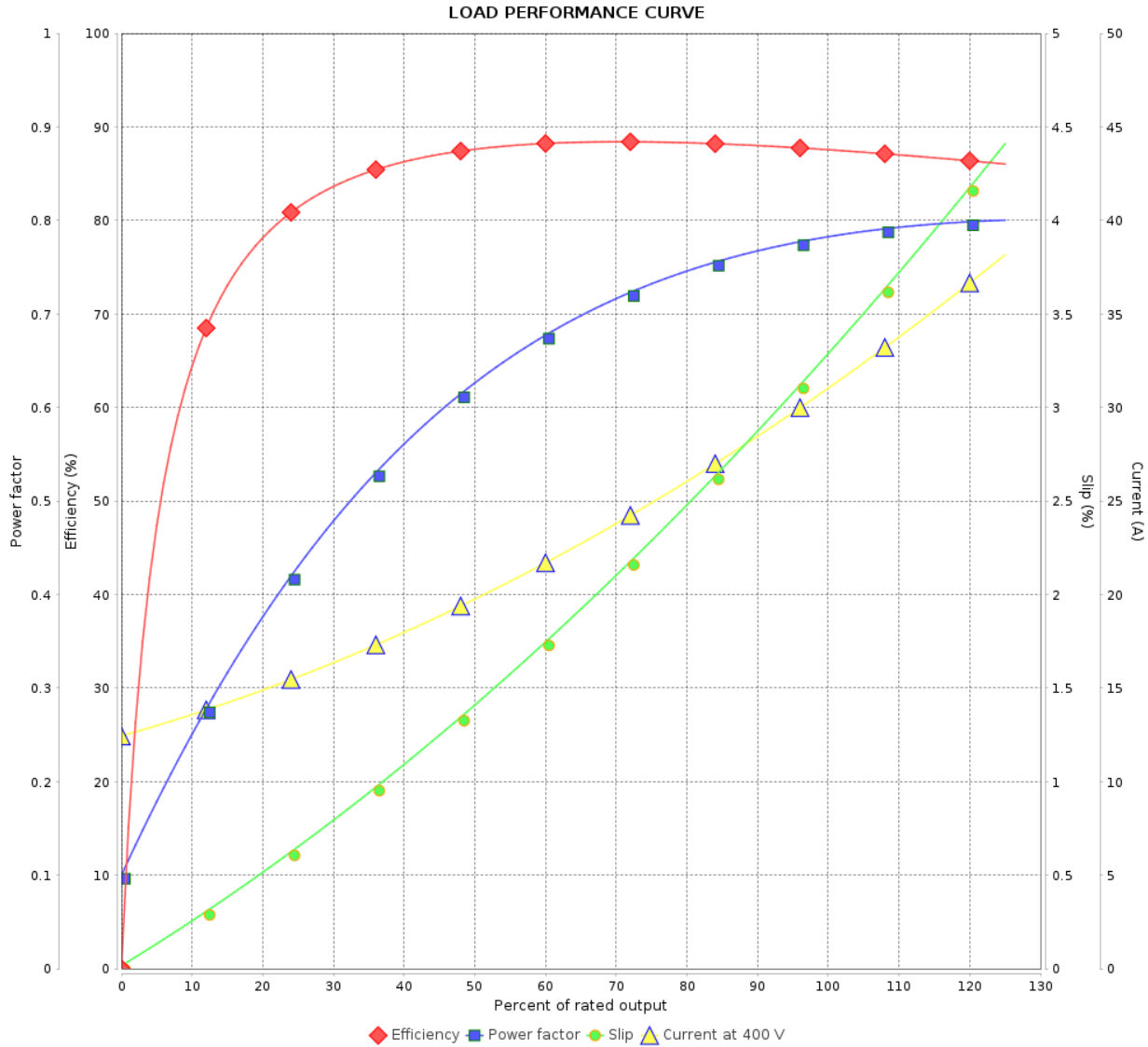
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 11996595



Performance : 400 V 50 Hz 4P

Rated current : 31.7 A  
 LRC : 4.1  
 Rated torque : 10.0 kgfm  
 Locked rotor torque : 180 %  
 Breakdown torque : 180 %  
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.0778 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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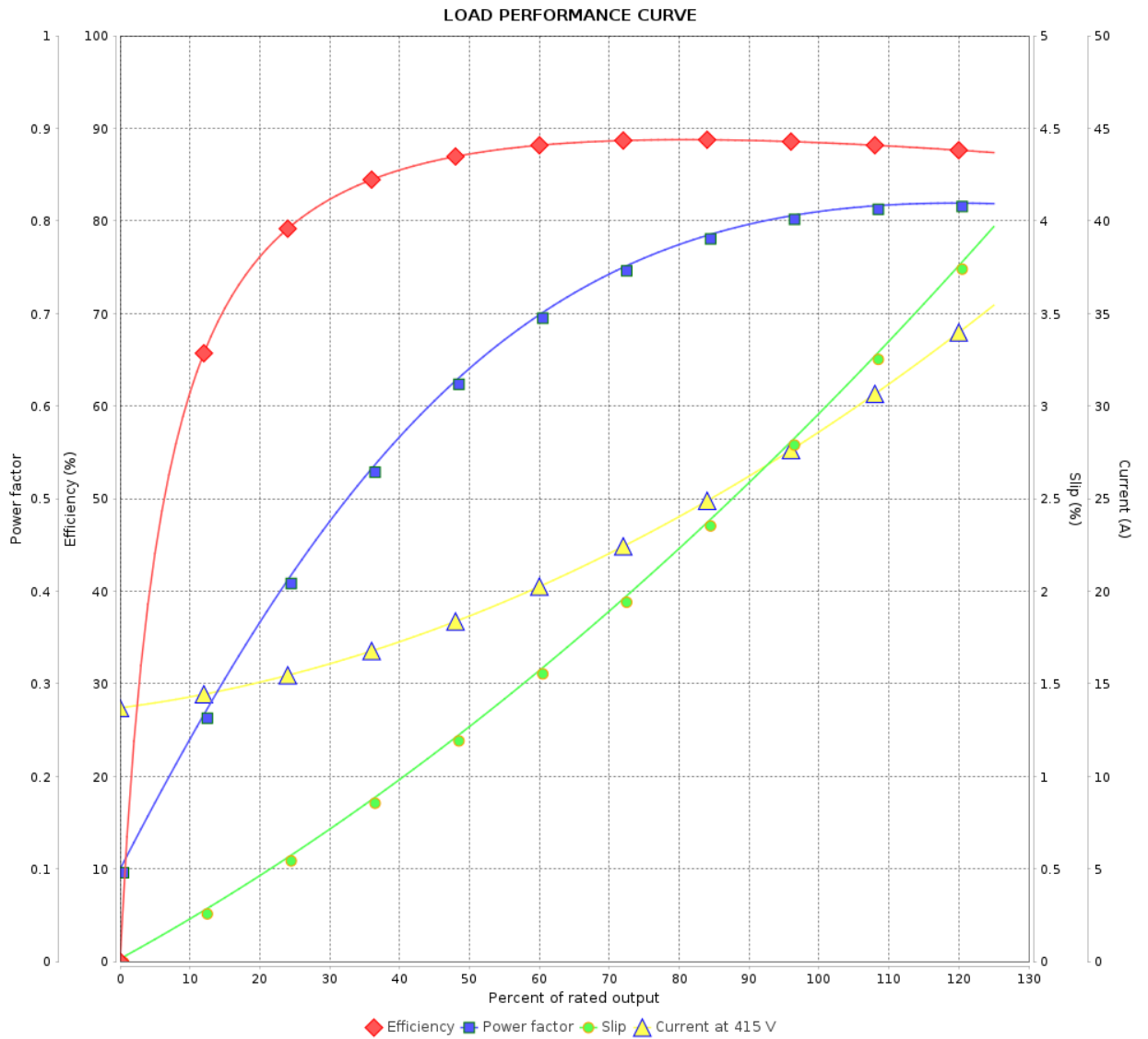
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP High Efficiency Three-Phase Product code : 11996595



Performance : 415 V 50 Hz 4P

Rated current	: 30.6 A	Moment of inertia (J)	: 0.0778 kgm <sup>2</sup>
LRC	: 4.5	Duty cycle	: Cont.(S1)
Rated torque	: 9.98 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 1455 rpm	Design	: B

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