

# 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		
Sealing	: Without	Without	Max. traction	: 314 kgf	
	Bearing Seal	Bearing Seal	Max. compression	: 314 kgf	
Lubrication interval	: 20000 h	20000 h			
Lubricant amount	: 13 g	9 g			
Lubricant type	: 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.		
Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by				Page	Revision
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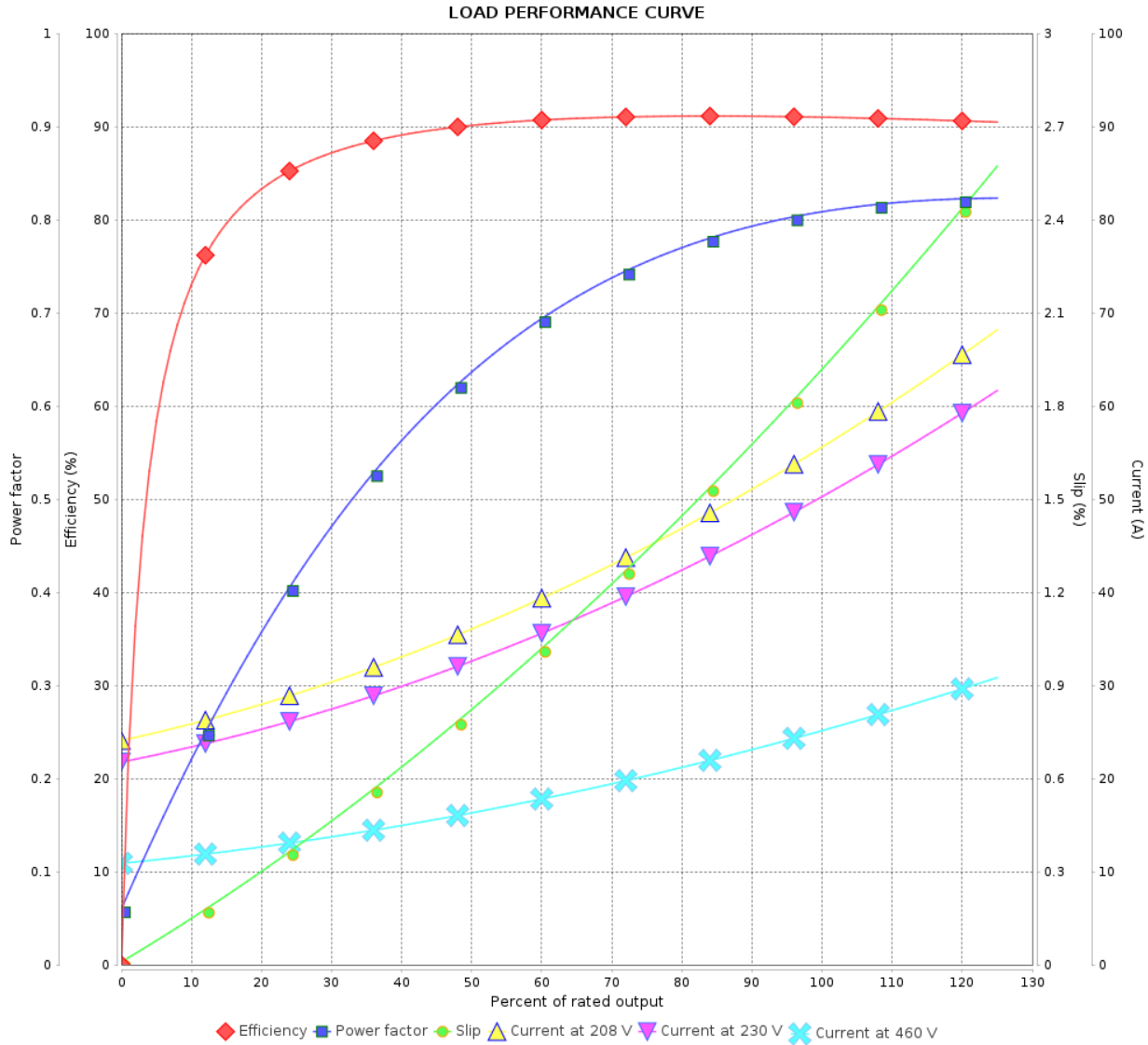
# LOAD PERFORMANCE CURVE

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

Rev.	Changes Summary	Performed	Checked	Date
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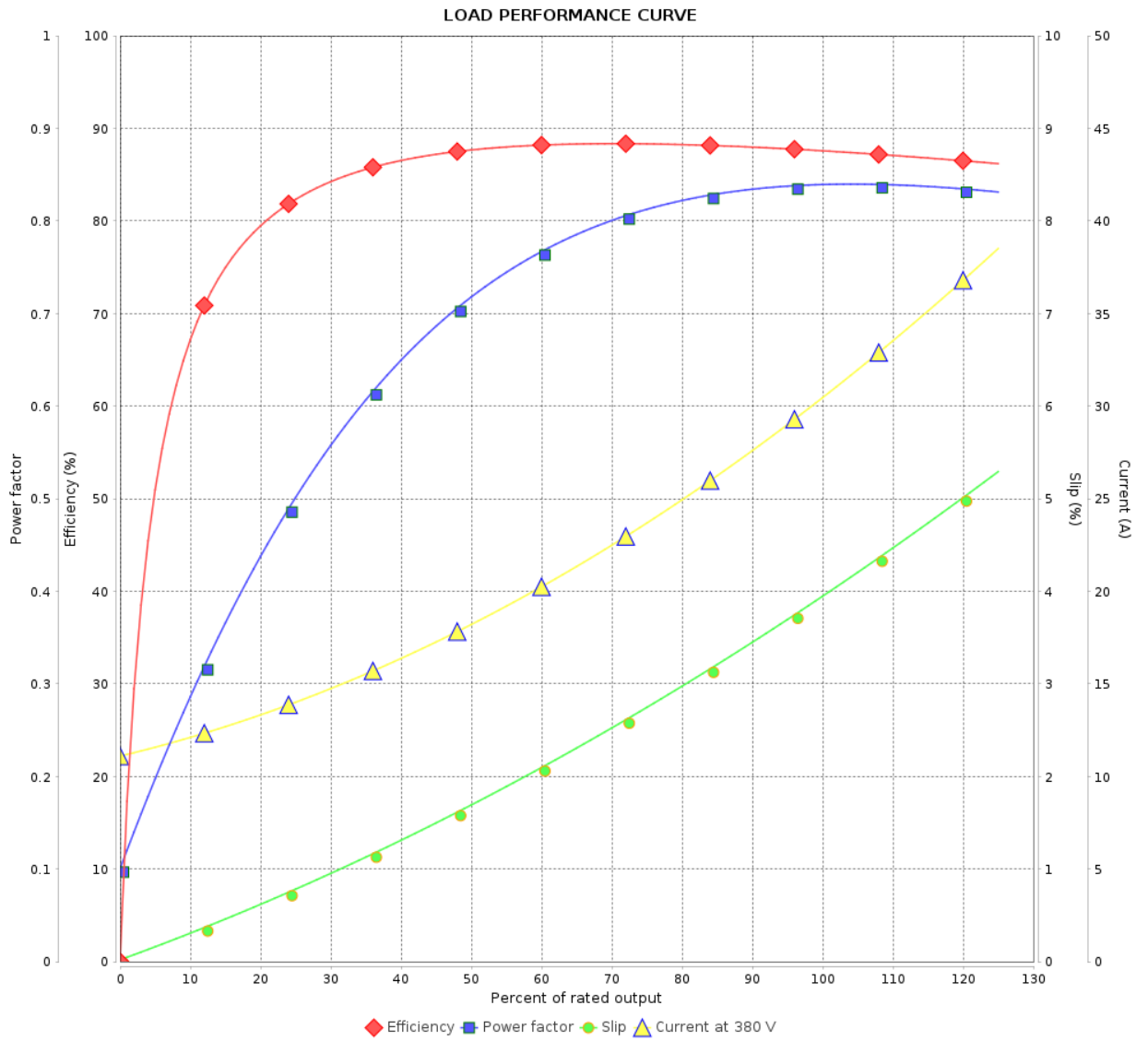
# LOAD PERFORMANCE CURVE

## 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  
 LRC : 3.7  
 Rated torque : 10.1 kgfm  
 Locked rotor torque : 160 %  
 Breakdown torque : 160 %  
 Rated speed : 1440 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

Rev.	Changes Summary	Performed	Checked	Date
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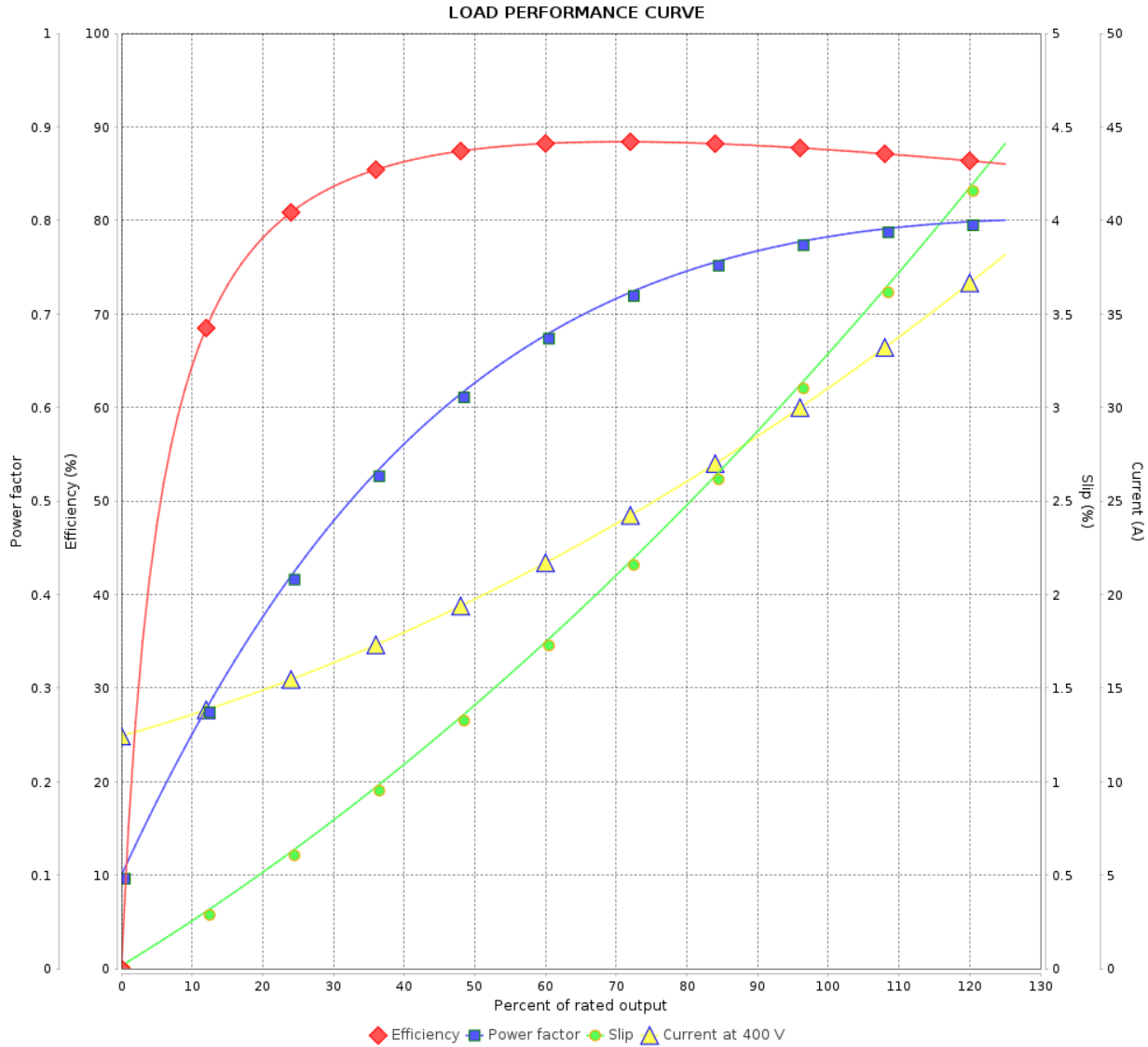
# LOAD PERFORMANCE CURVE

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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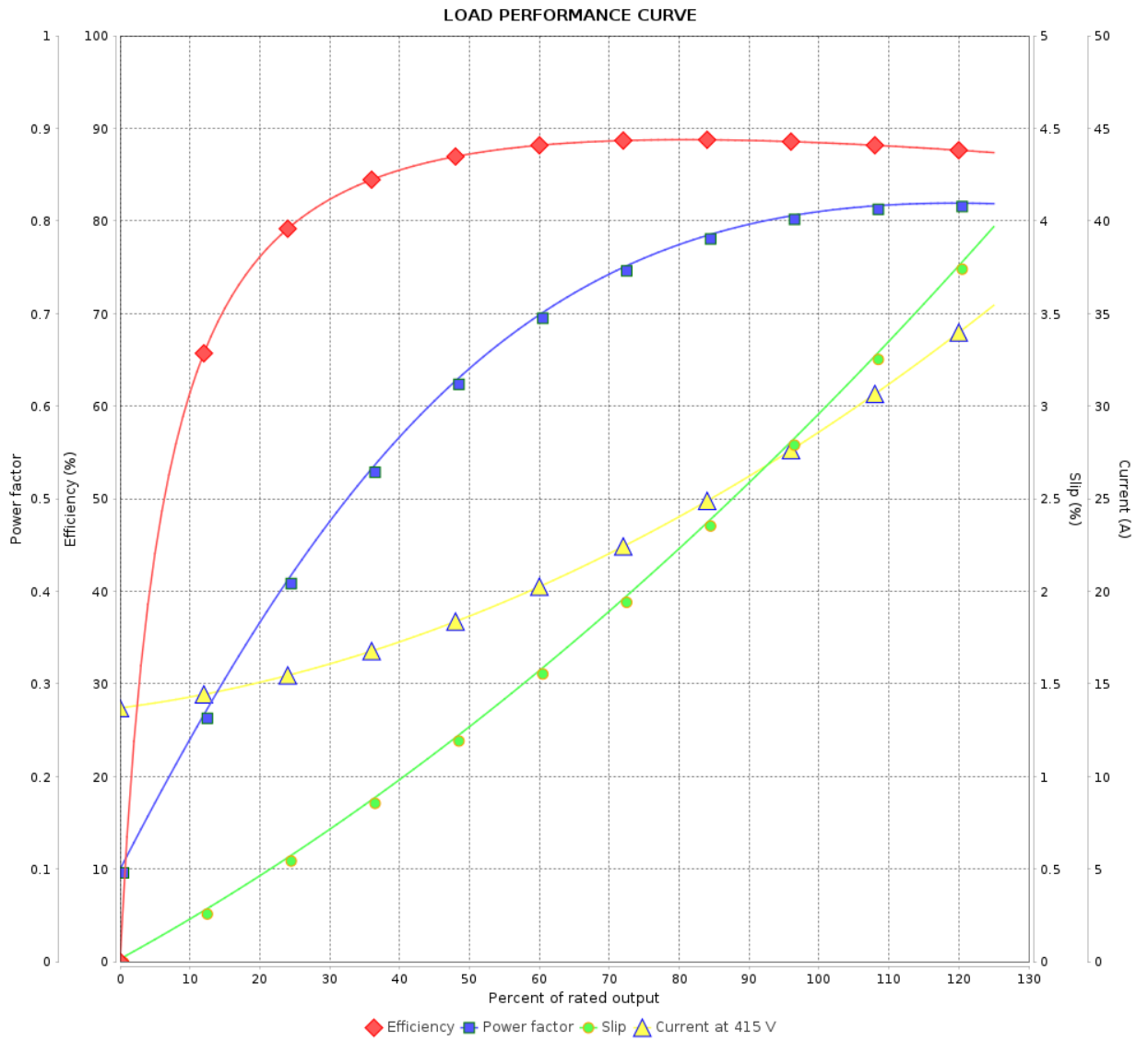
# LOAD PERFORMANCE CURVE

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  
 LRC : 4.5  
 Rated torque : 9.98 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 200 %  
 Rated speed : 1455 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

Rev.	Changes Summary	Performed	Checked	Date
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