

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase      Product code : 14430099

Frame	: 404/5T	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>	: 433 kg
Protection degree	: IP23	Moment of inertia (J)	: 0.9245 kgm <sup>2</sup>
Design	: B		

Output [HP]	100	75	75	75
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	230/115	103	97.5	96.2
L. R. Amperes [A]	1564/782	742	683	750
LRC [A]	6.8x(Code G)	7.2x(Code H)	7.0x(Code H)	7.8x(Code J)
No load current [A]	79.4/39.7	33.0	36.5	40.0
Rated speed [RPM]	1780	1482	1484	1485
Slip [%]	1.11	1.20	1.07	1.00
Rated torque [kgfm]	40.8	36.7	36.7	36.7
Locked rotor torque [%]	200	220	240	270
Breakdown torque [%]	250	250	280	300
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	21s (cold) 12s (hot)	23s (cold) 13s (hot)	21s (cold) 12s (hot)	25s (cold) 14s (hot)
Noise level <sup>2</sup>	69.0 dB(A)			
Efficiency (%)	25%			
	50%	95.0	91.9	92.0
	75%	95.4	92.9	92.9
	100%	95.4	94.7	94.7
Power Factor	25%			
	50%	0.75	0.73	0.72
	75%	0.83	0.82	0.80
	100%	0.86	0.86	0.86

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6316 C3	6212 Z C3	Max. traction : 865 kgf
Sealing	: Without	Without	Max. compression : 1298 kgf
	Bearing Seal	Bearing Seal	
Lubrication interval	: 20000 h	20000 h	
Lubricant amount	: 34 g	13 g	
Lubricant type	: Mobil Polyrex EM		

Notes  
USABLE @208V 254A SF 1.15 SFA 292A

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

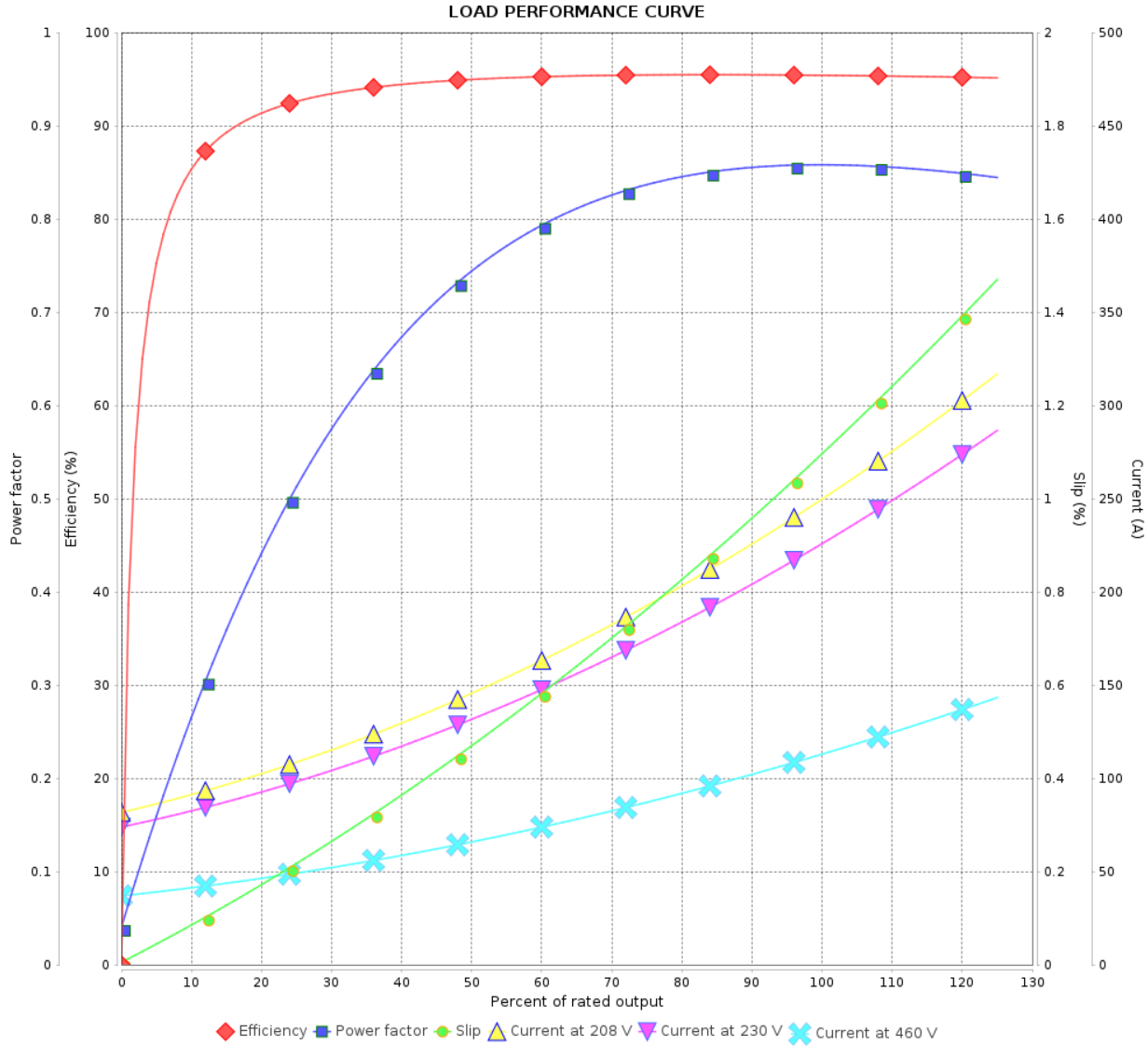
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14430099



Performance : 230/460 V 60 Hz 4P

Rated current : 230/115 A  
 LRC : 6.8  
 Rated torque : 40.8 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 1780 rpm

Moment of inertia (J) : 0.9245 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

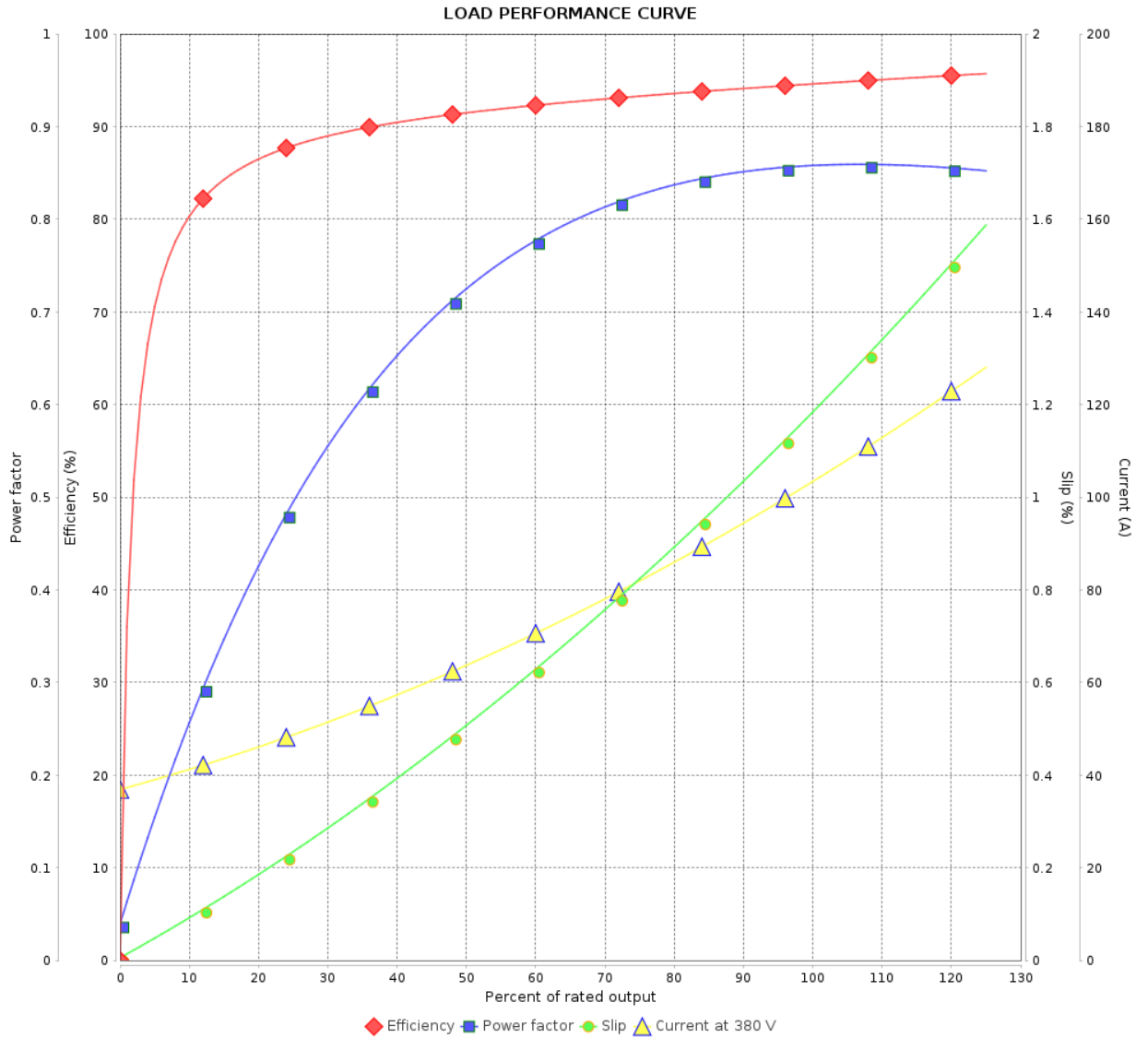
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14430099



Performance : 380 V 50 Hz 4P IE3

Rated current : 103 A  
 LRC : 7.2  
 Rated torque : 36.7 kgfm  
 Locked rotor torque : 220 %  
 Breakdown torque : 250 %  
 Rated speed : 1482 rpm

Moment of inertia (J) : 0.9245 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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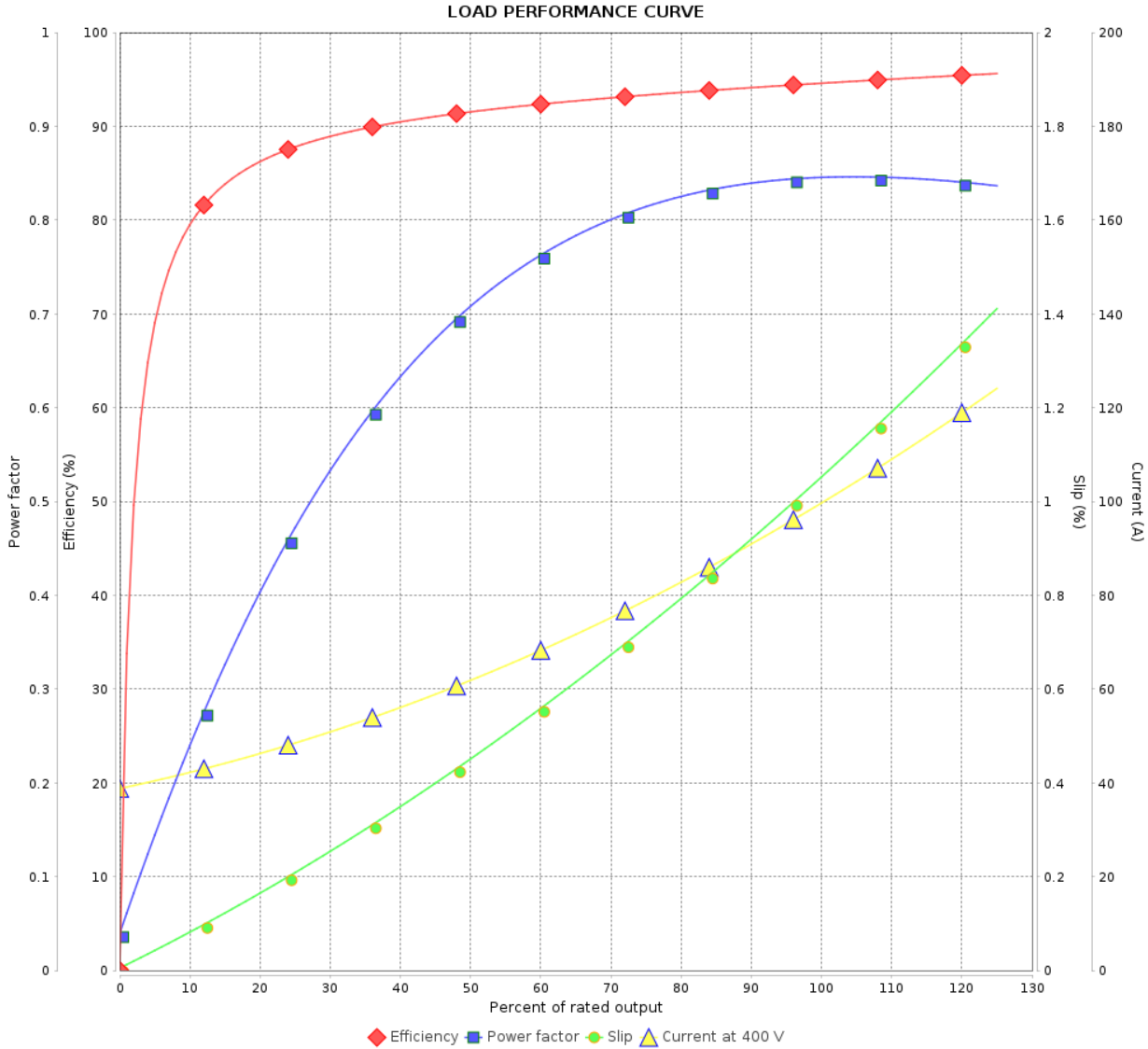
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14430099



Performance : 400 V 50 Hz 4P IE3

Rated current : 97.5 A  
 LRC : 7.0  
 Rated torque : 36.7 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 280 %  
 Rated speed : 1484 rpm

Moment of inertia (J) : 0.9245 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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# LOAD PERFORMANCE CURVE

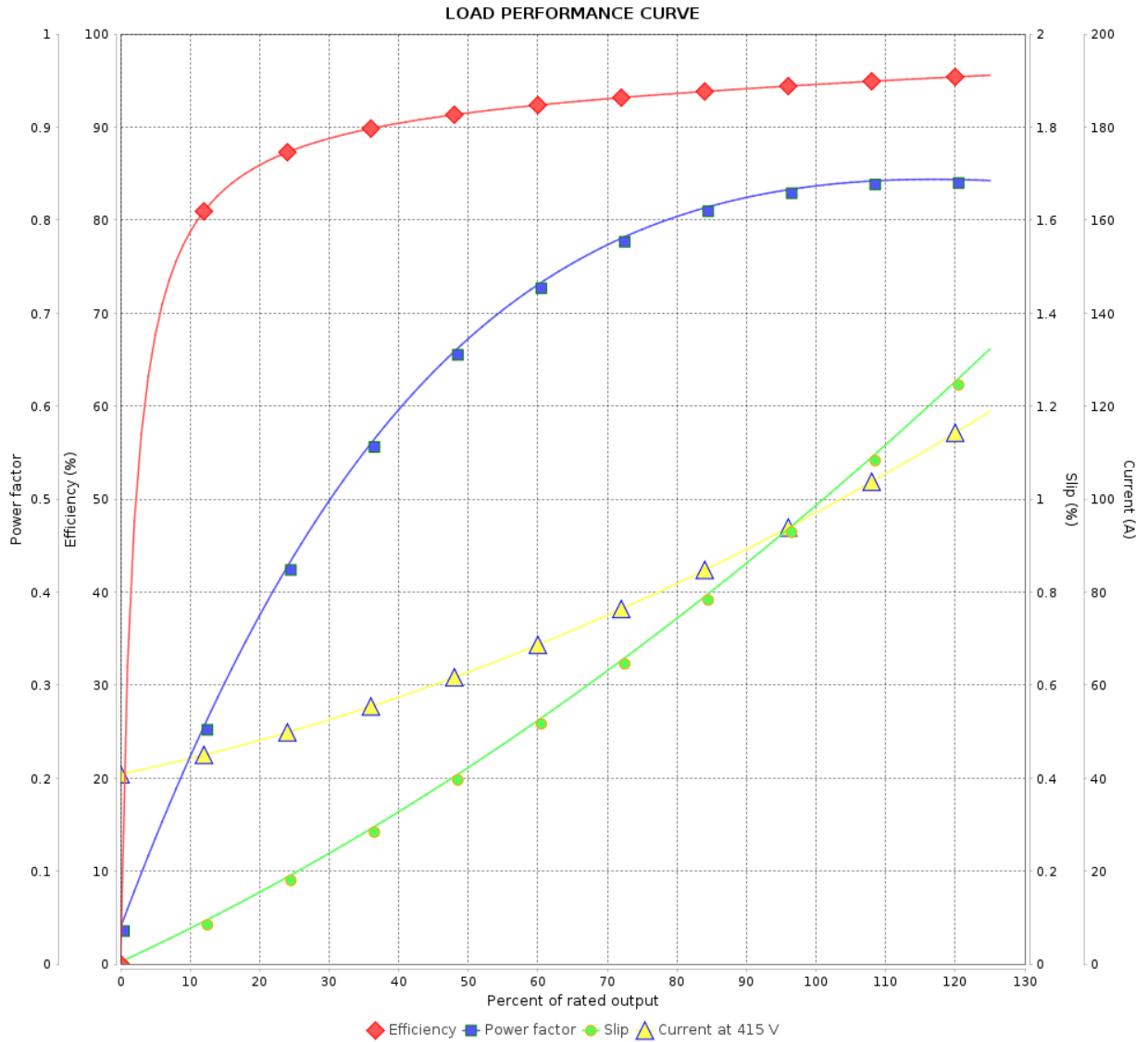
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14430099



Performance : 415 V 50 Hz 4P IE3

Rated current : 96.2 A  
 LRC : 7.8  
 Rated torque : 36.7 kgfm  
 Locked rotor torque : 270 %  
 Breakdown torque : 300 %  
 Rated speed : 1485 rpm

Moment of inertia (J) : 0.9245 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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