

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase      Product code : 14745861

Frame	: 444/5TS	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>	: 580 kg
Protection degree	: IP23	Moment of inertia (J)	: 1.00 kgm <sup>2</sup>
Design	: B		

Output [HP]	200	175	175	175
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	450/225	239	230	224
L. R. Amperes [A]	2925/1463	1530	1633	1658
LRC [A]	6.5x(Code G)	6.4x(Code G)	7.1x(Code H)	7.4x(Code H)
No load current [A]	134/67.0	66.4	74.0	80.5
Rated speed [RPM]	3570	2965	2970	2970
Slip [%]	0.83	1.17	1.00	1.00
Rated torque [kgfm]	40.7	42.8	42.8	42.8
Locked rotor torque [%]	140	140	150	160
Breakdown torque [%]	229	210	229	240
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	37s (cold) 21s (hot)	25s (cold) 14s (hot)	23s (cold) 13s (hot)	23s (cold) 13s (hot)
Noise level <sup>2</sup>	85.0 dB(A)			
Efficiency (%)	25%			
	50%	93.0	92.8	92.8
	75%	94.5	93.9	93.9
	100%	95.0	95.4	95.4
Power Factor	25%			
	50%	0.79	0.81	0.77
	75%	0.86	0.86	0.85
	100%	0.88	0.88	0.87

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6314 C3	6212 Z C3	Max. traction : 607 kgf
Sealing	: Without	Without	Max. compression : 1187 kgf
	Bearing Seal	Bearing Seal	
Lubrication interval	: 14418 h	20000 h	
Lubricant amount	: 27 g	13 g	
Lubricant type	: Mobil Polyrex EM		

Notes  
USABLE @208V 498A SF 1.00 SFA 498A

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
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# LOAD PERFORMANCE CURVE

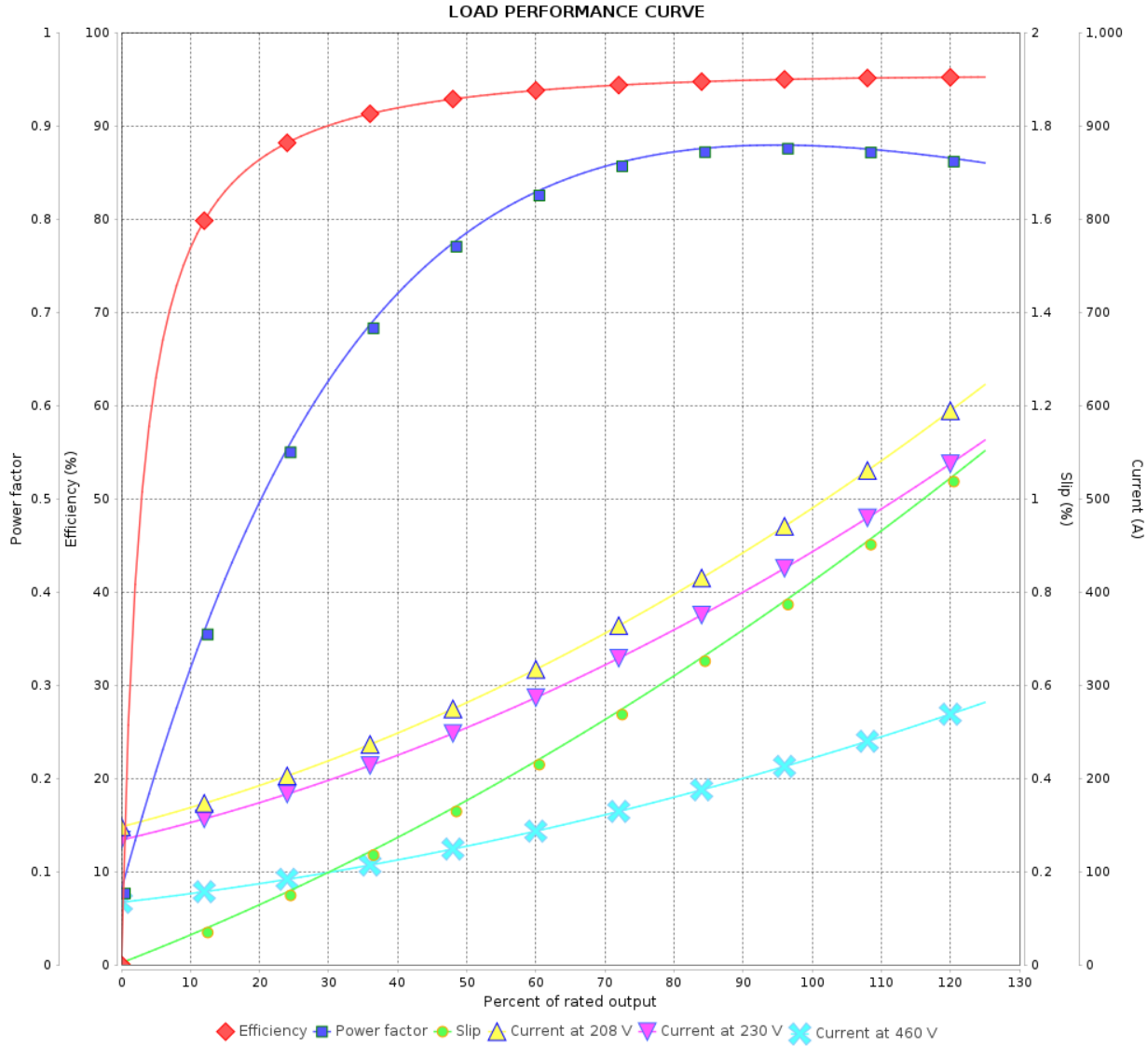
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14745861



Performance : 230/460 V 60 Hz 2P

Rated current : 450/225 A  
 LRC : 6.5  
 Rated torque : 40.7 kgfm  
 Locked rotor torque : 140 %  
 Breakdown torque : 229 %  
 Rated speed : 3570 rpm

Moment of inertia (J) : 1.00 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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Date	15/01/2024			

# LOAD PERFORMANCE CURVE

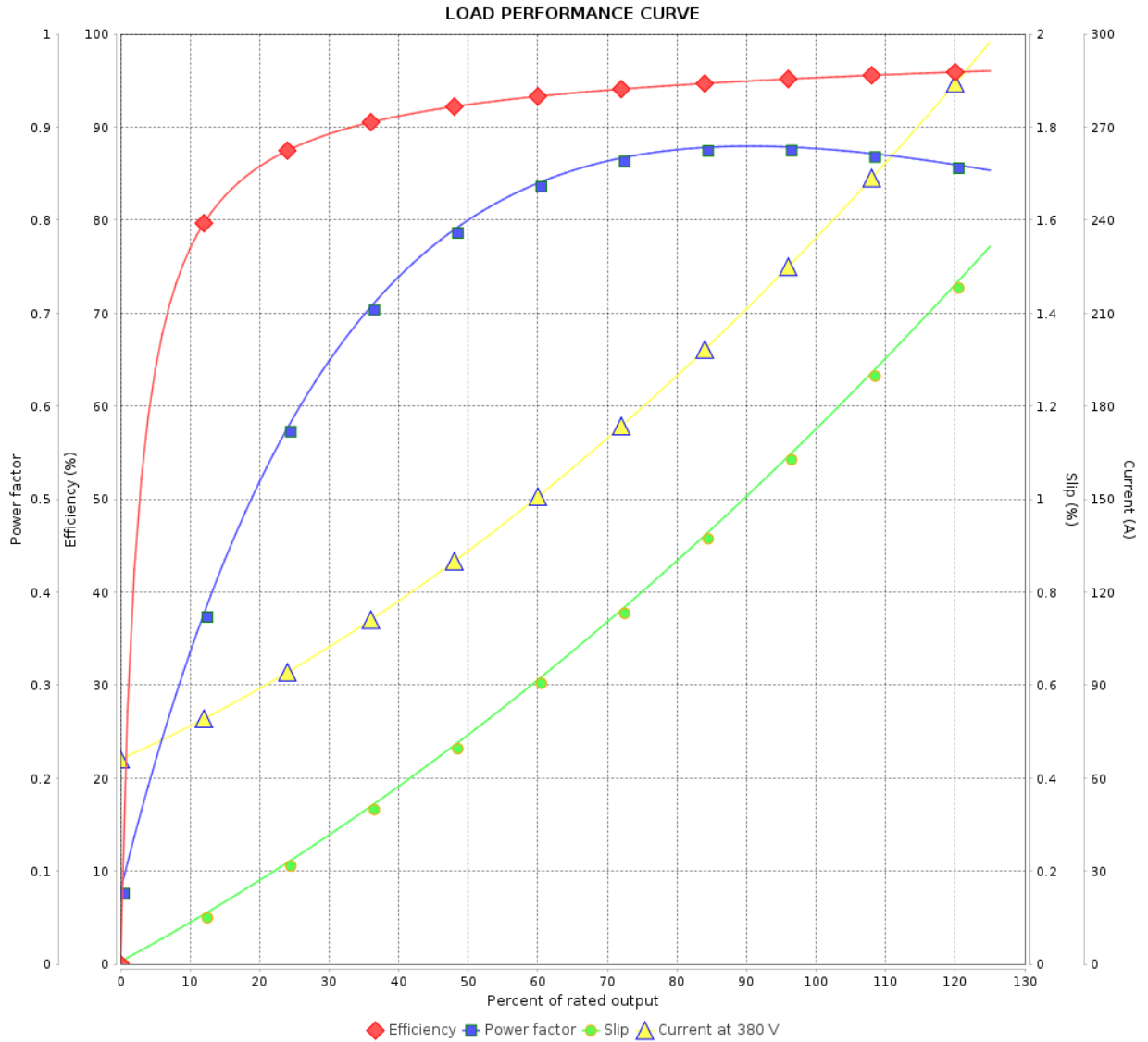
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14745861



Performance : 380 V 50 Hz 2P IE3

Rated current : 239 A  
 LRC : 6.4  
 Rated torque : 42.8 kgfm  
 Locked rotor torque : 140 %  
 Breakdown torque : 210 %  
 Rated speed : 2965 rpm

Moment of inertia (J) : 1.00 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

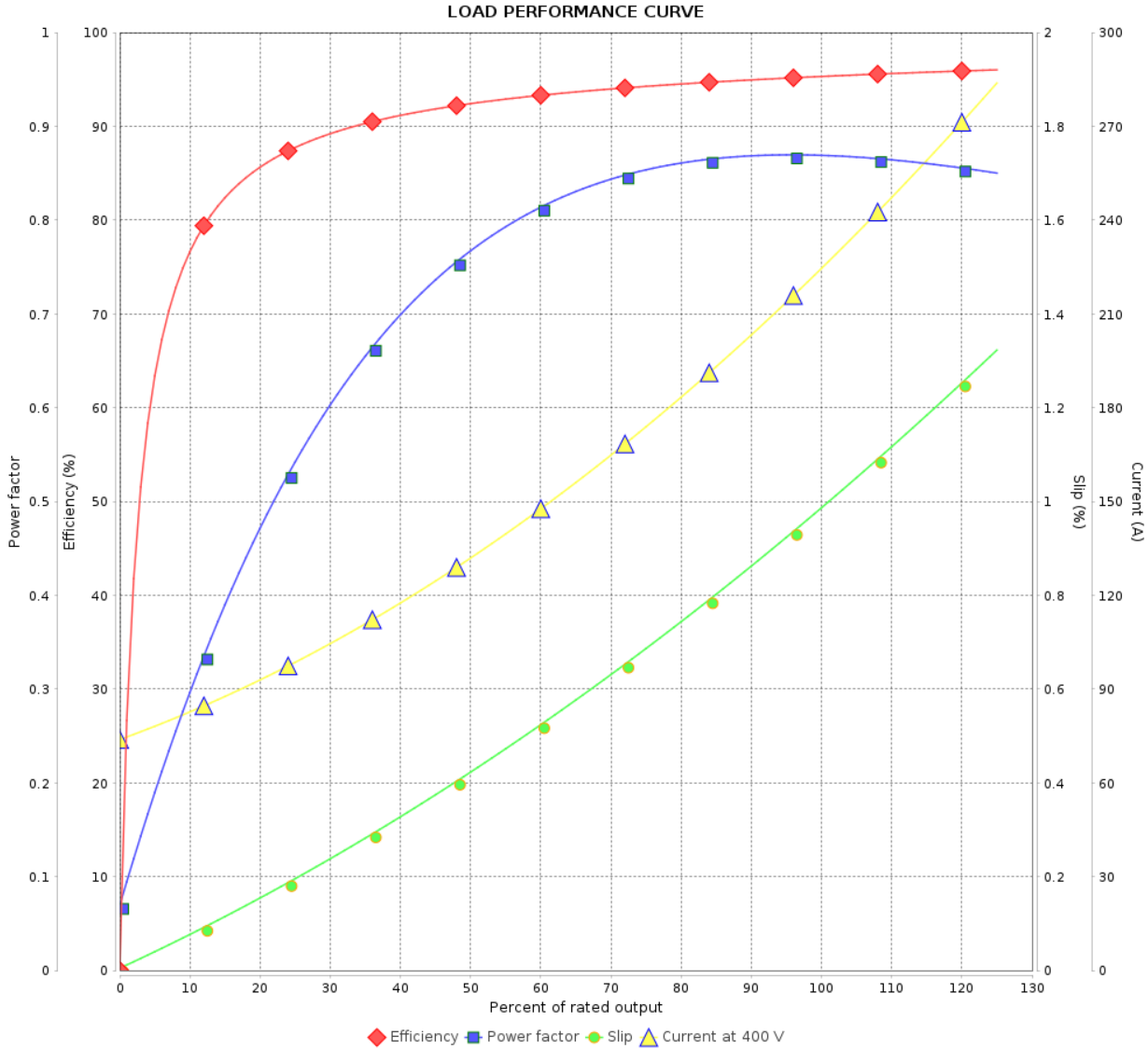
Three Phase Induction Motor - Squirrel Cage



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

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14745861



Performance : 400 V 50 Hz 2P IE3

Rated current	: 230 A	Moment of inertia (J)	: 1.00 kgm <sup>2</sup>
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 42.8 kgfm	Insulation class	: F
Locked rotor torque	: 150 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 2970 rpm	Design	: B

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Date				

# LOAD PERFORMANCE CURVE

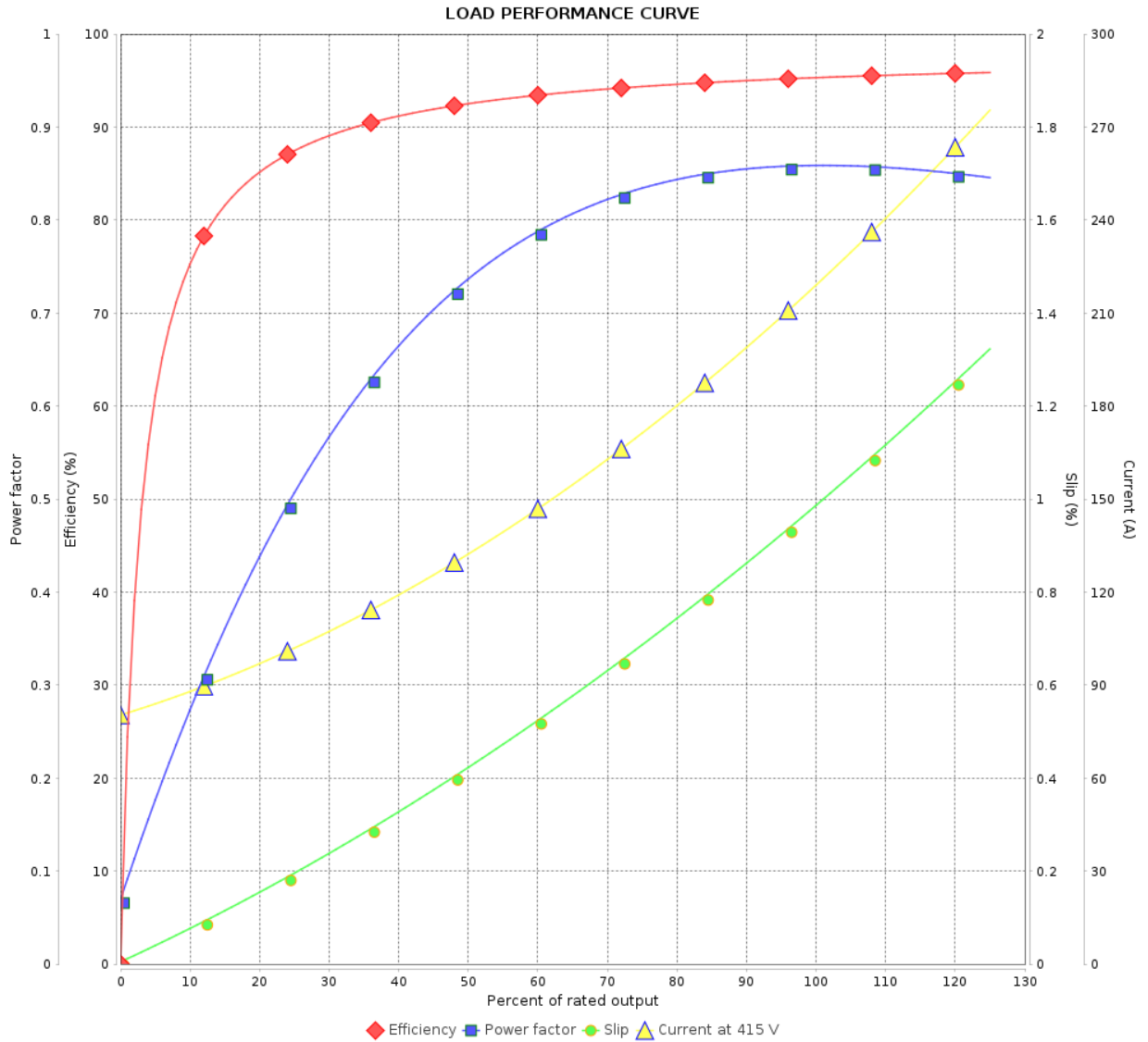
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14745861



Performance : 415 V 50 Hz 2P IE3

Rated current : 224 A  
 LRC : 7.4  
 Rated torque : 42.8 kgfm  
 Locked rotor torque : 160 %  
 Breakdown torque : 240 %  
 Rated speed : 2970 rpm

Moment of inertia (J) : 1.00 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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