

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase  
Product code : 15825715

Frame	: 324TS	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>	: 189 kg
Protection degree	: IP23	Moment of inertia (J)	: 0.1272 kgm <sup>2</sup>
Design	: B		

Output [HP]	50	40	40	40
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	119/59.5	57.5	56.6	56.6
L. R. Amperes [A]	749/375	368	374	385
LRC [A]	6.3x(Code G)	6.4x(Code G)	6.6x(Code H)	6.8x(Code H)
No load current [A]	39.0/19.5	18.0	21.5	25.0
Rated speed [RPM]	3555	2955	2960	2965
Slip [%]	1.25	1.50	1.33	1.17
Rated torque [kgfm]	10.2	9.82	9.81	9.79
Locked rotor torque [%]	200	200	229	240
Breakdown torque [%]	220	220	240	260
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	25s (cold) 14s (hot)	19s (cold) 11s (hot)	21s (cold) 12s (hot)	19s (cold) 11s (hot)
Noise level <sup>2</sup>	75.0 dB(A)			
Efficiency (%)	25%			
	50%	91.7	90.0	90.0
	75%	93.0	91.6	91.7
	100%	93.0	93.3	93.3
Power Factor	25%			
	50%	0.72	0.73	0.67
	75%	0.81	0.82	0.77
	100%	0.84	0.85	0.82

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6312 Z C3	6211 Z C3	Max. traction
Sealing	: Without	Without	Max. compression
	Bearing Seal	Bearing Seal	
Lubrication interval	: 19658 h	20000 h	
Lubricant amount	: 21 g	11 g	
Lubricant type	: Mobil Polyrex EM		

Notes  
USABLE @208V 130A SF 1.15 SFA 149A

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

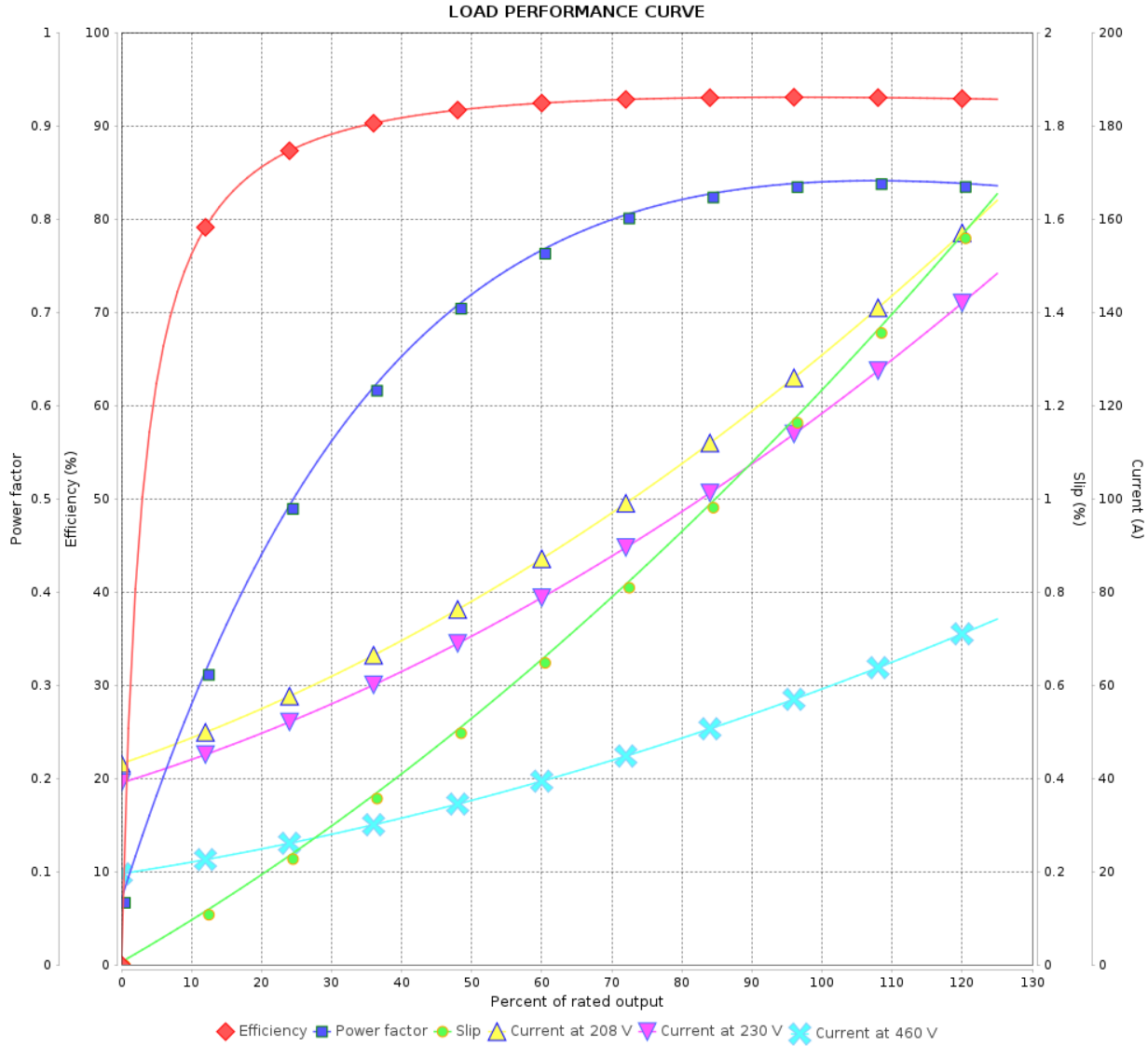
Three Phase Induction Motor - Squirrel Cage



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

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 15825715



Performance : 230/460 V 60 Hz 2P

Rated current : 119/59.5 A  
 LRC : 6.3  
 Rated torque : 10.2 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 220 %  
 Rated speed : 3555 rpm

Moment of inertia (J) : 0.1272 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

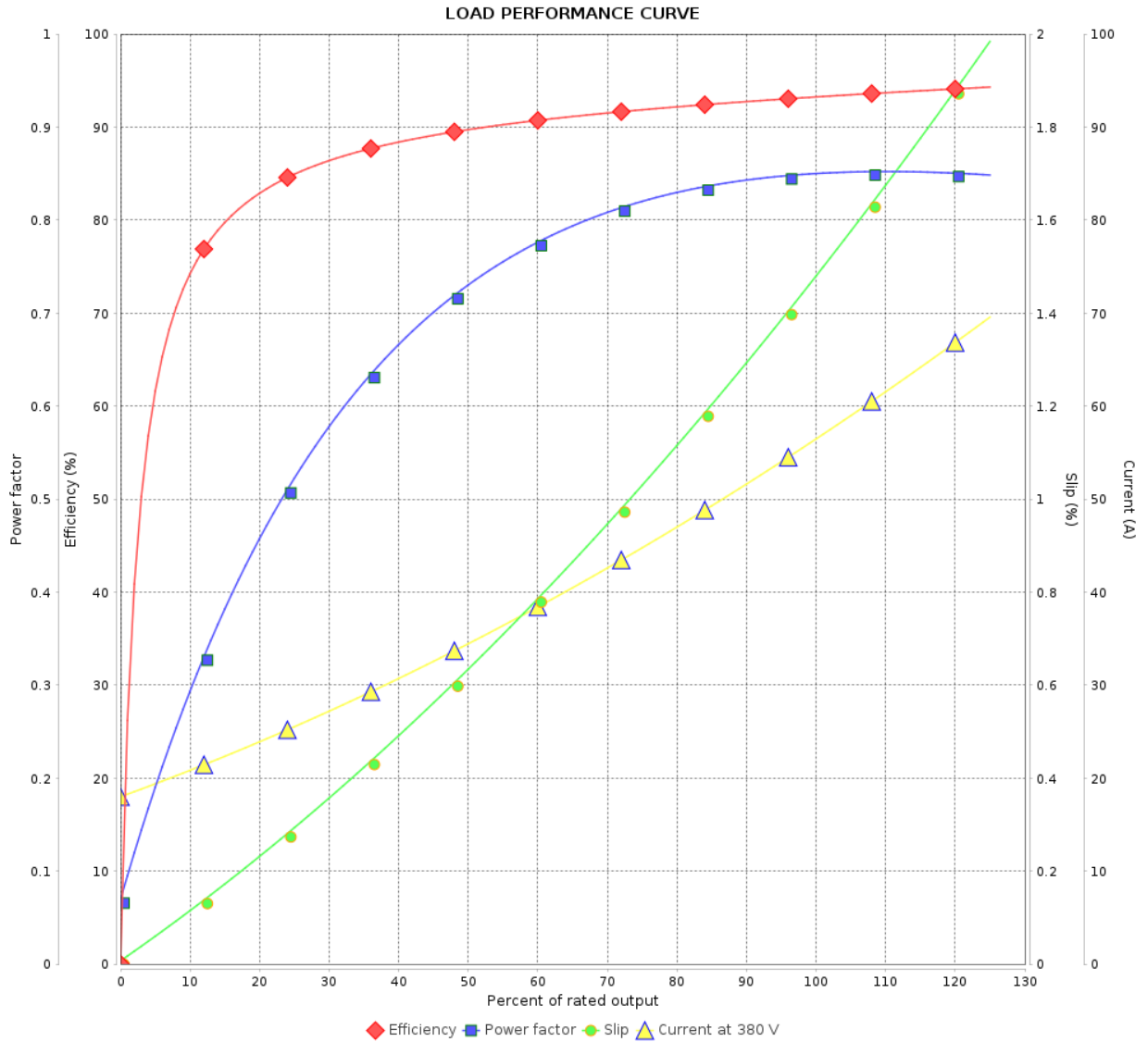
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 15825715



Performance : 380 V 50 Hz 2P IE3

Rated current : 57.5 A  
 LRC : 6.4  
 Rated torque : 9.82 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 220 %  
 Rated speed : 2955 rpm

Moment of inertia (J) : 0.1272 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

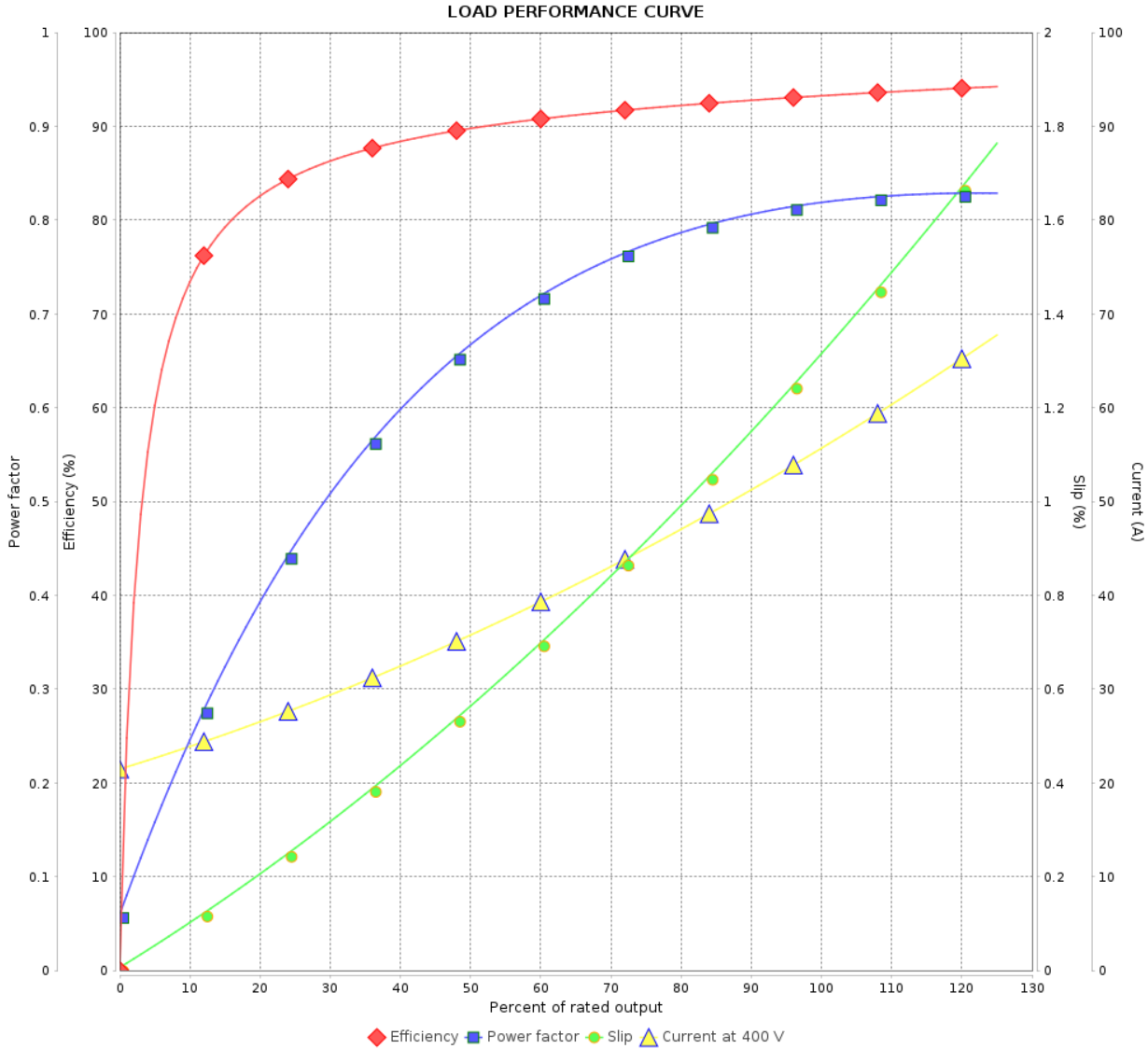
Three Phase Induction Motor - Squirrel Cage



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

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 15825715



Performance : 400 V 50 Hz 2P IE3

Rated current : 56.6 A  
 LRC : 6.6  
 Rated torque : 9.81 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 240 %  
 Rated speed : 2960 rpm

Moment of inertia (J) : 0.1272 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

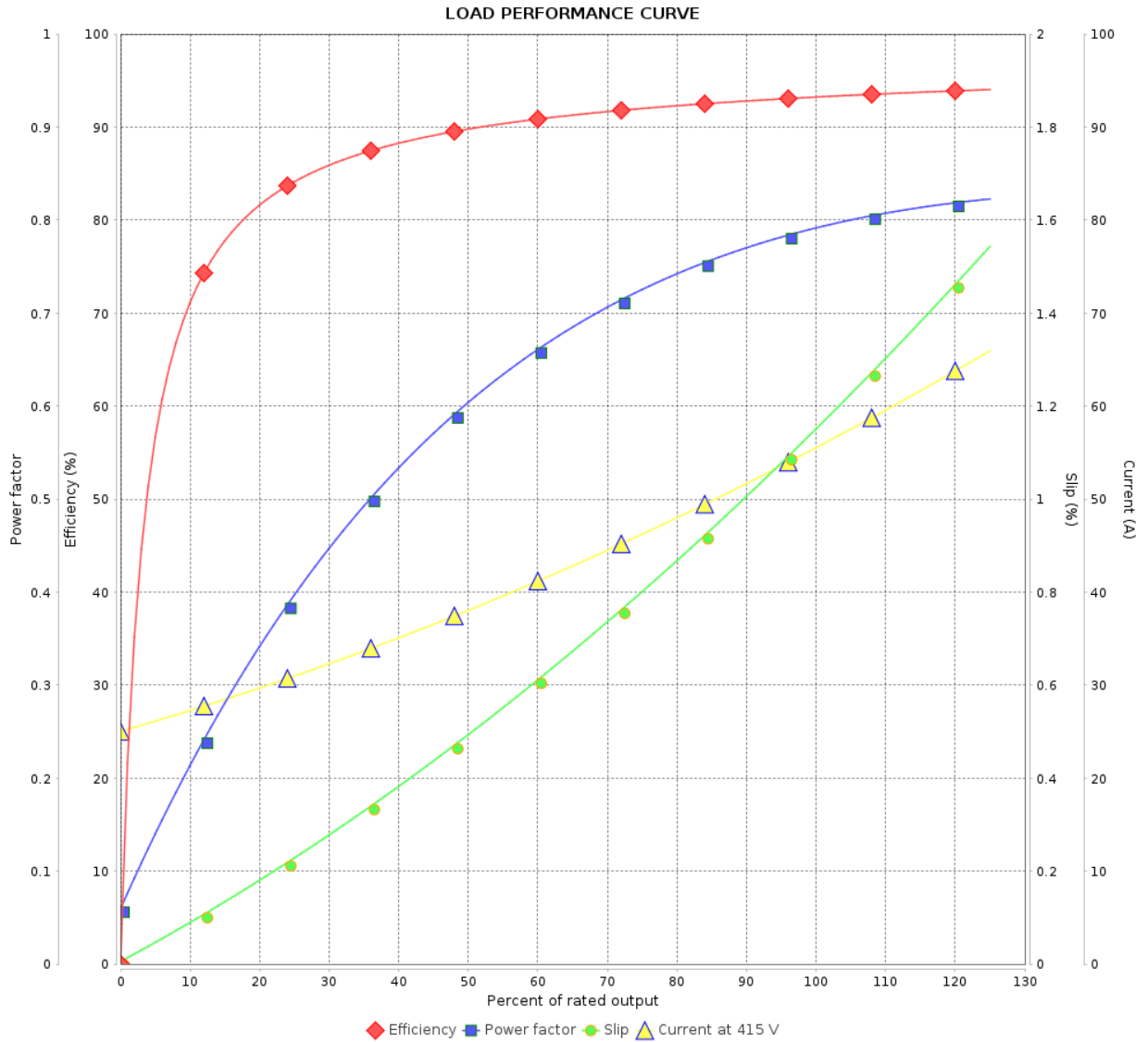
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 15825715



Performance : 415 V 50 Hz 2P IE3

Rated current : 56.6 A  
 LRC : 6.8  
 Rated torque : 9.79 kgfm  
 Locked rotor torque : 240 %  
 Breakdown torque : 260 %  
 Rated speed : 2965 rpm

Moment of inertia (J) : 0.1272 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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