

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 14504503

Frame	: 326TS	Cooling method	: IC411 - TEFC
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>	: 303 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.2284 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]	111/55.5	55.1	52.6	51.0
L. R. Amperes [A]	799/400	369	389	403
LRC [A]	7.2x(Code H)	6.7x(Code G)	7.4x(Code H)	7.9x(Code J)
No load current [A]	29.5/14.8	14.5	15.7	16.6
Rated speed [RPM]	3560	2960	2965	2965
Slip [%]	1.11	1.33	1.17	1.17
Rated torque [kgfm]	10.2	9.81	9.79	9.79
Locked rotor torque [%]	260	240	270	280
Breakdown torque [%]	260	250	280	300
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	59s (cold) 33s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)
Noise level <sup>2</sup>	81.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)
Efficiency (%)	25%			
	50%	92.4	92.4	92.4
	75%	93.6	93.0	93.6
	100%	94.1	93.0	93.6
Power Factor	25%			
	50%	0.82	0.82	0.79
	75%	0.88	0.88	0.86
	100%	0.89	0.89	0.88

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6312 C3	6212 C3	Max. traction	: 218 kgf
Sealing	: Oil Seal	Lip Seal	Max. compression	: 521 kgf
Lubrication interval	: 9829 h	12143 h		
Lubricant amount	: 21 g	13 g		
Lubricant type	: Mobil Polyrex EM			

### Notes

USABLE @208V 123A SF 1.00 SFA 123A

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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Checked by				
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## Three Phase Induction Motor - Squirrel Cage



Customer :

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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# LOAD PERFORMANCE CURVE

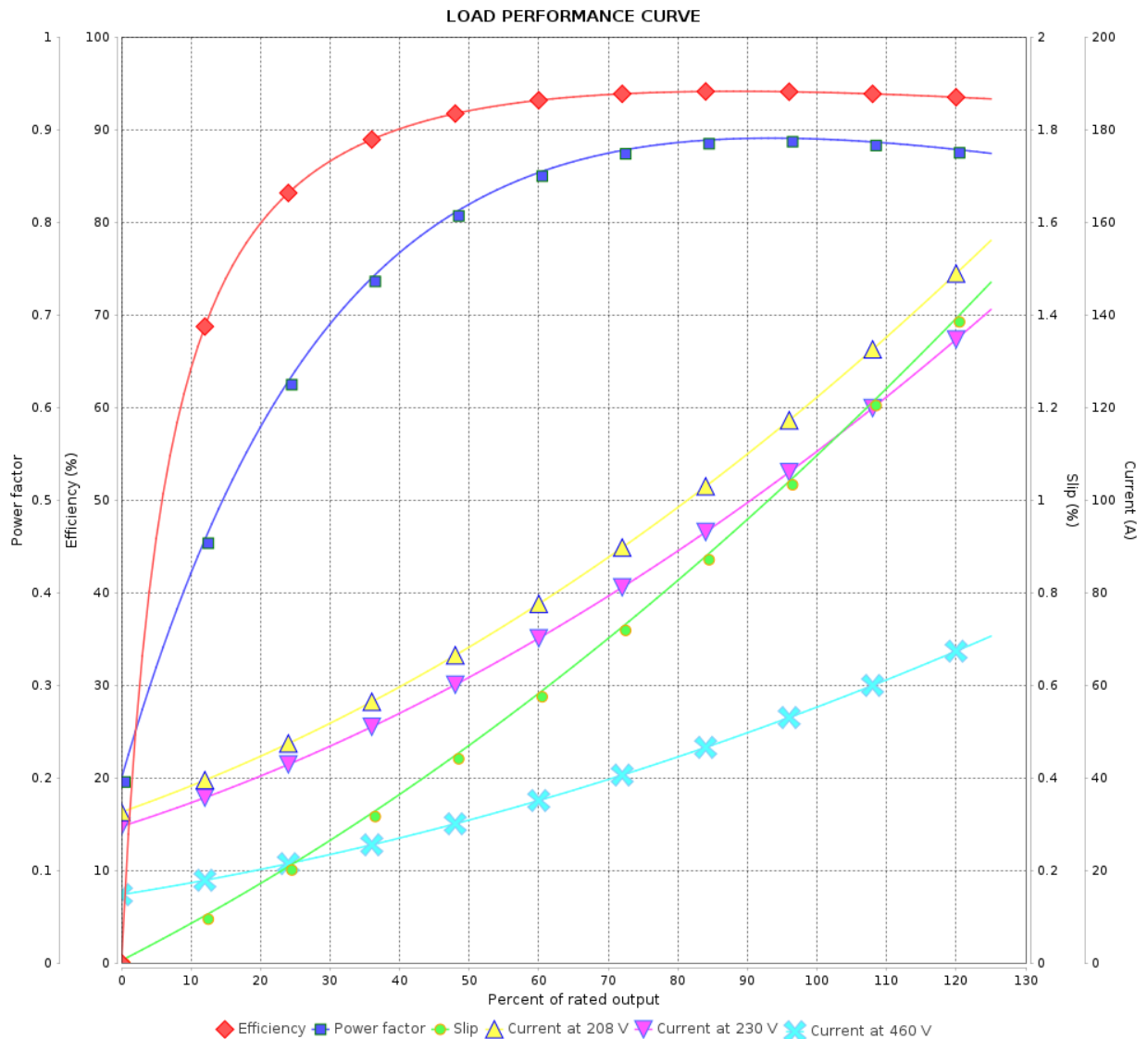
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA  
Premium Efficiency Three-Phase

Product code : 14504503



Performance : 230/460 V 60 Hz 2P

Rated current : 111/55.5 A  
LRC : 7.2  
Rated torque : 10.2 kgfm  
Locked rotor torque : 260 %  
Breakdown torque : 260 %  
Rated speed : 3560 rpm

Moment of inertia (J) : 0.2284 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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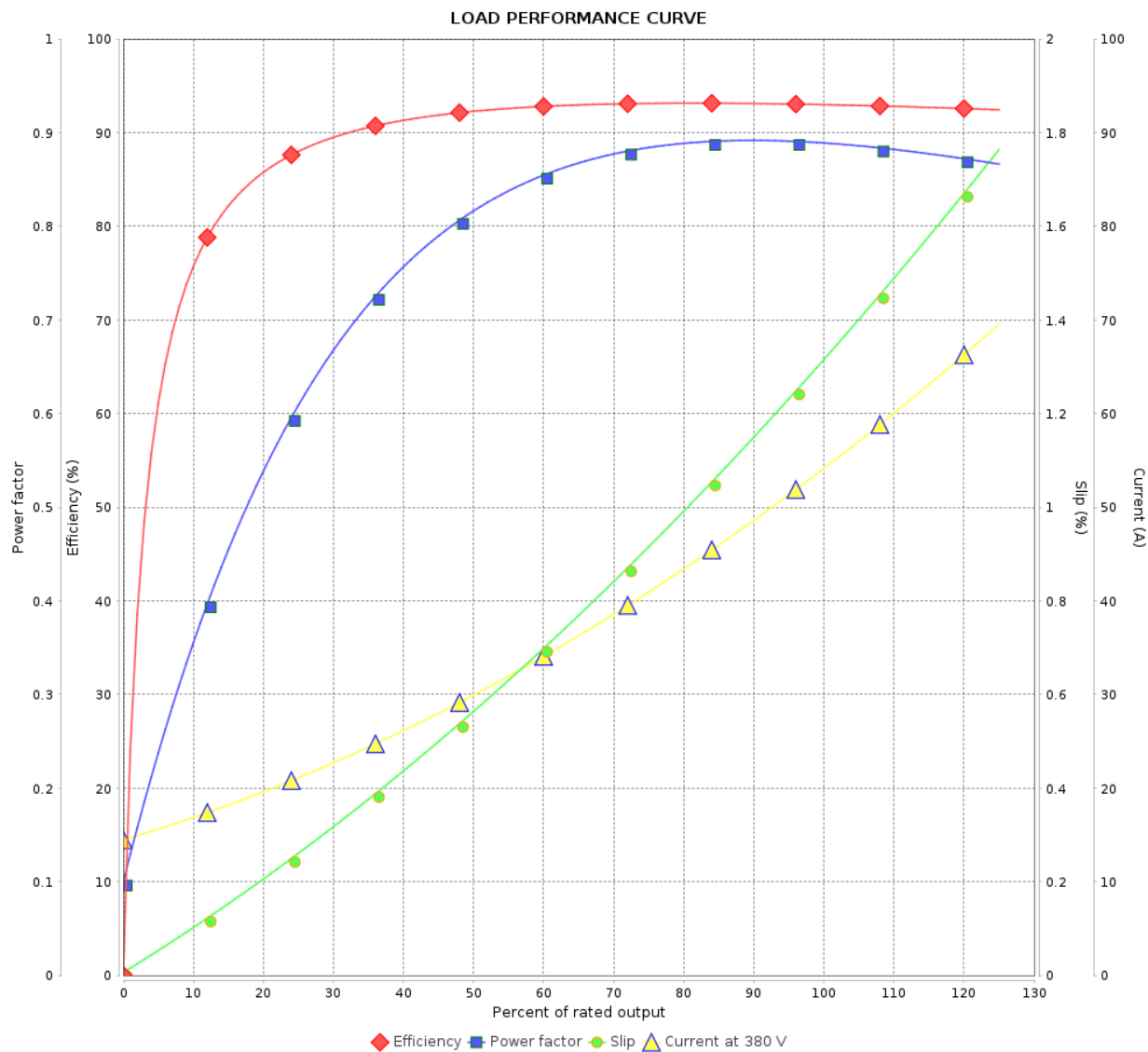
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA  
Premium Efficiency Three-Phase

Product code : 14504503



Performance : 380 V 50 Hz 2P IE2

Rated current : 55.1 A  
LRC : 6.7  
Rated torque : 9.81 kgfm  
Locked rotor torque : 240 %  
Breakdown torque : 250 %  
Rated speed : 2960 rpm

Moment of inertia (J) : 0.2284 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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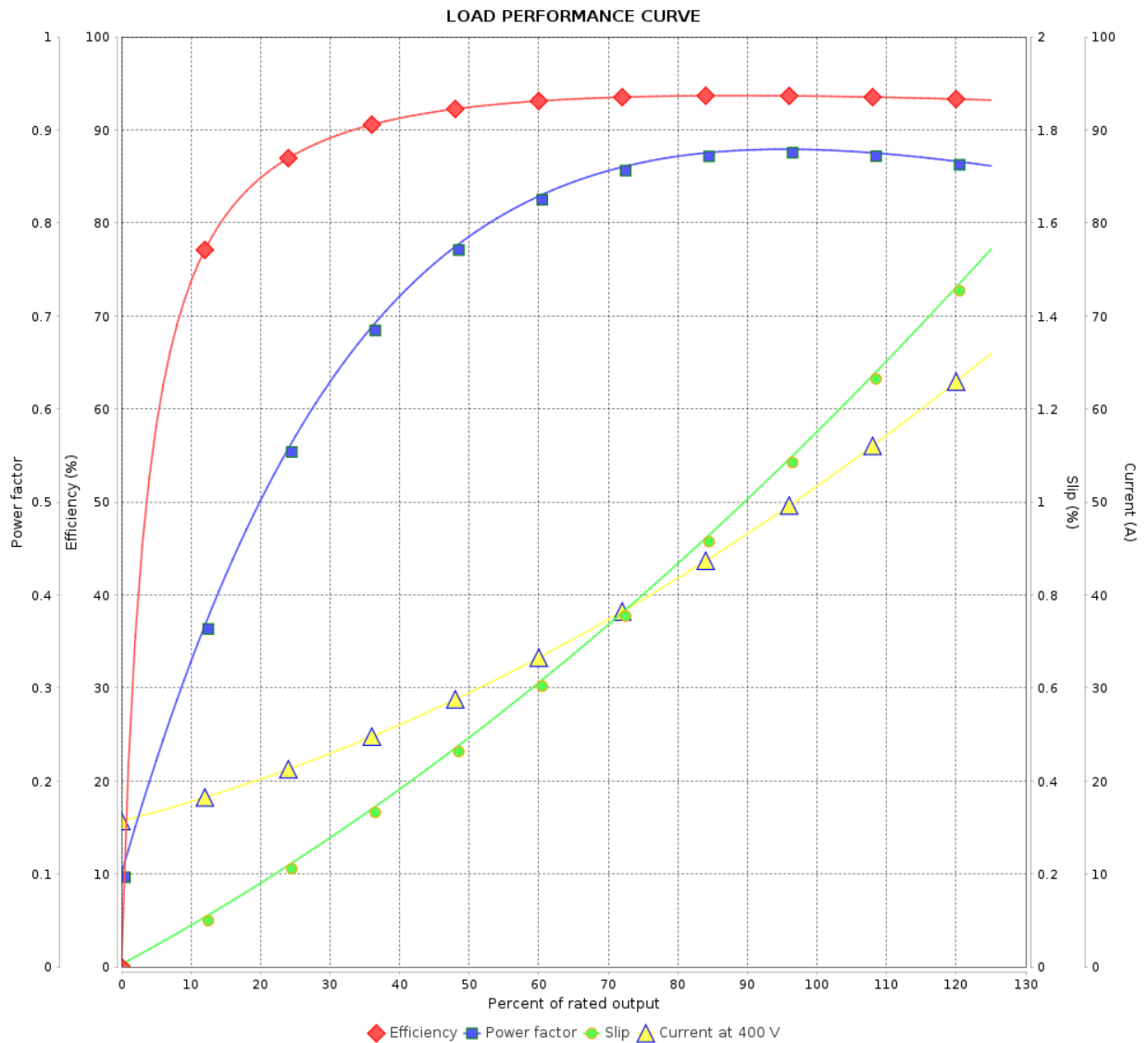
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA  
Premium Efficiency Three-Phase

Product code : 14504503



Performance : 400 V 50 Hz 2P IE3

Rated current : 52.6 A  
LRC : 7.4  
Rated torque : 9.79 kgfm  
Locked rotor torque : 270 %  
Breakdown torque : 280 %  
Rated speed : 2965 rpm

Moment of inertia (J) : 0.2284 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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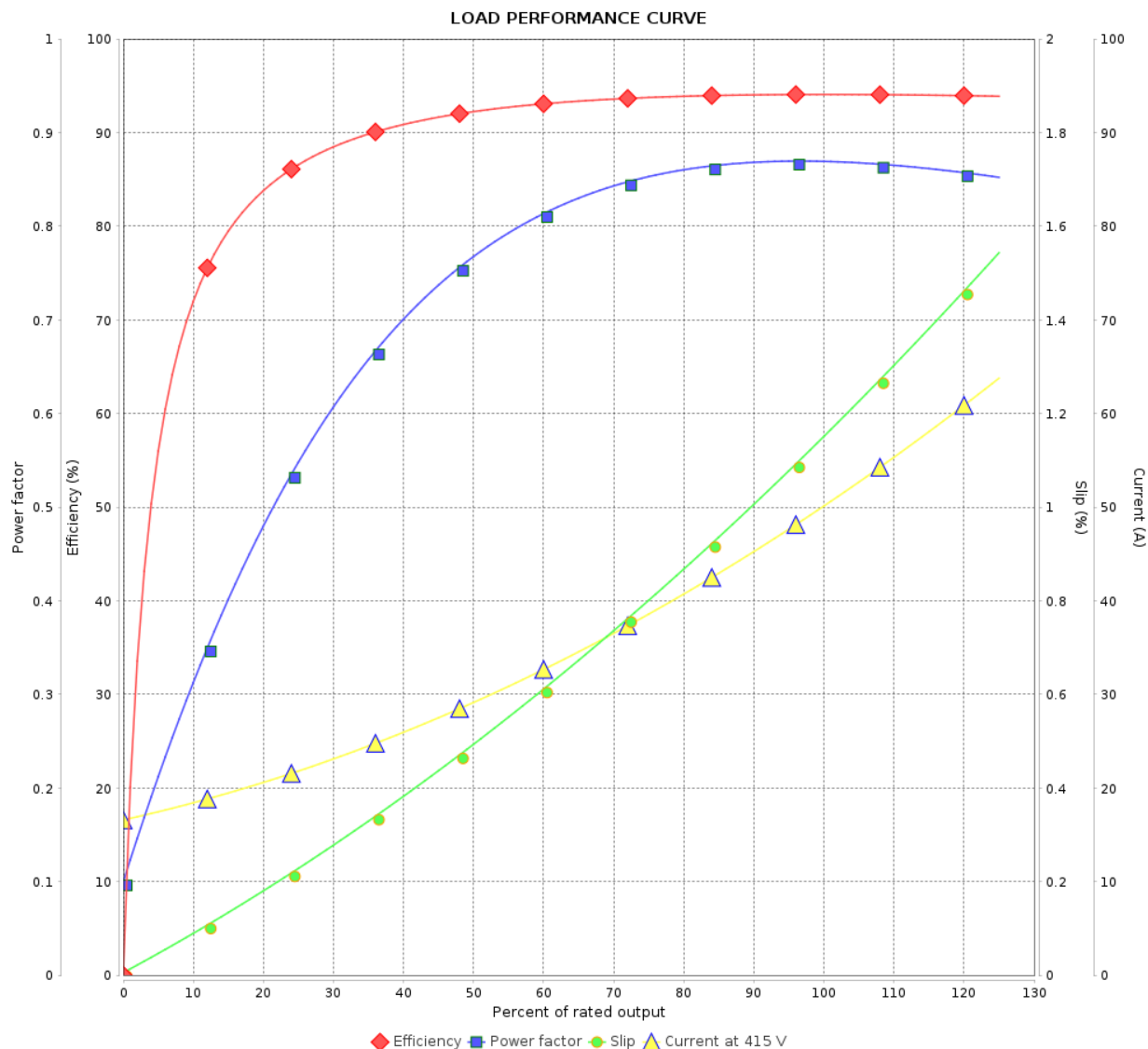
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA  
Premium Efficiency Three-Phase

Product code : 14504503



Performance : 415 V 50 Hz 2P IE3

Rated current : 51.0 A  
LRC : 7.9  
Rated torque : 9.79 kgfm  
Locked rotor torque : 280 %  
Breakdown torque : 300 %  
Rated speed : 2965 rpm

Moment of inertia (J) : 0.2284 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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