

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase      Product code : 12407995

Frame	: 324TSC	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>	: 288 kg
Protection degree	: IP55	Moment of inertia (J)	: 0.2063 kgm <sup>2</sup>
Design	: B		

Output [HP]	40	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]	92.4/46.2	55.8	53.3	51.0
L. R. Amperes [A]	610/305	279	304	316
LRC [A]	6.6x(Code G)	5.0x(Code E)	5.7x(Code F)	6.2x(Code G)
No load current [A]	26.0/13.0	12.0	13.0	14.0
Rated speed [RPM]	3560	2940	2950	2955
Slip [%]	1.11	2.00	1.67	1.50
Rated torque [kgfm]	8.15	9.87	9.84	9.82
Locked rotor torque [%]	250	200	210	240
Breakdown torque [%]	260	200	229	250
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	54s (cold) 30s (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	92.4	93.0
	100%	93.6	91.7	93.0
Power Factor	25%			
	50%	0.79	0.84	0.81
	75%	0.85	0.88	0.87
	100%	0.87	0.89	0.88

Bearing type	: Drive end	: Non drive end	Foundation loads
	: 6312	: 6212	
Sealing	: 2RS C3	: 2RS C3	Max. compression : 453 kgf
	: Oil Seal	: Lip Seal	
Lubrication interval	: -	: -	
Lubricant amount	: -	: -	
Lubricant type	: POLYREA ESTER OIL (WT/ ENS)		

Notes  
USABLE @208V 101A SF 1.15 SFA 116A

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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## 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

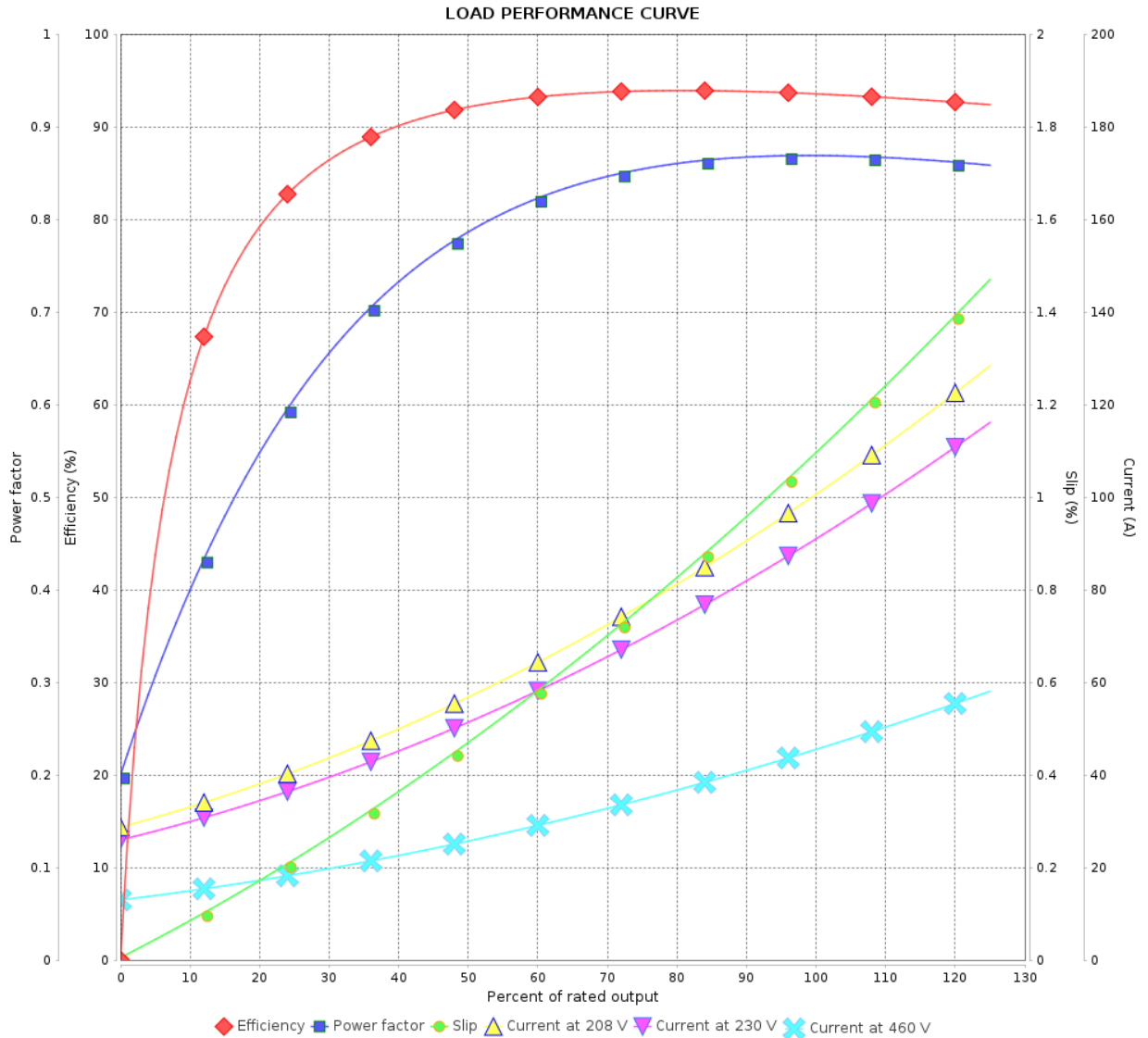
## Three Phase Induction Motor - Squirrel Cage



Customer :

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

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Performance : 230/460 V 60 Hz 2P

Rated current : 92.4/46.2 A  
LRC : 6.6  
Rated torque : 8.15 kgfm  
Locked rotor torque : 250 %  
Breakdown torque : 260 %  
Rated speed : 3560 rpm

Moment of inertia (J) : 0.2063 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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# LOAD PERFORMANCE CURVE

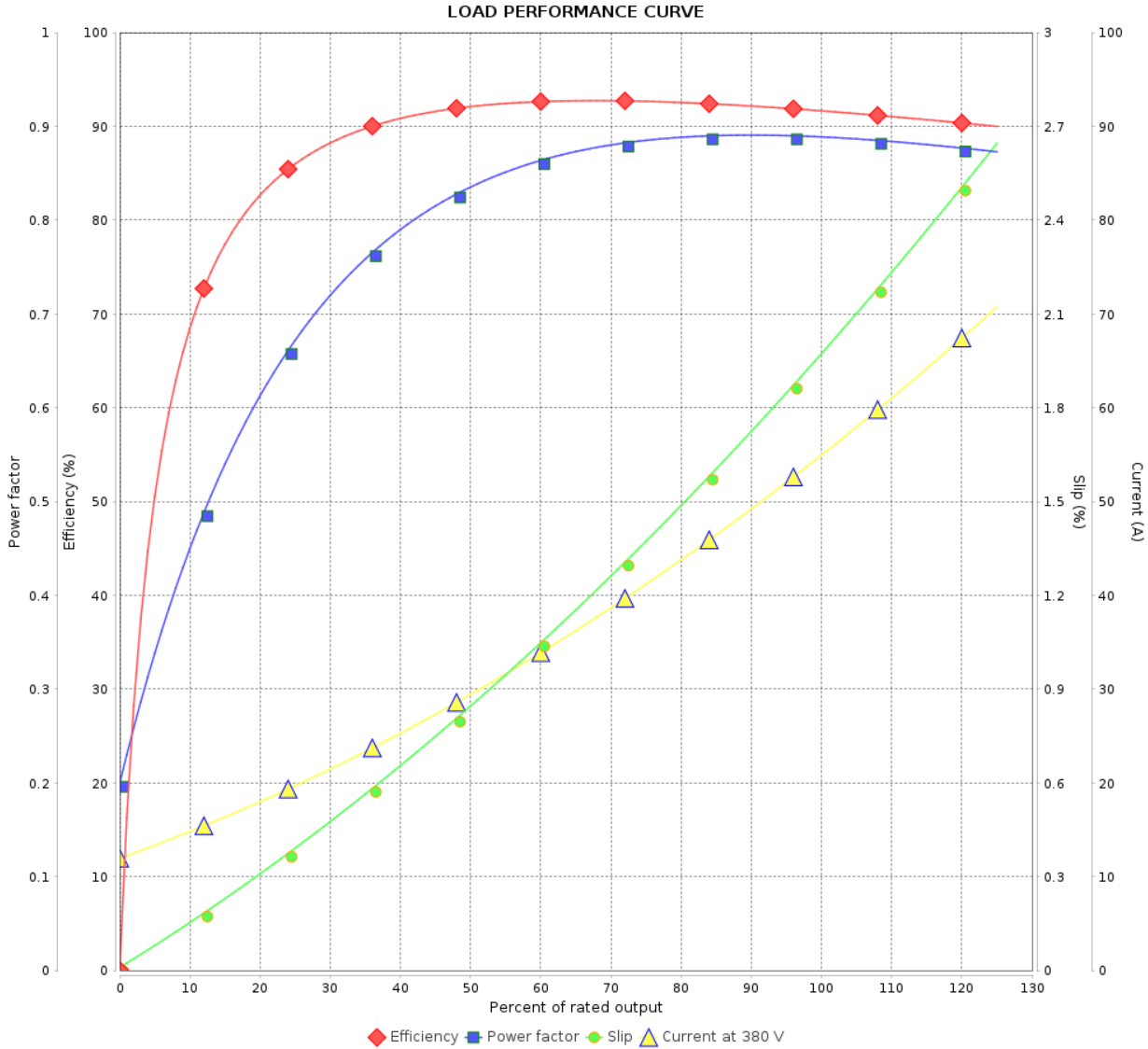
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 12407995



Performance : 380 V 50 Hz 2P IE1

Rated current : 55.8 A  
LRC : 5.0  
Rated torque : 9.87 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 200 %  
Rated speed : 2940 rpm

Moment of inertia (J) : 0.2063 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

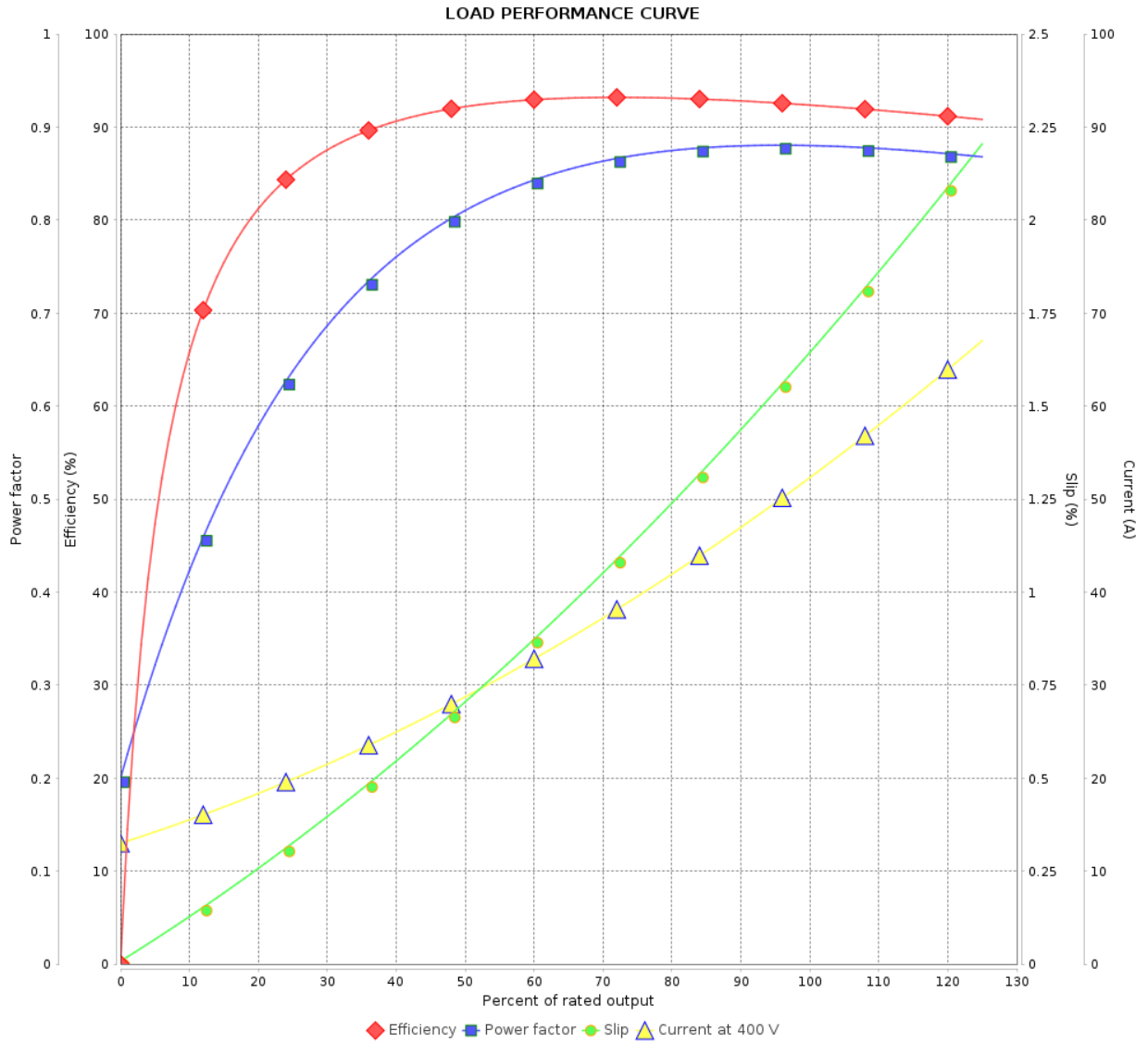
## Three Phase Induction Motor - Squirrel Cage



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

Product line : W21 Explosion Proof NEMA Premium  
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Performance : 400 V 50 Hz 2P IE2

Rated current : 53.3 A  
LRC : 5.7  
Rated torque : 9.84 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 229 %  
Rated speed : 2950 rpm

Moment of inertia (J) : 0.2063 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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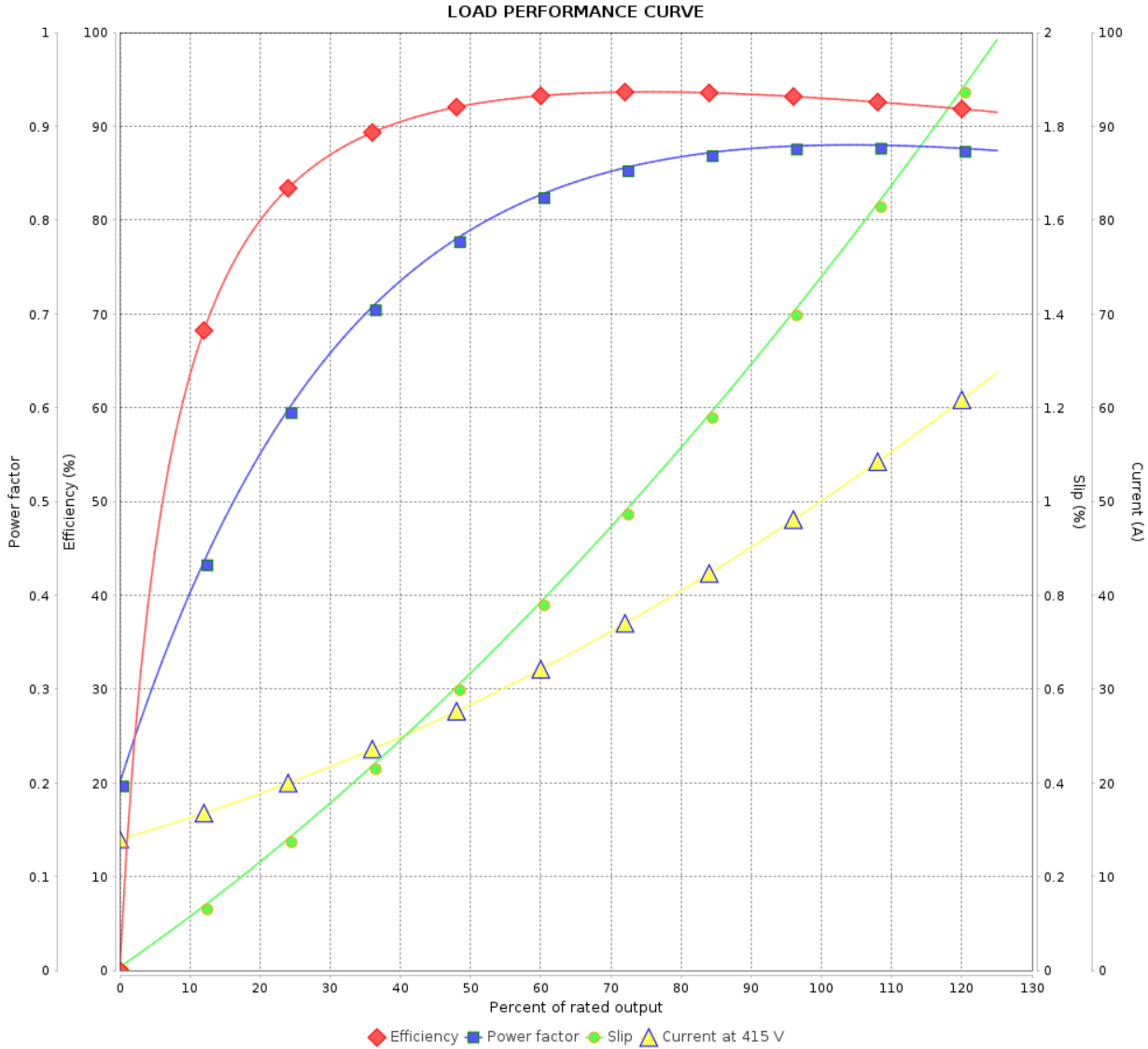
Three Phase Induction Motor - Squirrel Cage



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Performance : 415 V 50 Hz 2P IE2

Rated current : 51.0 A  
LRC : 6.2  
Rated torque : 9.82 kgfm  
Locked rotor torque : 240 %  
Breakdown torque : 250 %  
Rated speed : 2955 rpm

Moment of inertia (J) : 0.2063 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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