### **DATA SHEET**

#### Three Phase Induction Motor - Squirrel Cage



Customer Product line : NEMA Premium Efficiency Three-Product code: 12967947 Catalog #: 02009ST3HIE324T-W22 Frame : 324/6T Locked rotor time : 48s (cold) 27s (hot) Output : 20 HP (15 kW) Temperature rise : 80 K Poles Duty cycle : Cont.(S1) : -20°C to +40°C Frequency : 60 Hz Ambient temperature Rated voltage : 575 V : 1000 m.a.s.l. Altitude Rated current : 22.6 A Protection degree : IP55 L. R. Amperes : 113 A Cooling method : IC411 - TEFC LRC : 5.0x(Code G) Mounting : F-1 No load current : 12.8 A Rotation<sup>1</sup> : Both (CW and CCW) Rated speed : 880 rpm Noise level<sup>2</sup> : 56.0 dB(A) Starting method Slip : 2.22 % : Direct On Line Rated torque : 119 ft.lb Approx. weight<sup>3</sup> : 517 lb Locked rotor torque : 190 % Breakdown torque : 220 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 9.37 sq.ft.lb Design : B 50% 75% 100% Output Foundation loads 91.0 : 749 lb Efficiency (%) 89.5 91.0 Max. traction Power Factor 0.66 : 1266 lb 0.54 0.73 Max. compression Non drive end Drive end Bearing type 6312 C3 6212 C3 Inpro/Seal Inpro/Seal Sealing Lubrication interval 20000 h 20000 h Lubricant amount 21 g 13 g Lubricant type Mobil Polyrex EM Notes

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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### TORQUE AND CURRENT VS SPEED CURVE

### Three Phase Induction Motor - Squirrel Cage

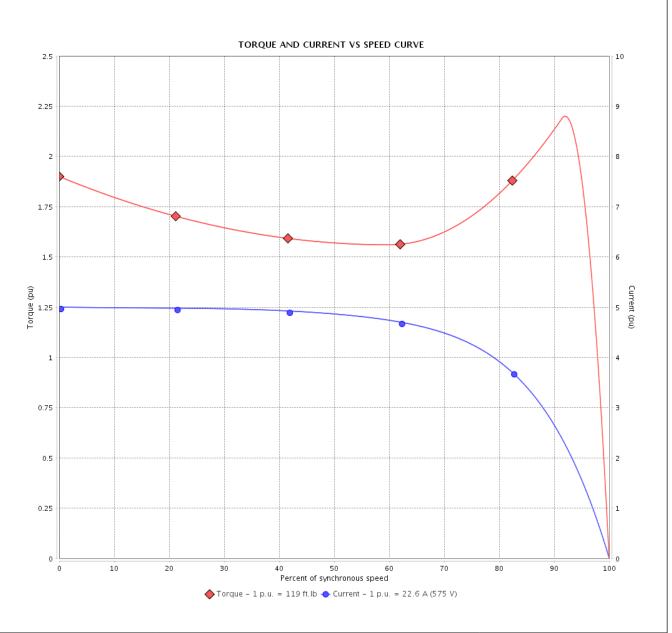


Customer :

Product line : NEMA Premium Efficiency Three- Product code : 12967947

Phase

Catalog #: 02009ST3HIE324T-W22



Performance	: 575 V 60 Hz 8P		
Rated current	: 22.6 A	Moment of inertia (J)	: 9.37 sq.ft.lb
LRC	: 5.0	Duty cycle	: Cont.(S1)
Rated torque	: 119 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.25
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 880 rpm	Design	: B
Locked roter time	: 48s (cold) 27s (hot)		

Locked rotor time : 48s (cold) 27s (hot)

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## LOAD PERFORMANCE CURVE

#### Three Phase Induction Motor - Squirrel Cage

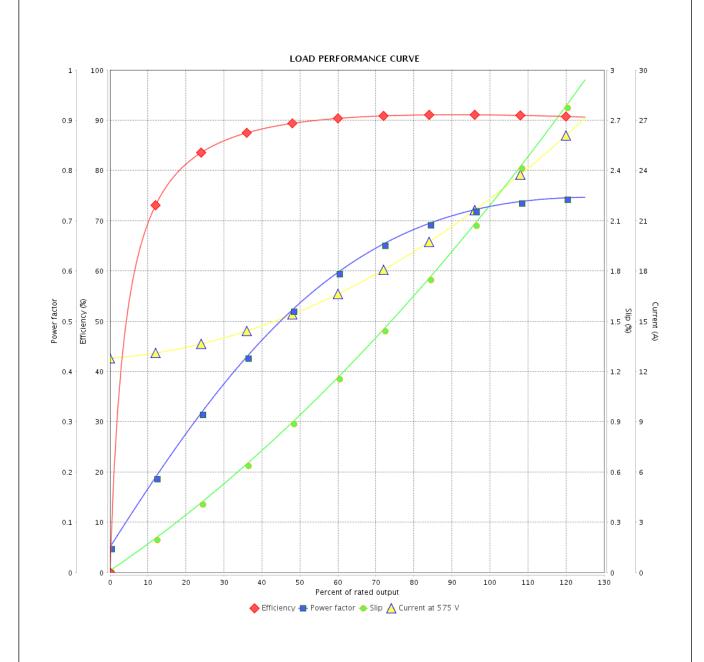


Customer

Product line : NEMA Premium Efficiency Three- Product code : 12967947

Phase

Catalog #: 02009ST3HIE324T-W22



Rev.		Changes Summary		Performed	Checked	Date	
Rated speed : 880 rpm		Design		: B			
Breakdown torque		: 220 %	Temperate	Temperature rise		: 80 K	
Locked rotor torque		: 190 %	Service fa	Service factor		: 1.25	
Rated torque		: 119 ft.lb	Insulation	Insulation class		: F	
LRC		: 5.0	Duty cycle	Duty cycle		: Cont.(S1)	
Rated current		: 22.6 A	Moment of	nent of inertia (J) : 9.37 sq.ft.lb			
Performance		: 575 V 60 Hz 8P					

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# THERMAL LIMIT CURVE

### Three Phase Induction Motor - Squirrel Cage



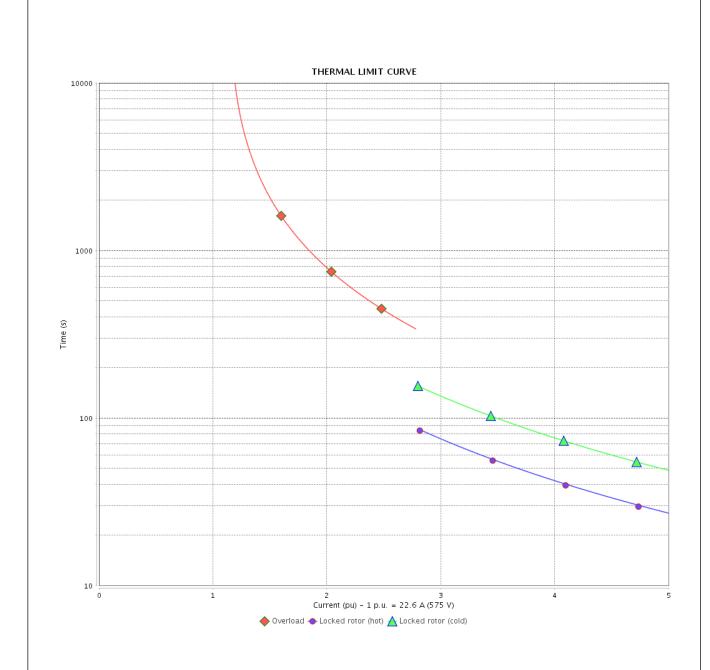
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Product line	<u>: !</u>	NEMA Premium Efficiency	Γhree- I	Product code :	12967947	
	P	hase	(	Catalog # :	02009ST3HIE	324T-W22
Performance		75 V 60 Hz 8P	Momani	Finantia (1)	.027.5-411-	
Rated current LRC	: 5.		Duty cycle	f inertia (J)	: 9.37 sq.ft.lb : Cont.(S1)	
Rated torque		19 ft.lb	Insulation	class	: F	
Locked rotor tord Breakdown torqu		90 % 20 %	Service fac Temperatu		: 1.25 : 80 K	
Rated speed		80 rpm	Design	ile lise	: B	
Heating constant						
Cooling constant	<u> </u>	Changes Summani		Dorformad	Chooked	Doto
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# THERMAL LIMIT CURVE

#### Three Phase Induction Motor - Squirrel Cage



Customer :



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## VFD OPERATION CURVE

#### Three Phase Induction Motor - Squirrel Cage



Customer :

Checked by

Date

01/06/2022

Product line : NEMA Premium Efficiency Three-

Phase

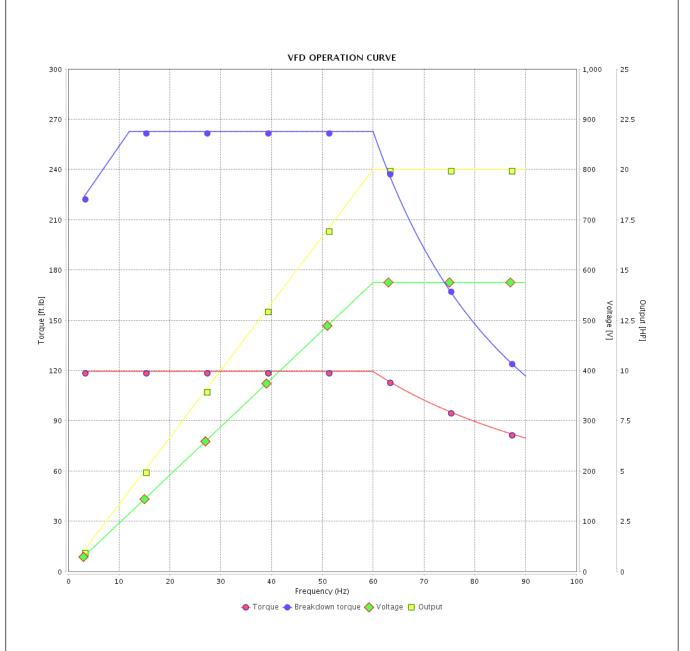
Product code: 12967947

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Revision



Performance		: 575 V 60 Hz 8P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	•	: 22.6 A : 5.0 : 119 ft.lb : 190 % : 220 % : 880 rpm	Moment of Duty cycle Insulation Service fa Temperate Design	class ctor	: 9.37 sq.ft.lb : Cont.(S1) : F : 1.25 : 80 K : B	
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