### **DATA SHEET**

#### Three Phase Induction Motor - Squirrel Cage



Customer Product line : NEMA Premium Efficiency Three-Product code: 13500619 Catalog #: 25018ET3GKD505Z-W22 Frame : 504/5TZ Locked rotor time : 36s (cold) 20s (hot) Output : 250 HP (185 kW) Temperature rise : 80 K Poles Duty cycle : Cont.(S1) : -20°C to +40°C Frequency : 60 Hz Ambient temperature Rated voltage : 460 V : 1000 m.a.s.l. Altitude Rated current : 284 A Protection degree : IP55 L. R. Amperes : 2244 A Cooling method : IC411 - TEFC : 7.9x(Code J) LRC Mounting : F-1 No load current : 110 A Rotation<sup>1</sup> : Both (CW and CCW) Rated speed : 1790 rpm Noise level<sup>2</sup> : 75.0 dB(A) Starting method Slip : 0.56 % : Direct On Line Rated torque : 733 ft.lb Approx. weight<sup>3</sup> : 2450 lb Locked rotor torque : 250 % Breakdown torque : 250 % Insulation class : F Service factor : 1.15 Design : A 25% 50% 75% 100% Foundation loads Output Efficiency (%) 0.000 95.8 96.2 96.2 Max. traction : 3174 lb Power Factor 0.00 0.72 0.81 0.85 Max. compression : 5624 lb Drive end Non drive end NU-322 C3 Bearing type 6316 C3 Taconite Labyrinth Taconite Labyrinth Sealing Lubrication interval 4000 h 10000 h Lubricant amount 60 g 34 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.

Rev.		Changes Summary	Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	13/04/2022			1/7	

## DATA SHEET

### Three Phase Induction Motor - Squirrel Cage



Customer	
Customer	

#### Thermal protection

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

Rev.		Changes Summary	Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	13/04/2022			2/7	

### TORQUE AND CURRENT VS SPEED CURVE



Revision

Page

3/7

Three Phase Induction Motor - Squirrel Cage Customer Product line : NEMA Premium Efficiency Three-Product code: 13500619 Catalog #: 25018ET3GKD505Z-W22 TORQUE AND CURRENT VS SPEED CURVE 2.7 2.1 1.8 Current Torque (pu) 1.2 0.6 0.3 Percent of synchronous speed ◆ Torque - 1 p.u. = 733 ft.lb ◆ Current - 1 p.u. = 284 A (460 V) Performance : 460 V 60 Hz 4P Rated current : 284 A Moment of inertia (J) **LRC** : 7.9 Duty cycle : Cont.(S1) Insulation class : F Rated torque : 733 ft.lb : 250 % Locked rotor torque Service factor : 1.15 Breakdown torque : 250 % Temperature rise : 80 K Rated speed : 1790 rpm Design : A Locked rotor time : 36s (cold) 20s (hot) Date Rev. Performed Checked **Changes Summary** 

Performed by Checked by

Date

13/04/2022

### LOAD PERFORMANCE CURVE

#### Three Phase Induction Motor - Squirrel Cage



Customer :

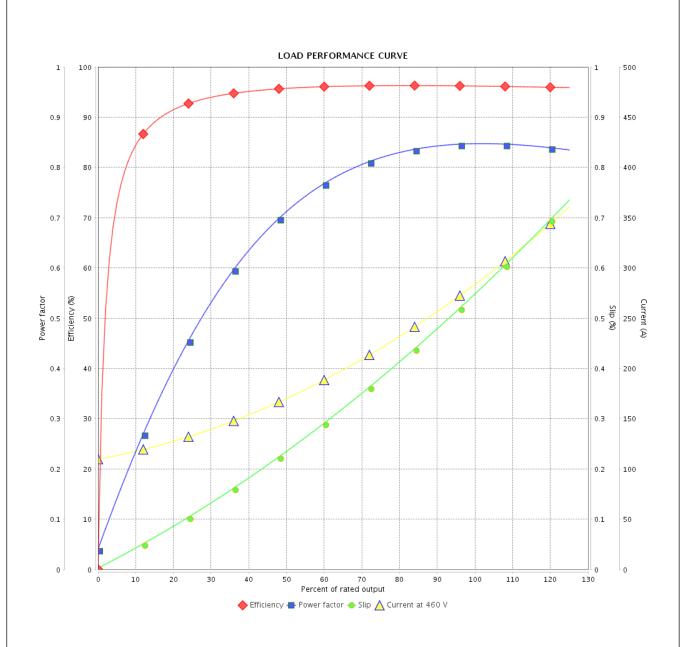
Product line : NEMA Premium Efficiency Three-

Phase

Product code: 13500619

Catalog # : 25018ET3GKD505Z-W22

4/7



Performance	: 460 V 60 Hz 4P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 284 A : 7.9 : 733 ft.lb : 250 % : 250 % : 1790 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise Design		: Cont.(S1) : F : 1.15 : 80 K : A	
Rev.	Rev. Changes Summary		Performed	Checked	Date
Performed by					
Checked by				Page	Revision

13/04/2022

Date

## THERMAL LIMIT CURVE

### Three Phase Induction Motor - Squirrel Cage



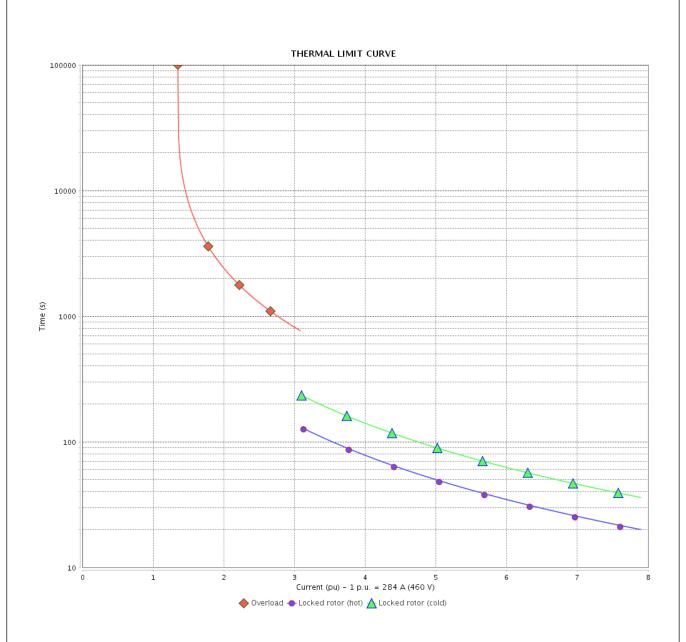
Customer	:					
Product line		NEMA Premium Efficiency Phase		Product code :	13500619	
				Catalog # :	25018ET3G	(D505Z-W22
Performance	. ,	460 V 60 Hz 4P				
Rated current		284 A	Moment o	of inertia (J)		
LRC	: 7	7.9	Duty cycle	Э	: Cont.(S1)	
Rated torque		733 ft.lb	Insulation	class	: F	
Locked rotor tord Breakdown tord		250 % 250 %	Service fa Temperat		: 1.15 : 80 K	
Rated speed		250 % 1790 rpm	Design	ui & 115&	: 80 K : A	
		· <b>r</b> ···				
Heating constan						
Cooling constan	t 	Ohanasa Currera		Dawfarrend	Charler d	Dete
Rev.		Changes Summary		Performed	Checked	Date
<b>D</b>						
Performed by		_			_	5
Checked by		_			Page	Revision
Date	13/04/2022				5/7	

# THERMAL LIMIT CURVE

#### Three Phase Induction Motor - Squirrel Cage



Customer :



Rev.		Changes Summary	Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	13/04/2022			6/7	

## VFD OPERATION CURVE

#### Three Phase Induction Motor - Squirrel Cage

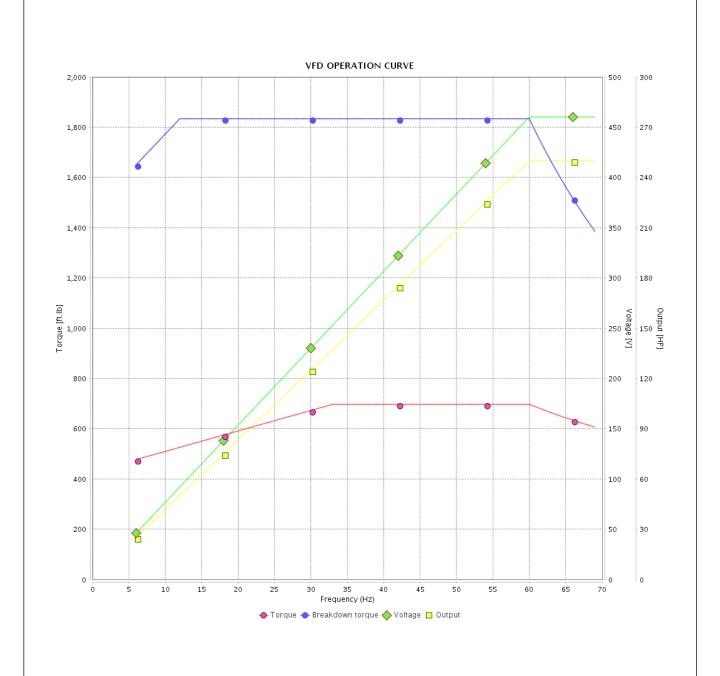


Customer

Product line : NEMA Premium Efficiency Three- Product code : 13500619

Phase

Catalog # : 25018ET3GKD505Z-W22



Performance : 460 V 60 Hz 4P						
Rated current		84 A	Moment of inertia (J)			
LRC : 7		.9	l l	Duty cycle		
Rated torque : 7		33 ft.lb	Insulation	Insulation class		
Locked rotor torque		50 %	Service fa	ctor	: 1.15	
Breakdown torqu	e : 2	50 %	Temperature rise		: 80 K	
Rated speed	: 1	790 rpm Design		: A		
Rev.		Changes Summary		Performed		Date
Performed by						
Checked by		1			Page	Revision
Date	13/04/2022	1			7/7	

