### **DATA SHEET**

#### Three Phase Induction Motor - Squirrel Cage



Customer Product line : NEMA Premium Efficiency Three-Product code: 11435296 Catalog #: 30012ST3QIE449T-W22 Frame : L447/9T Locked rotor time : 32s (cold) 18s (hot) Output : 300 HP (220 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 : 351 A Protection degree : IP55 L. R. Amperes : 2352 A Cooling method : IC411 - TEFC LRC : 6.7x(Code G) Mounting : F-1 No load current : 130 A Rotation<sup>1</sup> : Both (CW and CCW) Rated speed : 1190 rpm Starting method : Direct On Line Slip : 0.83 % Approx. weight<sup>3</sup> : 3574 lb Rated torque : 1320 ft.lb Locked rotor torque : 240 % Breakdown torque : 250 % Insulation class : F Service factor : 1.15 Design : B 25% 50% 75% 100% Foundation loads Output Efficiency (%) 0.000 95.0 95.8 95.8 Max. traction : 7036 lb Power Factor 0.00 0.69 0.78 0.82 Max. compression : 10610 lb Drive end Non drive end Bearing type 6322 C3 6319 C3 Inpro/Seal Inpro/Seal Sealing Lubrication interval 11000 h 13000 h Lubricant amount 60 g 45 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     |
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|   | Date         | 13/04/2022 |                 |           | 1/6     |          |

### TORQUE AND CURRENT VS SPEED CURVE

### Three Phase Induction Motor - Squirrel Cage



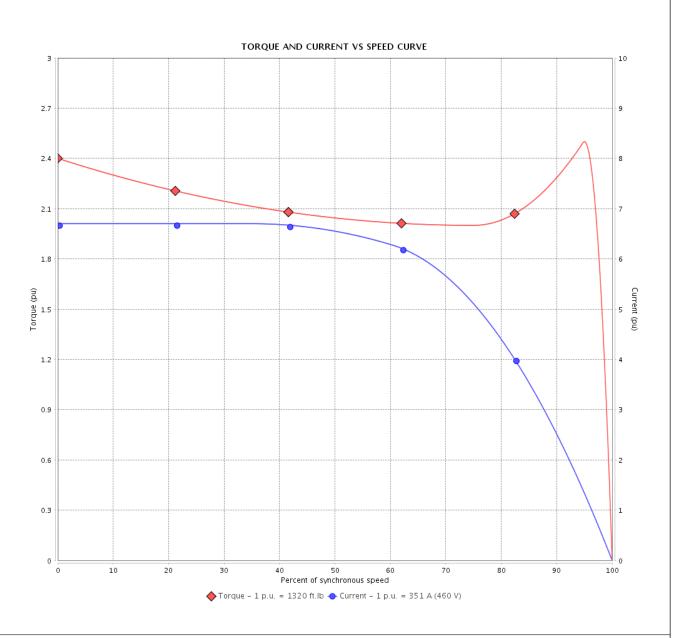
Customer

Product line : NEMA Premium Efficiency Three-Product code:

Catalog #:

11435296

30012ST3QIE449T-W22



| Performance                          | : 460 V 60 Hz 6P       |                                  |                  |  |
|--------------------------------------|------------------------|----------------------------------|------------------|--|
| Rated current<br>LRC                 | : 351 A<br>: 6.7       | Moment of inertia (J) Duty cycle | : Cont.(S1)      |  |
| Rated torque                         | : 1320 ft.lb           | Insulation class                 | : F              |  |
| Locked rotor torque Breakdown torque | : 240 %<br>: 250 %     | Service factor Temperature rise  | : 1.15<br>: 80 K |  |
| Rated speed                          | : 1190 rpm             | Design                           | : B              |  |
| Locked rotor time                    | : 32s (cold) 18s (hot) | J                                |                  |  |

| Rev.         |            | Changes Summary | Performed | Checked | Date     |
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| Date         | 13/04/2022 |                 |           | 2/6     |          |

## LOAD PERFORMANCE CURVE

#### Three Phase Induction Motor - Squirrel Cage

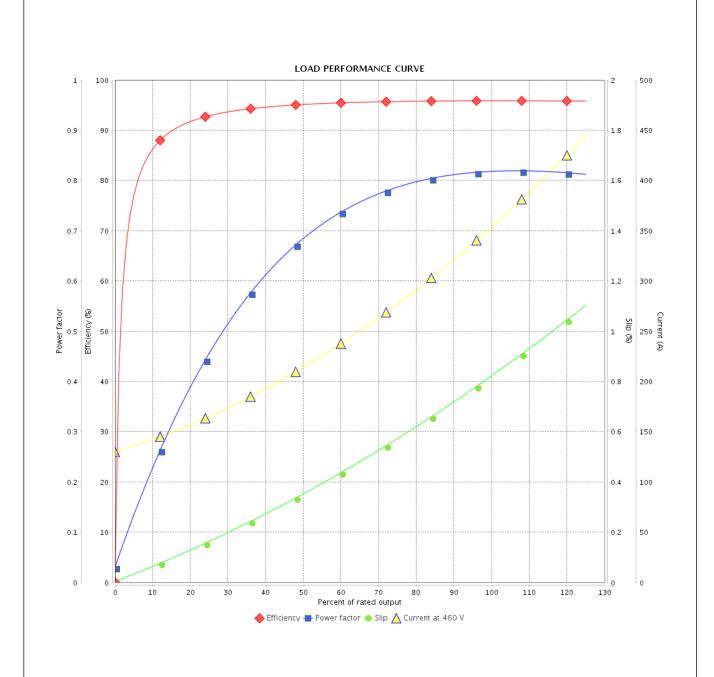


Customer

Product line : NEMA Premium Efficiency Three- Product code : 11435296

Phase

Catalog #: 30012ST3QIE449T-W22



| Performance       | : 4        | : 460 V 60 Hz 6P  |            |                         |             |          |  |
|-------------------|------------|---|------------|-------------------------|-------------|----------|--|
| Rated current     | : 3        | : 351 A Moment of iner  |            | f inertia (J)           |             |          |  |
| LRC               | : 6        | 6.7   | Duty cycle |                         | : Cont.(S1) |          |  |
| Rated torque      | : 1        | : 1320 ft.lb Insulation<br>: 240 % Service fa<br>: 250 % Temperat |            | class                   | : F         |          |  |
| Locked rotor torq | ue : 2     |   |            | ctor                    | : 1.15      |          |  |
| Breakdown torqu   | ie : 2     |   |            | Temperature rise Design |             |          |  |
| Rated speed       | : 1190 rpm |   | Design     |                         |             |          |  |
| Rev.              |            | Changes Summary   |            | Performed               | Checked     | Date     |  |
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| Data              | 13/04/2022 |   |            |                         | 3/6         |          |  |

# THERMAL LIMIT CURVE

### Three Phase Induction Motor - Squirrel Cage



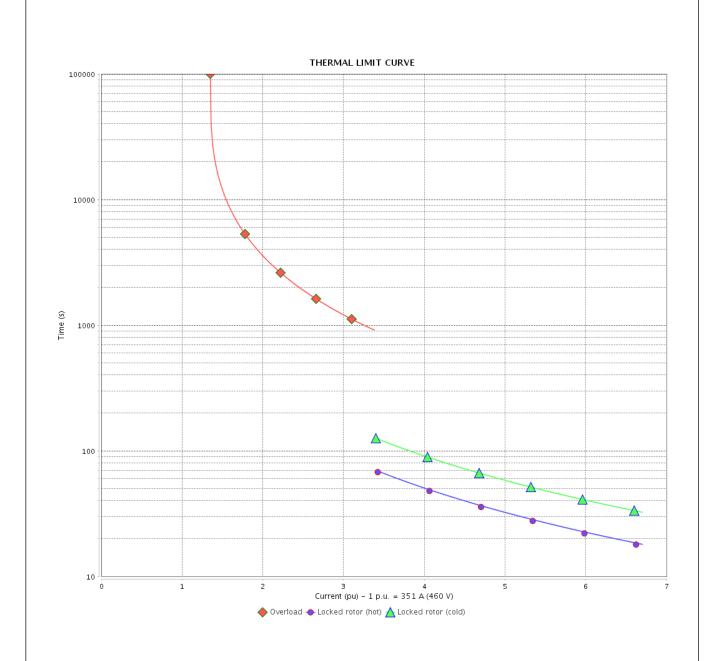
| Customer  | :  |  |                |   |           |
|---|--|--|----------------|---|-----------|
| Product line  | : NEMA Premium Efficiency<br>Phase   |  | Product code : | 11435296<br>30012ST3QII                       | =449T-W22 |
|   |  |  |                |   |           |
| Performance Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed | : 460 V 60 Hz 6P<br>: 351 A<br>: 6.7<br>: 1320 ft.lb<br>: 240 %<br>: 250 %<br>: 1190 rpm | Moment or<br>Duty cycle<br>Insulation<br>Service fa<br>Temperatu<br>Design | class<br>ctor  | : Cont.(S1)<br>: F<br>: 1.15<br>: 80 K<br>: B |           |
| Heating constant Cooling constant Rev.  | Changes Summary  |  | Performed      | Checked                                       | Date      |
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# THERMAL LIMIT CURVE

### Three Phase Induction Motor - Squirrel Cage



Customer



| Rev.         |            | Changes Summary | Performed | Checked | Date     |
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| Date         | 13/04/2022 |                 |           | 5/6     |          |

### VFD OPERATION CURVE

#### Three Phase Induction Motor - Squirrel Cage



Customer :

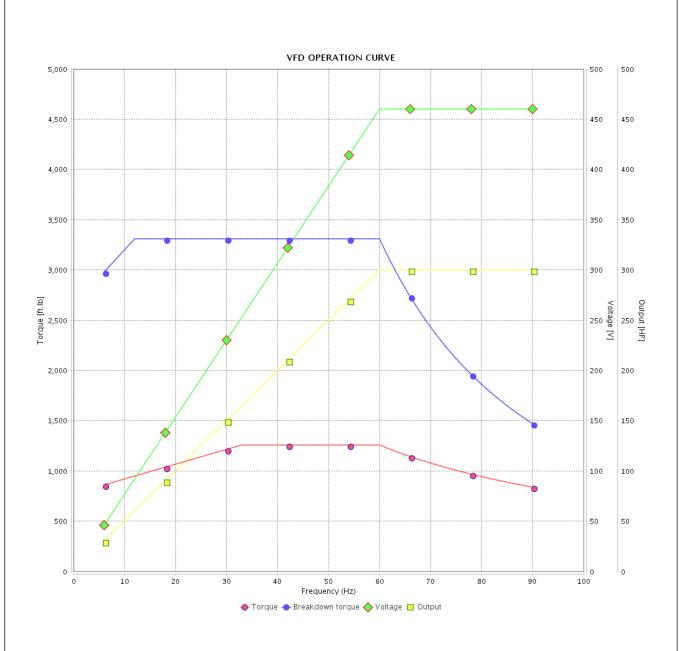
Product line : NEMA Premium Efficiency Three-

Phase

Product code: 11435296

Catalog #: 30012ST3QIE449T-W22

6/6



|                     | ,                         |   |                   |             |          |  |  |
|---------------------|---------------------------|---|-------------------|-------------|----------|--|--|
| Performance         | : 460 V 60 Hz 6P          |   |                   |             |          |  |  |
| Rated current       | : 351 A Moment of inertia |   | inertia (J)       |             |          |  |  |
| LRC                 | : 6.7                     | : 6.7 Duty cycle : 1320 ft.lb Insulation class : 240 % Service factor |                   | : Cont.(S1) |          |  |  |
| Rated torque        | : 1320 ft.lb              |   |                   | class : F   |          |  |  |
| Locked rotor torque | : 240 %                   |   |                   | : 1.15      |          |  |  |
| Breakdown torque    | : 250 %                   | Temperatu   | Temperature rise  |             |          |  |  |
| Rated speed         | : 1190 rpm                | Design  |                   | : B         |          |  |  |
| Rev.                | Changes Summary           |   | Performed Checked |             | Date     |  |  |
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13/04/2022

Date

