

UNITS: INCHES

| FRAME SIZE    | MOTOR DIMENSIONS |      |      |       |     |     |      |      |      |      |     | CONDUIT BOX DIMENSIONS |      |    |       |     |      |      |
|---------------|------------------|------|------|-------|-----|-----|------|------|------|------|-----|------------------------|------|----|-------|-----|------|------|
|               | A                | B    | C    | D     | G   | J   | K    | M    | O    | P    | T   | AA(NPT)                | AB   | AC | AE    | AF  | XL   | XN   |
| N447TS/N449TS | 22.0             | 36.6 | 56.5 | 11.00 | 1.4 | 4.5 | 14.6 | 22.4 | 24.8 | 27.3 | 3.2 | 3.00                   | 27.0 | 21 | 11.00 | 7.2 | 15.3 | 14.7 |
| N447T/N449T   | 22.0             | 36.6 | 60.3 | 11.00 | 1.4 | 4.5 | 14.6 | 22.4 | 24.8 | 27.3 | 3.2 | 3.00                   | 27.0 | 21 | 11.00 | 7.2 | 15.3 | 14.7 |

| FRAME SIZE    | MOUNTING |             |      | SHAFT EXTENSION |      |      | KEY SEAT |       |       | BEARINGS |        |        |                | MAXIMUM WEIGHT |              |           |
|---------------|----------|-------------|------|-----------------|------|------|----------|-------|-------|----------|--------|--------|----------------|----------------|--------------|-----------|
|               | E        | 2F          | H    | BA              | N-W  | V    | U        | R     | S     | ES       | LS 2P  | OS 2P  | LS ROLLER 4~8P |                | LS BALL 4~8P | OS 4~8P   |
| N447TS/N449TS | 9.00     | 20.00/25.00 | 0.81 | 7.50            | 4.75 | 4.50 | 2.375    | 2.021 | 0.625 | 3.03     | 6313C3 | 6313C3 | -              | 6318C3         | 6318C3       | 4200 lbs. |
| N447T/N449T   | 9.00     | 20.00/25.00 | 0.81 | 7.50            | 8.50 | 8.25 | 3.375    | 2.88  | 0.875 | 6.91     | -      | -      | NU318C3        | 6318C3         | 6318C3       | 4200 lbs. |

- NOTES:
- DIMENSION V REPRESENTS LENGTH OF STRAIGHT PART OF SHAFT.
  - MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS.
  - KEY DIMENSIONS EQUAL S x S x 6.88 FOR 'T' AND S x S x 3.00 FOR 'TS' (MOTOR SUPPLIED WITH KEY).
  - MOTOR WEIGHT SHOWN IS MAXIMUM HORSEPOWER IN FRAME.
  - STANDARD 2 POLE PRODUCT USE UNI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY FAN AND CONNECTION CHANGE.
  - STANDARD 4~8 POLE PRODUCT USE BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE.
  - THIS DIMENSION EQUALS 2F FOR N447 MOUNTING

CUSTOMER: \_\_\_\_\_ MOTOR MODEL NO.: \_\_\_\_\_

P.O. NO.: \_\_\_\_\_ HP: \_\_\_\_\_ VOLTAGE: \_\_\_\_\_ RPM(SYN.): \_\_\_\_\_ Hz: \_\_\_\_\_

FRAME SIZE: \_\_\_\_\_ PRODUCT TYPE: TEFC EXPLOSION PROOF; CLASS I GROUP D; CLASS II GROUPS E, F, G

COMMENTS: \_\_\_\_\_

PER: \_\_\_\_\_ DATE: \_\_\_\_\_

TAG NO's.:

- STANDARD (NO AUX. BOXES)
- RTD AUX. BOX
- SPACE HEATER AUX. BOX
- BEARING RTD's

TOSHIBA RESERVES THE RIGHT TO MAKE CHANGES OF TECHNICAL IMPROVEMENT AND THE DATA MAY CHANGE WITHOUT NOTICE  PRELIMINARY

DO NOT USE FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS THE DRAWING IS MARKED AS CERTIFIED  CERTIFIED

# TOSHIBA

TOSHIBA INTERNATIONAL CORPORATION

TOTALLY-ENCLOSED FAN-COOLED  
HORIZONTAL FOOT-MOUNTED  
3 PHASE INDUCTION MOTOR  
F1 ASSEMBLY

## XT SERIES

VISIT OUR WEBSITE AT:  
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**TYPICAL MOTOR PERFORMANCE DATA**

Model: 2506XPPEB41A-R

| HP        | kW  | Pole       | FL RPM | Frame | Voltage        | Hz          | Phase    | FL Amps      |
|-----------|-----|------------|--------|-------|----------------|-------------|----------|--------------|
| 250       | 186 | 6          | 1190   | N449T | 460            | 60          | 3        | 309          |
| Enclosure | IP  | Ins. Class | S.F.   | Duty  | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC      | 55  | F          | 1.15   | CONT  | 95.8           | B           |          | 40 C         |

| Load         | HP     | kW    | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|--------|-------|---------|----------------|------------------|
| Full Load    | 250.00 | 186.4 | 308     | 96.0           | 79.0             |
| ¾ Load       | 187.50 | 139.8 | 242     | 95.3           | 75.9             |
| ½ Load       | 125.00 | 93.2  | 184     | 93.7           | 67.9             |
| ¼ Load       | 62.50  | 46.6  | 138     | 88.5           | 47.8             |
| No Load      |        |       | 113.6   |                | 2.9              |
| Locked Rotor |        |       | 1768    |                | 25.1             |

| Torque               |                         |                    |                       | Rotor wk <sup>2</sup><br>Inertia<br>(lb-ft <sup>2</sup> ) |
|----------------------|-------------------------|--------------------|-----------------------|---|
| Full Load<br>(lb-ft) | Locked Rotor<br>(% FLT) | Pull Up<br>(% FLT) | Break Down<br>(% FLT) |   |
| 1105                 | 165                     | 125                | 225                   | 159.00  |

| Safe Stall Time(s) |     | Sound Pressure<br>dB(A) @ 1M | Bearings* |        | Approx. Motor Weight<br>(lbs) |
|--------------------|-----|------------------------------|-----------|--------|-------------------------------|
| Cold               | Hot |                              | DE        | NDE    |                               |
| 33                 | 15  | -                            | NU318C3   | 6318C3 | 4000                          |

\*Bearings are the only recommended spare part(s).

**Motor Options:**  
Product Family:EQP Global Explosion Proof  
Mounting:Footed,Shaft:T Shaft

|             |  |
|-------------|--|
| Customer    |  |
| Customer PO |  |
| Sales Order |  |
| Project #   |  |

Tag:

All characteristics are average expected values.

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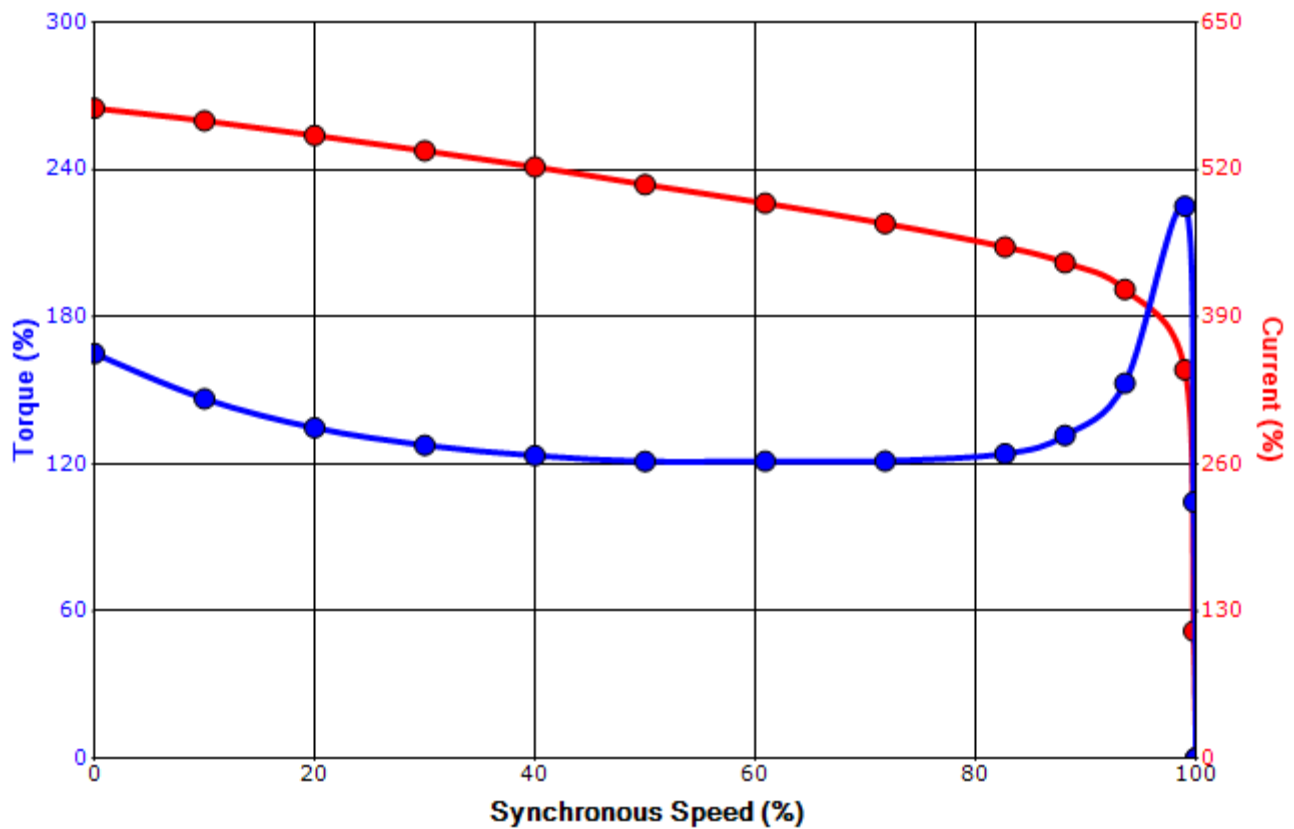
|             |           |                  |             |             |               |
|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | zxie      | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date  | 1/13/2022 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

**SPEED TORQUE/CURRENT CURVE**

Model: 2506XPEB41A-R

|                   |   |                   |                  |             |                |             |          |                |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|----------------|
| HP                | kW  | Pole              | FL RPM           | Frame       | Voltage        | Hz          | Phase    | FL Amps        |
| 250               | 186   | 6                 | 1190             | N449T       | 460            | 60          | 3        | 309            |
| Enclosure         | IP  | Ins. Class        | S.F.             | Duty        | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C)   |
| TEFC              | 55  | F                 | 1.15             | CONT        | 95.8           | B           |          | 40 C           |
| Locked Rotor Amps | Rotor wk <sup>2</sup> Inertia (lb-ft <sup>2</sup> ) | Torque            |                  |             |                |             |          | Break Down (%) |
|                   |   | Full Load (lb-ft) | Locked Rotor (%) | Pull Up (%) |                |             |          |                |
| 1768              | 159.00  | 1105              | 165              | 125         |                |             | 225      |                |

**Design Values**



|             |  |  |     |
|-------------|--|--|-----|
| Customer    |  | wk <sup>2</sup> Load Inertia (lb-ft <sup>2</sup> ) | -   |
| Customer PO |  | Load Type  | -   |
| Sales Order |  | Voltage (%)  | 100 |
| Project #   |  | Accel. Time  | -   |

Tag:

All characteristics are average expected values.

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|             |           |                  |             |             |               |
|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | zxie      | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1121 / 0 |
| Engr. Date  | 1/13/2022 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

**Motor Connection Diagrams**  
6 Leads

Across the Line Starting / Run - Delta:



Alternate Starting Connection - Wye:



Switch L1 and L2 to reverse rotation