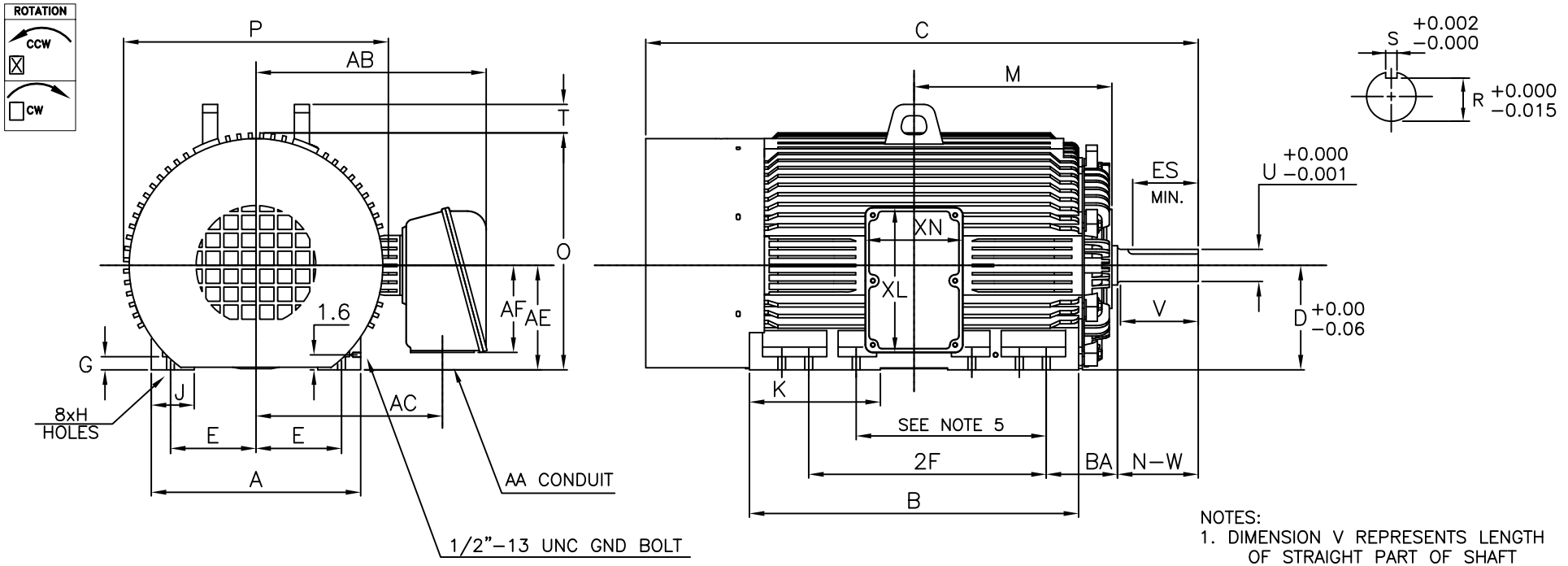



UNITS: INCHES

| FRAME SIZE | MOTOR DIMENSIONS | | | | | | | | | | | CONDUIT BOX | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | G | J | K | M | O | P | T | AA[NPT] | AB | AC | AE | AF | XL | XN |
| N447T/N449T | 22.0 | 34.7 | 58.2 | 11.00 | 1.4 | 4.6 | 13.8 | 20.9 | 25.0 | 27.0 | 3.0 | 4.00 | 24.3 | 19.7 | 11.00 | 9.2 | 15.3 | 10.3 |
| N447TS/N449TS | 22.0 | 34.7 | 54.5 | 11.00 | 1.4 | 4.6 | 13.8 | 20.9 | 25.0 | 27.0 | 3.0 | 4.00 | 24.3 | 19.7 | 11.00 | 9.2 | 15.3 | 10.3 |

| FRAME SIZE | MOUNTING | | | | SHAFT EXTENSION | | | KEY SEAT | | | BEARINGS | | | | MAXIMUM WEIGHT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | E | 2F | H | BA | N–W | V | U | R | S | ES | LS ROLLER | LS BALL 6P | LS BALL 4P | OS 4~8P | |
| N447T/N449T | 9.00 | 20.00/25.00 | 0.82 | 7.50 | 8.50 | 8.25 | 3.375 | 2.880 | 0.875 | 6.88 | NU322C3 | 6322C3 | 6318C3 | 6318C3 | 3800 lbs. |
| N447TS/N449TS | 9.00 | 20.00/25.00 | 0.82 | 7.50 | 4.75 | 4.50 | 2.375 | 2.021 | 0.625 | 3.00 | – | 6318C3 | 6318C3 | 6318C3 | |

NOTES:
1. DIMENSION V REPRESENTS LENGTH OF STRAIGHT PART OF SHAFT
2. MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS
3. KEY DIMENSIONS EQUAL S x S x 6.88 FOR T AND S x S x 3.00 FOR TS (MOTOR SUPPLIED WITH KEY)
4. MOTOR WEIGHT SHOWN IS MAXIMUM HORSEPOWER IN FRAME
5. THIS DIMENSION EQUALS 2F FOR N447T/TS MOUNTING
6. STANDARD PRODUCT USE BI–DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE

CUSTOMER: _____ MOTOR MODEL NO.: _____

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

FRAME SIZE: _____ PRODUCT TYPE: TEFC EQP III, EPACT, & HIGH EFFICIENCY

COMMENTS: _____

PER: _____ DATE: _____

TAG NO's.:

- [X] 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:
www.toshiba.com/ind

| Issued Date | 5/10/2021 | Transmit # | |
|---|---|---|---|
| Issued By | dschoeck | Issued Rev | |

TOSHIBA

# TYPICAL MOTOR PERFORMANCE DATA

**Model:** B3004FLF4BMHL

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|---|---|---|---|---|---|---|---|---|
| 300 | 224 | 4 | 1780 | N449T | 460 | 60 | 3 | 329.99 |
| **Enclosure** | **IP** | **Ins. Class** | **S.F.** | **Duty** | **NEMA Nom. Eff.** | **NEMA Design** | **kVA Code** | **Ambient (°C)** |
| TEFC | 54 | F | 1.15 | CONT | 96.2 | B | G | 40 C |

| Load | HP | kW | Amperes | Efficiency (%) | Power Factor (%) |
|---|---|---|---|---|---|
| **Full Load** | 300 | 223.7 | 329.9 | 96.4 | 88.3 |
| **¾ Load** | 225.00 | 167.8 | 250.0 | 95.9 | 87.9 |
| **½ Load** | 150.00 | 111.9 | 174.5 | 94.5 | 85.2 |
| **¼ Load** | 75.00 | 55.9 | 106.2 | 90.0 | 73.4 |
| **No Load** | | | 69.0 | | |
| **Locked Rotor** | | | 2178 | | 28.3 |

| Torque | | | | Rotor wk² Inertia |
|---|---|---|---|---|
| **Full Load (lb-ft)** | **Locked Rotor (% FLT)** | **Pull Up (% FLT)** | **Break Down (% FLT)** | **(lb-ft²)** |
| 885 | 185 | 145 | 230 | 158.12 |

| Safe Stall Time(s) | | Sound Pressure dB(A) @ 1M | Bearings* | | Approx. Motor Weight |
|---|---|---|---|---|---|
| **Cold** | **Hot** | | **DE** | **NDE** | **(lbs)** |
| 34 | 12 | - | NU322C3 | 6318C3 | 3613 |

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

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

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

**Tag:**

All characteristics are average expected values.

**TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.**

| Engineering | mcampbell | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1119 / 1 |
|---|---|---|---|---|---|
| Engr. Date | 1/18/2012 | Doc. Approved By | M. Campbell | Doc. Issued | 9/20/2019 |

| | | | |
|---|---|---|---|
| Issued Date | 5/10/2021 | Transmit # | |
| Issued By | dschoeck | Issued Rev | |

TOSHIBA

# SPEED TORQUE/CURRENT CURVE

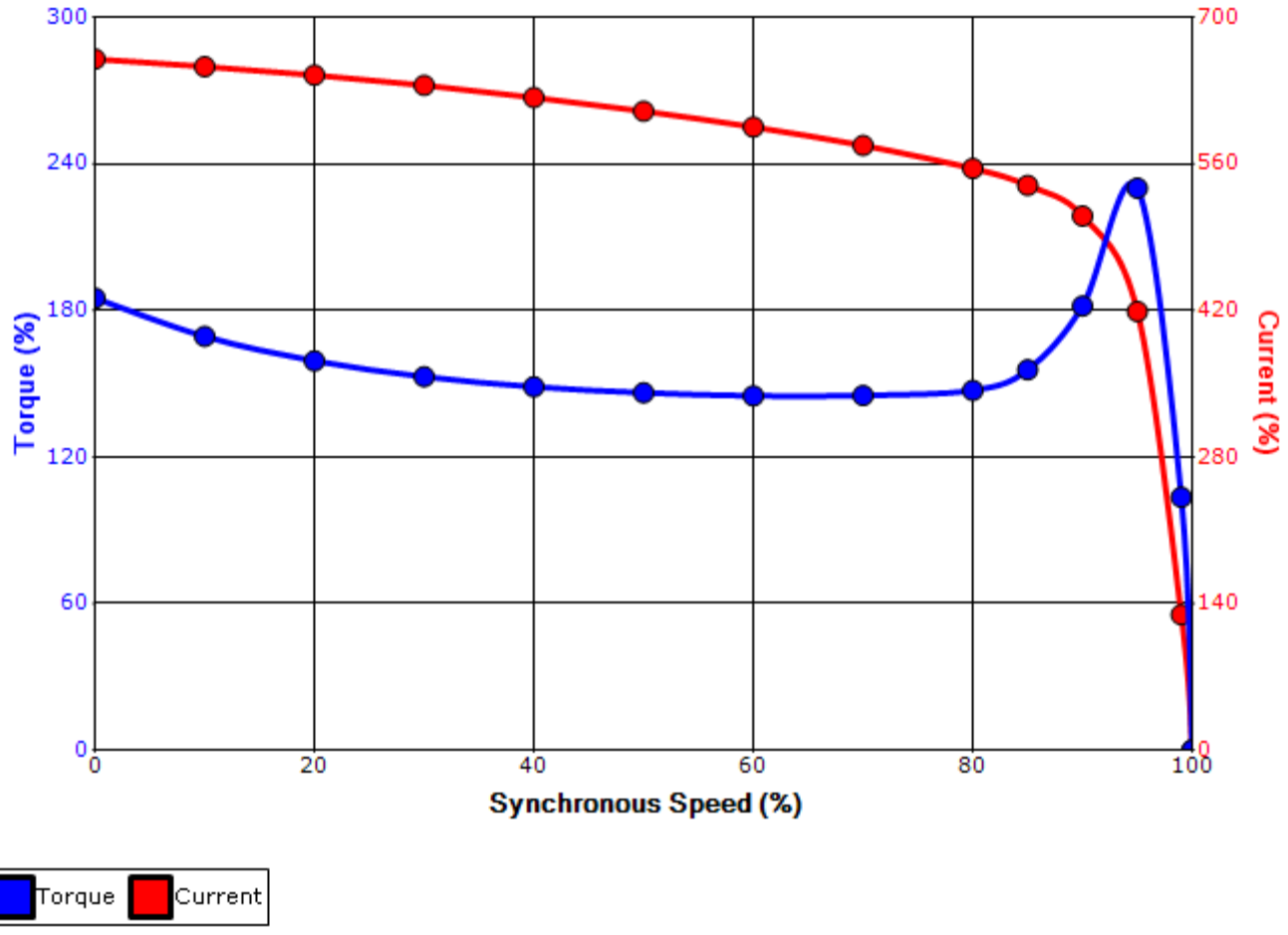
**Model:** B3004FLF4BMHL

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|---|---|---|---|---|---|---|---|---|
| 300 | 224 | 4 | 1780 | N449T | 460 | 60 | 3 | 329.99 |

| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
|---|---|---|---|---|---|---|---|---|
| TEFC | 54 | F | 1.15 | CONT | 96.2 | B | G | 40 C |

| Locked Rotor Amps | Rotor wk² Inertia (lb-ft²) | Torque | | | |
|---|---|---|---|---|---|
| | | Full Load (lb-ft) | Locked Rotor (%) | Pull Up (%) | Break Down (%) |
| 2178 | 158.12 | 885 | 185 | 145 | 230 |

## Design Values




| | | | | | |
|---|---|---|---|---|---|
| Customer | | | wk² Load Inertia (lb-ft²) | - |
| Customer PO | | | Load Type | - |
| Sales Order | | | Voltage (%) | 100 |
| Project # | | | Accel. Time | - |

**Tag:**

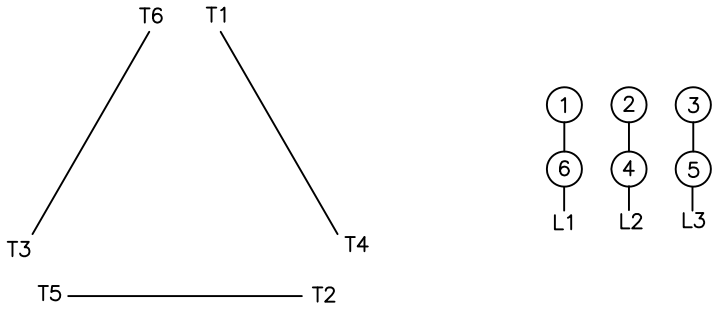
All characteristics are average expected values.

**TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.**

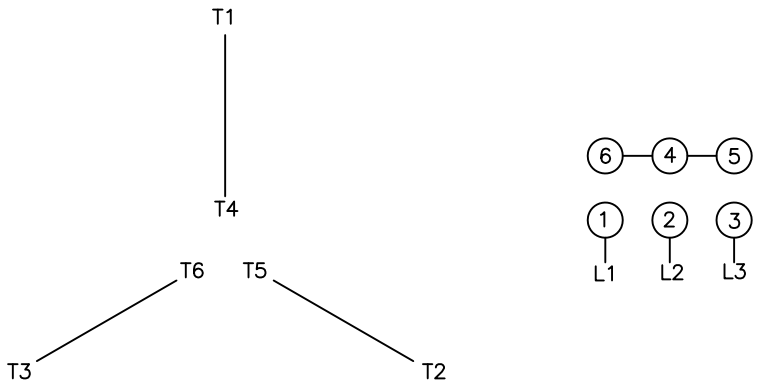
| | | | | | |
|---|---|---|---|---|---|
| Engineering | mcampbell | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1121/1 |
| Engr. Date | 1/18/2012 | Doc. Approved By | M. Campbell | Doc. Issued | 9/20/2019 |

# Motor Connection Diagrams
## 6 Leads

Across the Line Starting / Run - Delta:




Alternate Starting Connection - Wye:




Switch L1 and L2 to reverse rotation

| Issued Date | 5/10/2021 | Transmit # | |
|---|---|---|---|
| Issued By | dschoeck | Issued Rev | |

TOSHIBA

# SPARE PARTS LIST*

**Model:** B3004FLF4BMHL

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|---|---|---|---|---|---|---|---|---|
| 300 | 224 | 4 | 1780 | N449T | 460 | 60 | 3 | 329.99 |
| **Enclosure** | **IP** | **Ins. Class** | **S.F.** | **Duty** | **NEMA Nom. Eff.** | **NEMA Design** | **kVA Code** | **Ambient (°C)** |
| TEFC | 54 | F | 1.15 | CONT | 96.2 | B | G | 40 C |

| | |
|---|---|
| **Bearings DE** | NU322C3 / 110RU03M3OX |
| **Bearings NDE** | 6318C3 / 90BC03J3OX |

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

Other than the grease used for regreasable bearings and the oil used for oil-lubricated bearings, Toshiba advises that there are no "use" parts. The only insurance spares that Toshiba suggests for these squirrel-cage induction motors are industry-standard and commercially available off-the-shelf bearings as noted above.

Motor components such as terminal boxes, fan covers and other machined parts are available on special request. In these cases, please advise our order entry department of the model and serial numbers found on the motor nameplate and a description of the needed components. With this information they will be able to furnish the current part number, price and availability.

Note: Our internal part numbers are subject to change without notice and are not published.

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

**Tag:**

All characteristics are average expected values.

**TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.**

| Engineering | mcampbell | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1125 / 1 |
|---|---|---|---|---|---|
| Engr. Date | 1/18/2012 | Doc. Approved By | M. Campbell | Doc. Issued | 9/20/2019 |