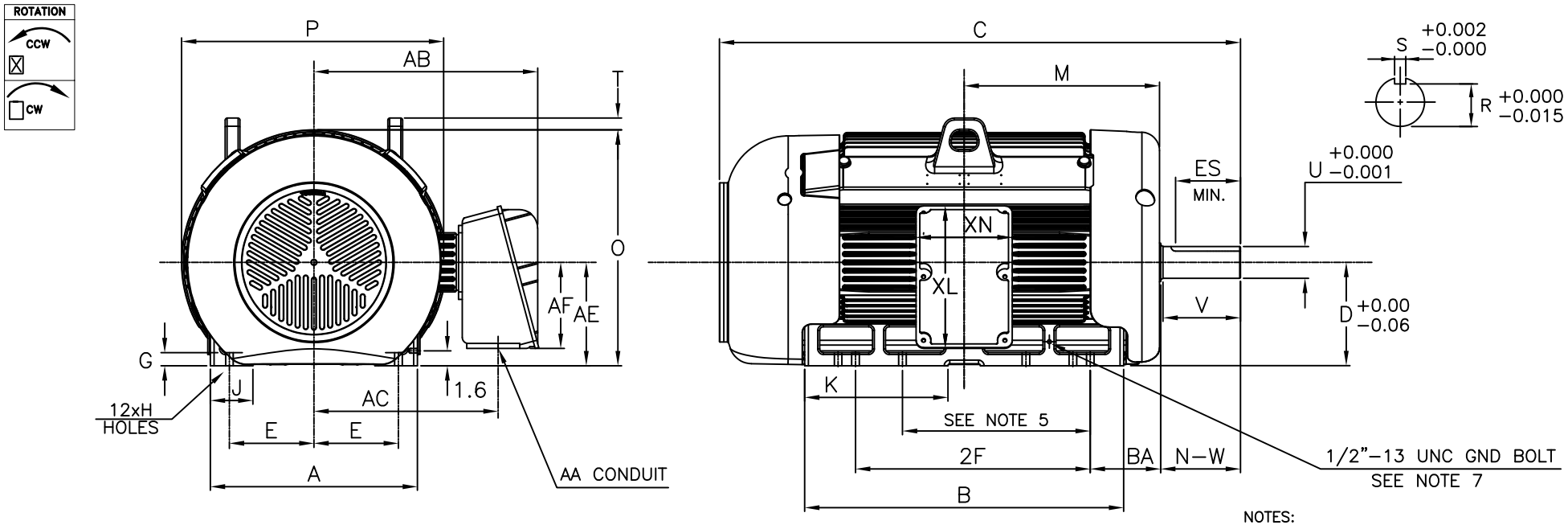


UNITS: INCHES

| 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 |
| S447T/S449T | 22.0 | 34.0 | 55.5 | 11.00 | 1.4 | 4.5 | 15.3 | 20.8 | 25.0 | 27.9 | 1.3 | 4.00 | 23.8 | 19.6 | 11.00 | 9.1 | 15.2 | 10.2 |

| 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 6/8P | LS BALL 4P | OS 4~8P | |
| S447T/S449T | 9.00 | 20.00/25.00 | 0.82 | 7.50 | 8.50 | 8.25 | 3.375 | 2.880 | 0.875 | 6.91 | NU322C3 | 6322C3 | 6318C3 | 6318C3 | XXX lb |

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 (MOTOR SUPPLIED WITH KEY)
4. MOTOR WEIGHT SHOWN IS MAXIMUM HORSEPOWER IN FRAME
5. THIS DIMENSION EQUALS 2F FOR S447T MOUNTING
6. STANDARD PRODUCT USE BI−DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE
7. FRAME GROUND BOLT STANDARD ON 841 PRODUCT

CUSTOMER: _____ MOTOR MODEL NO.: _____

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

FRAME SIZE: _____ PRODUCT TYPE: TEFC EQP III SD & 841

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

[X] 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 | 12/1/2023 | Transmit # | |
|---|---|---|---|
| Issued By | dschoeck | Issued Rev | |

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# TYPICAL MOTOR PERFORMANCE DATA

**Model:** 2504SDSC41A-R

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|---|---|---|---|---|---|---|---|---|
| 250 | 186 | 4 | 1785 | S449T | 575 | 60 | 3 | 235 |

| 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 | | 40 C |

| Load | HP | kW | Amperes | Efficiency (%) | Power Factor (%) |
|---|---|---|---|---|---|
| Full Load | 250.00 | 186.4 | 235 | 96.2 | 82.8 |
| ¾ Load | 187.50 | 139.8 | 181 | 95.6 | 80.9 |
| ½ Load | 125.00 | 93.2 | 132 | 94.2 | 75.3 |
| ¼ Load | 62.50 | 46.6 | 90 | 89.7 | 57.5 |
| No Load | | | 82.3 | | 3.8 |
| Locked Rotor | | | 1568 | | 27.8 |

| Torque | | | | Rotor wk² Inertia |
|---|---|---|---|---|
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | (lb-ft²) |
| 736 | 205 | 145 | 275 | 128.84 |

| Safe Stall Time(s) | | Sound Pressure dB(A) @ 1M | Bearings* | | Approx. Motor Weight (lbs) |
|---|---|---|---|---|---|
| Cold | Hot | | DE | NDE | |
| 35 | 15 | 81 | NU322C3 | 6318C3 | |

*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 | Jrodrigu | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1119 / 0 |
|---|---|---|---|---|---|
| Engr. Date | 10/4/2023 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011 |

| Issued Date | 12/1/2023 | Transmit # | |
|---|---|---|---|
| Issued By | dschoeck | Issued Rev | |

TOSHIBA
Leading Innovation >>>

# SPEED TORQUE/CURRENT CURVE

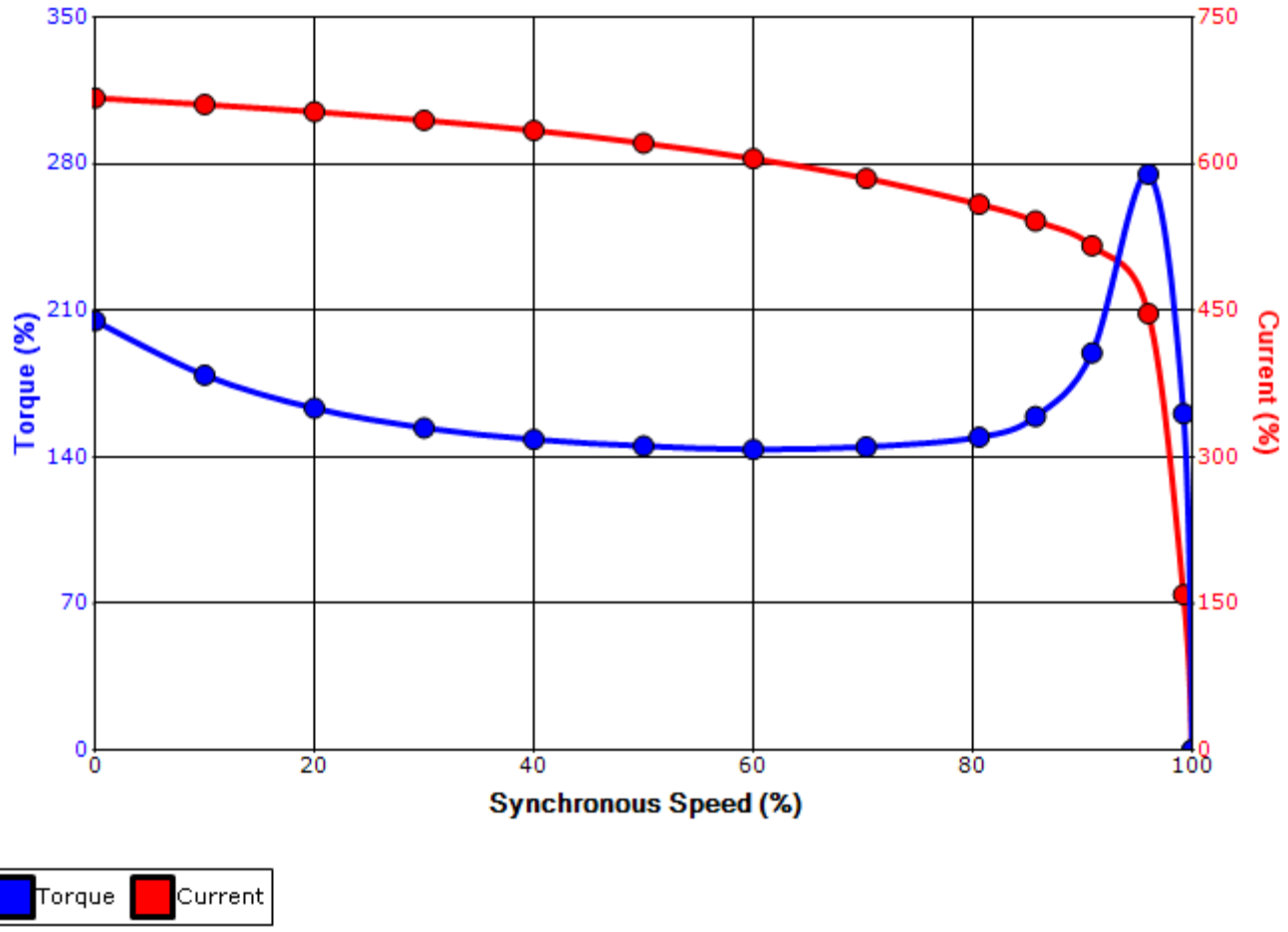
**Model:** 2504SDSC41A-R

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|---|---|---|---|---|---|---|---|---|
| 250 | 186 | 4 | 1785 | S449T | 575 | 60 | 3 | 235 |

| 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 | | 40 C |

| Locked Rotor Amps | Rotor wk² Inertia (lb-ft²) | Torque | | | |
|---|---|---|---|---|---|
| | | Full Load (lb-ft) | Locked Rotor (%) | Pull Up (%) | Break Down (%) |
| 1568 | 128.84 | 736 | 205 | 145 | 275 |

## Design Values




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

**Tag:**

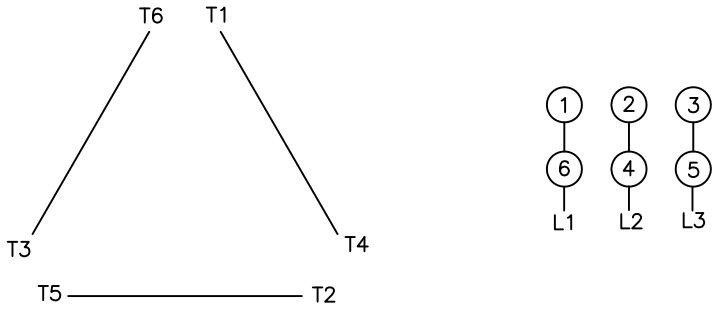
All characteristics are average expected values.

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

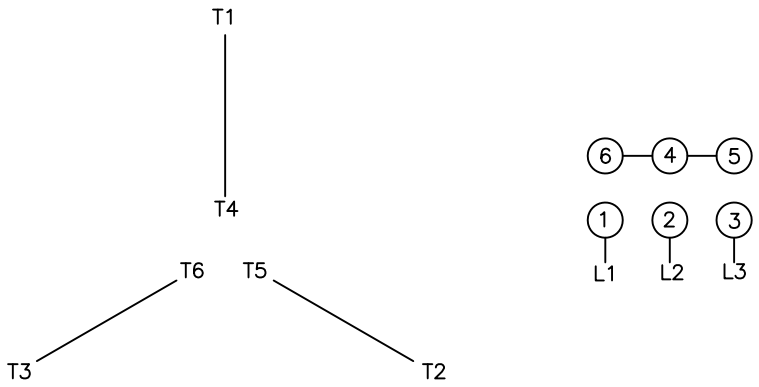
| Engineering | Jrodrigu | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1121 / 0 |
|---|---|---|---|---|---|
| Engr. Date | 10/4/2023 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011 |

# Motor Connection Diagrams
## 6 Leads

Across the Line Starting / Run - Delta:




Alternate Starting Connection - Wye:




Switch L1 and L2 to reverse rotation