

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:
www.toshiba.com/ind

TYPICAL MOTOR PERFORMANCE DATA

Model: 3504XPEC41A-R

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|-----|------------|--------|-------|----------------|-------------|----------|--------------|
| 350 | 261 | 4 | 1785 | N449T | 575 | 60 | 3 | 310 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | 96.2 | B | | 40 C |

| Load | HP | kW | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|--------|-------|---------|----------------|------------------|
| Full Load | 350.00 | 261.0 | 310 | 96.2 | 87.9 |
| ¾ Load | 262.50 | 195.7 | 235 | 95.7 | 87.3 |
| ½ Load | 175.00 | 130.5 | 165 | 94.5 | 84.0 |
| ¼ Load | 87.50 | 65.2 | 103 | 90.3 | 70.3 |
| No Load | | | 70.5 | | |
| Locked Rotor | | | 1998 | | |

| Torque | | | | Rotor wk² Inertia (lb-ft²) |
|-------------------|----------------------|-----------------|--------------------|----------------------------|
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | |
| 1030 | 195 | 145 | 265 | 158.12 |

| Safe Stall Time(s) | | Sound Pressure dB(A) @ 1M | Bearings* | | Approx. Motor Weight (lbs) |
|--------------------|-----|---------------------------|-----------|--------|----------------------------|
| Cold | Hot | | DE | NDE | |
| 28 | 12 | - | 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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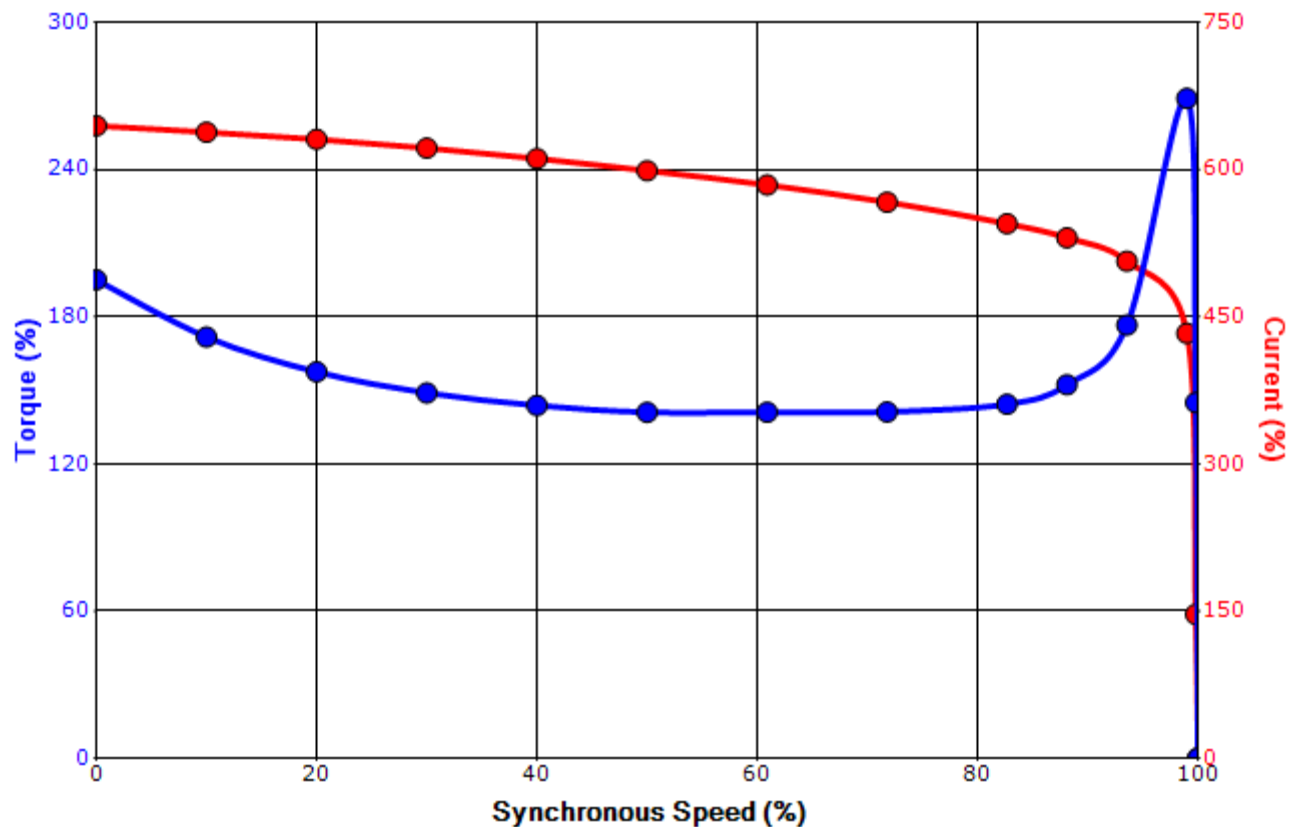
| | | | | | |
|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | zxie | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date | 1/10/2022 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011 |

SPEED TORQUE/CURRENT CURVE

Model: 3504XPEC41A-R

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-------------------|---|-------------------|------------------|-------------|----------------|----------------|----------|--------------|
| 350 | 261 | 4 | 1785 | N449T | 575 | 60 | 3 | 310 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | 96.2 | B | | 40 C |
| Locked Rotor Amps | Rotor wk ² Inertia (lb-ft ²) | Torque | | | | | | |
| | | Full Load (lb-ft) | Locked Rotor (%) | Pull Up (%) | | Break Down (%) | | |
| 1998 | 158.12 | 1030 | 195 | 145 | | 265 | | |

Design Values



| | | | | |
|-------------|--|--|--|-----|
| Customer | | | wk ² Load Inertia (lb-ft ²) | - |
| 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 | 1/10/2022 | 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

SPARE PARTS LIST*

Model: 3504XPEC41A-R

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|-----|------------|--------|-------|-------------------|----------------|----------|-----------------|
| 350 | 261 | 4 | 1785 | N449T | 575 | 60 | 3 | 310 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | 96.2 | B | | 40 C |

Bearings DE NU318C3 / 90RU03M3OX

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.

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| | | | | | |
|--------------------|-----------|-------------------------|-------------|--------------------|---------------|
| Engineering | zxle | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1125 / 0 |
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