

UNITS: INCHES

ROTATION FROM NDE

|   |                             |
|---|-----------------------------|
|   |                             |
| <input checked="" type="checkbox"/> CCW | <input type="checkbox"/> CW |

NOTES:

1. MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS
2. STANDARD PRODUCT USES BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE.
3. KEY DIMENSIONS EQUAL 0.75x0.75x5.62 (MOTOR SUPPLIED WITH KEY)

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



TOTALLY ENCLOSED FAN COOLED  
 HORIZONTAL FOOT MOUNT  
 3 PHASE INDUCTION MOTOR  
 404T/405T F1 ASSEMBLY

DRAWING #: MDSL001-08

REV. DATE: 05/25/21 REV. #: 4 PER.: J. HOCK

REV. DESCRIP.: REMOVED MOT2 FROM MODEL

**TYPICAL MOTOR PERFORMANCE DATA**

Model: 1004SDSR41A-PR

|           |    |            |        |       |                |             |          |              |
|-----------|----|------------|--------|-------|----------------|-------------|----------|--------------|
| HP        | kW | Pole       | FL RPM | Frame | Voltage        | Hz          | Phase    | FL Amps      |
| 100       | 75 | 4          | 1775   | 405T  | 230/460        | 60          | 3        | 232/116      |
| Enclosure | IP | Ins. Class | S.F.   | Duty  | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC      | 55 | F          | 1.15   | CONT  | 95.4           | B           | G        | 40 C         |

|              |        |      |         |                |                  |
|--------------|--------|------|---------|----------------|------------------|
| Load         | HP     | kW   | Amperes | Efficiency (%) | Power Factor (%) |
| Full Load    | 100.00 | 74.6 | 115     | 95.6           | 84.6             |
| ¾ Load       | 75.00  | 55.9 | 91      | 95.2           | 81.0             |
| ½ Load       | 50.00  | 37.3 | 69      | 93.9           | 72.1             |
| ¼ Load       | 25.00  | 18.6 | 52      | 89.2           | 50.1             |
| No Load      |        |      | 38.8    |                |                  |
| Locked Rotor |        |      | 725     |                | 32.9             |

|                   |                      |                 |                    |                               |
|-------------------|----------------------|-----------------|--------------------|-------------------------------|
| Torque            |                      |                 |                    | Rotor wk <sup>2</sup>         |
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | Inertia (lb-ft <sup>2</sup> ) |
| 296               | 215                  | 175             | 310                | 25.95                         |

|                    |     |                           |           |        |                            |
|--------------------|-----|---------------------------|-----------|--------|----------------------------|
| Safe Stall Time(s) |     | Sound Pressure dB(A) @ 1M | Bearings* |        | Approx. Motor Weight (lbs) |
| Cold               | Hot |                           | DE        | NDE    |                            |
| 16                 | 8   | 75                        | NU317C3   | 6313C3 |                            |

\*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 | bmmammen   | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date  | 11/15/2018 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

**TYPICAL MOTOR PERFORMANCE DATA**

Model: 1004SDSR41A-PR

| HP        | kW | Pole       | FL RPM | Frame | Voltage        | Hz          | Phase    | FL Amps      |
|-----------|----|------------|--------|-------|----------------|-------------|----------|--------------|
| 75        | 55 | 4          | 1475   | 405T  | 190/380        | 50          | 3        | 214/107      |
| Enclosure | IP | Ins. Class | S.F.   | Duty  | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC      | 55 | F          | 1.15   | CONT  | 94.6           | B           | H        | 40 C         |

| Load         | HP    | kW   | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|-------|------|---------|----------------|------------------|
| Full Load    | 75.00 | 55.9 | 106     | 94.4           | 84.4             |
| ¾ Load       | 56.25 | 41.9 | 84      | 93.9           | 80.1             |
| ½ Load       | 37.50 | 28.0 | 65      | 92.4           | 70.3             |
| ¼ Load       | 18.75 | 14.0 | 50      | 87.1           | 47.9             |
| No Load      |       |      | 39.3    |                |                  |
| Locked Rotor |       |      | 722     |                | 32.4             |

| 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) |   |
| 267                  | 225                     | 170                | 310                   | 25.95   |

| Safe Stall Time(s) |     | Sound Pressure<br>dB(A) @ 1M | Bearings* |        | Approx. Motor Weight<br>(lbs) |
|--------------------|-----|------------------------------|-----------|--------|-------------------------------|
| Cold               | Hot |                              | DE        | NDE    |                               |
| 20                 | 11  | 75                           | NU317C3   | 6313C3 |                               |

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

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

|             |  |
|-------------|--|
| Customer    |  |
| Customer PO |  |
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| Project #   |  |

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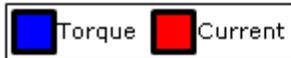
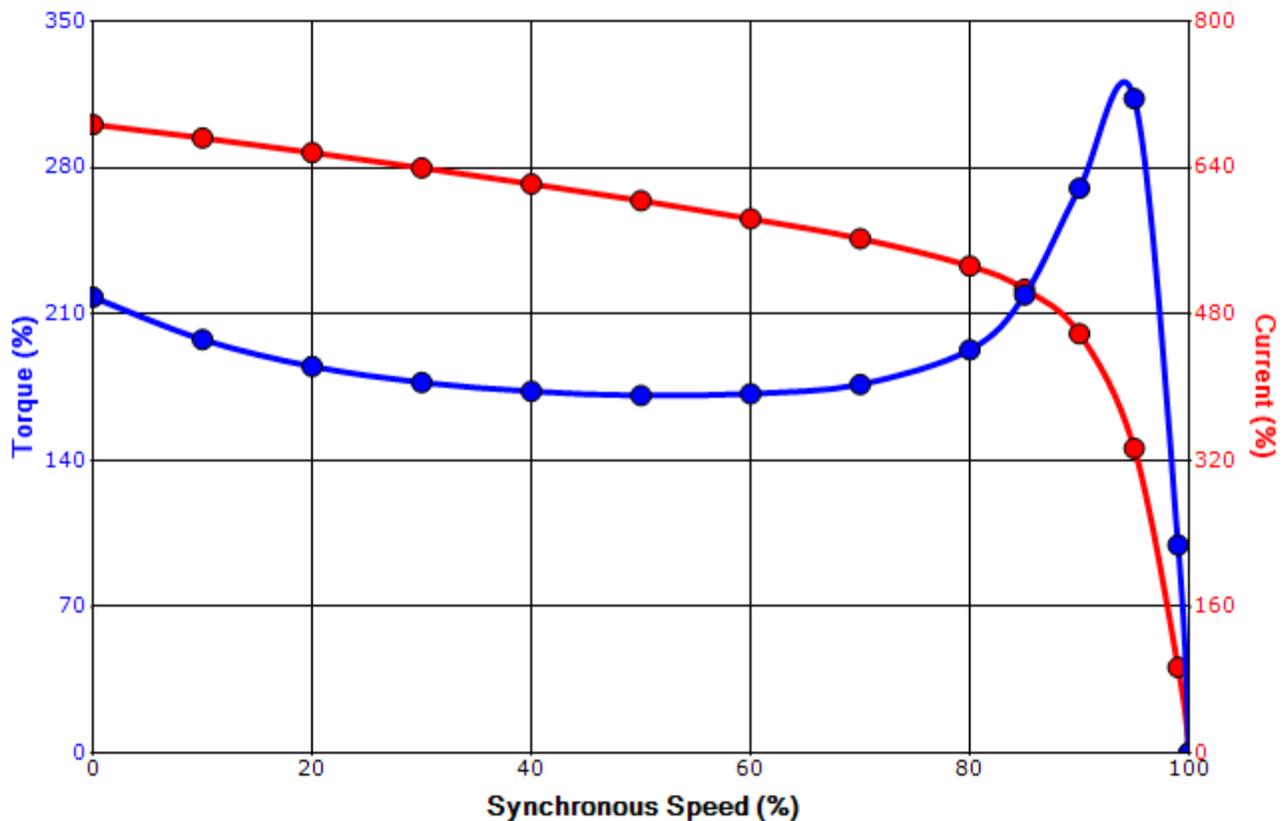
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|-------------|------------|------------------|-------------|-------------|---------------|
| Engineering | bmmamen    | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date  | 10/31/2018 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

**SPEED TORQUE/CURRENT CURVE**

Model: 1004SDSR41A-PR

|                   |   |                   |                  |             |                |             |          |                |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|----------------|
| HP                | kW  | Pole              | FL RPM           | Frame       | Voltage        | Hz          | Phase    | FL Amps        |
| 100               | 75  | 4                 | 1775             | 405T        | 230/460        | 60          | 3        | 232/116        |
| Enclosure         | IP  | Ins. Class        | S.F.             | Duty        | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C)   |
| TEFC              | 55  | F                 | 1.15             | CONT        | 95.4           | B           | G        | 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 (%) |                |             |          |                |
| 725               | 25.95   | 296               | 215              | 175         |                |             | 310      |                |

**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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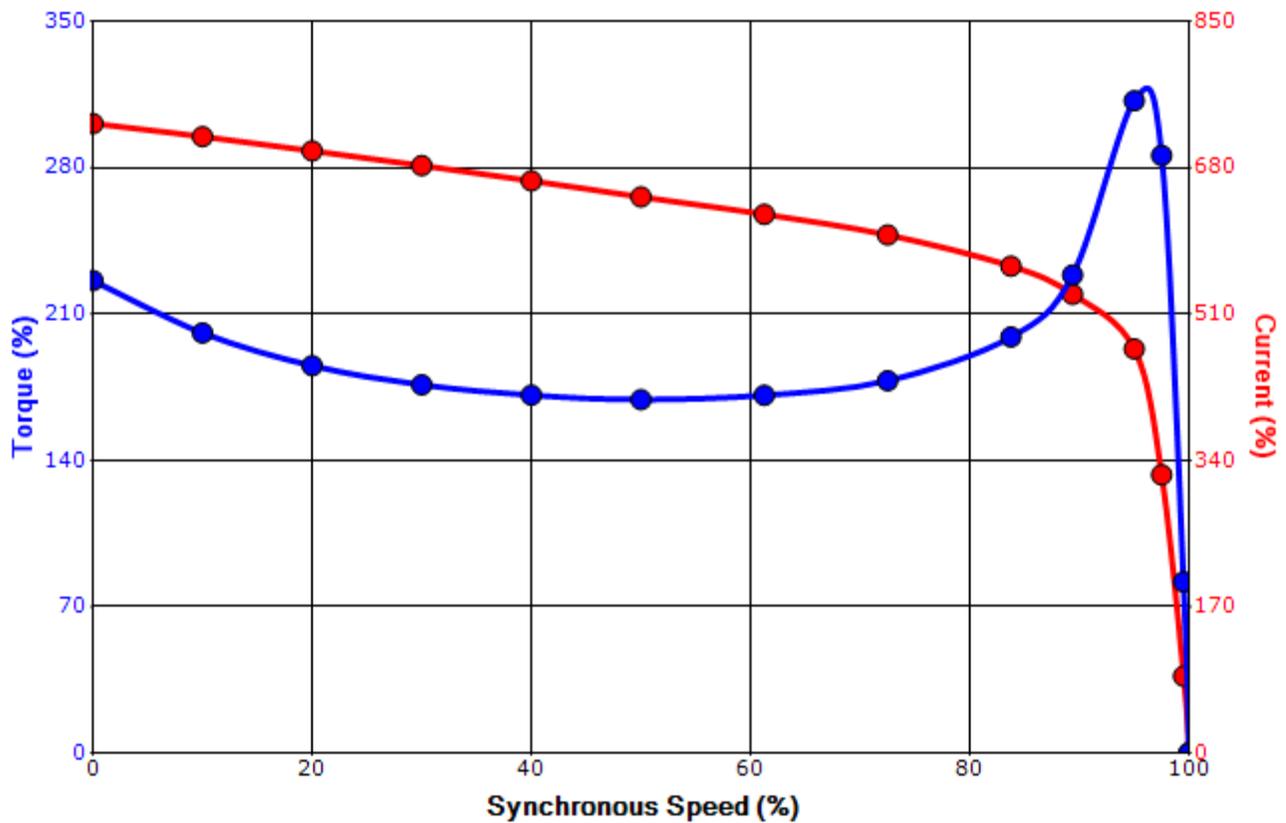
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|-------------|------------|------------------|-------------|-------------|---------------|
| Engineering | bmammen    | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1121 / 0 |
| Engr. Date  | 11/15/2018 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

**SPEED TORQUE/CURRENT CURVE**

Model: 1004SDSR41A-PR

|                   |   |                   |                  |       |                |             |                |              |
|-------------------|---|-------------------|------------------|-------|----------------|-------------|----------------|--------------|
| HP                | kW  | Pole              | FL RPM           | Frame | Voltage        | Hz          | Phase          | FL Amps      |
| 75                | 55  | 4                 | 1475             | 405T  | 190/380        | 50          | 3              | 214/107      |
| Enclosure         | IP  | Ins. Class        | S.F.             | Duty  | NEMA Nom. Eff. | NEMA Design | kVA Code       | Ambient (°C) |
| TEFC              | 55  | F                 | 1.15             | CONT  | 94.6           | B           | H              | 40 C         |
| Locked Rotor Amps | Rotor wk <sup>2</sup> Inertia (lb-ft <sup>2</sup> ) | Torque            |                  |       |                | Pull Up (%) | Break Down (%) |              |
|                   |   | Full Load (lb-ft) | Locked Rotor (%) |       |                |             |                |              |
| 722               | 25.95   | 267               | 225              |       | 170            | 310         |                |              |

**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  | -   |

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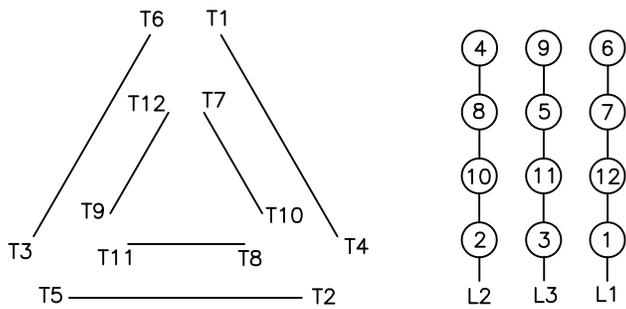
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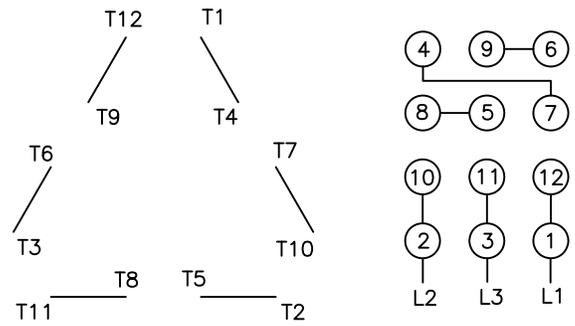
**Motor Connection Diagrams**  
12 Leads

Across-the-Line Starting / Running Connections

Low Voltage Delta



High Voltage Delta



Switch L1 and L2 to reverse rotation

Suitable for Wye-Delta Starting and Limited Part-Winding-Starting.  
Please Contact Toshiba International for specific connections.

|              |           |             |  |
|--------------|-----------|-------------|--|
| Issued Date: | 7/18/2023 | Transmit #: |  |
| Issued By:   | dschoeck  | Issued Rev: |  |

**SPARE PARTS LIST\***

Model: 1004SDSR41A-PR

| HP        | kW | Pole       | FL RPM | Frame | Voltage        | Hz          | Phase    | FL Amps      |
|-----------|----|------------|--------|-------|----------------|-------------|----------|--------------|
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| TEFC      | 55 | F          | 1.15   | CONT  | 95.4           | B           | G        | 40 C         |

|                     |                      |
|---------------------|----------------------|
| <b>Bearings DE</b>  | NU317C3 / 85RU03J3OX |
| <b>Bearings NDE</b> | 6313C3 / 65BC03J3OX  |

\*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.

|                    |  |
|--------------------|--|
| <b>Customer</b>    |  |
| <b>Customer PO</b> |  |
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