

NOTES:
 1. MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS
 2. STANDARD PRODUCT USE BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE.
 3. KEY DIMENSIONS EQUAL (MOTOR SUPPLIED WITH KEY)

0.500" x 0.500" x 2.00"

UNITS: INCHES

TOSHIBA RESERVES THE RIGHT TO MAKE CHANGES OF TECHNICAL IMPROVEMENT WITHOUT NOTICE. DO NOT USE FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS THE DRAWING IS CERTIFIED.

320TS TEFC FRAME
 F3 ASSEMBLY

MDSL020-06

TOSHIBA

TOSHIBA INTERNATIONAL CORPORATION

| TOLERANCES | |
|------------|-------|
| .X | .1 |
| .XX | .03 |
| .XXX | .005 |
| .XXXX | .0005 |

| MAXIMUM MOTOR WEIGHT | |
|----------------------|--|
| 651 lbs. | |
| 295 kgs. | |

| | | | | |
|----|-------------|-----------|----------|-------|
| 0 | FIRST ISSUE | M. O'DOWD | 02/03/14 | JR |
| NO | REVISION | DRAWN BY | DATE | CHECK |



DRAWN BY: M. O'DOWD
 CHECK BY: J. RUSSELL
 APPROVED BY: _____
 www.toshiba.com/ind

TYPICAL MOTOR PERFORMANCE DATA

Model: 0502SDSR41B-P3

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|----|------------|--------|-------|----------------|-------------|----------|--------------|
| 50 | 37 | 2 | 3540 | 326TS | 230/460 | 60 | 3 | 116/58 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | 93.0 | B | | 40 C |

| Load | HP | kW | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|-------|------|---------|----------------|------------------|
| Full Load | 50.00 | 37.3 | 58 | 93.0 | 88.2 |
| ¾ Load | 37.50 | 28.0 | 43 | 92.2 | 85.7 |
| ½ Load | 25.00 | 18.6 | 31 | 90.2 | 80.5 |
| ¼ Load | 12.50 | 9.3 | 21 | 85.1 | 65.0 |
| No Load | | | 13.7 | | 7.1 |
| Locked Rotor | | | 362 | | 39.0 |

| Torque | | | | Rotor wk ² Inertia (lb-ft ²) |
|----------------------|-------------------------|--------------------|-----------------------|---|
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | |
| 74.2 | 250 | 215 | 260 | 6.39 |

| Safe Stall Time(s) | | Sound Pressure dB(A) @ 1M | Bearings* | | Approx. Motor Weight (lbs) |
|--------------------|-----|------------------------------|-----------|---------|-------------------------------|
| Cold | Hot | | DE | NDE | |
| 35 | 15 | - | 6312ZC3 | 6312ZC3 | 653 |

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

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

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

Tag:

All characteristics are average expected values.

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| | | | | | |
|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | aacosta | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date | 4/19/2012 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011 |

TYPICAL MOTOR PERFORMANCE DATA

Model: 0502SDSR41B-P3

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|----|------------|--------|-------|----------------|-------------|----------|--------------|
| 50 | 37 | 2 | 2905 | 326TS | 190/380 | 50 | 3 | 143/72 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.0 | CONT | 90.2 | B | | 40 C |

| Load | HP | kW | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|-------|------|---------|----------------|------------------|
| Full Load | 50.00 | 37.3 | 71 | 90.1 | 87.8 |
| ¾ Load | 37.50 | 28.0 | 54 | 90.1 | 87.3 |
| ½ Load | 25.00 | 18.6 | 37 | 89.1 | 84.2 |
| ¼ Load | 12.50 | 9.3 | 23 | 84.6 | 70.7 |
| No Load | | | 13.2 | | 6.2 |
| Locked Rotor | | | 371 | | 34.7 |

| Torque | | | | Rotor wk ² Inertia (lb-ft ²) |
|----------------------|-------------------------|--------------------|-----------------------|---|
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | |
| 90.4 | 170 | 145 | 200 | 6.39 |

| Safe Stall Time(s) | | Sound Pressure dB(A) @ 1M | Bearings* | | Approx. Motor Weight (lbs) |
|--------------------|-----|------------------------------|-----------|---------|-------------------------------|
| Cold | Hot | | DE | NDE | |
| 27 | 10 | - | 6312ZC3 | 6312ZC3 | 653 |

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

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

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

Tag:

All characteristics are average expected values.

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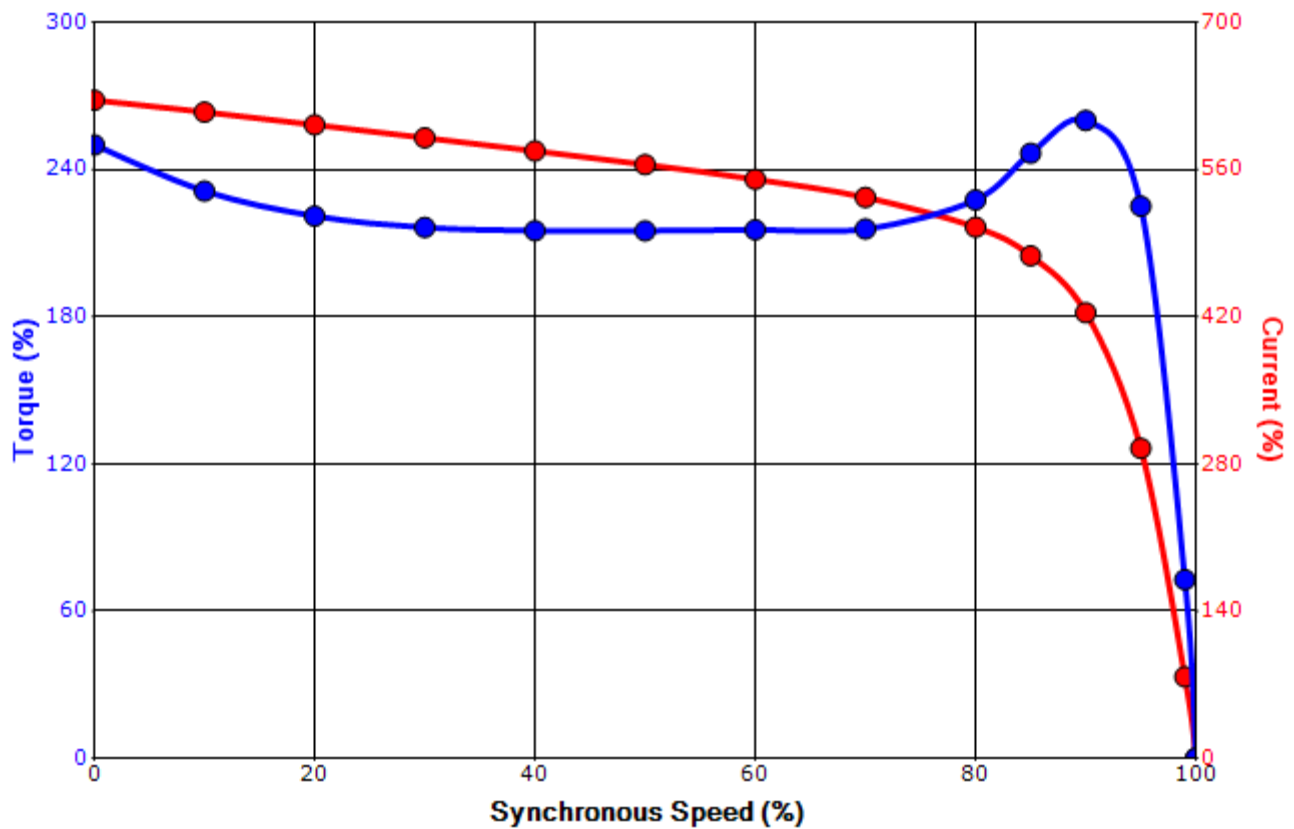
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|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | bmammen | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date | 3/19/2021 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011 |

SPEED TORQUE/CURRENT CURVE

Model: 0502SDSR41B-P3

| | | | | | | | | |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|--------------|
| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
| 50 | 37 | 2 | 3540 | 326TS | 230/460 | 60 | 3 | 116/58 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | 93.0 | B | | 40 C |
| Locked Rotor Amps | Rotor wk ² Inertia (lb-ft ²) | Torque | | | | | | |
| | | Full Load (lb-ft) | Locked Rotor (%) | Pull Up (%) | Break Down (%) | | | |
| 362 | 6.39 | 74.2 | 250 | 215 | | | | |

Design Values



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

Tag:

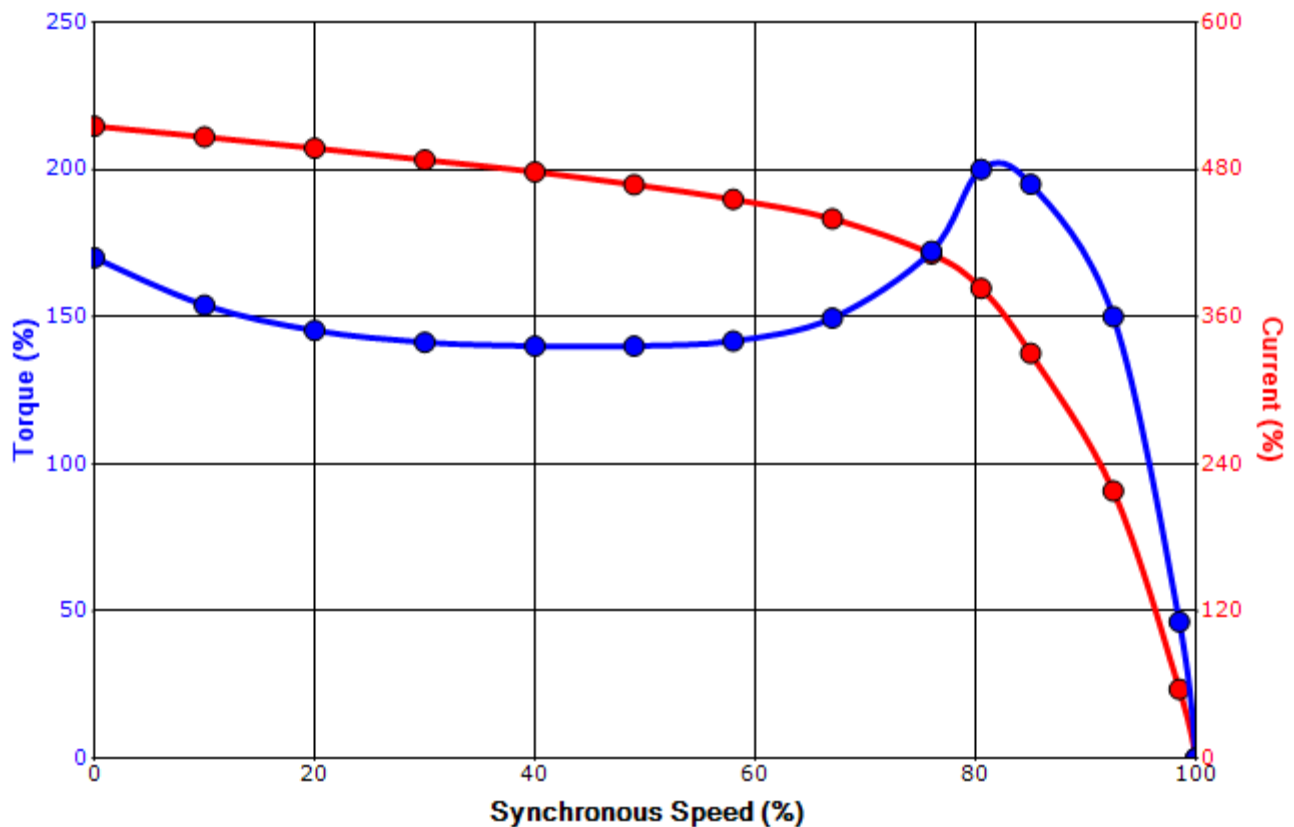
All characteristics are average expected values.

SPEED TORQUE/CURRENT CURVE

Model: 0502SDSR41B-P3

| | | | | | | | | |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|----------------|
| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
| 50 | 37 | 2 | 2905 | 326TS | 190/380 | 50 | 3 | 143/72 |
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| TEFC | 55 | F | 1.0 | CONT | 90.2 | B | | 40 C |
| Locked Rotor Amps | Rotor wk ² Inertia (lb-ft ²) | Torque | | | | | | Break Down (%) |
| | | Full Load (lb-ft) | Locked Rotor (%) | Pull Up (%) | | | | |
| 371 | 6.39 | 90.4 | 170 | 145 | | | 200 | |

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.

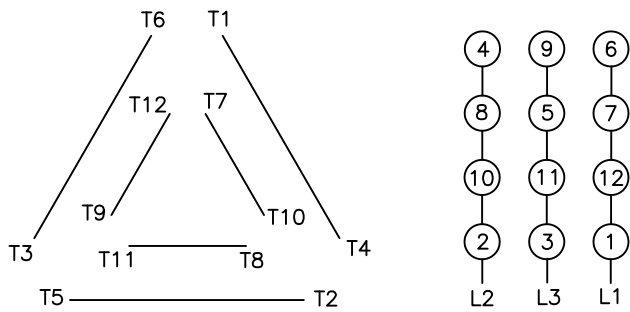
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| | | | | | |
|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | bmammen | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1121 / 0 |
| Engr. Date | 3/19/2021 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011 |

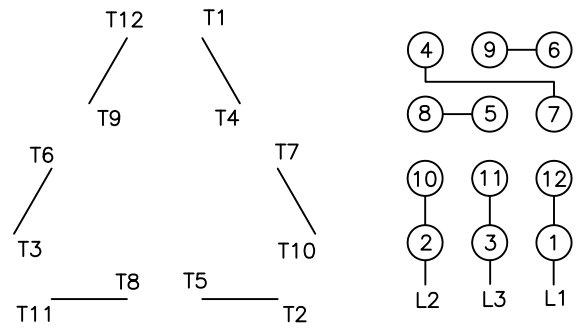
Motor Connection Diagrams
12 Leads

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.