

- 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 3.88"

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.

**320TC TEFC FRAME
F1 ASSEMBLY**

MDSL005-06

TOSHIBA

TOSHIBA INTERNATIONAL CORPORATION

TOLERANCES

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

MAXIMUM MOTOR WEIGHT

651 lbs.
295 kgs.

| NO | REVISION | DRAWN BY | DATE | CHECK |
|----|---------------------------------|----------|----------|-------|
| 1 | CHANGED 'H' DIMENSION FROM 0.67 | MO | 04/17/14 | JR |
| 0 | FIRST ISSUE | N. MOMIN | 09/08/10 | JR |
| NO | | | | |



DRAWN BY: N. MOMIN
 CHECK BY: J. RUSSELL
 APPROVED BY: _____
 www.toshiba.com/ind

TYPICAL MOTOR PERFORMANCE DATA

Model: 0256SDSR42A-P

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|------|------------|--------|-------|----------------|-------------|----------|--------------|
| 25 | 18.5 | 6 | 1180 | 324TC | 230/460 | 60 | 3 | 62/31 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | 93 | B | G | 40 C |

| Load | HP | kW | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|-------|------|---------|----------------|------------------|
| Full Load | 25 | 18.6 | 31.0 | 93.3 | 81.4 |
| ¾ Load | 18.75 | 14.0 | 24.4 | 93.1 | 78.1 |
| ½ Load | 12.50 | 9.3 | 18.9 | 91.7 | 68.8 |
| ¼ Load | 6.25 | 4.7 | 14.8 | 85.1 | 46.2 |
| No Load | | | 12.4 | | 4.9 |
| Locked Rotor | | | 183.00 | | 45.3 |

| Torque | | | | Rotor wk ² Inertia (lb-ft ²) |
|----------------------|-------------------------|--------------------|-----------------------|---|
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | |
| 111 | 245 | 215 | 290 | 11.30 |

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

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

Motor Options:
Product Family:EQP Global SD CFace Footed
Mounting:C-Face Footed,Shaft:T 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: 0256SDSR42A-P

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|------|------------|--------|-------|----------------|-------------|----------|--------------|
| 25 | 18.5 | 6 | 970 | 324TC | 190/380 | 50 | 3 | 76/38 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.0 | CONT | 91.7 | B | G | 40 C |

| Load | HP | kW | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|-------|------|---------|----------------|------------------|
| Full Load | 25 | 18.6 | 38.0 | 93.2 | 79.0 |
| ¾ Load | 18.75 | 14.0 | 29.1 | 93.9 | 75.1 |
| ½ Load | 12.50 | 9.3 | 21.8 | 93.8 | 66.1 |
| ¼ Load | 6.25 | 4.7 | 16.2 | 84.8 | 51.6 |
| No Load | | | 11.6 | | 4.6 |
| Locked Rotor | | | 239.00 | | 40.1 |

| Torque | | | | Rotor wk ² Inertia (lb-ft ²) |
|----------------------|-------------------------|--------------------|-----------------------|---|
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | |
| 135 | 170 | 145 | 205 | 11.30 |

| Safe Stall Time(s) | | Sound Pressure dB(A) @ 1M | Bearings* | | Approx. Motor Weight (lbs) |
|--------------------|-----|------------------------------|-----------|---------|-------------------------------|
| Cold | Hot | | DE | NDE | |
| 41 | 21 | - | 6312ZC3 | 6312ZC3 | |

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

Motor Options:
Product Family:EQP Global SD CFace Footed
Mounting:C-Face Footed,Shaft:T Shaft

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

Tag:

All characteristics are average expected values.

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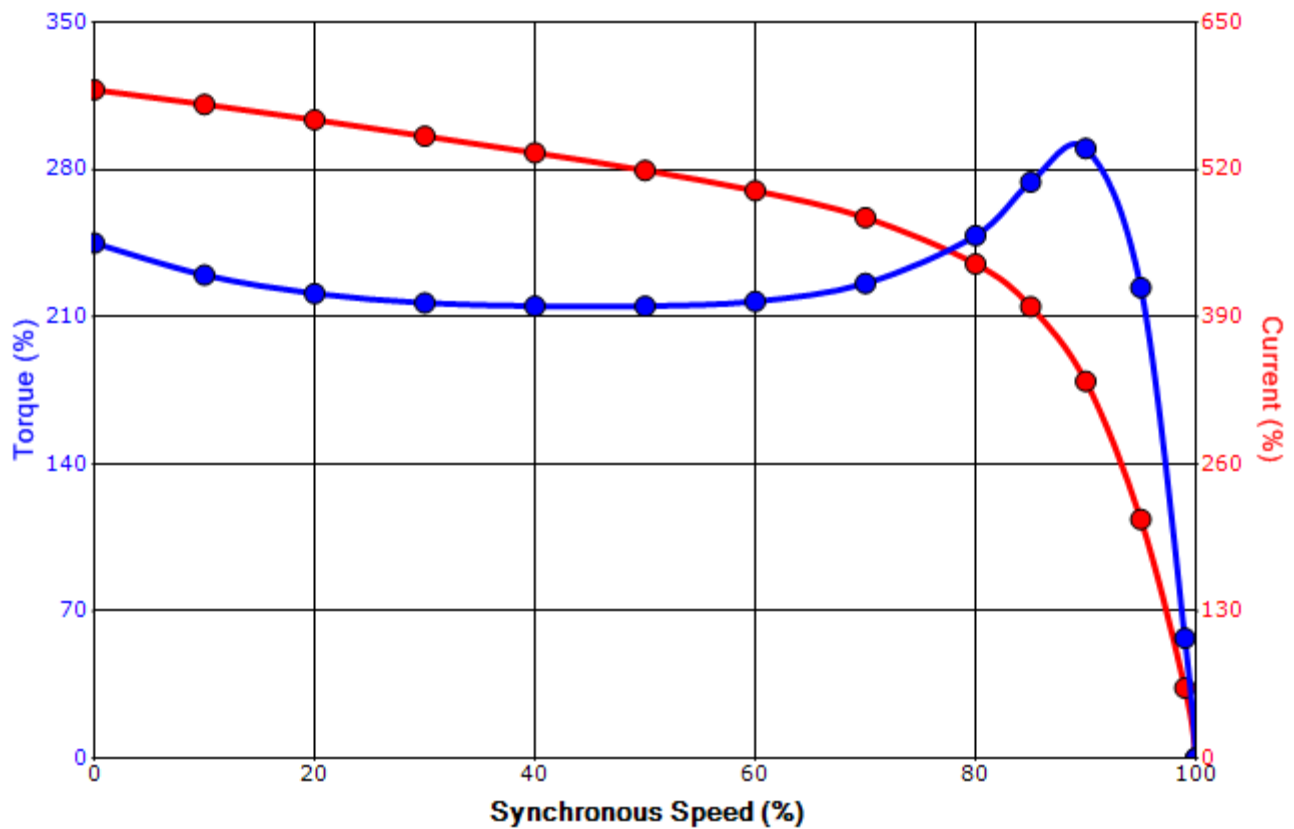
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|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | jhock | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date | 6/17/2014 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011 |

SPEED TORQUE/CURRENT CURVE

Model: 0256SDSR42A-P

| | | | | | | | | |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|----------------|
| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
| 25 | 18.5 | 6 | 1180 | 324TC | 230/460 | 60 | 3 | 62/31 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | 93 | B | G | 40 C |
| Locked Rotor Amps | Rotor wk ² Inertia (lb-ft ²) | Torque | | | | | | Break Down (%) |
| | | Full Load (lb-ft) | Locked Rotor (%) | Pull Up (%) | | | | |
| 183.00 | 11.30 | 111 | 245 | 215 | | | 290 | |

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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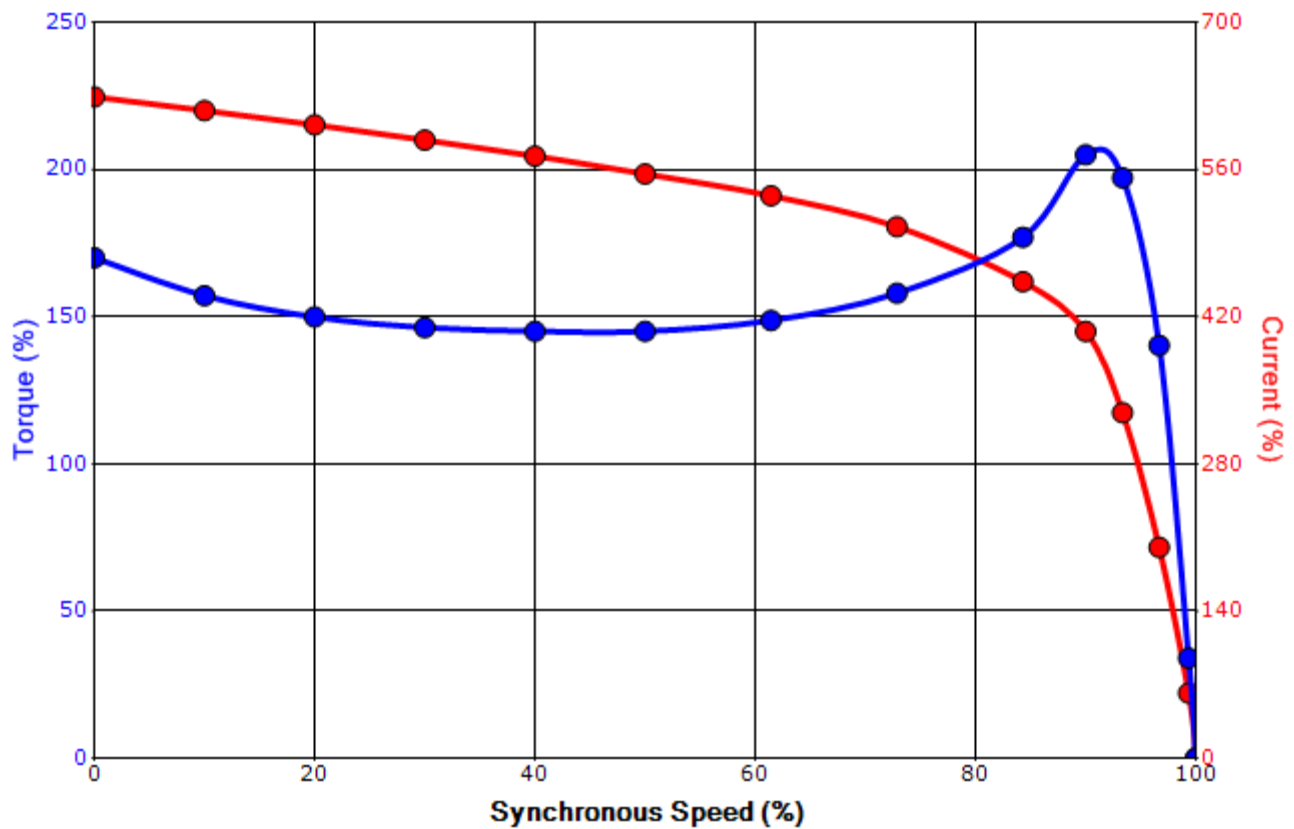
| | | | | | |
|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | aacosta | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1121 / 0 |
| Engr. Date | 4/19/2012 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011 |

SPEED TORQUE/CURRENT CURVE

Model: 0256SDSR42A-P

| | | | | | | | | |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|----------------|
| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
| 25 | 18.5 | 6 | 970 | 324TC | 190/380 | 50 | 3 | 76/38 |
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| TEFC | 55 | F | 1.0 | CONT | 91.7 | B | G | 40 C |
| Locked Rotor Amps | Rotor wk ² Inertia (lb-ft ²) | Torque | | | | | | Break Down (%) |
| | | Full Load (lb-ft) | Locked Rotor (%) | Pull Up (%) | | | | |
| 239.00 | 11.30 | 135 | 170 | 145 | | | 205 | |

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.

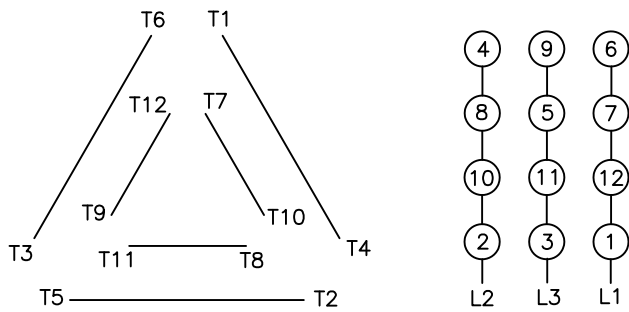
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| | | | | | |
|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | jhock | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1121 / 0 |
| Engr. Date | 6/17/2014 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011 |

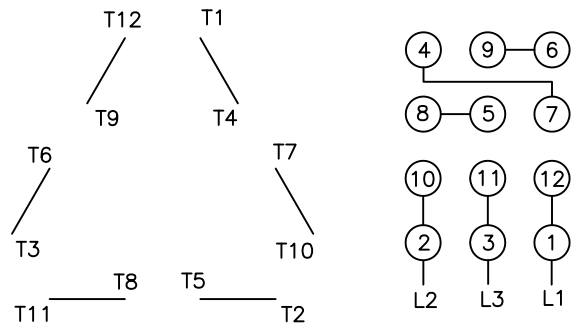
Motor Connection Diagrams
12 Leads

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.