

UNITS: INCHES

ROTATION FROM NDE

CCW
 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 $0.312 \times 0.312 \times 2.38"$ (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

TOSHIBA SEVERE DUTY
 www.toshiba.com/tic **EQP Global SD**
TOSHIBA INTERNATIONAL CORPORATION

TOTALLY ENCLOSED FAN COOLED
 FOOTED C-FACED (NEMA BA)
 3 PHASE INDUCTION MOTOR
 213TC-215TC F1 ASSEMBLY

DRAWING #: MDSL005-03
 REV. DATE: 06/27/18 REV. #: 3 PER.: M. O'DOWD
 REV. DESCRIP.:

TYPICAL MOTOR PERFORMANCE DATA

Model: 0036SDSR47A-P

| | | | | | | | | |
|-----------|-----|------------|--------|-------|----------------|-------------|----------|--------------|
| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
| 3 | 2.2 | 6 | 1170 | 213TC | 230/460 | 60 | 3 | 8.8/4.4 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.15 | CONT | 89.5 | B | | 40 C |

| | | | | | |
|--------------|------|-----|---------|----------------|------------------|
| Load | HP | kW | Amperes | Efficiency (%) | Power Factor (%) |
| Full Load | 3.00 | 2.2 | 4.4 | 89.6 | 74.1 |
| ¾ Load | 2.25 | 1.7 | 3.5 | 89.1 | 67.7 |
| ½ Load | 1.50 | 1.1 | 3.0 | 86.5 | 56.0 |
| ¼ Load | 0.75 | 0.6 | 2.3 | 77.5 | 39.0 |
| No Load | | | 2.4 | | 6.4 |
| Locked Rotor | | | 32 | | 41.0 |

| | | | | |
|-------------------|----------------------|-----------------|--------------------|-------------------------------|
| Torque | | | | Rotor wk ² |
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | Inertia (lb-ft ²) |
| 13.5 | 225 | 205 | 370 | 1.03 |

| | | | | | |
|--------------------|-----|---------------------------|-----------|----------|----------------------------|
| Safe Stall Time(s) | | Sound Pressure dB(A) @ 1M | Bearings* | | Approx. Motor Weight (lbs) |
| Cold | Hot | | DE | NDE | |
| 35 | 15 | - | 6308ZZC3 | 6308ZZC3 | 172 |

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

Motor Options:
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: 0036SDSR47A-P

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|-----|------------|--------|-------|----------------|-------------|----------|--------------|
| 3 | 2.2 | 6 | 960 | 213TC | 190/380 | 50 | 3 | 10.8/5.4 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC | 55 | F | 1.0 | CONT | 86.5 | B | | 40 C |

| Load | HP | kW | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|------|-----|---------|----------------|------------------|
| Full Load | 3.00 | 2.2 | 5.4 | 89.2 | 74.0 |
| ¾ Load | 2.25 | 1.7 | 3.9 | 89.0 | 68.1 |
| ½ Load | 1.50 | 1.1 | 3.2 | 87.3 | 57.0 |
| ¼ Load | 0.75 | 0.6 | 2.7 | 78.7 | 37.1 |
| No Load | | | 2.3 | | 6.2 |
| Locked Rotor | | | 40 | | 47.6 |

| Torque | | | | Rotor wk ² Inertia (lb-ft ²) |
|----------------------|-------------------------|--------------------|-----------------------|---|
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | |
| 16.4 | 180 | 175 | 440 | 1.03 |

| Safe Stall Time(s) | | Sound Pressure dB(A) @ 1M | Bearings* | | Approx. Motor Weight (lbs) |
|--------------------|-----|------------------------------|-----------|----------|-------------------------------|
| Cold | Hot | | DE | NDE | |
| 35 | 28 | - | 6308ZZC3 | 6308ZZC3 | 172 |

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

Motor Options:
Mounting:C-Face Footed,Shaft:T Shaft

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

Tag:

All characteristics are average expected values.

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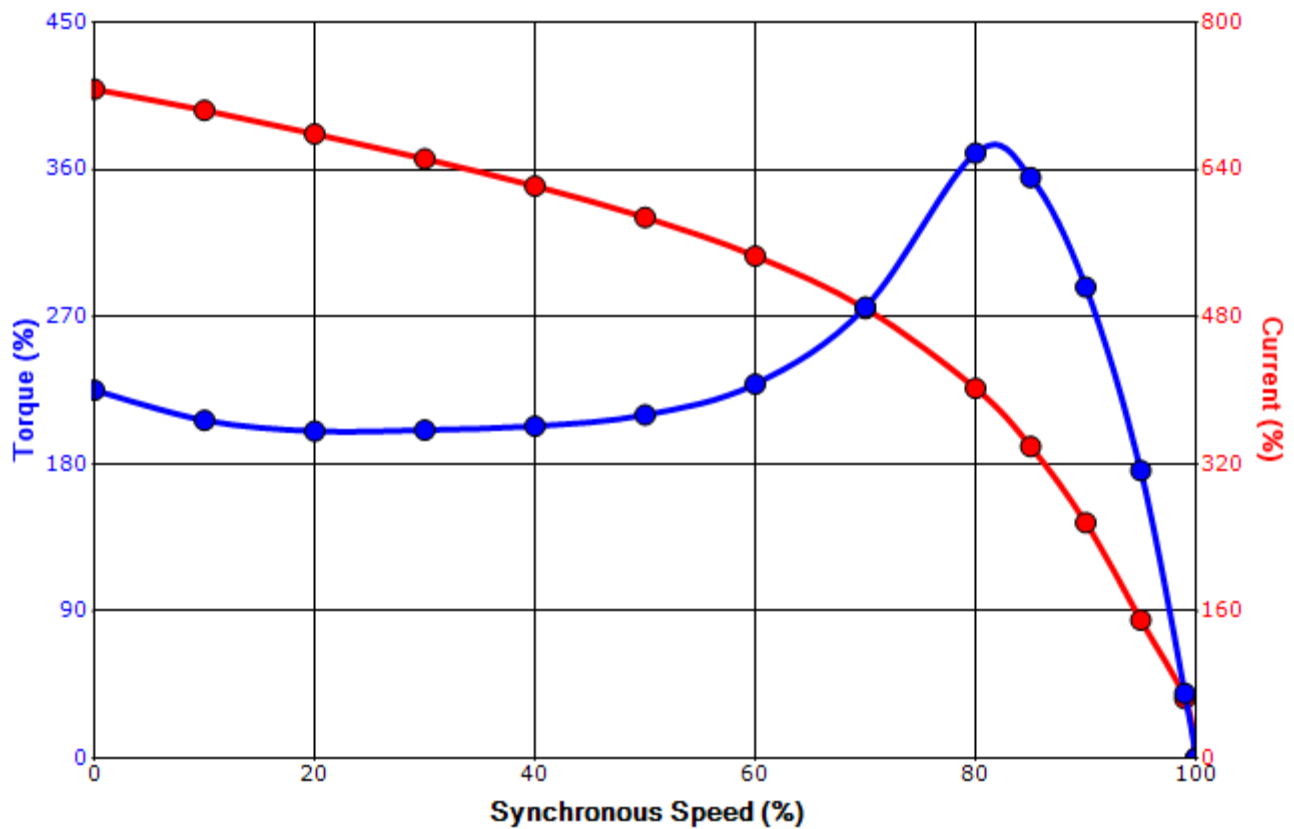
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|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | zxie | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date | 2/11/2019 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011 |

SPEED TORQUE/CURRENT CURVE

Model: 0036SDSR47A-P

| | | | | | | | | |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|--------------|
| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
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| TEFC | 55 | F | 1.15 | CONT | 89.5 | B | | 40 C |
| Locked Rotor Amps | Rotor wk ² Inertia (lb-ft ²) | Torque | | | | | | |
| | | Full Load (lb-ft) | Locked Rotor (%) | Pull Up (%) | Break Down (%) | | | |
| 32 | 1.03 | 13.5 | 225 | 205 | 370 | | | |

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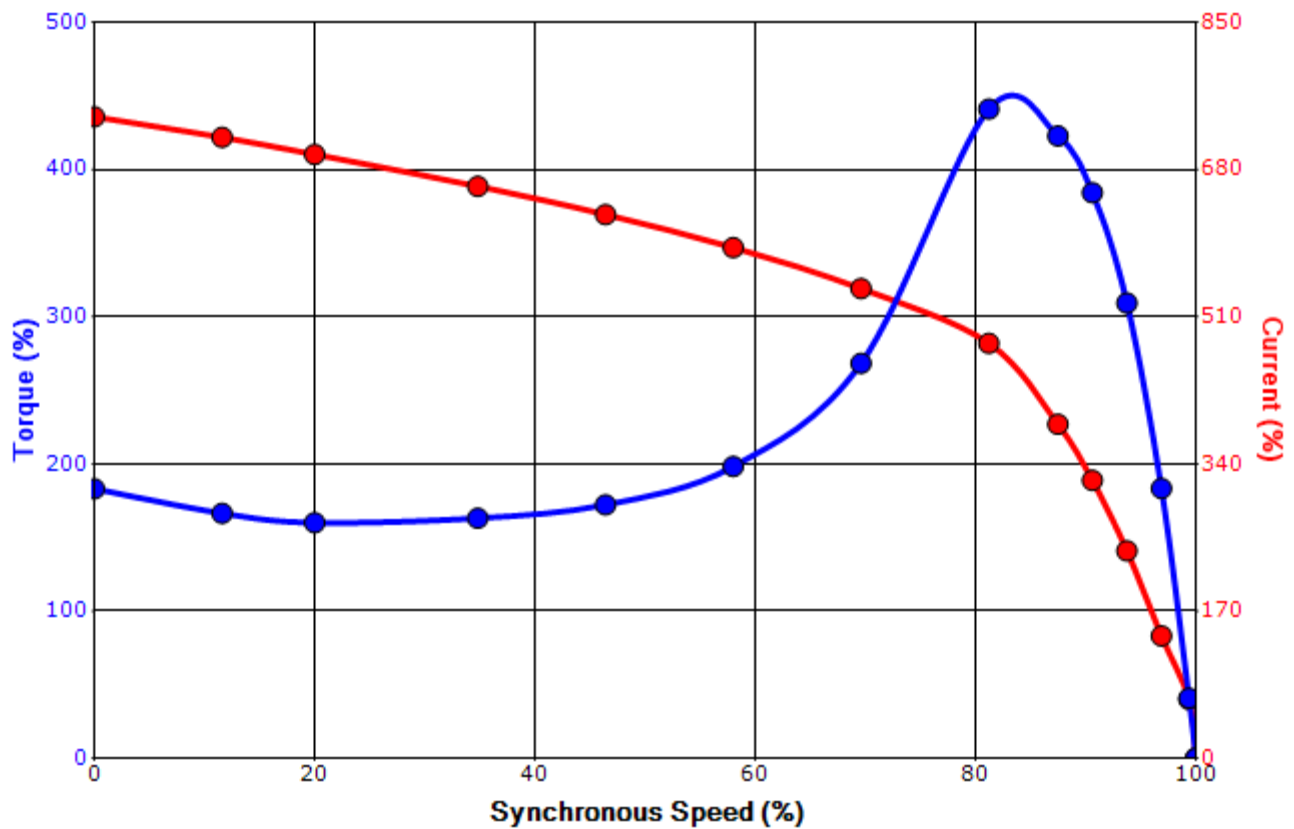
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|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | aacosta | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1121 / 0 |
| Engr. Date | 4/19/2012 | Doc. Approved By | M. Campbell | Doc. Issued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

SPEED TORQUE/CURRENT CURVE

Model: 0036SDSR47A-P

| | | | | | | | | |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|--------------|
| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
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| | | Full Load (lb-ft) | Locked Rotor (%) | Pull Up (%) | Break Down (%) | | | |
| 40 | 1.03 | 16.4 | 180 | 175 | 440 | | | |

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.

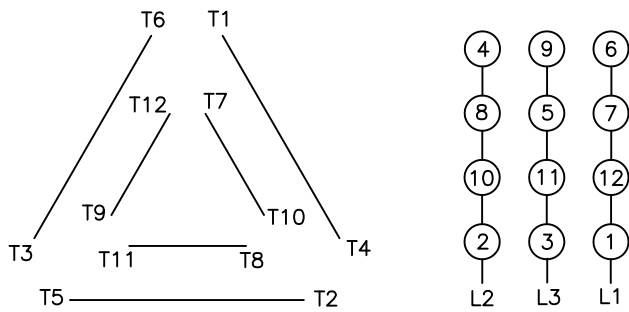
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| | | | | | |
|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | zxie | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1121 / 0 |
| Engr. Date | 2/11/2019 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011 |

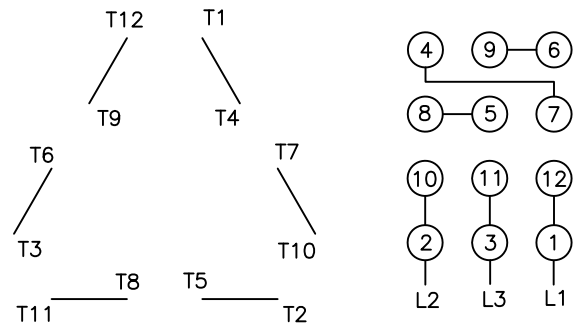
Motor Connection Diagrams
12 Leads

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.