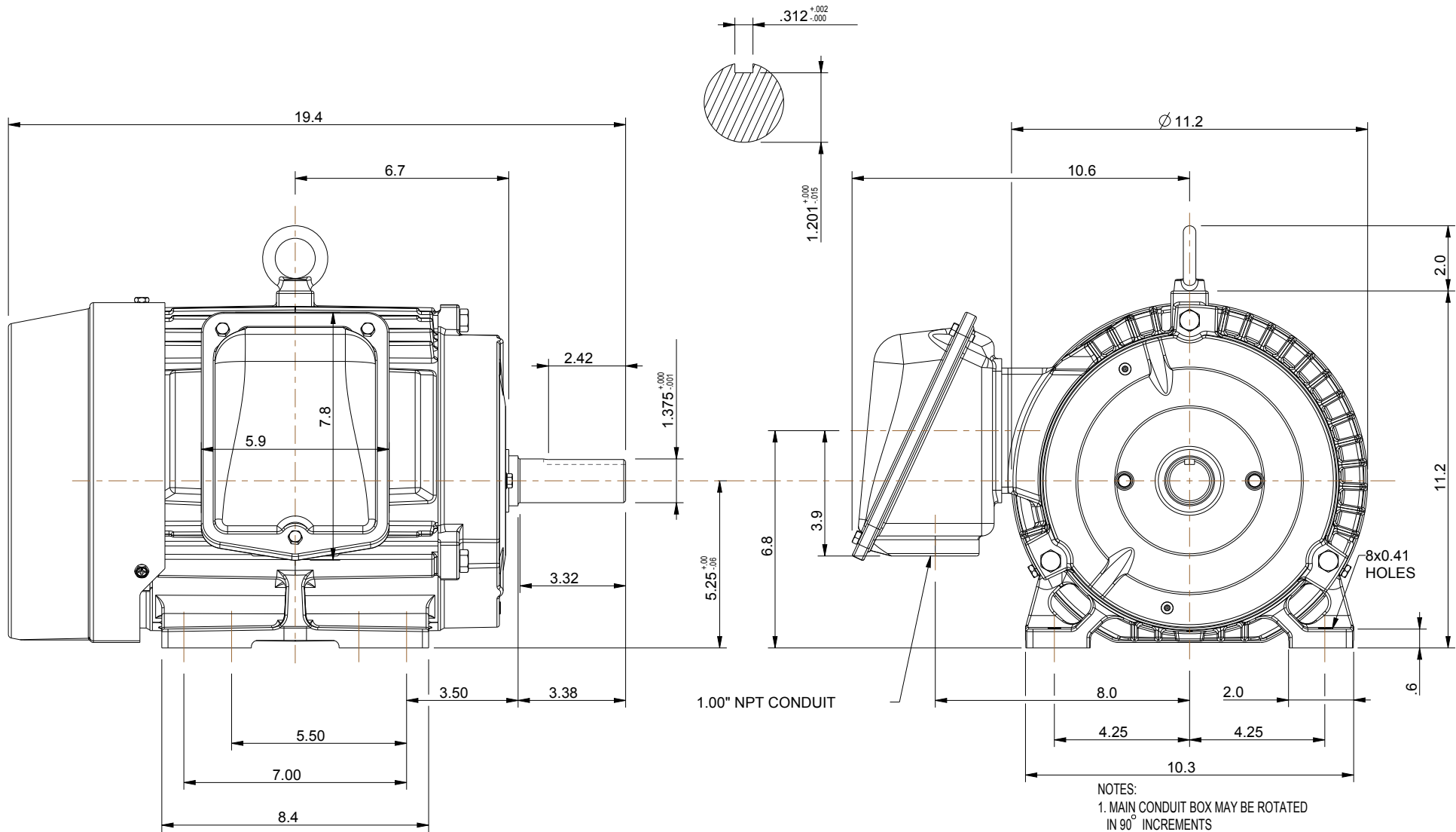




- NOTES:
1. MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS
  2. STANDARD PRODUCT USE BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE.
  3. KEY DIMENSIONS EQUAL (MOTOR SUPPLIED WITH KEY)
- 0.313" x 0.313" x 2.38"

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.

## 210T TEFC FRAME F1 ASSEMBLY

MDSL001-03

**TOSHIBA**  
TOSHIBA INTERNATIONAL CORPORATION

### TOLERANCES

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

### MAXIMUM MOTOR WEIGHT

186 lbs.  
84 kgs.

|    |             |          |          |       |
|----|-------------|----------|----------|-------|
| 0  | FIRST ISSUE | N. MOMIN | 09/01/10 | JR    |
| NO | REVISION    | DRAWN BY | DATE     | CHECK |

**EQP** Global SD  
**XT SERIES**

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

## TYPICAL MOTOR PERFORMANCE DATA

Model: 0056SDSR41A-P

| HP        | kW  | Pole       | FL RPM | Frame | Voltage        | Hz          | Phase    | FL Amps      |
|-----------|-----|------------|--------|-------|----------------|-------------|----------|--------------|
| 5         | 3.7 | 6          | 1160   | 215T  | 230/460        | 60          | 3        | 14/7         |
| 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           | J        | 40 C         |

| Load         | HP   | kW  | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|------|-----|---------|----------------|------------------|
| Full Load    | 5    | 3.7 | 6.9     | 89.6           | 78.2             |
| ¾ Load       | 3.75 | 2.8 | 5.3     | 89.7           | 73.2             |
| ½ Load       | 2.50 | 1.9 | 4.3     | 88.2           | 63.0             |
| ¼ Load       | 1.25 | 0.9 | 3.6     | 80.9           | 39.7             |
| No Load      |      |     | 3.1     |                | 5.5              |
| Locked Rotor |      |     | 46.00   |                | 45.6             |

| Torque            |                      |                 |                    | Rotor wk² Inertia (lb-ft²) |
|-------------------|----------------------|-----------------|--------------------|----------------------------|
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) |                            |
| 22.6              | 185                  | 175             | 330                | 1.32                       |

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

\*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 | 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: 0056SDSR41A-P

| HP        | kW  | Pole       | FL RPM | Frame | Voltage        | Hz          | Phase    | FL Amps      |
|-----------|-----|------------|--------|-------|----------------|-------------|----------|--------------|
| 5         | 3.7 | 6          | 955    | 215T  | 190/380        | 50          | 3        | 18/9         |
| Enclosure | IP  | Ins. Class | S.F.   | Duty  | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC      | 55  | F          | 1.0    | CONT  | 85.5           | B           | J        | 40 C         |

| Load         | HP   | kW  | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|------|-----|---------|----------------|------------------|
| Full Load    | 5    | 3.7 | 9.0     | 89.7           | 69.5             |
| ¾ Load       | 3.75 | 2.8 | 6.1     | 90.0           | 65.3             |
| ½ Load       | 2.50 | 1.9 | 4.7     | 88.8           | 56.2             |
| ¼ Load       | 1.25 | 0.9 | 3.7     | 82.6           | 46.0             |
| No Load      |      |     | 3.0     |                |                  |
| Locked Rotor |      |     | 55.00   |                |                  |

| Torque            |                      |                 |                    | Rotor wk² Inertia (lb-ft²) |
|-------------------|----------------------|-----------------|--------------------|----------------------------|
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) |                            |
| 27.5              | 190                  | 175             | 230                | 1.32                       |

| Safe Stall Time(s) |     | Sound Pressure dB(A) @ 1M | Bearings* |          | Approx. Motor Weight (lbs) |
|--------------------|-----|---------------------------|-----------|----------|----------------------------|
| Cold               | Hot |                           | DE        | NDE      |                            |
| 30                 | 20  | -                         | 6308ZZC3  | 6308ZZC3 |                            |

\*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.**

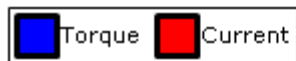
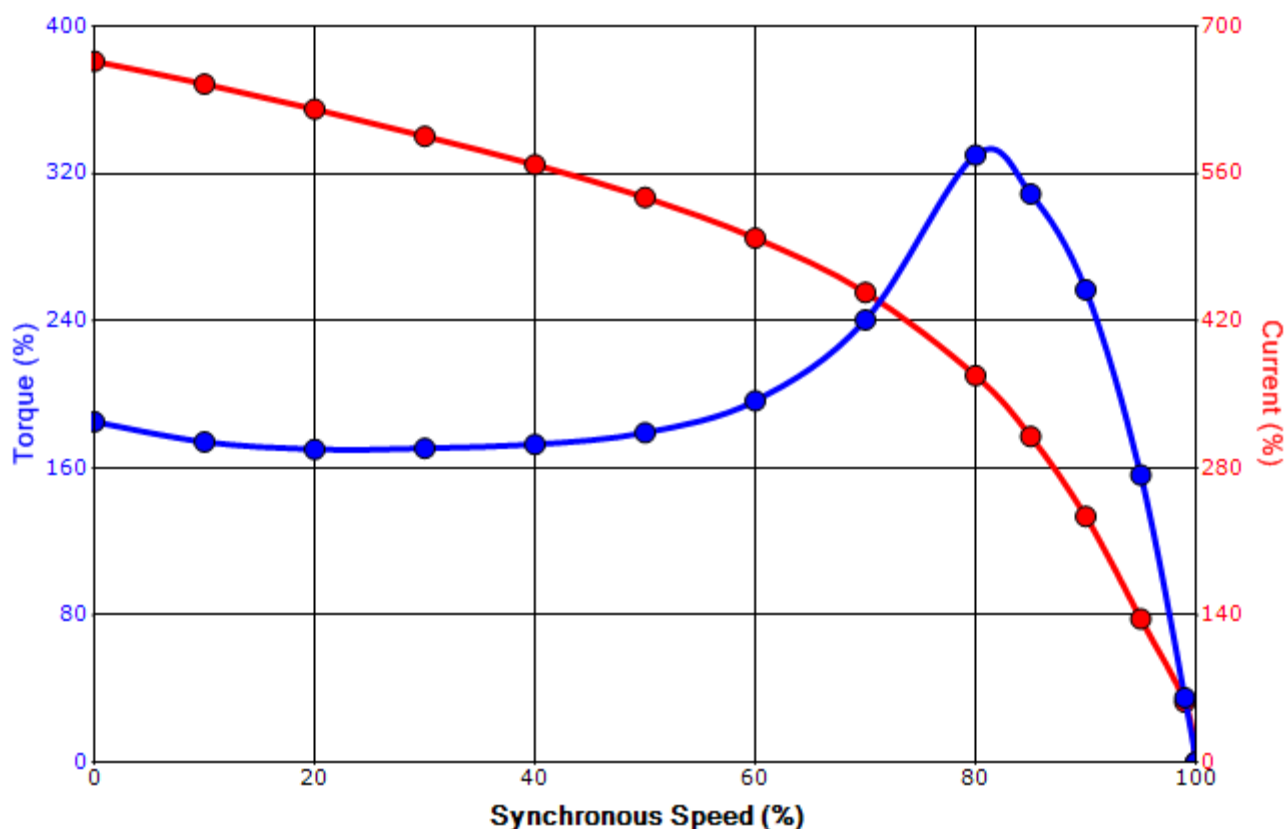
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|-------------|----------|------------------|-------------|-------------|---------------|
| Engineering | jhock    | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date  | 4/8/2014 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

## SPEED TORQUE/CURRENT CURVE

Model: 0056SDSR41A-P

| HP                | kW                                                  | Pole              | FL RPM           | Frame       | Voltage        | Hz             | Phase    | FL Amps      |
|-------------------|-----------------------------------------------------|-------------------|------------------|-------------|----------------|----------------|----------|--------------|
| 5                 | 3.7                                                 | 6                 | 1160             | 215T        | 230/460        | 60             | 3        | 14/7         |
| 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              | J        | 40 C         |
| Locked Rotor Amps | Rotor wk <sup>2</sup> Inertia (lb-ft <sup>2</sup> ) | Torque            |                  |             |                |                |          |              |
|                   |                                                     | Full Load (lb-ft) | Locked Rotor (%) | Pull Up (%) |                | Break Down (%) |          |              |
| 46.00             | 1.32                                                | 22.6              | 185              | 175         |                | 330            |          |              |

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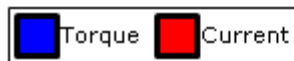
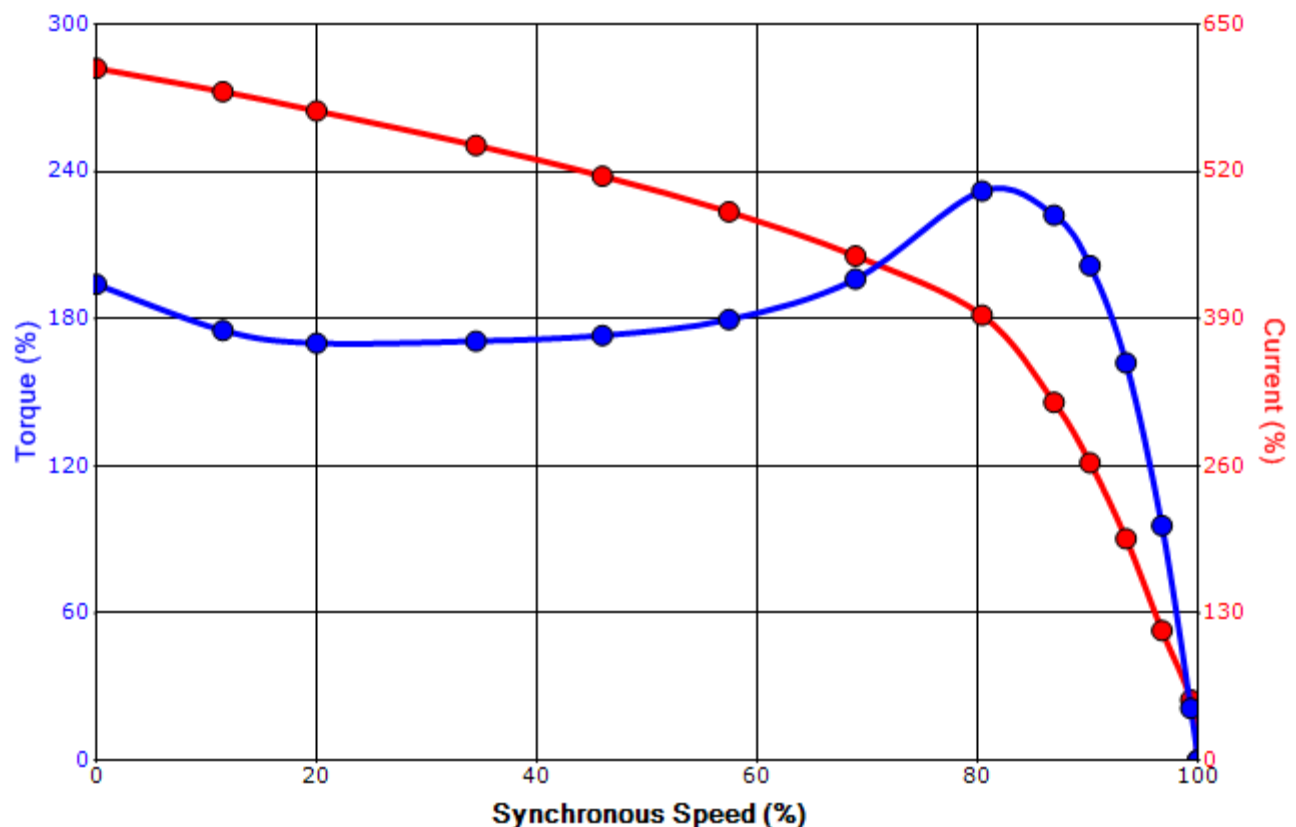
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|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | aacosta   | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1121 / 0 |
| Engr. Date  | 4/19/2012 | Doc. Approved By | M. Campbell | Doc.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

## SPEED TORQUE/CURRENT CURVE

Model: 0056SDSR41A-P

| HP                | kW                                                  | Pole              | FL RPM           | Frame       | Voltage        | Hz             | Phase    | FL Amps      |
|-------------------|-----------------------------------------------------|-------------------|------------------|-------------|----------------|----------------|----------|--------------|
| 5                 | 3.7                                                 | 6                 | 955              | 215T        | 190/380        | 50             | 3        | 18/9         |
| Enclosure         | IP                                                  | Ins. Class        | S.F.             | Duty        | NEMA Nom. Eff. | NEMA Design    | kVA Code | Ambient (°C) |
| TEFC              | 55                                                  | F                 | 1.0              | CONT        | 85.5           | B              | J        | 40 C         |
| Locked Rotor Amps | Rotor wk <sup>2</sup> Inertia (lb-ft <sup>2</sup> ) | Torque            |                  |             |                |                |          |              |
|                   |                                                     | Full Load (lb-ft) | Locked Rotor (%) | Pull Up (%) |                | Break Down (%) |          |              |
| 55.00             | 1.32                                                | 27.5              | 190              | 175         |                | 230            |          |              |

### 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.

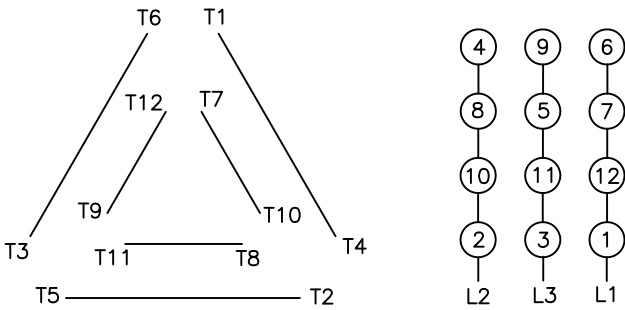
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|             |          |                  |             |             |               |
|-------------|----------|------------------|-------------|-------------|---------------|
| Engineering | jhock    | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1121 / 0 |
| Engr. Date  | 4/8/2014 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

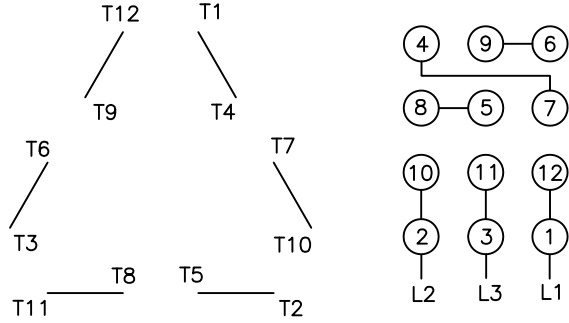
**Motor Connection Diagrams**  
12 Leads

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.