

UNITS: INCHES  
 ROTATION FROM ODE  
 CCW  CW

TOSHIBA RESERVES THE RIGHT TO MAKE CHANGES OF TECHNICAL IMPROVEMENT AND THE DATA MAY CHANGE WITHOUT NOTICE

PRELIMINARY

DD NOT USE FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS THE DRAWING IS MARKED AS CERTIFIED

CERTIFIED

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 0.1875X0.1875X1.378" (MOTOR SUPPLIED WITH KEY)

TOSHIBA  
 www.toshiba.com/tic  
**EQP Global**.sd  
 TOSHIBA INTERNATIONAL CORPORATION

TOTALLY ENCLOSED FAN COOLED  
 HORIZONTAL FOOT MOUNT  
 3 PHASE INDUCTION MOTOR  
 56-56H F1 ASSEMBLY

DRAWING #: 3HFN000510/MDSL V125-01  
 REV. DATE: 02/14/20 REV. #: 2 PER.: -  
 REV. DESCRIP.: Remove old rev & KEY dimensions

**TYPICAL MOTOR PERFORMANCE DATA**

Model: Y152SDSR41H-P

|           |     |            |        |       |                |             |          |              |
|-----------|-----|------------|--------|-------|----------------|-------------|----------|--------------|
| HP        | kW  | Pole       | FL RPM | Frame | Voltage        | Hz          | Phase    | FL Amps      |
| 1.50      | 1.1 | 2          | 3475   | 56    | 230/460        | 60          | 3        | 3.8/1.9      |
| Enclosure | IP  | Ins. Class | S.F.   | Duty  | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC      | 55  | F          | 1.15   | CONT  | 84.0           | B           |          | 40 C         |

|              |      |     |         |                |                  |
|--------------|------|-----|---------|----------------|------------------|
| Load         | HP   | kW  | Amperes | Efficiency (%) | Power Factor (%) |
| Full Load    | 1.50 | 1.1 | 1.9     | 87.0           | 83.8             |
| ¾ Load       | 1.12 | 0.8 | 1.5     | 86.2           | 77.6             |
| ½ Load       | 0.75 | 0.6 | 1.2     | 82.7           | 65.8             |
| ¼ Load       | 0.37 | 0.3 | 0.9     | 72.5           | 49.5             |
| No Load      |      |     | 0.8     |                |                  |
| Locked Rotor |      |     | 13.2    |                | 52.0             |

|                      |                         |                    |                       |   |
|----------------------|-------------------------|--------------------|-----------------------|---|
| 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) |   |
| 2.27                 | 230                     | 175                | 330                   | 0.05  |

|                    |     |                              |           |        |                               |
|--------------------|-----|------------------------------|-----------|--------|-------------------------------|
| Safe Stall Time(s) |     | Sound Pressure<br>dB(A) @ 1M | Bearings* |        | Approx. Motor Weight<br>(lbs) |
| Cold               | Hot |                              | DE        | NDE    |                               |
| 35                 | 15  |                              | 6305ZZ    | 6305ZZ | 50                            |

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

Motor Options:  
Mounting:Footed,Shaft:56

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

Tag:

All characteristics are average expected values.

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|             |           |                  |             |             |               |
|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | SPinzon   | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date  | 6/24/2022 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

**TYPICAL MOTOR PERFORMANCE DATA**

Model: Y152SDSR41H-P

| HP        | kW   | Pole       | FL RPM | Frame | Voltage        | Hz          | Phase    | FL Amps      |
|-----------|------|------------|--------|-------|----------------|-------------|----------|--------------|
| 1         | 0.75 | 2          | 2900   | 56    | 190/380        | 50          | 3        | 3.2/1.6      |
| Enclosure | IP   | Ins. Class | S.F.   | Duty  | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC      | 55   | F          | 1.0    | CONT  | 80.7           | -           |          | 40 C         |

| Load         | HP   | kW  | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|------|-----|---------|----------------|------------------|
| Full Load    | 1.00 | 0.7 | 1.6     | 85.4           | 80.7             |
| ¾ Load       | 0.75 | 0.6 | 1.3     | 83.8           | 73.5             |
| ½ Load       | 0.50 | 0.4 | 1.1     | 79.1           | 61.0             |
| ¼ Load       | 0.25 | 0.2 | 1.0     | 65.6           | 40.9             |
| No Load      |      |     | 0.8     |                |                  |
| Locked Rotor |      |     | 11.8    |                | 56.2             |

| 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) |   |
| 1.81                 | 275                     | 150                | 365                   | 0.05  |

| Safe Stall Time(s) |     | Sound Pressure<br>dB(A) @ 1M | Bearings* |        | Approx. Motor Weight<br>(lbs) |
|--------------------|-----|------------------------------|-----------|--------|-------------------------------|
| Cold               | Hot |                              | DE        | NDE    |                               |
| 35                 | 15  |                              | 6305ZZ    | 6305ZZ | 50                            |

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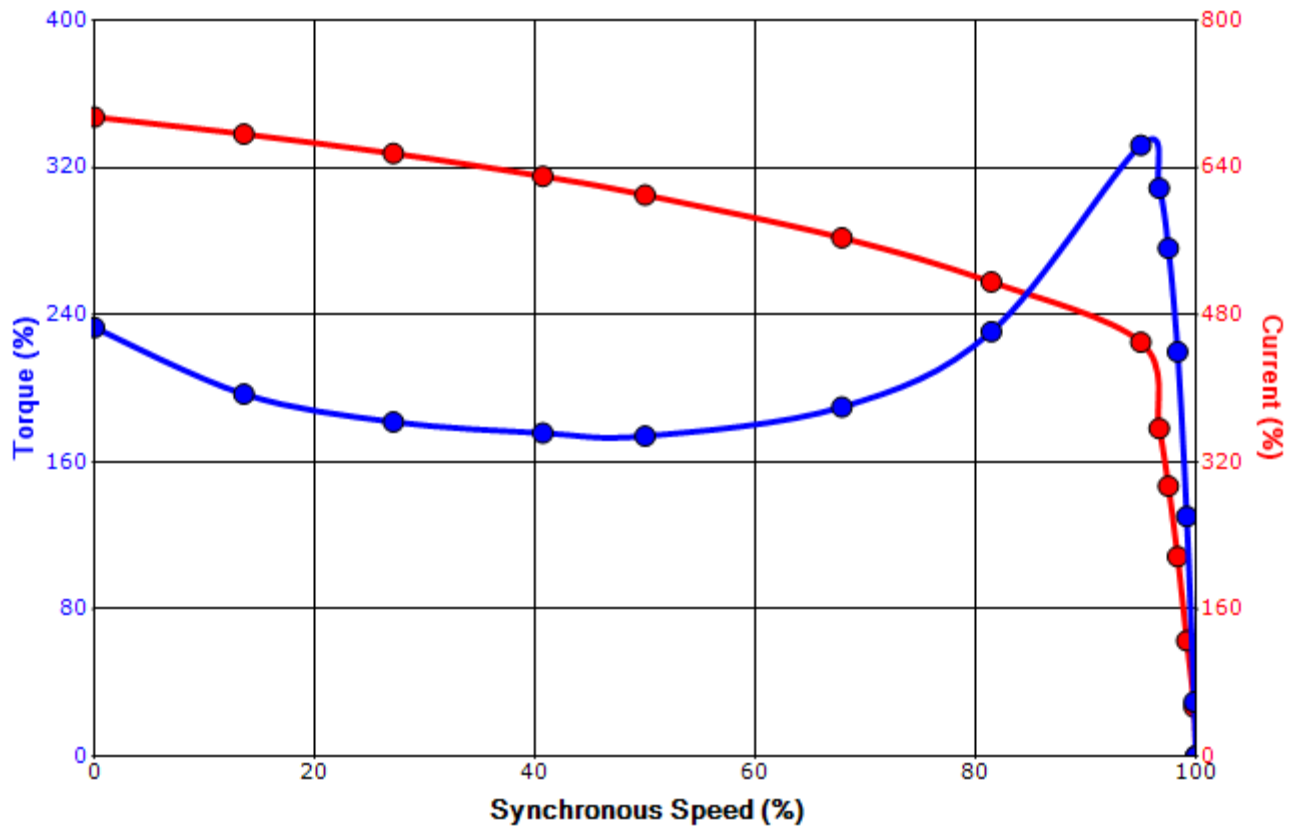
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### SPEED TORQUE/CURRENT CURVE

Model: Y152SDSR41H-P

|                   |   |                   |                  |             |                |             |          |                |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|----------------|
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| Enclosure         | IP  | Ins. Class        | S.F.             | Duty        | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C)   |
| TEFC              | 55  | F                 | 1.15             | CONT        | 84.0           | B           |          | 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 (%) |                |             |          |                |
| 13.2              | 0.05  | 2.27              | 230              | 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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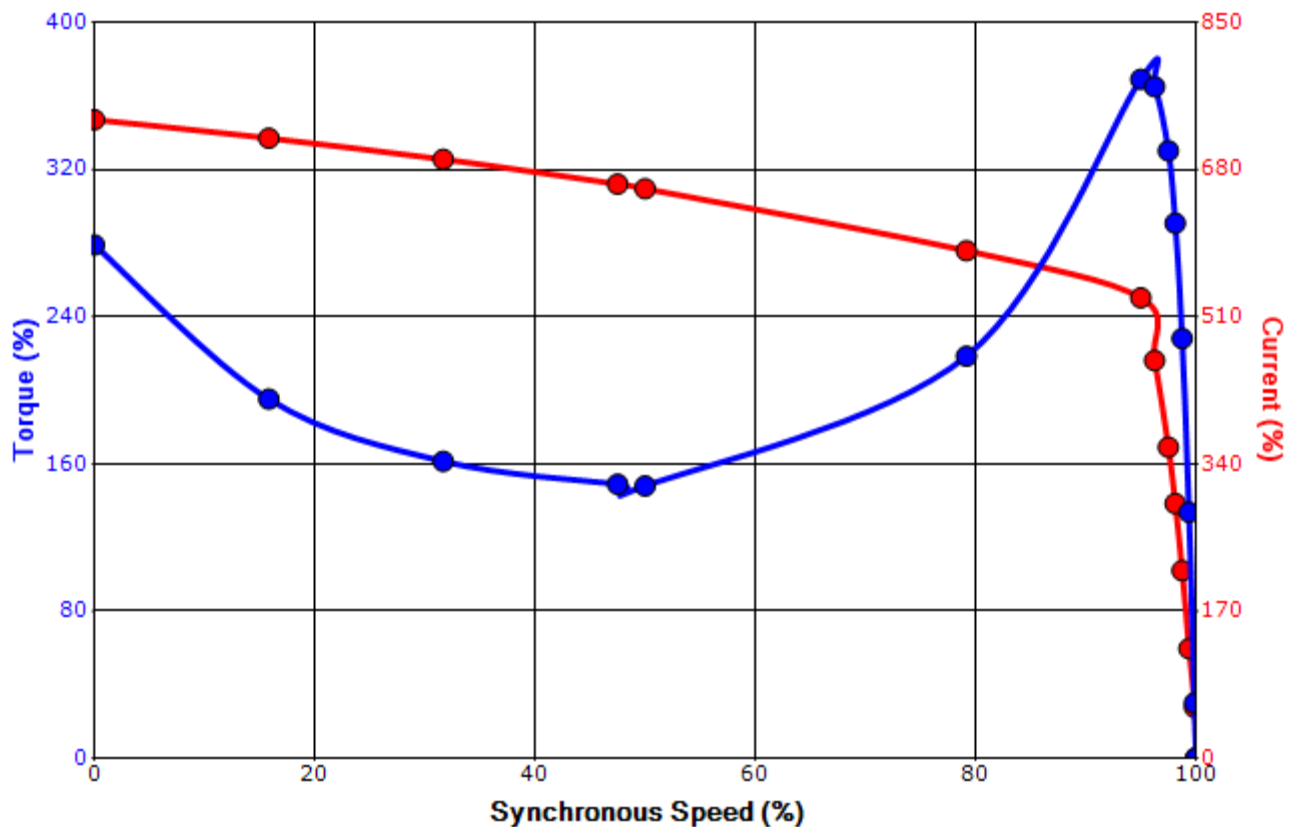
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|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | SPinzon   | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1121 / 0 |
| Engr. Date  | 6/24/2022 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

**SPEED TORQUE/CURRENT CURVE**

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|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|----------------|
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| TEFC              | 55  | F                 | 1.0              | CONT        | 80.7           | -           |          | 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 (%) |                |             |          |                |
| 11.8              | 0.05  | 1.81              | 275              | 150         |                |             | 365      |                |

**Design Values**



|             |  |  |     |
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| Customer PO |  | Load Type  | -   |
| Sales Order |  | Voltage (%)  | 100 |
| Project #   |  | Accel. Time  | -   |

Tag:

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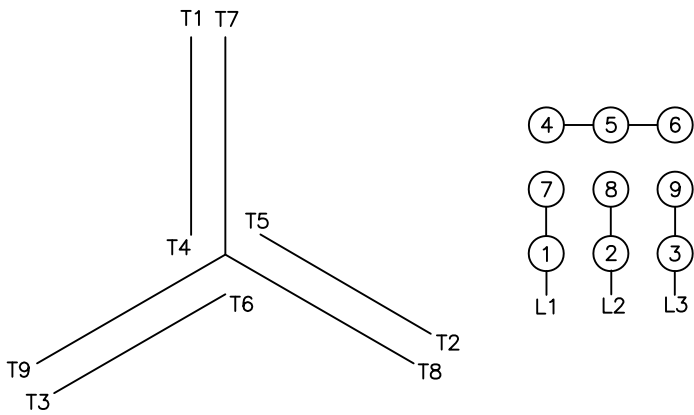
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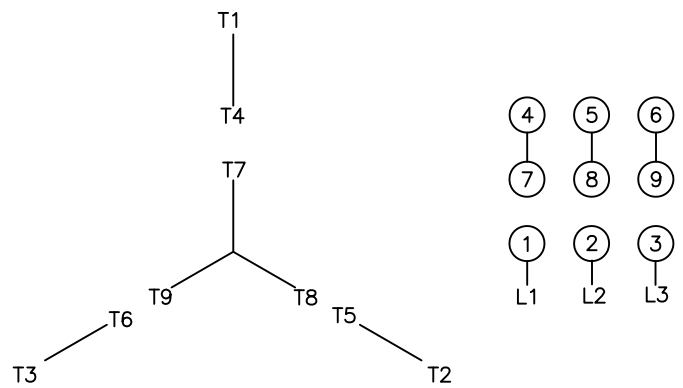
**Motor Connection Diagrams**  
9 Leads

Across-the-Line Starting / Running Connections

Low Voltage Wye



High Voltage Wye



Switch L1 and L2 to reverse rotation