

UNITS: INCHES

| FRAME SIZE | MOTOR DIMENSIONS |      |      |      |      |     |      |      |      |      |     |      |
|------------|------------------|------|------|------|------|-----|------|------|------|------|-----|------|
|            | A                | B    | C    | D    | G    | J   | K    | M    | O    | P    | T   | Z    |
| S586/7LQ   | 29.0             | 34.5 | 63.4 | 14.5 | 1.58 | 5.7 | 11.3 | 22.9 | 30.6 | 32.7 | 9.3 | 39.2 |
| S586/7L    | 29.0             | 34.5 | 63.4 | 14.5 | 1.58 | 5.7 | 11.3 | 22.9 | 30.6 | 32.7 | 9.3 | 39.2 |
| S586/7LS   | 29.0             | 34.5 | 60.0 | 14.5 | 1.58 | 5.7 | 11.3 | 22.9 | 30.6 | 32.7 | 9.3 | 39.2 |

| FRAME SIZE    | CONDUIT BOX |      |      |      |      |      |      |
|---------------|-------------|------|------|------|------|------|------|
|               | AA[NPT]     | AB   | AC   | AE   | AF   | XL   | XN   |
| S586/7LQ/L/LS | 3.00        | 36.2 | 27.5 | 26.1 | 1.97 | 23.5 | 18.9 |

| FRAME SIZE | MOUNTING |             |      |      | SHAFT EXTENSION |       |       | KEY SEAT |      |       | BEARINGS  |         |         | MAXIMUM WEIGHT |
|------------|----------|-------------|------|------|-----------------|-------|-------|----------|------|-------|-----------|---------|---------|----------------|
|            | E        | 2F          | H    | BA   | N-W             | V     | U     | R        | S    | ES    | LS ROLLER | LS BALL | OS BALL |                |
| S586/7LQ   | 11.5     | 22.00/25.00 | 1.19 | 10.0 | 11.625          | 11.56 | 4.375 | 3.817    | 1.00 | 10.00 | NU324C3   | 6324C3  | 6320C3  | 6000 lbs.      |
| S586/7L    | 11.5     | 22.00/25.00 | 1.19 | 10.0 | 11.625          | 11.56 | 3.875 | 3.309    | 1.00 | 10.00 | NU322C3   | 6322C3  | 6320C3  | 6000 lbs.      |
| S586/7LS   | 11.5     | 22.00/25.00 | 1.19 | 10.0 | 8.25            | 8.19  | 3.875 | 3.309    | 1.00 | 6.30  | NU322C3   | 6322C3  | 6320C3  | 6000 lbs.      |

- NOTES:
- DIMENSION V REPRESENTS LENGTH OF STRAIGHT PART OF SHAFT.
  - MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS.
  - "LQ" KEY DIMENSIONS EQUAL S x S x 10.00  
"L" KEY DIMENSIONS EQUAL S x S x 10.00  
"LS" KEY DIMENSIONS EQUAL S x S x 6.30  
(MOTOR SUPPLIED WITH KEY)
  - MOTOR WEIGHT SHOWN IS MAXIMUM HORSEPOWER IN FRAME.
  - THIS DIMENSION EQUALS 2F FOR 587 MOUNTING.
  - STANDARD PRODUCT USE BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE.
  - FRAME GROUND BOLT STANDARD.

CUSTOMER: \_\_\_\_\_ MOTOR MODEL NO.: \_\_\_\_\_

P.O. NO.: \_\_\_\_\_ HP: \_\_\_\_\_ VOLTAGE: \_\_\_\_\_ RPM(SYN.): \_\_\_\_\_ Hz: \_\_\_\_\_

FRAME SIZE: \_\_\_\_\_ PRODUCT TYPE: TEFC PREMIUM EFFICIENCY QUARRY DUTY

COMMENTS: \_\_\_\_\_

PER: \_\_\_\_\_ DATE: \_\_\_\_\_

TAG NO's: \_\_\_\_\_

|                                     |                          |
|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | STANDARD (NO AUX. BOXES) |
| <input type="checkbox"/>            | RTD AUX. BOX             |
| <input type="checkbox"/>            | SPACE HEATER AUX. BOX    |
| <input type="checkbox"/>            | BEARING RTD's            |

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**TOSHIBA**  
TOSHIBA INTERNATIONAL CORPORATION

TOTALLY-ENCLOSED FAN-COOLED  
HORIZONTAL FOOT-MOUNTED  
3 PHASE INDUCTION MOTOR  
F1 ASSEMBLY

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**TYPICAL MOTOR PERFORMANCE DATA**

Model: 3004QDSC41A-R

| HP        | kW  | Pole       | FL RPM | Frame  | Voltage        | Hz          | Phase    | FL Amps      |
|-----------|-----|------------|--------|--------|----------------|-------------|----------|--------------|
| 300       | 224 | 4          | 1790   | S587LQ | 575            | 60          | 3        | 275          |
| Enclosure | IP  | Ins. Class | S.F.   | Duty   | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC      | 54  | F          | 1.15   | CONT   | 96.2           | A           |          | 40 C         |

| Load         | HP     | kW    | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|--------|-------|---------|----------------|------------------|
| Full Load    | 300.00 | 223.7 | 274     | 95.7           | 85.4             |
| ¾ Load       | 225.00 | 167.8 | 215     | 94.7           | 82.6             |
| ½ Load       | 150.00 | 111.9 | 160     | 92.6           | 75.6             |
| ¼ Load       | 75.00  | 55.9  | 115     | 86.3           | 56.2             |
| No Load      |        |       | 91.5    |                | 4.5              |
| Locked Rotor |        |       | 1939    |                | 27.6             |

| 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) |   |
| 880                  | 205                     | 175                | 285                   | 188.47  |

| Safe Stall Time(s) |     | Sound Pressure<br>dB(A) @ 1M | Bearings* |        | Approx. Motor Weight<br>(lbs) |
|--------------------|-----|------------------------------|-----------|--------|-------------------------------|
| Cold               | Hot |                              | DE        | NDE    |                               |
| 21                 | 12  | 85                           | NU324C3   | 6320C3 |                               |

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

**Motor Options:**  
Product Family:Quarry  
Mounting:Footed,Shaft:"LQ" SHAFT  
Motor Specification:Quarry Duty

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

Tag:

All characteristics are average expected values.

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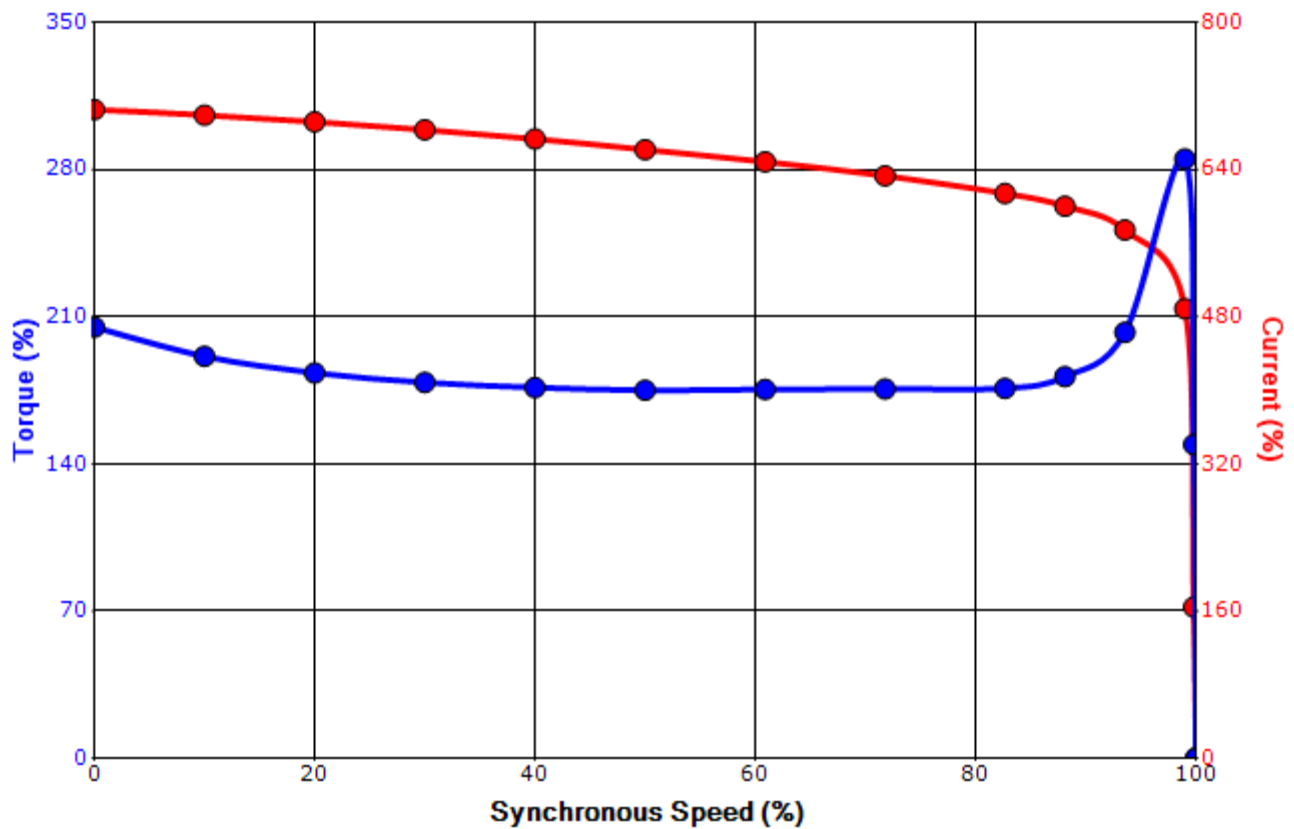
|             |            |                  |             |             |               |
|-------------|------------|------------------|-------------|-------------|---------------|
| Engineering | SSuryani   | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date  | 12/17/2019 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

**SPEED TORQUE/CURRENT CURVE**

Model: 3004QDSC41A-R

|                   |   |                   |                  |             |                |             |          |                |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|----------------|
| HP                | kW  | Pole              | FL RPM           | Frame       | Voltage        | Hz          | Phase    | FL Amps        |
| 300               | 224   | 4                 | 1790             | S587LQ      | 575            | 60          | 3        | 275            |
| Enclosure         | IP  | Ins. Class        | S.F.             | Duty        | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C)   |
| TEFC              | 54  | F                 | 1.15             | CONT        | 96.2           | A           |          | 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 (%) |                |             |          |                |
| 1939              | 188.47  | 880               | 205              | 175         |                |             | 285      |                |

**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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| Engr. Date  | 12/17/2019 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

# Motor Connection Diagram

## 12 Leads

### Single Voltage



Switch L1 and L2 to reverse rotation