

UNITS: INCHES

| FRAME SIZE  | MOTOR DIMENSIONS |            |      |      |      |      |      |       |       |       | CONDUIT BOX |        |         |         |      |      |     |     |
|-------------|------------------|------------|------|------|------|------|------|-------|-------|-------|-------------|--------|---------|---------|------|------|-----|-----|
|             | A                | B          | C    | D    | G    | J    | K    | M     | O     | P     | T           | AA     | AB      | AC      | AE   | AF   | XL  | XN  |
| 284TS/286TS | 13.1             | 13.4       | 26.5 | 7.00 | 0.7  | 2.4  | 0    | 10.1  | 13.9  | 14.3  | 2.4         | 1.50   | 12.2    | 9.8     | 7.00 | 2.8  | 7.0 | 6.1 |
| 284T/286T   | 13.1             | 13.4       | 27.8 | 7.00 | 0.7  | 2.4  | 0    | 10.1  | 13.9  | 14.3  | 2.4         | 1.50   | 12.2    | 9.8     | 7.00 | 2.8  | 7.0 | 6.1 |
| 284T/286T   | 5.50             | 9.50/11.00 | 0.56 | 4.75 | 4.75 | 4.62 | 4.38 | 1.875 | 1.591 | 0.500 | 3.25        | 6310C3 | 6310ZC3 | 6310ZC3 | 471  | lbs. |     |     |

CUSTOMER: \_\_\_\_\_ MOTOR MODEL NO.: \_\_\_\_\_ TAG NO's: \_\_\_\_\_

P.O. NO.: \_\_\_\_\_ HP: \_\_\_\_\_ VOLTAGE: \_\_\_\_\_ RPM(SYN.): \_\_\_\_\_ Hz: \_\_\_\_\_  
 FRAME SIZE: \_\_\_\_\_ PRODUCT TYPE: IEF3 EQP III, EPACK, & HIGH EFFICIENCY  
 COMMENTS: \_\_\_\_\_

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

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

- NOTES:
- DIMENSION V REPRESENTS LENGTH OF STRAIGHT PART OF SHAFT
  - MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS
  - KEY DIMENSIONS EQUAL S x S x 3.25 FOR T AND S x S x 1.87 FOR TS (MOTOR SUPPLIED WITH KEY)
  - MOTOR WEIGHT SHOWN IS MAXIMUM HORSEPOWER IN FRAME
  - THIS DIMENSION EQUALS 2F FOR 284T/TS MOUNTING
  - STANDARD PRODUCT USE BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE

STANDARD (NO AUX. BOXES)  
 RTD AUX. BOX  
 SPACE HEATER AUX. BOX  
 BEARING RTD's

**TOSHIBA**  
 TOSHIBA INTERNATIONAL CORPORATION

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

**XT SERIES**  
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**TYPICAL MOTOR PERFORMANCE DATA**

Model: B0302FLG3UMH02

|           |    |            |        |       |                |             |          |              |
|-----------|----|------------|--------|-------|----------------|-------------|----------|--------------|
| HP        | kW | Pole       | FL RPM | Frame | Voltage        | Hz          | Phase    | FL Amps      |
| 30        | 22 | 2          | 3524   | 286TS | 460            | 60          | 3        | 33           |
| Enclosure | IP | Ins. Class | S.F.   | Duty  | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC      | 44 | F          | 1.15   | CONT  | 92.4           | B           | G        | 40 C         |

|              |       |      |         |                |                  |
|--------------|-------|------|---------|----------------|------------------|
| Load         | HP    | kW   | Amperes | Efficiency (%) | Power Factor (%) |
| Full Load    | 30    | 22.4 | 33.0    | 92.4           | 93.5             |
| ¾ Load       | 22.50 | 16.8 | 24.6    | 93.1           | 92.8             |
| ½ Load       | 15.00 | 11.2 | 17.2    | 92.1           | 90.5             |
| ¼ Load       | 7.50  | 5.6  | 10.6    | 85.3           | 77.4             |
| No Load      |       |      | 6.0     |                | 10.7             |
| Locked Rotor |       |      | 217.00  |                | 45.9             |

|                   |                      |                 |                    |                               |
|-------------------|----------------------|-----------------|--------------------|-------------------------------|
| Torque            |                      |                 |                    | Rotor wk <sup>2</sup>         |
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | Inertia (lb-ft <sup>2</sup> ) |
| 44.7              | 295                  | 290             | 300                | 2.62                          |

|                    |     |                           |           |         |                            |
|--------------------|-----|---------------------------|-----------|---------|----------------------------|
| Safe Stall Time(s) |     | Sound Pressure dB(A) @ 1M | Bearings* |         | Approx. Motor Weight (lbs) |
| Cold               | Hot |                           | DE        | NDE     |                            |
| 13.6               | 8.8 | -                         | 6310C3    | 6309ZC3 |                            |

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

**Motor Options:**  
Product Family:EQPIII  
Mounting:Footed,Shaft:TS Shaft

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

Tag:

All characteristics are average expected values.

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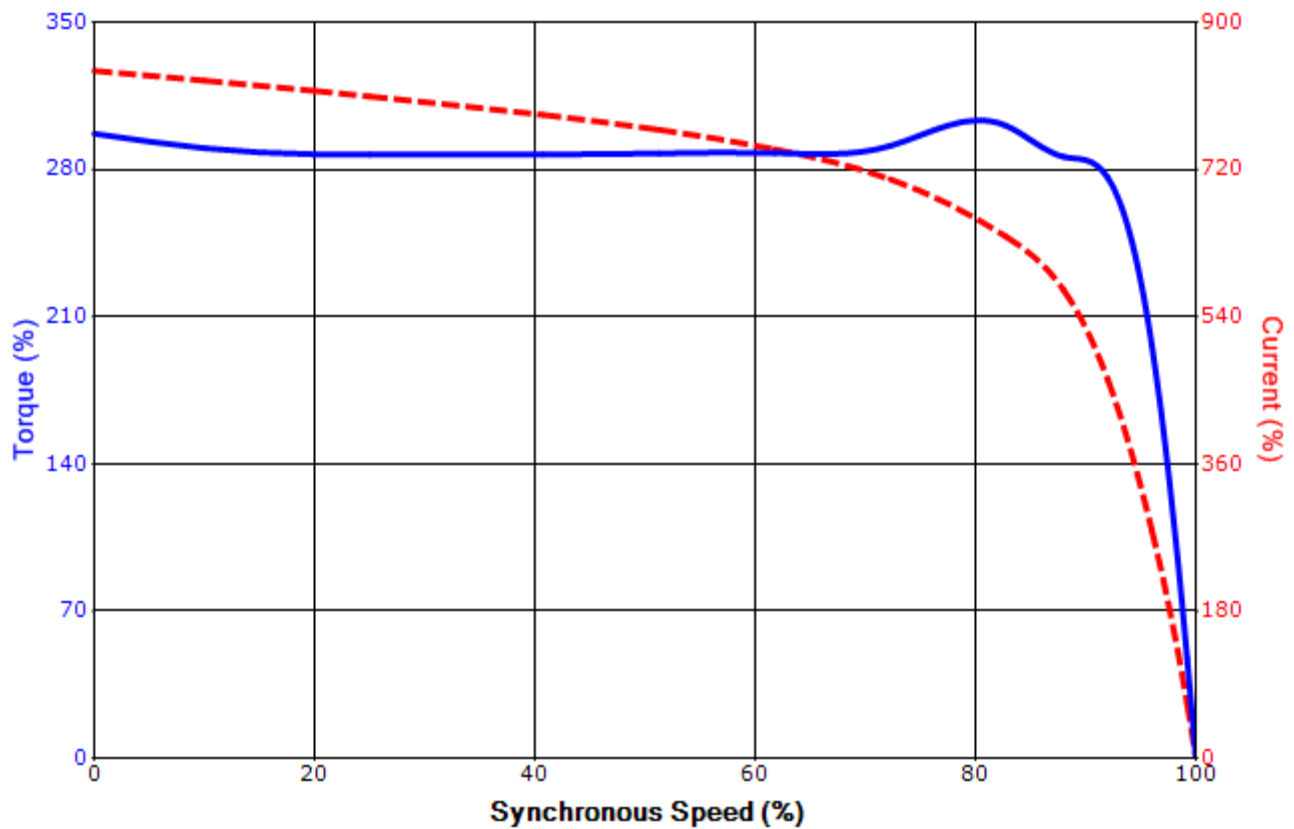
|             |           |                  |             |             |               |
|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | jaustin   | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date  | 6/27/2014 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

**SPEED TORQUE/CURRENT CURVE**

Model: B0302FLG3UMH02

|                   |   |                   |                  |             |                |             |          |                |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|----------------|
| HP                | kW  | Pole              | FL RPM           | Frame       | Voltage        | Hz          | Phase    | FL Amps        |
| 30                | 22  | 2                 | 3524             | 286TS       | 460            | 60          | 3        | 33             |
| Enclosure         | IP  | Ins. Class        | S.F.             | Duty        | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C)   |
| TEFC              | 44  | F                 | 1.15             | CONT        | 92.4           | B           | G        | 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 (%) |                |             |          |                |
| 217.00            | 2.62  | 44.7              | 295              | 290         |                |             | 300      |                |

**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 | jaustin   | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1121 / 0 |
| Engr. Date  | 6/27/2014 | 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.