

UNITS: INCHES

| FRAME SIZE | MOTOR DIMENSIONS |       |      |       |       |       |       |       |       |       | CONDUIT BOX     |                  |         |         |         |         |          |      |  |          |  |  |                |
|------------|------------------|-------|------|-------|-------|-------|-------|-------|-------|-------|-----------------|------------------|---------|---------|---------|---------|----------|------|--|----------|--|--|----------------|
|            | A                | B     | C    | D     | G     | J     | K     | M     | O     | P     | T               | MAXIMUM KEY SEAT | AB      | AC      | AE      | AF      | XL       | XN   |  |          |  |  |                |
| 5010USS    | 24.8             | 39.8  | 64.9 | 12.50 | 2.6   | 6.3   | 6.7   | 24.8  | 26.2  | 29.5  | 5.1             | 4.00             | 24.8    | 20.4    | 12.5    | 9.2     | 15.2     | 10.2 |  |          |  |  |                |
| 5010US     | 24.8             | 39.8  | 66.3 | 12.50 | 2.6   | 6.3   | 6.7   | 24.8  | 26.2  | 29.5  | 5.1             | 4.00             | 24.8    | 20.4    | 12.5    | 9.2     | 15.2     | 10.2 |  |          |  |  |                |
| 5010UZ     | 24.8             | 39.8  | 71.7 | 12.50 | 2.6   | 6.3   | 6.7   | 24.8  | 26.2  | 29.5  | 5.1             | 4.00             | 24.8    | 20.4    | 12.5    | 9.2     | 15.2     | 10.2 |  |          |  |  |                |
| FRAME SIZE | MOUNTING         |       |      |       |       |       |       |       |       |       | SHAFT EXTENSION |                  |         |         |         |         | KEY SEAT |      |  | BEARINGS |  |  | MAXIMUM WEIGHT |
| E          | ZF               | H     | BA   | N-W   | V     | U     | R     | S     | ES    | LS    | OS              |                  |         |         |         |         |          |      |  |          |  |  |                |
| 5010USS    | 10.00            | 32.00 | 1.2  | 8.50  | 4.75  | 4.50  | 2.375 | 2.021 | 0.625 | 3.00  | 6.313C3         | 6.313C3          | 6.313C3 | 6.320C3 | 6.320C3 | 6.320C3 | 4650     | lbs. |  |          |  |  |                |
| 5010US     | 10.00            | 32.00 | 1.2  | 8.50  | 6.25  | 6.19  | 3.625 | 3.134 | 0.875 | 5.00  | 6.320C3         | 6.320C3          | 6.320C3 | 6.320C3 | 6.320C3 | 6.320C3 |          |      |  |          |  |  |                |
| 5010UZ     | 10.00            | 32.00 | 1.2  | 8.50  | 11.62 | 11.38 | 4.375 | 3.817 | 1.000 | 10.00 | 6.324C3         | 6.324C3          | 6.320C3 | 6.320C3 | 6.320C3 | 6.320C3 |          |      |  |          |  |  |                |

TAG NO's: . . . . .

CUSTOMER: \_\_\_\_\_ MOTOR MODEL NO.: \_\_\_\_\_  
 P.O. NO.: \_\_\_\_\_ HP: \_\_\_\_\_ VOLTAGE: \_\_\_\_\_ RPM(SYN.): \_\_\_\_\_ HZ: \_\_\_\_\_  
 FRAME SIZE: \_\_\_\_\_ PRODUCT TYPE: IEF3 EQP III 840 & 841  
 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

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

- 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 10.00 FOR US, S x S x 5.00 FOR US, AND S x S x 3.00 FOR USS (MOTOR SUPPLIED WITH KEY)
  - MOTOR WEIGHT SHOWN IS MAXIMUM HORSEPOWER IN FRAME
  - STANDARD 4-8 POLE PRODUCT USES BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE
  - STANDARD 2 POLE PRODUCT USES UNI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY FAN AND CONNECTION CHANGE

**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: F4506FLG30MHD

|           |     |            |        |        |                |             |          |              |
|-----------|-----|------------|--------|--------|----------------|-------------|----------|--------------|
| HP        | kW  | Pole       | FL RPM | Frame  | Voltage        | Hz          | Phase    | FL Amps      |
| 450       | 336 | 6          | 1185   | 5810US | 575            | 60          | 3        | 426          |
| Enclosure | IP  | Ins. Class | S.F.   | Duty   | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEFC      | 54  | F          | 1.15   | CONT   | 95.4           | -           | G        | 40 C         |

|              |        |       |         |                |                  |
|--------------|--------|-------|---------|----------------|------------------|
| Load         | HP     | kW    | Amperes | Efficiency (%) | Power Factor (%) |
| Full Load    | 450    | 335.6 | 425.6   | 95.6           | 82.8             |
| ¾ Load       | 337.50 | 251.7 | 328.0   | 95.3           | 80.9             |
| ½ Load       | 225.00 | 167.8 | 239.3   | 94.3           | 74.7             |
| ¼ Load       | 112.50 | 83.9  | 148.2   | 91.1           | 62.4             |
| No Load      |        |       | 136.0   |                | 3.5              |
| Locked Rotor |        |       | 2575.00 |                | 25.8             |

|                   |                      |                 |                    |                               |
|-------------------|----------------------|-----------------|--------------------|-------------------------------|
| 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> ) |
| 1994              | 160                  | 120             | 210                | 386.77                        |

|                    |     |                           |           |        |                            |
|--------------------|-----|---------------------------|-----------|--------|----------------------------|
| Safe Stall Time(s) |     | Sound Pressure dB(A) @ 1M | Bearings* |        | Approx. Motor Weight (lbs) |
| Cold               | Hot |                           | DE        | NDE    |                            |
| 34                 | 12  | -                         | 6320C3    | 6320C3 |                            |

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

**Motor Options:**  
Product Family:EQPIII 840  
Mounting:Footed,Shaft:US Shaft

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

Tag:

All characteristics are average expected values.

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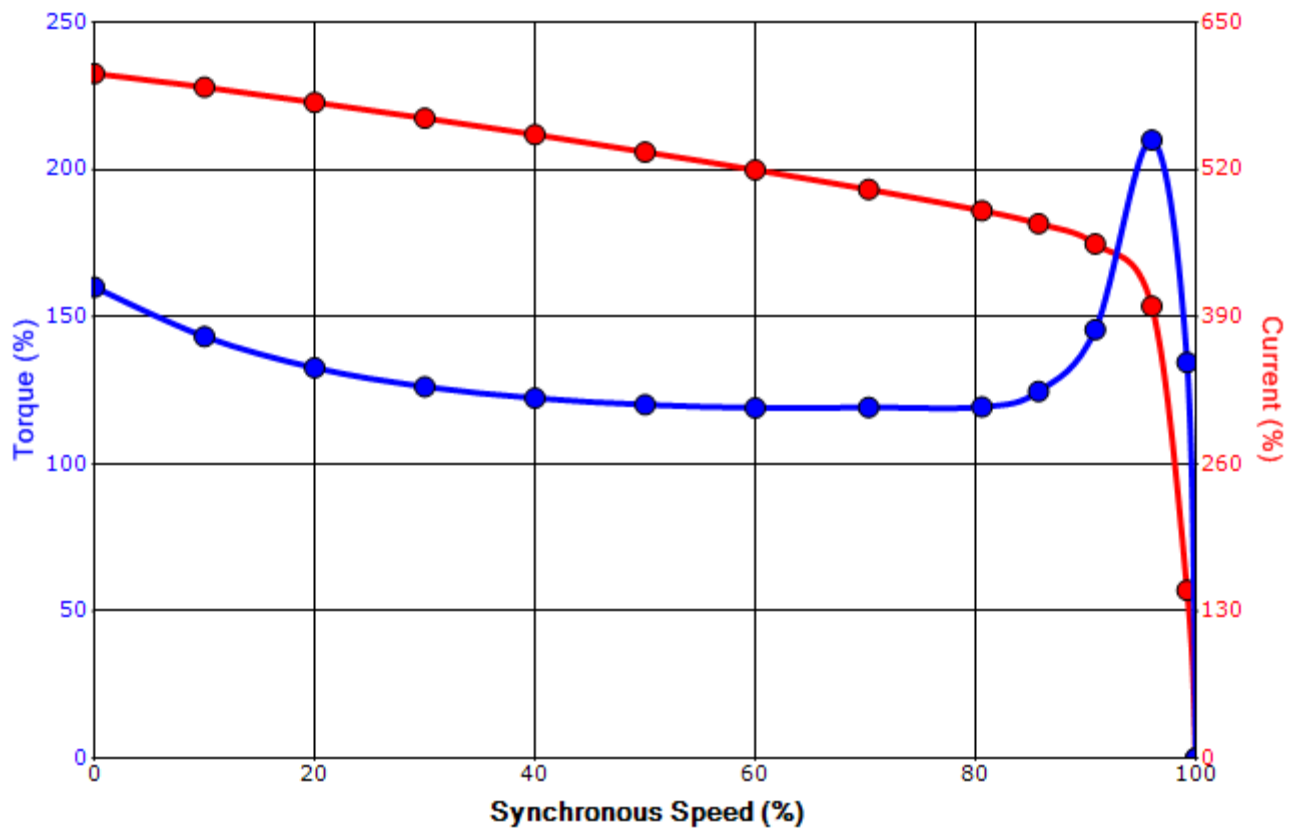
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|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | aacosta   | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date  | 4/30/2012 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

**SPEED TORQUE/CURRENT CURVE**

Model: F4506FLG30MHD

|                   |   |                   |                  |             |                |             |          |                |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|----------------|
| HP                | kW  | Pole              | FL RPM           | Frame       | Voltage        | Hz          | Phase    | FL Amps        |
| 450               | 336   | 6                 | 1185             | 5810US      | 575            | 60          | 3        | 426            |
| Enclosure         | IP  | Ins. Class        | S.F.             | Duty        | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C)   |
| TEFC              | 54  | F                 | 1.15             | CONT        | 95.4           | -           | 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 (%) |                |             |          |                |
| 2575.00           | 386.77  | 1994              | 160              | 120         |                |             | 210      |                |

**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:

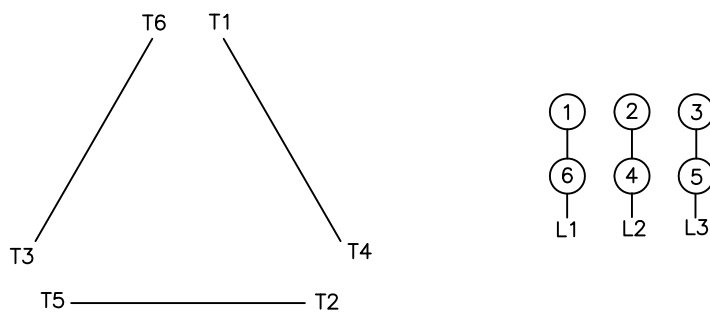
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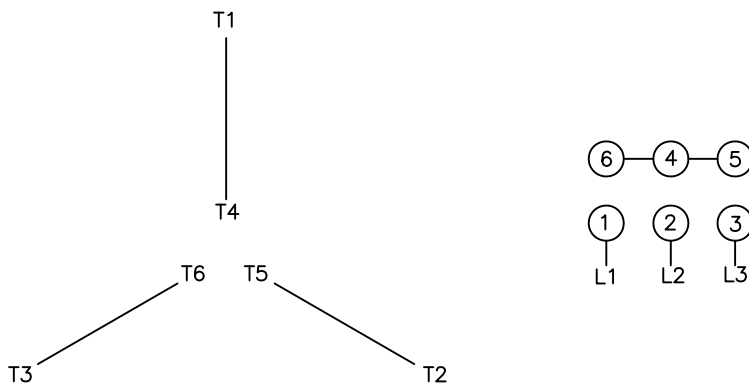
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|-------------|-----------|------------------|-------------|-------------|---------------|
| Engineering | aacosta   | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1121 / 0 |
| Engr. Date  | 4/30/2012 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

**Motor Connection Diagrams**  
6 Leads

Across the Line Starting / Run - Delta:



Alternate Starting Connection - Wye:



Switch L1 and L2 to reverse rotation