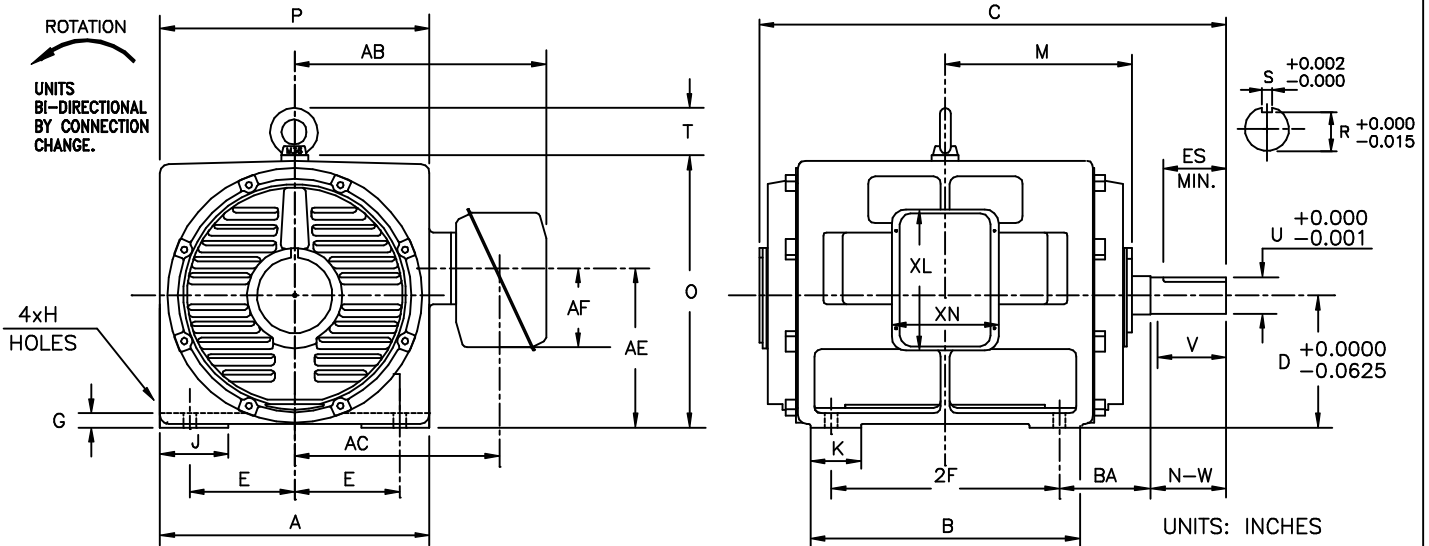


|            |             |
|------------|-------------|
| INDEX      | MDSL0081-08 |
| REV. LEVEL | 1           |
| SHEET      | 1 OF 1      |

TOSHIBA/HOUSTON

DRIP-PROOF  
HORIZONTAL FOOT-MOUNTED  
2300/4160V STOCK MOTORS

Fr. 587-5810  
6-8 POLE  
DIRECT COUPLE



| FRAME SIZE | MOUNTING |      |      |       | CONDUIT BOX |       |       |      |     |      |      |
|------------|----------|------|------|-------|-------------|-------|-------|------|-----|------|------|
|            | E        | 2F   | H    | BA    | AA          | AB    | AC    | AE   | AF  | XL   | XN   |
| 587US      | 11.50    | 25.0 | 1.38 | 10.00 | 4.00        | 27.56 | 22.44 | 17.5 | 8.7 | 15.5 | 11.7 |
| 5810US     | 11.50    | 36.0 | 1.38 | 10.00 | 4.00        | 27.56 | 22.44 | 17.5 | 8.7 | 15.5 | 11.7 |

| FRAME SIZE | MOTOR DIMENSIONS |       |       |       |      |      |      |       |       |       |      |
|------------|------------------|-------|-------|-------|------|------|------|-------|-------|-------|------|
|            | A                | B     | C     | D     | G    | J    | K    | M     | O     | P     | T    |
| 587US      | 29.52            | 29.52 | 51.16 | 14.50 | 1.57 | 7.48 | 5.51 | 20.47 | 29.84 | 29.52 | 5.18 |
| 5810US     | 29.52            | 40.55 | 61.98 | 14.50 | 1.57 | 7.48 | 9.84 | 25.79 | 29.84 | 29.52 | 5.18 |

| FRAME SIZE | SHAFT EXTENSION |      |       | KEY SEAT |       |       | BEARINGS |      | MAXIMUM WEIGHT |
|------------|-----------------|------|-------|----------|-------|-------|----------|------|----------------|
|            | N-W             | V    | U     | R        | S     | ES    | LS       | OS   |                |
| 587US      | 8.27            | 8.25 | 4.000 | 1.000    | 0.500 | 6.875 | 6322     | 6320 | lbs.           |
| 5810US     | 8.27            | 8.25 | 4.000 | 1.000    | 0.500 | 6.875 | 6322     | 6320 | lbs.           |

ALL DATA SUBJECT TO CHANGE WITHOUT NOTICE.  
FOR CONSTRUCTION USE ONLY CERTIFIED DATA.

FOR REFERENCE     PRELIMINARY     CERTIFIED

NOTES:

1. DIMENSION V REPRESENTS LENGTH OF STRAIGHT PART OF SHAFT.
2. CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS AND MAY BE MOUNTED ON OPPOSITE SIDE ON SPECIAL ORDER.
3. KEY DIMENSIONS EQUAL S x S x 3.00 (MOTOR SUPPLIED WITH KEY)
4. MOTOR WEIGHT SHOWN IS MAXIMUM HORSEPOWER IN FRAME.

CUSTOMER: \_\_\_\_\_ P.O. NO.: \_\_\_\_\_ TAG NO.: \_\_\_\_\_

MOTOR MODEL NO.: \_\_\_\_\_ TOSHIBA FILE NO.: \_\_\_\_\_

HP: \_\_\_\_\_ RPM (SYN.): \_\_\_\_\_ VOLTAGE: \_\_\_\_\_ Hz: \_\_\_\_\_

FRAME SIZE: \_\_\_\_\_ LOG NO.: \_\_\_\_\_ LOG REV. LEVEL: \_\_\_\_\_

REMARKS: \_\_\_\_\_

PER: \_\_\_\_\_ ISSUE DATE: \_\_\_\_\_ SUPERSEDES: \_\_\_\_\_

**TYPICAL MOTOR PERFORMANCE DATA**

Model: F8004VLF3JM

| HP        | kW  | Pole       | FL RPM | Frame  | Voltage        | Hz          | Phase    | FL Amps      |
|-----------|-----|------------|--------|--------|----------------|-------------|----------|--------------|
| 800       | 597 | 4          | 1800   | 5810US | 2300/4160      | 60          | 3        | 178/103      |
| Enclosure | IP  | Ins. Class | S.F.   | Duty   | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| ODP       | 12  | F          | 1.15   | CONT   | 93.6           | -           |          | 40 C         |

| Load         | HP     | kW    | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|--------|-------|---------|----------------|------------------|
| Full Load    | 800.00 | 596.6 | 103     | 94.2           | 89.0             |
| ¾ Load       | 600.00 | 447.4 | 76      | 94.6           | 88.5             |
| ½ Load       | 400.00 | 298.3 | 56      | 94.7           | 85.0             |
| ¼ Load       | 200.00 | 149.1 | 40      | 89.0           | 57.1             |
| No Load      |        |       | 23.3    |                | 5.3              |
| Locked Rotor |        |       | 563     |                | 1637.0           |

| 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> ) |
| 2334              | 110                  | 115             | 235                | 306.11                        |

| Safe Stall Time(s) |     | Sound Pressure dB(A) @ 1M | Bearings* |            | Approx. Motor Weight (lbs) |
|--------------------|-----|---------------------------|-----------|------------|----------------------------|
| Cold               | Hot |                           | DE        | NDE        |                            |
| 50                 | 15  | -                         | 6322C3    | 6320C3 INS | 4312                       |

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

**Motor Options:**  
Product Family:ODP  
Mounting:Footed,Shaft:US Shaft

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

Tag:

All characteristics are average expected values.

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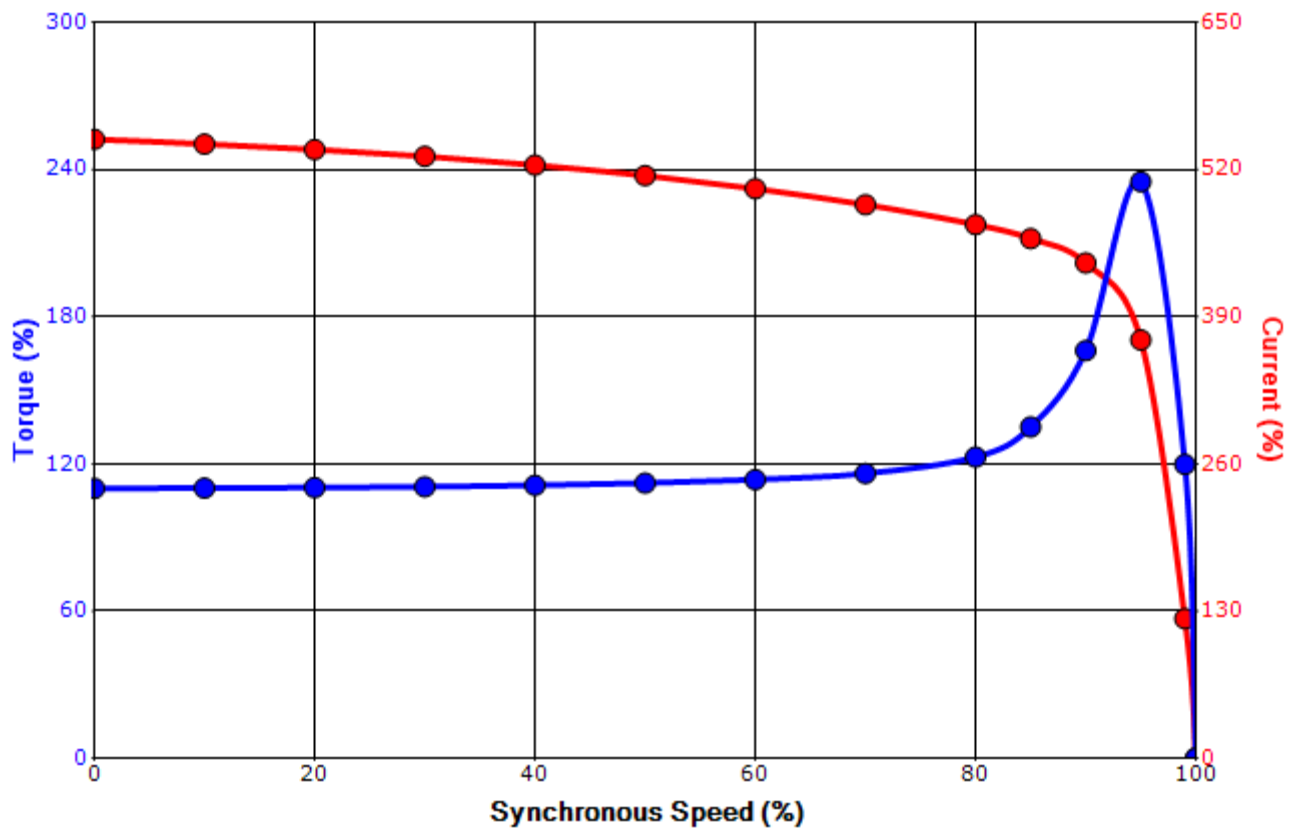
|             |          |                  |             |             |               |
|-------------|----------|------------------|-------------|-------------|---------------|
| Engineering | gminetos | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1119 / 0 |
| Engr. Date  | 8/7/2013 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

**SPEED TORQUE/CURRENT CURVE**

Model: F8004VLF3JM

|                   |   |                   |                  |             |                |             |          |              |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|--------------|
| HP                | kW  | Pole              | FL RPM           | Frame       | Voltage        | Hz          | Phase    | FL Amps      |
| 800               | 597   | 4                 | 1800             | 5810US      | 2300/4160      | 60          | 3        | 178/103      |
| Enclosure         | IP  | Ins. Class        | S.F.             | Duty        | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| ODP               | 12  | F                 | 1.15             | CONT        | 93.6           | -           |          | 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 (%) |             |          |              |
| 563               | 306.11  | 2334              | 110              | 115         | 235            |             |          |              |

**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.

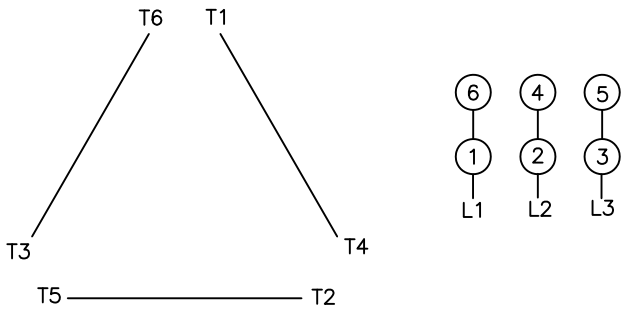
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|             |          |                  |             |             |               |
|-------------|----------|------------------|-------------|-------------|---------------|
| Engineering | gminetos | Doc. Written By  | D. Suarez   | Doc.# / Rev | MPCF-1121 / 0 |
| Engr. Date  | 8/7/2013 | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011      |

### Motor Connection Diagrams 6 Leads

#### Across-the-Line Starting / Running Connections

Low Voltage – Delta



High Voltage – Wye



Switch L1 and L2 to reverse rotation