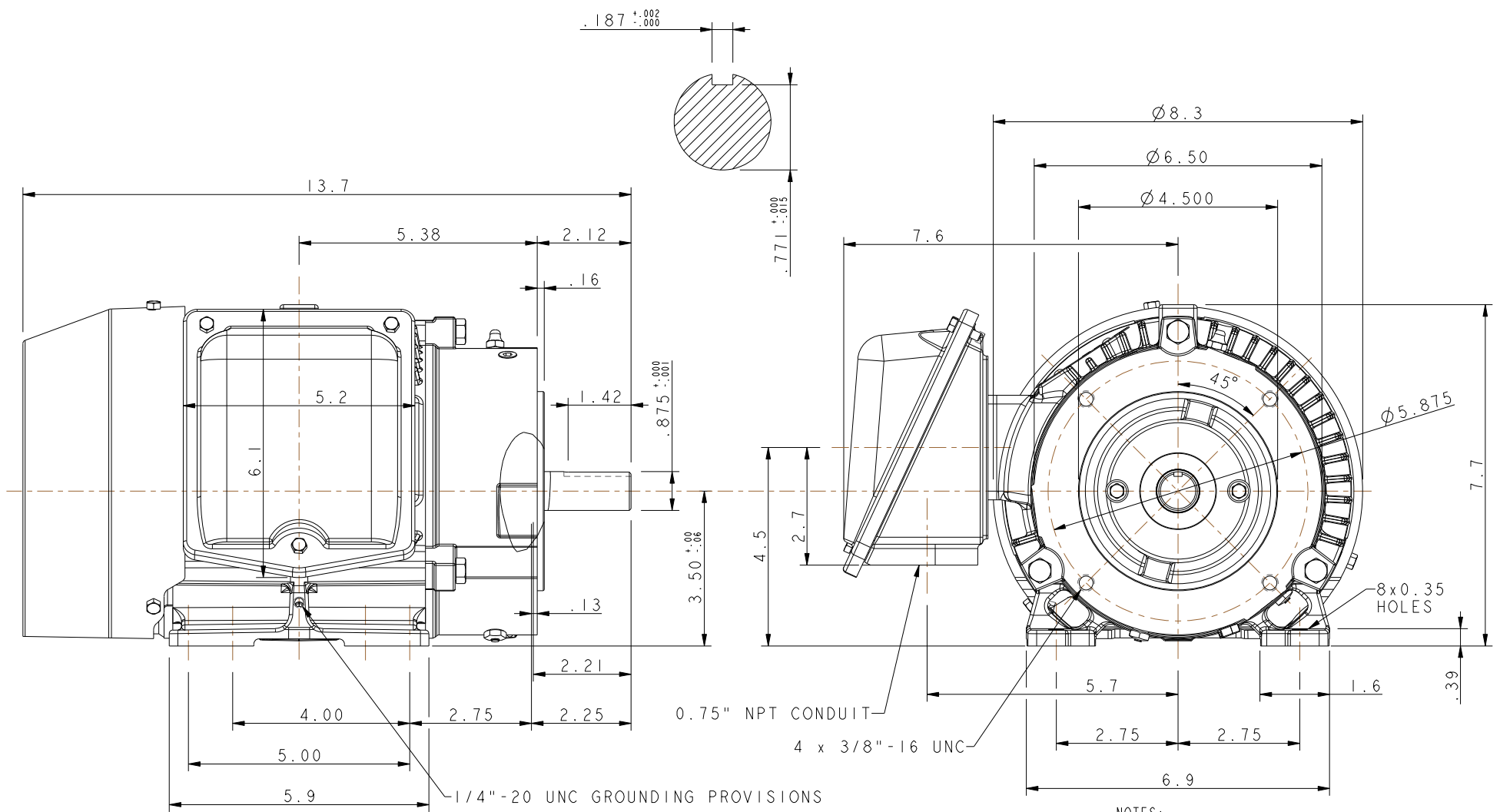




- NOTES:
1. MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS
  2. STANDARD PRODUCT USE BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE.
  3. KEY DIMENSIONS EQUAL 0.188" x 0.188" x 1.38" (MOTOR SUPPLIED WITH KEY)

UNITS: INCHES

TOSHIBA RESERVES THE RIGHT TO MAKE CHANGES OF TECHNICAL IMPROVEMENT WITHOUT NOTICE. DO NOT USE FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS THE DRAWING IS CERTIFIED.

# 140TC NEMA-BA TEFC FRAME F1 ASSEMBLY

MDSLVO89-01

# TOSHIBA

TOSHIBA INTERNATIONAL CORPORATION

## TOLERANCES

.X .1  
.XX .03  
.XXX .005  
.XXXX .0005

## MAXIMUM MOTOR WEIGHT

56 lbs.  
25 kgs.

1 ADDED KEY DIMENSIONS  
0 FIRST ISSUE

NO REVISION

S. CLANCY 08/07/12  
N. MOMIN 12/30/10

DRAWN BY DATE CHECK

**EQP**Global 841  
**XT SERIES**

DRAWN BY: N. MOMIN

CHECK BY:

APPROVED BY:

www.toshiba.com/ind

|                                                                                                                                                          |             |                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------|
| <b>TOSHIBA INTERNATIONAL CORPORATION</b><br>Industrial Division / Houston Motor Plant<br><br>SQUIRREL CAGE INDUCTION MOTOR<br>PERFORMANCE SPECIFICATIONS | INDEX       | MPCF-1033         |
|                                                                                                                                                          | SHEET NO.   | 1 of 1            |
|                                                                                                                                                          | ISSUED      | 11/08/96          |
|                                                                                                                                                          | SUPERSEDES  | 10/06/95          |
|                                                                                                                                                          | REVISION    | 1                 |
|                                                                                                                                                          | WRITTEN BY  | R. EVANS          |
|                                                                                                                                                          | APPROVED BY | <i>Jay Bugbee</i> |

Customer Tag:

CUSTOMER:

TIC SR No.:

Customer PO:

| MOTOR NAMEPLATE DATA            |                   |                       |    |                       |
|---------------------------------|-------------------|-----------------------|----|-----------------------|
| H.P.: <b>2</b>                  | VOLTS: <b>460</b> | 3 Ø / <b>60</b>       | Hz | S. RPM: <b>3600</b>   |
| FRAME: <b>145TC</b>             | ENCL: <b>TEFC</b> | FLAMPS: <b>2.6</b>    |    | FLRPM: <b>3490</b>    |
| FORM: <b>FCKL1</b>              | S.F.: <b>1.15</b> | NEMA DESIGN: <b>B</b> |    | INSUL CLASS: <b>F</b> |
| TYPE: <b>IKH</b>                | AMB.: <b>40C</b>  | CODE: <b>L</b>        |    | DUTY: <b>CONT.</b>    |
| MODEL No.: <b>0022XDSB47A-P</b> |                   | kW: <b>1.5</b>        |    | Serial No.:           |
| NOM. EFF.: <b>85.5</b>          | MIN. EFF.:        | P.F.: <b>83.5</b>     |    |                       |

|                           |                                |                                   |
|---------------------------|--------------------------------|-----------------------------------|
| <b>AMPERAGE</b>           | <b>TORQUES</b>                 | <b>** BEARINGS:</b>               |
| Locked Rotor: <b>23.5</b> | FULL LOAD (lb-ft.): <b>3.0</b> | Drive End: <b>6305C3</b>          |
|                           | LOCKED ROTOR (%): <b>275</b>   | Opposite Drive End: <b>6305C3</b> |
|                           | BREAK DOWN (%): <b>363</b>     |                                   |

|                        |                         |
|------------------------|-------------------------|
| <b>EFFICIENCY (%)</b>  | <b>POWER FACTOR (%)</b> |
| FULL LOAD: <b>85.6</b> | FULL LOAD: <b>84.4</b>  |
| 3/4 LOAD: <b>84.9</b>  | 3/4 LOAD: <b>79.8</b>   |
| 1/2 LOAD: <b>82.2</b>  | 1/2 LOAD: <b>69.5</b>   |

|                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALL CHARACTERISTICS ARE AVERAGE EXPECTED VALUES BASED UPON RATED VOLTAGE,<br>FREQUENCY AND SINEWAVE POWER INPUT.<br><br>* TEMPERATURE RISE WILL BE CONSISTENT WITH INSULATION, AMBIENT AND SERVICE FACTOR AS<br>DEFINED BY NEMA-MG-12.43 OR -20.40.<br><br>** BEARINGS ARE THE ONLY RECOMMENDED SPARE PART(S). |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**CERTIFIED BY:**  
**DATE:**

|                                                                                                                                                          |             |                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------|
| <b>TOSHIBA INTERNATIONAL CORPORATION</b><br>Industrial Division / Houston Motor Plant<br><br>SQUIRREL CAGE INDUCTION MOTOR<br>PERFORMANCE SPECIFICATIONS | INDEX       | MPCF-1033         |
|                                                                                                                                                          | SHEET NO.   | 1 of 1            |
|                                                                                                                                                          | ISSUED      | 11/08/96          |
|                                                                                                                                                          | SUPERSEDES  | 10/06/95          |
|                                                                                                                                                          | REVISION    | 1                 |
|                                                                                                                                                          | WRITTEN BY  | R. EVANS          |
|                                                                                                                                                          | APPROVED BY | <i>Jay Bugbee</i> |

Customer Tag:

CUSTOMER:

TIC SR No.:

Customer PO:

| MOTOR NAMEPLATE DATA            |                   |                   |    |                       |
|---------------------------------|-------------------|-------------------|----|-----------------------|
| H.P.: <b>2</b>                  | VOLTS: <b>380</b> | 3 Ø / <b>50</b>   | Hz | S. RPM: <b>3000</b>   |
| FRAME: <b>145TC</b>             | ENCL: <b>TEFC</b> | FLAMPS:           |    | FLRPM: <b>2840</b>    |
| FORM: <b>FCKL1</b>              | S.F.: <b>1</b>    | NEMA DESIGN:      |    | INSUL CLASS: <b>F</b> |
| TYPE: <b>IKH</b>                | AMB.: <b>40C</b>  | CODE: <b>L</b>    |    | DUTY: <b>CONT.</b>    |
| MODEL No.: <b>0022XDSB47A-P</b> |                   | kW: <b>1.5</b>    |    | Serial No.:           |
| NOM. EFF.: <b>80</b>            | MIN. EFF.:        | P.F.: <b>88.0</b> |    |                       |

|                 |                                |                                   |
|-----------------|--------------------------------|-----------------------------------|
|                 |                                |                                   |
| <b>AMPERAGE</b> | <b>TORQUES</b>                 | <b>** BEARINGS:</b>               |
| Locked Rotor:   | FULL LOAD (lb-ft.): <b>0.0</b> | Drive End: <b>6305C3</b>          |
|                 | LOCKED ROTOR (%):              | Opposite Drive End: <b>6305C3</b> |
|                 | BREAK DOWN (%):                |                                   |

|                        |                         |
|------------------------|-------------------------|
|                        |                         |
| <b>EFFICIENCY (%)</b>  | <b>POWER FACTOR (%)</b> |
| FULL LOAD: <b>84.0</b> | FULL LOAD: <b>84.5</b>  |
| 3/4 LOAD: <b>85.4</b>  | 3/4 LOAD: <b>79.6</b>   |
| 1/2 LOAD: <b>84.9</b>  | 1/2 LOAD: <b>69.3</b>   |

|                                                                                                                             |  |
|-----------------------------------------------------------------------------------------------------------------------------|--|
|                                                                                                                             |  |
| ALL CHARACTERISTICS ARE AVERAGE EXPECTED VALUES BASED UPON RATED VOLTAGE,<br>FREQUENCY AND SINEWAVE POWER INPUT.            |  |
| * TEMPERATURE RISE WILL BE CONSISTENT WITH INSULATION, AMBIENT AND SERVICE FACTOR AS<br>DEFINED BY NEMA-MG-12.43 OR -20.40. |  |
| ** BEARINGS ARE THE ONLY RECOMMENDED SPARE PART(S).                                                                         |  |

**CERTIFIED BY:**  
**DATE:**

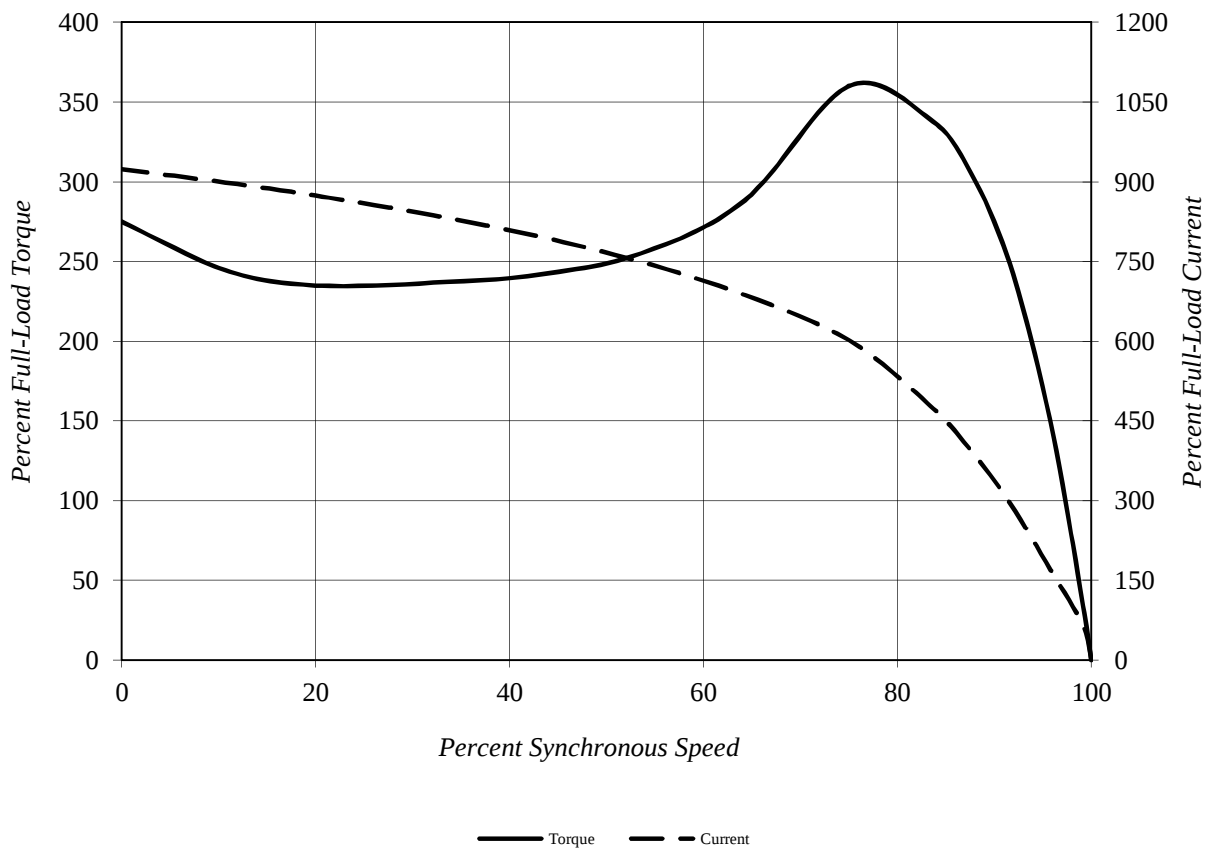
# **TOSHIBA INTERNATIONAL CORPORATION**

## **Speed Torque/Current Curve**

|                   |               |                       |                         |                    |             |
|-------------------|---------------|-----------------------|-------------------------|--------------------|-------------|
| <b>Model #:</b>   | 0022XDSB47A-P |                       |                         | <b>FLAmps:</b>     | 2.6         |
| <b>Enclosure:</b> | TEFC          | <b>Voltage:</b>       | 460 V                   | <b>Frame:</b>      | 145TC       |
| <b>Pole:</b>      | 2             | <b>Frequency:</b>     | 3 PH / 60 Hz            | <b>Ins. Class:</b> | F           |
| <b>HP:</b>        | 2             | <b>Rotor Inertia:</b> | 0.06 lb-ft <sup>2</sup> | <b>Date:</b>       | 28-Jul-2011 |
| <b>FLRPM:</b>     | 3490          | <b>Load Inertia:</b>  | N/A                     | <b>File:</b>       | KH2002      |

|                             |         |                     |     |
|-----------------------------|---------|---------------------|-----|
| <b>Locked Rotor Amps:</b>   | 24      | <b>Load Type:</b>   | N/A |
| <b>Locked Rotor Torque:</b> | 275%    | <b>Starting at:</b> | N/A |
| <b>Breakdown Torque:</b>    | 360%    | <b>Accel. Time:</b> | N/A |
| <b>Rated Torque:</b>        | 3 lb-ft |                     |     |

### *Design Values*



Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

D.E.Curve #: \_\_\_\_\_

Prepared by: Van Truong

Checked by:

# **TOSHIBA**

Reliability in Motion

## **TOSHIBA INTERNATIONAL CORPORATION**

INDUSTRIAL DIVISION

PO BOX 40906

HOUSTON TX 77240

(713) 466-0277

(800) 231-1412

FAX (713) 466-8773

### **SPARE PARTS (RECOMMENDED)**

OTHER THAN THE GREASE USED FOR RE-GREASABLE BEARINGS, **TOSHIBA** ADVISES THAT THERE ARE NO "USE" PARTS. THE ONLY INSURANCE SPARES THAT **TOSHIBA** SUGGESTS FOR THESE SQUIRREL CAGE INDUCTION MOTORS ARE INDUSTRY STANDARD, AND COMMERCIALY AVAILABLE ANTI-FRICTION BEARINGS, AS NOTED BELOW.

MOTOR COMPONENTS (SUCH AS TERMINAL BOXES, FAN COVERS, MACHINED PARTS) ARE AVAILABLE UPON SPECIAL REQUEST. IN THIS CASE, PLEASE ADVISE OUR ORDER ENTRY DEPARTMENT THE MODEL AND SERIAL NUMBERS (FOUND ON THE MOTOR NAMEPLATE) , AND A DESCRIPTION OF THE COMPONENT REQUIRED. THEY WILL THEN FURNISH THE CURRENT PART NUMBER, PRICE AND AVAILABILITY.

(NOTE: OUR INTERNAL PART NUMBERS ARE SUBJECT TO CHANGE WITHOUT NOTICE, AND ARE NOT PUBLISHED).

PLEASE ADVISE IF YOU HAVE ANY QUESTIONS.

CUSTOMER:

PURCHASE ORDER #

Customer Tag:

TOSHIBA FILE #

MODEL # **0022XDSB47A-P**

HP / RPM / ENCL / FRAME: **2** / **3600** / **TEFC** / **145TC**

DRIVE END BEARING: **6305C3**

OPPOSITE DRIVE END BEARING: **6305C3**

Prepared By:

Date:

## Motor Connection Diagram

### 3 Leads - Wye Connection



Switch L1 and L2 to reverse rotation

Each lead may consist of more than one cable.  
If multiple cables represent a single lead, each one  
of them will be labeled with the appropriate lead number.