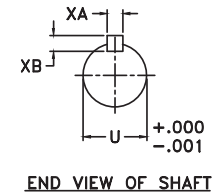
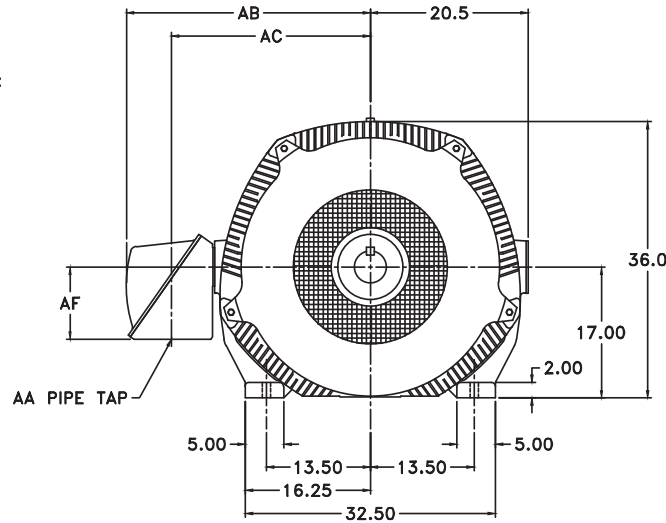
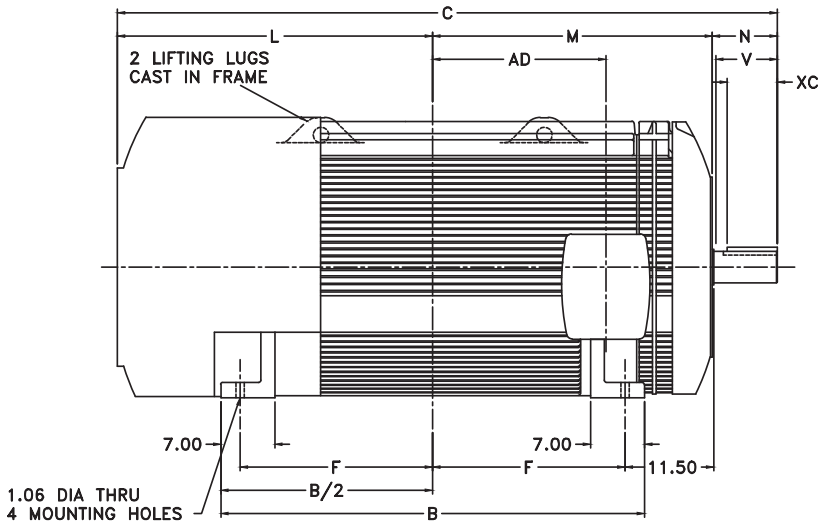


TYPE HS SQUIRREL CAGE INDUCTION MOTOR ENCLOSURE - TOTALLY ENCLOSED FAN COOLED AND EXPLOSION PROOF BEARING - ANTI-FRICTION AND SOLID SLEEVE

- NOTES**
 A- THIS DRAWING IS NOT TO BE REGARDED AS INDICATING EXACT DETAILS OF CONSTRUCTION. IT IS PROPERLY DIMENSIONED FOR ERECTION PURPOSES ONLY.
 B- AIR INLET OPENINGS ARE ON BOTH ENDS OF MOTOR. WHEN INSTALLING MOTOR, AVOID LOCATING MOTOR SO THAT ADJACENT STRUCTURES ARE CLOSER THAN 12 INCHES TO MOTOR ENDS. ALSO THAT NO ADJACENT STRUCTURE CAUSES EXHAUST AIR TO BE DIRECTED INTO INLET OPENINGS.
 C- MOUNTING BOLTS, DOWELS AND COUPLING NOT SUPPLIED BY TOSHIBA UNLESS SPECIFICALLY ORDERED.
 D- EACH FOOT MUST BE MOUNTED ON A BASE EQUAL TO OR LARGER THAN THE PAD AREA.
 E- SLEEVE BEARINGS HAVE 0.50 MINIMUM ENDPLAY. COUPLING ENDFLOAT SHOULD BE 0.19 MAXIMUM WITH ROTOR LOCATED ON MECHANICAL CENTERLINE.
 F- FOR MOUNTING OF MOTOR USE .875-9 THD/INCH HOLD DOWN BOLTS.
 G- NON DRIVE END BEARING INSULATED.
 DEVICES



| FRAME SIZE | REAR SHAFT EXTENSION | | | | | | | RECOMMENDED COUPLING BORE | | APPROX WEIGHT | | | | | |
|------------|----------------------|----------|-------|------|------|------|------|---------------------------|-------|---------------|-------|-------|--------|--------|-------|
| | U | KEY SIZE | | | N | V | B | C | F | | L | M | AD | MIN. | MAX. |
| | | XA | XB | XC | | | | | | | | | | | |
| 6809H | 2.875 | .750 | .750 | 4.00 | 5.94 | 5.50 | 45.0 | 73.20 | 20.00 | 35.94 | 31.32 | 17.50 | 2.8730 | 2.8740 | 9400 |
| 6809L | 4.125 | 1.000 | 1.000 | 6.50 | 8.44 | 8.00 | 45.0 | 75.70 | 20.00 | 35.94 | 31.32 | 17.50 | 4.1215 | 4.1230 | 10090 |
| 6810H | 2.875 | .750 | .750 | 4.00 | 5.94 | 5.50 | 50.0 | 78.20 | 22.50 | 38.44 | 33.82 | 20.00 | 2.8730 | 2.8740 | 10430 |
| 6810L | 4.125 | 1.000 | 1.000 | 6.50 | 8.44 | 8.00 | 50.0 | 80.70 | 22.50 | 38.44 | 33.82 | 20.00 | 4.1215 | 4.1230 | 11230 |
| 6811H | 2.875 | .750 | .750 | 4.00 | 5.94 | 5.50 | 55.0 | 83.20 | 25.00 | 40.94 | 36.32 | 22.50 | 2.8730 | 2.8740 | 11610 |
| 6811L | 4.125 | 1.000 | 1.000 | 6.50 | 8.44 | 8.00 | 55.0 | 85.70 | 25.00 | 40.94 | 36.32 | 22.50 | 4.1215 | 4.1230 | 12350 |

| CONDUIT BOX | | | | | | | |
|-----------------------|-------|-------|------|-----------------|-------|-------|-------|
| FAN COOLED - STANDARD | | | | EXPLOSION PROOF | | | |
| AA | AB | AC | AF | AA | AB | AC | AF |
| 3.00 | 31.68 | 25.81 | 9.38 | 3.00 | 35.00 | 26.50 | 13.00 |

THESE DRAWINGS ARE PREPARED IN ACCORDANCE WITH THE NORMAL AND ACCEPTED STANDARDS WITHIN THE ELECTRICAL INDUSTRY FOR THE PURPOSE OF OBTAINING CUSTOMER APPROVAL AS PART OF THE MANUFACTURING OR PRODUCTION PROCESS. ANY USE OR COMPARISON OF THE DIMENSIONS BY THE CUSTOMER (OTHER THAN FOR GRANTING APPROVAL) SHALL BE THE SOLE RESPONSIBILITY OF THE CUSTOMER.

THESE DRAWINGS ARE PREPARED IN ACCORDANCE WITH THE NORMAL AND ACCEPTED STANDARDS WITHIN THE ELECTRICAL INDUSTRY FOR THE PURPOSE OF OBTAINING CUSTOMER APPROVAL AS PART OF THE MANUFACTURING OR PRODUCTION PROCESS. ANY USE OR COMPARISON OF THE DIMENSIONS BY THE CUSTOMER (OTHER THAN FOR GRANTING APPROVAL) SHALL BE THE SOLE RESPONSIBILITY OF THE CUSTOMER.

TOSHIBA

TITLE: TYPE HS MOTOR FRAME 6800
 OUTLINE - TEFC/TEXP ENCLOSURE

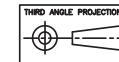
SCALE: N.T.S. SHEET: OF

DATE: / /

DESIGNED BY: N.WEST
 CHECKED BY: S/ST/15
 APPROVED BY: JPP/BJ
 DATE: / /

E10D120

PRELIMINARY SHAFT AND MOUNTING ONLY
 G.O. _____ S.O. _____ CUST. ORDER _____
 CUST. _____
 RATING _____
 PER: _____ DATE _____
 TOSHIBA INDUSTRIAL PRODUCTS CANADA, STONEY CREEK



STANDARD
 REVISIONS



Issued Date

Transmit #

Issued By

Issued Rev

TYPICAL MOTOR PERFORMANCE DATA

Model: 7004XPAL11E-C

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|--------|------------|----------|-------|----------------|-------------|----------|--------------|
| 700 hp | 522 kW | 4 | 1789 rpm | 6809L | 4000 V | 60 | 3 | 88.7 A |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEXP | 55 | F | 1.15 | Cont. | 94.7 | B | F | 40 |

| Load | HP | kW | Amperes | Efficiency (%) | Power Factor (%) |
|--------------|-----|-----|---------|----------------|------------------|
| Full Load | 700 | 522 | 88.7 | 94.7 | 90.7 |
| ¾ Load | 525 | 391 | 66.0 | 94.1 | 91.4 |
| ½ Load | 350 | 261 | 45.5 | 92.7 | 89.6 |
| ¼ Load | 175 | 130 | | | |
| No Load | | | 15.9 | | 12.4 |
| Locked Rotor | | | 541.5 | | 21.5 |

| Torque | | | | Rotor wk ² Inertia (lb-ft ²) |
|----------------------|-------------------------|--------------------|-----------------------|---|
| Full Load (lb-ft) | Locked Rotor (% FLT) | Pull Up (% FLT) | Break Down (% FLT) | |
| 2078 | 107 | 107 | 204 | 609 |

| Safe Stall Time(s) | | Sound Pressure dB(A) @ 1M | Bearings* | | Approx. Motor Weight (lbs) |
|--------------------|-----|------------------------------|-----------|---------|-------------------------------|
| Cold | Hot | | DE | NDE | |
| 33 | 28 | - | 6222-C3 | 6222-C3 | 11000 |

Motor Options:

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

Tag:

All characteristics are average expected values.

TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.

| | | | | | |
|-------------|--|------------------|--|-------------|--|
| Engineering | | Doc. Written By | | Doc.# / Rev | |
| Engr. Date | | Doc. Approved By | | Doc. Issued | |



Issued Date

Transmit #

Issued By

Issued Rev

NAMEPLATE DATA

Model: 7004XPAL11E-C

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|---------|------------|--------|-------|----------------|-------------|----------|--------------|
| 700 | 521.983 | 4 | 1789 | 6809L | 4000 | 60 | 3 | 88.69 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEXP | 55 | F | 1.15 | Cont. | 94.7 | B | F | 40 |

Type: HSB

Form:

Drive End Bearing: 6222-C3

Non-Drive End Bearing: 6222-C3

Power Factor: 90.7

Max Safe RPM:

Comments 1:

Comments 2:

Comments 3:

Comments 4:

Customer

Customer PO

Sales Order

Project #

Tag:

All characteristics are average expected values.

TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.

Engineering

Doc. Written By

D. Suarez

Doc.# / Rev

MPCF-1120 / 0

Engr. Date

Doc. Approved By

M. Campbell

Doc. Issued

6/8/2011



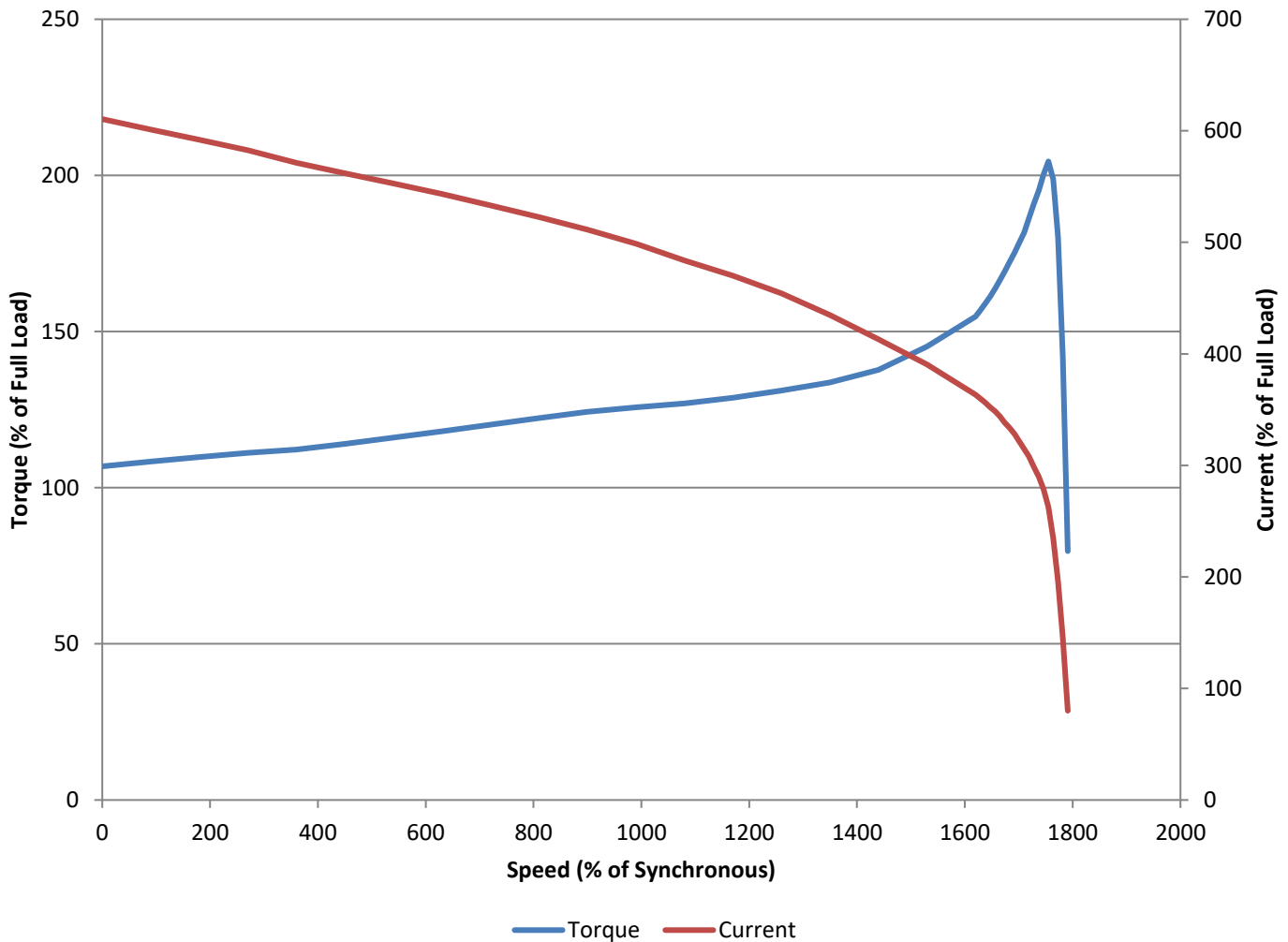
| | | | |
|-------------|--|------------|--|
| Issued Date | | Transmit # | |
| Issued By | | Issued Rev | |

SPEED TORQUE/CURRENT CURVE

Model: 7004XPAL11E-C

| | | | | | | | | |
|-------------------|---|-------------------|------------------|-------------|----------------|-------------|----------|----------------|
| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
| 700 | 521.983 | 4 | 1789 | 6809L | 4000 | 60 | 3 | 88.69 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEXP | 55 | F | 1.15 | Cont. | 94.7 | B | F | 40 |
| Locked Rotor Amps | Rotor wk ² Inertia (lb-ft ²) | Torque | | | | | | Break Down (%) |
| | | Full Load (lb-ft) | Locked Rotor (%) | Pull Up (%) | | | | |
| 541.45 | 609 | 2078.04 | 106.8497719 | 106.8497719 | | 204.4706069 | | |

Design Values



| | | | | |
|-------------|--|--|-------------|-----|
| Customer | | wk ² Load Inertia (lb-ft ²) | | |
| Customer PO | | | Load Type | |
| Sales Order | | | Voltage (%) | 100 |
| Project # | | | Accel. Time | |

Tag:

All characteristics are average expected values.

TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.

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



Issued Date

Transmit #

Issued By

Issued Rev

SPARE PARTS LIST*

Model: 7004XPAL11E-C

| HP | kW | Pole | FL RPM | Frame | Voltage | Hz | Phase | FL Amps |
|-----------|---------|------------|--------|-------|-------------------|----------------|----------|-----------------|
| 700 | 521.983 | 4 | 1789 | 6809L | 4000 | 60 | 3 | 88.69 |
| Enclosure | IP | Ins. Class | S.F. | Duty | NEMA Nom. Eff. | NEMA Design | kVA Code | Ambient (°C) |
| TEXP | 55 | F | 1.15 | Cont. | 94.7 | B | F | 40 |

Bearings DE 6222-C3

Bearings NDE 6222-C3

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

Other than the grease used for regreasable bearings and the oil used for oil-lubricated 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 commercially available off-the-shelf bearings as noted above.

Motor components such as terminal boxes, fan covers and other machined parts are available on special request. In these cases, please advise our order entry department of the model and serial numbers found on the motor nameplate and a description of the needed components. With this information they will be able to furnish the current part number, price and availability.

Note: Our internal part numbers are subject to change without notice and are not published.

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

Tag:

All characteristics are average expected values.

TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.

| | | | | | |
|-------------|--|------------------|-------------|-------------|---------------|
| Engineering | | Doc. Written By | D. Suarez | Doc.# / Rev | MPCF-1125 / 0 |
| Engr. Date | | Doc. Approved By | M. Campbell | Doc. Issued | 6/8/2011 |