

**TOSHIBA**  
Leading Innovation >>>



**EQP Global®**  
840

**Efficiency, Quality, & Performance (EQP)—**  
The EQP Global® 840 motor series is  
Toshiba's next-generation NEMA Premium®  
efficiency motor series.

This cutting-edge motor product line is designed to meet or exceed the competitive demands of the global market, as well as the requirements of the Energy Independence & Security Act of 2007 (EISA), while maintaining the high reliability and quality expected from Toshiba.

The EQP Global 840 specifically addresses the needs of the mill and chemical industries, incorporating many key features of an IEEE-841 motor. Building on over 20 years of success with our EQPIII motor series, the EQP Global 840 features design enhancements on the rotor, frame, brackets, fan, and bearings.

Our EQP philosophy extends beyond great products. We provide solutions and Global Supply Chain Management Systems (GSCMS) to meet the evolving needs of our global customers.

- NEMA Premium® Efficiency (1 through 500 HP)
- Meets or Exceeds Energy Independence & Security Act of 2007 (EISA)
- Addresses Global Motor Specifications Including CE, NEMA, & IEC
- Dual-Frequency 50/60 Hz Design (50/60 Hz Listed on Nameplate on 1 through 75 HP)
- Inverter-Duty Rated
- Multi-Mount on 140 Through 445 & N449 Frames



|                             |  |
|-----------------------------|--|
| Horsepower                  | 3/4 to 500 HP  |
| Speed (60 Hz)<br>(50 Hz)*   | 3600, 1800, or 1200 RPM<br>3000, 1500, or 1000 RPM   |
| Voltage (60 Hz)<br>(50 Hz)* | 460 or 575 V<br>380 V  |
| Enclosure                   | Totally Enclosed Fan Cooled  |
| Frame Size                  | 143T through 5810U   |
| Protection                  | IP54 or IP56   |
| Construction                | All Cast Iron  |
| Insulation                  | Class F, Exceeds NEMA MG1 Part 31<br>(Inverter Duty)   |
| Vibration (Unfiltered)      | Typically 0.06 Inches/Second or Less   |
| Mounting                    | Motors Suitable for Horizontal & Vertical<br>Mounting; Motors also Available with<br>C-Face Mounting |
| Environment                 | Severe Duty, Suitable for Use in<br>Division 2 Hazardous Locations                                   |

\*50/60 Hz Listed on Nameplate on 1 through 75 HP



**EQP GLOBAL 840**

**LOW VOLTAGE MOTOR  
MILL & CHEMICAL DUTY**



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# EQP GLOBAL 840

## BUILT FOR MILL & CHEMICAL DUTY APPLICATIONS



### Nameplate

- Stainless Steel
- NEMA Premium® Design
- Raised Letters for Clarity
- Inverter-Duty Rating on Nameplate (1 to 200 HP, 4- & 6-Pole)
- Separate Lubrication Label 280 Frame & Larger



### Construction

- Cast Iron Frame & Bearing Brackets
- Shaft/Slinger Bearing Protection 140 to 280 Frame
- Multi-Mount Construction
- Gasket Provided Between Motor Frame & Conduit Box
- Typical Unfiltered Vibration Levels of 0.06 Inches/Second or Less
- Protective Coating on All Internal Machined Surfaces
- IP54 or IP56 Protection
- Multiple Drain Provisions for Horizontal & Vertical Mounting



### Conduit Box

- Gasketed Cast Iron Construction
- UL Ground Lug
- Lead-Separation Protection
- Terminal Lugs on Frame 210 & Larger
- Rotatable (90°)
- NPT Drill & Tap Conduit Opening



### Bearing System

- Oversized 300 Series Bearings on All Frames (DE & ODE)
- Low Temperature Rise for Extended Life
- L-10 Bearing Life of 150,000 Hours Direct-Coupled
- L-10 Bearing Life of 50,000 Hours Belted
- Labyrinth Seal 320 Frame & Larger, Both Ends
- Open Regreasable Bearings 280 Frame & Larger



### Insulation System

- Major Components Made from Class H Rated Materials
- Low-Loss Electrical Steel
- Exceeds NEMA MG1 Part 31
- 20:1 Constant Torque & 60:1 Variable Torque (1 to 200 HP, 4- & 6-Pole)
- Voltage Withstand Capability of 2000 V in 0.1  $\mu$ s
- Large Thermal Margins for Extended Life & Reliability
- Phase Paper & Coil Bracing on Both Ends on All Motor Ratings



### Testing

- 100% No-Load Commercial Test per IEEE 112 on All Motors
- On 440 Frame & Larger:
  - » Commercial Test & Vibration Test
  - » 100% of Bearings are Ball-Pass Frequency Tested

| TOSHIBA  |  |  |  | MILL & CHEMICAL DUTY                               |  | EQP Global 840                    |  |
|--|--|--|--|--|--|-----------------------------------|--|
| MARINE DUTY<br>IEEE 45   |  |  |  | MODEL NO.<br>SERIAL NO.                            |  | FRAME TYPE                        |  |
| HP<br>VOLT<br>Hz   |  |  |  | KW<br>AMP<br>S.F.                                  |  | ENCL. NEMA INS. DUTY MAX. AMB. °C |  |
| NEMA NOM EFF   |  |  |  | P.F.<br>CODE<br>MAX SAFE RPM                       |  | WT. Kg. Lbs.                      |  |
| HP<br>VOLT<br>Hz   |  |  |  | KW<br>AMP<br>S.F.                                  |  | O.S.                              |  |
| NEMA NOM EFF   |  |  |  | P.F.<br>CODE<br>NOM EFF (1/2)                      |  | L.S.                              |  |
| NOM EFF (3/4)  |  |  |  | NOM EFF (1/2)                                      |  | MFG. DATE                         |  |
| CSA CERTIFIED: CL 1, DIV 2, GRP A, B, C, D / ZONE 2 GRP IIA, IIB, IIC, SINWAVE - T3 @ 1.15SF OR T3C @ 1.05SF, OR VPWM VFD T3 @ 1.05SF - 60:1VT, 10:1CT, 1:1.5CHP |  |  |  | USE POLYUREA BASED GREASE*                         |  | V, AT                             |  |
| V505-ADN   |  |  |  | TOSHIBA INTERNATIONAL CORPORATION - HOUSTON, TEXAS |  | MADE IN VIETNAM                   |  |



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