### **LOW VOLTAGE MOTORS**



EQPIII-841

## Reliability in motion®

- NEMA Premium<sup>®</sup> Efficiency Premium
- Inverter Duty
- 20:1 Constant Torque (1 to 200 HP, 1800 & 1200 RPM)
- IP55 Protection
- Labyrinth Seal on DE and ODE (All Motors)
- Test Report with Motor



PRODUCT SCOPE	
Horsepower	3/4 to 300 HP
Speed	3600, 1800, 1200, or 900 RPM
Voltage	460 or 575 V
Enclosure	Totally Enclosed Fan Cooled
Frame Size	143T through N449T
Construction	Cast Iron
Vibration (Unfiltered)	Typically 0.04 Inches/Second or Less
Insulation	Class F, Exceeds NEMA MG1 Part 31 (Inverter Duty)

# DESIGNED FOR THE PETRO-CHEMICAL MARKET



Toshiba's EQPIII-841 motor series addresses the special requirements of the petrochemical industry where motor performance and reliability are imperative. This product line is built using the cornerstone of the Toshiba motor product offering as a base and is designed for indoor and outdoor use in the harshest environments where premium performance and reliability are a must. Its performance offers 20 to 1 constant torque, oversized bearings, IP55 protection, Class F insulation system, and NEMA Premium®

design meeting the NEMA energy efficiency requirements as listed in NEMA MG1 Table 12-12. These motors are built to meet or exceed IEEE standard 841 specifications and feature a labyrinth seal on both DE and ODE.

#### Construction



- Cast Iron Frame and Bearing Brackets
- Multi-Mount Construction
- Gasket Provided Between Motor Frame and Conduit Box
- Typical Unfiltered
   Vibration Levels of 0.04
   Inches/Second or Less
- Protective Coating on All Internal Machined Surfaces
- IP55 Protection
- Breather Drains

#### **Insulation System**



- System's Major Components Made from Class H Materials
- Low Loss Electrical Steel with 1000°F Burnout Capability
- System Exceeds NEMA MG1 Part 31
- Voltage Withstand Capability of 2000 V in 0.1 µs
- Large Thermal Margins for Extended Life & Reliability
- Phase Paper and Coil Bracing on Both Ends on All Ratings
- Heavy-Build Class H Varnish with Additional Insulation Barrier
- 150°C Rated Lead Cable

#### **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
- Compliance with IEEE 841 Standards

#### **Bearing System**



- Re-Greaseable Oversized 300 Series Bearings on All Frames & Both Ends
- 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 on All Frames, Both Ends
- Open Re-Greaseable Bearings, All Frames

#### **Conduit Box**



- Gasketed Cast Iron
- UL Ground Lug
- Lead Separation
   Protection
- Protective Internal Coating
- 12-Inch Minimum Lead Lengths
- Terminal Lugs on All Frame Sizes

#### **Testing**

- 100% No-Load Commercial Test on All Motors
- Vibration Test on All Motors
- 100% Inspection of Foot-Flatness and Shaft Runout on All Motors
- On 440 Frame & Larger,
   100% of Bearings are
   Ball-Pass Frequency Tested
- Commercial and Vibration Test Report Supplied with Motor



ADJUSTABLE SPEED DRIVES

CONTROLS

UPS

INSTRUMENTATION

PLC

**TOSHIBA** 

(1) **FL** (ee)

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