

# TOSHIBA

TOSHIBA INTERNATIONAL CORPORATION

LOW VOLTAGE MOTORS

## EQP Global<sup>®</sup> CT



**COOLING  
TOWER  
DUTY**

# BUILT FOR COOLING TOWER APPLICATIONS

Toshiba introduces the TEFC and TEAO Cooling Tower motor featuring multiple enhancements specifically designed for cooling tower applications in wet and humid environments. Built with an IP56-rated enclosure and coated with corrosion-resistant severe duty Epoxy Paint System, the motor can withstand the most severe operating conditions with 100% humidity and designed for all operating conditions.



**EQP** Global<sup>®</sup>  
CT



## Application Specific Design

Offers horizontal or vertical mounting provisions, ingress protection, and corrosion-resistant epoxy paint system for protection in wet and humid environments.

## Ingress Protection

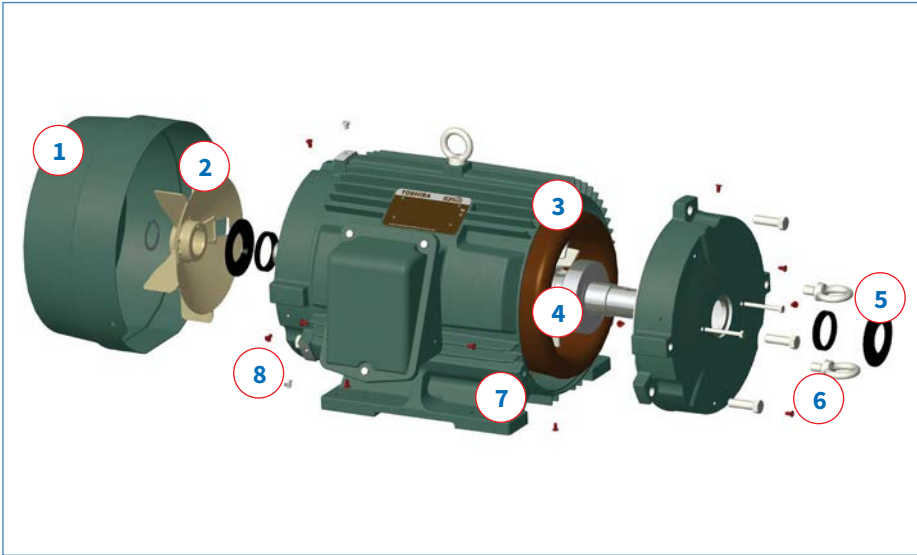
Umbrella & V-ring seals used on the DE and ODE of the shaft along with gasket sealant between the frame and bearing brackets provide an IP56 protection against 100% humidity.

## Multi Drain Provisions

Multiple drain plug provisions on brackets, frame, and conduit box allows drainage for all possible vertical and horizontal mounting positions.

## Inverter Duty Rated

Designed for use with an adjustable speed drive that can lead to energy savings when run at optimum fan speed. The insulation system meets NEMA MG1 Part 31. Providing speed ranges of up to 60:1 Variable Torque, 10:1 Constant Torque.



1. Steel Fan Cover
2. Corrosion-Resistant Non-Sparking Conductive Nylon Plastic Fan
3. Class F Insulation System Utilizing Class H Varnish and Magnet Wire with Additional Winding Insulating Varnish Coating
4. Heavy Duty Anti-friction 300 Series Ball Bearings Greased for Life
5. Umbrella & V-Ring Seals on DE & ODE
6. Vertical Lifting Provisions for Shaft Up or Down Mounting
7. Gasket Sealant Between Frame & Brackets
8. Multiple Drain Provisions in Frame, Bearing Brackets, & Terminal Box

## AVAILABLE OPTIONS

- Space Heater
- Thermal Protection Devices (Thermostat or Thermistor)
- F2 Mount
- Auxiliary Terminal Box
- Drip Cover
- Rotate Main Terminal Box
- C-Flange
- Shaft Grounding (Not Available for Div 2 Locations)
- Insulated Bearings

## DUAL FREQUENCY 50/60 Hz DESIGN

<b>TOSHIBA</b>				<b>SEVERE DUTY EQP Global CT</b>	
MODEL NO. SERIAL NO.		FRAME TYPE ENCL. NEMA INS. DUTY	NEMA Premium E133592 MC187942 Energy Partner CE CC0278 EEC		
HP VOLT Hz NEMA NOM EFF		kW S.F. AMP P.F. CODE MAX SAFE RPM	PH. WT. O.S.: L.S.: MFG. DATE USABLE ON V, AT AMP		
LOW VOLTAGE HP VOLT Hz NEMA NOM EFF		kW S.F. AMP P.F. CODE MAX SAFE RPM	NOM EFF (1/2) NOM EFF (3/4)		
HIGH VOLTAGE HP VOLT Hz NEMA NOM EFF		kW S.F. AMP P.F. CODE MAX SAFE RPM	NOM EFF (1/2) NOM EFF (3/4)		
CSA CERTIFIED: CL 1, DIV 2, GRP A, B, C, D / ZONE 2, GRP IIA, IIB, IIC; SINEWAVE - T3 • 1.15SF OR T3C • 1.0SF, OR VPWM VFD T3 • 1.0SF - 60:1VT, 10:1CT, 1:1.5CHP					
V711-ADN TOSHIBA INTERNATIONAL CORPORATION - HOUSTON, TEXAS MADE IN VIETNAM					

## INDUSTRIES SERVED

- Oil & Gas
- HVAC
- Chemical
- Pulp & Paper
- Power Generation

## APPLICATIONS

- Cooling Tower
- Heat Exchangers
- Evaporative Condensors
- Pumps
- Fans

# 3 THREE YEAR WARRANTY



## GENERAL

Horsepower	0.75 to 75 HP
Speed (60 Hz)	1800 or 1200 RPM
(50 Hz)	1500 or 1000 RPM
Voltage (60 Hz)	230/460 or 575 V
(50 Hz)	190/380 V
Service Factor	1.15 SF on 60 Hz; 1.0 SF on 50 Hz
Enclosure	Totally Enclosed Fan Cooled or Totally Enclosed Air Over
Frame Size	143T through 365T
Ingress Protection	IP56 (100% Humidity-Protected)
Insulation	Class F Inverter Duty, Exceeds NEMA MG1 Part 31
Vibration	Typically 0.08 Inches/Second or Less (Unfiltered)
Environment	Severe Duty, Suitable for Use in Class I Division 2 Hazardous Locations
API	661 Compliant
Efficiency	NEMA Premium
Hardware	Zinc Dichromate Plated

## CONSTRUCTION

Frame	Cast Iron
Paint	External-Corrosion-Resistant Severe Duty Epoxy System; Painted Internal-Machined Surfaces
Shaft Seals	Umbrella and V-ring Seals on DE & ODE
Sealant	Gasket Sealant Between Frame and Bearing Brackets
Lifting	Horizontal and Vertical Lifting Provisions
Mounting	Double Drilled Feet for Multi-Mount Capabilities
Drains	Multiple Drain Provisions for Horizontal & Vertical Mounting in Frame, Bearing Bracket & Conduit Box

## BEARINGS

Type	Oversized 300 Series; Locked Drive-End Bearing 213T through 365T Frame: Sealed Bearing System
Life	150,000 Hours Direct Coupled; 40,000 Hours Belted

## CONDUIT BOX

Material	Cast Iron with Threaded NPT Opening
Mounting	Rotatable 90° Increments
Grounding	Ground Provision
Gasket	Neoprene between Conduit Box Halves; Lead Seal Gasket
Drains	Multiple Provisions for All Mounting Positions

## INSULATION SYSTEM

Temperature Rise	Class B Rise (90°C) @ 1.15 SF
Material	Low-Loss Electrical Steel; Phase Paper & Coil Bracing on DE & ODE; Magnet Wire High Voltage Withstand Capability of 2000 V in 0.1 μs, Additional Moisture Protective Coating on Windings and Stator Assembly. Meets NEMA MG1 part 31
Class	Class F with Class H Wire and Varnish
Leads	Permanently Identified Leads with Single Ring Compression Type Lead Lugs

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