

**TOSHIBA**

TOSHIBA INTERNATIONAL CORPORATION

LOW VOLTAGE MOTORS

# EQP Global<sup>®</sup> SD- Brake Motor



**HOLDING  
DUTY**

# BUILT FOR GENERAL HOLDING APPLICATIONS

Toshiba's EQP Global® Brake Motor series is built to withstand tough conditions from conveyors, windmills, airport machine tools, and other applications requiring positive holds. This series offers some of the highest torque ratings while producing some of the lowest vibration levels in the industry, leading to a longer motor life and greater motor reliability.



**EQP Global**  
SD



<p><b>Application Specific Design</b></p>	<p>This motor series is designed for holding duty brake applications and offers horizontal or vertical* mounting options and a corrosion-resistant paint system for protection in severe duty environments.</p>
<p><b>Ingress Protection</b></p>	<p>The motor is a totally enclosed fan cooled design with v-ring seals that provide IP55 protection, which helps prevent ingress of humidity, dust, dirt, and other contaminants present in the environment.</p>
<p><b>Low Vibration</b></p>	<p>A vibration level of 0.10 inches/second, which exceeds NEMA MG1 requirements, provides durability by helping to prolong motor life and reduce downtime.</p>
<p><b>Multi Drain Provisions</b></p>	<p>Multiple drain plug provisions on brackets and frame allow drainage for all possible vertical* and horizontal mounting positions.</p>
<p><b>Inverter Duty Rated</b></p>	<p>The EQP Global Brake Motor series is designed for use with an adjustable speed drive, which 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.</p>

\*Vertical shaft down mounting in dry locations only. Spring kit may be required.

## DESIGNED FOR SUPERIOR QUALITY & OPTIMUM PERFORMANCE

Toshiba's EQP Global SD Brake Motor series is engineered with advanced materials to provide high motor performance and longer motor life making it suitable for use in severe conditions and offering one of the lowest costs of ownership in the industry.

- Oversized 300 Series Bearings
- Heavy Duty Cast Iron Construction
- 100% Quality Tested
- Class F Insulation System Utilizing Class H Varnish & Magnet Wire
- High Torque Output
- Spring Set Electrical Release Friction Brake with Manual Wear Adjustments, 24-Inch Leads, and External Manual Release Knob

## MOTOR MODIFICATION OPTIONS

- F-2 Assembly
- Thermostats
- Thermistors
- Space Heaters
- RTDs (280 Frame Only)
- Auxiliary Box
- C-Flange
- Insulated Bearings
- Shaft Grounding
- Drain & Breathers, T-Drains
- External Ground Provision on Frame
- Fungus/Tropicalization
- Low or High Temperature Grease

HP	Speed (RPM)	Frame*	Brake (ft.-lbs.)	Vertical Mounting**
0.75	1200	143T	6	1
1	1800	143T	6	1
1	1200	145T	10	1
1.5	1800	145T	10	1
1.5	1200	182T	10	1
2	1800	145T	10	1
2	1200	184T	15	1
3	1800	182T	15	1
3	1200	213T	35	2
5	1800	184T	15	1
5	1200	215T	35	2
7.5	1800	213T	35	2
7.5	1200	254T	50	3
10	1800	215T	50	3
10	1200	256T	75	3
15	1800	254T	75	3
15	1200	284T	105	3
20	1800	256T	105	3
20	1200	286T	125	3
25	1800	284T	105	3
30	1800	286T	125	3

**Notes:**

- 1 - Suitable for mounting vertical shaft up or shaft down without modification.
  - 2 - Requires Spring kit modification for vertical shaft down mounting.
  - 3 - Requires Spring Kit modification for vertical shaft up or shaft down mounting.
- \*Motors available as footed and C-face with and without feet.  
 \*\*Vertical mount for dry locations.

### INDUSTRIES SERVED

- Oil & Gas
- Food & Beverage
- HVAC
- Metal Processing
- Mining
- Pulp & Paper
- Marine
- Chemical
- Pharmaceutical

### APPLICATIONS

- Conveyors
- Gear Reducers
- Material Handling
- Baggage Handling
- Holding Applications

# 3 THREE YEAR WARRANTY



GENERAL	
Horsepower	0.75 to 30 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
Frame Size	143T through 286T
Ingress Protection	IP55 (Motor)
Insulation	Class F Inverter Duty, Exceeds NEMA MG1 Part 31
Vibration	Typically 0.10 Inches/Second or Less (Unfiltered)
Environment	Severe Duty
Efficiency	NEMA Premium®
Brake Coil Voltage	Matches Motor Voltage
Hardware	Zinc Dichromate Plated
CONSTRUCTION	
Frame	All Cast Iron
Paint	Corrosion Resistant Paint System
Shaft Seals	Shaft Slinger Protection System
Mounting	Double Drilled Feet for Multi-Mount Capabilities
Drains	Multiple Drain Provisions for Horizontal & Vertical Mounting in Frame & Bearing Brackets (May require spring kit for vertical applications)
Nameplate	Stainless Steel with Connection Diagram
BEARINGS	
Type	Oversized 300 Bearing Series
L-10	150,000 Hours Direct Coupled; 40,000 Hours Belted
CONDUIT BOX	
Material	Cast Iron with Threaded NPT Opening
Mounting	Rotatable 90° Increments
Grounding	Grounding Provisions
Gasket	Neoprene between Conduit Box and Frame
INSULATION SYSTEM	
Temperature Rise	Class B Rise @ 1.15 SF
Material	Low-Loss Electrical Grade Silicon Core Steel with C5 Interlamination Insulation; Phase Paper & Coil Bracing on DE & ODE; Magnet Wire High Voltage Withstand Capability of 2000 V in 0.1 μs. Exceeds NEMA MG1 part 31
Class	Class F with Class H Wire and Varnish
Leads	Permanently Identified Leads with Single Ring Compression Type Lead Lugs (284 Frame & Larger)

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Toshiba International Corporation  
Motors & Drives  
13131 West Little York Road  
Houston, Texas 77041 USA  
Tel +713-466-0277  
US 1-800-231-1412  
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