# TOSHIBA Leading Innovation >>>



Horsepower	3 to 350 HP
Speed (60 Hz)	3600, 1800, or 1200 RPM
Voltage (60 Hz)	460 V (575 V Available Upon Request)
Enclosure	Totally Enclosed Fan Cooled
Frame Size	180 through N449 (HP & LP)
Construction	All Cast Iron
Insulation	Class F, Exceeds NEMA MG1 Part 31 (Inverter Duty)
Thrust	Normal (HP), Medium (LP)
Thrust Ratings	260 to 3780 Pounds
Bearings	Thrust-Series for Minimum L-10 at 17,500 Hours
Environment	Severe Duty, Suitable for Use in Class 1 Division 2 Hazardous Locations

## **Toshiba's Vertical Solid Shaft P-Base motor** series is designed with the mill & chemical and material processing industries in mind.

This product line is built to withstand the toughest conditions and offers some of the highest efficiency and torque ratings - leading to a longer life and greater reliability.

In addition, the LP design meets API 610 specifications for chemical processing applications, and all motors include a patented lubrication system that provides improved flow and circulation of grease and oil for longer bearing life.

The Vertical P-Base motor can be used in indoor and outdoor applications and is available in normal thrust and medium thrust designs.

- Integral Horsepower Rule IHMR 2016
- Patented Lubrication System
- Normal & Medium Thrust Loads
- IEEE 841 Designs Available
- Oil Mist Options Available
- Exceeds Insulation Requirements of NEMA MG1 Part 31 (Inverter Duty)







# >>> VERTICAL P-BASE

# **BUILT FOR MILL & CHEMICAL APPLICATIONS**



### Nameplate

- Stainless Steel
- Premium or High Efficiency Designs Available
- Inverter-Duty Rating on Nameplate
- (1 to 200 HP, 4- & 6-Pole)



## Construction

- All Cast Iron Design for Mill & Chemical Applications with Cast Iron Drip Cover
- Motor Construction/Design Produce Vibration Levels Below IEEE 841
  - Shaft/Slinger Bearing Protection (DE)
  - LP Design Meets API 610 Specifications
  - Protective Coating on All Internal Machined Surfaces
  - IP54 Protection
  - IEEE 841 Design Available



# 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

- Low Temperature Rise for Extended Life
- L-10 Bearing Life of 17,520 Hours Based on Maximum Thrust Loading
- Low-Friction Internal Double-Lip Seal for Grease & Oil Mist Designs
- Open Regreasable Bearings with Inner Bearing Caps
- Labyrinth Seal Standard on Top Bracket



### **Insulation System**

- Low-Loss Electrical Steel
- Exceeds NEMA MG1 Part 31 (Inverter Duty)
- Voltage Withstand Capability of 2000 V in 0.1 µs
- 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 and All 841 Designs:
- » Commercial Test & Vibration Test









# www.toshiba.com/tic

