

TOSHIBA

Leading Innovation >>>



Toshiba's Vector Ready motor series is designed for the extreme operational requirements of today's variable speed applications.

This product line is built using the cornerstone of the Toshiba motor product offering, the EQPIII, as a base. It is designed to survive in the most demanding environments requiring tight vector control, such as material handling, textiles, conveyor, and machine tooling, as well as many other process-oriented applications.

The Vector Ready motor series is designed for indoor and outdoor adjustable speed drive (ASD) operation and is not intended for conventional across-the-line operation. This motor exceeds the requirements of NEMA MG1 Part 31 Definite Purpose (Inverter Duty).

- Premium Efficiency
- Inverter-Duty Rated
- Encoder Provision
- Thermal Protection N/C Thermostats
- Design A for Vector Applications
- Constant HP:
 - 60 to 120 Hz (140 through 250 Frames)
 - 60 to 90 Hz (280 through 440 Frames)
- 1.0 Service Factor on ASD Power
- Constant Torque:
 - 2000:1 for TEFC, TENV, & TEBC (Vector-Controlled Mode)
 - 20:1 for TEFC & TENV (V/f Mode Only)

Horsepower	1 to 350 HP
Speed (60 Hz)	1800 or 1200 RPM
Voltage (60 Hz)	460 or 575 V
Enclosure	Totally Enclosed Fan Cooled (TEFC), Totally Enclosed Non-Ventilated (TENV), & Totally Enclosed Blower Cooled (TEBC)
Frame Size	140 through 250 (TENV or TEFC), 280 through N449T (TEFC or TEBC)
Protection	IP54
Construction	Cast Iron
Insulation	Class F, Exceeds NEMA MG1 Part 31 (Inverter Duty)
Vibration	Typically 0.10 Inches/Second or Less (Unfiltered)
Mounting	Horizontal Footed or C-Face Footed



VECTOR READY

LOW VOLTAGE MOTOR
PROCESS DUTY



BUILT FOR PROCESS DUTY APPLICATIONS



Nameplate

- Stainless Steel
- Etched Lettering
- Equivalent Circuit Data
- Rotor Inertia Wk^2
- Performance Data



Construction

- Cast Iron Frames
- Double Shaft Extension: 5/8" OD on 140 through 210 Frame, 1" OD through 250 to 440 Frame
- Normally Closed Thermostat (155°C)
- TENV 140 through 250 Frame
- TEFC or TEBC 280 through N449T Frame
- C-Flange as Standard on 143 through 365T Frame



Bearing System

- Regreaseable 280 Frame & Larger
- Locked Drive-End Bearing 210 Frame & Larger
- Low Temperature-Rise for Extended Life
- L-10 Life of 150,000 Hours for Direct-Coupled Applications
- L-10 Life of 40,000 Hours for Belted Applications



Insulation System

- Made from Class H Materials with Class F Leads
- Improved Windings for Optimal Use on ASDs for Cooler Operating Temperatures
- Exceeds NEMA MG1 Part 31 (Inverter Duty)



Blower

- On 140 through 280 Frame:
 - Single-Phase:
 - 230 to 333 V (60 Hz)
 - 203 to 303 V (50 Hz)
 - Three-Phase:
 - 230 to 333 V/400 to 575 V (60 Hz)
 - 230 to 303 V/400 to 525 V (50 Hz)
- On 320 Frame & Larger:
 - Three-Phase:
 - 207 to 333 V/360 to 575 V (60 Hz)
 - 207 to 303 V/360 to 525 V (50 Hz)



Options

- Encoders
- Insulated Bearings
- Shaft Grounding

