

A\$D Ultra Constant Torque Variable Speed Drive Motor

features & benefits

A\$D Ultra is designed for optimized performance and longer life in tough industrial applications such as metal processing, plastic extrusion, winders, test stands, crane and hoist and material handling.

- Designed for scalar or vector drive
- Infinite:1 constant torque from zero to base speed
- NEMA Premium® efficiency at 60 Hz sinewave
- Constant horsepower 1.5 times base speed
- Runs at or below Class F temperature rise
- Exceeds MG1-31 standards with GEGARD2800 insulation system
- Five-year Warranty

With GE Innovation and the internally mounted Aegis shaft ground ring, the A\$D Ultra is the most reliable adjustable speed motor for your constant torque applications.

Standard Ratings

- 1.5 HP through 300 HP
- 1200 RPM and 1800 RPM base speeds
- 230/460 Volt or 460 Volt
- Drive end C-face on 143-286 frames
- Totally enclosed fan cooled (TEFC), non-vent (TENV), and blower cooled (TEBC) enclosures (frame dependent)

Ultimate Extra Severe Duty Construction

- Cast iron frame, endshields and conduit box
- A neoprene slinger on both Drive End (DE) and Opposite Drive End (ODE), providing bearing protection from the elements
- Stainless steel T-drains to eliminate moisture build-up inside motor.
- Corrosion-resistant Grade 5 hardware
- Epoxy ester buff paint stands up to corrosive environments
- Neoprene lead separation gasket in conduit box
- Gasketed and 180-degree rotatable conduit box



Superior Insulation System — A Must for Constant Torque Applications.

- GEGARD2800 insulation system features Class H insulation materials. This system increases motor protection against IGBT drive voltage spikes up to 2800 volts @ 0.1 microsecond rise time, which exceeds NEMA MG1-31 standards.
- 100% of A\$D Ultra motors receive CIV (Corona Inception Voltage) testing to verify long life on drives.
- 2 N/C thermostat on 143-286; 3 N/C thermostat on 324-449 frames.
- 444-449 frame motors have insulated ODE bearing.
- Aegis shaft ground ring internally mounted on drive end.
- Class F rise (105C max) in TENV and TEFC enclosures and Class B rise (80C max) in TEBC.

Six Star Bearing System — Longer Bearing Life

- Low temperature rise designs (15% cooler on average than IEEE standards) increase bearing life.
- Overall vibration of 0.04 ips results in a smooth reliable operation and extended bearing life.
- 130,000 hour L10 direct connected and 50,000 hour L10a belted bearing life increases uptime and decreases repair costs.
- Fully charged lubrication system with a temperature-resistant polyurea grease.
- Single shielded bearings on both ends open towards the grease cavity, allowing maximum grease circulation.
- Cast iron bearing cap with gasket retains lubrication and protects the interior of the motor and bearing system from contaminants.
- Aegis SGR (shaft ground ring) mounted internally in the drive end bearing cap prevents electrical bearing fluting damage by safely diverting harmful shaft voltages and bearing currents to ground.



Serviceability and Safety

- All enclosures provide ODE C Face end bell and stub shaft for mounting encoder for a true closed-loop control without the need of adapters or mounting kits.
- Extended grease inlet fitting at 12 o'clock and outlet fitting at 8 o'clock position promote safer re-greasing.
- Cast-in vibration pads provide consistent mounting position for repeatable vibration monitoring.
- Dual mounting holes (except 324 frame).
- Centered core allows for F1 to F2 conversion.
- Bronze box lug ground terminal in conduit box.
- Four point cast-in lifting lugs.
- Oversized gasketed conduit box, containing permanently labeled non-wicking Class F leads with ring terminals, makes connection and installation easy. (Teflon-FEP sleeve over leads to reach Class H protection).

Tests and Warranty

- IEEE 112 Nema Routine Report including Vibration supplied with every motor.
- 100% CIV tested.
- Warranty: 60 months from date of purchase or 66 months from date of shipment.
- Extended AEGIS bearing guarantee on motors up to and including 100 HP:
 - a. Direct drive applications: 15 years or 130,000 hours
 - b. Belt drive applications: 10 years or 80,000 hours.

Contact your GE sales representative for more information.



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