

Inverter Duty World Motor®

Cast Iron, General Purpose, Totally Enclosed Fan Cooled, Horizontal AC Motors



Specifications

- Horsepower:** 1 – 200 HP
- Speeds:** 3600, 1800, 1200 and 900 RPM
- Speed Range:** 20:1 Variable Torque, 5:1 Constant Torque
- Design Voltages:** 230/460, 460, 575 Volts
- Enclosure:** Totally Enclosed Fan Cooled (TEFC)
- Industry Standard:** NEMA



WorldMotor®

Product Overview

World Motor HOSTILE DUTY™, INVERTER DUTY is a line of horizontal, cast iron, TEFC motors for your VFD applications.

This product line is built to withstand inverter driven applications with Nidec Motor Corporation's patented Inverter Grade® insulation system, which allows the U.S. MOTORS INVERTER DUTY line to withstand spike and transient voltages induced by variable frequency drives. Making it fully compliant and exceeding NEMA MG-1, Part 30 & 31.

For an added level of protection, every World Motor HOSTILE DUTY, INVERTER DUTY motor is equipped with an Aegis shaft grounding ring, to eliminate issues caused by shaft voltage, ensuring long bearing life. These motors are also equipped with normally closed thermostats to avoid thermal overload conditions.

Warranty of World Motor HOSTILE DUTY™, INVERTER DUTY™ motors, 36 months from date of installation not to exceed 42 months from date of manufacture.

Product Line Overview

- Designed for severe environments
- Oxide primer coating on bracket and frame surfaces
- External corrosion resistant mill and chemical duty paint
- 0.08IPS peak vibration maximum, vs. NEMA 0.15IPS
- Non-braided, no wicking leads with a compression type ground lug in the conduit box
- Re-greaseable bearings (250 Frame and Larger) with a standard of L-10 bearing life of 30,000 hours or more based on NEMA belting loads. L-10 life of 100,000 hours direct connected.
- Inverter Grade® insulation system
 - 100% solid polyester multiple varnish process on wound stator and rotor core
 - Extra phase insulation
 - Additional end turn bracing
- Field convertible to F1 or F2 assembly position or top mount (F0/F3) assembly position
- Suitable for shaft up or shaft down mounting
- Cast iron frame and end bells, steel conduit box and fan cover
- Stainless steel nameplate and hardware to allow for use in hostile and severe environments
- Conduit boxes are larger than NEMA standard, diagonally split and rotatable in 90-degree increments
- Aegis Shaft Grounding Ring, external between fan and end bell 140-360 frames, internal 400-440
- Insulated bearing ODE on 400-440 frames
- Bi metallic normally closed thermostats, one per phase

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