

Horizontal TITAN® 5800-9600 Frame A.C. Motors

Open Drip Proof and Weather Protected Type I Enclosures



Horsepower: 150 - 4000 HP

Speed Range: 400 - 3600 RPM

Design Voltages: 460, 575, 2300, 2400, 4000, 4160 and 6600 Volts at 60 Hertz
380, 400, 415, 3300, 6000 and 6900 Volts at 50 Hertz

Frame Sizes: 5800 - 9600

Efficiency Levels: Standard, Energy and Premium

Bearings: Anti-friction Ball or Sleeve Bearings



Product Overview and Options

U.S. MOTORS® brand ODP and WPI TITAN® motors are designed for use in controlled environments with pumps, compressors, fans, blowers and conveyors. TITAN enclosures are made of heavy fabricated steel with cast iron end brackets and are tuned to maximize ventilation and minimize internal stresses and vibration. TITAN ODP and WPI motors are suited for use in the petrochemical, pulp and paper, wastewater, electric power, steel, forestry, cement and mining industries.

Open drip proof enclosures are standard on all TITAN horizontal 5800 through 6800 frame motors; 8000 and 9600 frames meet splash proof protection requirements per NEMA MG1-1.25.2.

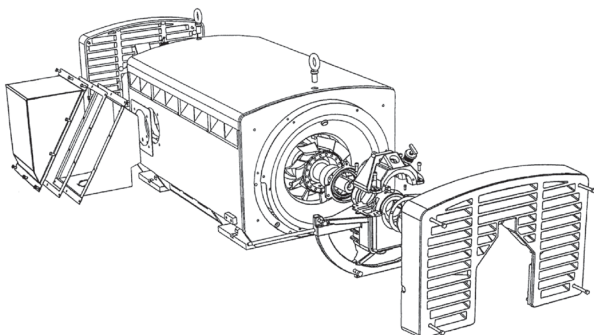
WPI enclosures are standard on all TITAN horizontal 8000 and 9600 frame motors and are optional on 5800 through 6800 frame motors. These enclosures comply with NEMA MG1-1.25.8.1 and most closely resemble IEC IPW23 requirements.

Electrical and Mechanical Features

- 1.15 Service Factor
- Class B temperature rise at full load
- Class F insulation

- Re-greaseable ball bearing or oil lubricated sleeve bearing designs. Sleeve bearing design offers a horizontally split case and is spherically seated for self-alignment. Each bearing includes oil ring lubrication, a transparent oil level gauge, and fill and drain plugs.
- A coating of at least one cycle of VPI using 100 percent solid epoxy resin, shields the motor windings from environmental contaminants in humid, corrosive or salty atmospheres.
- Corrosion resistant paint capable of withstanding a 500-hour salt spray test
- Copper windings; aluminum rotors
- Fabricated steel frame construction and cast iron end brackets
- Zinc plated hardware

U.S. MOTORS brand ODP and WPI TITAN motors have normal torque designs and are manufactured to operate in 40°C ambient temperature and at a maximum altitude of 3,300 feet above sea level.



Product Overview and Options *continued*

Custom Design Options

- WPI enclosures on 5800 through 6800 frame motors
- F1 (Standard) and F2 (optional) mounting positions
- Separately ventilated or blower-ventilated splash proof enclosures
- Design for high altitude and high or low ambient temperatures
- Copper bar rotor
- Premium EVERSEAL™
- Winding thermal protection options include 100 ohm, 120 ohm or 10 ohm RTDs, thermostats, thermocouples and thermistors
- Inverter Duty to meet NEMA MG1, Part 31
- Special-balanced and vibration tested
- Stainless steel screens and hardware
- Provision for dowelling of feet
- Vertical jack screws
- Space heaters
- Sleeve-bearings spherically seated for self-alignment with a horizontally split case
- Proximity probes for sleeve bearings
- Roller bearings
- Inpro/Seal®† VBXX®† Seal
- Shaft slinger
- Bearing RTDs and thermocouples
- Vibration detectors

Conduit Box Options

- Oversized main conduit box
- Grounding lug in main conduit box
- Lead positioning gasket
- Surge capacitors, lightning arrestors and current transformers
- NEMA Type II conduit box with standoff insulators and copper bus bar lead connectors

Testing

Nidec Motor Corporation conducts a short commercial test on each TITAN ODP or WPI motor consisting of no load current tests, locked rotor current (performed at reduced voltage), winding resistance, high potential and a vibration check. Other available tests include:

- Complete initial test consisting a of full-load heat run and assessments of percent slip, no-load and full-load current, locked-rotor torque and current, breakdown torque (calculated), winding resistance, high potential, vibration, efficiency and power factor at 100 percent, 75 percent and 50 percent of full load.
- Calibration test, including complete initial test assessments with performance curves based on test data
- Vibration test
- Immersion test
- Polarization index test
- Sound test
- Witnessed testing

Warranty

ODP and WPI TITAN motors carry the following warranties:

- Standard (Energy) efficient – 12 months from date of installation, maximum 18 months from manufacturing date
- Premium efficient – 24 months from date of installation, maximum 30 months from manufacturing date
- Inverter Duty - 24 months from date of installation, maximum 30 months from manufacturing date

U.S. MOTORS® brand ODP and WPI TITAN products are manufactured in our ISO 9001 certified Mena, Arkansas facility. For more information, contact your local sales representative or visit www.usmotors.com

For additional information, please refer to our Modified TITAN® Horizontal Motors (PB210) or contact your Nidec Motor Corporation representative.

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