Horizontal A.C. Motors
Totally Enclosed Fan Cooled Enclosure
Fire Pump Motors

Horsepower: 1 – 500 HP
Speed Range: 1800 – 3600 RPM
Rated Voltages: 200 through 575 Voltage at 60 Hz
Frame Sizes: 143T – 5012
Insulation: Class F insulation with Class B temperature rise at 1.0 service factor
Enclosure: Totally Enclosed Fan Cooled (TEFC)
Efficiency Level: Energy Efficient (IE2) and NEMA Premium Efficient (IE3)

For fire pump applications per NFPA™ 20 where contaminants are minimal

Product Overview and Options

On January 1, 1998, all fire pump manufacturers were required to have motors UL Listed specifically for Fire Pump applications. At that time, we released the UL Listed Fire Pump Motor line. Fire Pump Motors were designed per UL-1004A (currently UL-1004-5) and met the NFPA 20 "Standard for the Installation of Stationary Pumps for Fire Protection."

U.S. MOTORS® brand TEFC fire pump products are fully compliant with federal motor efficiency requirements as described in the Energy Independence and Security Act of 2007 also known as EISA. All fire pump motors provide necessary identifying nameplate data.

On May 14, 2013, Nidec Motor Corporation expanded its UL Listed Fire Pump Motor file (EX5189) to include inverter duty (10:1 variable torque), 500HP or less, and frame sizes 143-5012.

For Nidec Motor Corporation to be able to apply the UL Listed Fire Pump label, motors must meet the following requirements:

- Designed to meet NEMA™ Design "B" parameters per NEMA™ MG1-2014
- Calculated Safe Stall Time must exceed 12 seconds (cold) / 8 seconds (hot)
- Motors designated for Canada must meet CSA-390 Table 2 efficiency values
- 600V or less
- 500HP and lower
- 5012 frame and smaller
- 1.15 service factor (max)

NFPA™: National Fire Protection Association
A worldwide leader in providing fire, electrical, and life safety to the public since 1896, the mission of the international nonprofit NFPA™ is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating scientifically-based consensus codes and standards, research, training and education. NFPA™ membership totals more than 75,000 individuals from around the world and more than 80 national trade and professional organizations.

For more information, go to www.nfpa.org
Product Overview and Options (continued)

Standard Features:
- 1.15 service factor
- Class F insulation, Class B temperature rise at 1.00 service factor (60Hz)
- 40°C Ambient, NEMA®† Design B performance on 60Hz Sine Wave Power
- Hostile Duty™ Construction - Rolled steel frame 140, Cast iron frame 180-5012
- Cast iron end shields
- Steel fan cover and conduit box
- Corrosion resistant mill and chemical duty paint
- Stainless steel nameplate (with CE mark) and zinc-plated hardware
- Shaft slinger on drive end for IP54 protection
- Regreasable ball bearings 250 Frame and up
- Double shielded bearings 140 – 360, open on 400 – 440
- Field convertible to F2 mounting 180 Frame and larger
- Condensation drains with plastic plugs
- Dynamically balanced rotors for reduced vibration
- Lifting provisions on 180 Frame and larger
- Dual drilled frames 182T – 445T/TS

Nidec Motor Corporation offers the following custom-design options on the U.S. MOTORS® brand TEFC Fire Pump motor:
- CORRO-DUTY® construction
- UNIMOUNT® construction
- Inverter duty 10:1 variable torque
- 50 Hertz voltages
- 50°C ambient
- C and D flanges
- Special paint
- Space heater
- Winding and bearing thermal protection

Options and Accessories:

Warranty Information

Refer to the U.S. MOTORS® website (usmotors.com) for the most up-to-date warranty information.

All Nidec Motor Corporation products shall carry the limited warranty of 12 months from the date of installation, not to exceed 18 months from date of manufacture as specified in Section 5 of Nidec Motor Corporation’s Terms and Conditions of Sale except those specifically listed below, or noted within individual product family pages within this catalog.

<table>
<thead>
<tr>
<th>TEFC Motors 140 - 447 NEMA Frames</th>
<th>Installed / Manufactured</th>
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<tbody>
<tr>
<td>Epact</td>
<td>18 / 24 months</td>
<td>12 / 18 months</td>
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<tr>
<td>Premium Efficient &amp; NEMA Premium™</td>
<td>36 / 42 months</td>
<td>24 / 30 months</td>
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<tr>
<td>Inverter Duty</td>
<td>36 / 42 months</td>
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<tr>
<td>TITAN® TEFC Motors - 449 Frame and Larger</td>
<td>Sine Wave Power</td>
<td>VFD Power</td>
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<tr>
<td>Standard Efficient &amp; Energy Efficient</td>
<td>12 / 18 months</td>
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<tr>
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For additional information, please refer to our Full Line Standard Motor Catalog (FL600) or contact your Nidec Motor Corporation representative.

† All marks shown within this document are properties of their respective owners.

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8050 W. Florissant Avenue | St. Louis, MO 63136
Phone: 888-637-7333 | Fax: 866-422-7758

www.nidec-motor.com | www.usmotors.com