

Horizontal A.C. Motors

Open Dripproof Enclosure Fire Pump Motors



Product Specifications

Horsepower: 1 - 500 HP

Speed Range: 1800 – 3600 RPM

Rated Voltages: 200 through 575 Voltage at 60 Hz

Frame Size: 143T – 5012

Insulation: Class F insulation with Class B temperature rise at service factor

Enclosure: Open Dripproof (ODP)

Insulation: 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 ODP 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 1.15 service factor (60Hz)
- 40°C Ambient, NEMA^{®†} Design B performance on 60Hz Sine Wave Power
- Rolled steel frame 143-360, Cast iron frame 400-5012
- Aluminum end shields 143-250, Cast iron end shields 320-5012
- Premasked Mylar nameplate 143-320, Stainless steel 360-5012
- Regreaseable bearings 180 Frame & Larger
- Double shielded bearings 140-400, Open On 440 Frame & larger
- Internal bearing caps 400 Frame & Up
- Lifting provisions 210 Frame & Larger
- Catalog models suitable for Wye-Delta Start 250-445 Frame
- Dual voltage catalog models suitable for Part Winding Start (PWS) on low voltage
- 230/460 & 575 Volt catalog models comply with NRCAN Standards
- 230/460V catalog models dual nameplated for 190/380V 50Hz, Next lower horsepower
- Oversized connection diagram, Catalog models “CE” Mark on nameplate
- Vertical “JP” closed coupled pump catalog models (140-365) with drip cover

Options and Accessories:

Nidec Motor Corporation offers the following custom-design options on the U.S. MOTORS[®] brand ODP Fire Pump motor:

- 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



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.

	Installed / Manufactured	Installed / Manufactured
ODP Motors 140 - 449 NEMA Frames	Sine Wave Power	VFD Power
Epact	18 / 24 months	12 / 18 months
Premium Efficient & NEMA Premium ^{®†}	36 / 42 months	24 / 30 months
Inverter Duty	36 / 42 months	36 / 42 months
TITAN[®] ODP Motors - 5000 Frame and Larger	Sine Wave Power	VFD Power
Standard Efficient & Energy Efficient	12 / 18 months	12 / 18 months
Premium Efficient	24 / 30 months	18 / 24 months
Inverter Duty	24 / 30 months	24 / 30 months

For additional information, please refer to our Full Line Standard Motor Catalog (FL600) or contact your Nidec Motor Corporation representative.

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