Universities & Colleges

Facilities Maintenance Electric Motor Guide



FRACTIONAL AND INTEGRAL REPLACEMENT MOTORS



UNIVERSITIES & COLLEGES

Nidec makes it easy to find the right, energy-efficient U.S. MOTORS® brand replacement motor.

Electric motors consume more than 50 percent of all the electrical energy generated in the United States and more than 30 percent of all the electricity used in the commercial sector which includes buildings on university campuses.

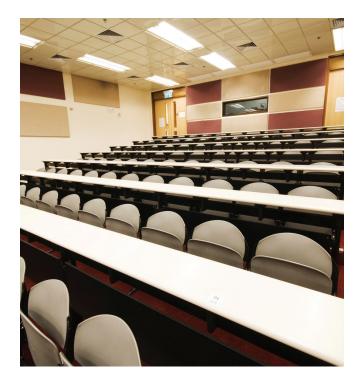
Most motors on campus are used to power fans and pumps in the heating, ventilation and air conditioning (HVAC) systems. But, electric motors can be found in almost every functional area of a campus facility, from the parking garage gate, to automated entry doors, to the campus water treatment facility. It's not unusual for a motor to consume many times its capital cost in electricity every year. For all these reasons, it's clear that the motors chosen to drive a variety of systems on a university campus, offer significant opportunities for savings.

Nidec offers a full line of fractional and integral U.S. MOTORS® brand motors to keep a university campus running smoothly and without downtime. Our line spans every system need from hydraulic elevators, water support and supply systems to HVAC motors for indoor air quality and comfort.

Looking for a direct replacement fractional or integral motor? The U.S. MOTORS line offers an extensive portfolio of replacements and we have the tools—both eBusiness and motor specifications and technical data, to connect you with the right motor quickly at **ecatalog.motorboss.com**:

- Competitive cross reference tools
 - More than 50,000 cross references by competitor or OEM catalog and model numbers.
- eCatalog search tool (search by ID, features or applications)
- Online chat
- Dimension prints
- · Nameplate data





- 3D models
- · Performance data
- Wiring diagrams
- Installation and maintenance manuals

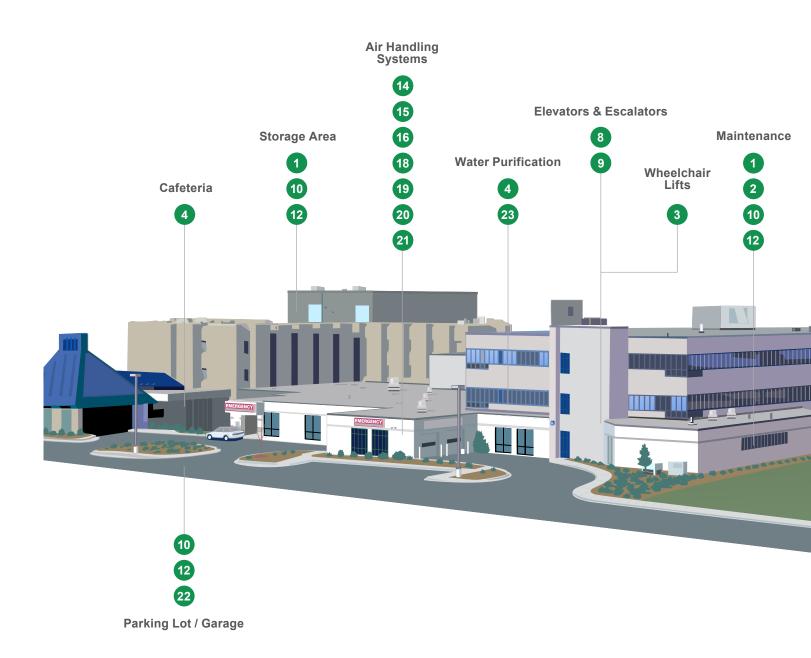
The U.S. MOTORS line of products, as well as a full complement of production and facilities maintenance solutions, is available locally and throughout the world:

- On hand inventory at local distributors
- Authorized service stations—warranty and repair

If you have questions, e-mail us at HVACRCustomerService@nidec-motor.com

^{*}For details, refer to: www.usmotors.com

We make it EASY for you to find and purchase U.S. MOTORS® brand replacement motors!



The U.S. MOTORS® brand NEMA Premium® line of high performance commercial and industrial motors is designed to help industry reduce energy consumption and comply with EISA regulations. This line features upgraded Open Drip-Proof and Totally Enclosed motors that meet or exceed NEMA Premium® requirements.

Roof **Building Systems** 6 5 17 18 18 19 21 **Sprinkler Systems Grounds Entry Ways**

Product Overview (listed in alphabetical order)

- 1 Air Circulator Motors
 - · Single Phase, OAO and TEAO
 - 1/15, 1/10 HP and 1/4 1/2 HP
 - 1800, 1200, and 900 RPM
 - 42 56 Frame
 - · Single and two speed options
 - · Oscillating and non-oscillating options



- · Single Phase, ODP
- 1/2 5 HP
- 3600 RPM
- 56. 143 and 184 Frame
- · High breakdown torque



- · Single Phase, Split Phase & Capacitor Start
- Three Phase, Footed and Footless options
- 1/12 60 HP
- 3600, 1800 and 1200 RPM
- 56 326 Frame
- Standard, Energy and Premium Efficient



- · Single Phase, ODP
- 1/4 1/2 HP
- 1800 RPM
- 48 Frame
- 5 Close Coupled Pump
 - Single and Three Phase, ODP, TEFC and Hazardous Location
 - 1 60 HP
 - 3600 and 1800 RPM
 - 143 326 Frame
 - JM and JP shafts available
- 6 Condenser Fans
 - Single and Three Phase, OAO and TEA
 - 1/10 2 HP
 - 1725, 1625, 1550, 1075 and 825 RPM
 - 48 and 56 Frame
 - Single and two speed
- 7 Cooling Tower
 - Three Phase, TEFC and TEAO
 - 2 100 HP
 - 1800, 1200 RPM
 - 145 447 Frame
 - · Single and two speed
 - NEMA Premium[®]/inverter duty
 - Meets specifications for Baltimore Aircoil Company, Evapco® and Marley® cooling tower motors
- Elevator Duty: Dry Hydraulic
 - Three Phase
 - 3 75 HP
 - 3600, 1800 and 1200 RPM
 - Z and L32 flange mounting



















- **Elevator Duty: Submersible**
 - Single and Three Phase
 - 3 75 HP
 - 3600. 1800 and 1200 RPM
 - · Z and L32 flange mounting



- · Single Phase, ODP, OAO and TEAO
- 1/6 1-1/2 HP
- 3450, 1725, 1075 and 825 RPM
- · Single, two, three and four speed
- · Belt drive and direct drive





- · Three Phase, ODP
- 7-1/2 250 HP
- · 3600 and 1800 RPM
- 184 445 Frame
- UL® listed for fire pump application
- · Available in horizontal frame and vertical JP close coupled pumps



- · Single and Three Phase, ODP and TEFC
- 1/3 1 HP
- 1800 RPM
- 56 and 56C Frame



Hot Water Circulator Pump

- · Single and Three Phase, ODP
- 1/12 1-1/2 HP
- 1800 RPM
- 48 and 56 Frame
- Direct replacement motor for B&G® (Bell & Gossett), Taco® and Thrush™ brand circulator pumps

ODP and TEFC, Single Phase, Capacitor Start

- 1/8 10 HP
- · 3600, 1800 and 1200 RPM
- 48 215 Frame
- · Rigid welded and cradle bases
- C-Face Footed and Footless
- · Automatic or manual reset thermal overload protector options

ODP and TEFC, Single Phase, Split Phase

- 1/12 3/4 HP
- · 3600, 1800, 1200 and 900 RPM • 48 - 56 Frame
- Rigid welded and cradle bases
- Single and two speed options
- C-Face Footed and Footless
- · Automatic or manual reset thermal overload protector options

ODP, Three Phase

- 1/4 400 HP
- · 3600, 1800, 1200 and 900 RPM
- 48 449 Frame
- Energy and NEMA Premium[®] efficient



- · Single Phase, OAO
- 1/30 3/4 HP
- · 1625, 1050, 1100 and 925 RPM
- 5.0", 5.6" and 6.3" diameter
- · Single, two, three and four speed



















Unit Heater Single Phase, TEAO

- 1/15 3/4 HP
- 1550 and 1075 RPM
- 48 and 56 Frame
- · Cradle and stud mount

Water System Pumps

- · Single and Three Phase, ODP and TEFC
- 1/3 3 HP
- 3600 and 1800 RPM
- 48 and 56 Frame
- · C-Face, square flange and sump pump
- · Footed and Footless

















VBXX® bearing isolators by Inpro/Seal® help protect bearings

TEFC, Three Phase, 841 PLUS®

• 3600, 1800 and 1200 RPM

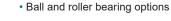
· Five-year limited warranty* NEMA Premium[®] efficient

• 1 - 400 HP

• 1 – 400 HP

• 143 - 447 Frame

- 3600, 1800 and 1200 RPM
- 143 447 Frame
- · All cast iron construction
- NEMA Premium® efficient
- **TEFC, Three Phase, HOSTILE DUTY™**
 - 1 350 HP • 3600, 1800, 1200 and 900 RPM
 - 143 449 Frame
 - NEMA Premium[®] efficient
 - · Cast iron frame and brackets



- TEFC, Three Phase, UNIMOUNT®
 - 1/4 30 HP
- 3600, 1800, 1200 and 900 RPM
- 56 286 Frame
- NEMA Premium® efficient
- · C-Face, Footed and Footless and removable base







