

# Steel Edge™ Motors

## Rolled Steel Frame, Totally Enclosed Fan Cooled



**Horsepower:** 1/4 – 10 HP

**Speeds:** 3600, 1800, 1200, 900 RPM

**Frame Sizes:** 56 – 215

**Design Voltages:** 200 through 575V at 60Hz

**Enclosures:** Totally Enclosed Fan Cooled

**Bearings:** Sealed Bearings 56-140 Frame,  
Double Shielded 180-210 Frame

**Efficiency Levels:** Energy Efficient (IE2) and  
NEMA Premium®† Efficient (IE3)



### Product Overview and Options

Steel Edge™ motors offer the widest range of electrical and mechanical features of any motor on the market today. Steel Edge™ can be used on pumps, fans, compressors, general industrial belt drive, direct drive and direct-connected equipment where 12-lead, wye-start/delta-run is required. Steel Edge™ is also available as an inverter duty motor, meeting both Parts 30 and 31 of NEMA MG-1 standards.

#### Product Features:

- 1.15 S.F. @60 Hz, 1.00 S.F. on Inverter Power
- Class F Insulation, Class B Rise at full load on 60 Hz sine wave power
- Oversized diagonally split conduit box
- Rugged motor base
- Rolled steel frame
- 40°C ambient
- Usable up to 3,300 feet above sea level
- Dual voltage ratings suitable for Part Winding Start (PWS) on low voltage
- Lifting provisions (180-210 frame)
- Agency recognitions: UL®, CE, and CSA® certified
- ALLGUARD® Motor Quality System
- Footed, C-Face Footed, C-Face Footless
- Regreasable shaft-end bearings (180-210 frame)
- Shaft slinger on pulley end
- Aluminum end shields with steel bearing inserts
- Inverter Suitable, 20:1VT 5:1 CT turn down ratio, when applied within maximum cabling guidelines



Steel Edge™ Motors  
Footed



Steel Edge™ Motors  
C-Face Footless

## Product Overview and Options *continued*

### Equipped with ALLGUARD® Motor Quality System

The ALLGUARD motor quality system combines the industry's best motor winding protection with the latest advancements in motor bearing lubrication.

### Polyrex® EM grease

- Outstanding long-life, high-temperature lubrication of ball and roller bearings
- Specially formulated for electric motor bearing lubrication
- Excellent mechanical shear stability
- Excellent corrosion resistance, even in the presence of salt water

### New pulse resistant and abrasion resistant wire

- Higher temperature pulse endurance performance
- Excellent mechanical shear stability
- Incorporation of "Tough Wire" concepts

### 100% solids polyester varnish on all frames

- 700 times NEMA® required humidity resistance
- Approximately 5000 volt dielectric strength at 25°C
- 2 times film build of water-borne varnishes
- 2 times the hot bond strength of epoxy varnish

## Stock Ratings and Custom Features

### Stock Offerings

- Frame Size
  - 56, 140, 180, and 210
- Horsepower Ratings
  - 1/4-10HP (2 & 4 Pole), 1/4 – 5HP (6 Pole)
- Construction
  - Footed T-Frame
  - Footed C-Face
  - Footless C-Face
- Voltage Ratings:
  - 200, 230/460, 575 Volts
- NEMA®† Design B performance on 60 Hz sine wave power

### Custom Offerings

- Configuration not identified as stock rating
- Speeds slower than 6 Pole
- Special Voltage
- F2 or F3 Assembly Position
- Inverter Duty with Shaft Grounding Ring
- High Altitude or Ambient
- Special Shaft Extensions
- Other accessories found in custom motor catalog

## NEMA Premium – DOE IHP Motor Regulation Rule

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 DOE regulations. This line features upgraded open dripproof and totally enclosed motors that meet or exceed NEMA Premium®† requirements.

All high performance motors carry a nameplate including a NEMA Premium®† trademark and European IE efficiency marks, providing a clear means for both users and OEM's to determine global regulatory compliance for their application.

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

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