

## VFD-3P-480-50HP-75A-DCM-M2

50HP Variable Frequency Device - 480V AC 3PH Input/Output - 75 Amps - 36kW

Product ID: 313668



Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

### VFD-3P-480-50HP-75A-DCM-M2 Variable Frequency Device

**Unit Type:** 3 Phase Delta, 3 Wire Variable Frequency Device

**Dimensions:** 24.33" x 15.66" x 12.04"

**Weight:** 110 lbs

**Input/Output Voltage:** 480V (480-540V) AC 3PH

**Output Current:** 75 Amps

**Operating Frequency:** 0 to 3000 Hz

**Kilowatts:** 36 kw

**HP:** 50

**Control Power:** 120V power transformer with primary and secondary fuses, and isolation relays

**Starting Torque:** 1 Hz/150%

**Carrier Frequency:** 1.0-16kHz, auto adjusted according to temperature and load

**Frequency Accuracy:** Digital setting: 0.01Hz, Analog Setting: Max frequency X 0.05%

**Torque boost:** Automatic torque boost; manual torque boost: 0.1%~30.0%

**V/f curve:** Linear, multiple point and square type (1.2 power, 1.4 power, 1.6 power, 1.8 power, square)

**Inputs:** 7 on-off programmable digital, 1 high-speed pulse, 2 programmable analog (AI1: 0~10V or 0/4~20mA AI2: 0~10V or 0/4~20mA)

**Outputs:** 1 programmable open collector, 1 analog (open collector or high-speed pulse), 2 relay, 2 analog (0/4~20mA or 0~10V)

**Analog Input/Output:** 2 Input (0~10V or 0/4~20mA), 2 Output (0/4~20mA or 0~10V)

**Communication Terminal:** RS485 communication interface, support MODBUS-RTU communication protocol

**Overload:** 110% @ 60s, 120% @ 3s

**Operating Temp:** -10°C to +40°C

**Max Operating Humidity:** 90% (non condensing)

**Enclosures:** -

**Mounting:** Surface

### Features/Ratings

Automatic Voltage Regulation

LED Display

3 Phase Delta, 3-Wire Configuration

### Special Orders - Special Requirements

Contact us for special requirements

**Toll Free:** 1-800-369-6671

**Intl:** 1-903-270-1187

Color: Gray

E-mail: [sales@larsonelectronics.com](mailto:sales@larsonelectronics.com)

**The VFD-3P-480-50HP-75A-DCM-M2 from Larson Electronics is a 3 Phase, 3-Wire Configuration Variable Frequency Drive that is suitable for improving AC motor performance in industrial operations. This fan-cooled unit features a three-phase 480V AC input/output voltage comparability. Designed for steady speed error, fast torque rise and protection from resonance vibrations, the device provides an output current of 75 amps and an operating frequency range of 0 to 3000 Hz with 50 horsepower.**

The VFD-3P-480-50HP-75A-DCM-M2 offers accurate AC motor control in industrial facilities. This 36kw unit is compatible with three-phase nominal 480V (within the range of 480-540V) AC input/output voltage, provides an output current of 75 amps and an operating frequency range of 0 to 3000 Hz. This device supports seven on-off programmable digital inputs, one high-speed pulse input and two programmable analog inputs, as well as one programmable open collector output, one analog output (open collector or high-speed pulse), two relay outputs and two analog outputs. The device also features a total of four operating modes: Keypad control, Terminal control, Serial communication control, and Frequency Setting Mode for digital setting, analog setting, pulse frequency setting, serial communication setting, multi-step speed setting & simple PLC, PID setting, etc. The VFD-3P-480-50HP-75A-DCM-M2 is designed for indoor applications and operating temperatures ranging between -10°C to +40°C. Operators may mount the variable frequency drive on compatible surfaces. This device measures 24.33" x 15.66" x 12.04" and weighs approximately 110 lbs.

**Applications:** Speed control of AC motors, industrial machines, large compressors, energy savings and more.

At Larson Electronics, we do more than meet your lighting needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting system and/or accessories to fit the unique demands of your operation. A commitment to honesty, quality, and dependability has made Larson Electronics a leader in the lighting and electronics business since 1973. Contact us today at 800-369-6671 or message [sales@larsonelectronics.com](mailto:sales@larsonelectronics.com) for more information about our custom options tailored to meet your specific industry needs.

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## **Frequently Asked Questions (FAQ)**