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VFD-3P-380.480-50HP-75A-DCM

50HP Variable Frequency Device - 380V 3PH Input to 480V 3PH Output - 3PH - 75 Amps - 37kW

Product ID: 319401



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-380.480-50HP-75A-DCM Variable Frequency Device

Unit Type: 3 Phase Delta, 3 Wire Variable Frequency Device
Dimensions: 19.68" x 11.65" x 10.86"
Weight: 66.13 lbs
Input Voltage: 380-480V 3 Phase
Output Voltage: 360-380V 3 Phase
Output Current: 75 Amps
Operating Frequency: 0 to 3000 Hz
Kilowatts: 37kw
HP: 50
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 A12: 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: 150% @ 60s, 180% @ 10s, 200% @ 3s
Operating Temp: –10°C to +40°C
Max Operating Humidity: 90% (non condensing)
Materials: -
Mounting: Surface
Color: Gray

Features/Ratings

Automatic Voltage Regulation
LED Display
3 Phase Delta, 3-Wire Configuration

Special Orders - Special Requirements

Contact us for special requirements

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The VFD-3P-380.480-50HP-75A-DCM from Larson Electronics is a 3 Phase, 3-Wire Configuration Variable Frequency Drive designed to enhance AC motor performance in demanding industrial applications, particularly in water and wastewater operations. This fan-cooled unit supports three-phase 380–480V AC input voltage and offers an adjustable output frequency range of 0 to 60 Hz. It is rated for 37 kW / 50 horsepower operation and features an IP55 / Type 12 backplate enclosure for robust indoor protection.

The VFD-3P-380.480-50HP-75A-DCM is equipped with a built-in RFI filter and a graphical local control panel, offering precise control over motor speed and torque. This device is optimized for environments requiring accurate and stable speed regulation, fast torque response, and protection from vibration-related resonance. The system provides smooth frequency conversion from a primary 60 Hz input to a variable secondary frequency output from 0 to 60 Hz.

The VFD-3P-380.480-50HP-75A-DCM supports several operating modes, including keypad control, terminal control, serial communication control, and Frequency Setting Mode for digital, analog, pulse, multi-step, simple PLC, and PID settings. The unit includes multiple programmable inputs and outputs, such as digital inputs, high-speed pulse inputs, analog outputs, and relay outputs, ensuring flexible integration with various control systems.

Designed for use in environments with operating temperatures between –10°C to +40°C, this VFD can be mounted on compatible surfaces and is ideal for motor control in applications involving pumps, fans, and treatment systems. The device measures 19.68" x 11.65" x 10.86" and weighs approximately 66.13 lbs.

Applications: Speed control of AC motors, water treatment systems, industrial machines, large pumps, 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 for more information about our custom options tailored to meet your specific industry needs.

Frequently Asked Questions (FAQ)