

VFD-3P-4.2KV-68.8A-50.60HZ-DCM

Variable Frequency Device - 4200V AC 3PH Input/Output Voltage Rating - 68.8 Amps Continuous Rating

Product ID: 316042

Please see last page for supporting documentation for this product(certificates, CAD files & drawings, IES files, wiring diagrams, etc).



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-4.2KV-68.8A-50.60HZ-DCM Variable Frequency Drive

Unit Type: Variable Frequency Drive

Dimensions: 78.7"-W x 50.2"-D x 93.78"-H

Weight: 4,717.9 lbs

Rated Voltage: 4200V, 3PH

Rated Current: 68.8 Amps

Rated Capacity: 500 KVA

Overload Capacity: 120% @ 1 min.

Operating Frequency: 50/60 Hz $\pm$ 10%

Enclosure Rating: NEMA 12

Input/Output Voltage of Power Cells: 690V

Input power factor: 0.95 (with load more than 20%)

Input current harmonics: 4%, compliant with the IEEE519-1992 and GBT14549-93 standards

Speed regulation ratio: 40:1 (universal vector); 100:1 (SVC); 200:1 (FVC)

Rotational speed accuracy: $\pm$ 0.5 % (SVC); $\pm$ 0.2 % (FVC)

Startup torque: 0.5 Hz/150% (SVC); 0 Hz/180% (FVC)

Rectification: Diode three-phase full bridge

Inversion: IGBT inverter bridge

Acceleration and deceleration time: 0.1–6500s; > 6500s customizable

Start/Stop control: Local or remote

Control system: ARM, DSP, FPGA, and HMI

Features/Ratings

Variable Frequency Drive

LED Display

3 Phase Delta, 3-Wire Configuration

Panel display: Touchscreen, English

System protection: Motor overload, output overload, output short circuit, output grounding, input overcurrent, input overvoltage, input imbalance, input grounding, cooling fan fault alarm, door switch interlock protection, transformer overheat alarm, transformer overheat trip, and transformer secondary short circuit protection

Mean time between failures (MTBF): 50,000 hours

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Analog Input(s): (4), 4–20 mA or 0–10 V

Digital Input(s): (10), relay dry contact

Analog Output(s): (5), 4–20 mA or 0–10 V

Digital Output(s): (16), relay dry contact

Cooling System: Forced air cooling

Control power supply: 380 V±10% AC, three-phase and four-wire

Cable Entry/Exit: Lower cable entry and exit, or customized configuration

Cabinet type: GGD combined type

Operating Temp: –10°C to +40°C

Max Operating Humidity: 5–95%, non-condensing

Altitude: 3,300ft; derating at more than 1000 m. Specify the altitude when ordering.

Mounting: Floor Mounted

Color: Grey

Special Orders - Special Requirements

Contact us for special requirements

Toll Free: 1-800-369-6671

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The VFD-3P-4.2KV-68.8A-50.60HZ-DCM 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 rating of 4200V 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 68.8 amps and an operating frequency range of 0 to 3000 Hz.

The VFD-3P-4.2KV-68.8A-50.60HZ-DCM offers accurate AC motor control in industrial facilities. This unit is compatible with three-phase nominal 4200V AC input/output voltage, provides an output current of 68.8 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. (Frequency can be adjusted using either the potentiometer on the control panel, up/down button on the keypad, or through a RS485 Interface.)

The VFD-3P-4.2KV-68.8A-50.60HZ-DCM 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.

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 for more information about our custom options tailored to meet your specific industry needs.

Frequently Asked Questions (FAQ)

Export Control Classification Number (ECCN): EAR99

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