Larson Electronics LLC
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VFD-1P-120-0.5HP-3A-DCM

1/2 HP Variable Frequency Drive (VFD) – 120V AC Single-Phase Input/Output – 3 Amps – 0.4 kW

Product ID: 309443

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



Image: VFD-1P-120-0.5HP-3A-DCM

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-1P-120-0.5HP-3A-DCM Variable Frequency Drive

Unit Type: 1 Phase Input/Output Delta, 3 Wire Variable Frequency Drive
Dimensions: 5.59" x 3.34" x 4.44"
Weight: 4.4 lbs
Input/Output Voltage: 1 Phase 120V AC
Output Current: 3 Amps
Operating Frequency: 0 to 400 Hz
Kilowatts: 0.4kw
HP: 1/2
Speed Regulation: 1:100
Speed Control Accuracy: =±0.5% of rating synchronous speed
Frequency Resolution: Analog setting: 0.1% of max frequency; Digital setting: 0.01Hz
Frequency Precision: Digital setting: 0.01% max, Analog Setting: Max frequency X 0.2% max
Torque boost: Automatic torque boost; manual torque boost: 0.1%~30.0%
Communication Terminal: RS485 communication interface
Control Mode: V/F Control; Sensorless Vector Control
Overload Capacity: 150% @ 60s, 180% @ 3s
Operating Temp: –10°C to +40°C
Max Operating Humidity: 95% (non condensing)
Materials: -
Mounting: Surface

Features/Ratings

Automatic Voltage Regulation
LED Display
1 Phase Input/Output Delta, 3-Wire Configuration
Automatic Energy Save Running
Automatic Current Limiting
Pulse Width Modulated Sine Wave

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

The VFD-1P-120-0.5HP-3A-DCM from Larson Electronics is a Single-Phase Input Variable Frequency Drive (VFD) designed to provide precise speed and torque control for AC motors in industrial and commercial applications. This fan-cooled unit operates on 120V AC single-phase input and delivers controlled variable-frequency output for motor operation. Rated for 1/2 horsepower (0.4 kW), the drive provides an output current of 3 amps and supports an operating frequency range of 0 to 400 Hz, making it suitable for a wide range of motor control tasks.

The VFD-1P-120-0.5HP-3A-DCM offers reliable and efficient AC motor control in industrial facilities. This 0.4 kW VFD is compatible with 120V AC single-phase input, provides a 3-amp output current, and supports an adjustable frequency range of 0–400 Hz. The unit features V/F control mode and sensorless vector control, along with an internal PID controller, automatic energy-saving operation to optimize the V/F curve, automatic voltage regulation, and built-in current limiting for enhanced motor protection and performance.

The VFD-1P-120-0.5HP-3A-DCM is designed for indoor applications and operating temperatures ranging between –10°C to +40°C. Operators may mount the VFD phase converter on compatible surfaces. This device measures 5.59" x 3.34" x 4.44" and weighs approximately 4.4 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 for more information about our custom options tailored to meet your specific industry needs.

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Frequently Asked Questions (FAQ)

There are no Faqs

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Export Control Classification Number (ECCN): EAR99

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Links (Click on the below items to view):

- **Operations Manual**(https://www.larsonelectronics.com/images/product/Manual/309443.PDF)
- **HigResPic1**(https://www.larsonelectronics.com/images/product/HigResPic1/309443.JPG)
- **HigResPic2**(https://www.larsonelectronics.com/images/product/HigResPic2/309443.JPG)
- **HigResPic3**(https://www.larsonelectronics.com/images/product/HigResPic3/309443.JPG)
- **HigResPic4**(https://www.larsonelectronics.com/images/product/HigResPic4/309443.JPG)
- **HigResPic5**(https://www.larsonelectronics.com/images/product/HigResPic5/309443.JPG)
- **HigResPic6**(https://www.larsonelectronics.com/images/product/HigResPic6/309443.JPG)
- **HigResPic7**(https://www.larsonelectronics.com/images/product/HigResPic7/309443.JPG)
- **HigResPic8**(https://www.larsonelectronics.com/images/product/HigResPic8/309443.JPG)
- **HigResPic9**(https://www.larsonelectronics.com/images/product/HigResPic9/309443.JPG)
- **HigResPic10**(https://www.larsonelectronics.com/images/product/HigResPic10/309443.JPG)
- **Video1**(https://www.youtube.com/watch?v=FM7BXInKJaY)
- **Video2**(https://www.youtube.com/watch?v=M1i0XweKYE0)
- **ISO 9001 Certification**(http://larsonelectronics.com/images/pdfdocs/ISO9001.PDF)
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