

VFD-3P-460V-20HP-27A-N12-DCM

20 HP Variable Frequency Device - 460V AC 3PH Input/Output - 27 Amps - 15kW - NEMA 12

Product ID: 330411



Image: VFD-3P-460V-20HP-27A-N12-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-3P-460V-20HP-27A-N12-DCM Variable Frequency Device

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

Dimensions: 13.34" x 9.09" x 8.42"

Weight: 24.25 lbs

Input/Output Voltage: 460V AC (380-480V AC) 3PH

Output Current: 27 Amps

Operating Frequency: 0 to 500 Hz

Kilowatts: 15kw

HP: 20

Passive Harmonic Filter: Included, wired in series with the drive. For power factor control, the contactor drops out the tuning reactor and capacitors during light loading. This filter is designed to limit current distortion to less than 5%

Service Switch: Included, to manually disconnect power to the drive

Motor Control-Max Level: Open Loop Vector (Sensorless Vector)

Braking: Dynamic Braking, Flux Braking

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)

Features/Ratings

Automatic Voltage Regulation

LED Display

3 Phase Delta, 3-Wire Configuration

Circuit Breaker

Electronic Bypass

NEMA 12 Rated, Indoor

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

Communication Terminal: Built-in BACnet MS/TP, N2 & Modbus RTU

Operator Controls : Included, Keypad

Overload: 150% @ 60s, 180% @ 10s, 200% @ 3s

Operating Temp: -10°C to +40°C

Max Operating Humidity: 90% (non condensing)

Enclosure Rating: NEMA 12 Rated

Conduits: (3) electrical conduits fed from the top - (2) electrical feeds: 1 ¼" outside diameter, (1) control conduit (blue): 1" outside diameter

Wiring: Line and load wires: 8 AWG, Ground feed wire: 10 AWG

Mounting: Panel Mounted

Color: Grey

Special Orders - Special Requirements

Contact us for special requirements

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The VFD-3P-460V-20HP-27A-N12-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 460V 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 27 amps and an operating frequency range of 0 to 500 Hz with 20 horsepower.

The VFD-3P-460V-20HP-27A-N12-DCM offers accurate AC motor control in industrial facilities. This 15kw unit is compatible with three-phase nominal 460V AC input/output voltage, provides an output current of 27 amps and an operating frequency range of 0 to 500 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-460V-20HP-27A-N12-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. This device measures 13.34" x 9.09" x 8.42" and weighs approximately 24.25 lbs. The unit is fed by three electrical conduits from the top, including two electrical feeds (1 ¼" outside diameter) and one control conduit (blue) with a 1" outside diameter. Line and load wires are 8 gauge, while the ground feed wire is 10 gauge.

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

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Frequently Asked Questions (FAQ)

There are no Faqs