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## EXP-VFD-3P-600-1HP-1.7A-DCM

# 1HP Explosion Proof VFD Phase Converter - C1D1/C2D1 - 600V AC (575-620V) 3PH Input/Output - N4X

**Product ID: 257675**

**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.**

**EXP-VFD-3P-600-1HP-1.7A-DCM Explosion Proof Variable Frequency Device**

**Unit Type:** 3 Phase Delta, 3 Wire Variable Frequency Device
**Dimensions:** 13.25" x 17.25" x 8.70"
**Weight:** -
**Input Voltage:** 600V AC (575-620V) 3PH
**Output Voltage:** 600V AC (575-620V) 3PH
**Output Current:** 1.7 Amps
**Operating Frequency:** 0 to 3000 Hz
**Kilowatts:** 0.75 kw
**HP:** 1
**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)l
**Communication Terminal:** RS485 communication interface, supports MODBUS-RTU communication protocol
**Overload Capacity:** 150% @ 60s, 180% @ 10s, 200% @ 3s
**Operating Temp:** –10°C to +40°C

**Features/Ratings**

Class I, Divisions 1 & 2 Groups B,C,D
Class I, Zones 1 & 2 Groups IIB+H2,IIA
Class II, Divisions 1 & 2 Groups E,F,G
Class III
Type 3, 4, 4X
CENELEC/ATEX/IEC Ex
Ex d IIB + H2 T5 or T6
Ex tD A21 IP66
Tamb = + 60°C
3 Phase Delta, 3-Wire Configuration
Automatic Energy Save Running
Automatic Current Limiting
Automatic Voltage Regulation

LED Display

**Max Operating Humidity:** 90% (Non Condensing)

**Materials:** Copper-free Aluminum, Stainless Steel (Hardware)

**Finish:** Aluminum Lacquer Paint Finish

**Mounting:** Surface

**Hubs:** -

**Color:** Grey

**Special Orders - Special Requirements**

Contact us for special requirements

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

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

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**The EXP-VFD-3P-600-1HP-1.7A-DCM from Larson Electronics is a 3 Phase, 3-Wire Configuration Explosion Proof Variable Frequency Drive that is suitable for improving AC motor performance in combustible buildings. This fan-cooled unit features three-phase 600 V AC input/output voltage comparability. Designed for steady speed error, fast torque rise and protection from resonance vibrations, the explosion proof device provides an output current of 1.7 amps and an operating frequency range of 0 to 3000 Hz with 1 horsepower.**

The EXP-VFD-3P-600-1HP-1.7A-DCM offers accurate AC motor control in combustible facilities. This 0.75kw explosion proof unit is compatible with three-phase nominal 600 V AC (within the range of 575-620V) input/output voltage, provides an output current of 1.7 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.

Constructed of copper-free aluminum alloy with stainless steel hardware, the EXP-VFD-3P-600-1HP-1.7A-DCM is finished in aluminum lacquer paint for durability. This explosion proof VFD is designed for Class I, Divisions 1 & 2 (Groups B,C,D); Class I, Zones 1 & 2 (Groups IIB+H2,IIA); Class II, Divisions 1 & 2 (Groups E,F,G) and Class III rated combustible sites. The NEMA 4X rating makes the unit suitable for both indoor and outdoor applications, as well as ensures protection from water, dust, moisture, dirt and external ice formation.

**Mounting:** The explosion proof system is compatible with surface mounting applications. During installation, operators are provided access to aluminum alloy ductile mounting lugs at the back of the enclosure. Designed to cater to various mounting setups, the mounting components are bi-directional for vertical or horizontal positioning.

**Applications:** Flammable work sites, combustible systems, 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)

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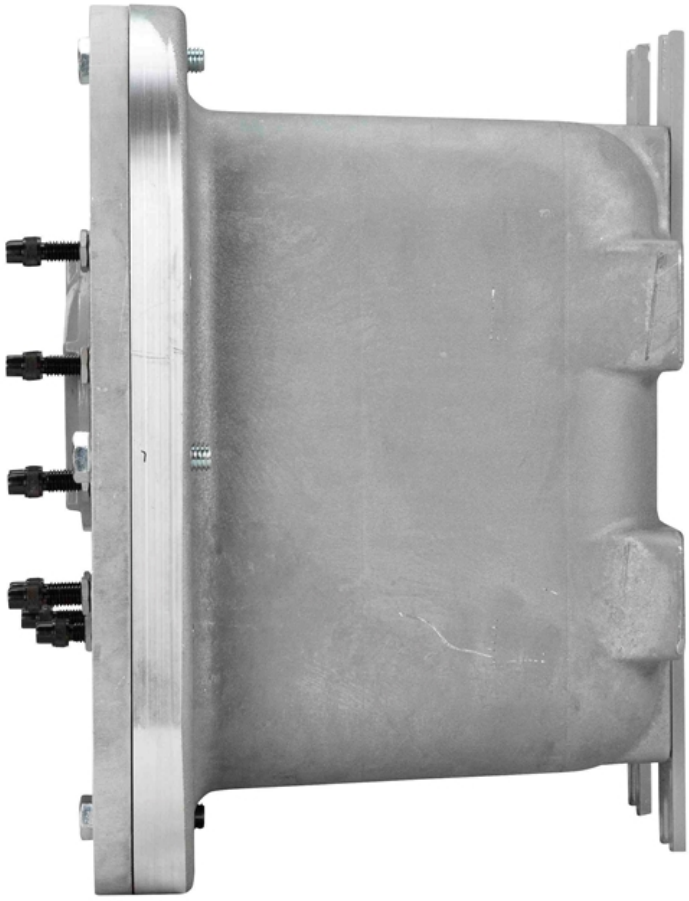

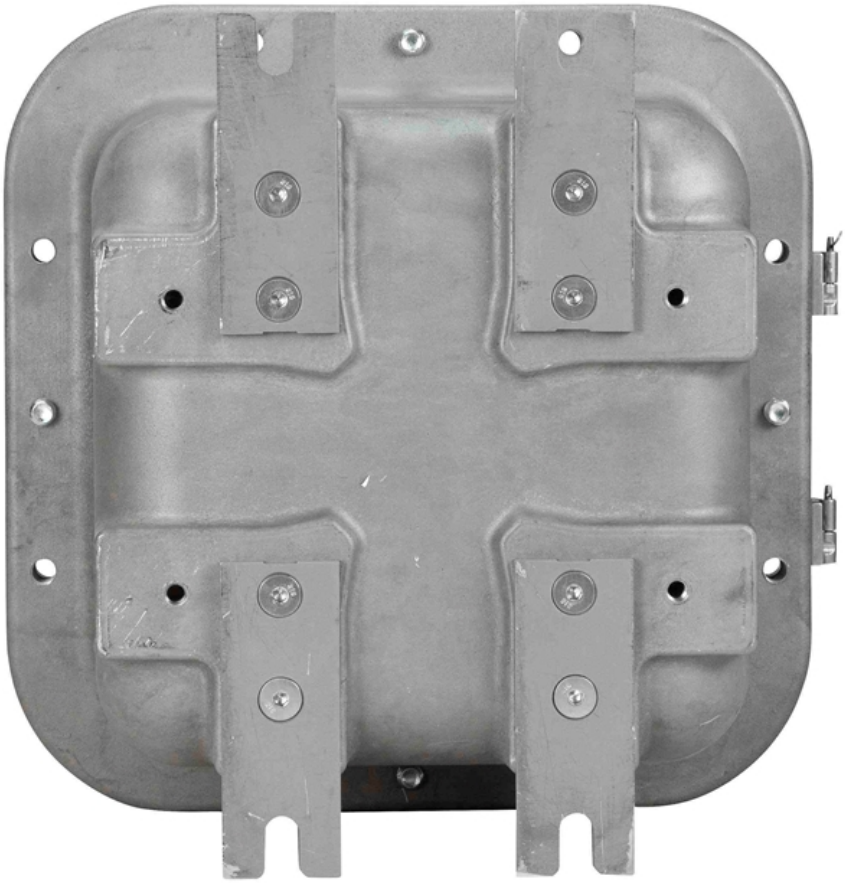

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**Product ID: 257675**

**Export Control Classification Number (ECCN):** EAR99

Links (Click on the below items to view):

- ATEX Certificate (European Explosion Proof)
- Canadian CEC Certificate (Commonly referred to as CSA Certificate)
- CE Certificate
- Certificate 1, Misc
- Certificate 2, Misc
- Certificate 3, Misc
- IEC Ex Certificate (International Explosion Proof)
- MSDS (Material Safety Data Sheet
- Operations Manual
- RoHS Certificate (Restriction of Hazardous Substances)
- USA NEC Certificate (Commonly referred to as UL Certificate)
- HigResPic1
- HigResPic2
- HigResPic3
- HigResPic4
- HigResPic5
- HigResPic6
- HigResPic7
- HigResPic8
- HigResPic9
- ISO 9001 Certification
- Business Certificate
- Shipping Time Map