

### EXP-VFD-1P-208.240-2HP-9.6A-DCM

**2HP Explosion Proof Variable Frequency Device - 208-240V AC 1PH Input/Output - 9.6 Amps - 1.5kW**

**Product ID: 224381**

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



Image: EXP-VFD-1P-208.240-2HP-9.6A-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.**

#### **EXP-VFD-1P-208.240-2HP-9.6A-DCM Explosion Proof Variable Frequency Device**

**Unit Type:** 1 Phase Input/1 Phase Output Variable Frequency Device

**Dimensions:** 12.00" x 12.00" x 10.00"

**Weight:** -

**Input/Output Voltage:** 208-240V AC 1PH

**Output Current:** 9.6 Amps

**Operating Frequency:** 0 to 3000 Hz

**Kilowatts:** 1.5 kw

**HP:** 2

**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

**Outputs:** 1 programmable open collector, 1 analog (open collector or high-speed pulse), 2 relay, 2 analog

**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

#### **Features/Ratings**

Class I, Divisions 1 & 2

Class II, Divisions 1 & 2

Automatic Voltage Regulation

LED Display

**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

**Special Orders - Special Requirements**

Contact us for special requirements  
**Toll Free:** 1-800-369-6671  
**Intl:** 1-903-270-1187  
**Fax:** 1-903-765-7664  
**E-mail:** [sales@larsonelectronics.com](mailto:sales@larsonelectronics.com)

**The EXP-VFD-1P-208.240-2HP-9.6A-DCM from Larson Electronics is an Explosion Proof Single-Phase Input, Single-Phase Output Variable Frequency Drive that is suitable for improving AC motor performance in industrial operations. This fan-cooled unit features single-phase 208-240V 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 9.6 amps and an operating frequency range of 0 to 3000 Hz with 2 horsepower.**

The EXP-VFD-1P-208.240-2HP-9.6A-DCM offers accurate AC motor control in hazardous locations and industrial facilities. This 2-HP unit is compatible with single-phase 208-240V AC input/output voltage. Designed for steady speed error, fast torque rise and protection from resonance vibrations, the device provides an output current of 9.6 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 explosion proof VFD also features a total of four operating modes: Keypad control, Terminal control, Serial communication control, and Operation Command Mode for digital setting, analog setting, pulse frequency setting, serial communication setting, multi-step speed setting & simple PLC, PID setting, etc.

The EXP-VFD-1P-208.240-2HP-9.6A-DCM is designed for flammable environments with operating temperatures ranging between -10°C to +40°C. This device measures 12.00" x 12.00" x 10.00". The explosion proof unit is rated for use in Class I, Divisions 1 & 2 and Class II, Divisions 1 & 2 hazardous locations, making it ideal for indoor or outdoor applications where flammable vapors, gases or dust exist or stand the potential to exist.

**Mounting:** Operators may mount the explosion proof VFD phase converter on compatible surfaces.

**Applications:** Speed control of AC motors, industrial machines, large compressors, energy savings and more within Class I & II, Divisions 1 & 2 hazardous locations.

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](mailto: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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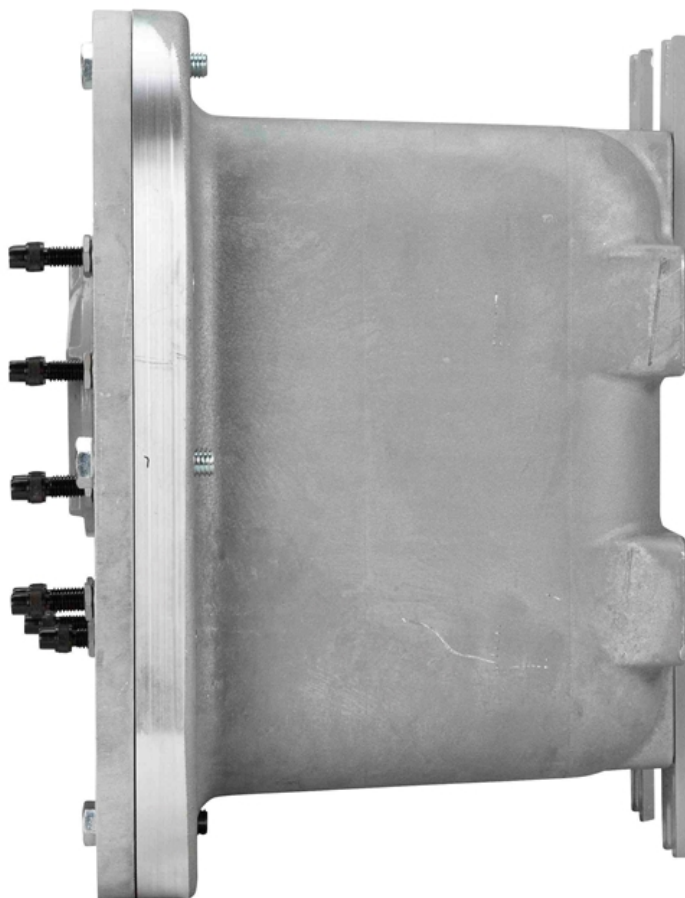


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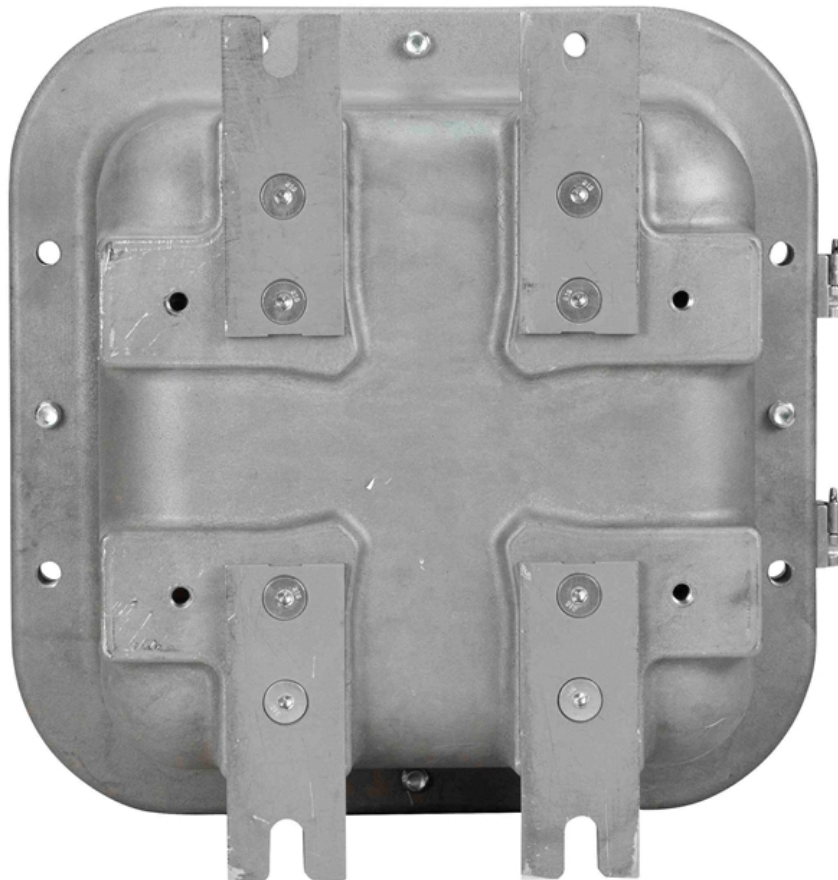


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**Export Control Classification Number (ECCN):** EAR99

Links (Click on the below items to view):

- **ATEX Certificate (European Explosion Proof)**( <https://www.larsonelectronics.com/images/product/ATEXCert/224381.PDF> )
- **Canadian CEC Certificate (Commonly referred to as CSA Certificate)**( <https://www.larsonelectronics.com/images/product/CECCert/224381.PDF> )
- **CE Certificate**( <https://www.larsonelectronics.com/images/product/CECert/224381.PDF> )
- **Certificate 1, Misc**( <https://www.larsonelectronics.com/images/product/Cert1/224381.PDF> )
- **Certificate 2, Misc**( <https://www.larsonelectronics.com/images/product/Cert2/224381.PDF> )
- **Certificate 3, Misc**( <https://www.larsonelectronics.com/images/product/Cert3/224381.PDF> )
- **IEC Ex Certificate (International Explosion Proof)**( <https://www.larsonelectronics.com/images/product/IECExCert/224381.PDF> )
- **MSDS (Material Safety Data Sheet)**( <https://www.larsonelectronics.com/images/product/Msds/224381.PDF> )
- **Operations Manual**( <https://www.larsonelectronics.com/images/product/Manual/224381.PDF> )
- **RoHS Certificate (Restriction of Hazardous Substances)**( <https://www.larsonelectronics.com/images/product/RoHSCert/224381.PDF> )
- **USA NEC Certificate (Commonly referred to as UL Certificate)**( <https://www.larsonelectronics.com/images/product/NECCert/224381.PDF> )
- **HigResPic1**( <https://www.larsonelectronics.com/images/product/HigResPic1/224381.JPG> )
- **HigResPic2**( <https://www.larsonelectronics.com/images/product/HigResPic2/224381.JPG> )
- **HigResPic3**( <https://www.larsonelectronics.com/images/product/HigResPic3/224381.JPG> )
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- **HigResPic9**( <https://www.larsonelectronics.com/images/product/HigResPic9/224381.JPG> )
- **Video1**( <https://www.youtube.com/watch?v=TpvPaVrg4ok> )
- **ISO 9001 Certification**( <http://larsonelectronics.com/images/pdfdocs/ISO9001.PDF> )
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