

FREQUENCY & VOLTAGE SENSING RELAY (FVR)

DESCRIPTION

The Lake Shore Electric Frequency Voltage Relay is UL Listed and monitors the frequency and voltage of a 120 VAC Single phase source. Frequency Voltage Relays are used to accept a minimum value of a source voltage and frequency, in this case 90% voltage and 97% frequency, prior to application of this source to a load.

When the voltage and frequency attain a value equal to or greater than the pickup settings, the output contacts change state and the LED is energized.

When the voltage falls below 50% of nominal, the output contacts revert to their de-energized state and the LED is de-energized.

FEATURES

The Lake Shore Electric Frequency/Voltage Relay utilizes single phase solid-state sensing with a dry set of contacts for the customers use. Additionally supplied is an LED, which is visible from the front of the unit, to indicate the relay's contact position. The unit can be adjusted in the field, but it is strongly recommended that the field service personnel contact the factory before any modifications are performed.

APPLICATION

A typical application of a Frequency/Voltage Relay is to monitor the ascending voltage and frequency of an emergency generator and prevent application to the load bus until a minimum acceptable value of that generator's output is attained. Additionally the unit is designed to have a dropout setting of less than 50% of the nominal operating value. This enables the emergency source to remain online as long as possible prior to removing it from the load.

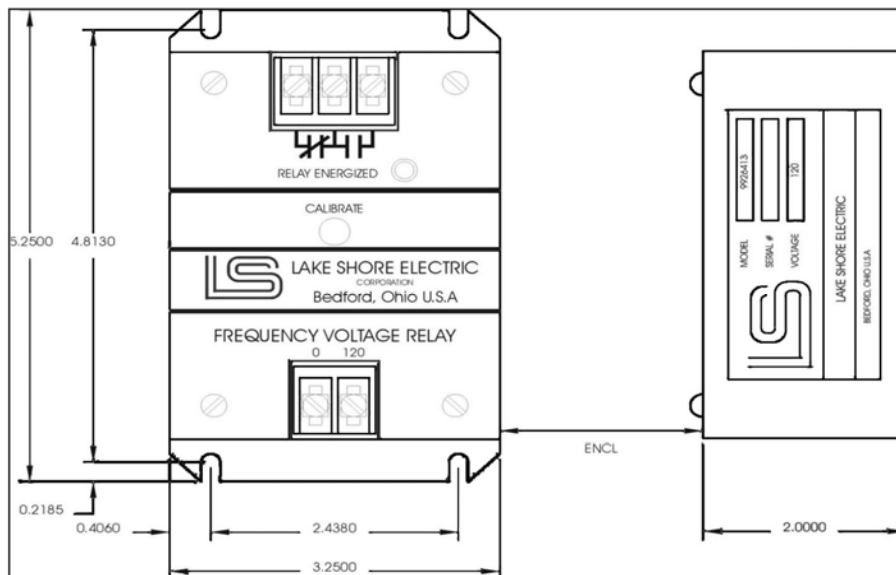
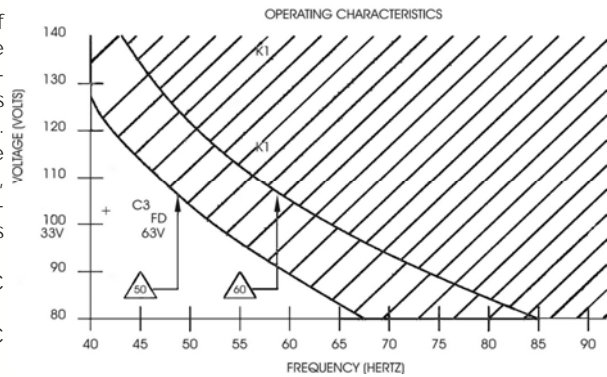


LAKE SHORE ELECTRIC CORPORATION
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 (440) 232-0200 or (800) 225-0141 FAX (440) 232-5644
www.lake-shore-electric.com

FREQUENCY & VOLTAGE SENSING RELAY (FVR)

SPECIFICATIONS

| | |
|-----------------------|--|
| PART NUMBER | 70LSEFV99262413 |
| INPUT VOLTAGE | 120 volts A.C. ± 10% |
| INPUT FREQUENCY | 0—100 hertz |
| ACCURACY | ± 2% of nominal over operating temperature range |
| TRANSIENT | 110% of nominal continuously 150% of nominal 10 seconds 200% of nominal 1 second |
| POWER CONSUMPTION | 3 VA maximum |
| TEMPERATURE | Operating -20°C to +60°C Storage -40°C to +80°C |
| CONTACT TYPE | One form "C" dry contact |
| RATING | 5 amp @ 120 volts A.C. or 28 volts D.C. resistive |
| WEIGHT | 20 ounces |
| HIGH POT | Minimum of 2X nominal voltage + 1,000 volts |
| CONSTRUCTION | Solid state sensor with relay output housed in a steel enclosure |
| APPROVED BY OPERATION | U.L. |
| | When the frequency and voltage of the supply attains a value in the shaded area of the "operating characteristics" graph, the output contacts change state and the "LED" turns on. When the frequency or voltage of the supply drops below 50% of nominal, the output contacts revert to the de-energized state and the "LED" turns off. |
| FACTORY SETTINGS | 50 Hz. - set for 48 Hz. and 108 VAC pickup 60 Hz. - set for 58 Hz. and 108 VAC pickup |



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