

# MEDIUM VOLTAGE FUSES

2,400-38,000 VAC • Current-Limiting



## Description

Littelfuse® offers a selection of E- and R-rated medium voltage fuses for the protection of transformers, potential transformers, feeders, and motor circuits. Single, double, and triple barrel designs are available to cover a wide range of current, voltage, and interrupting ratings. Conventional ferrule type, clip lock, and bolt-in mounting configurations are available for virtually any application. Hermetically sealed fuses for use in hazardous environments are also offered.

For additional fuse ratings or custom mounting configurations, contact Littelfuse Technical Support at **1-800-TEC-FUSE** or [techline@littelfuse.com](mailto:techline@littelfuse.com).

## Applications

- Power Transformer Protection
- Potential Transformer Protection
- Motor Controller Back-up Protection
- Fused Switches
- Feeder Circuits



Current-limiting E- and R-rated fuses are equipped with a mechanical indicator or striker pin that protrudes through the fuse cap upon operation of the fuse. This provides visual identification of a blown fuse and can be used as a trigger for external devices.

*Note: Extension distance 1/2" minimum; extension force 2 lb. minimum.*

## General Information

The terms "Medium Voltage" and "High Voltage" have been used interchangeably by many people to describe fuses operating above 600 volts. Technically speaking, medium voltage fuses are those intended for the voltage range from 2,400 to 38,000 Vac. High voltage fuses are for circuits carrying voltages greater than 38,000 Vac.

E-rated fuses are considered to be general purpose fuses and can be used to protect against low and high values of fault current. R-rated fuses are designed for back-up protection. They must be used in series with other devices such as motor overload relays in order to achieve both overload and short-circuit protection.

Medium voltage fuses are not intended to provide overload protection in the same sense as fuses rated 600 volts or less. Medium voltage fuse current ratings do not have the same meanings as the ampere ratings of low voltage fuses.

All medium voltage fuses are limited in their ability to interrupt low value overcurrents, especially those between 100% and 200% of the fuse's continuous current rating. They are designed to carry their rated current without exceeding the temperature rise permitted by NEMA and ANSI standards.



Bolt-in Mount Fuses

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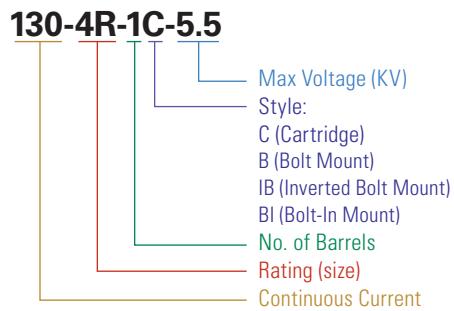
# R-RATED MEDIUM VOLTAGE FUSES

## Description

R-rated fuses provide required short-circuit protection for medium voltage motors, motor controllers and associated circuitry. These components have limited ability to absorb the energy of large short-circuit currents. Medium voltage motor controllers contain overload relays which provide both overload protection and locked rotor protection to the motor. The controllers are also intended to interrupt low value short-circuits within the capability of the motor controller. This protects the medium voltage fuse from sustained overcurrents which are less than their minimum interrupting rating.

NEMA Standards for R-rated medium voltage power fuses require they operate within 15-35 seconds when subjected to an rms current 100 times the R rating. For example, a fuse with a 2R rating will open within 15 to 35 seconds on an applied current of  $2 \times 100 = 200$  amperes.

## Ordering Number



## Dimensions

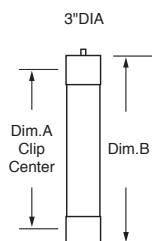


Figure 1

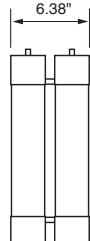
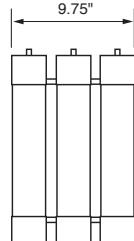
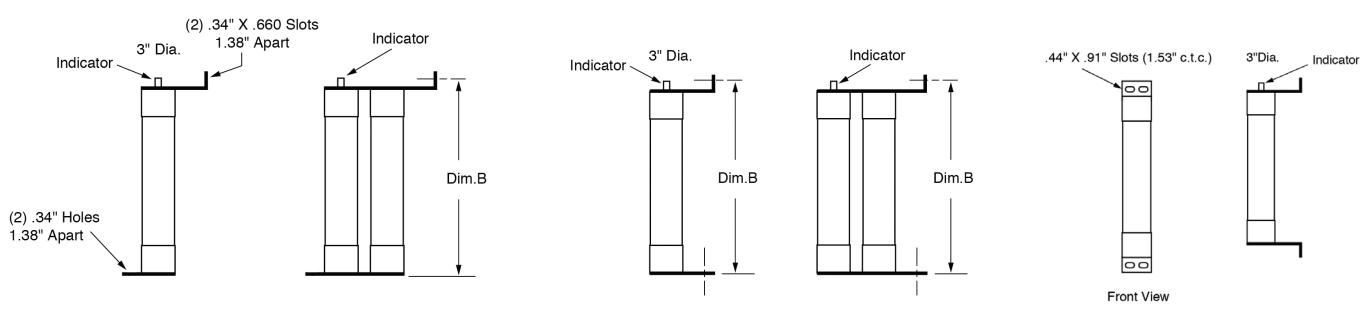
Figure 2  
Cartridge "C"

Figure 3

Bolt Mount "B"  
Sample Part #: 130-4R-1B-5.5Inverted-Bolt "IB"  
Sample Part #: 130-4R-1B-5.5Bolt-In Mount "BI"  
Sample Part #: 130-4R-1BI-5.5

## Characteristics

**Voltage Ratings** 2,750 V – 8,250 V  
**Current Range** 2R – 36R

## Options

- Hermetically sealed for use in hazardous locations (add "S" suffix to part number)
- Bolt-in mounting configurations



### Hookeye Feature\*

For hookeye attachment; add "W" suffix to part number

\*See web for Bolt Mount, Inverted Bolt Mount, and Bolt-In dimensions

## Medium Voltage Fuse Protection

POWR-GARD® medium voltage fuses provide short-circuit protection for motors and transformers rated 2,400 to 38,000 volts AC.



Visit [littelfuse.com/MediumVoltage](http://littelfuse.com/MediumVoltage) to download the white paper featuring protection tables, sizing recommendations, and applications.















# LIVE PARTS



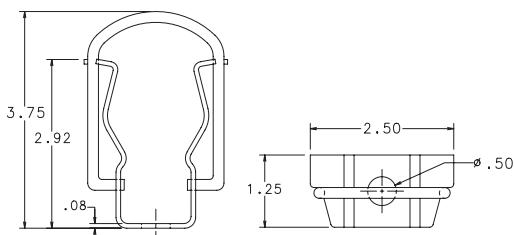
## Description

Live parts are available for mounting E, R, and PT single, double, and triple barrel fuses. Mounting clips are available for ferrule type fuses. All clips are sold in pairs.

### Part Number 700-156

#### Ordering Number 0700156.Z

For use with  $1\frac{9}{16}$ " (1.5625") to  $1\frac{5}{8}$ " (1.625") diameter PT fuses.

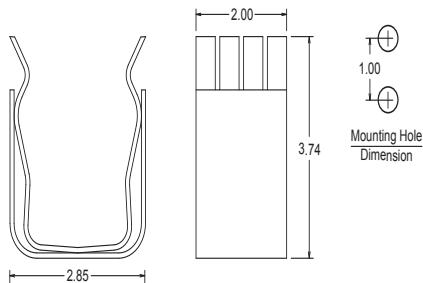


Dimensions in inches

### Part Number 700-300

#### Ordering Number 0700300.Z

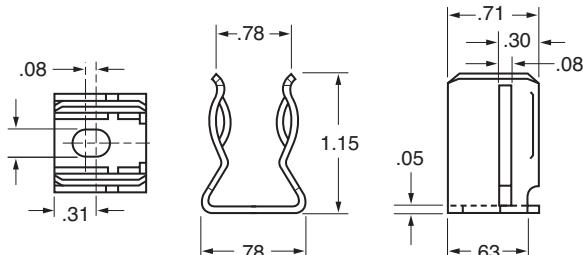
For use with 3" diameter fuses.



### Part Number 700-500

#### Ordering Number 0700500.Z

For use with all  $1\frac{3}{16}$ " (.8125") diameter PT fuses



Dimensions in inches

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