



ACT

COMMUNICATIONS

ACT 60hz Filter/ Protector Family



protection technology and the second stage utilizes a band reject filter. The ACT447 increases cable-locating efficiency and allows more than 50 miles of cable to be located with one transmitter

ACT447-350-112 60 Hz Filter / Protector

ACT Outdoor Filter/Protector Family

The ACT 447 Band Reject Filtering System is a two stage protection system installed between the cable sheath and earth ground. The ACT447 is designed to increase cable locating or cable monitoring range while protecting buried cable from high energy surges and any induced voltage. The first stage uses an ACT444 cable surge

System Features

- **Fast Response Time**
- **Combination Filter-Protector**
- **MOV/GAS TUBE Hybrid Technology**
- **Protector turns on at 1mA**
- **Easy connections**

Part Numbers

ACT447-350-XXX

350 Protection for 350Vrms system

XXX

100 Series

Impedance at 60Hz 1 Amp: <100 ohms typical

Impedance at 60Hz .5 Amp: <50 ohms typical

222 North Center St. Bonham, TX 75418

903-583-8097

Made In The United States



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Note: Filter is designed for continuous operation up to 110vrms, 1 Amp current.

200 Series

Impedance at 60Hz 2 Amp: <60 ohms typical

Impedance at 60Hz 1 Amp: <25 ohms typical

Note: Filter is designed for continuous operation up to 110vrms, 1.8 Amp current, with peak currents up to 2 amps.

300 Series (Available Jan. 2008)

Impedance at 60Hz 3 Amp: <40 ohms typical

Impedance at 60Hz 2 Amp: <25 ohms typical

Note: Filter is designed for continuous operation up to 110vrms, 2 amps with peak currents up to 3 Amp current.

Example: ACT447-350-112

WARNING: To ensure National Electrical Code is met, and to operate product in the safest environment, it is essential that multiple filters are installed throughout the cable run until an overall induced voltage of 50 volts rms or less is seen on the cable and at the location switch box.

ACT447 Filter/Protector Configuration

It is possible to configure the ACT Cable Locating Protection System with any type Fiber Optic Cable System that has a metallic sheath or trace wire. The system is normally connected to the cable sheath to provide either an isolated or filtered path to ground for **unwanted induced energy**. If non metallic sheath is used the ACT Cable Protection System can be connected to any wire that is buried in the trench with the Fiber Cable or connected to copper wire which is used in a composite cable design, as long as there is some metallic path for the tone to be sent the system can be configured. ACT447 units are fully potted with cable stubs and are designed to mount underground in Hand Holds or Vaults. They are completely watertight and submersible

Physical & Electrical Specifications

Physical

The ACT447–100 Series comes in a 6" x 6" x 4" The unit weighs approximately 14 pounds.



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The ACT447-200 Series comes in a 6" x 6" x 4" The unit weighs approximately 18 pounds.
The ACT447-300 Series comes in a 8"x8"x4" enclosure. The unit weighs approximately 24 pounds.

Electrical

Voltage Applications: 350V
Clamping Voltage (@ 1mA DC): (+10% voltage variance) 430V
Power Rating: Unlimited
Peak Current (8x20 μ S): * 70,000 Amps
Energy Dissipation (10x1000 μ S): 1600 joules
Response Time: 1.5 Nanoseconds
Capacitance @ 5KHz: 4004pf
Operating Temperature: -400C to +600C
Frequency Rejection Level: >60db @ 60Hz

****SAFETY****

Installation

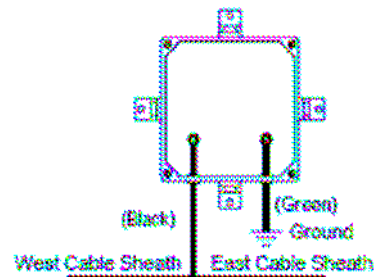
All Outside Plant practices for safety must be followed while installing the Cable Locating Protection System. Of particular importance is Electrical Hazard Safety.

1. DO NOT TOUCH the cable sheath or wire terminals connected to the sheath with a bare hand.
2. Use Dielectric Insulated Gloves when handling any cable sheath and grounding system.
3. Use only tools that have Dielectric Insulated handles
4. ***TO ENSURE SAFTY TO EQUIPMENT AND PERSONEL, ACT SUGGEST THAT A FILTER BE INSTALLED WHEREVER INDUCED VOLTAGE EXCEEDS 50 VOLTS. MULTIPLE FILTERS WILL BE REQUIRED ACROSS THE CABLE RUN TO INSURE INDUCED VOLTAGES OF LESS THEN 50 Vrms IS MAINTAINED ACCORDING TO NEC CODE.***

Testing

Pretest cable sheaths at each location to determine if AC voltage exists. Install the ACT447 Filter Isolators at any location where induced AC voltage exceed 50 volts.

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