

Surge Protective Device

Technical Documentation



Using the highest quality Silicon Avalanche Diode (SAD) technology, The **ASCO Model 146** is designed to protect your equipment from harmful power surges and transients. Non-degrading SADs will last the lifetime of your equipment, ensuring system uptime.

Model 146 provides isolated power loop circuit protection in applications where higher current is required, such as fire alarm and security systems.

Whether incorporated into a larger power protection strategy or used as primary protection, the Model 146 keeps your critical equipment online in the most demanding environmental conditions.

Key Specs

- **Voltage:** 0-200 VDC
- **Current:** 7 Amp
- **Connection:** Terminals - Wire Clamp
- **Mounting:** Flange

**See Ordering Information for model number selection*

General Technical Specifications

Operating Voltage	30 - 200 VDC
Clamping Voltage	33 - 211 VDC
Operating Current	7 Amp
Peak Surge Current	400 A
Operating Frequency	DC - 30 MHz
Series Impedance	<0.10 Ohms (<0.20 Ohms/pair)
SPD Technology	Silicon Avalanche Diode (SAD)
Modes of Protection	L-G
Connection Type	Wire Clamp Terminals
Operating Temperature	-40°C to +60°C
Dimensions (in / mm)	2.0" H x 3.0" W x 1.5" L [50.8 x 76.2 x 38.1 mm]
Weight (lb / kg)	0.15 lb [0.07 kg]
Certifications	UL 497B

Features

- Silicon avalanche diode (SAD) design for non-degrading performance and protection
- Provides protection for both single and multiple circuits
- Designed for easy hardwire installation
- Rugged enclosure for harsh environments
- Provides unparalleled clamping performance for maximum equipment protection
- 5 year warranty

DANGER!

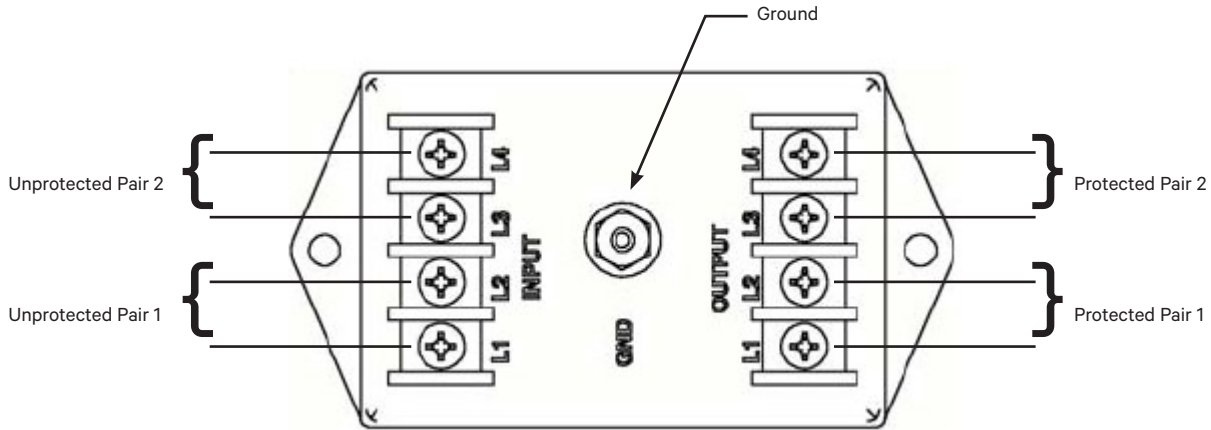
Only qualified personnel should install or service this system. Electrical safety pre-cautions must be followed when installing or servicing this equipment. To prevent risk of electrical shock, turn off and lock out all power sources to the unit before making electrical connections or servicing.

Seulement le personnel qualifié doit installer ou maintenir ce système. Des précautions de sécurité en électricité doivent être suivies lors de l'installation ou de la maintenance de cet équipement. Pour éviter tout risque de choc électrique, débranchez et verrouillez toutes les sources d'alimentation de cet équipement avant de.

Certifications

- UL 497B

Installation Instructions



Read and Understand These Instructions

These protectors are intended for indoor use on loop circuits which have been isolated from Public Switched Telephone Networks. The loop circuits shall not be exposed to accidental contact with electric light or power conductors, (National Electric Code, Article 800).

1. Verify that loop circuit voltage is compatible with the operating voltage listed on the protector label. Also, verify the loop current is not greater than 7A rms.
2. These protectors have mounting feet provided with two holes, 3/16" diameter, spaced 3.5" apart. Using two screws or bolts (size #6 to #10), mount the Model 146 within 5 wire feet (1.5m) from the equipment to be protected.
3. Connect loop circuit lines from your equipment to the protector's OUTPUT terminals L1, L2, L3, L4. A circuit loop pair of conductors can use any 2 terminal pairs: L1-L2 or L2-L3, etc.
4. Use 12 AWG to 16 AWG wire with crimp-on ring connectors to connect the Model 146's ground terminal (GND) to equipment chassis ground. Ground wire length must be minimized to provide best protection.
5. Connect loop circuit lines to the protector's INPUT terminals L1, L2, L3, L4. Note: INPUT L1 corresponds to OUTPUT L1 and so on with L2, L3, L4.

NOTE: If the unit receives a catastrophic surge, the loop circuit will either open or short the loop. If this happens, replace the unit as soon as possible. Call ASCO Surge Protection at: 800-237-4567.

Ordering Information

MODEL <small>Former Model Name</small>	OPERATING VOLTAGE	CLAMPING VOLTAGE
146D033S400SN4N0 <small>Edco PLP-42S</small>	30 VDC	33 VDC
146D067S400SN4N0 <small>Edco PLP-43S</small>	60 VDC	67 VDC
146D150S400SN4N0 <small>Edco PLP-44S</small>	140 VDC	150 VDC
146D211S400SN4N0 <small>Edco PLP-45S</small>	200 VDC	211 VDC

Other Models Available. Contact Factory.