ASCO Power Technologies™

Surge Protective Devices

Installation & Operation Manual

Model 237

Safety Information

Important Information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special messages may appear throughout this bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of either symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury. The safety alert symbol shall not be used with this signal word.

Please Note

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by ASCO Power Technologies for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

Introduction

The ***ASCO Model 237*** is a parallel connected Surge Protective Device (SPD) designed to protect AC distribution panel circuits or 120 V Power Supplies feeding sensitive electronic equipment. Electrically, the unit incorporates MOV and thermal fusing technology. The Model 237 is designed to be installed in parallel on standard single phase 120 VAC (L, N, G) circuits.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E, NOM-029-STPS or CSA Z462.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors and covers before turning on power to this equipment.
- This equipment must be effectively grounded per all applicable codes. Use an equipment-grounding conductor to connect this equipment to the power system ground.
- Confirm that the Surge Protective Device voltage rating on the module or nameplate label is not less than the operating voltage.

Failure to follow these instructions will result in death or serious injury.

⚠ **WARNING:** This product can expose you to chemicals including DINP, which is known to the State of California to cause cancer, and DIDP which is known to the State of California to cause birth defects or other reproductive harm. For more information go to: www.P65Warnings.ca.gov.

⚠ DANGER

LOSS OF SURGE SUPPRESSION

- Install an insulated grounding conductor inside a metallic raceway when the raceway is used as an additional grounding conductor. Size the conductor in accordance with all applicable codes.
- Maintain adequate electrical continuity at all raceway connections.
- Do not use isolating bushings to interrupt a metallic raceway run.
- Do not use a separate isolated ground for the surge protective device.
- Verify proper equipment connections to the grounding system.
- Verify ground grid continuity by inspections and testing as part of a comprehensive electrical maintenance program.
- Make certain that Surge Protective Device is disconnected from the circuit it is protecting before conducting high potential insulation testing.

Failure to follow these instructions will result in death or serious injury.

Installation

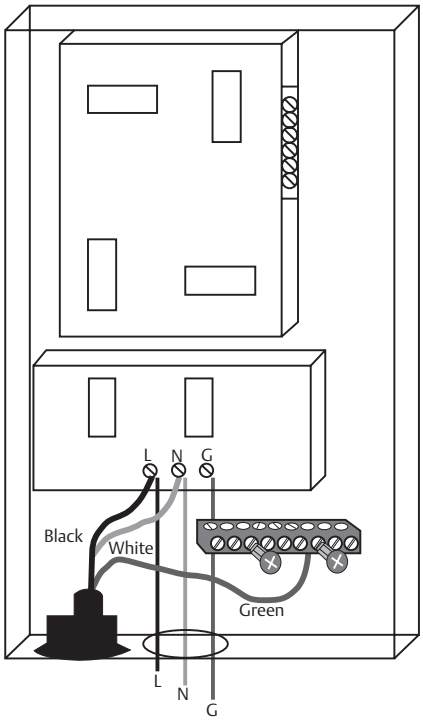
1. Turn off all power supplying this equipment before working on or inside equipment.
2. Confirm that the unit has the same voltage rating and configuration as the power system voltage and power system voltage to which it will be connected.
3. Install the unit and cables as close as possible to the protected equipment and secure.
4. Connect the supply cables to the line side of the SPD.
5. Complete the circuit by connecting cables to the load
6. Check that all connections are secure. Remove all tools and unused hardware.
7. Replace the barrier, cover/door and/or trim to the equipment.
8. Equipment may be re-energized after all the above steps are complete.

Mounting

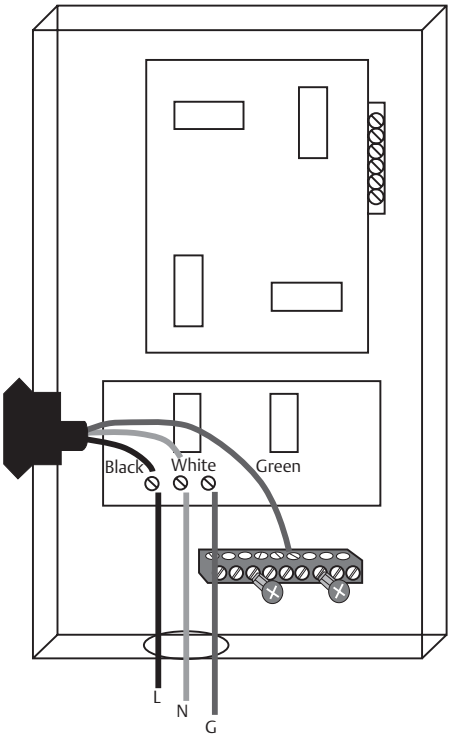
NOTE:

- Connect on load side of main breakers.
- A ground bus can be installed in cabinet to provide a single point ground.
- Keep wires short and straight as possible for optimal suppression performance.

Installation can be close-nipple up to a distribution panel/circuit or hardwired in parallel up to power supply input terminal screws. Dress leads as short as possible.



Mounting Inside Fire/Security Panel



Mounting Outside
(closed nipple 3/4”)
Fire/Security Panel

Diagnostic Operation

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E, CSA Z462, or NOM-029-STPS.

Failure to follow these instructions will result in death or serious injury.

Indicator Status ON =
The device is installed correctly and the line side has power.

Indicator Status OFF =
Check connections, verify that the line voltage is at the point of connection; if all is correct, then replace the device.

LED INDICATOR:
If status indicator does not illuminate green the ASCO Model 237 must be replaced.

General Technical Specifications

Operating Voltage	120 VAC
Total Peak Surge Current	15.5 kA (8 x 20 µs)
Short Circuit Current Rating	5 kAIC
Location Type	Type 2
I-Nominal	3 kA
UL 1449 VPR Rating	700 V (L-N, L-G), 900 V (N-G)
Operating Current	N/A, Parallel
Operating Frequency	47-63 Hz
EMI Attenuation (100 kHz to 100 MHz)	> 25 dB
SPD Technology	Metal Oxide Varistors (MOVs)
Modes of Protection	Line-to-Neutral, Line-to-Ground, Neutral-to-Ground
Status Indication	Power On & MOV Functional
Connection Type	#14 Wire Leads, 12” Long
Operating Temperature	0°C to +60°C
Dimensions (in. / mm.)	2.5 x 1.5 x 3.0 in. [63.5 x 38.1 x 76.2 mm.]
Weight (oz. / kg.)	4.2 oz. [0.12 kg.]
Certifications	ANSI/UL1449 Fourth Edition
Limited warranty	5 years

Model Cross Reference

MODEL *Former Model Name*	**APPLICATION**
237120NS15KAWLN0 *Edco FAS-120AC*	120 VAC, 2W+G (Line, Neutral, Ground)

6700 Tower Cir #700
Franklin, TN 37067

se.com/us/en/work/support
1-888-778-2733

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