




Power
Quality Group

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Model 277

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

ASCO Model 277 with Active Tracking Filter technology offers high frequency noise filter capabilities with surge protection for loads up to 20 A of continuous current. The Model 277 is a DIN or flange mounted SPD/ATF that helps to protect industrial critical loads.

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.
- Do not supply more than 125VAC or 5 A AC to contacts.
- 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.

NOTICE

LOSS OF SURGE SUPPRESSION

- 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 can result in equipment damage.

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/ATF.
5. Complete the circuit by connecting cables from the load of the SPD/ATF to the protected equipment.
Note: *A dry contact connection is available.*
6. Check that all connections are secure. Remove all tools and discarded hardware from the unit.
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.

Table 1: ASCO Model 277 Voltage Ratings

Service Voltage	MCOV	Continuous Current	Normal Discharge Current	Fusing Circuit Breaker Size	Certification	Catalog Numbers
120 V, 50/60 Hz, 1-phase 2 wire + ground	150 V (L–N)	3 A	3 kA	25 A Class CC Fuse	UL1449 / UL1283 CSA C22.2 No. 269.5-17	277120NF003AN3N0
		5 A				277120NF005AN3N0
		10 A				277120NF010AN3N0
		20 A				277120NF020AN3N0
240 V, 50/60 Hz, 1-phase 2 wire + ground	320 V (L–N)	3 A				277240LF003AN3N0
		5 A				277240LF005AN3N0
		10 A				277240LF010AN3N0
		20 A				277240LF020AN3N0

Table 2: ASCO Model 277 General Specifications¹

Mounting	Power Connection	Wiring (Copper Wire)	Terminal Torque	Operating / Storage Temperature	Catalog Numbers
DIN rail or surface mount	Line / Neutral / Ground	18–12 AWG	4 lb-in. (0.45 N•m)	+32 °F to +77 °F (0°C to +25 °C)	277120NF003AN3N0
					277120NF005AN3N0
					277120NF010AN3N0
					277120NF020AN3N0
		14–10 AWG	7 lb-in. (0.45 N•m)		277240LF003AN3N0
					277240LF005AN3N0
		12–10 AWG			277240LF010AN3N0
					277240LF020AN3N0

¹ Contains no serviceable parts.

Figure 1: ASCO Model 277 DIN Rail Installation and Removal

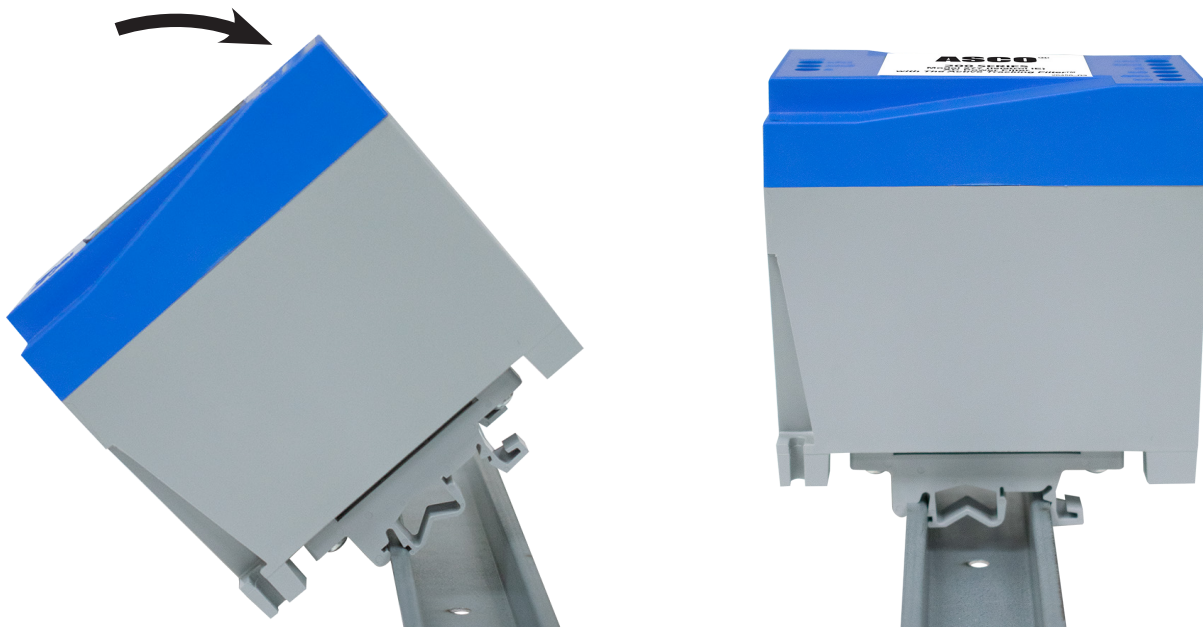


Figure 2: DIN Clips

Note: DIN-Rail clips can be positioned for vertical or horizontal installation.

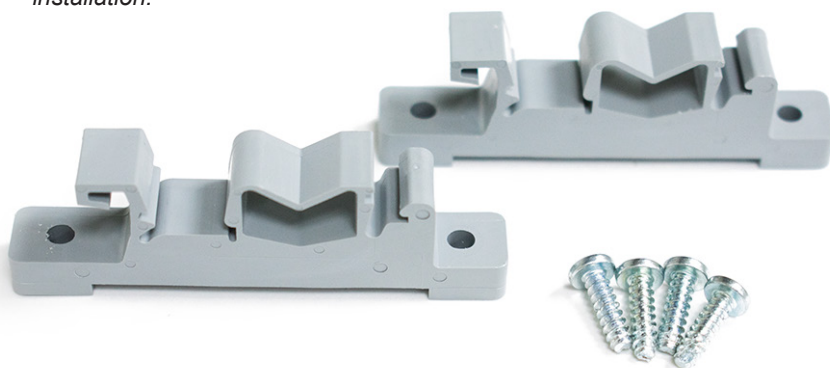
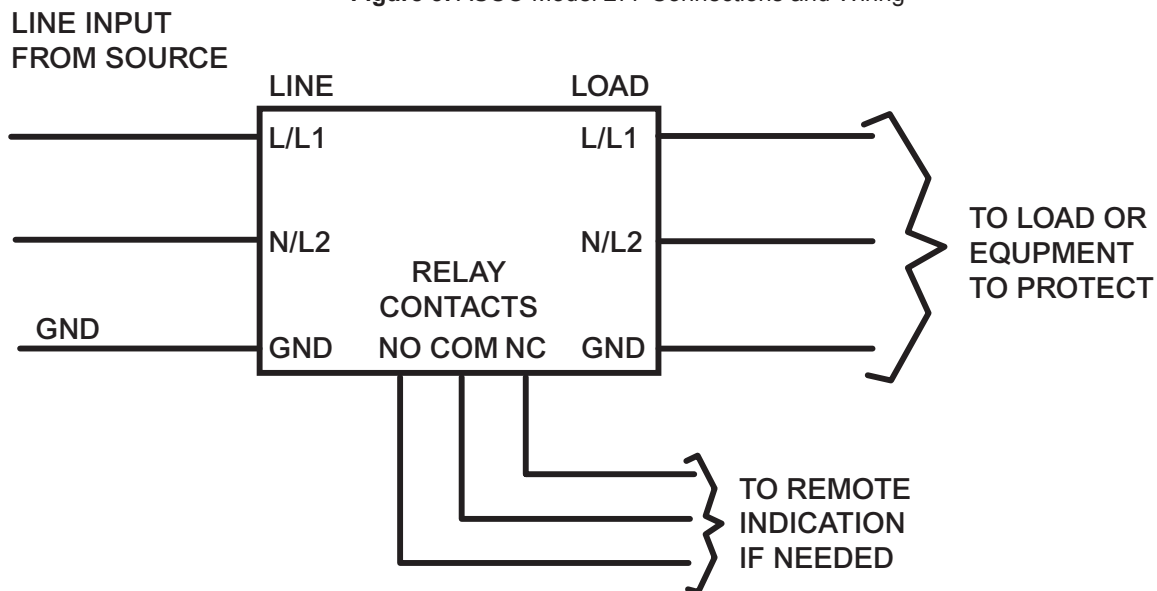


Figure 3: ASCO Model 277 Connections and Wiring



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.

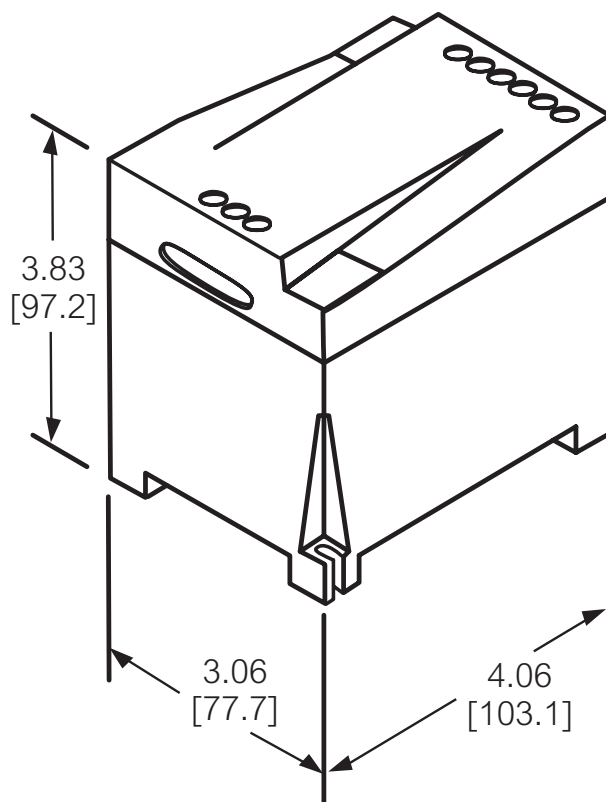
Indicator Status OFF =

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

Table 3: ASCO Model 277 Dry Contact Configuration

Dry Contact Terminal	Power OFF	Power ON
N/O Normally Open	Open	Closed
COM Common	Common	Common
N/C Normally Closed	Closed	Open

Dimensions (in. / mm.)





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