

APS-3C

Automatic Snow/Ice Melting System Controller

- **Automatic Snow/Ice Melting Control**
- **Operates Electrically- And Mechanically- Held Contactors for Pilot Duty Applications**
- **Energy Management Computer (EMC) Interface**
- **Accommodates MI, Constant Wattage and Self-Regulating Heaters**
- **Multiple Sensor Capability**
- **Heater Hold-On and Test Capabilities**
- **C-UL-US**
- **Simple to Install and Operate**
- **Low System Costs**
- **Minimum Energy Costs**



Description

The APS-3C Snow Switch when used with compatible sensors automatically controls snow/ice melting heaters, ensuring minimum operating costs. Typical applications include pavement, sidewalk, loading dock, roof, gutter and down spout snow/ice melting. The APS-3C is interchangeable with earlier APS-3 models.

The adjustable hold-on timer continues heater operation for up to 10 hours after snow stops to ensure complete melting. The optional RCU-3 Remote Control Unit can be located where system operation can be conveniently observed. It duplicates many of the controls and indicators on the APS-3C front panel. It is used to clear tracked and drifting snow that may not land on a sensor.

The calibrated 40°F to 90°F (4°C to 32°C) high limit thermostat prevents excessive temperatures when using constant wattage and MI heaters. It also permits safe testing at outdoor temperatures too high for continuous heater operation. The temperature sensor is included.

The APS-3C provides a relay closure interface for use with energy management computers (EMC). This feature can also be used for general purpose remote control and annunciation and other advanced applications.

All sensor and communications wiring is NEC Class 2. This simplifies installation while enhancing fire and shock safety. The APS-3C can interface up to six sensors from the CIT-1 product family. Using more sensors provides superior performance by better matching the controller to site performance requirements.

The APS-3C is an exceptionally capable deicing controller. For complete information describing its application, installation and features, please contact your local Chromalox sales office.

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Automatic Snow/Ice Melting System Controller *(cont'd.)*

Specifications

General

Area of use Nonhazardous locations

Enclosure

Protection NEMA 3R
Cover attachment Hinged polycarbonate cover, lockable
Entries 3 × 1-1/16" entries
Material Polycarbonate
Mounting Wall mounted

Control

Supply	PCN 389837	120 VAC, 50/60 Hz, 35 VA
	PCN 389829	208-240 VAC, 50/60 Hz, 35 VA
Load	PCN 389837	120 VAC, 24 amp max. inductive
	PCN 389829	240 VAC, 24 amp max. inductive
Contact type		Form C (NO-C-NC)
Maximum Ratings		Voltage: 240 VAC
		Current: 24 amps
Heater hold-on timer		0 to 10 hours; actuated by snow stopping or toggle switch System test Switch toggles the heater contact on and off. If temperature exceeds high limit, heater cycles to prevent damage.

Snow/Ice Sensors

Sensor type Up to 6 sensors from the CIT-1 product family
Circuit type NEC Class 2
Lead length Up to 500' (152m) using 18 AWG 3-wire jacketed cable
Up to 2,000' (609m) using 12 AWG 3-wire jacketed cable

High Limit Thermostat

Adjustment range 40°F to 90°F (4°C to 32°C)
Dead band 1°F (0.6°C)
Sensor type Thermistor network
Circuit type NEC Class 2
Lead length Up to 500' (152m) using 18 AWG 2-wire jacketed cable
Up to 1,000' (304m) using 12 AWG 2-wire jacketed cable

Energy Management Computer (EMC) Interface

Inputs
OVERRIDE ON (10 ma dry switch contact)
OVERRIDE OFF (10 ma dry switch contact)
Outputs SUPPLY (10 ma dry switch contact)
SNOW (10 ma dry switch contact)
HEAT (10 ma dry switch contact)
HIGH TEMP (10 ma dry switch contact)
ALARM (10 ma dry switch contact)

Environmental

Operating temperature -40°F to 160°F (-40°C to 71°C)
Storage temperature -50°F to 180°F (-45°C to 82°C)