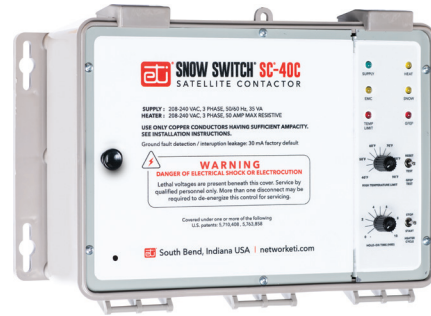


## SNOW SWITCH MODEL SC-40C

### Modular Snow/Ice Heater Control System



The ETI SC –40C snow and ice melting satellite contactor answers the need for cost effective modular snow melting heater control. One or more SC–40Cs, when used with an APS–4C control panel acting as the master control, allow for modular snow melting system design. There is no limit to the number of SC–40 Cs that can be interfaced in a single system. This approach reduces front end design, hardware, and installation costs while providing a number of useful features that would be otherwise too expensive and complex to implement.

The SC –40 C provides Ground -Fault Equipment Protection (GFEP ) as required by the national electrical codes. Upon sensing a ground -fault condition, the SC –40 C inhibits operation of its contactor until manually reset. Circuits without a ground fault continue to operate normally, thus partitioning defective heating cables.

The adjustable hold-on timer continues heater operation on each SC–40 C for up to 10 hours after snow stops to ensure complete melting and to compensate for differences between zones. The optional RCU –4 remote control unit can be located where system operation can be conveniently observed. It duplicates many of the controls and indicators on the SC–40C front panel.

Each SC –40 C provides a complete energy management computer (EMC) interface. This feature provides remote access for advanced applications requiring remote or zone control along with remote annunciation. Each SC-40 C maintains communication to and from the APS-4C using a 3-wire cable.


Thus, the APS–4C alarms ground faults occurring anywhere in the system. This feature inserts a short time delay between the operation of each contactor, thus improving power quality by limiting the inrush current. The RCU –4 remote control unit supplied permits overriding zone control in applications requiring the capability.

### Features and Benefits

- Automatic snow and ice melting control minimizes operating costs
- ETI PN 22477: 208-24 0 VA C, 50 amp max. resistive
- ETI PN 22478: 27 7 VA C, 40 amp max. resistive
- ETI PN 22480: 277/480, 50 amp max. resistive
- ETI PN 22481: 600 VAC, 50 amp max. resistive
- UL Listed for Temperature Regulating Equipment
- Adjustable Hold-On timer continues heater operation after snow and ice stop to ensure complete melting
- Automatic and manual-override operator controls for changing environmental conditions
- Optional remote control operation for added convenience
- Integral 30mA of Ground Fault Equipment Protection (GFEP) Weather-resistant NEMA 3 R enclosure

## Specifications

### General

Area of use:	Non-hazardous locations
Approvals:	 Type 873 Temperature Regulating Equipment <small>Also evaluated by Underwriters Laboratories Inc. in accordance with UL 1053 Ground-Fault Sensing and Relaying Equipment</small>

### Enclosure

Protection:	NEMA 3R
Cover attachment:	Polycarbonate with machine screws
Entries:	One 1-1/16" entry (top) for NEC Class 2 connections  Two 1-11/16" entries (bottom) for supply and load power, except 277V single phase  Two 1-1/16" entries (bottom) for supply and load power, 277 V single phase only
Material:	Polycarbonate
Mounting:	Wall mount
Dimensions:	9 .125" (L) x 1 1.50 0" (W) x 6.56 2" (H) 232mm (L) x 292mm (W) x 167mm (H)

### Controls

Supply voltage:	SC-40C 208/240 V: 208–240 V 50/60 Hz 3-phase  SC-40C 277 V: 277 V 50/60 Hz single phase  SC-40C 277/480 V: 277/480 V 50/60 Hz 3-phase  SC-40C 600 V: 600 V 50/60 Hz 3-phase
Load:	ETI PN 22477: 208-240 VAC, 50 amp max. resistive  ETI PN 22478: 277 VAC, 40 amp max. resistive  ETI PN 22480: 277/480, 50 amp max. resistive  ETI PN 22481: 600 VAC, 50 amp max. resistive
Contact type:	3 Form A
Weight:	3 Pounds
Maximum Ratings:	Voltage: 600 V Current: 50 A except 277 V single phase, 40 A for 277 V single phase
Heater hold-on timer:	0 to 10 hours; actuated by snow stopping or toggle switch
System test:	Switch toggles heater contact on and off. If temperature exceeds optional high limit thermistor (45°F), heater shuts off to reduce costs and prevent damage.

### Front Panel Interface

Status indicator:	SUPPLY (green): Power on HEAT (yellow): Heating cycle in progress SNOW (yellow): Sensor(s) detect snow GFEP (red): Ground Fault condition GFEP (red, flashing): Failed GFEP (red, rapid flashing): GFEP test in progress
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### Communication Bus

Number of cascaded units:	Unlimited
Contactor delay:	5 second
Bus-wire type:	3-wire jacketed cable
Circuit type:	NEC Class 2
Lead length:	Up to 500' (152m) using 18 AWG 3-wire jacketed cable  Up to 1,000' (304m) using 12 AWG 3-wire jacketed cable

### Ground Fault Equipment Protection (GFEP)

Set point:	30 mA (default); 60 mA and 120 mA selectable by DIP switch
Automatic self-test:	Mode A: Verifies GFEP function before contactors operate  Mode B: Verifies GFEP and heaters every 24 hours
Manual Test/Reset:	Size for maximum heater load
Remote wiring:	Toggle switch provided for this function

### Environmental

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

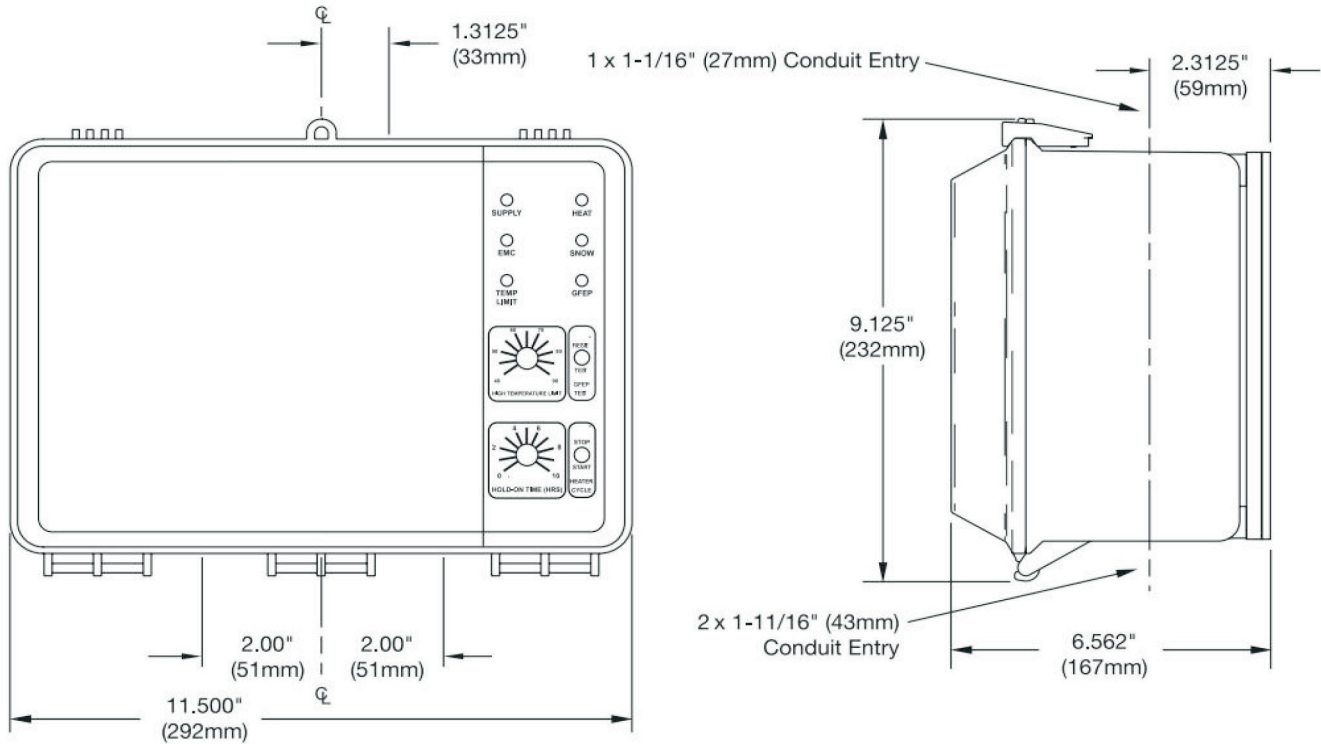
## Ordering Information

Order Number	Description
22477	SC-40C Satellite Contactor, 208-240 VAC 50/60 Hz Three Phase
22478	SC-40C Satellite Contactor, 277 VAC 50/60 Hz Single Phase
22480	SC-40C Satellite Contactor, 277/480 VAC 50/60 Hz Three Phase
22481	SC-40C Satellite Contactor, 600 VAC 50/60 Hz Three Phase

### Accessories

Order Number	Description
21358	RCU-4 Remote Control
25076	Temperature Sensor w/ 20' (6 m) lead PTS-
22690	100 Embedded Temperature Sens or (Optional)

## Dimensional Drawings



### Limited Warranty

ETI's two year limited warranty covering defects in workmanship and materials applies. Contact Customer Service for complete warranty information.

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### Contacting Customer Service

For assistance, contact Customer Service. Office hours are from 8:00 AM until 5:00 PM ET.

**Email:** info@networketi.com

**Web:** networketi.com

**Mail:** ETI  
 1850 North Sheridan Street  
 South Bend, IN 46628