

Quick Ship Catalog

Snow Melting • Roof De-Icing • Pipe Tracing • Permafrost Prevention • Floor Warming



About Delta-Therm

Frequently Asked Questions

Snow Melting • Roof De-Icing • Pipe Tracing • Permafrost Prevention • Floor Warming • Snow Melting • Roof De-Icing • Pipe Tracing • Permafrost Prevention • Floor Warming • Snow Melting • Roof De-Icing • Pipe Tracing • Permafrost Prevention • Floor Warming

The Delta-Therm Quick Ship Catalog offers a range of heat trace cable assemblies, kits, controls and accessories that are generally available for immediate shipping. For details about our complete product line, including installation instructions, see our full line catalog or visit our website at www.delta-therm.com



Orders received by Noon (CST) typically ship the same day.

(NOTE: Lead time on power control panels with GFPE can sometimes be longer).

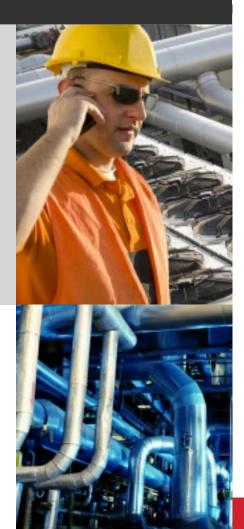
Delta-Therm also offers

- Talk to an expert: Level 1 and Escalated TOLL-FREE live technical support 7am – 5pmCST
- Assistance with product selection, proposals and specifications
- Free Custom CAD drawing set (layout, details, wiring schematics) with the purchase of a complete system. Includes 1 revision, electronic file, and 1 or more D-size prints.
- National network of highly skilled engineering sales reps
- Optional Extended Factory Warranty on newly installed systems with purchase and completion of a Delta-Therm wiring inspection
- Access to How-to-install videos

About Delta-Therm

Delta-Therm engineers, manufactures and assembles commercial and industrial heat trace systems in Crystal Lake, Illinois. A world class leader in Electrical Heat Trace technology, our mission is to deliver value through inventive design, quality products and responsive service. Since 1968 we have innovated solutions for Snow Melting, Roof De-icing, Pipe Tracing, Permafrost Prevention, Floor Warming and a host of specialty applications.

For a full-line catalog, please contact your local Delta-Therm representative or visit **www.delta-therm.com/contact-us**



Do I need a Temperature Control with Pipe Trace Cable?

- Yes. We always recommend using a temperature control to minimize operating costs, avoid overheating, and to maintain a more precise temperature. We have several controls that we recommend based on the application.
- For self-regulating cables we recommend installing an ambient thermostat for freeze protection because these cables will continue drawing power regardless of pipe temperature.
- For constant wattage cables we recommend a line sensing thermostat with the sensor placed under the insulation to sense the exact pipe temperature for precise temperature control.

Will I need 30mA GFPE?

The N.E.C. requires 30mA GFPE for embedded snow melting, roof de-icing and pipe tracing systems. However, local code supersedes national. Please call your local Authority Having Jurisdiction (AHJ) to learn if they require you to have 30 mA GFPE.

Can I spiral-wrap cable on a pipe?

- Spiral wrapping uses more cable than a straight run down the length of the pipe. Spiraling an oval cable (self-regulating or constant wattage) or a round cable (mineral insulated) of any length can be physically difficult, tedious, and frustrating.
- We recommend installing straight runs at the four or eight o'clock positions on pipes and spiral wrapping only the flanges, valves, etc.
- On PVC pipes aluminum heat transfer tape should be applied under and over the straight run of cable to distribute the heat.

Can I run cable cold lead and sensor wiring in the same conduit?

Delta-Therm recommends running cold lead and sensor wiring in separate conduits. Please check with your Authority Having Jurisdiction (AHJ).

Where should I place the Gutter Sensor?

Ideally the gutter sensor will be placed directly under a drip loop and in contact with falling snow.

At what depth should I embed Snow Melting Cables and Mats?

2" - 3" below the finished surface.

Can I splice Roof De-icing Cable?

No, Delta-Therm will void the warranty on any roof de-icing cable that is field spliced.

What type of Quality Control do you perform?

- · We log the lot numbers on all raw cable.
- Each finished MI snow melting cable assembly is submerged in water for 12-24 hours and then must pass a megger and hipot test before shipping.
- All finished snow melting mats pass a hipot test before shipping.
- · Self-regulating cable passes a resistance test.
- Constant wattage cable passes a resistance and current test. We also perform random hipot spot checks on constant wattage cables.
- All controls and panels are functionally tested before shipping

For more answers, give us a call today.



Self-Regulating Cables

185°F Max. Exposure Temperature. 150°F Max. Maintenance Temperature.

Kits: Self-Regulating Cables *





INDUSTRIAL (IN) SERIES - FOR PIPE TRACE

120 VOLT CABLES

part number	watts per linear foot	max circuit length ft*
IN120-3-CB	3	330'
IN120-5-CB	5	270'
IN120-8-CB	8	210'
IN120-10-CB	10	180'
IN120-3-CBT	3	330'
IN120-5-CBT	5	270'
IN120-8-CBT	8	210'
IN120-10-CBT	10	180'
IN120-3-CBF	3	330'
IN120-5-CBF	5	270'
IN120-8-CBF	8	210'
IN120-10-CBF	10	180'

Watts per foot are calculated at 50°F Max. circuit length is for a 30 amp breaker.

240 VOLT CABLES

part number	watts per linear foot	max circuit length ft*
IN240-3-CB	3	660'
IN240-5-CB	5	540'
IN240-8-CB	8	420'
IN240-10-CB	10	360'
IN240-3-CBT	3	660'
IN240-5-CBT	5	540'
IN240-8-CBT	8	420'
IN240-10-CBT	10	360'
IN240-3-CBF	3	660'
IN240-5-CBF	5	540'
IN240-8-CBF	8	420'
IN240-10-CBF	10	360'

Watts per foot are calculated at 50°F *Max. circuit length is for a 30 amp breaker.





SPK-IN-5

PCK-IN

Power Connection Kit

- 1 power connection
- 1 in-line or t-splice
- 2 open end terminations
- FM Approved CI D2
- · IN Series Cable

SPK-IN

• 1 in-line or t-splice

Splice Kit (1 pack)

- FM/CSA CI D2 (IN only)
- IN or CO Series Cable

Splice Kit (5 pack)

- 5 in-line or t-splice
- FM/CSA CI D2 (IN only)
- · IN or CO Series Cable



COMMERCIAL (CO) SERIES – FOR PIPE TRACE

120 VOLT CABLES

FOR 240 VOLT CABLE

part number	watts per linear foot	max circuit length ft*
CO120-6-CB	6	250'
CO120-6-CBT	6	250'

WATTS PER LINEAR FOOT CONVERSION TABLE

IN-5

IN-8

IN-10

CO-6

Watts per foot are calculated at 40°F. *Max. circuit length is for a 30 amp breaker.

IN-3

240 VOLT CABLES

Cable Suffix

part number	watts per linear foot	max circuit length ft*
CO240-6-CB	6	450'
CO240-6-CBT	6	450'

Watts per foot are calculated at 40°F. *Max. circuit length is for a 30 amp breaker.

tinned plated copper braid







PCK-C6

ETK-IN

End Termination Kit

- 1 end termination
- FM/CSA CI D2 (IN only)
- IN or CO Series Cable

*CBF is only available on IN series cable.

ETK-IN-5

- End Term Kit (5 pack) 5 end terminations
- FM/CSA CI D2 (IN only)
- · IN or CO Series Cable

Power Connection Kit

- 1 power connection
- 1 end termination
- · UL Listed ordinary location
- · CO Series Cable



277 VAC

tinned plated copper braid fluoropolymer overjacket

^{*} For Pipe Trace

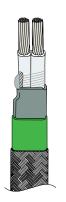
Constant-Watt Cables

For Pipe Trace

Kits: Constant Wattage *

For PT and PF Series cable

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pt Series Cable







part number	voltage	watts per linear ft.	max circuit length ft.
PF-3SB	208-277	330'	710'
PF-6SB	120	270'	280'
PF-7SB	120	210'	240'
PF-8SB	120 - 277	180'	480'
PF-10SB	120 - 240	330'	390'
PF-12SB	240 - 480	270'	780'

400°F Max. Exposure Temperature. 200°F Max. Maintenance Temperature. * Max. circuit length is for a 20 amp breaker.

WATTS PER LINEAR FOOT CONVERSION TABLES

	PF-3	PF-6	PF-7	PF-8	PF-10	PF-12
120 VAC	-	6.0	8.0	2.0	3.0	-
208 VAC	3.0	-	-	5.0	9.0	-
240 VAC	4.0	-	-	7.0	12.0	3.0
277 VAC	5.0	-	-	9.0	-	4.0
480 VAC	-	-	-	-	-	12.0

PT ULTRA HIGH TEMP SERIES CABLE

part number	voltage	watts per linear ft.	max circuit length ft.
PT-3SB	120 - 240	3 - 12	390'
PT-6SB	120	6	280'
PT-8SB	120 - 277	2 - 11	480'
PT-10SB	120	10	210'

550°F Max. Exposure Temperature. 400°F Max. Maintenance Temperature.

WATTS PER LINEAR FOOT CONVERSION TABLES

	PT-3	PT-6	PT-8	PT-10
120 VAC	3.0	6.0	2.0	10.0
208 VAC	9.0	-	6.0	-
240 VAC	12.0	-	8.0	-
277 VAC	-	-	11.0	-

Unbraided cable is available, but is not FM Approved.







PCK-PT / PF

Power Connection Kit

- 1 power connection
- 1 open end termination
- FM Approved CI D2
- PT or PF Series Cable

SPK-PT / PF

Splice Kit (1 pack)

- 1 in-line splice
- FM Approved CI D2
- PT or PF Series Cable

Splice Kit (5 pack)

- 5 in-line splices
- FM Approved CI D2
- PT or PF Series Cable







PT-T3SL

ETK-PT/PF

ETK-PT/PF-5

Tee Splice Kit

- 1 3-way splice
- FM Approved CI D2
- PT & PF Series Cable

End Term Kit (1 pack)

- 1 end termination
- FM Approved CI D2
- PT & PF Series Cable

End Term Kit (5 pack)

- 5 end terminations
- FM Approved CI D2
- PT & PF Series Cable



All kits are FM approved for CID2.

* For Pipe Trace



^{*} Max. circuit length is for a 20 amp breaker.

PowerTrace ETC 1

DTC-24 Control

For Roof De-icing and Snow Melting

The PowerTrace etc1 is a self-contained, single circuit, programmable, electronic line sensing thermostat with monitoring and load switching capabilities. The components are contained in a NEMA 4X polycarbonate enclosure with convenient 3-button key pad and LED display on the panel door.

The Delta-Therm DTC-24 is a low voltage programmable electronic control that detects snow or ice, and automatically activates a roof de-icing or snow melting cable control panel. It features a simple 3-button key pad, LED display, adjustable settings, and monitoring and alarm functions.

The LED full text display has enhanced image clarity allowing The fiberglass enclosure is rated NEMA 4X. you to read pipe temperature, setpoint temperature, system status, current, low & high temp. alarms, low current alarm, and 30mA GFPE alarm. POWER TRACE The simple 3-button key pad allows you to scroll through the programmed settings as well as adjust your setpoint temperature, low & high temperature alarms, and low current A () DELTA-THERM The unit is UL Listed for CI, D2 Groups A, B, C, & D. One platinum, 100-ohm, 3-wire RTD with a rated

Enclosure:	NEMA 4X (Approx dimensions 10"x8"x6")
Main Sensor:	One platinum 100-ohm, 3 wire RTD
Setpoint Range:	32°F - 200°F +/- 4°F 201°F - 500°F +/- 3% 501°F - 800°F +/- 5%
Input Voltage:	120, 208, 240, or 277 VAC*
Single pole:	120 and 277 @ 24 amps
Dual pole:	208 - 240 VAC @ 24 amps
Alarm Contacts:	Remote monitoring, visual, or audible alarm
Internal Memory:	Programmed settings remain if power is removed
Exposure Limits:	The standard RTD is rated at 400°F (204°F)
ETC120	120 VAC Electronic Temperature Control
ETC208/240	208/240 VAC Electronic Temperature Control
ETC277*	277 VAC Electronic Temperature Control
*Pending UL appro	oval.

NEMA 4X (Approx dimensions 7"x4.75"x2.5") RG (10' leads) or MP (50' Up to 3 RGS or 1 MP2 Ambient (RG) or Slab (MP) temperature and moisture presence LED Display: presence, system status, and alarm status Programmed settings remain if power is removed DTC-24R gutter sensor DTC-24S slab sensor DTC-RGS MP2

Enhanced image clarity LED with full text provides the user with a clear view of

system and alarm status.

DTC-24

enverature 75 eteoint= 79

Full text readings of actual temperature, setpoint temperature, moisture

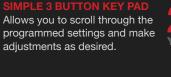
Remote monitoring, visual, or audible alarm

Internal key pad lock-out to prevent changing programmed settings

Roof De-icing - one RG Snow Melting - one MP 120 to 24 volt DC wall mount plug-in class 2 Secondary gutter moisture sensor (up to 3) Secondary slab moisture sensor Remote Indicator & **Activation Timer**

The RG sensor is a step beyond traditional sensors. Featuring an epoxy coated internal heater and dual stainless steel proper system activation.

The optional remote indicator/ activation device can be mounted up to 100' from the DTC-24.



The RG sensor ships complete with 10' of plenum rated wire.

Set the thermistor in the gutter to monitor ambient temperature.



The DTC-24 wires direct to the terminal blocks in the panel. Refer to page 18.



moisture sensing clips, this sensor ensures

exposure temperature of 400°F is included with

RTDs with higher temperature ratings and right

angle RTDs available.

General Accessories

Thermostats

For Pipe Trace











PC-Series

NEMA 4X (polycarbonate) box

Junction Box

Ordinary location

• Dimensions: 6" x 6" x 3"

- **Monitor Light**
- Red LED monitor light NEMA 4X (polycarbonate) box

OL-PC

- 120, 208, 240, 277 V
- ordinary location
- Dimensions: 6" x 6" x 3"

360° LED Monitor Light

· CID2-rated LED monitor light

ML-360

- · End of line voltage monitoring
- NEMA 4X Fiberglass box
- · 20 to 277 V ordinary or hazardous location
- Dimensions: 6" x 4" x 3"









CL-L T-AL TAPE T-F TAPE CL-S

Large Caution Labels

- 9" x 2" labels for pipe diameters 2.5" and larger.
- Apply every 10'
- · 4 per pack

Small Caution Labels

- 4" x 1.5" labels for pipe diameters .5" to 2.5".
- Apply every 10'
- 5 per pack

Aluminum Heat Tape

- **T-AL200** 2" x 150' roll heat transfer tape
- T-AL400 4" x 150' roll heat transfer tape -25°F application temp. min.

Fiberglass Tape

- **T-F50** .5" x 180' roll 40°F application temp.
- **T-F50H** .5" x 108' roll -40°F application temp. min.

A421-AEC-2C OTS-F1

Thermostat Electrical Specifications Enclosure: NEMA 4X Setpoint Range: 40°F +/- 4°F 5°F Differential: Switch: Single pole, single throw Electrical Rating: 22 Amps at 120-277 VAC 190°F **Exposure Limits:** Fluid-filled bulb and 10' Sensor: capillary

Thermostat Electrical Specifications				
Enclosure:	NEMA 4X			
Setpoint Range:	-40° to 212°F			
Differential Range:	1° to 30°F			
Input Voltage:	120 or 240 VAC, 50 / 60Hz			
Switch:	Single pole, double throw (SPDT)			
Electrical Rating:	16 Amps at 120 VAC 9.2 Amps at 208 VAC 8 Amps at 240 VAC			
Exposure Limits:	-30° to 140°F (-34° to 60°C)			
Sensor:	A99BB-200C PTC sensor with 6.5' leads			

For a complete selection of thermostats and other controls, consult Delta-Therm's full-line catalog or visit



Self-Regulating Cables & Kits

General Accessories



IN Series Cable



IN INDUSTRIAL SERIES FOR ROOF DE-ICING

part number	voltage	watts per linear ft.	max circuit length ft.	Outputs in water @32° F
IN120-5-CBT	120	6	205'	9
IN240-5-CBT	240/277	6/7	335'/ 320'	9 / 10
IN240-8-CBT	208	8	260'	14
IN120-5-CBF	120	6	205'	9
IN240-5-CBF	240 / 277	6/7	335'/ 320'	9 / 10
IN240-8-CBF	208	8	260'	14

Watts per foot are calculated at 32°F



CO COMMERCIAL SERIES FOR ROOF DE-ICING

120 & 240 volt cables

part number	voltage	watts per linear ft.	max circuit length ft.	Outputs in water @32° F
CO120-6-CBT	120	6	190'	9
CO240-6-CBT	208	5	380'	8
CO240-6-CBT	240	6	340'	9
CO240-6-CBT	277	7	285'	10

Watts per foot are calculated at 32°F in air/in water.

* Max. circuit length is for a 30 amp breaker.





Cable Suffix	
СВ	tinned plated copper braid
СВТ	tinned plated copper braid thermoplastic overjacket
CBF*	tinned plated copper braid fluoropolymer overjacket



PCK-RG

Power Connection and End Termination

- Power Connection Kit - IN Series Roof De-icing
- · Makes one power connection and two end terminations. **CSA Certified**



PCK-RGP

Power Connection and End Termination

- Power Connection Kit - CO Series Roof De-icing
- · Makes one power connection and one open end termination.
- CSA Certified







DSH

Downspout Hanger

1 downspout hanger

RM-25-AL

- Roof Clip (25 pack) • 25 single run clips
- Use on metal roofs with VHB pads

VHB-PAD

- Adhesive Pads (25 pack) • 25 3" x 2" doubled sided adhesive pads. Use on metal roofs with RM-25-AL clips.
- 32° F min. application temp.

DSH and RM-25 are also available in copper as DSH-CU and RM-25-CU. (2-3 day lead time)





DT-AS-5020

Roof Clip (50 pack)

- 50 small single run clips
- Use on asphalt roofs with SB-190

SB-190

Adhesive Tube

- · 1 10 oz. adhesive tube
- Use on asphalt roofs use with DT-AS clips 50° F min. application temp.



^{*} Max. circuit length is for a 30 amp breaker.

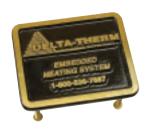
Snow Melting Mats

Load Switching Panels

Snow Melting • Roof De-Icing • Pipe Tracing • Permafrost Prevention • Floor Warming • Snow Melting • Roof De-Icing • Permafrost Prevention • Floor Warming • Snow Melting • Roof De-Icing • Pipe Tracing • Permafrost Prevention • Floor Warming



50 watts per square foot nominal wattage output.



NEC Plaque

"Embedded Heating System"

· Brass I.D. plaque

Custom slab and stair snow melt mats available. Please contact your local sales representative for more information. 20' cold leads standard - order up to 200'.

208 VOLT MATS

part number	size	total watts	amps
MA-18 x 5	18" x 5'	375	1.8
MA-18 x 10	18"x 10'	750	3.6
MA-18 x 20	18"x 20'	1500	7.2
MA-18 x 30	18"x 30'	2250	10.8
MA-36 x 5	36"x 5'	750	3.6
MA-36 x 10	36"x 10'	1500	7.2
MA-36 x 15	36"x 15'	2250	10.8
MA-36 x 20	36"x 20'	3000	14.4

240 VOLT MATS

part number	size	total watts	amps
MB-18 x 5	18"x 5'	375	1.6
MB-18 x 10	18"x 10'	750	3.1
MB-18 x 20	18"x 20'	1500	6.3
MB-18 x 30	18"x 30'	2250	9.4
MB-36 x 5	36"x 5'	750	3.1
MB-36 x 10	36"x 10'	1500	6.3
MB-36 x 15	36"x 15'	2250	9.4
MB-36 x 20	36"x 20'	3000	12.5

277 VOLT MATS

part number	size	total watts	amps
MC-18 x 5	18"x 5'	375	1.5
MC-18 x 10	18"x 10'	750	2.7
MC-18 x 20	18" x 20'	1500	5.4
MC-18 x 30	18"x 30'	2250	8.1
MC-36 x 5	36"x 5'	750	2.7
MC-36 x 10	36"x 10'	1500	5.4
MC-36 x 15	36"x 15'	2250	8.1
MC-36 x 20	36"x 20'	3000	10.8

480 VOLT MATS

part number	size	total watts	amps
MD-36 x 5	36"x 5'	750	1.6
MD-36 x 10	36"x 10'	1500	3.1
MD-36 x 15	36"x 15'	2250	4.7
MD-36 x 20	36"x 20'	3000	6.3

ME - 120 VAC available

ENCLOSED CONTACTOR PANEL

A time-saving solution for any load switching applications that don't require GFPE, or that have ground fault provided by other means.

- Contactor rating 40FLA (50A resistive), 600 VAC max
- Contactor coil voltage 120 VAC
- NEMA 1 enclosure
- Controls sold separately





model #	enclosure	dimensions h/w/d	contactors	# of circuits controlled
DT-4P40A	NEMA 1	10"x8"x4"	One 4 pole contactor rated at 50A (resistive)	2 at 208/240/480 VAC 4 at 120/277 VAC
DT-8P40A	NEMA 1	10"x10"x4"	Two 4 pole contactor rated at 50A (resistive)	4 at 208/240/480 VAC 8 at 120/277 VAC
DT-12P40A	NEMA 1	12"x12"x4"	Three 4 pole contactor rated at 50A (resistive)	6 at 208/240/480 VAC 12 at 120/277 VAC
DT-16P40A	NEMA 1	16"x12"x4"	Four 4 pole contactor rated at 50A (resistive)	8 at 208/240/480 VAC 16 at 120/277 VAC

POWER CONTROL PANEL WITH GFPE

Built to pass inspection for inline branch circuit control

- Terminals for field wiring
- Provides GFPE*
- 30A circuit power switching
- One red LED Trip indicator per interior circuit
- Red LED Trip indicator, Red LED System On indicator, and Green LED Control Power indicator on panel door
- Dry alarm contacts included
- · Typical lead times 2 weeks

*per N.E.C. Articles 426 & 427







model #	enclosure	dimensions h/w/d	contactors	# of circuits controlled
GFPE-2-N-A	NEMA 1	16"x16"x7"	Two 2 pole relays/contactors rated at 30A	2 at 120/208/ 240/277 VAC
GFPE-4-N-A	NEMA 1	20"x20"x7"	Four 2 pole relays/contactors rated at 30A	4 at 120/208/ 240/277 VAC
GFPE-6-N-A	NEMA 1	24"x24"x7"	Six 2 pole relays/contactors rated at 30A	6 at 120/208/ 240/277 VAC
GFPE-8-N-A	NEMA 1	30"x24"x7"	Eight 2 pole relays/contactors rated at 30A	8 at 120/208/ 240/277 VAC
GFPE-12-N-A	NEMA 1	36"x30"x7"	Twelve 2 pole relays/contactors rated at 30A	12 at 120/208/ 240/277 VAC

480 VAC circuits available (longer lead time)
N = Voltage A = Amp Load





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Submitting a Request for Proposal

Proposal request forms can be found on the Delta-Therm website at www.delta-therm.com/ request-proposal. There you'll find PDF forms - both downloadable and online fillable - for these applications:

- · Stair Snow Melting
- · Slab Snow Melting
- Roof De-icing
- Hangar Door De-icing
- · Pipe Trace
- Tank Trace
- · Permafrost Prevention
- · Custom Panels
- Hazardous Class I
- · Hazardous Class II
- · Floor Warming



For complete details on products, installation, how-to videos and engineering services visit www.delta-therm.com

