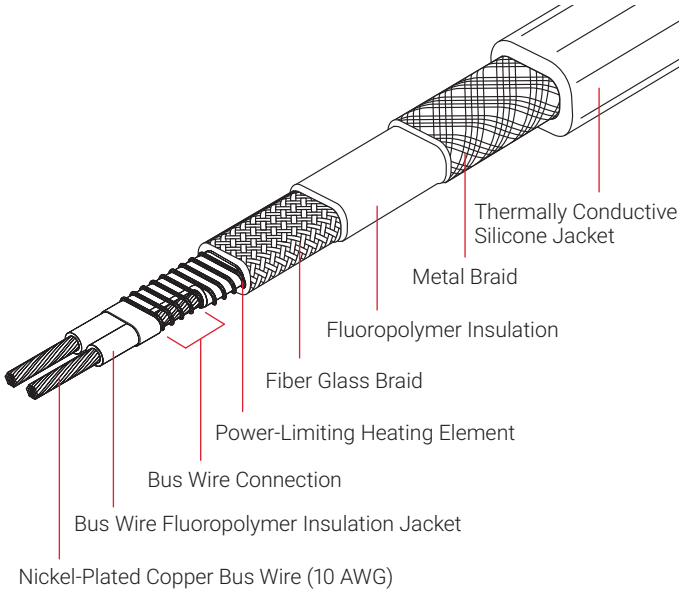
PTC-Z

CONNECT AND PROTECT

Contact (Third) Rail Heater

PRODUCT OVERVIEW



nVent RAYCHEM Contact Rail Heaters are designed to eliminate ice and snow accumulation on the contact (third) rail. The ice and/or snow accumulation on the third rail can prevent power from getting transferred to the train resulting in expensive service interruptions.

The service-proven nVent RAYCHEM PTC-Z heating cables use a power-limiting technology in which a coiled alloy variable resistance heating element is spiraled around two parallel bus wires. The distance between alternating conductor contact points on the bus wires forms the heating zone length. This parallel construction allows the cable to be cut to length and terminated on site. The power output of heating cable decreases with increasing temperature due to the Positive Temperature Coefficient (PTC) of the resistor alloy. This ensures a lower start-up current and no overheating of cable at high power outputs. The cables incorporate a rugged extruded thermally conductive Silicone jacket that ensures efficient heat transfer to the rail as well as reduced risk of in-service or installation damage.

HEATING CABLE CATALOG NUMBER AND ORDERING INFORMATION

PTC-Z is offered as a pre-terminated cable with lead wires attached. To order the PTC-Z cable, it is important to understand the product catalog number:

PTC-XXX-Z-XX-XXX-XX-XX

- Lead wire length (in feet) (10*, 20, other)
- Lead wire gauge (AWG) (6, 8*, 10 available)
- Circuit length (in feet) (<550 ft)
- Power output (W/ft)
- Voltage (Volt)

Example: PTC-750-Z-30-500-08-10

- 750 VDC rated power limiting cable, 30 W/ft., 500 ft. circuit length, 8 AWG lead wire, and 10 ft. in length.

* Standard configuration

SPECIFICATIONS (NOMINAL)

Power Output	30, 40, 50 W/ft at 32ºF (0ºC)
Voltage	480 VAC, 600 to 750 VDC
Minimum Installation Temperature	0ºF (–18ºC)
Maximum Intermittent Exposure Temperature	200ºC (392ºF)
Weight	2890 lb/1000 ft (4301 kg/km)
Size	0.7" wide x 0.5" high

BENEFITS

- Optimized energy efficient design for each rail type and set of operating conditions
- High wattage capabilities for demanding weather conditions
- Thermally conductive rugged over jacket ensures maximum heat transfer to the rail and makes heater safer and reliable
- Service-proven rugged mechanical design reduces potential for in-service damage
- Proprietary spring clips and fiberglass channel attachment hardware designs provide for quick reliable installation with low craft sensitivity
- Comes pre-terminated with lead wires attached for easy field connections
- Circuit lengths up to 550 ft with customized lengths and configurations are possible
- Cut-to-length design for field modifications
- Maximum sheath temperature of 200ºC (392ºF) at 10ºC (50ºF) ambient

APPROVALS

PTC-Z contact rail heating cables meet the requirements of the U.S. National Electrical Code and the Canadian Electrical Code. The contact rail heaters are typically offered as a part of an integrated system with optimized energy efficient design for each rail type and operating conditions. The system includes heater terminations, attachment hardware (spring clips, fiberglass channel, and abrasion pad), fuse boxes and telemetry and controls. For additional information contact your nVent RAYCHEM representative or call (800) 545-6258.

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