

Self-regulating electrical heating cable for contact rail/live rail heating.

CONTACT Rail HEATER

Cut To Length - Parallel Resistance Self-Regulating Heating Cable

- Outputs available up to 90W/m.
- CRH is supplied in pre-terminated lengths up to 152 metres.
- Full range of controls and accessories.
- Available up to 750V dc.
- Suitable for contact rails/live/3rd rail systems.
- CRH can also be supplied on reels for cutting to length as required.

DESCRIPTION

The CRH contact rail heater has been specifically developed for contact or 3rd / live rails operating on up to 750 volt dc systems.

CRH rail heater is designed to maintain the operational integrity of rail networks, ensuring that contact rails are kept clear of snow and ice during adverse weather conditions.

CRH may be supplied in single lengths up to 178 metres and fitted with 1.5 metre pre-terminated cold lead and remote end seals. It is suitable for direct replacement of existing contact rail heaters and will intergrate with the majority of existing contact rail or live heating systems.

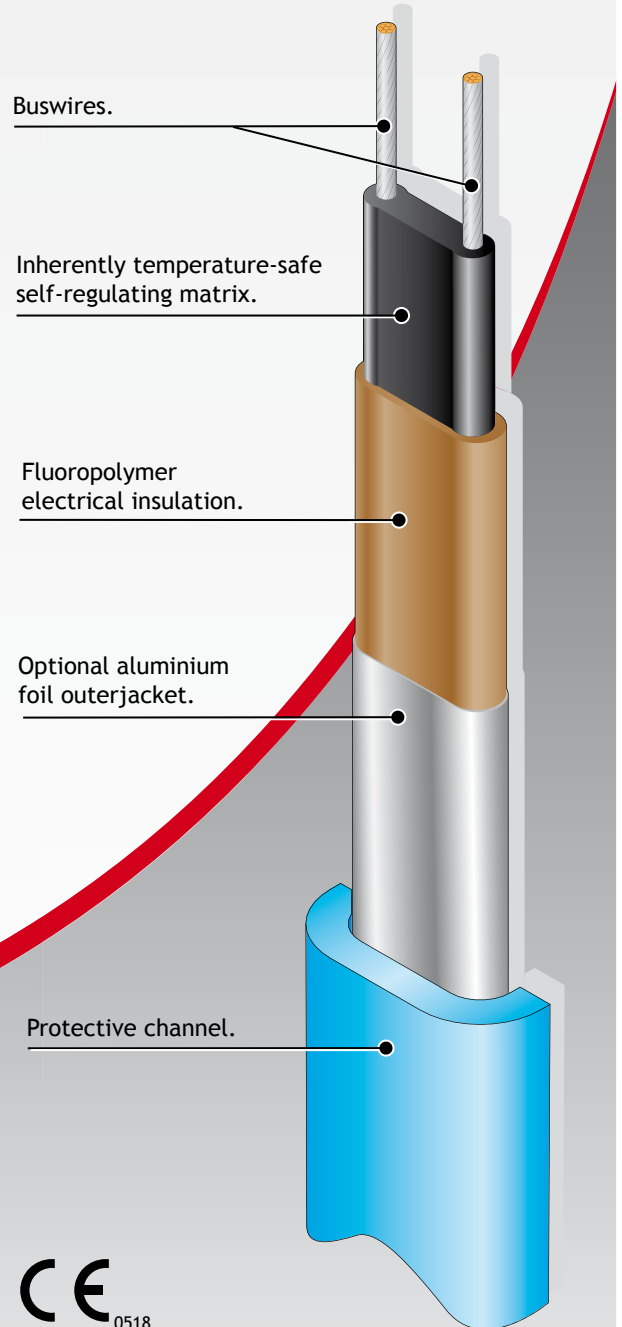
The heater is held in place on the rail using protective GRP angle or channel section and purpose made heavy duty rail clips. The installation of CRH heating cables is quick and simple and requires no special tools. The fitting of new or replacement heaters can be carried out quickly and safely with minimum track possession time and therefore minimum disruption to rail traffic. All system components are modular to ensure fast and simple installation.

CRH heating cables and system components are suitable for withstanding the hazards of a rail environment, such as severe and continuous vibration due to rail traffic, immersion in icy water, snow, weed killer formulations, diesel oils, lubrication oils, oxalic acid and de-icing fluids. CRH heating cables are able to operate in 'free air', totally or partially, without affecting the working life of the heater.

INHERENTLY TEMPERATURE-SAFE

“The inherent ability to self-regulate at a temperature level below the maximum product rating and withstand temperature of the insulating materials, without the need for temperature control.”

Similar competitor self-regulating products are typically limited to a maximum energised temperature, typically 120°C at which point, their retained power output prevent the cable from self-regulating at its own limiting temperatures. All such products require temperature control to ensure their own temperature safety.



SPECIFICATION

**MAXIMUM TEMPERATURE:
UN-ENERGISED:** 135°C (275°F)

**MINIMUM INSTALLATION
TEMPERATURE:** -20°C (-4°F)

POWER OUTPUT: 90W/m @ 0°C

POWER SUPPLY: 600VDC

CONSTRUCTION:

Heating Element: Semi-conductive self-limiting matrix.

Power Conductors: Nickel plated copper 1.81mm².

Primary Insulation: Fluoropolymer.

Outer Jacket: Aluminium foil.

WEIGHTS & DIMENSIONS:

Type Ref	Dimensions (mm)+/-0.5	Weight kg/100m	Min Bending radius
CRH	13.0 x 4.0	13.0	30mm

ORDERING INFORMATION:

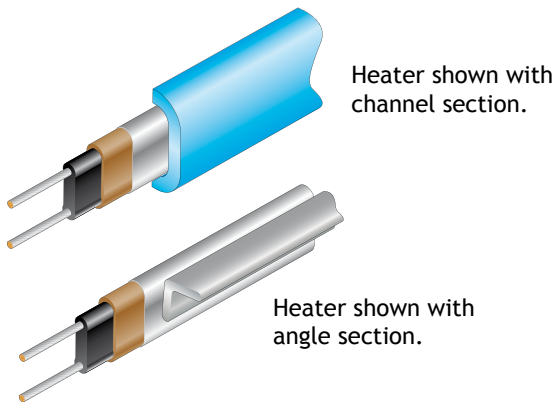
Example - pre-terminated lengths 90 CRH 6 - 152M

Nominal Output 88W/m
CRH Heating cable
Supply Voltage 600V DC
152m Heated Length

ATTACHING THE HEATER TO THE RAIL:

Heaters may be mounted on the rail using a channel section. For applications that use an aluminium clad contact rail, an angle section is also available.

Specially designed spring clips hold the heater and the channel, or angle, to the rail. A range of clips are available to suit a variety of different rail profiles.



ACCESSORIES:

Heat Trace supply a complete range of accessories including connector blocks, anti-vibration plugs, rail clips, control systems and power cabling.

IMPORTANT NOTES:

The CRH Rail Heater should only be fitted to rails using approved methods. The heating cable should only be terminated using the approved cold lead connection and the special heat shrink boot and tubing. Connections must be of an approved type.

Full details of all approved ancillary and control equipment is available on request. Installation of the CRH heating cables must be carried out in accordance with Heat Trace's Code of Practice for the installation of Contact Rail Heating Systems.

MAXIMUM LENGTH (m) vs. CIRCUIT BREAKER AT 600VDC

Cat Reference	Start-up Temperature	230V			
		16A	20A	32A	50A
90CRH6	0°C	84	104	166	208
	-10°C	68	84	136	208
	-20°C	56	72	114	178

For use with Type C circuit breakers to IEC 60898

HEATER OUTPUT GRAPH:

Power Output v Rail Temperature for 90CRH6

