

Electrical heating cable for the heating of moderately long pipelines.

LONGLINE

High Efficiency Series Resistance
Three Phase Heating Cable

- Circuit lengths up to 2km.
- Single supply point - minimises supply cabling costs.
- Available up to 1000V AC/DC 3 phase.
- Power outputs up to 23W/m.
- Easy installation in convenient lengths.
- Full range of controls and accessories available.

FEATURES

LONGLINE HTP3F is a series resistance, three phase constant power heating cable used for moderately long pipelines up to 2km.

Construction

The thermoplastic insulated conductors are sheathed with thermoplastic for flexibility. A copper braid and overjacket can be provided for additional mechanical protection or for grounding purposes.

The Design

Heating conductors are sized to produce the desired heat output for the circuit length required. The LONGLINE heaters are connected directly to the three phase mains voltage or, when required, to a step-up transformer.

Improved Safety and Efficiency

The large heated surface of LONGLINE's flat foil construction results in lower operating temperatures than equivalent round conductor constructions. Thus, improving safety and system life. The high efficiency produces a power capability up to 23W/m.

Installation

LONGLINE cable may be straight run or spiralled to above ground pipes. For buried lines, cables are usually drawn into channel raceways within a pre-insulated pipeline system.

Minimal Supply / Distribution Costs

LONGLINE minimises the number of electrical supplies needed and so minimises supply cabling and distribution costs. Cable is provided in convenient lengths, eg. 200m for series connection at site.

Copper Heating
Foil Conductors.

Primary Insulation
Thermoplastic.

Continuous conductive
covering.

Optional Thermoplastic
Overjacket.

LONGLINE - A COMPLETE SYSTEM

Reliability of the heating system is usually paramount. LONGLINE cables form only part of a high integrity LONGLINE heating system. This includes power control, temperature control and circuit health monitoring or alarm equipment - all specifically developed and produced by Heat Trace Limited.

SPECIFICATION

MAXIMUM TEMPERATURE Un-energised 125°C (257°F)

MINIMUM INSTALLATION TEMPERATURE: -40°C (-40°F)

POWER SUPPLY: Up to 600V AC/DC 3 phase according to design requirements

POWER OUTPUT: Up to 23W/m by design according to application requirements

HEATING CONDUCTOR THICKNESSES:

0.3mm	0.7mm
0.4mm	0.8mm
0.5mm	1.0mm
0.6mm	1.25mm

Please note that Heat Trace will size conductors to provide the required W/m output for required circuit length.

DIMENSIONS:

Type Ref	Nom. Dims (mm) +/-0.5
HTP3F	24.0 x 6.0
HTP3F-C	25.0 x 7.0
HTP3F-CT	27.0 x 9.0

APPROVAL DETAILS:

Testing Authority	Certificate No.
CSA 	1495802

CONSTRUCTION:

Heating Conductors	Copper 4mm Wide
Primary Insulation	Thermoplastic
Sheath	Thermoplastic
Braid (optional)	Tinned Copper
Over Jacket (optional)	Thermoplastic

ORDERING INFORMATION:

Example HTP3F-CT/1.0

Thermoplastic Sheath	_____
Three Heating Conductors	_____
Tinned Copper Braid	_____
Thermoplastic Overjacket	_____
Conductor Thickness (mm)	_____

MAXIMUM PIPE / WORKPIECE TEMPERATURE

The surface of the heater must not exceed the maximum withstand temperature of its constructional materials or the Temperature Classification (if installed in a hazardous area). This is ensured by limiting the pipe or workpiece temperature to a safe level either by design calculation (a Stabilised Design) or by means of temperature controls.

For worst case conditions, the temperature of steel pipes should be limited to the following levels:-

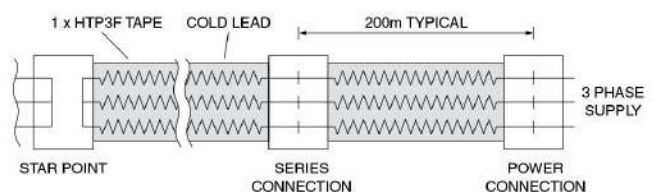
HEATER NOMINAL OUTPUT (W/m)	MAXIMUM PERMISSIBLE PIPE TEMPERATURE (°C)		
	HTP3F	HTP3F-C	HTP3F-CT
10	112	109	100
15	94	95	85
23	78	80	70

For conditions other than worst case or pipes of other materials (e.g. plastic, stainless steel), consult Heat Trace.

Tolerances: Voltage + 10%; Resistance ± 10%

Pipe temperatures much higher than those given above may be accommodated by using Heat Trace Limited's voltage compensating devices. Please call for further details.

TYPICAL ARRANGEMENT



CIRCUIT PROTECTION

Circuit breakers, switch gear and supply cabling should be sized to cater for cold start-up conditions. Heat Trace Limited will advise operating and start-up loads.

ACCESSORIES

Heat Trace supply a complete range of accessories including termination/splice kits, end seals, junction boxes and controls.