LLR 230°C

Electrical heating cable for long pipelines.

LONGLINE R
Series Resistance Heating Cables

- Circuit lengths up to 60km.
- Available up to 2500V AC/DC 3 phase.
- Available up to 1400V AC/DC single phase.
- Suitable for use in safe, hazardous and corrosive areas.
- Metal jacket for increased mechanical strength and fire resistance.
- Full range of controls and accessories available.

FEATURES

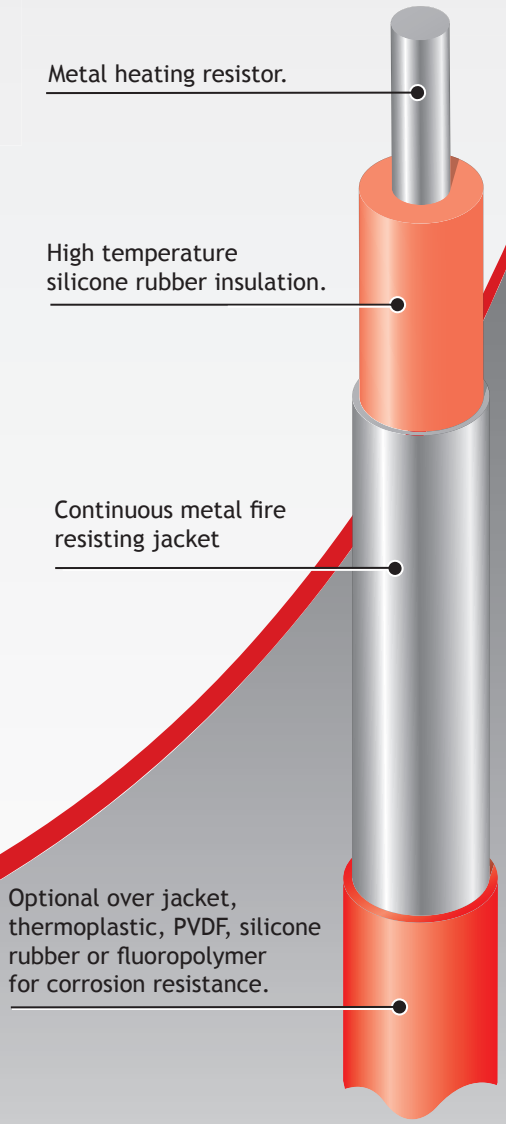
LONGLINE R round heating cables are high performance series resistance heaters for long pipelines where temperature maintenance or freeze protection is required.

They are used where circuit lengths exceed the capabilities of parallel resistance self regulating or constant power heaters in order to minimise the number of electrical supply points. Circuit lengths of multi-kilometre are possible from a single supply point.

LONGLINE R provides constant power per unit length without voltage drop along the length. Hence round heating cable may be provided for single or 3 phase connection.

The continuous metal jacket allows for increased mechanical strength, reducing the risk of damage and providing superior fire-resisting properties compared with most heating cables.

LONGLINE R cables may be used in safe and hazardous classified locations.



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HEAT TRACE

The Heat Tracing Authority™

LLDS0305 (07012026) Issue 8

SPECIFICATION

MAXIMUM CONTINUOUS EXPOSURE TEMPERATURE (Power OFF): 230°C (446°F)

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

MINIMUM OPERATING TEMPERATURE: -60°C (-76°F)

RATED VOLTAGE: up to 1500V AC/DC single phase
2500V AC/DC 3-phase

DIMENSIONS/ELECTRICAL RESISTANCE:

Type Ref	Diameter (mm) 'D'	Min Bend radius	Nominal Res.@20°C Ω/km
HTS1FAR-A 3.1	6.6	70mm	8.784
HTS1FAR-A 7.1	7.6	80mm	4.014
HTS1FAR-A 12.6	8.6	90mm	2.214
HTS1FAR-A 19.6	9.6	100mm	1.514
HTS1FAR-A 28.3	10.6	110mm	1.010

APPROVAL DETAILS:

ATEX - CML 18ATEX3379X
IECEx - CML 15.0058X
UKEX - CML 21UKEX31153X
CCC - 2022312312000165

ORDERING INFORMATION:

Options

HTS1FAR-A Continuous metal fire resisting jacket.

HTS1FAR-AT Thermoplastic outerjacket over a continuous metal jacket.
HTS1FAR-AS Silicone outerjacket over a continuous metal jacket.
HTS1FAR-AF Fluoropolymer outerjacket over a continuous metal jacket.
HTS1FAR-AP PVDF outerjacket over a continuous metal jacket.

Example: **HTS1FAR-A F 7.1**

Single conductor longline
Alloy conductor round
Alloy outerjacket
Fluoropolymer outerjacket
Conductor cross sectional area

ATEX, IECEx & UKEX MARKINGS:

Ex II 2 GD
Ex 60079-30-1 IIC T* Gb
Ex 60079-30-1 IIIC T**°C Db IP67

EN 60079-0: 2018
EN 60079-30-1: 2017
EN 60079-31: 2014

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.

MAXIMUM PIPE/WORKPIECE TEMPERATURE (°C)

Cat Ref	Nom. Output (W/m)	Area Classification Hazardous T6	T5	T4	T3	T2	T1	Safe
HTS1FAR-A 3.1	10	34	51	98	190	225	225	225
	20		12	49	166	215	215	215
	30			6	110164	164	164	
	40				64129	129	129	
HTS1FAR-A 7.1	10	42	59	101	185	226	226	226
	20	5	20		60	154	199	199	199
	30				26	115	167	167	167
	40					79139	139	139	
HTS1FAR-A 12.6	10	39	59	106	186	226	226	226	
	20			3	67	171	204	204	204
	30				20	133	185	185	185
	40					101	160	160	160
	50					64	131	131	131
HTS1FAR-A 19.6	10	41	61	107	187	226	226	226	
	20		9	71	171	205	205	205	
	30			26	137	188	188	188	
	40				106	164	164	164	
	50				72	137	137	137	
HTS1FAR-A 28.3	10	46	65	110	188	226	226	226	
	20		24	79	173	207	207	207	
	30			43	146	196	196	196	
	40			6	120	173	173	173	
	50				92	150	150	150	

CONSTRUCTION:

Heating Conductors: Sized to suit application
Primary Insulation: Silicone Rubber
Continuous conductive cover: Aluminium
Over Jacket: (optional) Silicone Rubber, Fluoropolymer, Thermoplastic, PVDF

ACCESSORIES:

LLRS - Splice connection or termination kit for field fabrication. See instructions:
- **SK/HTS1FAR/SML**
- **SK/HTS1FAR/MED**
- **TK/HTS1FAR/SML**
- **TK/HTS1FAR/MED**

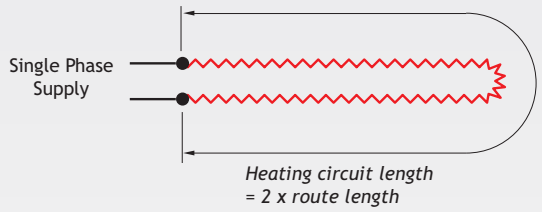
FURTHER INFORMATON:

Please consult the appropriate termination instructions and the Heat Trace, Design, Installation and Maintenance Manual (HTDIMM 010) for further details.

LONGLINE HTS1FAR

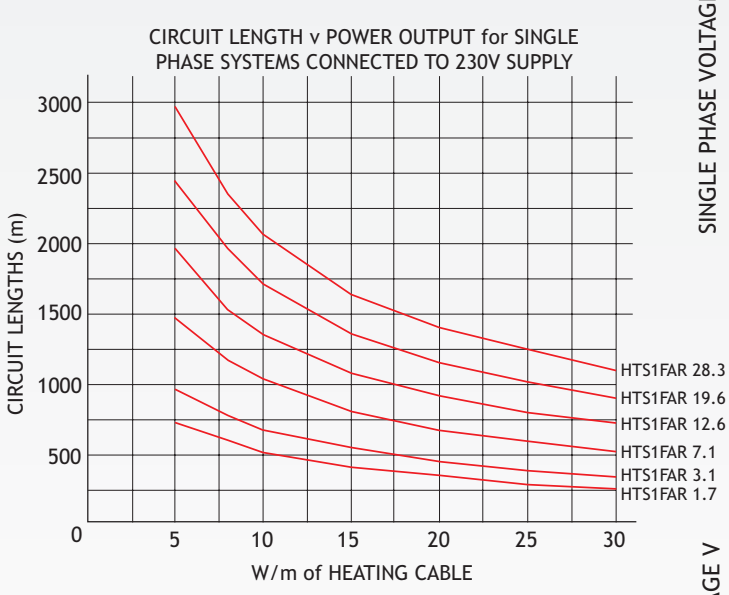
Relationship between circuit length (m), power output (W/m) and single phase supply voltage.

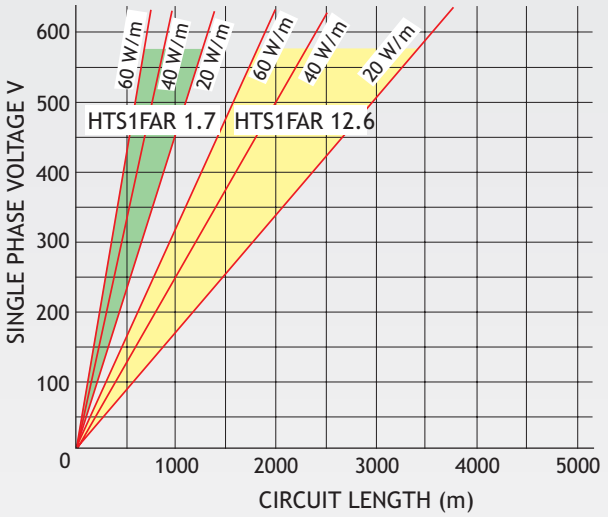
Circuit Configuration

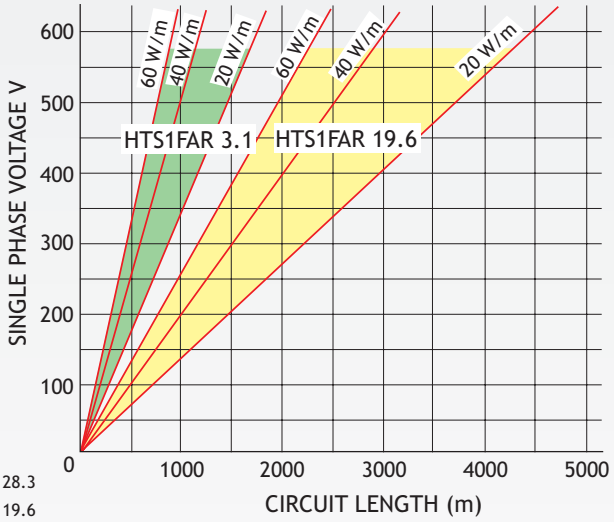


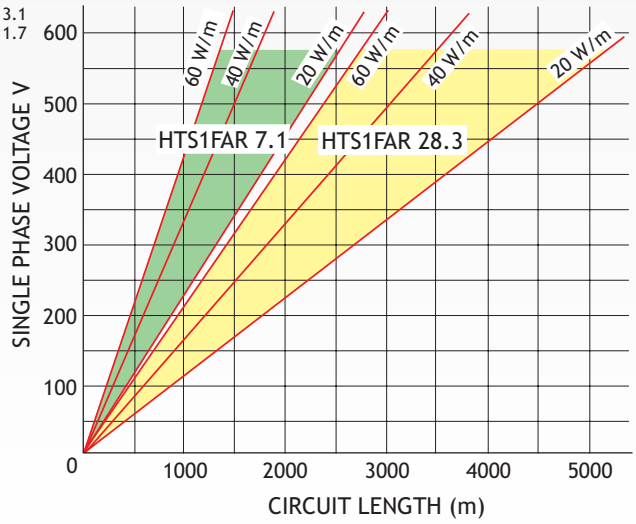
NOTES:

1) W/m shown is total applied to pipe i.e. W/m of cable is half of installed load shown.
2) Power output is approx for cables on a pipe at 60ºC.





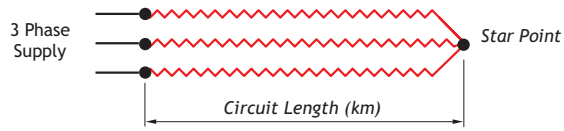




LONGLINE HTS1FAR

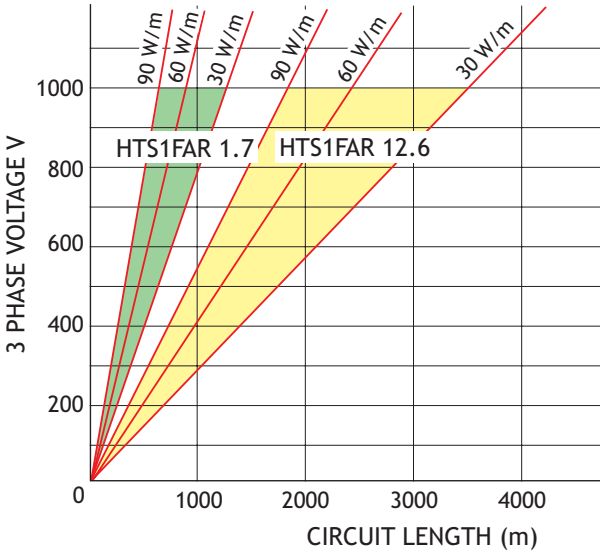
Relationship between circuit length (m), power output (W/m) and 3 phase supply voltage.

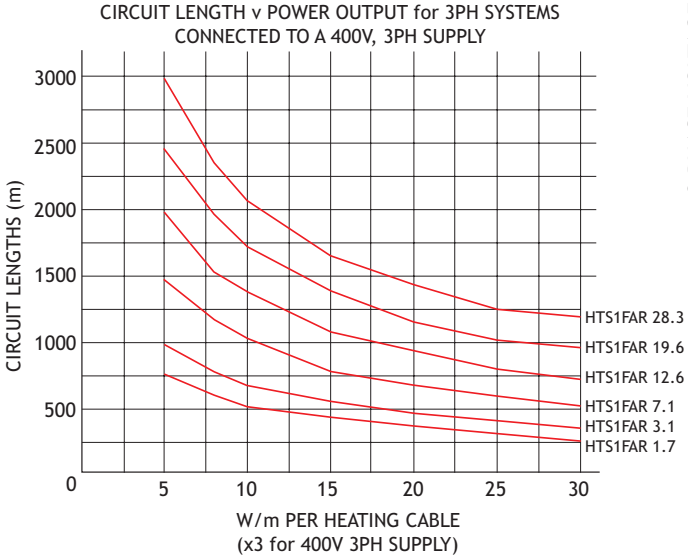
Circuit Configuration

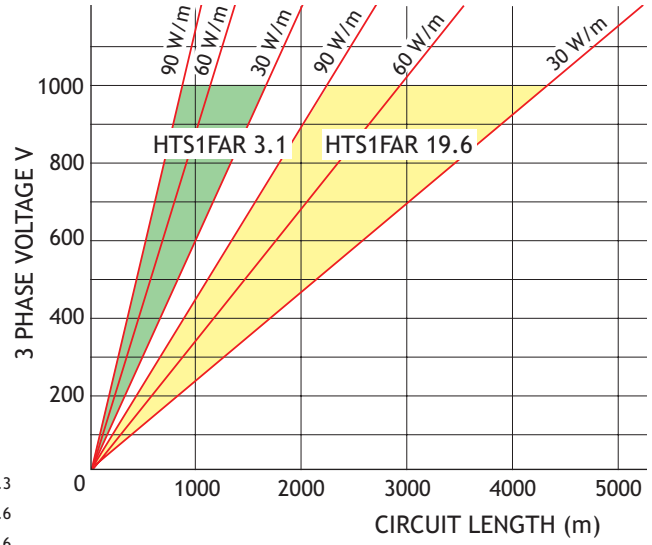


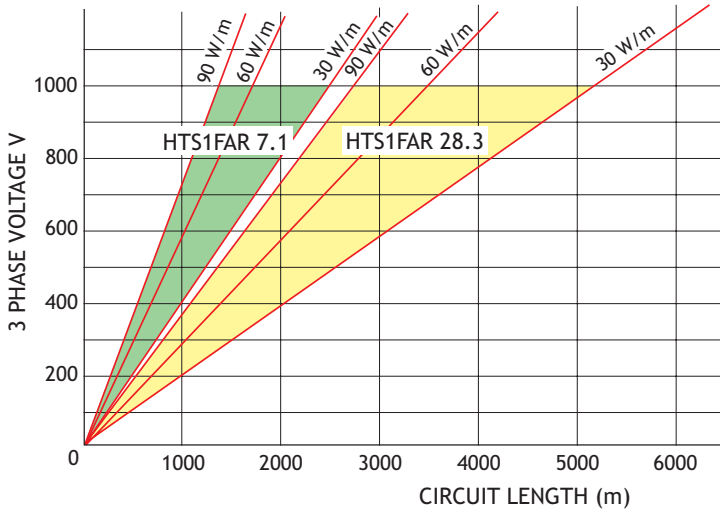
NOTES:

1) Power outputs shown are for 3 heating cables on a pipe at 60°C.
2) For pipe temperatures above 60°C, de-rate power outputs by 0.4W/m per degree centigrade.
3) For pipe temperatures less than 60°C, increase power outputs by 0.4W/m per degree centigrade.









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