

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.

Metal heating resistor.

High temperature silicone rubber insulation.

Continuous metal fire resisting jacket

Optional over jacket, thermoplastic, PVDF, silicone rubber or fluoropolymer for corrosion resistance.



The Heat Tracing Authority™

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	8.1	70mm	8.784
HTS1FAR-A 7.1	9.1	80mm	4.014
HTS1FAR-A 12.6	10.1	90mm	2.214
HTS1FAR-A 19.6	11.1	100mm	1.514
HTS1FAR-A 28.3	12.1	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						Safe
		T6	T5	T4	T3	T2	T1	
HTS1FAR-A 3.1	10	34	51	98	190	225	225	225
	20		12	49	166	215	215	215
	30			6	110	164	164	164
	40				64	129	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				79	139	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
HTS1FAR-A 19.6	10				64	131	131	131
	20	41	61	107	187	226	226	226
	30		9	71	171	205	205	205
	40			26	137	188	188	188
HTS1FAR-A 28.3	10				106	164	164	164
	20				72	137	137	137
	30	46	65	110	188	226	226	226
	40		24	79	173	207	207	207
HTS1FAR-A 19.6	10				43	146	196	196
	20				6	120	173	173
	30					92	150	150
	40							

CONSTRUCTION:

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

ACCESSORIES:

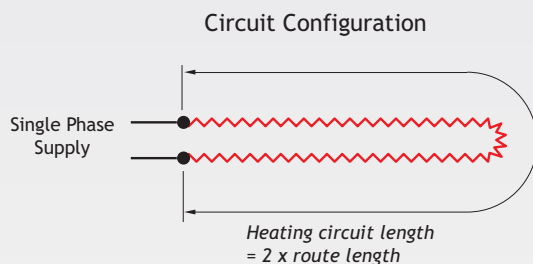
- LLRS -** Splice connection or termination kit for field fabrication. See instructions:
- SK/HTS1FAR/SML
 - SK/HTS1FAR/MED
 - TK/HTS1FAR/SML
 - TK/HTS1FAR/MED

FURTHER INFORMATION:

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

LONGLINE HTS1FAR

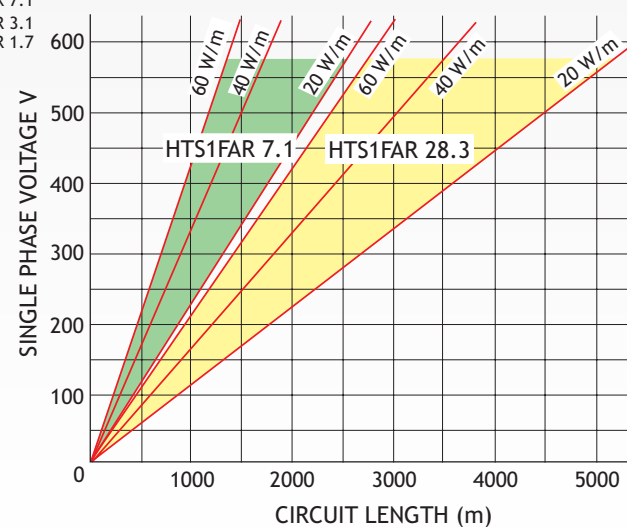
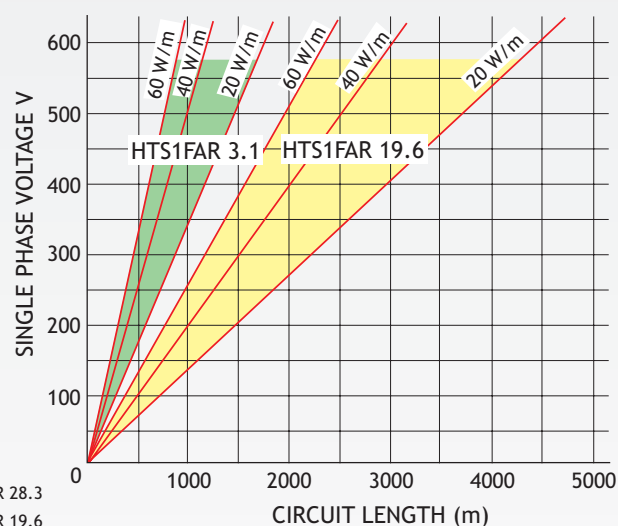
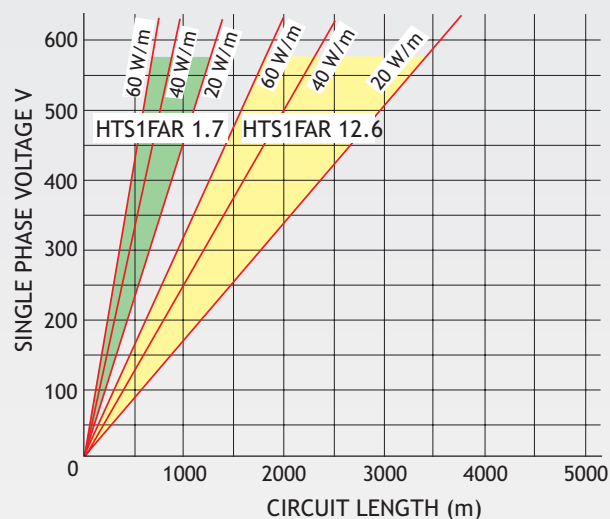
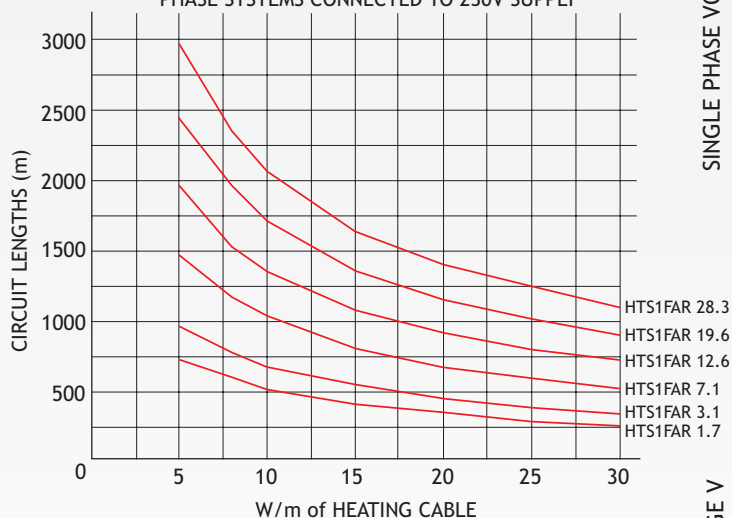
Relationship between circuit length (m), power output (W/m) and single phase supply voltage.



NOTES:

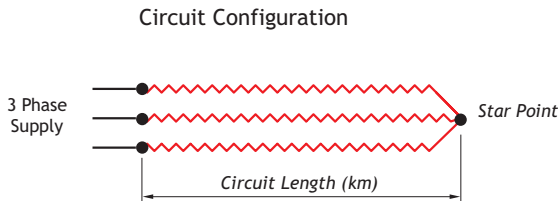
- 1) W/m shown is total applied to pipe i.e. W/m of cable is half of installed load shown.
- 2) Power output is approx for cables on a pipe at 60°C.

CIRCUIT LENGTH v POWER OUTPUT for SINGLE PHASE SYSTEMS CONNECTED TO 230V SUPPLY



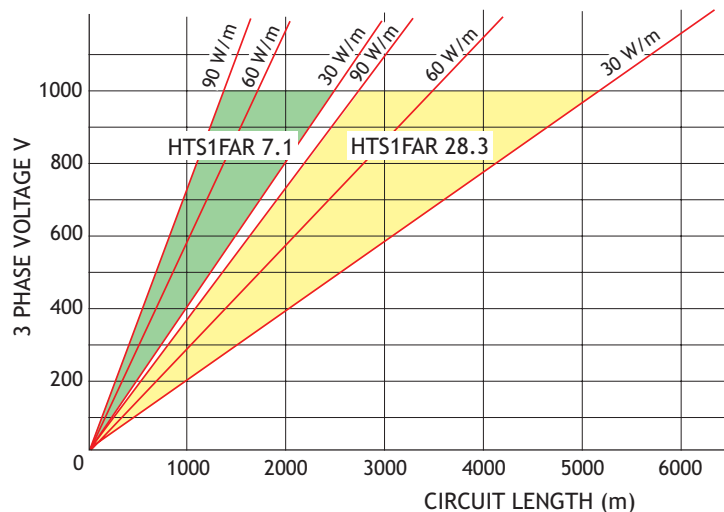
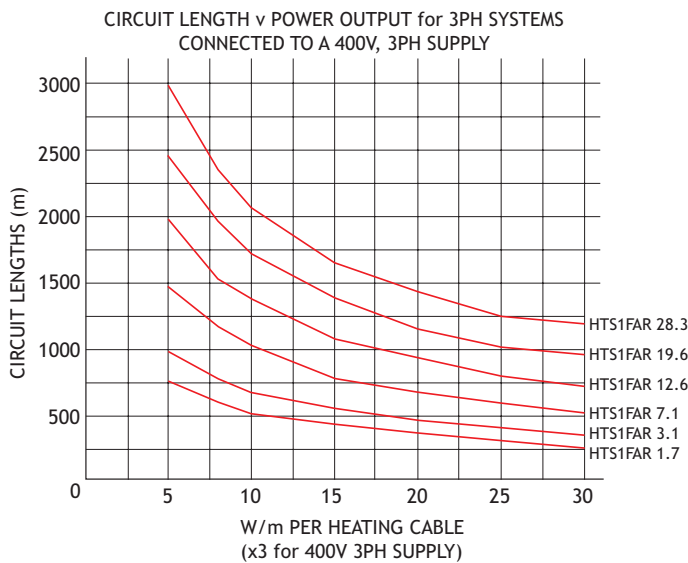
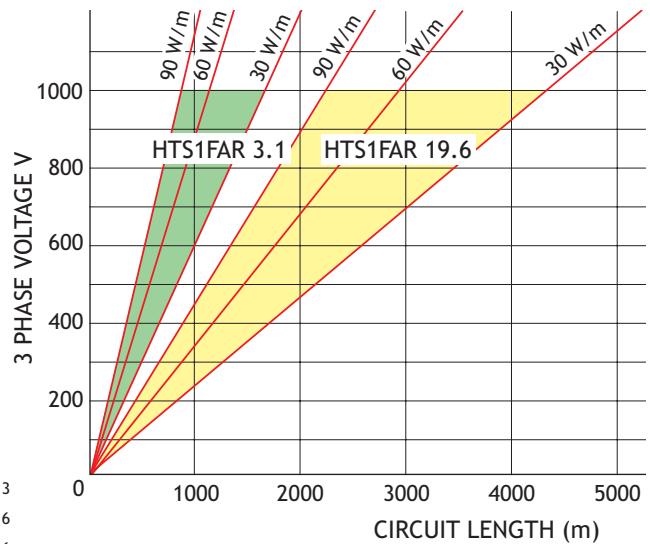
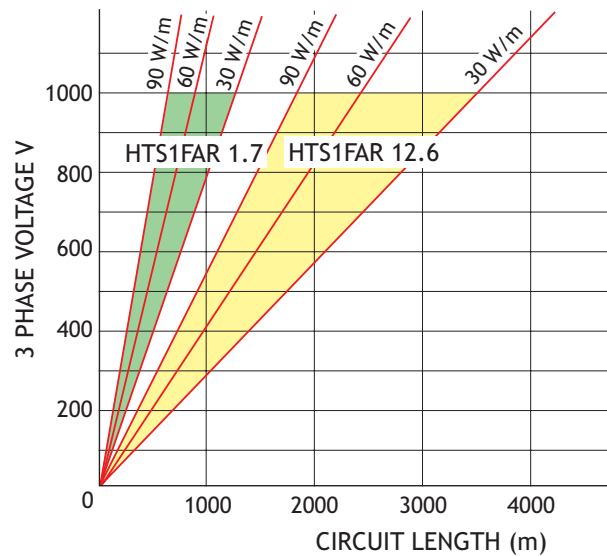
LONGLINE HTS1FAR

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



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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