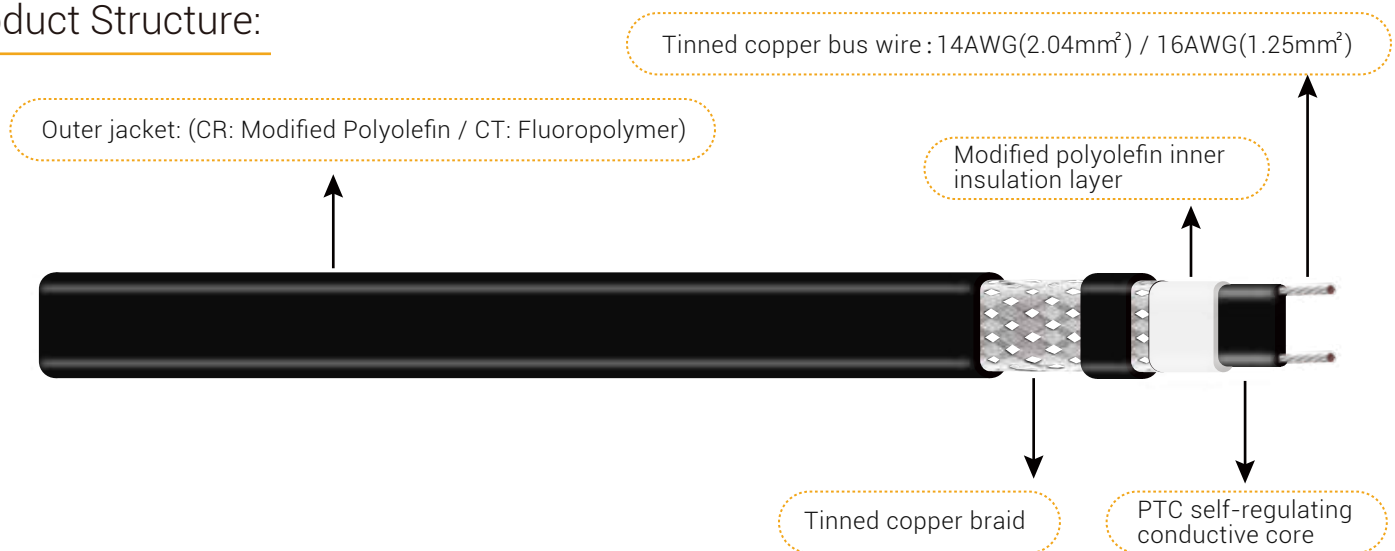


HTR low temperature self-regulating heating cable

Overview:

Protherm HTR low temperature self-regulating heating cable can be used for freeze protection application without steam purge in civil & commercial or industry area, as well as to process temperature maintenance in low level of maximum exposure temperature. The maximum maintenance temperature will be up to 65 C . No matter whether the pipeline is overhead or buried installation, HTR heating cable can maintain the temperature and phase structure of the medium in the pipeline or vessel. HTR heating cable is certified by NEPSI (China), EAC(Russia) and IECEX,ATEX for ex-proof application, as well as to be used in the area which is defined according relative standard.

Product Structure:










The extruded core tape, which made by parallel tinner copper bus wire and PTC semiconductor polymer heating material, and inner insulation layer of modified polyolefin are added to tinned copper braid and the outer jacket form a complete structure of HTR heating cable, in which the outer jacket can be made of modified polyolefin material (CR) or fluoropolymer material (CT) according to different application or area.

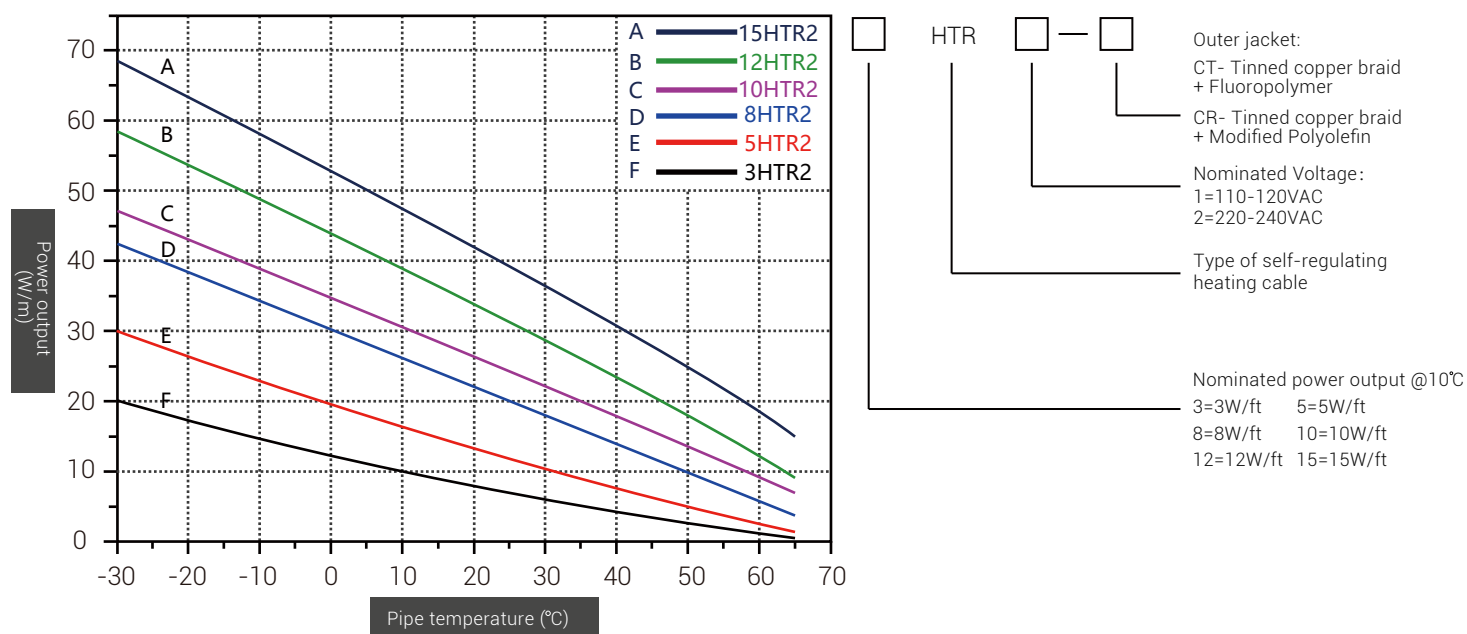
Product Feature:

- ◆ HTR heating cable is certified by IECEX,ATEX,CSA (Canada),UL(America)NEPSI(China) and EAC(Russia) including explosion-proof application, which can be used in the explosion area and ordinary safety area.
- ◆ According to the characteristics of automatic adjustment of power output based on ambient temperature, it can avoid overheating or burning on heating cable even in the case of overlapping installation; Simultaneously this feature can increase the efficiency of the heat tracing system and reduce energy consumption.
- ◆ It is allowed to cut arbitrarily within the interval specified by the maximum circuit length and connect with compliance accessories.
- ◆ It has a complete series of accessory, including standard power box, splice/tee connection box and end seal box etc, which can ensure the long service life of the product.
- ◆ HTR heating cable has passed a series of test including UV testing according to international standard, which is ensured that the product will not be broken or life reduction due to exposed to the air for a long time without insulation layer installation.

Technical Specification:

Nominated Voltage:	110-120V(HTR1) / 220-240V(HTR2)
Maximum maintaince temperature:	+65°C (150°F)
Maximum intermittent exposure temperature:	+85°C (185°F)
Temperature classification:	T5/T6
IP level:	IP66/67
Minimum installation temperature:	-60°C(-76°F)
Minimum bending radius:	30mm
Nominated power output @10°C:	3W/ft, 5W/ft, 8W/ft, 10W/ft, 12W/ft, 15W/ft,
Dimension:	CR: 15.4mm(W)x7mm (T) / CT: 14.8mm(W)x6.4mm (T) (Only for 15HTR) CR: 12.56mm(W)x5.96mm (T) / CT: 11.96mm(W)x5.36mm(T) (For other type except 15HTR)
Approvals mark:	      

Power output curve:



120Vac Service Voltage:

CB size(A)	Start-up temperature °C (°F)	Max Circuit Length Vs Breaker Size (ft)					
		3HTR1	5HTR1	8HTR1	10HTR1	12HTR1	15HTR1
16	10 (50)	342	277	185	145	102	84
	0 (32)	342	253	163	132	93	76
	-10 (14)	282	228	145	121	85	70
	-20 (-4)	265	192	116	111	79	64
	-40 (-40)	224	147	103	97	68	56
20	10 (50)	342	277	202	182	128	105
	0 (32)	342	277	185	165	116	95
	-10 (14)	342	260	163	151	107	87
	-20 (-4)	317	241	149	139	99	80
	-40 (-40)	282	211	130	121	86	70
25	10 (50)	342	277	205	197	160	131
	0 (32)	342	277	205	197	146	119
	-10 (14)	342	277	205	189	133	109
	-20 (-4)	342	277	205	174	123	101
	-40 (-40)	342	277	192	151	107	87
32	10 (50)	342	277	205	197	175	167
	0 (32)	342	277	205	197	175	152
	-10 (14)	342	277	205	197	171	139
	-20 (-4)	342	277	205	197	158	129
	-40 (-40)	342	277	205	193	137	111
40	10 (50)	342	277	205	197	175	171
	0 (32)	342	277	205	197	175	171
	-10 (14)	342	277	205	197	175	171
	-20 (-4)	342	277	205	197	175	161
	-40 (-40)	342	277	205	197	171	139

240Vac Service Voltage:

CB size(A)	Start-up temperature °C (°F)	Max Circuit Length Vs Breaker Size (ft)					
		3HTR2	5HTR2	8HTR2	10HTR2	12HTR2	15HTR2
16	10 (50)	685	555	370	291	205	167
	0 (32)	685	507	325	264	186	152
	-10 (14)	565	455	291	242	171	139
	-20 (-4)	531	383	233	223	158	129
	-40 (-40)	448	294	205	193	137	111
20	10 (50)	685	555	404	363	256	209
	0 (32)	685	555	370	330	233	190
	-10 (14)	685	520	325	302	214	174
	-20 (-4)	633	483	298	278	197	161
	-40 (-40)	565	421	260	242	171	139
25	10 (50)	685	555	411	394	320	261
	0 (32)	685	555	411	394	291	238
	-10 (14)	685	555	411	377	267	218
	-20 (-4)	685	555	411	348	247	201
	-40 (-40)	647	555	383	302	214	174
32	10 (50)	685	555	411	394	349	334
	0 (32)	685	555	411	394	349	304
	-10 (14)	685	555	411	394	342	278
	-20 (-4)	685	555	411	394	316	257
	-40 (-40)	685	555	411	387	274	223
40	10 (50)	685	555	411	394	349	342
	0 (32)	685	555	411	394	349	342
	-10 (14)	685	555	411	394	349	342
	-20 (-4)	685	555	411	394	349	322
	-40 (-40)	685	555	411	394	342	279

Description:

1. The maximum circuit length shown is in accordance with IEC 60898, with Type C circuit breakers as standard, at reference start-up temperature and 10 °C Experimental data obtained from instantaneous trip current characteristics under maintenance temperature conditions. For the maximum loop length corresponding to other trip current characteristics or other types of circuit breakers, please contact the technical representative of Protherm.

2. Although the heat tracing system is generally used to maintain the medium in the pipe or vessel at the required temperature level, the self-regulating heat tracing cable may be at a lower temperature level when it is energized. For design data when the starting temperature is lower than the above temperature, please contact the technical representative of Protherm.

3. Maximum loop length refers to the continuous length of the heating cable, not the sum of the lengths of multiple sections. Relating to current load for each section, please contact the technical representative of Protherm.

