



## XHK Self-Regulating Heating Cable

Max. Maintain Temperature

150°F 230°F 250°F 300°F

XHT XHL XHU XHK

185°F 275°F 392°F 482°F

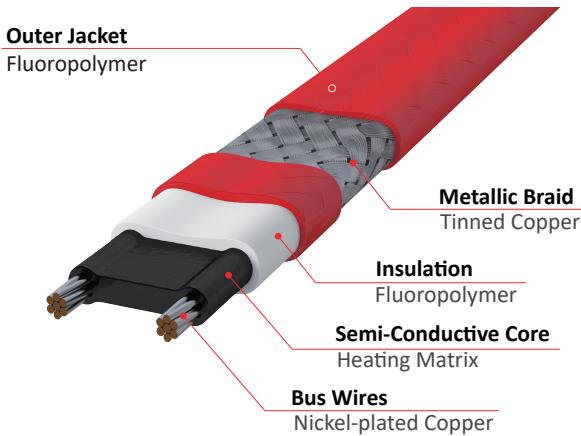
Max. Intermittent Exposure Temperature

### Product Description

The XHK Self-Regulating Heating Cable is designed for freeze protection and high process temperature maintenance of metal and non-metal pipes, vessels, and equipment where steam cleaning is required.

The unique PTC feature of XHK self-regulating core elements adjusts its heat output in response to the surrounding temperature along the entire circuit, delivering more heat where and when required. This self-regulating feature also serves to prevent overheating, even in cases where XHK cables overlap. Another benefit of the cable is the ability to cut to length in the field, completed with Xarex system connection kits for quick and convenient installations.

XHK heating cable system is certified for ordinary and hazardous areas with maximum maintain temperature of 300°F(150°C) and intermittent exposure temperature of 482°F(250°C). Use of PJB connection kits for XHK installation is required to comply with system approval, ensuring safe operation and reliable thermal performance.



### Specification

Max. Intermittent Exposure Temp.	482°F (250°C)
Max. Maintain or Continuous Exposure Temp.	300°F (150°C)
Supply Voltage	100-120V or 200-277V
Output Wattage	5, 10, 15, 20W/ft @50°F (16, 33, 49, 66W/m @10°C)
Bus wire	16 AWG
Min. Bending Radius	0.8" @70°F (20mm @20°C), 1.8" @-76°F (45mm @-60°C)
Min. Installation Temperature	-76°F (-60°C)
Min. Start-up Temperature	-40°F (-40°C)
Max. Circuit Breaker Size	50A (40A for ATEX and IECEx)
Outer Jacket Color	Red
Heating Cable Dimensions (Nominal)	0.50" x 0.20" (13.0mm x 5.0mm)
Heating Cable Weight	0.0902lb/ft (0.134kg/m)

### Ordering Information

#### aXHK-bCT

- a = Output Wattage, 5, 10, 15, 20 W/ft
- XHK = Model Name
- b = Voltage, 1 = 100-120V , 2 = 200-277V
- CT = Outer Jacket, Fluoropolymer

### Connection Kits

E&S TEC offers system components for power connections, splice or tee connections and end terminations to ensure proper functioning of the products and comply with warranty and approvals requirements.

For easier installation and safe operation, use of substituted parts are not recommended. Please contact E&S TEC for more information on system components.

### Certification / Approvals

#### FM23US0087X, FM23CA0061X

Class I, Division 2, Groups A, B, C, and D T6;  
Class II/III, Division 2, Groups E, F and G T6;  
Class 1 Zone 1 AEx/Ex eb IIC Gb  
Zone 21 AEx/Ex tb IIIC T85°C Db  
Ta = -40°C to +55°C  
Type 4X, IP66



#### FM23ATEX0047X

II 2 G Ex 60079-30-1 IIC T6 Gb  
II 2 D Ex 60079-30-1 IIIC T85°C Db  
Ta = -40°C to +55°C  
IP66



#### IECEx FMG 23.0024X

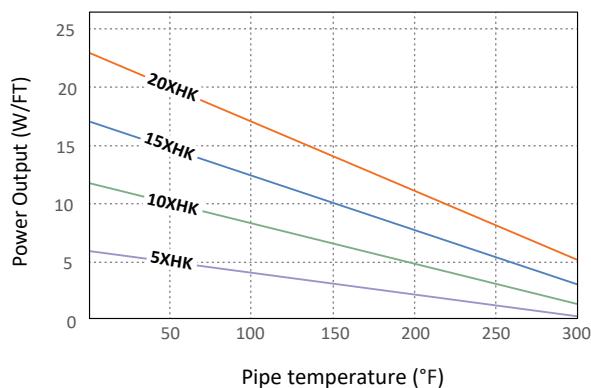
Ex 60079-30-1 IIC T6 Gb;  
Ex 60079-30-1 IIIC T85°C Db



[NOTE] T-ratings is based on product classification method per IEC/IEEE 60079-30-1:2015

## Nominal Power Output Ratings on Insulated Metal Pipes at 120/240

### XHK Power-Temperature Characteristics



### Circuit length adjustment factor

Voltage	5XHK-2	10XHK-2	15XHK-2	20XHK-2
208V	0.93	0.94	0.94	0.94
240V	1.00	1.00	1.00	1.00
277V	1.10	1.10	1.11	1.11

### Power adjustment factor

Voltage	5XHK-2	10XHK-2	15XHK-2	20XHK-2
208V	0.93	0.94	0.94	0.94
240V	1.00	1.00	1.00	1.00
277V	1.10	1.10	1.11	1.11

#### [Note]

- Thermal outputs above are tested in accordance with IEC/IEEE 60079-30-1:2015, with each model on a metallic pipe insulated with a fiberglass insulation.
- The power output will be derated by 25% on plastic pipes. GAT-L164 aluminum tape is required for installation on plastic pipes.

### Max. Circuit Length based on Circuit Breaker Selection

Catalog Number	Start-Up Temperature °F (°C)	Maximum Circuit Length per Circuit Breaker, feet (meters)										
		120V					240V					
		15A	20A	30A	40A	50A*		15A	20A	30A	40A	50A*
XHK5-CT	50 (10)	180 (54)	240 (73)	358 (109)	358 (109)	358 (109)	360 (109)	480 (146)	709 (216)	709 (216)	709 (216)	
	0 (-18)	141 (42)	187 (57)	281 (85)	358 (109)	358 (109)	281 (85)	375 (114)	562 (171)	709 (216)	709 (216)	
	-20 (-29)	129 (39)	172 (52)	258 (78)	345 (105)	358 (109)	258 (78)	345 (105)	517 (157)	689 (210)	709 (216)	
	-40 (-40)	120 (36)	159 (48)	239 (72)	319 (97)	358 (109)	239 (72)	319 (97)	478 (145)	638 (194)	709 (216)	
XHK10-CT	50 (10)	107 (32)	142 (43)	213 (65)	253 (77)	253 (77)	213 (65)	284 (86)	427 (130)	502 (153)	502 (153)	
	0 (-18)	87 (26)	116 (35)	174 (53)	232 (70)	253 (77)	174 (53)	232 (70)	348 (106)	464 (141)	502 (153)	
	-20 (-29)	81 (24)	108 (32)	162 (49)	216 (65)	253 (77)	162 (49)	216 (65)	324 (98)	432 (131)	502 (153)	
	-40 (-40)	76 (23)	101 (30)	152 (46)	202 (61)	253 (76)	152 (46)	202 (61)	303 (92)	404 (123)	502 (153)	
XHK15-CT	50 (10)	78 (23)	104 (31)	156 (47)	203 (62)	203 (62)	156 (47)	208 (63)	312 (95)	400 (122)	400 (122)	
	0 (-18)	65 (19)	87 (26)	130 (39)	174 (52)	203 (62)	130 (39)	174 (52)	261 (79)	347 (105)	400 (122)	
	-20 (-29)	61 (18)	82 (24)	122 (37)	163 (49)	203 (62)	122 (37)	163 (49)	245 (74)	326 (99)	400 (122)	
	-40 (-40)	58 (17)	77 (23)	115 (35)	154 (46)	192 (58)	115 (35)	154 (46)	230 (70)	307 (93)	384 (117)	
XHK20-CT	50 (10)	58 (17)	78 (23)	117 (35)	155 (47)	174 (53)	117 (35)	155 (47)	233 (71)	311 (94)	348 (106)	
	0 (-18)	50 (15)	67 (20)	100 (30)	134 (40)	167 (50)	100 (30)	134 (40)	200 (61)	267 (81)	334 (101)	
	-20 (-29)	47 (14)	63 (19)	95 (28)	126 (38)	158 (48)	95 (28)	126 (38)	190 (57)	253 (77)	316 (96)	
	-40 (-40)	45 (13)	60 (18)	90 (27)	120 (36)	150 (45)	90 (27)	120 (36)	180 (54)	240 (73)	300 (91)	

\* 50A Circuit Breaker Size is not applicable for ATEX/IECEx.

#### [Note]

- The circuit lengths are based on trip current characteristics of Type QO and Type QCB devices. For devices with different trip characteristics please consult E&S TEC.
- Use local electrical codes to select appropriate branch circuit breakers.
- The total length of heating cables connected to the circuit breaker is the sum of all cables that have been spliced or interconnected in parallel. Ensure that the total length does not exceed the maximum circuit length as indicated above.
- Ground fault protection of equipment is required for heat tracing branch circuits with typical trip level of 30mA. Thermal magnetic breakers are recommended to reduce nuisance tripping.
- It is recommended to start up the circuits at higher temperatures, when possible, to avoid large start-up or in-rush current which may trip the circuit breaker.

Technical information subject to change without notification.