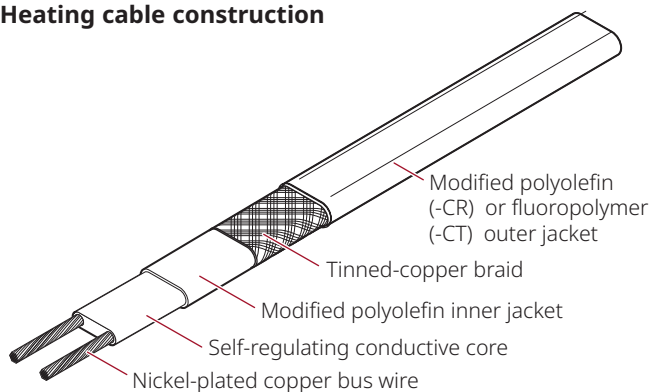


Self-regulating heating cable for pipe freeze protection and flow maintenance

PRODUCT OVERVIEW

Heating cable construction



Raychem XL-Trace Edge is designed for pipe freeze protection and flow maintenance in the following applications:

- Freeze protection of general water piping (aboveground and buried)
- Freeze protection of fire sprinkler system piping, including sprinklers
- Flow maintenance of greasy waste lines (aboveground and buried)
- Flow maintenance of fuel lines (aboveground)

The heating element in the XL-Trace Edge heating cable consists of a continuous core of conductive polymer extruded between two copper bus wires. The XL-Trace Edge heating cable regulates its power output in response to pipe temperature changes. This self-regulating technology allows XL-Trace Edge heating cable to be overlapped or installed on plastic pipes without overheating.

Low total installed cost

The XL-Trace Edge heating cable's parallel circuitry allows it to be cut to the exact length required, with no wasted cable. Its flexibility allows it to be wrapped around complex fittings and valves.

All of these characteristics simplify and streamline the design of a heat-tracing system. Installation is quick and simple.

Low total operating cost

Building operators are assured of optimal energy efficiency and low maintenance costs when an XL-Trace Edge system is specified.

The same features that make an XL-Trace Edge system easy to install the first time also simplify additions or changes to the system during building renovations.

For additional information, contact your Chemelex representative or call (800) 545-6258.

Catalog Number	3XLE1-CR	3XLE2-CR	5XLE1-CR/CT	5XLE2-CR/CT	8XLE1-CR/CT	8XLE2-CR/CT	12XLE2-CR/CT
Voltage	120 V	208–277 V	120 V	208–277 V	120 V	208–277 V	208–277 V
Maximum Operating Temperature	154°F (68°C)	154°F (68°C)	154°F (68°C)	154°F (68°C)	154°F (68°C)	154°F (68°C)	150°F (65°C)
Maximum Exposure Temperature	185°F (85°C) ¹	185°F (85°C) ¹	185°F (85°C) ¹	185°F (85°C) ¹	185°F (85°C) ¹	185°F (85°C) ¹	185°F ¹ (85°C) ¹
Minimum Installation Temperature	0°F (–18°C)	0°F (–18°C)	0°F (–18°C)	0°F (–18°C)	0°F (–18°C)	0°F (–18°C)	0°F (–18°C)
Minimum Bend Radius	1/2 in (12 mm)	1/2 in (12 mm)	1/2 in (12 mm)	1/2 in (12 mm)	1/2 in (12 mm)	1/2 in (12 mm)	1/2 in (12 mm)

¹ When the design requires 185°F (85°C) exposure temperature, all connections must be installed off the pipe.

MAXIMUM CIRCUIT LENGTH IN FEET

Start-up temperature (°F)	CB size (A)	40°F / 110°F Maintain*																				
		3XLE1			5XLE1			8XLE1			3XLE2			5XLE2			8XLE2			12XLE2		
		120 V	120 V	120 V	208 V	240 V	277 V	208 V	240 V	277 V	208 V	240 V	277 V	208 V	240 V	277 V	208 V	240 V	277 V			
–20°F	15	134	96	75	258	250	247	201	209	221	138	116	99	127	129	130						
	20	179	129	100	344	334	329	268	279	294	210	180	148	169	171	174						
	30	269	193	150	517	501	494	402	419	441	316	341	370	253	257	260						
	40	335	207	151	689	668	644	469	474	487	339	359	384	338	343	347						
0°F	15	156	112	84	307	298	294	227	237	250	170	142	120	129	131	133						
	20	209	149	113	410	397	392	303	316	333	236	239	190	172	175	177						
	30	313	223	169	615	596	587	455	474	499	354	382	414	258	262	265						
	40	368	245	173	696	732	708	535	544	558	384	407	435	340/ 344	349	354						
20°F	15	189	132	98	376	365	359	262	273	288	200	185	154	144	146	148						
	20	252	176	131	501	486	479	349	364	383	267	288	276	192	194	197						
	30	368	264	196	696	729	718	523	546	575	400	432	469	287	292	296						
	40	368	287	205	696	732	776	535	584	642	407/ 442	452/ 467	499	340/ 383	360/ 389	380/ 394						
40°F	15	242	160	117	492	478	471	311	324	342	232	250	221	162	165	167						
	20	323	214	156	656	637	628	414	432	456	309	334	362	216	219	222						
	30	368	287	223	696	732	776	535	584	642	407/ 464	452/ 500	504/ 543	324	329	333						
	40	368	287	223	696	732	776	535	584	642	407/ 526	452/ 555	504/ 591	340/ 430	360/ 439	380/ 444						
50°F	15	–	–	–	–	–	–	–	–	–	253	273	296	173	176	178						
	20	–	–	–	–	–	–	–	–	–	337	364	395	231	234	237						
	30	–	–	–	–	–	–	–	–	–	506	546	592	346	352	356						
	40	–	–	–	–	–	–	–	–	–	586	617	656	430	460	475						
65°F	15	–	–	–	–	–	–	–	–	–	296	319	347	192	195	197						
	20	–	–	–	–	–	–	–	–	–	395	426	462	256	260	263						
	30	–	–	–	–	–	–	–	–	–	592	639	693	384	390	395						
	40	–	–	–	–	–	–	–	–	–	686	756	801	430	460	490						

* When maximum circuit length is listed in:

- black type, the value is for applications with a 40°F maintain
- red type, the value is for applications with a 110°F maintain

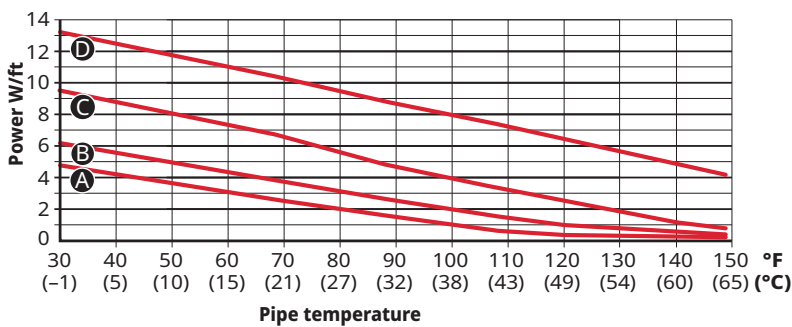
MAXIMUM CIRCUIT LENGTH IN METERS

Start-up temperature (°C)	CB size (A)	4°C / 43°C Maintain*																				
		3XLE1			5XLE1			8XLE1			3XLE2			5XLE2			8XLE2			12XLE2		
		120 V	120 V	120 V	208 V	240 V	277 V	208 V	240 V	277 V	208 V	240 V	277 V	208 V	240 V	277 V	208 V	240 V	277 V			
-29°C	15	41	29	23	79	76	75	61	64	67	42	35	30	39	39	40						
	20	55	39	30	105	102	100	82	85	90	64	55	45	52	52	53						
	30	82	59	46	158	153	151	123	128	134	96	104	113	77	78	79						
	40	102	63	46	210	204	196	143	145	148	103	109	117	103	105	106						
-18°C	15	48	34	26	94	91	90	69	72	76	52	43	37	39	40	41						
	20	64	45	34	125	121	120	92	96	102	72	73	58	52	53	54						
	30	95	68	52	188	182	179	139	145	152	108	116	126	79	80	81						
	40	112	75	53	212	223	216	163	166	170	117	124	133	104/ 105	106	108						
-7°C	15	58	40	30	115	111	109	80	83	88	61	56	47	44	45	45						
	20	77	54	40	153	148	146	106	111	117	81	88	84	59	59	60						
	30	112	80	60	212	222	219	159	166	175	122	132	143	88	89	90						
	40	112	88	63	212	223	237	163	178	196	124/ 135	138/ 142	152	104/ 117	110/ 119	116/ 120						
4°C	15	74	49	36	150	146	144	95	99	104	71	76	67	49	50	51						
	20	98	65	48	200	194	191	126	132	139	94	102	110	66	67	68						
	30	112	88	68	212	223	237	163	178	196	124/ 160	138/ 169	154/ 180	99	100	102						
	40	112	88	68	212	223	237	163	178	196	124/ 160	138/ 169	154/ 180	104/ 131	110/ 134	116/ 135						
10°C	15	-	-	-	-	-	-	-	-	-	77	83	90	53	54	54						
	20	-	-	-	-	-	-	-	-	-	103	111	120	70	71	72						
	30	-	-	-	-	-	-	-	-	-	154	166	180	105	107	109						
	40	-	-	-	-	-	-	-	-	-	179	188	200	131	140	145						
18°C	15	-	-	-	-	-	-	-	-	-	90	97	106	59	59	60						
	20	-	-	-	-	-	-	-	-	-	120	130	141	78	79	80						
	30	-	-	-	-	-	-	-	-	-	180	195	211	117	119	120						
	40	-	-	-	-	-	-	-	-	-	209	230	244	131	140	149						

* When maximum circuit length is listed in:

- black type, the value is for applications with a 40°F maintain
- red type, the value is for applications with a 110°F maintain

NOMINAL POWER OUTPUT ON METAL PIPES AT 120 V/240 V



- A** 3XLE1-CR (120 V)
3XLE2-CR (240 V)
- B** 5XLE1-CR and 5XLE1-CT (120 V)
5XLE2-CR and 5XLE2-CT (240 V)
- C** 8XLE1-CR and 8XLE1-CT (120 V)
8XLE2-CR and 8XLE2-CT (240 V)
- D** 12XLE2-CR and 12XLE2-CT (240 V)

BUS WIRES

16 AWG nickel-plated copper

BRAID/OUTER JACKET

Tinned-copper braid with modified polyolefin jacket (-CR) or fluoropolymer jacket (-CT)

DIMENSIONS

	3XLE, 5XLE and 8XLE	12XLE
Maximum width	0.56 in (14 mm)	0.62 in (16 mm)
Maximum thickness	0.24 in (6 mm)	0.24 in (6 mm)

NOMINAL WEIGHT

	92 lb/1000 ft	104 lb/1000 ft
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CONNECTION KITS

Raychem RayClic or FTC connection kits must be used with XL-Trace Edge heating cables. Refer to the Pipe Freeze Protection and Flow Maintenance Design Guide (H55838) for proper connection kit selection.

APPROVALS



Refer to the Pipe Freeze Protection and Flow Maintenance Design Guide (H55838) and the Fire Sprinkler Freeze Protections Design Guide (H58489) for specific product approval details.

Note: The XL-Trace Edge system is not UL listed for plastic fire sprinkler pipes.

GROUND FAULT PROTECTION

To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with the requirements of Chemelex, agency certifications, and national electrical codes, ground fault equipment protection must be used on each heating cable branch circuit. Arcing may not be stopped by conventional circuit protection. Many Raychem control and monitoring systems meet the ground fault protection requirement.

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