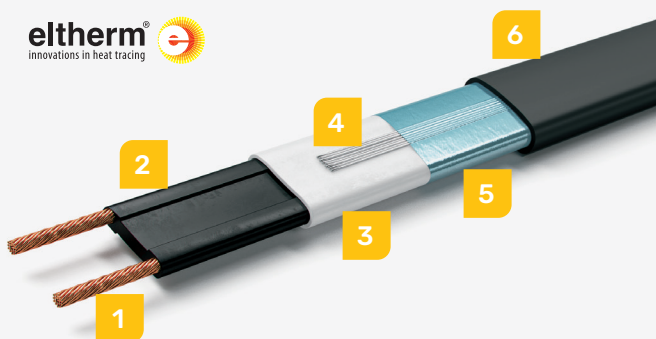


SR-NA

ALL-PURPOSE SELF-REGULATING HEATING CABLE



Construction

1. Bus wire/conductor: nickel-plated copper, 16AWG
2. Self-regulating heating element
3. Insulation jacket, polyolefin
4. Ground, Cu tin-plated
5. Protection: Aluminum foil (AO); Protective braid Cu, tin-plated (BO, BOT)
6. Thermoplastic (AO, BO); Fluoropolymer (BOT) outer jacket

AO, BO: Thermoplastic outer jackets offer flexibility, chemical and weather resistance, and cost-effectiveness, making them suitable for diverse applications

BOT: A fluoropolymer protective outer jacket is recommended for harsh environments involving organic chemicals or corrosives while providing durability.

Product Overview

Eltherm's ELSR-NA line of self-regulating trace heaters are designed for freeze protection and process temperature maintenance up to 60°C (140°F) (de-energized 80°C/176°F) and are suitable for a wide range of commercial and industrial applications. The NA series of trace heaters are approved for use in non-hazardous and hazardous locations. The BOT version can be used in corrosive environments.

Application

- Freeze protection, heat tracing instrumentation, pipes, vessel and tanks, chemical and petrochemical industries, food processing, automotive, roof and gutter, sprinkler systems
- For hazardous and non-hazardous locations
- Wet rated for outdoor use
- UV resistant

Features

Nominal voltage

- 120V, 240/208V, 277V

Power output +5°C (+41°F)

- 3-10W/ft. (10-33W/m)

Max. operating temperature (power on)

- 60°C (140°F)

Max. continuous exposure temperature (power off)

- 80°C (176°F)

Min. start-up temp.

- -30°C (-22°F)

Min. installation temp.

- AO, BO: -45°C (-49°F)
- BOT: -25°C (-49°F)

Minimum bending radius

- 25mm (1in.)

Ratings

Classification

- T 80°C Db.
- Class I, Division 1, Group A, B, C, D (contact manufacturer)
- Class I, Division 2, Group A, B, C, D
- Class II, Division 1, Group E, F, G (contact manufacturer)
- Class II, Division 2, Group E, F, G
- Class III, Division 1, T6
- Zone1, AEx 60079-30-1 IIC T6 Gb
- Zone1, Ex 60079-30-1 IIC T6 Gb

Standards

- CSA C22.2:130.03; -WS
- CAN/CSA 60079-7:12, 60079-0-11
- ANSI/IEEE 515, 515
- IEC/IEEE 60079-30-1
- EEE 515/CSA 22.2 130-16
- ANSI/UL 60079-30-1

SR-NA

ALL-PURPOSE SELF-REGULATING HEATING CABLE



Certification

- ECEX EPS 12.0006U
- 12ATEX1431U
- CSA C US 2547790
- FM22US0062X
- FM22CA0044X
- CSA C US 2547790



Heating circuit length 120V and 240V

Start-up temperature	Circuit breaker capacity (A)	Maximum heating circuit (ft.)						
		120V			240V			
		ELSR-NA-3-1	ELSR-NA-5-1	ELSR-NA-7-1	ELSR-NA-4-2	ELSR-NA-6-2	ELSR-NA-8-2	ELSR-NA-10-2
10°C (50°F)	10	164	125	82	253	151	109	79
	15	246	187	123	380	227	164	118
	20	328	249	164	507	303	219	157
	25	337	274	205	597	378	273	197
	30	337	274	222	597	454	328	236
	35	337	274	222	597	470	383	275
	40	337	274	222	597	470	422	315
0°C (32°F)	10	147	112	75	227	137	100	73
	15	221	168	113	341	205	150	110
	20	295	224	151	455	273	200	147
	25	337	274	188	568	342	250	183
	30	337	274	222	597	410	300	220
	35	337	274	222	597	470	350	257
	40	337	274	222	597	470	400	293
-10°C (14°F)	10	134	102	69	206	125	93	68
	15	201	153	104	309	188	139	102
	20	268	204	139	412	251	185	136
	25	335	255	173	515	313	232	170
	30	337	274	208	597	376	278	204
	35	337	274	222	597	439	324	238
	40	337	274	222	597	470	371	272
-30°C (-22°F)	10	113	87	60	173	107	80	60
	15	170	130	90	260	160	120	90
	20	227	173	120	347	213	160	120
	25	283	217	150	433	267	200	150
	30	337	260	180	520	320	240	180
	35	337	274	210	597	373	280	210
	40	337	274	222	597	427	320	240

SR-NA

ALL-PURPOSE SELF-REGULATING HEATING CABLE



Heating circuit length 277V

Start-up temperature	Circuit breaker capacity (A)	Maximum heating circuit (ft.) 277V			
		ELSR-NA-4-2	ELSR-NA-6-2	ELSR-NA-8-2	ELSR-NA-10-2
10°C (50°F)	10	218	125	105	71
	15	327	188	158	107
	20	436	251	212	142
	25	514	313	264	178
	30	514	376	317	213
	35	514	389	370	248
	40	514	389	408	284
0°C (32°F)	10	195	114	97	66
	15	294	170	145	99
	20	392	226	193	133
	25	489	283	242	165
	30	514	340	290	199
	35	514	389	338	232
	40	514	389	386	265
-10°C (14°F)	10	177	104	90	61
	15	266	156	134	92
	20	355	208	179	123
	25	443	259	224	154
	30	514	312	269	184
	35	514	364	313	215
	40	514	389	358	246
-30°C (-22°F)	10	149	89	77	54
	15	224	133	116	81
	20	299	176	155	108
	25	373	221	193	135
	30	448	265	232	163
	35	514	309	271	190
	40	514	354	309	217

Models

Nominal output W/ft.	Cable dimension approx. (mm)	Outer jacket / Mechanical shield			Product #	
		AO	BO	BOT	120V ^{1,3}	240V/277 ^{1,2,3}
3	13.8 × 5.6	✓	✓	✓	ELSR-NA-3-1-XX	-
4	13.8 × 5.6	✓	✓	✓	-	ELSR-NA-4-2-XX
5	13.8 × 5.6	✓	✓	✓	ELSR-NA-5-1-XX	-
6	13.8 × 5.6	✓	✓	✓	-	ELSR-NA-6-2-XX
7	14.1 × 5.6	✓	✓	✓	ELSR-NA-7-1-XX	-
8	14.1 × 5.6	✓	✓	✓	-	ELSR-NA-8-2-XX
10	14.1 × 5.6	✓	✓	✓	-	ELSR-NA-10-2-XX

¹ XX = Outer jacket / Mechanical shield.

AO Aluminum foil and a thermoplastic outer jacket

BO Protective braid and a thermoplastic outer jacket

BOT Protective braid and a fluoropolymer outer jacket

² For operation at 208V, please refer to the correction factors/multipliers.

³ When ordering, the quantity on the purchase order is equal to the length in feet of the cable required.

E.g., to order a 500ft. cable, write 500 for quantity with product code.

A custom cutting service is available for all lengths other than 500ft. and 1000ft. (minimum of 25ft.)³

Accessories

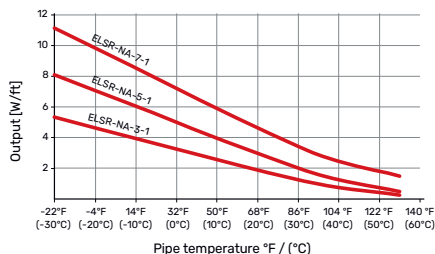
See Accessories section.



Power output [on insulated metallic pipes, in accordance to IEE 515/CSA22.2 130-16]

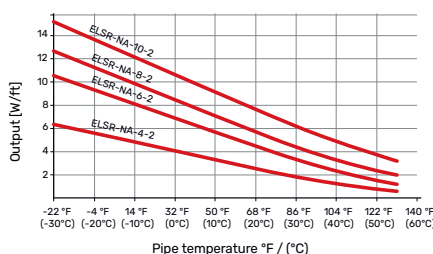
120 VAC

ELSR-NA-XX-1-XX power



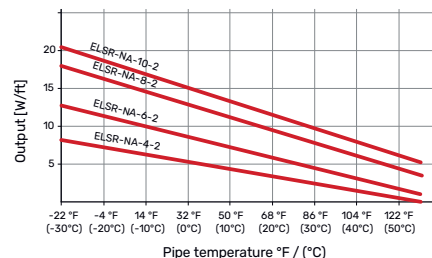
240 VAC

ELSR-NA-XX-2-XX power



277 VAC

ELSR-NA-XX-2-XX power



Maximum heating circuit ELSR-NA-XX on the following conditions:

- 120/240/277 voltage
- MCB type QO (100% utilization)
- Voltage drop max. 10%
- Single cable fed 1 end

Eltherm® correction factors/multipliers for operation of heating cables at 208V

To calculate the corrected power output for operation at 208V, multiply the published output at 240V (in W/ft.) by the nominal output factor provided for the applicable heating cable type.

To calculate maximum heating circuit lengths for operation at 208V (tables provided in product data sheets), multiply the published max. heating circuit length at 240V provided for the applicable heating cable type.

Cable heat output depending on the environment

In snow and ice (120V cable)

- 11W/ft. @ 50°F (36W/m @ 10 °C)

In dry air

- 7W/ft. @ 50°F (23W/m @ 10 °C)

In snow and ice (240/208V cable)

- 13W/ft. @ 50°F (42W/m @ 10 °C)

In dry air

- 8W/ft. @ 50°F (26W/m @ 10 °C)

Heating cable correction factors/multipliers	Nominal output 208V vs. 240V	Heating circuit length 208V vs. 240V
ELSR-NA-XX-2	0.88	1.00