

OSR-HA High Temperature Self-Regulating Heating Cable ELSR-HA



eltherm
innovations in heat tracing



Features

Outer jacket

- Fluoropolymer (BOT).

Bus wire

- Nickel plated copper, 16 AWG.

Minimum start-up temperature

- -30 °C (-22 °F).

Maximum operating temperature (power on)

- 120 °C (248 °F).

Maximum continuous exposure temperature (power off)

- 150 °C (302 °F), continuous.
- 200 °C (392 °F), power off for 1000 hr cumulative.

Nominal voltage

- 120V, 240/208V.

Bending radius, min.

- 25 mm (1 in.).

Installation temperature, min.

- AO, BO : -45 °C (-49 °F).
- BOT : -25 °C (-13 °F).

Classification

- II 2G Ex e IIC T3 Gb II 2D Ex tb IIIC.
- T 80 °C Db.

- Class I, Division 2, Groups A, B, C, D.
- Class II, Division 2, Groups E, F, G.
- Class III, T6.
- Class I, Zone 1, AEx / Exe II, T6.
- Class 1, Division 1, Groups B, C, D (Contact manufacturer).

Standards

- CSA C22.2.130.03; -WS.
- CAN/CSA 60079-7:12, 60079-0-11.
- ANSI/IEEE 515, 515.

Certification

- IECEx EPS 12.0006U.
- 12ATEX1431U.
- CSA C US 2547790.

Rating

- Wet rated, for outdoor use (WS).

Warranty

- 1-year basic warranty on the heating cable.

Application

- Freeze protection, heat tracing instrumentation, pipes, vessel and tanks, chemical and petrochemical industries, food processing, automotive.

Models

Nominal Output W/ft.	Product #		Outer jacket/Mechanical shield BOT	Price/ft.	Cable dimension approx. (mm)
	120V ^{1,3}	240V ^{1,2,3}			
3	ELSR-HA-3-1-BOT	ELSR-HA-3-2-BOT		26.00	12.4 x 5.9
7	ELSR-HA-7-1-BOT	-		26.00	12.4 x 5.9
10	ELSR-HA-10-1-BOT	ELSR-HA-10-2-BOT		26.00	12.4 x 5.9
15	ELSR-HA-15-1-BOT	ELSR-HA-15-2-BOT		26.00	12.4 x 5.9
20	ELSR-HA-20-1-BOT	ELSR-HA-20-2-BOT		26.00	12.4 x 5.9

¹ BOT Protective braid and a fluoropolymer outer jacket.

² For operations at 208V, please consult Correction Factors/Multipliers at next page.

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 500 ft., cable, write 500 for quantity with product code.

Custom cutting service available for all lengths other than 500 ft. and 1000 ft. (minimum of 25 ft.).

Options

See OSR Options and Controls section

OSR-HA

Heating circuit length for ELSR-HA models

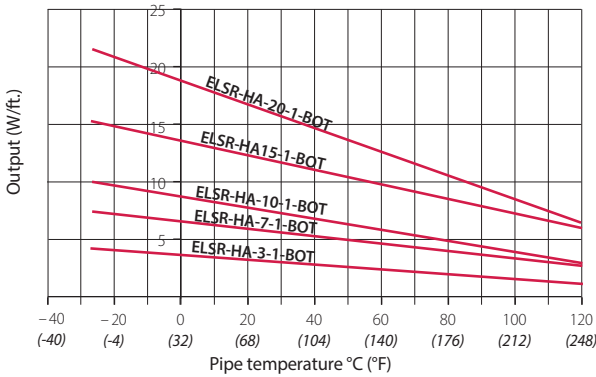
120V							240V					
Start-up temperature	CB capacity (A)	Maximum heating circuit (ft.) for					Start-up temperature	CB capacity (A)	Maximum heating circuit (ft.) for			
		ELSR-HA-3-1	ELSR-HA-7-1	ELSR-HA-10-1	ELSR-HA-15-1	ELSR-HA-20-1			ELSR-HA-3-2	ELSR-HA-10-2	ELSR-HA-15-2	ELSR-HA-20-2
10 °C (50 °F)	10	261	137	113	72	53	10 °C (50 °F)	10	649	181	115	97
	15	391	205	169	108	79		15	973	271	173	146
	20	521	273	225	145	105		20	1267	361	231	194
	25	559	342	282	181	132		25	1267	452	288	243
	30	559	411	338	217	158		30	1267	542	346	291
	35	559	411	374	253	184		35	1267	632	404	340
0 °C (32 °F)	40	559	411	374	279	200	40	1267	716	461	389	
	10	249	132	108	70	50	0 °C (32 °F)	10	610	171	110	92
	15	374	198	162	104	75		15	915	256	165	138
	20	499	264	216	139	100		20	1220	341	220	184
	25	559	330	270	174	125		25	1267	427	275	230
	30	559	396	324	209	150		30	1267	512	330	276
35	559	411	374	244	175	35		1267	597	385	322	
-10 °C (14 °F)	40	559	411	374	279	200	40	1267	683	440	368	
	10	239	128	104	67	48	-10 °C (14 °F)	10	576	162	105	87
	15	358	192	156	101	72		15	864	243	158	131
	20	477	256	208	134	95		20	1152	324	211	175
	25	559	320	260	168	119		25	1267	405	263	219
	30	559	384	312	201	143		30	1267	486	316	262
35	559	411	364	235	167	35		1267	567	369	306	
-30 °C (-22 °F)	40	559	411	374	269	191	40	1267	648	421	350	
	10	220	120	97	63	43	-30 °C (-22 °F)	10	518	147	97	80
	15	330	180	145	94	65		15	777	220	145	119
	20	440	240	193	125	87		20	1036	293	193	159
	25	550	300	242	157	109		25	1267	367	242	199
	30	559	360	290	188	130		30	1267	440	290	239
35	559	411	338	220	152	35		1267	513	338	278	
40	559	411	374	251	174	40	1267	587	387	318		

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

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

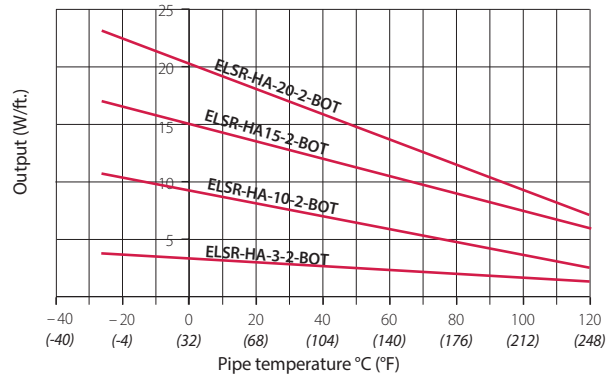
ELSR-HA-XX-1-BOT output

(on insulated metallic pipes)



ELSR-HA-XX-2-BOT output

(on insulated metallic pipes)



Eltherm® Correction Factors/Multipliers for Operation of Heating Cables in 208V

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

Heating Cable Correction Factors/ Multipliers	Nominal Output 208V vs. 240V	Heating Circuit Length 208V vs. 240V
ELSR-HA-XX-2	0.74	1.00