

Self Regulating Heating Cable

11C (FBL-CF)



10 YEAR
Product Warranty

TRACELEC 
HEATING SOLUTIONS

11C (FBL-CF)

SELF REGULATING HEATING CABLE

1. DESCRIPTION



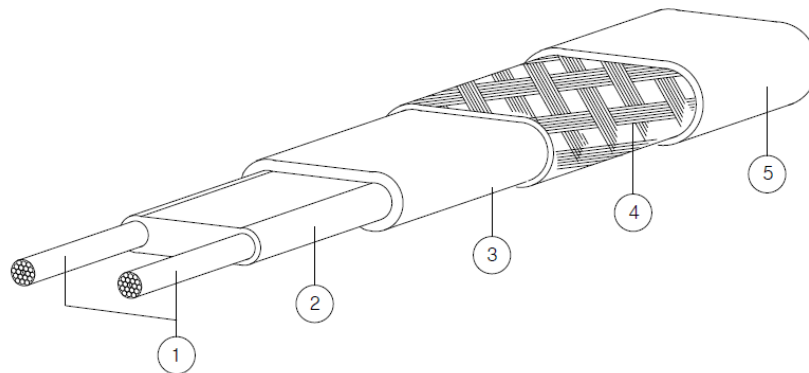
11C self-regulating heating cables provide a power that varies depending on the process temperature. When the temperature drops, the emitted power increases. When the temperature increases, the power of the cable decreases. This prevents hot spots when two cables overlap. This system also adjusts for temperature variations due to stagnant fluids and height differences (vertical pipes).

11C cables are commonly used to maintain temperatures up to 65°C in pipes, tanks, etc. They are suitable for organic and corrosive chemical environments.

2. CABLE SELECTION

Model	Nominal power	Temperature	Voltage
11C102	10 ~ 14 W/m	10°C	230 Vac
11C162	16 ~ 20 W/m	10°C	230 Vac
11C242	24 ~ 28 W/m	10°C	230 Vac
11C302	30 ~ 34 W/m	10°C	230 Vac

3. CONSTRUCTION



Parts	Construction	Material	Notes
1	Conductors	Nickel-Plated Copper	7/0.45, 1.1mm ²
2	Heating element	Polyolefin + C/B	
3	Inner insulation	FR Polyolefin	
4	Ground braid	Copper ground braid	8/0.18*16, Coverage: 70%
5	Outer jacket	PVDF Fluoropolymer	

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4. FEATURES

- Cables can be overlapped without creating hot spots or causing a burn out.
- It automatically adjusts heat output based upon exposure temperature.
- It can be cut to any length in the field.
- It adjusts its output to independently respond to ambient temperatures all along its length.
- Energy efficiency which extends the life of the cable.
- Connection and end termination kits easy to install.

5. USE

11C heating cables are mainly used for:

- Water lines freeze protection
- Industrial maintenance temperature
- Ordinary and hazardous locations (Ex e IIC Gb, IECEx certification)

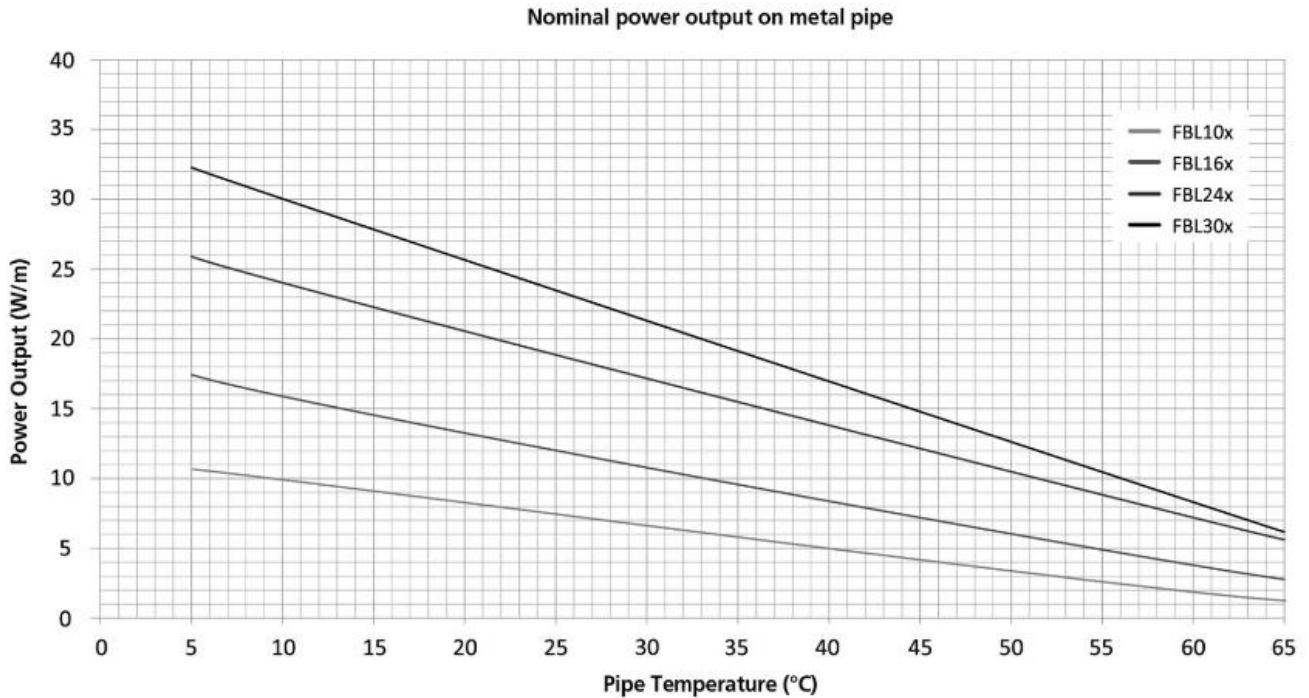
6. SPECIFICATIONS

Description	Data
Voltage	200 ~ 277 Vac
Ambient temperature	$-55\text{ °C} \leq T_{\text{amb}} \leq 40\text{ °C}$
Minimum installation temperature	-55 °C
Maximum maintain temperature (power on)	65 °C
Maximum exposure temperature (power off)	85 °C
T-rating	T6 (85 °C)
Impact resistance	12 J @ -62 °C
Bus wire	ASTM B355 Class 2 NPC 16 AWG
Dimensions (aprox).	11C102 11.5 ± 0.2 mm x 5.5 ± 0.2 mm
	11C162 11.5 ± 0.2 mm x 5.5 ± 0.2 mm
	11C242 11.5 ± 0.2 mm x 5.5 ± 0.2 mm
	11C302 13.5 ± 0.2 mm x 5.5 ± 0.2 mm
Minimum bend radius	35 mm @ -62 °C
Standards	EN 60079-0
	EN 60079-7
	EN 60079-30-1

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7. NOMINAL POWER OUTPUT RATING ON METAL PIPES



8. MAXIMUM CIRCUIT LENGTH

Maximum length (m) based on the start-up temperature (°C) and circuit breaker sizes (A). Curve C differential magnetothermic protection. Data considering a supply voltage of 230 Vac.

Model	Start-up Temperature °C	Circuit breaker					
		10A	16A	20A	25A	32A	40A
11C102	-50	62	99	124	132	132	132
	-20	84	134	155	155	155	155
	0	101	162	169	169	169	169
	10	131	193	193	193	193	193
11C162	-50	43	69	87	108	111	111
	-20	59	94	118	129	129	129
	0	71	113	141	142	142	142
	10	92	147	162	162	162	162
11C242	-50	25	40	50	63	81	97
	-20	42	67	84	104	111	111
	0	49	79	99	122	122	122
	10	66	105	131	137	137	137
11C302	-50	1632	26	32	40	52	64
	-20	32	51	64	80	101	101
	0	32	51	64	80	102	113
	10	41	66	82	102	124	124

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9. CABLE CODE

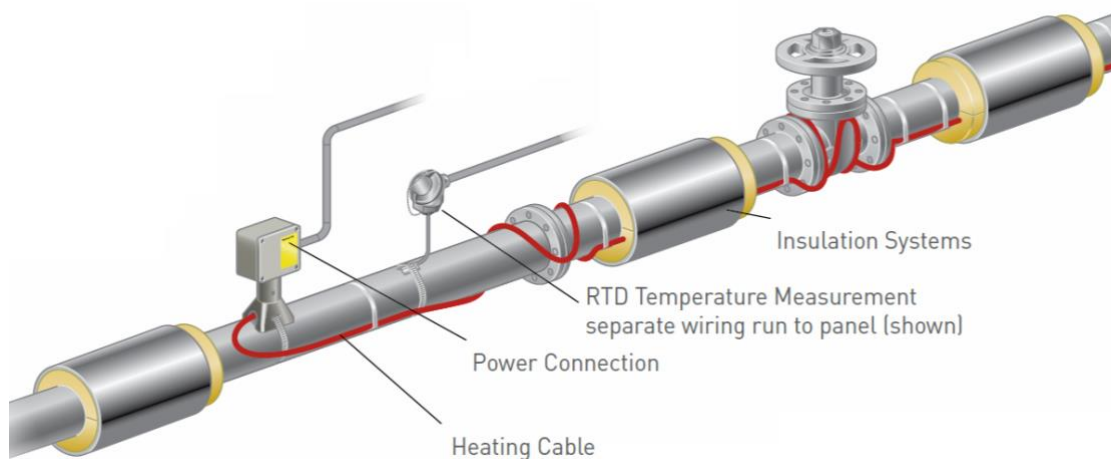
1 1 C 10 2

1: Voltage (1: 120 Vac, 2: 230 Vac, 3: 300 Vac, 4: 400 Vac, 5: 500 Vac, 6: 600 Vac)
1: Power @ 10 °C
C: Model
10: Cable type (1: Self-regulating, 2: Self-limiting, 3: Constant-Wattage, 4: Serial, 5: MI, 6: Shielded)
2: Heating cable

10. APPROVALS / CERTIFICATIONS

Certification	Certification n°.	Certification	Certification n°.
	IECEX FMG 14.0011X		MRE0000001
	11-AV2BO-0192X		15.10470.296

11. TYPICAL INSTALLATION





TRACELEC
HEATING SOLUTIONS

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