



ELSR-MA-BF

Micro Self-Regulating Heating Cable



DESCRIPTION

The ELSR-MA-BF micro self-regulating heating cable is designed to provide in-pipe freeze protection of potable domestic water supply systems. The unique, small diameter cable design ensures a safe and reliable installation inside the water supply pipe. The cable outer jacket material is NSF approved food-safe and meets all applicable CSA standards for use in fresh water systems. The micro cable is simple to install and cost effective with minimal modifications to existing pipe works.



FEATURES

- Pipe tracing for freeze protection (i.e. liquid transfers in cold weather).
- Potable water systems, pipes in non-heated building spaces.
- Outdoor water supply and drinking valves for animals.
- Greenhouse water supply systems.
- Freeze prevention in floor drains in location such as farm equipment cleaning area.

APPLICATION

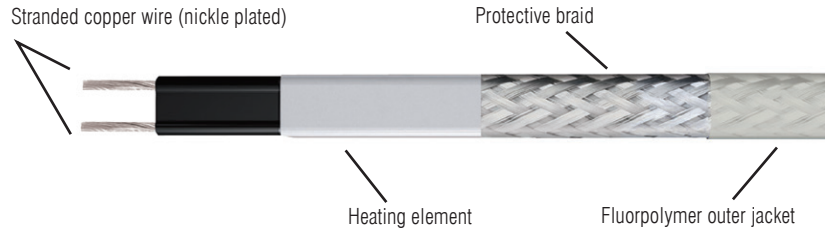
Heat tracing of metallic and non-metallic pipes, pumps, vessels and valves, food processing industry, automotive, refrigeration, sprinkler systems, sewage pipes, intake drain pipes, potable water line (BF).

CERTIFICATIONS

IEEE 515, CSA 22.2 130.03, FM CUS 3050047



CABLE CONSTRUCTION



SPECIFICATIONS

Voltage	120V, 208V and 240V.
Rating	Wet rated, for outdoor use (WS) (AO, BO). PS (2000 kPa/290 psi) (BF).
Min. installation temperature	-25 °C (-13 °F).
Operating temperature	Min. start-up temperature: -30 °C (-22 °F). Max. operating temperature (power on): 60 °C (140 °F). Max. operating temperature (power off): 60 °C (140 °F).
Min. bending radius	1" (25 mm).

INSTALLATION

Fittings must be used with the right type of pipe to ensure the system works properly. This cable system requires specialized end termination and power termination kits supplied preassembled and ready to use. Contact factory for required components and fittings for use with the ELSR-MA-BF cable.

WARRANTY

Warranted free from manufacturers defect for 1 year.
Visit www.britech.ca for limited warranty details.



MAX. HEATING CIRCUIT LENGTH AT 120V (FT.)

PRODUCT #	START-UP TEMPERATURE	CIRCUIT BREAKER CAPACITY ¹			
		10A	15A	20A	25A
ELSR-MA-3-1-BF	10 °C (50 °F)	139	167	167	167
	0 °C (32 °F)	112	153	153	153

MAX. HEATING CIRCUIT LENGTH AT 240V (FT.)

PRODUCT #	START-UP TEMPERATURE	CIRCUIT BREAKER CAPACITY ¹			
		10A	15A	20A	25A
ELSR-MA-3-2-BF	10 °C (50 °F)	241	302	302	302
	0 °C (32 °F)	202	282	282	282

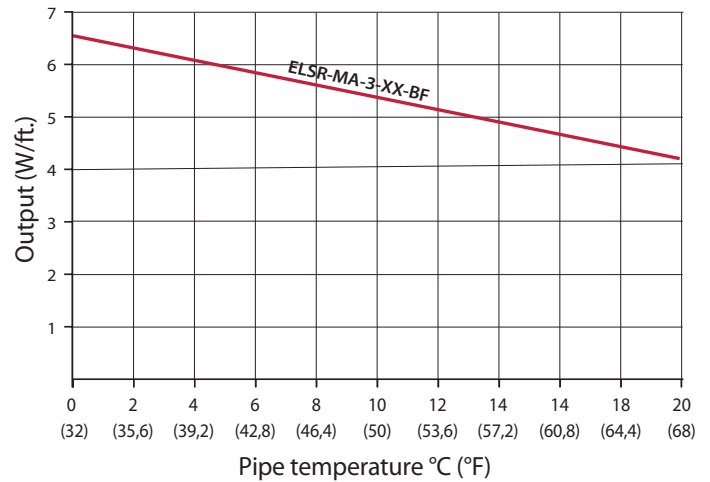
ADJUSTMENT FACTORS AT 208V

HEATING CABLE CORRECTION FACTORS/ MULTIPLIERS	NOMINAL OUTPUT 208V VS. 240V	HEATING CABLE CIRCUIT LENGTH 208 VS. 240V
ELSR-MA-3-2-BF	0.82	1.00

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.

Nominal output when ELSR-MA-BF is installed in a filled water pipeline. (Installed and measured in accordance to IEC 60898).



Maximum heating circuit is based on the following conditions:

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

¹Breaker sizing should be based on the National Electrical Code, Canadian Electrical Code or any other applicable code. The NEC and CEC require ground-fault protection of equipment for each branch circuit supplying electric heating equipment. Check local codes for ground-fault protection requirements.

COMPONENTS AND FITTINGS



EL-ECMF
End seal for ELSR-MA-BF, portable water in pipe.



KIT-OSR-ECA-MABF-PH-FIT
Brass gland cable fitting 3/4" NPT, lead-free for potable water use, for water-tight connection of heating cable to pipe.



ELVB-SRAM-34-ST
Power connection with steel/zinc cable gland/fitting, 3/4" NPT, non-hazardous location.

Note: Contact factory for all available components and fittings for use with the ELSR-MA-BF cable.