STEP RESIDENTIAL™

Technical Specifications

ISO 9001 REGISTERED

Description

STEP Residential™ is designed to provide even and comfortable warmth in a home. The system is ideal for both renovation and new construction.

STEP Residential™ can heat the whole house our just single rooms. A heat loss calculation is required when total heating is expected.

STEP Residential™ can be used under almost any flooring including, tile, stone, wood, laminate, resilient and carpet.

STEP Residential™ can also be installed under the subfloor between the joists when the existing flooring is to be maintained.

STEP Residential™ operates on 24 volts and is normally connected to a transformer but it can also be run on solar or wind power.

STEP Residential™ is self-regulating. As the material gets warmer, less electricity passes through the plastic – therefore it is extremely energy-efficient.

STEP Residential™ is strong, thin and flexible, easy to install and can be cut to size on the job site.

System components:

- STEP Heating Element™
- STEP Connector Pack
- STEP Terminal Board
- STEP Transformer 24 Volts
- Tinned copper wires
- STEP Crimp Tool

Optional:

- Controller (DIGI-LUX or MICROREG)

ELECTRO plastics, inc.

4406 St. Vincent Ave.
St. Louis, MO 63119, USA
1.314.781.2121 phone
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www.warmfloor.com

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Components

Heating element type	Positive Temperature Coefficient (PTC) semi-conductive polymer	
	EP-30-2-24W-24V	Width: 12" (305 mm)
	Length: cut to order	Maximum element length: 24 ft (7.3 m)
Specifics	Weight: 0.23 lb/ft (0.34 kg/m)	Thickness: 3/64" (1.2 mm)

Transformer	Low voltage dry type isolation transformer Standard 120 Volts, other voltages available on request
150 VA	For up to 17 ft of heating element
300 VA	For up to 34 ft of heating element
500 VA	For up to 58 ft of heating element
1000 VA	For up to 116 ft of heating element
1500 VA	For up to 174 ft of heating element

Electrical Power

Output wattage when powered at 24 VAC	7.8 W/ft (26 W/m) @ 68ºF (20ºC) 6.8 W/ft (22 W/m) @ 86ºF (30ºC)
Nom. resistance @ 68ºF (20ºC)	74 Ω/ft (23 Ω/m)
Primary draw on 120V	0.065 Amps per foot (.305 mm) of heating element

Maximum extension wire lengths

Wire Gauge	From element strip (15 ft) to 5 amp fuse in T.B.	From T.B. to transformer 450 W (58 ft)
14 AWG (2.5 mm²)	20 ft (6.1 m)	6 ft (1.8 m)
12 AWG (4 mm²)	32 ft (9.8 m)	9 ft (2.7 m)
10 AWG (6 mm^2)	50 ft (15.2 m)	14 ft (4.3 m)
8 AWG (8 mm^2)	80 ft (24.4 m)	22 ft (6.7 m)

Ordering Information

Model No.	Element Length	Transformer Size	Connector Kit	Terminal Board
EP-30-2-24W-24V	12"‘ wide	24 Volts	Per element strip	Minimum
Maximum total element length per transformer	17 ft (5.2 m)	EP-150W	2 pieces connector and tape (C&T)	1
	34 ft (10.4 m)	EP-300W		1
	58 ft (17.5 m)	EP-500W		1
	116 ft (35 m)	EP-1000W		2
	174 ft (53 m)	EP-1500W		3

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