

For Residential and Commercial Applications

Job Name _____
 Job Location _____
 Engineer _____
 Approval _____

Contractor _____
 Approval _____
 Contractor's P.O. No. _____
 Representative _____

Watts Radiant® WarmWire®

120 and 240 Voltages

Watts Radiant WarmWire is a series resistance heating cable assembly installed over plywood, backerboard, or concrete slab (according to ANSI or TCNA guidelines), and then embedded in 3/8" (9.5 mm) or greater self-leveling or polymer-modified thin-set mortar. WarmWire is approved for installation in shower applications.

Specifications

Supply Voltage	120 VAC, 1-phase 240 VAC, 1-phase
Amp Draw	120 VAC: 1amp per 10 ft ² 240 VAC: 1amp per 10 ft ²
Maximum Circuit Load	20 amps (15 amps with SunStat control)
Wire Spacing	2.5" (63.5 mm) o.c. 3" (76 mm) o.c. 3.5" (89 mm) o.c.
Maximum Allowable Temperature	194°F (90°C) Continuously
EMF	Less than 1 milligauss at 1/2" (12.7 mm) above surface
Heating Elements	Oxygen-free copper or nickel-copper
Insulation	ETFE Fluoropolymer
Ground	Copper
Minimum Allowable Bend Radius	1" (25 mm)
Power Lead Length	10' (2.7 m)

Application Parameters

Watt Density	2.5" (63.5 mm) o.c.	14.4 W/ft ² (155.0 W/m ²)
	3" (76 mm) o.c.	12.0 W/ft ² (129.0 W/m ²)
	3.5" (89 mm) o.c.	10.3 W/ft ² (110.8 W/m ²)
Minimum Polymer-modified Thinset	3/8" (9.5 mm)	
Allowable Substrate	Backer board over wood subfloor	
	Polymer-modified setting bed over wood subfloor	
	Polymer-modified setting bed over concrete slab	
	Thin slab/self-leveling concrete over wood subfloor	
Allowable Floor Coverings	Thin slab/self-leveling concrete over concrete slab	
	Tile/Stone	
	Carpet	
	Hardwood	

* Most anti-fracture membranes are approved for use with WarmWire. Contact manufacturer for details on specific products.



WarmWire is available in various lengths with voltage options of 120 or 240 VAC.

Installation Parameters

- Measure and certify the correct wire resistance (ohms) value for the heating cables, record these readings in the chart provided in the installation manual.
- Use of manufacturer's alarm meter (LoudMouth™ meter) is recommended during installation.
- Clean the subfloor.
- Secure sections of the CableStrap™ to the floor.
- Weave the heating cable across the floor area, fastening it to the strap. Distance between heating cables may be varied on-site to fit requirements and should average 2.5", 3", or 3.5" on-center.
- Install the floor sensor in accordance with installation manual.
- Install floor coverings as detailed in installation manual.



UL Listed for U.S. under UL Standard 1673 and Canada under CAN/CSA C22.2 No. 130.2-93. Listing file number E185866.

⚠ WARNING

Never cut the heating cable or damage it in any way. Use only the attachment methods as described in the Installation Manuals for Watts Radiant WarmWire as other methods may damage the heating element.

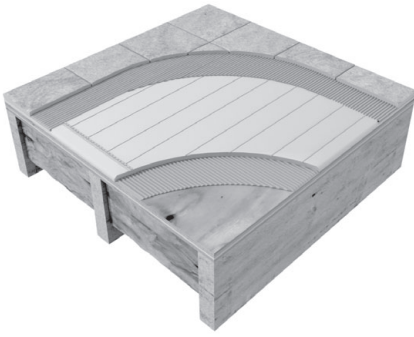
⚠ CAUTION

This Engineering Sheet is not intended to provide full installation instructions and safety information. In order to avoid property damage or injury, please refer to the complete installation manual and product safety information provided with the product.

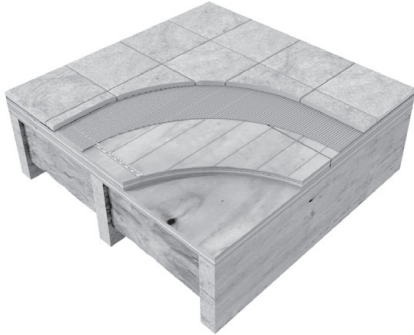
Watts Radiant product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Radiant Technical Service. Watts Radiant reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts Radiant products previously or subsequently sold.

WattsRadiant™
 Floor Heating & Snow Melting

WarmWire over wood frame floor with backer board



WarmWire over wood frame floor with double plywood



WarmWire over concrete slab



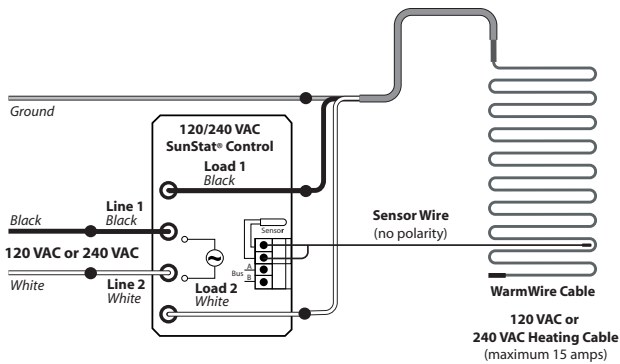
120 VAC WarmWire

√	Coverage (ft ²)			Model#	Length	Amps
	2.5" o.c. (14.4 W/ft ²)	3" o.c. (12 W/ft ²)	3.5" o.c. (10.3 W/ft ²)			
	8	10	12	120010	39'	1.0
	13	15	18	120015	59'	1.5
	17	20	24	120020	78'	2.0
	21	25	30	120025	98'	2.5
	25	30	36	120030	117'	3.0
	29	35	42	120035	137'	3.5
	34	40	48	120040	157'	4.0
	38	45	54	120045	176'	4.5
	42	50	60	120050	196'	5.0
	51	60	72	120060	235'	6.0
	59	70	84	120070	274'	7.0
	67	80	96	120080	313'	8.0
	76	90	108	120090	352'	9.0
	84	100	120	120100	391'	10.0

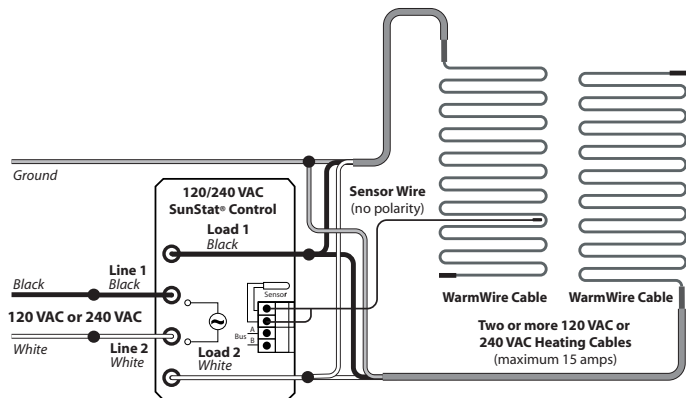
240 VAC WarmWire

√	Coverage (ft ²)			Model#	Length	Amps
	2.5" o.c. (14.4 W/ft ²)	3" o.c. (12 W/ft ²)	3.5" o.c. (10.3 W/ft ²)			
	17	20	24	240020	78'	1.0
	25	30	36	240030	117'	1.5
	34	40	48	240040	157'	2.0
	42	50	60	240050	196'	2.5
	51	60	72	240060	235'	3.0
	59	70	84	240070	274'	3.5
	67	80	96	240080	313'	4.0
	76	90	108	240090	352'	4.5
	84	100	120	240100	391'	5.0
	101	120	144	240120	470'	6.0
	118	140	168	240140	548'	7.0
	135	160	192	240160	626'	8.0
	151	180	216	240180	704'	9.0
	168	200	240	240200	783'	10.0

Electrical Wiring Diagram for Single Cable with SunStat Control (120/240VAC) Dedicated 120 or 240VAC, 20-amp (maximum) circuit (maximum 15 amp load through SunStat control).



Electrical Wiring Diagram for Multiple Cables with SunStat Control (120/240VAC) Dedicated 120 or 240VAC, 20-amp (maximum) circuit (maximum 15 amp load through SunStat control).



WattsRadiant™
Floor Heating & Snow Melting

A Watts Water Technologies Company

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