

THERMAL STORAGE CABLE

SUBMITTAL SHEET WSC-0723

PRODUCT CODES

WODH-VOLTAGE/TOTAL WATTAGE

EX: WODH-240/2400

(CUSTOM WATTAGE OUTPUTS AVAILABLE)







PRODUCT DESCRIPTION

Warmup's WODH cable is used specifically for thermal storage heating in building foundations. There are other more specific applications for this cable (see Applications) but its main purpose is to heat a thermal mass, which can then release the heat over a long period of time. This is particularly useful for buildings operating on solar power or benefiting from dual tariffs or electric rates (low cost at night, high cost during the day).

The WODH is a twin-conductor cable (no return) in an advanced fluoropolymer jacket with a standard output of 5.5W/linear foot. Thanks to its structure and build, it cancels out all electro-magnetic field interference.

The cable is installed in dirt, sand beds or tied to a lightweight mesh and embedded in a concrete foundation pour. It is suitable for residential and commercial environments, such as basements (residential) to replace a water-based system, or cooler slabs (commercial) to prevent slab heaving due to cold temperatures.

ADVANTAGES

- Spaced at 3", 4" or 5" for in-slab heating with output of 12W, 17W and 21W per sqft.
- Spaced at 6" to 8" for Frost Heave protection: outputs of 7W to 10W/sqft.
- Dual Conductor, one-point connection.
- Available in a wide range of lengths to suit your requirements.

APPLICATIONS

Suitable Application
In-Slab Primary Heating
Thermal Storage
Frost Heave Protection

In order to best plan for the required cables and outputs, the first consideration is the building's heat loss. Please provide this information to Warmup, or request that Warmup performs a heat-loss study of your project. To complete this, Warmup will need the following information:

- Intended use of the building
- Length, width and height of the building
- R-Value of wall and roof insulation
- Number, sizes and R-Values of doors and windows
- Lowest expected ambient temperature
- Building maintenance temperature

The installed capacity of WODH cables must exceed the building heat loss to account for the reduced time period that the system is operated ("charged") each day, as follows:

Charging Time (Hours)	Heat Loss Multiplier
8	1.5
12	1.2

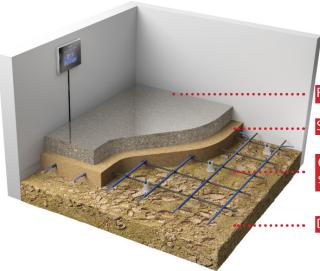




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For a building with a heat loss of 10 W/sq.ft. and a charging time of 8 hours, an installed capacity of 15 W/sq.ft. of WODH cables would be required.



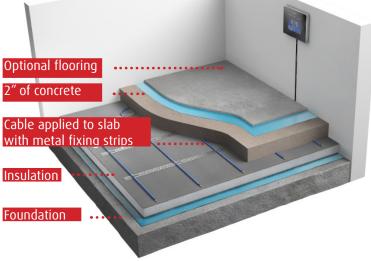
Finished concrete (4-6")

Sand (4")

Cable in sand, secured with wire mesh or landscape staples

Drained base or "foundation"







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TECHNICAL DATA

Operating voltage	208 - 277V
Output rating	5.5W/lin ft. (custom outputs on demand)
Construction	Copper conductor resistance cable with FPE Insulation and Metal Sheathing. $3/8''$ thickness.
Cold tail length	16ft in length (610 cm), attached

PRODUCT SIZE LISTING

Cable length	Code	3"	able spaced at 4" s sq ft coverag	5″	Wattage (W)	Amps (A)	Resistance (Ω)
93	WODH-240/500	24	30	39	500	2.1	114.30
176	WODH-240/950	44	59	74	950	4.0	60.00
250	WODH-240/1300	62	84	104	1300	5.4	44.40
315	WODH-240/1700	76	104	130	1700	7.1	33.80
437	WODH-240/2400	105	146	182	2400	10.0	24.00
625	WODH-240/3400	155	210	260	3400	14.2	16.90

Code	Amperage				
Code	208V	240V	277V		
WODH/500	1.8	2.1	2.4		
WODH/950	3.5	4.0	4.6		
WODH/1300	4.7	5.4	6.2		
WODH/1700	6.2	7.1	8.2		
WODH/2400	8.7	10.0	11.5		
WODH/3400	12.3	14.2	16.4		

^{*}Note that 3-phase voltage wiring will further affect amperage. Please check with your electrician on loads with 3-phase wiring.

SPACING CHART - STORAGE CAPABILITY AT TYPICAL CABLE SPACINGS

Cabla Cassina	Watts Per Square Foot			
Cable Spacing	208V	240V	277V	
4"	15	17	20	
6"	10	11	13	
8"	8	9	10	
10"	6	7	8	
12"	4	5	6	

Minimum spacing between cable runs is 3"





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WARRANTY & MAINTENANCE

When installed according to the installation manual and proper testing has been performed throughout, the system requires no maintenance for the duration of its warrantied life.

The WODH cable is warrantied for 10 years against manufacturer's defects and is protected by Warmup's **SAFET**SAFETYnet quarantee. See www.warmup.com for full warranty details.



TECHNICAL SUPPORT

Warmup is available 24/7/365 at (888) 927-6333. For quotes, layouts and specific technical information, contact us at:

Warmup USA

+1 (888) 927-6333 us@warmup.com

Warmup CANADA

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RELATED PRODUCTS

- Warmup Insulation Boards see WSC-0725
- 4iE® Smart WiFi thermostat see WSC-0926
- Tempo® programmable thermostat see WSC-1102

