



150W Heat MatPV



## 150W/sqm Heat MatPV™ System

### Electric underfloor heating for renewable energy sources

The first electric underfloor heating system designed for use with on-site generated photovoltaic (PV) and turbine power. This award winning mat's ultra-low output circuit allows up to 15m<sup>2</sup> of room area to be heated per kW of renewable energy. An additional circuit allows the system to be 'boosted' to double its output in very cold conditions, or when a fast warm up time is required.

The system can be set up to automatically make use of any surplus electricity being generated to heat your home. This prevents having to sell the electricity back to the grid at a discount, only to buy it back later when it is required.

- Make the most of the electricity you generate on-site by using it to heat your home rather than selling it to the grid for a discount
- Cover up to 15m<sup>2</sup> of room area per kW of generated electricity (roughly double the area possible with a conventional UFH system)



- Unique second circuit to double the system's output when required, ensuring the system can heat your home whatever the weather conditions
- Particularly suited to installation in green homes and passive houses which should only require a low output heating system, but where the 'insurance' of a higher output system may be desirable
- When electricity cannot be generated from renewables the system can automatically use mains electricity combined with any micro-generated PV power to heat the property.

Product code	Size in m <sup>2</sup>	Low Output 75W/m <sup>2</sup>	Dual Output 150W/m <sup>2</sup>
PVM-150-0100	1.0m <sup>2</sup>	75W	150W
PVM-150-0150	1.5m <sup>2</sup>	112W	225W
PVM-150-0200	2.0m <sup>2</sup>	150W	300W
PVM-150-0250	2.5m <sup>2</sup>	187W	375W
PVM-150-0300	3.0m <sup>2</sup>	225W	450W
PVM-150-0350	3.5m <sup>2</sup>	262W	525W
PVM-150-0400	4.0m <sup>2</sup>	300W	600W
PVM-150-0450	4.5m <sup>2</sup>	337W	675W
PVM-150-0500	5.0m <sup>2</sup>	375W	750W
PVM-150-0600	6.0m <sup>2</sup>	450W	900W
PVM-150-0700	7.0m <sup>2</sup>	525W	1050W
PVM-150-0800	8.0m <sup>2</sup>	600W	1200W
PVM-150-0900	9.0m <sup>2</sup>	675W	1350W
PVM-150-1000	10.0m <sup>2</sup>	750W	1500W

# Heat Mat

## Underfloor Heating

Call 01444 247020  
to find out more or  
visit our website at  
[www.heatmat.co.uk](http://www.heatmat.co.uk)

### 150W Heat MatPV Features

- Heat your home for free. Use the electricity you generate to heat your property
- Experience cost savings by using your own power, instead of selling it back to the grid
- Power up to 45m<sup>2</sup> of rooms directly from a 3kW PV or turbine system running at full output
- Can be automatically powered up when your PV or turbine reaches a preset output
- Pre-spaced heating cable for uniform heat output
- Simple cut and turn design for quick installation
- Dual circuit, 75W or 150W/m<sup>2</sup> output and can run off mains power when desired
- Single connection lead for simple installation with hidden coldtail splice for strength
- A large range of standard sizes which can be mixed and matched for the perfect fit
- Independently VDE approved
- Part L compliant
- Award winning design, made in Germany

### Suitable for



Photovoltaic panels



Wind turbines



Renewable energy sources



Sustainable homes

# Heat MatPV™ Output Options



## Heat your home for free

Heat Mat is offering the first electric underfloor heating system designed for use with micro-generated electricity. The unique low output of the heating mats allows up to 45m<sup>2</sup> of room area to be heated by a single 3kW PV or turbine system allowing rooms to be heated using 'free' electricity.

## Second circuit for maximum flexibility

In a first for the market, the unique second circuit allows the system to be boosted when a speedy warm up time is required, or if the room is experiencing higher than average heat loss.

## Automatic control

The heaters can be operated via suitable 3rd party controllers which enable the system to automatically turn on when the output of the PV or turbine system reaches a certain level. This ensures you make the most of the electricity generated on site. The system also uses mains electricity when required. Alternatively, the system can be operated via Heat Mat's standard thermostats and a 'boost' switch can be incorporated into the installation, to provide control of the second circuit.

## Heat sink option

A heat sink can be created by installing the heating mats beneath a screed layer. This allows the system to charge up the screed with heat during the day when the PV system generates electricity, and then release it slowly in the afternoon and evening when it is most required.

## Green homes and passive houses

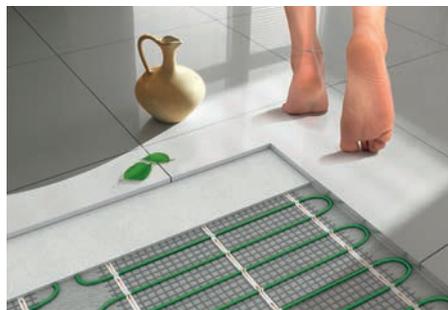
The dual output of the mats is well suited to installation in green homes and passive houses where ultra-low output heating systems are required. The second circuit of the heating mat also provides an "insurance policy" that if a more powerful system turns out to be needed or desired the second circuit can be easily wired up for use.

## Suitable for nearly any floor covering

The output of the PV heating mats means they are suitable for use with nearly any floor covering, once they are covered with a levelling compound or screed. Tile and stone floors can be laid directly onto the mats, although we recommend skimming them with a latex levelling compound first.

## Approved and guaranteed

Heat Mat's PV heating mats are independently VDE approved and are manufactured in Germany and supplied with an extended warranty. They also benefit from a 100% earth shield and unique triple-conductor design, ensuring electrical safety and also very low EMC radiation.



## Heat MatPV™ Technical Specification

Supply Voltage	240V +/- 10
Power output	75/150Wsqm
Output range	150W – 1500W
Standard range	1.0m <sup>2</sup> – 10.0m <sup>2</sup>
Mat dimensions	0.5m wide x 2.0m to 20.0m
Coldtail lead	4m double insulated cable
Wire thickness	4.5mm
Cable flexibility	Minimum radius 30mm
IP Rating	IPX7
Inner insulation	Fluoropolymer (FEP Y7) 200°C
Outer insulation	PVC (Y) 105°C
Earth protection	100% aluminium earth shield
Coldtail connection	Sleeveless splice
Reinforcement mesh	Fibreglass
Fixing materials	Glued fibreglass mesh
Compliant with	IEC 60800 Ed.3

## Wiring

Heating mats must always be controlled by a suitable electric underfloor heating thermostat with floor temperature limitation. Heat Mat thermostats are rated to various loadings, and if a system exceeds this Ampage a suitably rated contractor should be used.



## About Heat Mat

With more than 1,000,000m<sup>2</sup> of underfloor heating installed, 19 years' experience of the UK underfloor heating market and a wealth of knowledge on ice and snow melting solutions, you can rely on Heat Mat to understand your needs and specify the right products to meet them. This is why we are the Professional's Choice, the number one supplier of electric underfloor heating and ice and snow melting systems to the UK's professional installation market.



## Contact us

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