

## About Watts

Watts Water Technologies Inc., founded in 1874, is the world's leading manufacturer and service provider of innovative water products which are concentrated on the application fields of fluid control (valves), boiler and hot water solutions, water purification and heating, drainage and rainwater collection and enjoys a good reputation of "Valve Standard Setter."

Watts Business covers the globe. Since Watts entered the Asia-Pacific market in 1994, it has directly invested in China to establish Watts (Shanghai) Management Co., Ltd., Watts Water Equipment Manufacturing (Ningbo) Co., Ltd. and Watts (Ningbo) International Logistics Co., Ltd. In 2007, Watts established its Asia Pacific, Middle East and Africa Headquarters in Shanghai and set up branches in Singapore, Australia, New Zealand and UAE.

For more information about Watts and its products, please visit Watts' official website [en.watts.cn](http://en.watts.cn)

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## Smart Sunshine

### Watts Electric Floor Heating System



[en.watts.cn](http://en.watts.cn)







## Safe, Healthy and Comfortable Solutions

### Watts Smart Sunshine Electric Floor Heating System

- Made in Europe
- Manufactured in accordance with the strictest M2 class under the international standard IEC 60800:2009 to ensure its application in flat floors or rougher cement floors
- Two heating conductors fully shielded with black PVC sheath, aerospace-grade fluoropolymer insulation equipped with the North American CE certification
- Special anti-UV function, unlimited multi-scenario indoor and outdoor applications



Made in Europe



International  
Standard IEC



North American CE  
Certification



Anti-UV

## Advantages of Electric Floor Heating System

### Healthy



Electric floor heating is a low-temperature and large-area radiant heating system with uniform heat radiation:

- The temperature decreases from bottom to top, which is in line with the health preservation principle of "warm feet and cool head" in traditional Chinese medicine
- It can effectively avoid the dust caused by convection to prevent the spread of respiratory infections

### Stable



- The electric floor heating system has a faster heating speed than the water heating system and can maintain an appropriate temperature instantaneously and continuously without overheating or undercooling due to area restrictions
- The whole system is stable in its operations, with a 30 to 50-year service life and maintenance-free for life

### Economic



- Simple structure, easy to install, and economic investment
- Intelligent controller and precise and efficient management can effectively reduce operations and use costs

### Comfortable



Green power - clean energy:

- Zero noise during operations, providing a quiet environment for rest and sleep
- No pollution and no emissions, which will not cause dirty air convection to provide a clean environment for work and living

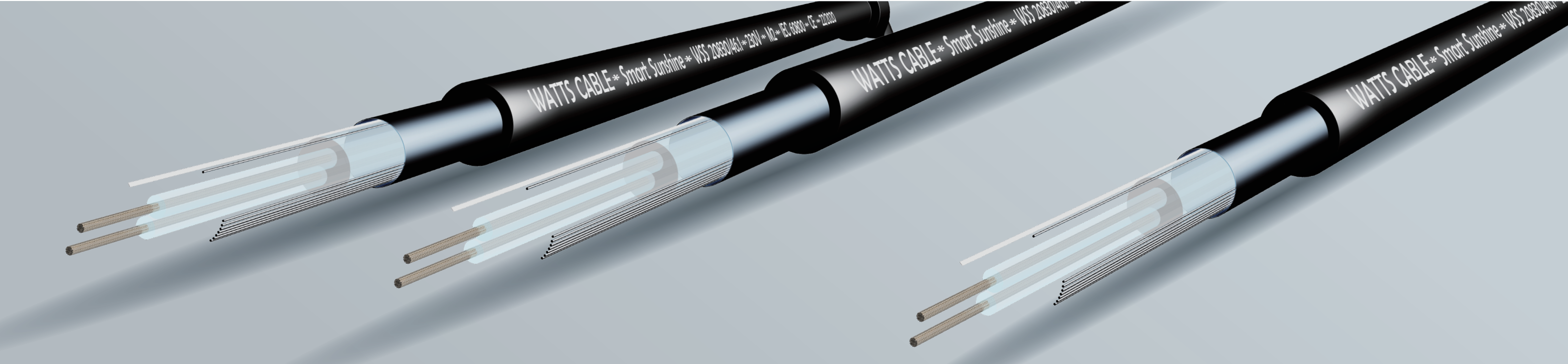
### Smart



The electric floor heating can be easily remote-controlled in a centralized way or controlled from a mobile terminal by virtue of automatic control of an intelligent thermostat.

- End users can control the operations of the system at any time
- The operation department can easily manage the control system





## Watts Smart Sunshine Heating Cables



Higher heating rate  
Rapid heating to 70°C  
within 5min



IP67 high waterproof  
and dustproof class  
Safe and reliable



Two-core multi-strand  
two-conductor  
fluoropolymer  
insulation



Anti-UV PVC layer  
Suitable for use in  
both indoor and  
outdoor applications



Quick and easy  
installation

Rated voltage	230V, 50-60Hz
Maximum permissible service temperature in the energized state	80°C
Minimum permissible service temperature in the energized state	Minus 30°C
Mechanical endurance class	M2-for installation with higher risk of mechanical damage
Voltage withstand	1500V/min
Service life	50 years
Standard heating cable spacing	10cm
Heating cable diameter	5.3-5.9mm
Internal structure of cables	Two-core two-conductor, 2 cores*7 strands
Power consumption	18W/m/h
Minimum installation temperature	Minus 5°C
Minimum inward bending radius	6" cable diameter
Waterproof IP Class	IP67
Certification	CE
Whether or not equipped with the anti-UV function	Yes

Product code	Product model	Rated power(W)	Cable length(m)
61814081	WSS 20160	160	8.50
61814082	WSS 20260	260	14.50
61814083	WSS 20320	320	18.50
61814084	WSS 20420	420	24.00
61814085	WSS 20520	520	28.40
61814086	WSS 20600	600	34.40
61814087	WSS 20740	740	41.80
61814088	WSS 20830	830	46.10
61814089	WSS 201000	1000	57.50
61814090	WSS 201200	1200	68.90
61814091	WSS 201500	1500	83.20
61814092	WSS 201700	1700	100.40
61814093	WSS 202200	2200	122.70
61814094	WSS 202600	2600	149.60

## Reliable Choice

The electric floor heating system is a good substitute for the water heating system as its use of green and environmentally-friendly electrical energy, no pollution and no emissions, easy installation and advantages such as instant heating.

In a relatively remote area, the use of water-based floor heating is limited due to the high cost of gas pipeline installation and the wall-hung boiler. In such cases, the Watts Smart Sunshine heating cable is a good choice. For residential houses with the floor area of less than 100m<sup>2</sup>, the electric floor heating is relatively more energy-saving and environmentally friendly. Alternatively, the integrated water and electric heating method is adopted and the electric floor heating system is installed in wet areas such as the bathroom/kitchen, which can solve the problem of the heating demand in the bathroom in the Spring and Autumn and the high temperature demand in the bathroom in Winter.



Ordinary residential houses



Commercial real estate



Bathroom



Laundries



Homestay



Outdoor snow melting



Villas

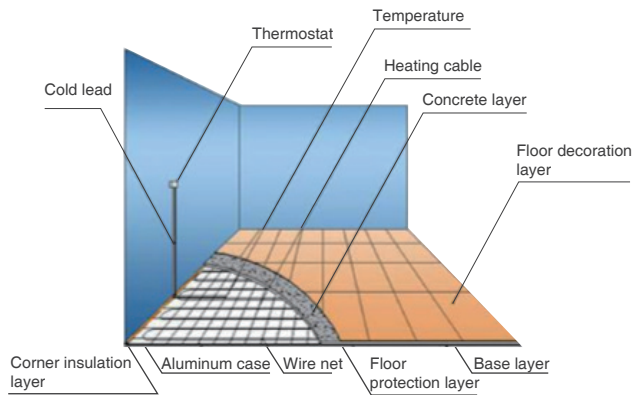
Villas are generally featured by a large space, many rooms and complete functional differentiation. Users often buy them for holidays. Therefore, the houses are rarely occupied all year round and the rooms are empty for a long time. Once someone is ready to move in, the electric floor heating system will be more practical for its advantage of instant heating over the water heating. Occupants can only turn on the thermostat of the corresponding rooms where they will stay.





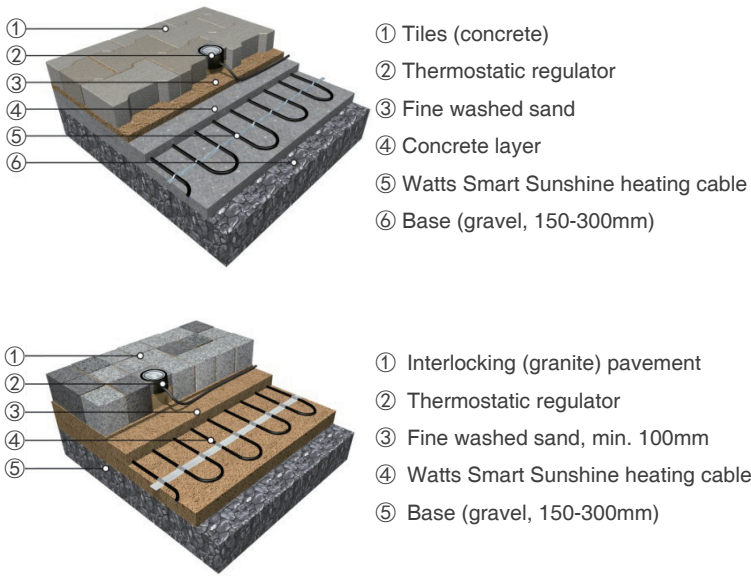
How to Install?

The electric floor heating system can be controlled by household, room and area. Users can purchase it according to their needs, without any minimum area limit. Besides, the system is highly independent and easily constructed and abutting-joined, with fewer installation nodes, high system safety and less subsequent system maintenance.



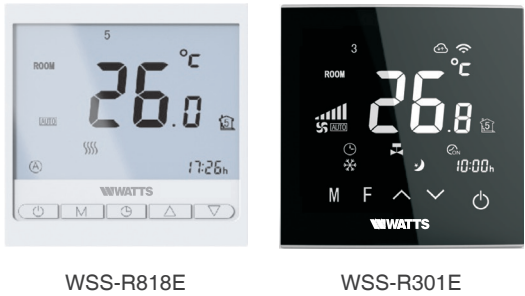
Conventional Schematic Diagram of the Installation of Electric Floor Heating Systems in General Buildings

Pavement method	Dry pavement	Wet pavement
Height of construction layer	2-3 cm dry formwork + decoration layer height	2 cm thermal insulation layer + cement layer 3 cm + decoration layer height
Advantages	1.Convenient construction and tidy site 2.No layer height compared to the wet pavement 3.Quick temperature rising 4.Modular design, uniform structure and good system stability	1.Suitable for all kinds of floor decoration layers 2.The heat storage in the cement layer permits slow and longer-lasting temperature radiation 3.A wide range of applications, such as bathrooms and kitchens 4.Low construction cost
Disadvantages	1.Not suitable for installation in small spaces such as bathrooms 2.Too high module price	1.Construction requirements are more complicated than those of dry pavement and longer time is required 2.Higher layer height required



Room Thermostat

The room thermostats of Watts Smart Sunshine electric underfloor heating adopts the dual temperature and dual control mode.The accurate temperature control can not only save electric energy, but also fully reflect the advantages of radiant floor heating.



Product type	WSS-R818E	WSS-R301E
Order number	61990118	61990119
Rated voltage	230V	230V
Accuracy	±1°C	±1°C
Resistive load	Max16A@230V	
H/W/D	86*86*16mm	86*86*16mm
Degree of protection	IP21 (Can be installed in bathrooms)	
Temperature range	5-40°C	
LCD	Yes	
ON/OFF	Electronic	
Sensors	Floor temperature and room temperature combined	
Date display	From Monday to Sunday	
Time display	12 hours (am/pm) or 24 hours	
Temperature display selection	Fahrenheit or Celsius	
Others	Lead-free, having the frost protection function	

Comparative table of electric floor heating and water floor heating

Heating method	Heating cable	Wall-hung gas boiler + radiant floor heating
Heat efficiency	90-96%	80-90%
Subsequent management	Maintenance-free	Need to be serviced before use every year
Service life	Having the same life as the building	Wall-hung gas boiler needs to be replaced about every 10 years
Energy saving	Economic operation, energy saving, and green electricity	Tight natural gas and water resources, and gradually rising prices
Energy	Electricity	Water/gas
Land occupation	A height of 3-5 cm on the original floor	A height of 6-7 cm on the original floor
Environmental pollution	None	Exhaust gas emissions during combustion, affecting the air quality
Initial investment	Cost-effective	Low initial investment High cost of boil replacement (about 10 years).
Operation	Fast heating speed within 15-20 mins, can be controlled independently, energy consumption is lower	Low heating speed, need several hours to reach the set temperature