

SolarEdge Home Hot Water Controller

For North America

SMRT-HOT-WTR-45-S2



Maximizes self-consumption by storing excess solar energy as hot water

- Integrates seamlessly with the complete SolarEdge Home ecosystem, offering a single source for warranty, support and training, to streamline logistics & operations
- Automatically adjusts power supplied to the heater, using any amount of available PV power (up to 4.5kW)
- Wireless communication to the inverter using SolarEdge Home Network, reducing wiring, labor, and installation faults
- Built-in water tank power consumption meter
- Simple wall mount installation
- Suitable for powering purely resistive loads only
- Optional temperature sensor for optimized heating

SolarEdge Home Hot Water Controller

For North America

SMRT-HOT-WTR-45-S2

SMRT-HOT-WTR-45-S2		
ELECTRICAL SERVICE		
Operating Voltage Range	210 – 273	Vac
AC Frequency	60	Hz
Nominal Voltage	240	Vac
Supported Grids	L1 / L2 / N / PE or L1 / L2 / PE	
Maximum Supported Load Size	4.5	kW
Input Overvoltage Protection ⁽¹⁾	273	Vac
Maximum Load Current Rating	19	A
Minimum Output Power	5% of load rating	
Load Type	Resistive	
Efficiency	> 98	%
Output Overcurrent Protection	22	A
External Overcurrent Protective Device Rating	≥ 25	A
Type of Action	Type 1 C	
COMMUNICATION		
Supported Communication Protocol	SolarEdge Home Network	
Device Configuration	Monitoring platform/app or SetApp; Ethernet connection is required	
Operating Frequency Range	902 – 928 (NAM)	MHz
Modulation	O-QPSK (Quadrature phase shift keying)	
EIRP with Antenna	20	dBm
STANDARD COMPLIANCE		
Radio	ETSI EN 300 328 V 1.8.1, ETSI EN 301 489-1, ETSI EN 301 489-17	
Safety	UL 60730, CSA 22.2	
Emissions	FCC part 15 class B	
INSTALLATION SPECIFICATIONS		
Dimensions (H x W x D)	14.7 x 9.5 x 4.5 / 375 x 240 x 110	inch / mm
Weight	11.7 / 5.3	lb / kg
Operating Temperature Range	+14 to +122 / -10 to +50	°F / °C
Maximum Distance between Device and Load/Cable Cross-Section	3/10 for 13 AWG / 2.5mm ² 20/65 for 11 AWG / 4mm ²	AWG / mm ²
Terminal Block Minimum Wire Cross-Section	15 / 1.5	AWG / mm ²
Interfaces	1. AC in; 2. AC out; 3. External antenna RP SMA	
Conduits	Support ½ and ¾ inch conduits (8-gauge wire pre-drilled opening of 1.109 inch)	
Mounting Type	Wall mount	
IP Rating	NEMA Type 3R	
Self-Consumption	< 2.5	W
SENSOR SPECIFICATIONS⁽²⁾		
Sensor Type	Pt100 (100 Ohms @ 0°C) to IEC 751, Class B, ¾ wire	
Construction	6.0mm diameter stem in 316 stainless steel	
Termination	IP67 aluminum alloy weatherproof connection head with 4 wire connection block, M20 x 1.5mm cable entry (gland included)	
Process Connection	1/2" NPT parallel	
Probe Temperature Range	-148°F to +842°F (connection head @ 338°F)	
Probe Diameter	Ø6mm (¼")	
Probe Length	150mm ½" BSPP	
Temperature Accuracy	1	%

(1) The device stops diverting power to the load when this threshold is exceeded.

(2) Temperature sensor ordered separately. For more information, please contact SolarEdge.