

---

# Smart Energy Hot Water For North America

SMRT-HOT-WTR-45-S1



SMART ENERGY

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

- / Seamless integration with all SolarEdge inverters, and the monitoring platform
- / Adjusts power supplied to the heater based on available PV power (up to 4.5 kW)
- / Built-in water tank power-consumption meter
- / Simple wall mount installation
- / Wireless communication with the inverter
- / Suitable for powering purely resistive loads only
- / Optional temperature sensor for optimized heating

# Smart Energy Hot Water

## For North America

SMRT-HOT-WTR-45-S1

### SMRT-HOT-WTR-45-S1

UNIT

#### 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 Over voltage protection <sup>(1)</sup>	273	Vac
Maximum Load Current Rating	19	A
Minimum Output Power	5% of load rating	
Load Type	Resistive	
Efficiency	> 98	%
Output Over-current Protection	22	A
External Over-current Protective Device Rating	≥ 25	A
Type of Action	Type 1 C	

#### COMMUNICATION

Supported Communication Protocol	ZigBee Home Automation	
Device Configuration	Via the inverter LCD, the monitoring platform/ app, or SetApp; Ethernet connection is required	
Nominal Transmit Power	22.8	dBm
Operating Frequency Range	2.4 - 2.5	GHz
EIRP with Antenna	27.8	dBm
Maximum Emitted Power	≤ 30	dBm
Bandwidth	2	MHz
Modulation	O-QPSK with DSSS coding	
Outdoor (LOS) Range	1312 / 400	ft / m
Indoor Range <sup>(2)</sup>	164 / 50	ft / m

#### 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 C22.2	
EMC	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/2.5 mm <sup>2</sup> , 20/65 for 11 AWG/ 4 mm <sup>2</sup>	m / ft
Interfaces	1. AC in 2. AC out 3. External Antenna RP-SMA	Inch
Conduits	Support ½ and ¾ inch conduits (8-gauge wire) Pre-drilled opening of 1.109 inch	
Terminal Block Minimum Wire Cross Section	15 / 1.5	AWG / mm <sup>2</sup>
Mounting Type	Wall mount	
IP rating	NEMA Type 3R	

#### SENSOR SPECIFICATIONS<sup>(3)</sup>

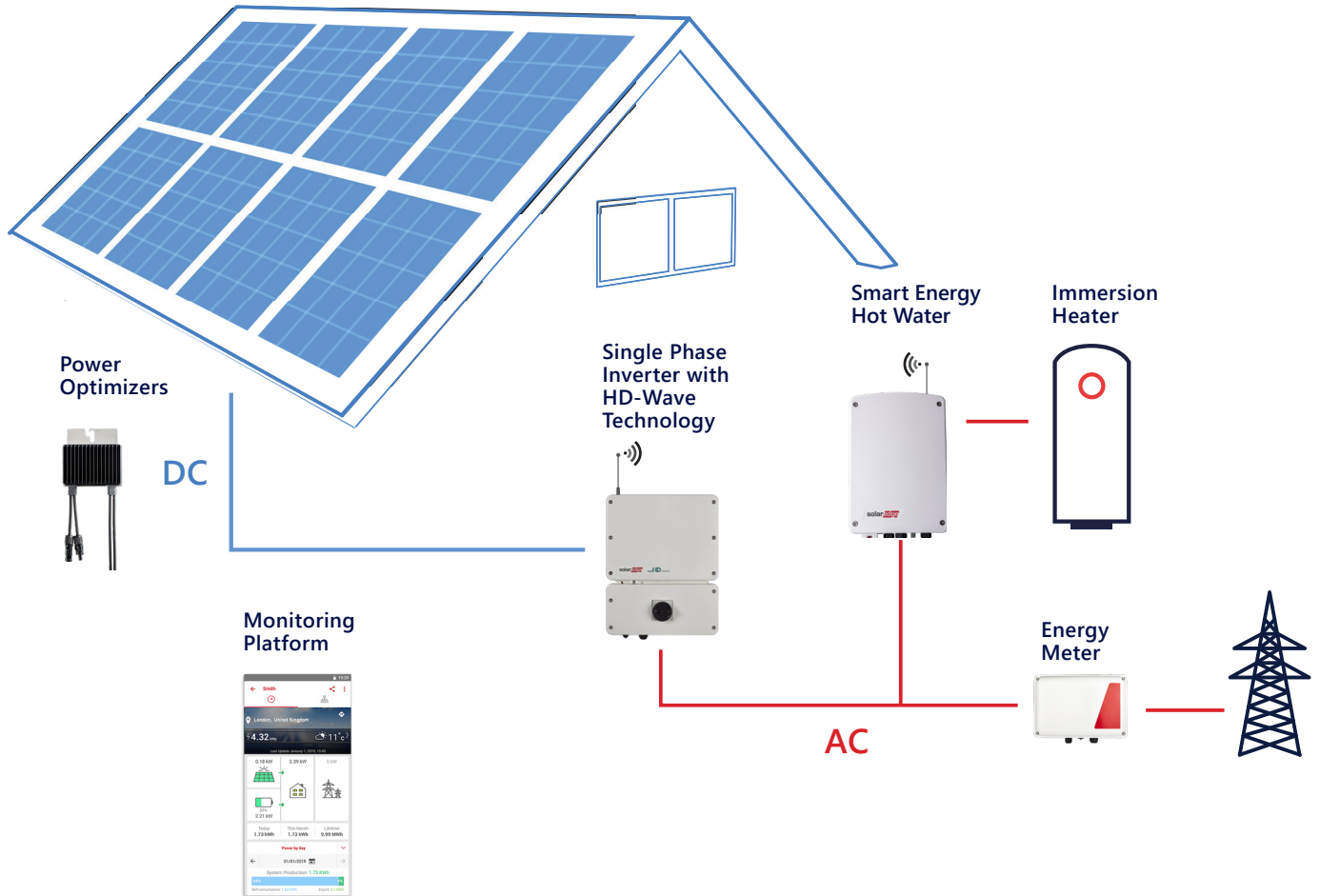
Sensor type	Pt100 (100 Ohms @ 0°C) to IEC 751, Class B, 3/4 wire	
Construction	6.0mm diameter stem in 316 stainless steel	
Termination	IP67 aluminium alloy weatherproof connection head with 4 wire connection block, M20 x 1.5mm cable entry (gland included)	
Process connection	1/2"NPT parallel	
Probe temperature range	-148°F to +842°F (connection head @ 338°F)	
Probe Diameter	Ø6mm (1/4")	
Probe length	150mm 1/2"BSPP	

<sup>(1)</sup> The device stops diverting power to the load when this threshold is exceeded

<sup>(2)</sup> Approximate values. May differ depending on specific installation conditions

<sup>(3)</sup> Temperature sensor ordered separately. For more information please contact SolarEdge

# / SolarEdge System with Smart Energy Hot Water For North America



## Temperature Sensor<sup>(3)</sup>

