

# fothermo

use the power of sun

## PRODUCT CATALOG



# WHO WE ARE

fothermo is the leading manufacturer of high-quality photovoltaic water heaters. We develop photovoltaic boilers for simple and cheap heat supply. Our systems can be installed in every household, in vacation homes, in boats or caravans - everywhere where the sun shines and warm water is needed.



## EXPERTS FOR PHOTOVOLTAIC SYSTEMS

With many years of experience in decentralized electrification with photovoltaic systems, we know what the needs of our customers are and how to use the power of sun most effectively.



## MADE IN GERMANY

fothermo is a German based manufacturer of high-quality photovoltaic water heaters. With our German engineering team, we strive to bring innovation and reliable solar heat supply to the world.



## RELIABLE MANUFACTURING

Our systems are manufactured in our own factory next to our headquarter in Illerkirchberg, Germany. Short distances between development and production allow us maximum flexibility and compliance of very high-quality standards.

# OUR PRODUCTS

The photovoltaic boilers are the perfect solution for a cost-effective and independent hot water supply. Once installed, the boiler produces free hot water for years. Installation is super easy thanks to plug & play connections and can be done by anyone in just a few minutes.



## CAPACITY RANGES AND POSSIBLE APPLICATIONS

<b>fothermo water heater</b>	camper van	garden house	kitchen	shower	house 1 person	house 2 persons
10 liters						
30 liters						
80 liters						

# PV WATER HEATER

feature	unit	10 liters	30 liters	80 liters
<b>Water Heater</b>				
model		PVB-10	PVB-30	PVB-80
max. heating power	W	550	550	550
volume	l	10	30	80
rated pressure	MPa	0.7	0.7	0.7
max. current	A	15.5	15.5	15.5
IP Class		X1	24	24
gross weight (+/- 5 %)	kg	7.2	15	25
<b>PV-Input</b>				
recommended solar power	Wp	100 – 200	300 – 450	800 – 1000
operating range ( $U_{mpp}$ )	Vdc	17 – 42.4	22 – 42.4	22- 42.2
max. DC input ( $U_{oc}$ )	Vdc	42.4	42.4	42.4
current consumption	A	0 – 15.5	0 – 15.5	0 – 15.5
max. short circuit current ( $I_{sc}$ )	A	36	36	36
<b>External Power Supply (optional)</b>				
recommended power supply model		PSU-12	PSU-18	PSU-18
power	W	62	141	141
voltage	Vdc	12	18	18
current consumption range	A	0 – 5.2	0 – 7.8	0 – 7.8



## RENEWABLE

Energy from the power of the sun. 100% renewable and sustainable. Save CO2 every day and actively contribute to climate protection.



## COST SAVING

Produce your own solar power for free and immediately save expensive grid power.



## INDEPENDENCE

Use hot water exactly where you need it. A grid connection or registration of the PV system is not necessary.

# SMART HEATING

Hot water at all times with an intelligent reheating system. In addition to photovoltaic modules, all fothermo water heaters can also be supplied with power by an external power supply unit. This guarantees hot water even during the darkest rainy days.

Additional heating is OPTIONAL and not necessary.

## EXTERNAL POWER SUPPLY UNIT



Simple, fast and effective!

Reheat with 230 volt power supply. Just plug in the power supply unit and the intelligent reheating is activated.

As soon as the water temperature falls below a **self-defined limit** and the power of the PV module is low, the water will be reheated.

EXTERNAL POWER SUPPLY		62 W	141 W
model		PSU-12	PSU-18
max. power	W	62	141
output voltage	V	12	18
max. current	A	5,2	7,8
Recommended water heater		10 liters	30 & 80 liters



### HOT WATER AT ANY TIME

Even during bad weather phases there is always enough heat available. After a few hours the water is hot again. Even at night, when the sun is not shining, there is always enough hot water available.



### FULLY ADJUSTABLE MINIMUM TEMPERATURE

In a few seconds the minimum temperature can be adjusted to any need. Simply set the minimum temperature on the display. That's all! Done!



### LOW COSTS FOR ADDITIONAL HEATING

The water is only reheated when it is really needed. The water heater recognizes when there is insufficient solar power available and then activates the additional heating. This saves money and protects the environment.

# FREEDOM THROUGH BATTERY STORAGE

Make yourself independent and create your own electricity and water supply. fothermo offers a flexible energy storage system for a self-sufficient energy supply. The system can be used for simple and sustainable electrification and water supply for mobile applications or remote areas. In combination with an electric pump, water can be used as usual. Water flows whenever a shower or tap is opened.

## BATTERY STORAGE



The fosera EVO is a smart lithium battery which can be extended with a lead acid battery. This way each storage unit can be adapted to the individual needs of the user.

The innovative hybrid battery management system stores the solar power. As soon as the battery is fully charged, the excess energy is used to heat the photovoltaic boiler.

This makes it very easy to set up a decentralized power and water supply for boats, garden cabins, holiday homes or campers.

<b>fosera. EVO</b>		<b>unit</b>
Nominal system voltage	12.8	V
Lithium battery capacity (built in)	22.8	Ah
Lithium battery energy (built in)	291.8	Wh
Built in battery type	LiFePO4	
Recommended lead acid capacity	30 – 100	Ah
Protection features	overcharge, deep discharge, overcurrent, short circuit, overload	
Low power output jack	4x 3A	
High power output (screw terminal)	2x 10A & 1x 15A	
USB outputs	2x 1A USB	
Max. load total output current	15	A
Solar input	2x screw terminal solar input	
Max. total input current	15	A

# OFF GRID KIT

The complete freedom package. Be independent of electricity and hot water anywhere in the world. An off grid set for: caravans, boats, garden huts and houses in remote areas!

## OFF GRID KIT 10



10 Liter Photovoltaic Water Heater



150 Wp Solar Panels



292 Wh LiFePO4 – Battery Box



Water pump, extension cable etc.

## OFF GRID KIT 30



30 Liter Photovoltaic Water Heater



150 Wp & 325 Wp Solar Panel



292 Wh LiFePO4 – Battery Box



Water pump, extension cable etc.



## OFF GRID KIT 80



80 Liter Photovoltaic Water Heater



150 Wp & 325 Wp Solar Panels



292 Wh LiFePO4 – Battery Box



Water pump, extension cable etc.