



# AC ELWA 2

3,5 kW  
+ 3 kW



The integrated solution for hot water from PV excess, as well as a hybrid storage system with battery.

The on-grid solution, a 3.5 kW linearly controlled water heating device for surplus PV-power. AC ELWA 2 diverts surplus photovoltaic power for hot water preparation and thereby optimizes the self-consumption of the existing PV system. Simultaneously, self-sufficiency is increased.

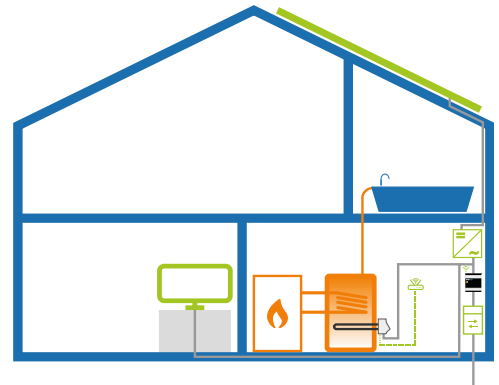


- More power: 3,5 kW
- Simplest installation: The heating rod and the control unit can be mounted one after the other
- Easy operation thanks to display like the AC•THOR
- Multiple communication options: in addition to Ethernet RJ45 also WLAN, RS485, PWM-in, galvanically isolated relay contact
- Flexible control for various inverters, battery systems and Smart Homes
- An external 3 kW heating element can be connected
- Can be installed in hot water boilers and buffer storage
- Linear control for maximum energy utilization
- Optional hot water boost function
- Also for commercial building applications
- No thyristors, complies with German/Austrian standards

## How AC ELWA 2 works

### ... with my-PV WiFi Meter

In combination with my-PV WiFi Meter, AC ELWA 2 uses only excess energy from your photovoltaic system. It can be installed in hot water boilers and buffer storages. Since heating power is linearly controlled, almost no energy is fed into the grid, and self-utilization increases significantly. Grid-connected PV systems achieve an average of only 30 % self-consumption. In a typical household (5 kWp PV system), self-consumption with the AC ELWA 2 can easily be increased up to 75 %.

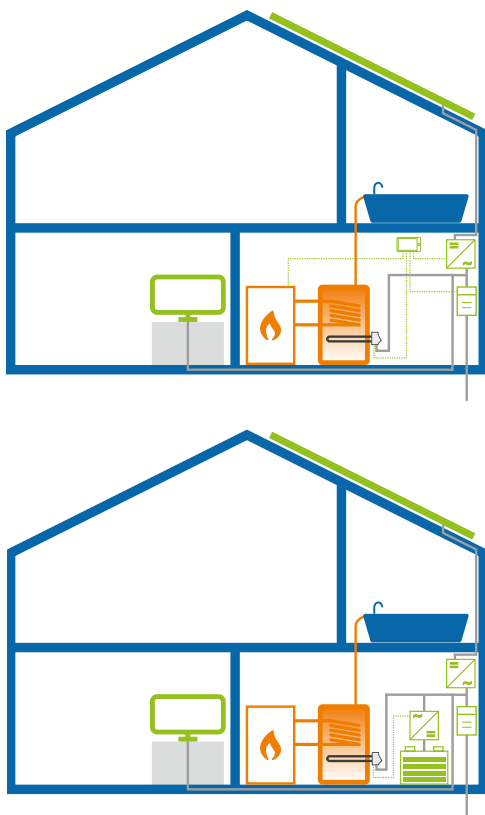


### ... with Smart Home or battery storage

Thanks to its flexible control, AC ELWA 2 communicates with energy management systems or battery storage units. As an alternative to my-PV WiFi Meter, surplus information can also be received from these sources.

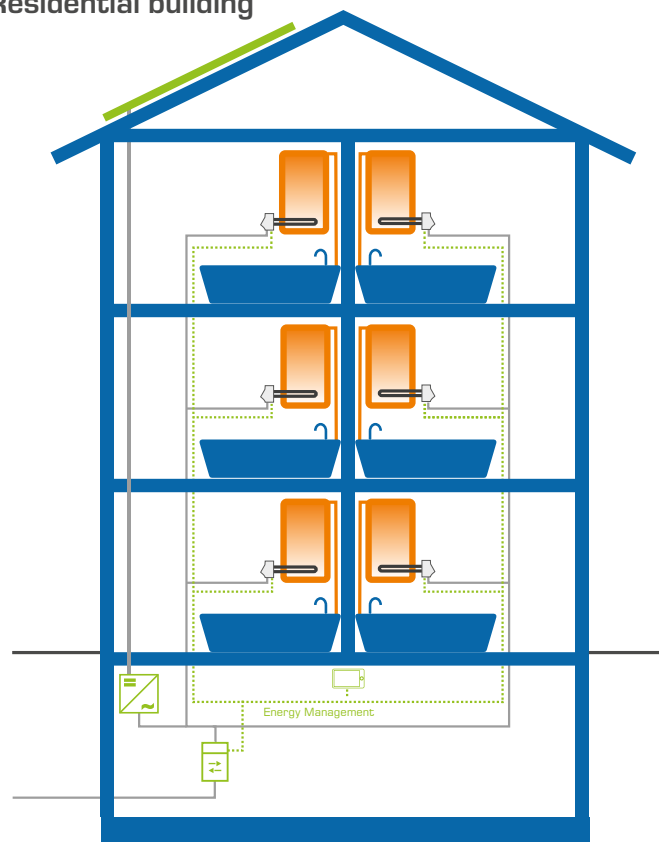
## Area of application

### Single-family home



For compatible battery storage and Smart Home systems see [www.my-pv.com](http://www.my-pv.com).

### Residential building

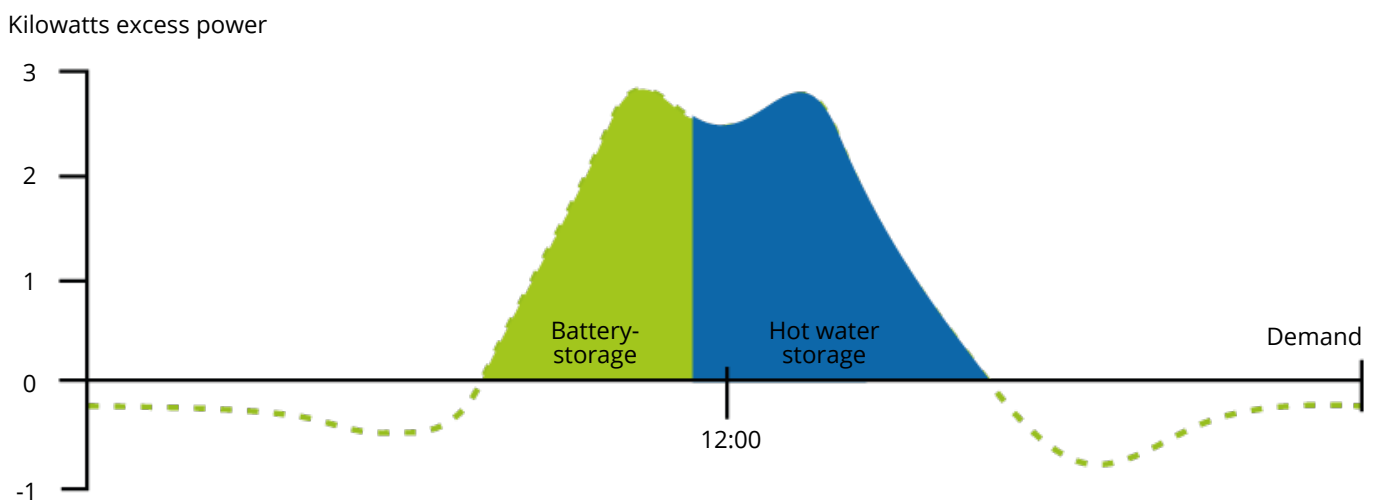


Decentralized hot water storage and production avoids distribution ("ring main") losses and fulfils hygienic standards. Decentralized AC ELWA 2 provide high solarcoverage ratios.

AC ELWA 2 is a 3,5 kW linearly controlled water heating device for grid-connected photovoltaic systems. Missing residual energy can optionally be imported from the public electricity grid.

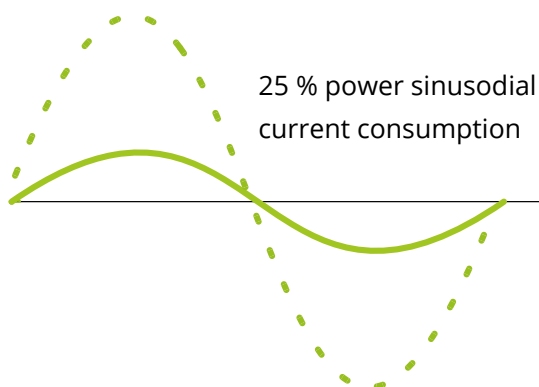
## Perfect PV-utilization with battery and hot water storage

Charging of the battery storage has priority. Once the battery is fully charged, AC ELWA 2 starts using surplus energy for hot water heating. Water is the cheapest form of storage and complements perfectly with battery storage systems.

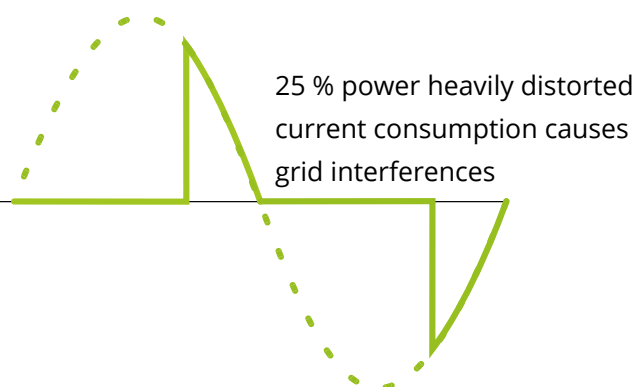


The linear power control of AC ELWA 2 works, similar to a grid connected inverter, with high frequency switching power electronics. This minimizes network disturbances, EMC and power-grid conformity is guaranteed in contrast to thyristor controllers.

### AC ELWA 2



### Thyrisor



## Technical data

Heating power	0 – 3,500 W + relay output 16 A
Fuse protection	13 A or 16 A
Mains connection	3-pole terminal, 2.5 mm <sup>2</sup> 230 V, 45 – 65 Hz
Self-consumption	< 1,5 W
Efficiency	> 99,3 % at nominal power
Cos Phi	0,999 at nominal power
Certification	CE, TOR D1, TAEV, TAB
Mains-side THDi	At 50 % power < 3 %; at 100 % power < 3 %
Display	Color Graphic, Touch Screen 2,83"
Communication	Ethernet RJ45, Wifi, RS485, PWM-in 3 – 24V, 100 Hz – 1 kHz, galvanically isolated relay contact
External temperature sensor	5 m
Protection class	IP 21
Dimensions (W x H x D)	580 x 133 x 117 mm (incl. heating rod)
Heating rod length	460 mm (from the sealing)
Heat-free zone	140 mm
Weight	2 kg
Heating rod thread dimension	G 1 ½ Zoll
Tightening torque	50 Nm
Operating temperature range	Ambient temperature at the casing 0 °C to 40 °C
Permissible humidity	0 – 99 % (not condensing)
Storage temperature	-20 °C to 70 °C
Max. operating pressure	10 bar
Mounting position	horizontal
Warranty	2 years
Maximum number of units in IP network	Network dependent
Compatible battery storage / smart home controllers	See <a href="http://www.my-pv.com">www.my-pv.com</a>
my-PV item number	16-0150