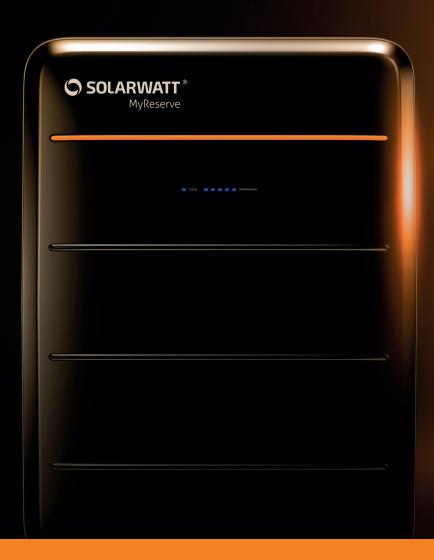
# THE WORLD CHAMPION FROM GERMANY



MyReserve. THE BENCHMARK FOR THE FUTURE OF BATTERY STORAGE.



# **MYRESERVE** –

# THE REVOLUTIONARY BATTERY STORAGE SOLUTION

Welcome to the future of energy. MyReserve provides you with solar energy from your photovoltaic system even when the sun is not shining. And now it pays off financially too.

Have you ever considered how great it would be to store the excess free power from your photovoltaic system for later? With SOLARWATT you can actually profit from your system! Before now the technology was both too expensive and too complicated: therefore unprofitable. Now you have MyReserve, the next generation of solar energy storage. State-of-the-art technology combined with a sensational price has changed everything. For the first time it truly pays to produce your own solar power.

# A FAMILY OF HIGH PERFORMERS

#### MyReserve 500

SOLARWATT's MyReserve 500 offers you the most economical lithium-ion battery in the world. It is particularly well suitable for new PV systems which are dimensioned. MyReserve 500 is optimized for photovoltaic systems with 10 to 13 panels.

#### MyReserve 800

MyReserve 800 is a step up. It is more flexible because more modules can be connected.

MyReserve 800 is ideally suited to bigger PV systems and users with higher energy demands.

- Optimized for systems with 14 to 18 modules
- Extension: Capacity can be increased to 8.8 kWh

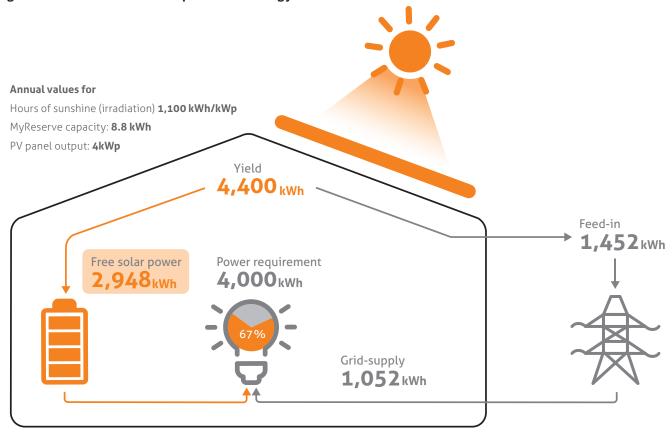
#### Overview of product data

- Battery size: from 2.2 to 4.4kWh (MyReserve 500) from 4.4 to 8.8kWh (MyReserve 800)
- Depth of discharge (DoD): 100%
- Battery efficiency: 99.2%
- Total system efficiency up to: 93%
- Technology: lithium-ion
- Assembly: space-saving wall mounting
- Safety: certified according to the German 'Safety guidelines for li-ion home battery systems' and UN38.3 (Battery module transport test)



# LET NO ENERGY GO TO WASTE

Privately produced solar power has proven itself as a viable alternative to grid power. Feed-in tariffs and government subsidies for this proven technology are being phased out around the world and the time has come for a transition to home batteries.



The most valuable use for your clean energy is now within your own home. MyReserve ensures that none of that valuable solar power goes to waste.

MyReserve was built from the beginning as the most intelligent system available. It ensures the highest amount of power saved is available as usable energy.

The configuration above shows 67% of an average household's annual requirement being met with privately produced solar power. Subsequently larger configurations can raise that percentage to 80%. You can now declare your energy independence and meet your family's needs with absolutely free solar power.

### YOUR DECLARATION OF INDEPENDENCE

With your MyReserve, energy independence up to 80% is possible, 99% on good days! This is achieved through optimized personal consumption. The more free solar energy you use from your photovoltaic system, the less grid power you need from an energy supplier. The various technical features of MyReserve make a high degree of independence possible.

#### Lowest consumption

When in operating mode, i.e. when providing electricity, MyReserve leads the competition and only consumes between 5 and 15 watts. In standby mode it's electricity consumption is even less than 5 watts.

#### **Highest efficiency**

MyReserve offers a superior battery efficiency level of 99.2%. System efficiency level is 96% at best point and 93% in full cycle. That's a world record.

#### Fastest response time

Many household appliances have electricity requirements which vary widely, e.g. modern freezers, microwaves, induction ovens, and coffee machines. They demand peak current for just a few seconds.

MyReserve registers the demand for electricity in the home immediately and supplies the stored energy. Within less than a second, all electricity needed is provided entirely by the battery. Traditional batteries respond too slowly so additional grid electricity must be purchased.

#### Lowest heat losses

As a result of the extremely efficient electrical conversion, MyReserve converts virtually no energy into heat. Therefore battery cooling is not required.

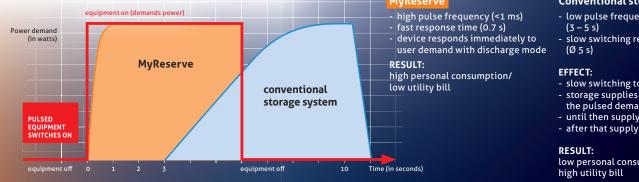
#### **Battery management system**

The MyReserve battery management system is monitoring all system parameters at once. With its intelligent charging and discharging algorithms it ensures the highest safety and maximizes its system lifespan.

#### Weather report to optimize personal consumption.

MyReserve is equipped with self-learning software to forecast weather. Using yield and consumption data (electricity taken from the battery), MyReserve independently develops an optimal operating strategy to maximize personal consumption and independence whilst at the same time minimizing battery aging.

#### MYRESERVE REACTS ALMOST 10-TIMES FASTER THAN CONVENTIONAL SYSTEMS



#### Conventional storage

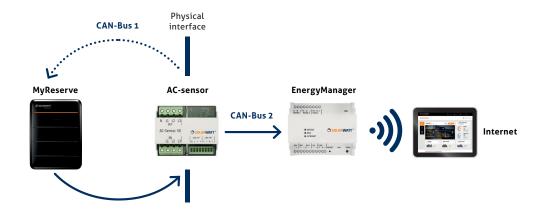
- low pulse frequency
- slow switching response
- slow switching to discharge mode
- storage supplies only shortly before the pulsed demand stops
- until then supply from the grid
- after that supply to the grid

low personal consumption/

### **SECURITY**



#### **MYRESERVE OFFERS 100% PROTECTION AGAINST CYBER ATTACKS**



#### Physical safety

MyReserve is the first storage system that completely fulfills all safety guidelines for lithium-ion home batteries. It also has various security measures which safeguard operational security during assembly and commissioning.

#### 100% hacking protection

Many traditional batteries rely on an Internet connection. Therefore a digital break-in is always possible.

Not so for MyReserve: SOLARWATT has consciously removed any Internet connection or classical LAN access to the battery, so that it cannot be reached externally by digital means.

Instead only one-way data communication is possible. Internally the physical interface provides 100% protection to ensure unauthorized data is not transmitted.

In order to exclude manipulation by third parties, an internal and an external CAN data bus are used and these are physically separated from each other.

#### **Independent relays**

In order to ensure that MyReserve can be switched off at any time and in any operating mode, independent relays are used for multiple redundancy. The spatial separation of the individual relays prevents them from influencing each other in case of fault.

#### **Ceramic coated separators**

The ceramic separators in the battery cells prevent short-circuits so fires cannot start. The ceramic coating ensures that the separators do not melt if overheated – excluding thermal runaway.

#### **Aluminum block**

The battery modules are sealed in German-mined cast aluminum casing that is up to 1.4 cm thick and can only be opened by certified professionals. This provides the highest transportation and penetration security. Penetration of the battery module, which could result in a fire, is virtually impossible.



# **ENERGYMANAGER** – YOUR CONTROL CENTER

#### The perfect team

# MyReserve and EnergyManager work together to ensure that your solar power is profitable.

The benefits of a photovoltaic system are no longer calculated from feed-in revenue but rather from using as little grid power as possible. If free solar energy is produced and not needed immediately, the EnergyManager decides what to do: Household appliances with flexible energy requirements can either be switched on – such as cooling and charging equipment, hot water pumps, air conditioning units, etc. or MyReserve can store the excess power for times when there is no sunlight.

All the while EnergyManager transparently shows you the power consumed by your devices. This knowledge alone can already reduce your energy consumption by 10%.

#### **Everything at a glance. Within full control.**

The EnergyManager – installed in the fuse box – monitors all energy flows throughout the house. The data is transmitted online to the EnergyManager Portal, which can be controlled from your PC, tablet, or smart phone.

Your data is stored on German servers and is encrypted with the same security measures used for online banking.

#### Ready for the future.

The SOLARWATT EnergyManager can already work in combination with devices from various manufacturers. Thanks to its flexible interface, you can integrate new apps very easily into the EnergyManager Portal. The EnergyManager is already prepared for Smart Home applications and is Smart Grid ready.

## 100%

## **MADE IN GERMANY**

SOLARWATT is German-made in every aspect. Since its founding in 1993, all SOLARWATT components have been manufactured in Germany.

Cost-effective solutions and technical innovation are our key strengths. Our past pioneering developments range from the first ever glass-glass modules in 1998 to the first economical solar storage system in 2015.

With two locations in Germany and subsidiaries in France, the Netherlands, Spain, Italy, and Australia, the SOLARWATT Group employs more than 300 people.

#### **SOLARWATT INNOVATION**

In 2016, SOLARWATT acquired e-Wolf, an offspring of the Toyota Racing Formula 1 team. Experts in battery technology, e-Wolf developed the highly complex K.E.R.S. hybrid technology and its associated innovative control and battery management systems. This acquisition enables SOLARWATT to reduce the cost of battery storage systems and assume cost leadership.

#### **Premium Strategy**

Our focus is on decentralized residential energy solutions. We produce German-made premium products, offering optimal purchase conditions and more independence from the grid.

We specialize in complete system solutions to ensure you benefit from all-inclusive packages and reduce your reliance on the grid.









#### **SOLARWATT International**

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