



# Sicherheitshinweise Safety Instructions Istruzioni di sicurezza

For detailed
MyReserve 25
Installation and
Operating Instructions
scan the QR code
below.



# MyReserve 25





#### **About these instructions**

This manual is intended for qualified personnel who meet the criteria described in chapter "Requirements for the installer".

#### Scope of application

This document contains information on the intended use and safety of MyReserve 25, which includes the following product components:

- MyReserve Command 25
- MyReserve Pack 24.3 (IP54)
- AC-Sensor Flex

#### Terms and abbreviations

AC	Alternating Current	LED	Light-Emitting Diode
DC	Direct Current	PE	Protective Earth
ACS	AC Sensor Flex	PV	Photovoltaic
CAN	Controller Area Network		Inverter
EVU	Power supply company	MyReserve Pack	Battery module

#### **Icons**

#### **A** DANGER

This symbol with the "Danger" notice indicates an imminent danger to life and limb. If this notice is disregarded, severe or life-threatening personal injury can occur.

#### **⚠** IMPORTANT

This symbol indicates situations which are dangerous to people and/or the product. Disregarding this notice may result in personal injury or equipment damage.

#### Intended use

The MyReserve is designed exclusively for storing electrical energy generated by PV systems, and should be used for this purpose alone. All technical data must be observed. Using the MyReserve improperly or for purpos-

es other than the intended one can result in product malfunctions and/or life-threatening situations. This will also void any warranty claims.

#### Improper use

- Do not use MyReserve in vehicles (motor vehicles, aircraft or ships)
- Do not use MyReserve as an uninterruptible power supply (UPS)
- Do not connect MyReserve to PV systems in which the negative pole and/or positive pole of the array or panel is grounded
- Do not use MyReserve for the operation of medical equipment
- Do not use MyReserve to operate devices for which functional safety must be guaranteed

Any manipulation/modification of the CAN communication of the MyReserve will void any warranty claims. Refer to the data sheets of the respective components for information about the climatic installation, storage and transport conditions. Disregarding the information provided in this installation and operating manual will void any warranty claims.

#### Safety notices and general sources of danger



**Damage due to incorrect handling!** Failure to comply with the following instructions regarding device usage and handling can result in danger to life and limb and/or property damage to the product and other equipment; SOLARWATT assumes no liability for such hazards.

- The MyReserve battery storage system may only be commissioned by trained electricians with specific SOLARWATT training. There is a risk of electric shock.
- For maximum safety, install DC-side lightning and surge protection between the PV system and MyReserve.
- Animals, children, persons with reduced physical, sensory or mental capacities, and persons lacking sufficient experience and knowledge must not be left unattended in the vicinity of the device.
- Make sure that the device is properly attached to the wall.
- Do not clean the unit with alcohol or other chemical agents. In the process, follow the instructions in chapter "Cleaning / care and maintenance".
- The maximum current and voltages characteristics according to the data sheet specifications of the respective product must be observed. Otherwise, the product can be damaged.
- Only use spare parts and accessories that are approved or recommended by SOLARWATT.
- Always observe all applicable national standards and directives for connection of battery storage systems.
- Repairs or system updates must be carried out by qualified personnel who are authorized and trained

- by SOLARWATT.
- Electrical cables must be protected from improper use so that no damage can occur due to twisting, clamping or similar abuse. Do not use cracked or frayed electrical cables or plug connectors. Inspect electrical cables from time to time for damage and immediately decommission them if any defects are found.
- Never ground the MyReserve with a lightning conductor, telephone wire or gas line.
- The temperature of the MyReserve Command housing can increase to over 60°C.
- The product must not be disposed of with the household waste. The applicable disposal regulations in the respective country must be observed.
- Do not dispose of battery modules by burning them!
- Do not open or damage battery modules. Do not touch any electrolyte that has leaked from the battery; it is harmful for the skin and eyes and can be toxic.
- Remember that charged capacitors pose an electrical hazard. A discharge time of 5 minutes must be observed after shutting down MyReserve Command before work on the device can take place.

#### **A** HAZARD

#### **CAUTION!**

Ensure the device is isolated and powered down by checking the AC is OFF to the MyReserve Command before completing the cable installation. Switch off the DC cut-off switch (OFF).



Life threatening danger if the grounding / earthing is not connected correctly or earth continuity is not proven!

#### / IMPORTANT

Note the polarity on the MyReserve Command inputs and outputs.





Remember that charged capacitors pose an electrical hazard. A discharge time of 5 minutes must be observed after shutting down the MyReserve Command before work on the device can take place.

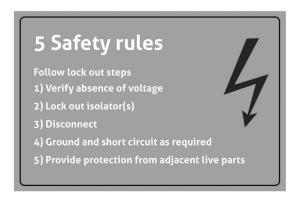
#### **⚠** IMPORTANT

The changing of any Settings on the PV inverter may only be made when the MyReserve is switched OFF. Non-observance can cause equipment damage.

Disconnect the AC supply on the MyReserve.

The DC cut-off switch on the MyReserve remains switched ON so that the inverter remains awake and setting changes can be made on the PV inverter.

#### Safety rules for electrical installations



#### Requirements for installers

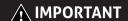
Installation and commissioning of the MyReserve according to this installation and operating manual may only be carried out by trained and qualified personnel who fulfill the following criteria:

- Authorized by SOLARWATT
- Trained electronics technicians, electricians or other specialists with similar qualifications who meet local licensing requirements to install PV
- Authorized professionals with thorough knowledge of all applicable standards, directives and laws
- Specialists who have taken part in one of SOLAR-WATT's MyReserve certification courses

## Symbols on type plates and labels

	The product must not be disposed of with the household waste. The applicable disposal regulations in the respective country must be observed. Contact your local SOLARWATT office for assistance.
	Batteries can be returned to the point of sale free of charge. The product must not be disposed of with household waste. The disposal regulations applicable in the respective country must be observed.
i	This operating manual must be read prior to installation or commissioning.
C€	The relevant device equipment conforms to requirements according to EU Directives.
IP54	IP54 enclosures have a high level of protection against particles, and a fair amount of protection against water.
	Warning of dangerous electrical voltage.
5min	Charged capacitors pose an electrical hazard. A discharge time of 5 minutes must be observed
	Warning of explosion-prone materials.
	Warning of flammable materials.
	Warning of danger from batteries.
UN 38.3	The relevant device equipment conforms to requirements according to UN Transport Test 38.3.
®	Bluetooth communication
	RCM (Regulatory Compliance Mark) The product does fulfill the requirements of the applicable Australian standard

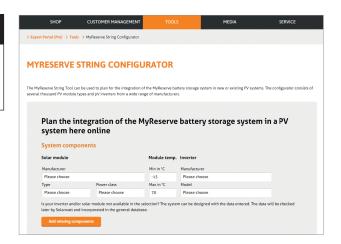
#### **System configuration**



Always use the MyReserve string configurator to confirm the installation is suitable for the best operation of the battery system.

**UK:** The configurator is available in the Expert Portal (Pro) of our website www.solarwatt.com under the menu item 'Tools'.

**AUS:** The configurator is available in the Professional area of our website www.solarwatt.com.au under the menu item 'Tools'.



#### Requirements for the installation location

 Installation in splash water protected outdoor areas only if the installation steps for outdoor installation are followed

If the installation steps for outdoor installation are not followed, the following requirements apply:

- Install the product in a dry, cool indoor space.
- Maximum relative air humidity of 85%. Do not expose MyReserve to an environment that has higher air humidity.

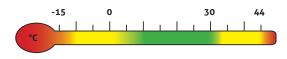
In general, the following requirements apply:

- Install the product either in a dry indoor space or protected from precipitation
- Environmental temperature for unlimited performance is appr. 0°C to 30°C
- Max. permissible environmental temperature is appr. -15°C to 44°C.
- Do not expose the product to direct sunlight.
- Do not install MyReserve in escape routes or bedrooms
- MyReserve must not block access to switching devices in the installation location.
- Install the product so that it is not accessible to children, mentally disabled persons or animals.
- The installation location must be chosen so that the product cannot be exposed to any type of flooding. This is assured with a sufficient installation height (minimum 30 cm from the floor) and a suitable drain-free or water-supply-free installation location.

- Do not store any flammable or explosive materials in the installation room.
- Installation in heater rooms (defined as heating systems for solid fuels with a total rated output of more than 50kW that may not be used for any other purposes), oil or wood storage facilities, wooden barns and sheds, etc. is not permitted.
- Do not use MyReserve in vehicles (motor vehicles, aircraft or ships)
- Do not use MyReserve in areas which are prone to explosion (flour dust, saw dust, etc.)
- Do not install MyReserve at locations over 2000m above sea level
- Do not install MyReserve in atmospheres that are corrosive or contain alkali and do not store corrosive or flammable materials in its vicinity
- Do not install MyReserve in environments with moisture / atmospheres having a high salt content, near heat sources or in areas at risk of fire
- The wall and fastening material must be able to bear a static load corresponding to the specified product weight.
- Do not place the MyReserve above or below other equipment.
- Keep it away from direct heat emitted by other equipment, and maintain the minimum safe distances to other devices specified by the manufacturers of those devices.

#### ! NOTE

- There are no limitations on performance for the household in the range from appr. 0°C to appr. 30°C.
- While charging there is a power throttling on appr. +10°C and colder to zero at appr.-2°C.
- Operation does not take place below appr. -15°C or above appr. +44°C.
- Accelerated aging of the cells should be expected at temperatures above appr. +44°C.

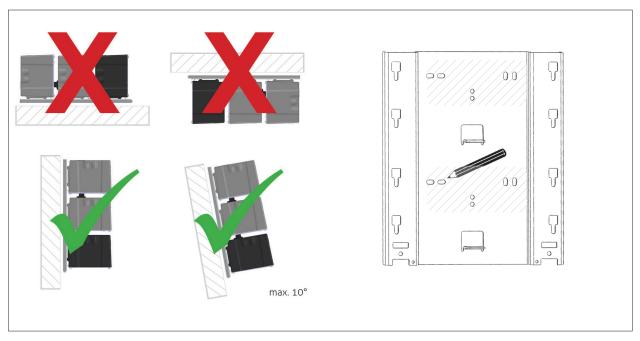


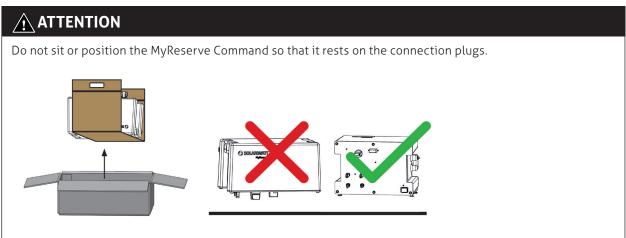
#### MyReserve installation

#### MPORTANT

#### Confirm the system weight!

Ensure that the wall and the fastening materials can bear a static load corresponding to the specified product weight PLUS any future additional batteries.





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Make sure all battery module connectors are **COMPLETELY** inserted into their respective battery modules/MyReserve Command. Please see "Checking Connection of Battery Modules" (in the "Installation MyReserve" chapter of the MyReserve 25 Installation Instructions).

#### 🛕 IMPORTANT

An excessively high torque can damage the threaded holes. Permissible torque min. 1.0 Nm to max. 1.2 Nm.

#### **⚠** IMPORTANT

For outdoor installations, certain critical areas on the components must be covered with technical Vaseline. The MyReserve installation and operating instructions contain information on the way and quantity of application for the corresponding installation steps. Follow these instructions in all cases. Incorrect application may result in damage to the device.

#### Safety instructions AC-Sensor



#### **IMPORTANT**

#### Damage or destruction of the AC Sensor with improper use

Connection of mains voltage to the CAN bus terminals can damage or destroy the device. The device can be damaged or destroyed if operated outside of it's specifications.

#### DANGER

#### Life-threatening danger due to electric shock

Live parts carry extremely dangerous voltages. Only use the AC Sensor in a dry environment and keep it away from liquids. Only operate the AC Sensor behind a cover or with a protective guard in a switchboard or enclosure or similar. Disconnect the AC Sensor before cleaning it and only clean it using a dry cloth.

Extremely dangerous voltage runs through the household switchboard and wiring. Isolate all sources of supply and secure against re-connection before commencing any works. Test for the absence of ALL voltages BEFORE commencing any works with the ACS or other systems.

#### Maintenance work on the overall system

MyReserve is maintenance-free. The following must be observed for the inspection and maintenance of a PV system in combination with a MyReserve:

- Only inspect/maintain the PV system with the AC voltage supply to the MyReserve switched off.
- Only conduct tests with a test voltage that is below the maximum permissible operating voltage of the MyReserve: Test voltage ≤ 1.000 V (max. 25 A)

If testing must be conducted on the system with test voltages/currents that exceed the maximum permissible operating voltages/currents, the MyReserve must be disconnected/removed from the DC string of the PV system. In order to avoid potential damage to the MyReserve, the system must only be tested when the MyReserve is disconnected.

#### / IMPORTANT

#### Personal injury and/or property damage as a result of maintenance by unqualified persons

Only qualified installers who are trained and certified by SOLARWATT may perform service and maintenance work on the MyReserve.

The SOLARWATT qualified installer must check and document all important variables such as the maximum PV string open circuit voltage and maximum PV string current prior to the final handover to the system owner. In addition, the serial numbers of the MyReserve and battery modules must be documented.

#### **MPORTANT**

#### Personal injury from electric shock during improper testing of the overall system.

Only SOLARWATT qualified installers may perform service and maintenance work on the MyReserve.

Be aware that there may still be voltage at the PV terminals while the PV system or inverter is being tested, even if the DC cut-off switch has been turned off.

Battery modules must only be replaced by specialists who have received training in battery handling. This work may only be carried out with the requisite level of caution.

Module batteries may only be replaced with identical battery modules from SOLARWATT.

The general requirements for removing and inserting batteries apply.

#### **№** IMPORTANT

Switch off and isolate the MyReserve for maintenance and inspection of the PV system.

#### **⚠** IMPORTANT

Battery modules may not be thrown into a fire. This may cause them to explode.

Battery modules must not be opened. DO NOT USE a battery if it is damaged or deformed. Exposed electrolyte is hazardous for the skin and eyes.

A defective battery module can also entail the risk of electric shock and high short-circuit currents.

The following safety precautions should be taken when working with battery modules:

- Remove watches, rings and other metal objects.
- · Use tools with insulated handles.
- Do not place tools or metal parts on the battery modules.
- Switch off the inverter and the DC cut-off switch before connecting or disconnecting the battery connections.
- Check whether the battery modules have been inadvertently grounded. If this is the case, disconnect the source of the ground. Contact with part of a grounded battery module can cause electric shock. The likelihood of electric shock can be reduced if the ground is disconnected during setup and maintenance (this applies to equipment and disconnected battery supply lines without grounded supply circuits).

#### Conduct in the event of a malfunction

Check the LED indicator. If an error code (see chapter "MyReserve Command LED indicator") is shown, carry out the suggested solutions listed under Status. If the problem persists, contact Technical Support at +49 88 95 333 for Germany or your local SOLARWATT office.

#### MyReserve critical states

- · Electrolyte leaking out
- Strong, pungent smell
- Development of smoke
- Storage battery burning

Immediately leave the installation location and then call the emergency services

UK: 999/112

**AUS: 000** 



#### Firefighting measures

In the event that the battery is exposed to excessive heat such as an external fire, observe the following:

The battery's primary products of combustion are carbon dioxide (CO<sub>2</sub>) and water vapor (H<sub>2</sub>O). Significantly smaller quantities of carbon dioxide (CO), hydrofluoric acid (HF) and other gaseous intermediate products are released as well. Dusts of nickel oxide, cobalt oxide, manganese oxide (with NMC cells) must also be taken into account. Unsuitable extinguishing agent: Water jets, Type D extinguishers

Suitable extinguishing agents: Sand, dry extinguishing powder, carbon dioxide, Type PM12i metal fire extinguishers.

If the battery is exposed to fire but is not yet burning, water is a suitable extinguishing and cooling agent. However be aware of using water on anything still conducting electricity otherwise there is a risk of electrocution.

#### Instructions for firefighting measures

- As long as the battery has not yet overheated, the system can be cooled down using carbon dioxide or a jet of water, provided that the following warnings are kept in mind.
- When extinguishing with water or other electrically conductive extinguishing agents avoid direct con-
- tact with exposed metal parts and cable cores, there is a risk of electric shock from DC voltage of up to 1.000 V and AC voltage of up to 230 V.
- 3. Do not inhale fumes, or use a self-contained breathing apparatus. If possible, wear a full protection suit.
- 4. The battery's heating value is approximately 140 MJ.

#### Cleaning

#### **⚠** IMPORTANT

#### Damage to the data plate of the MyReserve with use of unsuitable cleaners.

Do not clean the MyReserve with alcohol or other chemical cleaners. Only use a clean damp rag with a mild detergent or similar to clean the device.

#### **Packaging**

#### **MIMPORTANT**

The components of the MyReserve are delivered in separate packaging units. Please inspect the delivery for damage and completeness.

If damage is evident on the packaging, please make a note of this on the delivery documentation and have the supplier or delivery driver sign it.

Reject heavily damaged packages.

#### **DANGER**

#### BE SAFE Avoid Life-threatening dangereous situations and DO NOT install damaged components

Do not accept battery storage housings and battery modules in externally damaged packaging and never install them.

In this case, contact your Distributor or local SOLARWATT office immediately.

#### Storage

#### **M** DANGER

#### Dangerous conditions caused by improper storage / handling of the battery modules and/or overall system

- Storage of the battery modules must take place under specific conditions.
- Do not store battery modules in environmental temperatures less than -20°C and above 55°C.
- Do not store or expose battery modules to direct sunlight.
- Do not store battery modules with highly flammable or corrosive substances.
- Do not throw battery modules into fire, do not open and / or dismantle them.
- Do not expose battery modules to air humidity above 85 % (non-condensing) and/or do not store them outdoors.

#### **Transport**



Damage or defects due to improper handling / transport of the MyReserve or battery module

Refer to the document "MyReserve Pack Handling and Transport Instructions" for recommended transport and handling directions.

#### **⚠** IMPORTANT

Should it be necessary to return the product, reseal the holes with adhesive tape or similar material. If no suitable tape is available, slide the battery module carefully back into the packaging. Ensure that nothing, especially nothing metallic, could get into the battery module during transport.

#### **Environment**



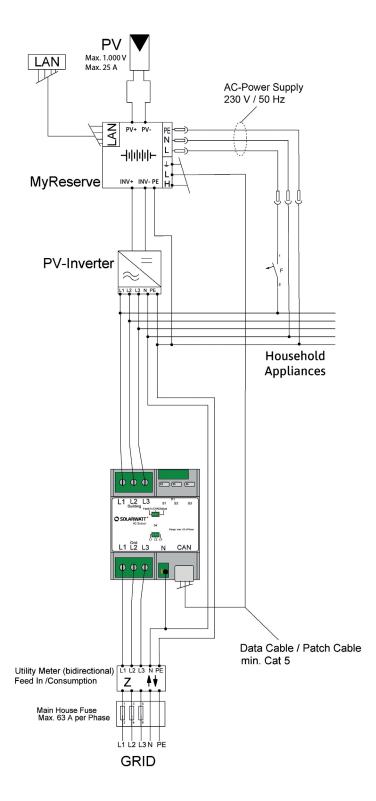
Environmental damage and life-threatening personal risk can occur due to improper handling / disassembly and disposal!

Only SOLARWATT qualified installers may carry out the disassembly and disposal of the battery system.

#### Further applicable documents

- MyReserve 25 Installation and Operating Instructions
- MyReserve Command 25 data sheet
- MyReserve Pack 24.3 or MyReserve Pack 24.3 (IP54) data sheet
- · AC-Sensor Flex data sheet
- AC Sensor Flex installation instructions
- MyReserve Pack Handling and Transport Instructions
- EnergyManager Installation Instructions
- Weidmüller PV plug Installation Instructions

#### Wiring diagram



# MYRESERVE MAXIMUM EFFICIENCY. CERTIFIED SECURITY. GUARANTEED PERFORMANCE.

# Any Questions?

Your customer advisor or our technical support will be happy to help you.

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