

# Technical Note

## UK INSTALLATION BEST PRACTICE

This tech note focuses on best practice for installing SunPower Reserve systems, taking into account UK-specific conditions, such as the prevalence of outdoor installations and the common use of weather covers.

**IMPORTANT:** Before installing any SunPower Reserve system, carefully read and follow the latest SunPower Reserve Safety and Installation Instructions available at [www.sunpower.maxeon.com/int/InstallGuideReserve](http://www.sunpower.maxeon.com/int/InstallGuideReserve)

### Consideration of Installation Location

In the UK, outbuildings are the preferred location for installing SunPower Reserve systems. This is driven by a combination of factors:

- **New Fire Safety Guidelines:**  
Recent guidelines strongly recommend separating battery systems from living spaces to enhance fire safety. Always ensure the latest local regulations are closely followed.
- **Prevalence of Outdoor Installations:**  
Outdoor installations are common in the UK.
- **Suitable Outbuilding Options:**  
The UK housing stock often features detached garages, sheds, or utility rooms that are ideal for housing battery systems. These structures provide:
  - Good Airflow: Crucial for ventilation and temperature regulation
  - Security: Protection from the elements and potential damage
- **For safety reasons, installations in lofts should be avoided at all times.**

While consistent temperatures can make indoor installations attractive, fire safety should be the top priority.

### Consideration of Weather Protection

Outdoor installations in the UK necessitate robust weather protection due to the country's variable climate. SunPower Reserve systems must be shielded from:

- Rain
- Snow
- Direct Sunlight

Options for weather protection include **installing the product on a north facing wall, making use of weatherproof canopies or another form of weather shelter.**

A dedicated canopy designed for batteries or inverters is an effective solution. As a general recommendation, installers may follow the following recommended guidelines:

- Recommended width of the canopy: More than 0.3 m from the inverter on each side
- Length extending from the wall: 0.5 m
- Recommended height from the inverter: > 0.3 m

## Consideration of Microclimate

The UK's diverse microclimates can impact battery performance and lifespan. Installers should consider the following:

- **Coastal Areas:**  
Salt spray can corrode components - SunPower Reserve system should not be mounted outdoors in areas with salt spray as this can lead to corrosion and fire hazards. Salt areas are defined as regions within 500 meters of the coast or areas susceptible to sea breezes.
- **Inland Regions:**  
Temperature extremes can affect battery efficiency. Enhanced ventilation might be needed to prevent overheating.

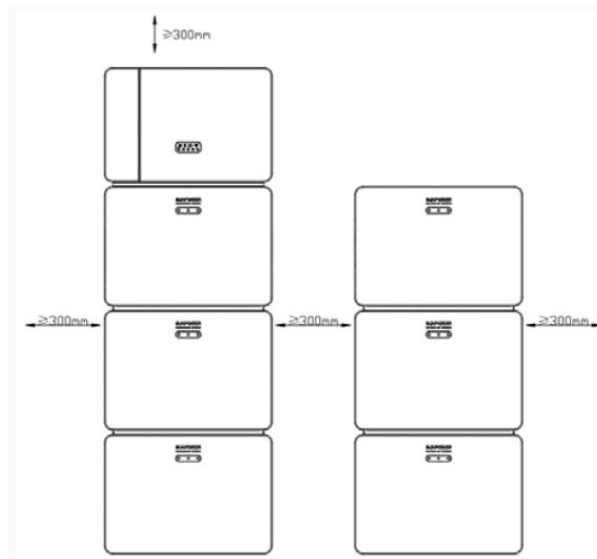
## Safety and Compliance: Overview

- **Compliance with UK Electrical Regulations:**  
Installations must adhere to the Wiring Regulations (BS 7671).
- **Certified Electrician Required:**  
All installations must be carried out by a certified electrician.
- **High Voltage Warning:**  
Beware of electrical voltage. The product operates at high voltages.
- **Disconnect Power Before Servicing:**  
Danger to life due to high voltages in the inverter. Observe a waiting time of 5 minutes. Prior to performing any work on the inverter, disconnect it from all voltage sources as described in this document.
- **Emergency Response:**
  - **Electric Shock:** Do not touch non-insulated parts or cables. Disconnect the product from voltage sources and make sure it cannot be reconnected before working on the inverter or battery pack.
  - **Fire:** Contact emergency services immediately.

## Installation Requirements: General

- **Ensure Structural Integrity:**  
The mounting surface must be strong enough to support the system's weight and preferably made of non-flammable material.

- **Maximize Ventilation:**  
Maintaining adequate airflow is crucial for optimal performance and preventing overheating. Refer to the SunPower Reserve Safety & Installation Instructions document for spacing guidelines, ensuring sufficient clearance around the unit.
- **Mounting Space:**  
Ensure sufficient clearance around the product to ensure sufficient space for installation, maintenance and heat dissipation.



- **Avoid Direct Sunlight:**  
Position the unit to minimize exposure to direct sunlight, which can lead to overheating and power derating.
- **Accessibility for Maintenance:**  
Ensure easy access for routine maintenance, including visual inspections, cleaning, and potential component replacement.