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sonnenProtect 2500/AU – Update – Operating Instructions

This document is to be read in conjunction with KD-336 | Part no. 22009 | EN | X01. Product, instruction and operational details supersede those printed with the sonnenProtect1300 operating instructions.

Document Number	KD-337 | Part no. 22010 | EN | X00/AU

1.2	Designation in this document	Complete designation	Designation in this document
		sonnenBatterie eco 8.2	Storage system
		sonnenProtect 2500	sonnenProtect
		eco 8.2/6, 8.2/8, 8.2/10, 8.2/12, 8.2/14, 8.2/16	Battery capacity range

2.1	Safety	Intended use
		The sonnenProtect 2500 is an emergency power unit designed to supplement the sonnenBatterie eco 8.2.

3.1	Technical Data	sonnenProtect 2500

Table 2: Technical data

System data	
Maximum power (2 sec.)	2,500 W
Nominal power	2,500 W
Output voltage (AC)	240 V +/- 10 %
Nominal frequency	50 Hz
Network configuration in emergency operation	TN-C
Operating concept	Single-phase power supply via plug outlet and/or wired connection. The switch to emergency operation takes place automatically via storage system.
Switchover time	0 sec
Dimension / Weight	
Dimensions (H/W/D) in mm	235/150/124
Weight in kg	approx. 2 kg
Safety	
Protection class	IEC 61009-1; AS/NZ 61009-1
Degree of protection	IP21
Protective functions	Protective functions Overcurrent & Earth Leakage

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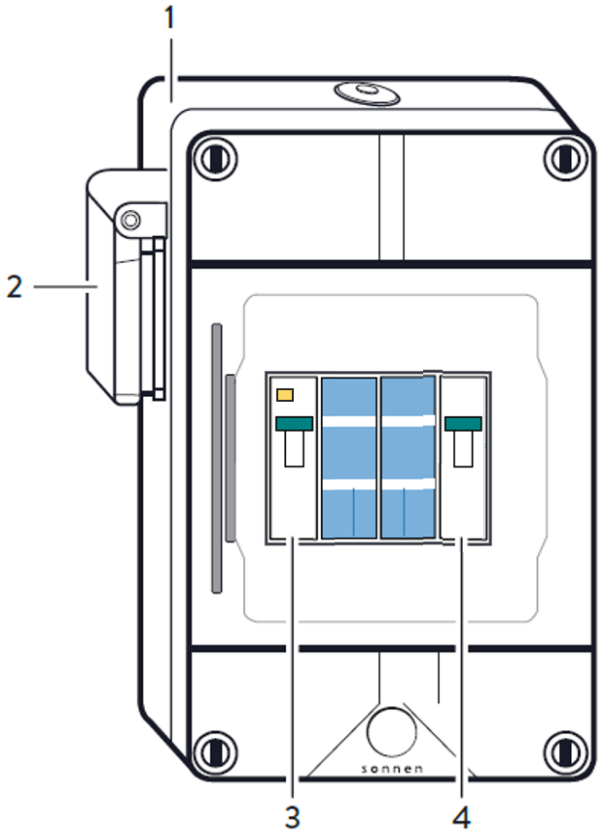
3.2 System Components

Figure 1: System components sonnenProtect



No.	Designation
1	sonnenProtect2500
2	GPO (Socket Outlet)
3	30mA RCD
4	10A MCB (Miniature Circuit Breaker)

Table 3: Description of the system components

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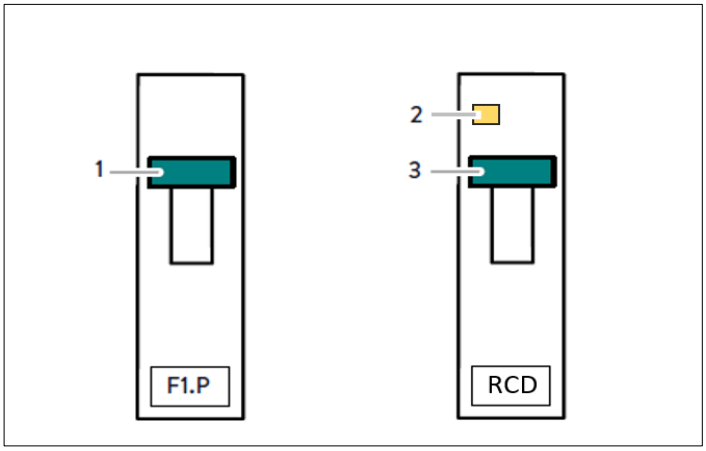
3.2.2 Control and display elements

Figure 1: System components sonnenProtect



No.	Designation	Function
1	MCB (Miniature circuit Breaker) – 10A	Reversing the switch will activate or deactivate the socket outlet of the sonnenProtect.
2	RCD Test Key	Pressing the test key simulates an insulation fault, thereby testing the function of the RCD protective device.
3	RCD Reset	Reversing the switch will activate or deactivate the power supply to the MCB.

Table 4: Description of the control and display elements

4.1 Function — Basic principle

The plug outlet and/or dedicated circuit supplied by the sonnenProtect supplies electrical power both in grid and emergency operation. The storage system with sonnenProtect automatically toggles between grid operation to emergency operation. The switchover time between grid and emergency operation is stated in the technical data.

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4.2 Function — Grid operation – no grid outage

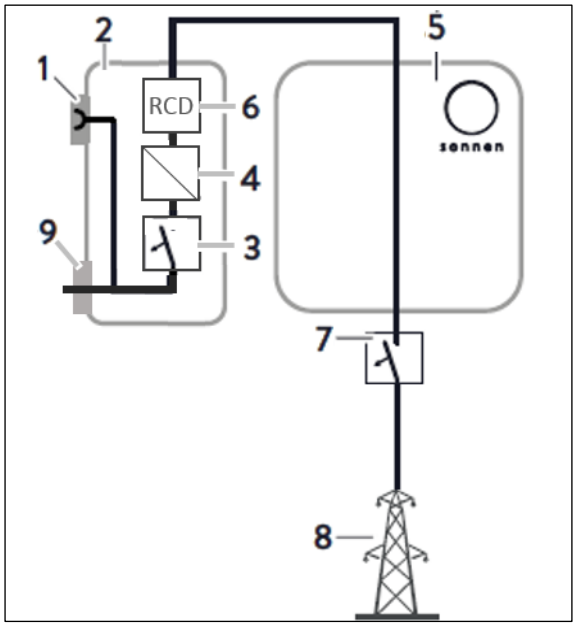

Figure 3: Grid operation

In grid-connection operation protection against indirect contact is ensured by the residual current device (RCD) at the feed to the socket outlet of the sonnenProtect unit.

4.3 Function — Emergency operation – grid outage

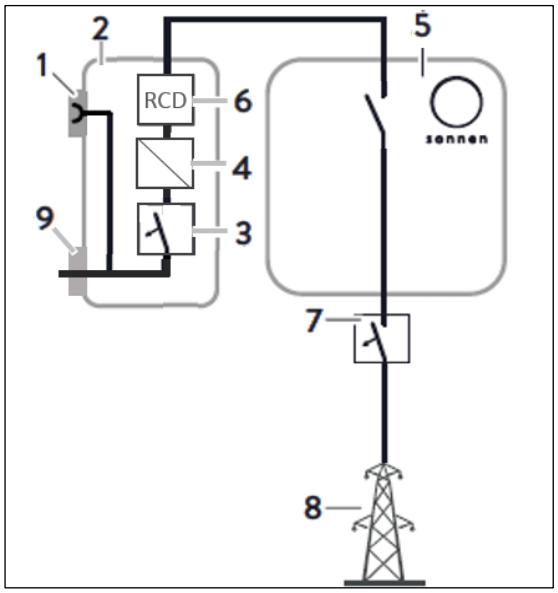

Figure 4: Emergency backup operation

In an emergency backup or no grid-connection operation protection against indirect contact is ensured by the residual current device (RCD) at the feed to the socket outlet of the sonnenProtect unit.

If a grid outage occurs, the connection to the public grid is disconnected in the storage system. The plug outlet (1) is supplied with electrical power from the storage system until the battery's minimum charging status is achieved. If an insulation fault occurs (RE < RAL), then the RCD terminates the connection to the MCB and socket outlet. When the insulation fault no longer exists, the connection to the plug outlet is re-established once the RCD reset switch in reversed.

When in backup mode the electrical power will be supplied until the backup buffer of the storage system batteries is depleted. Once the backup buffer is used up and the battery's minimum state of charge has been reached, the plug outlet of the sonnenProtect is no longer supplied with electrical power.

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1	Socket outlet of the sonnenProtect
2	sonnenProtect
3	F1.P MCB (miniature Circuit Breaker) – 10A
4	Control relay
5	Storage system
6	RCD (Residual Current Device) – 30 mA
7	ESS AC Isolator
8	Grid connection (electrical mains)
9	Optional Direct Outlet to wired Circuit

The storage system switches back to grid operation with a delay after a grid outage. This can take a few minutes. During this time the socket outlet is supplied with power in emergency operation.

5.1 Commissioning the storage system

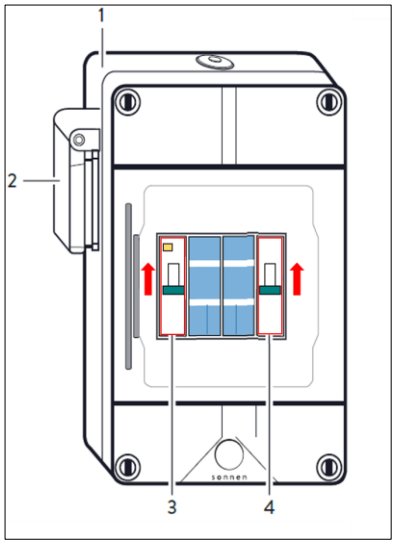

Figure 14: Switching on the F1.P

► Switch on / reset the RCD (Residual Current Device) – 30 mA
► Switch on the F1.P MCB (miniature Circuit Breaker)