

SUNNY BACKUP-System

Simple

- > Can be integrated in existing systems
- > Pre-configured sets for different power classes

Affordable

- > Only small battery required due to integration of PV-system

Flexible

- > Single- and three-phase systems are possible
- > Extendable
- > Power classes from 5 up to 100 kW available

Efficient

- > Power Supply and battery charging from the grid
- > Continuously high PV-efficiency

Reliable

- > Automatic switching to backup supply in only approx. 20 milliseconds
- > Independent disconnection device in accordance with DIN VDE 0126-1-1
- > 5 years SMA Warranty



SUNNY BACKUP-System

Solar power when the grid is down

The new Sunny Backup-System allows PV-plant owners to use their existing PV-system for the supply of important consumers in case of grid failures. As an add-on to the PV-plant the Sunny Backup automatically switches to island supply within approx. 20 milliseconds in case of a grid failure. New and existing PV-plants can be equipped with the Sunny Backup – without affecting the system efficiency. And even better: The integration of the PV-system keeps the battery small and affordable, due to the fact that it is then only necessary in the nighttime. SMA offers the Sunny Backup-System as pre-configured set for all power ranges from 5 kW up to approx. 100 kW – easy to install and easy to extend later.

Technical Data SUNNY BACKUP-System

	Sunny Backup Set M	Sunny Backup Set L	Sunny Backup Set XL
General information			
Number of phases	1-phase	3-phase	3-phase
Nominal voltage / frequency	230 V / 50 Hz	3 x 230 V / 400 V / 50 Hz	3 x 230 V / 400 V / 50 Hz
Number of Sunny Backup 5000 (SBU)	1	3	6 / 9 / 12
Switching unit (AS-Box)	AS-Box M	AS-Box L	AS-Box XL
PV-System			
Nom. AC-PV Power / AC-PV-current	5.7 kW / 25 A	30 kW / 3 x 44 A	110 kW / 3 x 160 A
Independent disconnection device (DIN VDE 0126-1-1)	yes	yes	yes
Consumers			
Nom. power / current in grid operation	8 kW / 35 A	44 kW / 3 x 63 A	110 kW / 3 x 160 A
Max. backup power (duration / 30 min. / 1 min)	5 kW / 6.5 kW / 8.4 kW	15 kW / 19.5 kW / 25.2 kW	2/3/4x(15 kW/19.5 kW/25.2 kW)
Battery			
Type	Fleece battery (AGM)	Fleece battery (AGM)	Fleece battery (AGM)
Nominal voltage (array / block)	48 V / 12 V	48 V / 12 V	48 V / 12 V
Energy / capacity (C10)	6.7 kWh / 142 Ah	13.4 kWh / 284 Ah	2/3/4 x (13.4 kWh / 284 Ah)
Number of blocks	4	8	2/3/4 x 8
Duration of usage (according to EUROBAT)	> 12 years	> 12 years	> 12 years
Mechanical Data			
SBU (width / height / depth in mm)	467 / 612 / 235	467 / 612 / 235	467 / 612 / 235
AS-Box (width / height / depth in mm)	600 / 600 / 210	600 / 600 / 210	1000 / 1000 / 300
Batteries per block (width / height / depth in mm)	498 / 230 / 177	498 / 230 / 177	498 / 230 / 177
Weight per (SBU / AS-Box / battery block)	63 kg / 35 kg / 54.5 kg	63 kg / 45 kg / 54.5 kg	63 kg / 130 kg / 54.5 kg
Ambient Conditions			
Ambient temperature (SBU, AS-Box)	-25 °C ... +50 °C	-25 °C ... +50 °C	-25 °C ... +50 °C
Enclosure type, DIN EN 60529 (SBU, AS-Box)	IP30 / IP65	IP30 / IP65	IP30 / IP65
Accessories			
Cables (Battery connection up to 3 m / communication)	included	included	included
Generator connection	optional (8 kW)	optional (30 kW)	optional (110 kW)

Basic principle of a PV-system with the Sunny Backup

