

SUNNY BACKUP SET M / L / XL

SBU-SET-M / SBU-SET-L / SBU-SET-XL



Simple

- Can be integrated into existing and new PV plants
- Pre-configured sets for various performance classes

Flexible

- Single and three-phase systems are possible
- Modularly extendable
- Capacities from 5 kW to 100 kW available

Efficient

- Small battery through integration into the PV plant
- Power supply and battery charging over the grid
- Continuously high PV efficiency

Reliable

- Automatic switching to backup in only approx. 20 milliseconds
- Automatic disconnection per DIN VDE 0126-1-1 and AS 4777

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Solar power – even in the event of grid failure

Greatest performance and user benefits along with the lowest investment and operating costs: in comparison with conventional emergency power systems, the Sunny Backup System scores well. As an add-on to the PV plant the Sunny Backup automatically switches to stand-alone power supply within approximately 20 milliseconds of a grid failure. Both new and existing PV plants can be equipped with a Sunny Backup System – with no effect on PV efficiency. And the best part: due to the integration of the PV plant, a small and therefore low-cost battery can be implemented as it is usually only needed to bridge the night hours.

Technical data	SUNNY BACKUP Set M	SUNNY BACKUP Set L	SUNNY BACKUP Set XL
Output (loads)			
Nominal power / current during grid operation	8 kW / 35 A	44 kW / 3 x 63 A	110 kW / 3 x 160 A
Backup power (duration / 30 min / 1 min)	5 kW / 6.5 kW / 8.4 kW	15 kW / 19.5 kW / 25.2 kW	up to 60 kW / 78 kW / 100 kW
Number of phases (grid operation / backup operation)	3 / 1	3 / 3	3 / 3
Voltage (range)	230 V (187 - 253 V)	230 V (187 - 253 V)	230 V (187 - 253 V)
Frequency (range)	50 Hz (45 to 55 Hz)	50 Hz (45 to 55 Hz)	50 Hz (45 to 55 Hz)
Permissible grid structure	TN / TT	TN / TT	TN / TT
Typical interruption time in the event of power outage	20 ms	20 ms	20 ms
Input PV plant			
Nominal AC PV output / current	5.7 kW / 25 A	30 kW / 3 x 44 A	110 kW / 3 x 160 A
Compatible PV inverters	all SB and SMC 4600A	all SB and SMC	all SB and SMC
Input battery			
Nominal voltage / number of blocks	48 V / 4 x 12 V	48 V / 8 x 12 V	48 V / 32 x 12 V
Type / energy / capacity per block	AGM / 6.8 kWh / 142 Ah	AGM / 13.6 kWh / 142 Ah	AGM / 54.4 kWh / 142 Ah
Service life (according to Eurobat)	> 12 years	> 12 years	> 12 years
Efficiency / internal consumption			
Max. efficiency backup operation	95 %	95 %	95 %
Internal consumption day / night (Silent Mode)	48 W / 32 W	114 W / 69 W	360 W / 230 W
Protection devices			
DC reverse polarity protection / total discharge protection	●/●	●/●	●/●
AC short-circuit / AC overload	●/●	●/●	●/●
Grid monitoring (SMA Grid Guard) / galvanic isolation	●/●	●/●	●/●
General data			
Dimensions SBU (W / H / D) in mm	467 / 612 / 235	467 / 612 / 235	467 / 612 / 235
Dimensions AS-Box (W / H / D) in mm	600 / 600 / 210	600 / 760 / 210	1000 / 1600 / 300
Dimensions battery per block (W / H / D) in mm	498 / 230 / 177	498 / 230 / 177	498 / 230 / 177
Weight per (SBU / AS-Box / battery block)	63 kg / 29 kg / 54.5 kg	63 kg / 41 kg / 54.5 kg	63 kg / 180 kg / 54.5 kg
Operating temperature range	-25 °C ... +50 °C	-25 °C ... +50 °C	-25 °C ... +50 °C
Protection rating (SBU, AS-Box)	IP30 / IP65	IP30 / IP65	IP30 / IP65
Features / function			
Integrated bypass in the event of faults / test operation	●/●	●/●	●/●
State of charge calculation / generator input	●/○	●/○	●/○
Warranty SBU 5000 (5 years / 10 years)	●/○	●/○	●/○
Battery warranty (2 years), AS-Box warranty (5 years)	●	●	●
Certificates and permits	www.SMA-Solar.com	www.SMA-Solar.com	www.SMA-Solar.com
Accessories			
Battery cables / DC distributor / communication cables	3 m / ○ / 5 m	6 m / ● / 5 m	6 m / ● / 5 m
Battery fuses "BATFUSE"	○	○	○
Interfaces (RS485 PB / Multiclusterv PB)	○/○	○/○	●/●
Additional battery parallel / other battery	○/○	○/○	○/○
● Standard features ○ Optional – Not available			
Last updated: May 2010			
Type designation	SBU-Set-M	SBU-Set-L	SBU-Set-XL

