

Batteries in Sunny Island Systems

List of Approved Batteries



The Sunny Island product family (SI3.0M, SI4.4M, SI6.0H and SI8.0H) is equipped with an integrated battery management for lead-acid batteries of type FLA and VRLA.

It is also possible to connect an external battery management that uses different battery technologies.

WARNING

Danger to life due to fire or explosion when batteries are fully discharged

A fire may occur due to incorrect charging of fully discharged batteries. This can result in death or serious injury.

- Before commissioning the system, verify that the battery is not fully discharged.
- Do not commission the system if the battery is fully discharged.
- If the battery is fully discharged, contact the battery manufacturer for further proceedings.
- Only charge fully discharged batteries as instructed by the battery manufacturer.

i Using lead-acid batteries

The battery management integrated in the Sunny Island ensures that the lead-acid battery is charged carefully, deep discharge is avoided and the state of charge of the battery is determined. Prerequisite for optimum operation of the system and, in particular, for gentle treatment of the lead-acid battery is the adjustment of the parameters of the lead-acid battery to the values of each respective application recommended by the battery manufacturer (see operation and installation manual).

i Using lithium-ion and hybrid (sodium)-ion batteries

All lithium-ion and hybrid (sodium)-ion batteries supply a defined nominal current. Please pay attention to the battery manufacturer's recommendation regarding the suitable dimensioning of the battery (battery type, circuitry and number of battery modules) in order to achieve the nominal and overload currents of the various Sunny Island system constellations and applications stated in the datasheet. The full functionality for the PV storage system can only be guaranteed if the battery capacity (battery capacity and battery currents) is matched to the Sunny Island system constellation used.

The lithium-ion batteries of the following manufacturers are approved for the SMA Flexible Storage System with the Sunny Island 3.0M / 4.4M / 6.0H / 8.0H:

Manufacturer	Type	Firmware	Self-consumption systems			Battery backup systems			Off-Grid systems			Certification / Proof of conformity according to the safety guidelines
			1~	3~	Comment	1~	3~	Comment	1~	3~	Comment	
ADS-TEC	StoraXe® Home & Small Business SRS0009		✓	-	-	✓	-	-	-	-	-	Safety guidelines UNT 38.3
Akasol	neoQube		✓	-	-	-	-	-	-	-	-	Not specified
	neoRack		✓	✓	-	✓	✓	Only for Sunny Island 3.0M and 4.4M	✓	✓	Only for Sunny Island 3.0M and 4.4M	Not specified
Axitec	AXITEC AXIstorage Li7S	2.04	✓	✓	-	✓	✓	-	✓	✓	Combustion generator mandatory	Not specified
	AXITEC AXIstorage Li9S	2.06	✓	✓	-	✓	✓	-	✓	✓	Combustion generator mandatory	Not specified
	AXITEC AXIstorage Li10S	2.06	✓	✓	-	✓	✓	-	✓	✓	Combustion generator mandatory	Not specified
BMZ	BMZ ESS 3.0	2.04	✓	✓	-	✓	✓	-	✓	✓	-	Not specified
	BMZ ESS 7.0	2.04	✓	✓	-	✓	✓	-	✓	✓	Combustion generator mandatory	Not specified
	BMZ ESS 9.0	2.06	✓	✓	-	✓	✓	-	✓	✓	Combustion generator mandatory	Not specified
	BMZ ESS X	2.06	✓	✓	-	✓	✓	-	✓	✓	Combustion generator mandatory	Not specified
BYD	B-BOX	2.7	✓	✓	-	✓	✓	-	✓	✓	-	Safety guidelines TÜV Süd
	Battery-Box LV	1.0	✓	✓	-	✓	✓	3~ only for Sunny Island 4.4M	-	-	-	Not specified
GNB	Sonnenschein lithium	2.06	✓	✓	-	✓	✓	-	✓	✓	Combustion generator mandatory	Not specified
Hoppecke	sun powerpack premium	1.1.0 r11767	✓	✓	-	✓	✓	-	✓	✓	-	Not specified
IBC	SolStore XX Li	2.06	✓	✓	-	✓	✓	-	✓	✓	Combustion generator mandatory	Not specified
Leclanché	Apollion Cube	2.06	✓	✓	-	✓	✓	-	✓	✓	Combustion generator mandatory	Not specified

Manufacturer	Type	Firmware	Self-consumption systems			Battery backup systems			Off-Grid systems			Certification / Proof of conformity according to the safety guidelines
			1~	3~	Comment	1~	3~	Comment	1~	3~	Comment	
LG Chem	RESU 5.0		✓	-	-	-	-	-	-	-	-	Not specified
	RESU 6.4 (Plus Extension Pack)		✓	-	Recommended for Sunny Island 3.0M and 4.4M	✓	-	Only for Sunny Island 3.0M and 4.4M	-	-	-	Not specified
	RESU 3.3		✓	-	Only for Sunny Island 3.0M and 4.4M	-	-	-	-	-	-	Not specified
	RESU 6.5		✓	-	-	✓	-	Only for Sunny Island 3.0M	-	-	-	Not specified
	RESU 10		✓	-	-	✓	-	Only for Sunny Island 3.0M and 4.4M	-	-	-	Not specified
	RESU 13*	1.7.0.3	✓	-	-	✓	-	Only for Sunny Island 4.4M und 6.0H	-	-	-	Not specified
	RESU Plus Extension Kit		✓	-	Only for Sunny Island 3.0M and 4.4M	✓	-	Only for Sunny Island 3.0M and 4.4M	-	-	-	Not specified
Mercedes-Benz Energy GmbH	Mercedes-Benz Energiespeicher Home	29.30 - 5.X	✓	-	Recommended for Sunny Island 3.0M and 4.4M	✓	-	Only for Sunny Island 3.0M and 4.4M	-	-	-	Safety guidelines UNT 38.3
	Mercedes-Benz Energiespeicher Home (2.0)	10.xx	✓	-	-	-	-	-	-	-	-	Not specified
Murata	Murata PLC-BMU solution with IJ1101M		-	-	-	-	-	-	✓	✓	-	
Sony	Controller IJ1004C Module fORTELION IJ1001M		✓	✓	-	✓	✓	-	✓	✓	-	Not specified
SSL Energie GmbH	eSafe©	1.0.35	✓	✓	-	✓	✓	-	✓	✓	-	Not specified
Tevolt	Tevolt Lithium-Ion storage Li10	3.17	✓	✓	-	✓	✓	-	✓	✓	-	Not specified
	Tevolt Lithium-Ion storage Li 20 and higher	1.11	✓	✓	-	✓	✓	-	✓	✓	-	Not specified
	TS-Series	1.06	✓	✓	-	✓	✓	-	✓	✓	-	Not specified

* RESU13 is designed to be discharged under power of 5kW in all application modes, Self-consumption- and Battery Backup Systems. The overload capability of the battery is limited to a duration of 3 sec for all conditions exceeding nominal power. Please be sure to operate the system as designed.

The hybrid (sodium)-ion batteries of the following manufacturers are approved for the SMA Flexible Storage System and the Sunny Island 3.0M / 4.4M / 6.0H / 8.0H:

Manufacturer	Type	Firmware	Self-consumption systems			Battery backup systems			Off-Grid systems			Certification / Proof of conformity according to the safety guidelines
			1~	3~	Comment	1~	3~	Comment	1~	3~	Comment	
Aquion Energy*	Aspen 48S / 48M		✓	✓	-	✓	✓	-	✓	✓	-	Not specified

* If services are required, contact Aquion Energy.

The lithium-ion batteries of the following manufacturers are approved for the Sunny Island 4548-US / 6048-US:

Manufacturer	Type	Firmware	Self-consumption systems			Battery backup systems			Off-Grid systems			Certification / Proof of conformity according to the safety guidelines
			1~	3~	Comment	1~	3~	Comment	1~	3~	Comment	
Axitec	AXITEC AXIstorage Li7S	2.04	✓	✓	-	✓	✓	-	✓	✓	Combustion generator mandatory	Not specified
	AXITEC AXIstorage Li9S	2.06	✓	✓	-	✓	✓	-	✓	✓	Combustion generator mandatory	Not specified
	AXITEC AXIstorage Li10S	2.06	✓	✓	-	✓	✓	-	✓	✓	Combustion generator mandatory	Not specified
BMZ	BMZ ESS 3.0	2.04	✓	✓	Always check UL compatibility with manufacturer	✓	✓	Always check UL compatibility with manufacturer	✓	✓	Always check UL compatibility with manufacturer	Not specified
	BMZ ESS 7.0	2.04	✓	✓	Always check UL compatibility with manufacturer	✓	✓	Always check UL compatibility with manufacturer	✓	✓	Always check UL compatibility with manufacturer Combustion generator mandatory	Not specified
	BMZ ESS 9.0	2.06	✓	✓	Always check UL compatibility with manufacturer	✓	✓	Always check UL compatibility with manufacturer	✓	✓	Always check UL compatibility with manufacturer Combustion generator mandatory	Not specified
	BMZ ESS X	2.06	✓	✓	Always check UL compatibility with manufacturer	✓	✓	Always check UL compatibility with manufacturer	✓	✓	Always check UL compatibility with manufacturer Combustion generator mandatory	Not specified
BYD	B-BOX	2.7	✓	✓	-	✓	✓	-	✓	✓	-	Safety guidelines TÜV Süd
Leclanché	Apollion Cube	2.06	✓	✓	-	✓	✓	-	-	-	-	Not specified
Tevolt	Tevolt lithium-ion storage	3.17	✓	✓	Always check UL compatibility with manufacturer	✓	✓	Always check UL compatibility with manufacturer	✓	✓	Always check UL compatibility with manufacturer	Not specified
	TS-Series	1.06	✓	✓	-	✓	✓	-	✓	✓	-	Not specified

The hybrid (sodium)-ion batteries of the following manufacturers are approved for the Sunny Island 4548-US / 6048-US:

Manufacturer	Type	Firmware	Self-consumption systems			Battery backup systems			Off-Grid systems			Certification / Proof of conformity according to the safety guidelines
			1~	3~	Comment	1~	3~	Comment	1~	3~	Comment	
Aquion Energy*	Aspen 48S / 48M		✓	✓	-	✓	✓	-	✓	✓	-	Not specified

* If services are required, contact Aquion Energy.