



SUNNY ISLAND X 30 / 50

Approved batteries and information on connecting batteries

1 Validity

This document is valid for:

- SI30-20 (Sunny Island X 30) from firmware version 3.04.xxx.R
- SI50-20 (Sunny Island X 50) from firmware version 3.04.xxx.R
- SI30-LCD-20
- SI50-LCD-20

2 Approved Batteries

The following table lists the batteries approved for the Sunny Island X (SI-30-20, SI 50-20, SI30-LCD-20, SI50-LCD-20) from SMA Solar Technology AG.

i Firmware version of the battery

The firmware versions of the batteries can be viewed via the user interface of the respective battery after successful commissioning. The correct minimum battery firmware must be installed in accordance with the manufacturer's specifications and the product instructions for the respective battery model.

i Inverter firmware version

The firmware version of the inverter can be accessed via the user interface of the inverter.

Manufacturer Pylontech

	Firmware version of the battery	Firmware version of inverter SI30-20	Firmware version of inverter SI50-20
Model: M1C	≥ 1.6 (RackBMS) / ≥ 1.23 (MBMS)	≥ 3.04.xxx.R	≥ 3.04.xxx.R

Manufacturer Tesvolt

	Firmware version of the battery	Firmware version of inverter SI30-20	Firmware version of inverter SI50-20
Model: E series	≥ 55.19.00	≥ 3.04.xxx.R	≥ 3.04.xxx.R

3 Battery Communication Connection

3.1 Recommended minimum configuration for use of different systems

The following minimum configurations are recommended for the following batteries in order to be able to use the rated power and overload capability of the Sunny Island devices. Deviation from these recommendations is possible, but may result in the system not being able to deliver the power specified in the datasheet of our devices. Especially for battery-backup or off-grid operations where no other AC sources are available, the specified configurations should be considered.

Some electrical loads (e.g., motors) may have high starting currents for a short time. These electrical loads may require a larger design with more battery modules or systems than specified by minimum configuration.

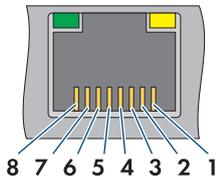
Manufacturer Pylontech

	On Grid	Off-grid	Communi- cation type	Minimum configuration SI30-20 SI30-LCD-20 (Quantity: cabinets / modules)	Minimum configuration SI50-20 SI50-LCD-20 (Quantity: cabinets / modules)	Comments
Model: M1C From firmware 1.6 (RackBMS) / From firmware 1.23 (MBMS)	✓	✓	Modbus	1 / 13	1 / 18	Usable SOC range: 5-100%

Manufacturer Tesvolt

	On Grid	Off-grid	Communi- cation type	Minimum configuration SI30-20 SI30-LCD-20 (Quantity: cabinets / modules)	Minimum configuration SI50-20 SI50-LCD-20 (Quantity: cabinets / modules)	Comments
Model: E se- ries As of firmware 55.19.00	✓	✓	Modbus	1 / 4	1 / 7	-

3.2 Pin assignment of RJ45 plug connector for battery communication via CAN bus

RJ45 plug	Pin	Signal
	1	-
	2	EN_GND
	3	-
	4	CAN_H
	5	CAN_L
	6	-
	7	Reserved
	8	-

3.3 Pin assignment of RJ45 plug connector for battery communication via Modbus TCP

When the battery communicates via Modbus, standard, non-crossover network cables must be used in accordance with the requirements for the battery communication cable.

3.4 Battery data cable requirements

The cable length and quality affect the quality of the signal. Observe the following cable requirements:

- Cable type: 100BaseTx
- Cable category: minimum CAT5e
- Plug type: RJ45 of Cat5, Cat5e or higher
- Shielding: SF/UTP, S/UTP, SF/FTP or S/FTP
- Maximum cable length between 2 nodes when using patch cables: 50 m
- UV-resistant for outdoor use

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