

SMA COM GATEWAY / SMA DATA MANAGER M

Compatibility and Application Options

1 Supported Products

i Availability of SMA products in your country

Not all SMA products are available in all countries. For information on whether an SMA product is available in your country, visit the website of your country's SMA subsidiary at www.SMA-Solar.com or contact your distributor.

The SMA Com Gateway is a media and protocol converter that integrates PV systems and components connected with each other via RS485 into the SMA Speedwire network.

The SMA Data Manager M is a data logger that acts as a system gateway and energy manager. PV system components and PV systems are integrated into the SMA infrastructure via the SMA Data Manager M using RS485 and SMA Speedwire.

Not all SMA products with RS485 interface are compatible with SMA COM Gateway / SMA Data Manager M. To determine the compatibility and functional options of the product, the following points must be observed:

- An update of devices within the RS485 bus is not possible via SMA COM Gateway / SMA Data Manager M.
- The possibility for system control of devices within the RS485 bus via SMA COM Gateway / SMA Data Manager M is limited by the performance of the RS485 bus (baud rate, number of devices within the bus) and by the scope of functions of the connected inverters (see also Power Reducer Box planning guidelines at www.SMA-Solar.com).
- A complete RS485 device parameterization via SMA COM Gateway / SMA Data Manager M may not be possible under certain circumstances. If, however, a parameterization is necessary in these rare cases, the SMA PC tool Sunny Data Control can be used for this purpose (see www.SMA-Solar.com).
- Devices that use the SMA Data1 communication protocol (transport protocol SMANet) are supported. Devices that only use the communication protocol SMA Data1 (transport protocol SunnyNet) are not supported.
- Dynamic control of connected devices via the RS485 bus is not recommended.

The device types listed in the following table are supported by SMA COM Gateway as of firmware version 1.00.01.R and the SMA Data Manager M as of firmware version 1.12.01.R (other device types and firmware versions on request):

SMA inverters

SUNNY BOY		
SWR 1800U	SB 3300	SB 5000TL-21
SWR 2100U	SB 3300-IT	SB 5000TL-US-22
SWR 2500U	SB 3300TLHC	SB 5000TL-JP-22/MP
SB 1100-IT	SB 3300TLHC-IT	SB 6000U
SB 1100U	SB 3300-11	SB 6000US
SB 1100LV	SB 3300U	SB 6000US-11
SB 1200	SB 3500TL-JP-22	SB 6000US-12
SB 1200-IT	SB 3500TL-JP-22/MP	SB 6000TL-US-12
SB 1300TL-10	SB 3600TL-20	SB 6000TL-US-22
SB 1600TL-10	SB 3600TL-21	SB 6000TL-21
SB 1700	SB 3800	SB 7000US
SB 1700-IT	SB 3800-IT	SB 7000US-11

SUNNY BOY		
SB 2000HF-30	SB 3800-11	SB 7000US-12
SB 2000HFUS-30	SB 3800U	SB 7000TL-US-12
SB 2100TL	SB 3800-US-10	SB 7000TL-US-22
SB 2500	SB 3800-US-12	SB 7700TL-US-22
SB 2500-IT	SB 4000US	SB 8000US
SB 2500HF-30	SB 4000US-12	SB 8000US-11
SB 2500HFUS-30	SB 4000TL-20	SB 8000US-12
SB 2500TLST-21	SB 4000TL-21	SB 8000TL-US-10
SB 2800i	SB 4000TL-US-22	SB 8000TL-US-12
SB 3000	SB 4200TLHC	SB 9000TL-US-10
SB 3000-IT	SB 4200TLHC-IT	SB 9000TL-US-12
SB 3000US	SB 4500TL-JP-22	SB 10000TL-US-10
SB 3000US-12	SB 4500TL-JP-22/MP	SB 10000TL-US-12
SB 3000HF-30	SB 5000TLHC	SB 11000TL-US-12
SB 3000HFUS-30	SB 5000TLHC-IT	SB3.0-1AV-41
SB 3000TL-20	SB 5000US	SB3.6-1AV-41
SB 3000TL-21	SB 5000US-11	SB4.0-1AV-41
SB 3000TLST-21	SB 5000US-12	SB5.0-1AV-41
SB 3000TLUS-22	SB 5000TL-20	SB6.0-1AV-41
SUNNY MINI CENTRAL		
SMC 4600A	SMC 6000TL-IT	SMC 9000TL-10
SMC 4600A-11	SMC 7000TL	SMC 9000TL-10/IT
SMC 5000A	SMC 7000TL-IT	SMC 9000TLRP-10
SMC 5000A-11	SMC 7000HV	SMC 10000TL-10
SMC 5000A-IT	SMC 7000HV-11	SMC 10000TL-10/IT
SMC 6000A	SMC 7000HV-11/IT	SMC 10000TLRP-10
SMC 6000A-11	SMC 7000HV-IT	SMC 11000TL-10
SMC 6000A-IT	SMC 8000TL	SMC 11000TL-10/IT
SMC 6000TL	SMC 8000TL-IT	SMC 11000TLRP-10
SUNNY TRIPOWER		
STP 5000TL-20	STP 12000TL-20	STP 25000TL-30

SUNNY TRIPOWER

STP 6000TL-20	STP 15000TL-10	STP 25000TL-JP-30
STP 7000TL-20	STP 15000TLEE-10	STP 24000TL-US-10
STP 8000TL-10	STP 15000TLHE-10	STP 30000TL-US-10
STP 8000TL-20	STP 15000TL-US-10	STP3.0-3AV-40
STP 9000TL-20	STP 15000TL-30	STP4.0-3AV-40
STP 10000TL-10	STP 17000TL-10	STP5.0-3AV-40
STP 10000TL-20	STP 20000TLEE-10	STP6.0-3AV-40
STP 10000TLEE-JP-10	STP 20000TLHE-10	STP8.0-3AV-40
STP 10000TLEE-JP-11	STP 20000TL-US-10	STP10.0-3AV-40
STP 12000TL-10	STP 20000TLEE-JP-11	STP 50-40
STP 12000TL-US-10	STP 20000TL-30	STP 50-41

SUNNY ISLAND / SUNNY BACKUP

SI3.0M-11	SI4548-US-10	SI6048-US-10
SI 2012	SI 5048	SI8.0H-11
SI 2224	SI 5048U	SBU 2200
SI4.0M-11	SI6.0H-11	SBU 5000

Additional SMA Products

- Sunny SensorBox
- Meter Connection Box
- SMA Meteo Station

2 Application

PV System Communication with Conventional RS485 Technology

In the past, RS485 was the most important data communication bus for the operational management of PV systems. Sunny WebBox, Power Reducer Box and Sunny Boy Control were communication products for ensuring parameterization, control and monitoring of SMA devices in PV systems. From today's perspective, RS485 is not longer expedient for the fulfillment of current and future requirements for system communication in scenarios such as intelligent energy management.

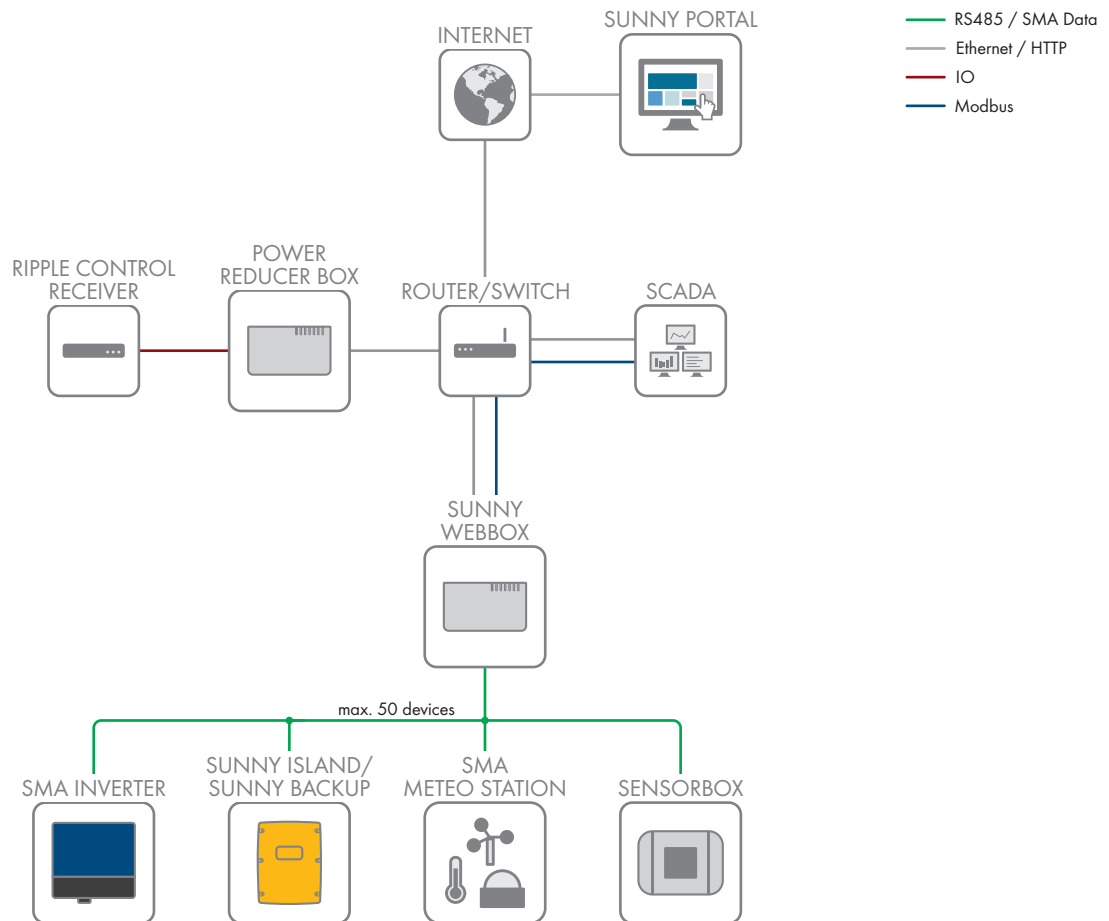


Figure 1: Example of a PV system with conventional RS485 communication

Simple system expansion with Speedwire devices in RS485 systems with SMA Com Gateway and SMA Data Manager M

With SMA COM Gateway, SMA establishes a connection between RS485 communication and SMA Speedwire. The SMA COM Gateway expands existing PV systems with RS485 data communication by devices with SMA Speedwire data communication. When replacing a data logger such as the Sunny WebBox, the SMA Com Gateway allows the use of the SMA Data Manager M or SMA Cluster Controller. Easy integration into the SMA Speedwire data communication supports incorporation into existing and future communication, PV system monitoring and control solutions (e.g., commercial energy management systems or the SMA Smart Home), thereby guaranteeing the security of investment for the PV system. Thus, investment security of the PV system is guaranteed.

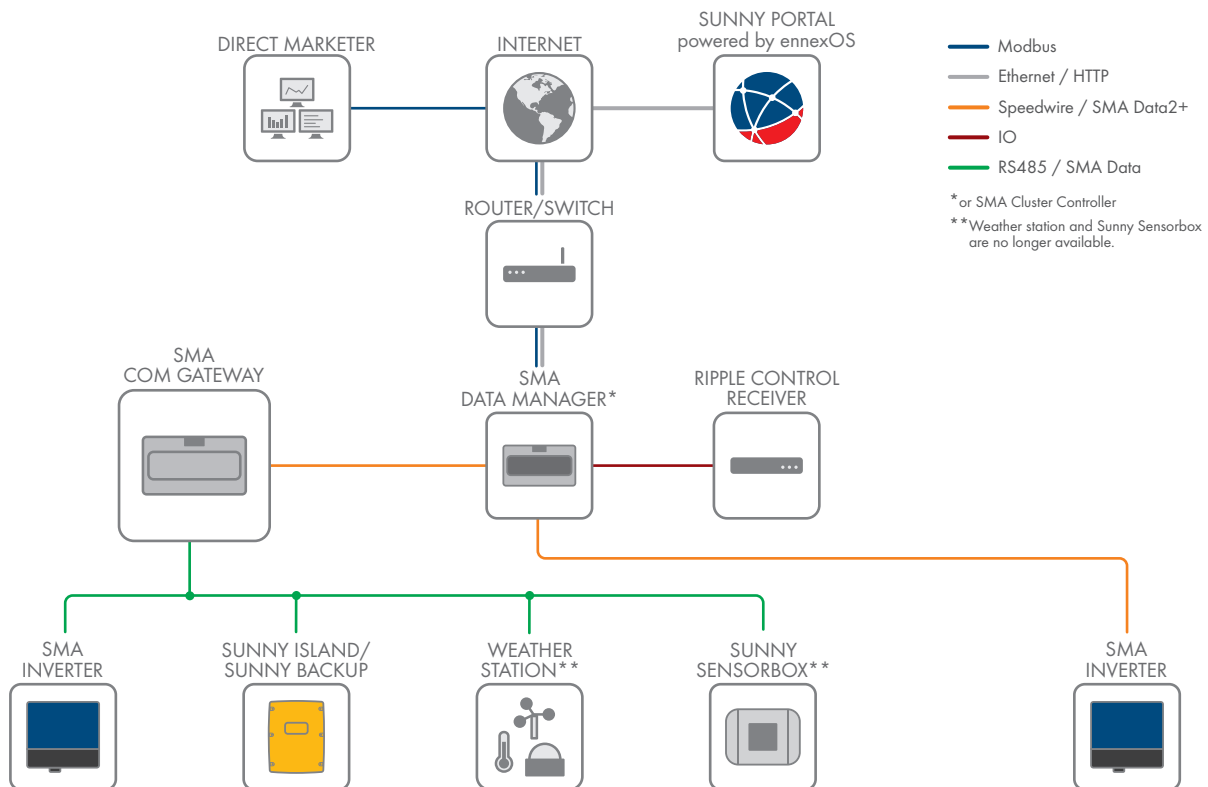


Figure 2: Simple system expansion with Speedwire devices in RS485 systems

Simple system expansion with Speedwire devices in RS485 systems with SMA Data Manager M

With the SMA Data Manager M, RS485 devices and SMA Speedwire devices can be equally integrated into the system. The SMA Data Manager M expands existing PV systems with RS485 data communication by devices with SMA Speedwire data communication. A data logger such as the Sunny WebBox or the SMA Cluster Controller can be easily replaced with the SMA Data Manager M. Easy integration into the SMA Speedwire data communication supports incorporation into existing and future communication, PV system monitoring and control solutions (e.g., commercial energy management systems or the SMA Smart Home), thereby guaranteeing the security of investment for the PV system. Thus, investment security of the PV system is guaranteed. Mixed operation of SMA Data 1 and Modbus RTU is not possible with an SMA Data Manager M (EDMM-10) alone. In this application, a protocol converter (SMA Com Gateway) is also required.

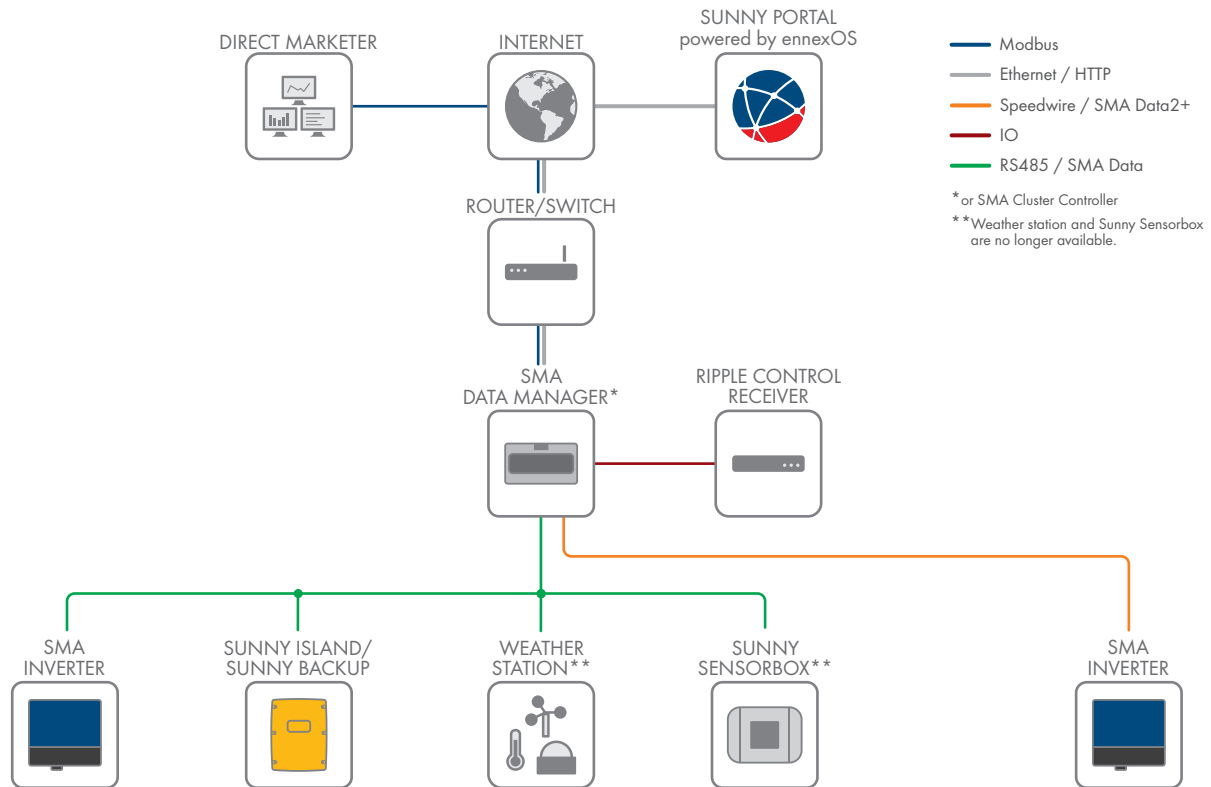


Figure 3: Simple system expansion with Speedwire devices in RS485 systems with SMA Data Manager M

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