SUNNY TRIPOWER 8.0 / 10.0
with SMA SMART CONNECTED

STP8.0-3AV-40 / STP10.0-3AV-40

Compact

- One-person installation due to low weight of 20.5 kg
- Compact design means minimum space requirements

Easy to use

- 100% plug and play installation
- Free online monitoring via Sunny Places
- Automated service thanks to SMA Smart Connected

High yields

- Use of surplus energy through dynamic active power limitation
- Yield increase without installation effort due to integrated shade management SMA ShadeFix

Combinable

- Intelligent energy management and storage solutions can be added anytime
- Can be combined with TS4-R components for module optimization

SUNNY TRIPOWER 8.0 / 10.0

Higher yields for private homes – intelligent solar power generation

The new Sunny Tripower 8.0–10.0 ensures maximum energy yields for private homes. This inverter combines the integrated SMA Smart Connected service with intelligent technology for all ambient conditions. Thanks to its extremely light design, the device can be installed quickly and easily. The Sunny Tripower can be commissioned quickly via smartphone or tablet thanks to its integrated web interface. For specific requirements on the roof, such as shading, the TS4-R module optimizers can be added into the system, with all communication and monitoring facilitated through the inverter. Current communication standards make the inverter future-proof, meaning intelligent energy management solutions as well as SMA storage solutions can be flexibly added anytime.

SMA SMART CONNECTED

Integrated service for ease and comfort

SMA Smart Connected* is free monitoring of an inverter via the SMA Sunny Portal. If an inverter fails, SMA proactively informs the PV system owner and the installer. This saves valuable working time and costs.

With SMA Smart Connected, the installer benefits from rapid diagnoses by SMA. They can thus quickly rectify the fault and score points with the customer thanks to the additional, attractive services.

ACTIVATION OF SMA SMART CONNECTED

During registration of the system in the Sunny Portal, the installer activates SMA Smart Connected and benefits from automatic inverter monitoring by SMA.

AUTOMATIC INVERTER MONITORING

SMA takes on the job of inverter monitoring with SMA Smart Connected. SMA automatically checks the individual inverters for anomalies around the clock during operation. Every customer thus benefits from SMA's many years of experience.

PROACTIVE COMMUNICATION IN THE EVENT OF FAULTS

After a fault has been diagnosed and analyzed, SMA informs the installer and end customer immediately by email. Everyone is thus optimally prepared for the troubleshooting process. This minimizes downtime and saves time and money. Regular power reports also provide valuable information about the overall system.

REPLACEMENT SERVICE

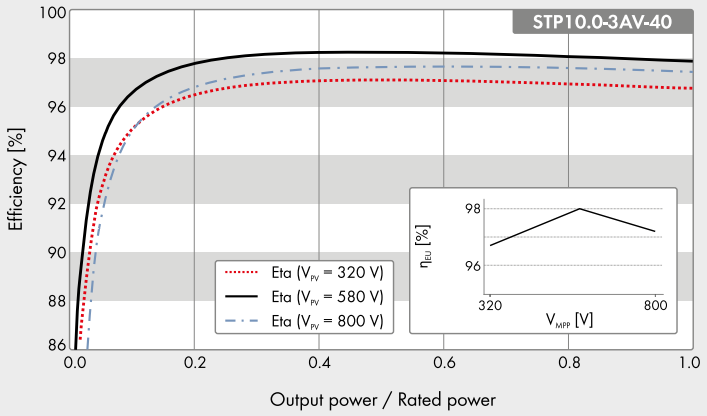
If a replacement device is necessary, SMA automatically supplies a new inverter within one to three days of the fault diagnosis. The installer can contact the PV system operator of their own accord and replace the inverter.

PERFORMANCE SERVICE

The PV system operator can claim compensation from SMA if the replacement inverter is not delivered within three days.

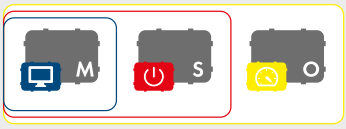
* Details: see document "Description of Services – SMA SMART CONNECTED"

Efficiency curve



Accessories (optional)

TS4-R-X



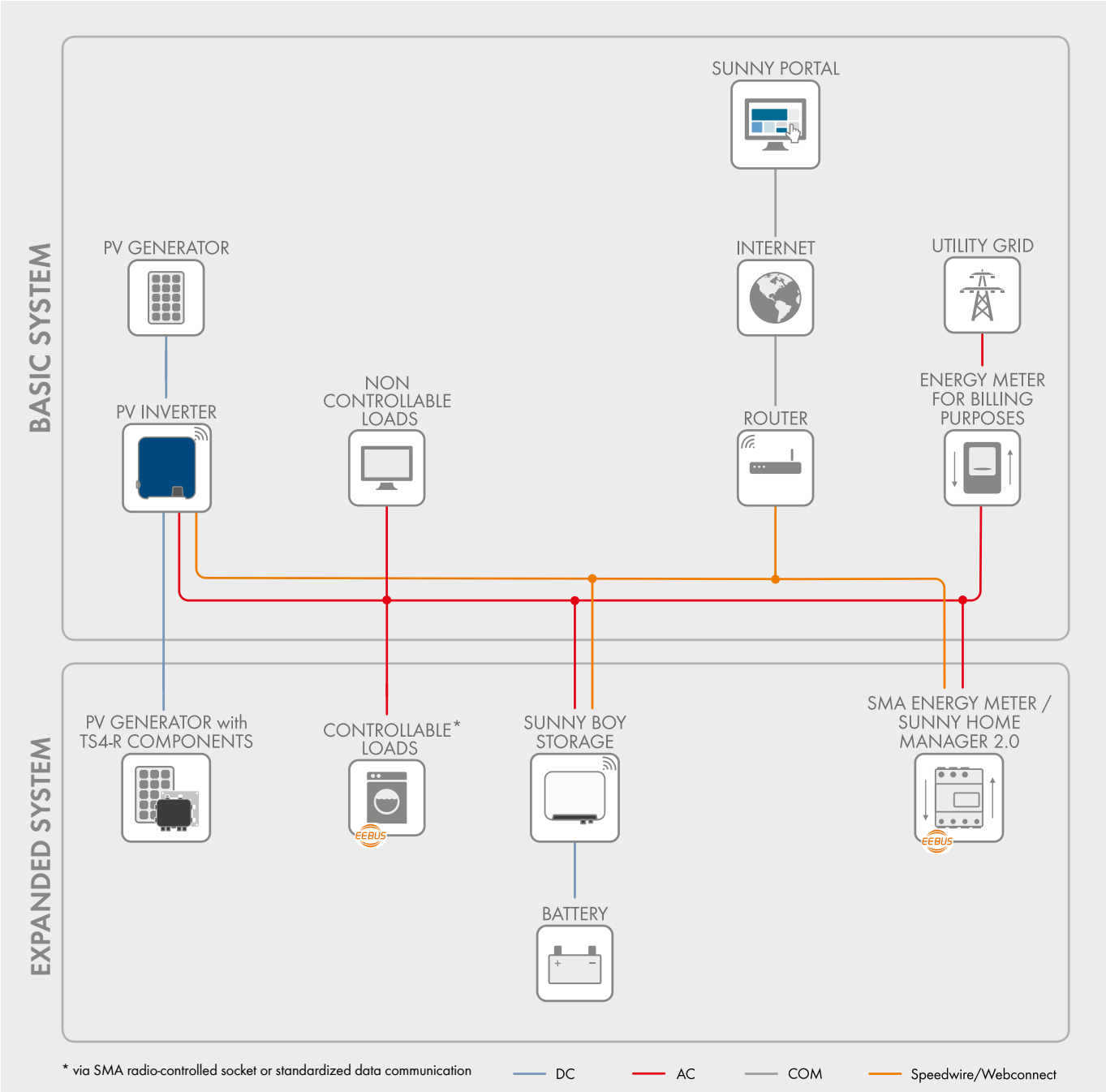
- M: Monitoring
- S: Shutdown
- O: Optimization

Gateway (GTWY)

SMA Energy Meter

● Standard features ○ Optional features – not available
Data in nominal conditions
Last updated: 11/2019

Technical data	Sunny Tripower 8.0	Sunny Tripower 10.0
Input (DC)		
Max. PV array power	15000 Wp	15000 Wp
Max. input voltage	1000 V	1000 V
MPP voltage range	260 V to 800 V	320 V to 800 V
Rated input voltage	580 V	
Min. input voltage / initial input voltage	125 V / 150 V	
Max. input current input A / input B	20 A / 12 A	
Max. DC short-circuit current input A / input B	30 A / 18 A	
Number of independent MPP inputs / strings per MPP input	2 / A:2; B:1	
Output (AC)		
Rated power (at 230 V, 50 Hz)	8000 W	10000 W
Max. apparent AC power	8000 VA	10000 VA
Nominal AC voltage	3 / N / PE; 220 V / 380 V 3 / N / PE; 230 V / 400 V 3 / N / PE; 240 V / 415 V	
AC voltage range	180 V to 280 V	
AC grid frequency / range	50 Hz / 45 Hz to 55 Hz 60 Hz / 55 Hz to 65 Hz	
Rated grid frequency / rated grid voltage	50 Hz / 230 V	
Max. output current	3 x 12.1 A	3 x 14.5 A
Power factor at rated power / displacement power factor adjustable	1 / 0.8 overexcited to 0.8 underexcited	
Feed-in phases / connection phases	3 / 3	
Efficiency		
Max. efficiency / European efficiency	98.3 % / 97.7 %	98.3 % / 98.0 %
Protective devices		
Input-side disconnection point	●	
Ground fault monitoring / grid monitoring	● / ●	
DC reverse polarity protection / AC short circuit current capability / galvanically isolated	● / ● / –	
All-pole-sensitive residual-current monitoring unit	●	
Protection class (according to IEC 61140) / surge category (according to IEC 60664-1)	I / III	
General data		
Dimensions (W / H / D)	460 mm / 497 mm / 176 mm (18.1 inches / 19.6 inches / 6.9 inches)	
Weight	20.5 kg (45.2 lbs)	
Operating temperature range	-25 °C to +60 °C (-13 °F to +140 °F)	
Noise emission, typical	30 dB(A)	
Self-consumption (at night)	5.0 W	
Topology / cooling method	Transformerless / convection	
Degree of protection (according to IEC 60529)	IP65	
Climatic category (according to IEC 60721-3-4)	4K4H	
Max. permissible value for relative humidity (non-condensing)	100%	
Features		
DC connection / AC connection	SUNCLIX / AC connector	
Display via smartphone, tablet, laptop	●	
Interfaces: WLAN / Ethernet / RS485	● / ● / ●	
Communication protocols	Modbus (SMA, Sunspec), Webconnect, SMA Data, TS4-R	
Shade management: SMA ShadeFix (integrated) / TS4-R	● / ○	
Warranty: 5 / 10 / 15 years	● / ○ / ○	
Certificates and permits (more available upon request)	AS 4777.2, C10/11, CE, CEI 0-21, EN 50438, G59/3-4, G83/2-1, DIN EN 62109 / IEC 62109, NEN-EN50438, ÖVE/ÖNORM E 8001-4-712 & TOR D4, PPC, PPDS, RD1699, SI4777, TR3.2.1, UTE C15-712, VDE-AR-N 4105, VDE0126-1-1, VFR 2014, RfG compliant	
Certificates and approvals (planned)	DEWA, IEC 61727, IEC 62116, IE-EN50438, MEA, NBR16149, NT_Ley20.571, PEA, TR3.2.2	
Country availability of SMA Smart Connected	AU, AT, BE, CH, DE, ES, FR, IT, LU, NL, UK	
Type designation	STP8.0-3AV-40	STP10.0-3AV-40



BASIC SYSTEM functions

- Easy commissioning via integrated WLAN and Speedwire interface
- Maximum transparency thanks to visualization in Sunny Portal / Sunny Places
- Safe investment through SMA Smart Connected
- Modbus as interface for third-party providers

Expanded SYSTEM FUNCTIONS

- Basic system functions
- Reduction in purchased electricity and increase in self-consumption through use of stored solar energy
- Maximum energy use thanks to forecast-based charging
- Increased self-consumption thanks to intelligent load control
- Maximum system yield through Smart module technology

With SMA Energy Meter

- Maximum system usage through dynamic limiting of feed-in to the grid between 0% and 100%
- Visualization of energy consumption

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