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

Sunny Tripower
with SMA Smart Connected

8.0 / 10.0

Higher yields for private homes: intelligent solar power generation

SMA Smart Connected

SMA ShadeFix
STRING LEVEL OPTIMIZATION

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

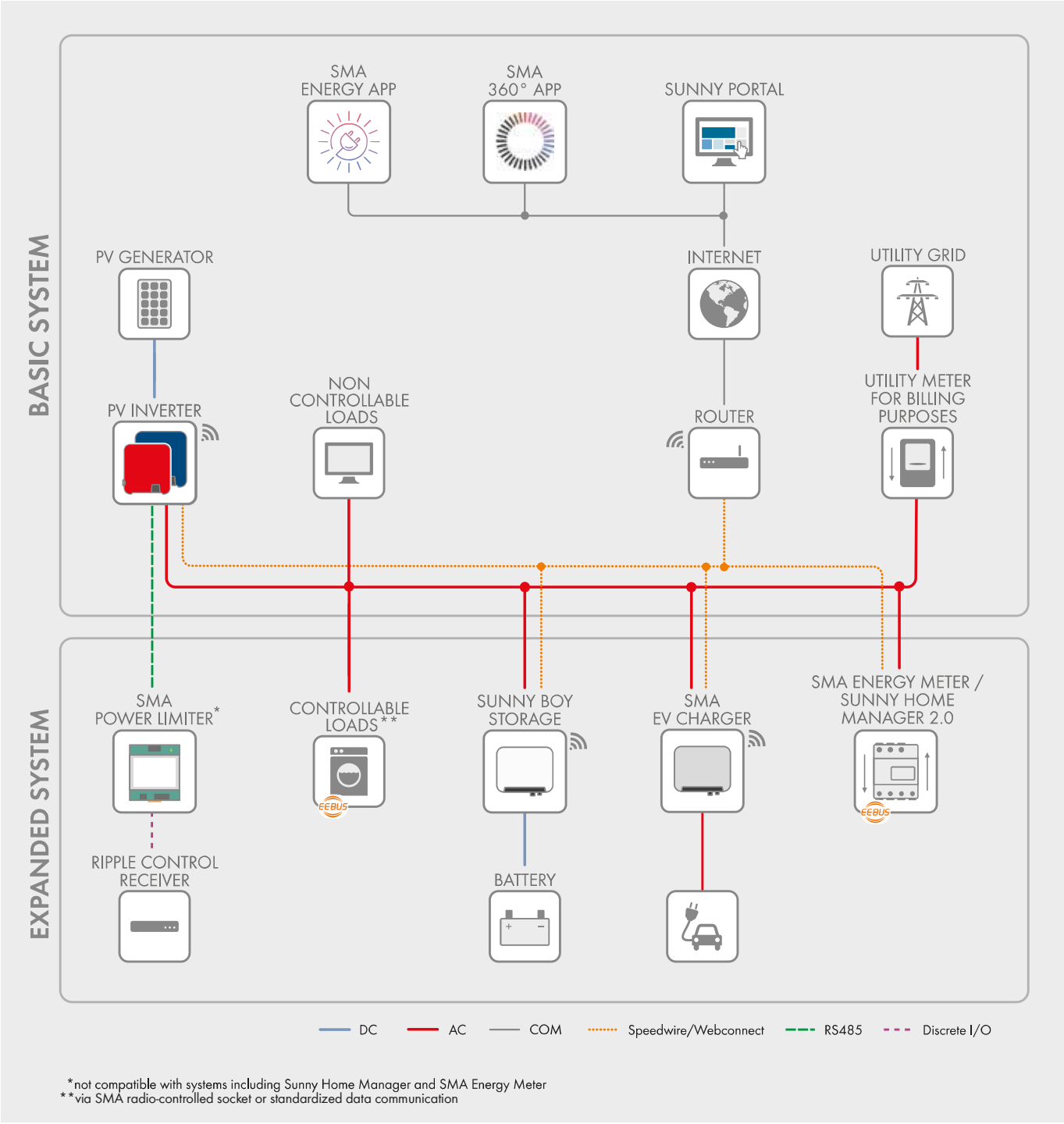
Easy to use
- 100% plug and play installation
- Free online monitoring via SMA Energy App
- Automated service thanks to SMA Smart Connected
- Warranty extension from 5 to 10 years – free of charge

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 expanded with SMA Power Limiter for use of a ripple control receiver

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, SMA ShadeFix maximizes the PV system's yield. Current communication standards make the inverter future-proof, meaning intelligent energy management solutions as well as SMA storage solutions can be flexibly added anytime.



BASIC SYSTEM functions

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

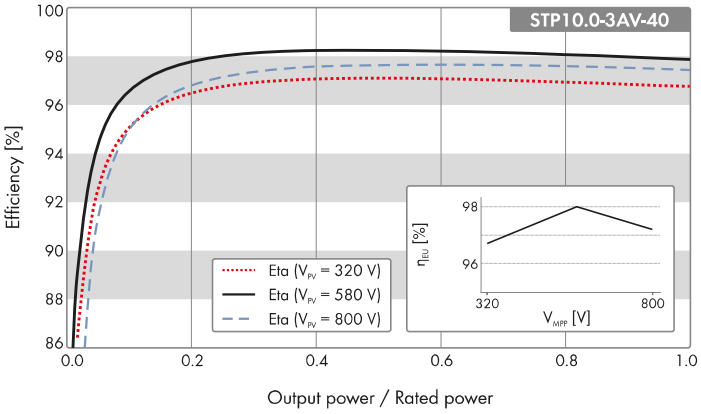
Expanded SYSTEM FUNCTIONS

- 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
- Easy integration of ripple control receivers via SMA Power Limiter

With SMA Energy Meter

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

Efficiency curve



Accessories (optional)

SMA Power Limiter

SMA Energy Meter

Sunny Home Manager 2.0

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 / 175 V	
Max. usable 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
Rated / Max. apparent power	8000 VA / 8000 VA	10000 VA / 10000 VA
Rated voltage	3 / N / PE; 220 V / 380 V 3 / N / PE; 230 V / 400 V 3 / N / PE; 240 V / 415 V	
Voltage range	180 V to 280 V	
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	
Rated / Max. output current	3 x 11.6 A / 3 x 12.1 A	3 x 14.5 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	
Shade management: SMA ShadeFix (integrated)	●	
Warranty: 5 / 10 / 15 years	● / ●* / ○	
Certificates and permits (more available upon request)	AS4777.2, C10/11, CE, CEI 0-21, DEWA 2016, DIN EN 62109-1/IEC 62109-1, DIN EN 62109-2/IEC 62109-2, DK1/2 Typ A, EN 50549-1, EN 62116, G98-1, G99-1, IEC 61727, IE-EN 50438, NEN-EN 50438, NRS 097-2-1, PPDS, PPC, RD 1699, SI 4777.2, TOR Erzeuger Typ A, UTE C15-712, VDE-AR-N 4105, VDE-0126-1-1, VFR 2014	
Certificates and approvals (planned)	NBR 16149	
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

● Standard features ○ Optional features – not available ▲ Depending on availability Data in nominal conditions Last updated: 02/2025

*) Device registration via the SMA product registration homepage (sma-service.com). The conditions of the SMA limited factory warranty apply. You can find additional information at SMA-Solar.com

Sunny Tripower 8.0 / 10.0

SMA ShadeFix – Intelligent energy yield optimization

Established product features and integrated software solutions will provide yield optimization throughout the system's entire service life. Even in the shade. SMA ShadeFix is a proprietary inverter software that optimizes energy yield in nearly every situation. SMA Smart Connected inverter monitoring offers enhanced safety by detecting errors at an early stage and automatically reporting them to the installer.

SMA Smart Connected – Proactive communication in the event of faults

SMA Smart Connected* allows you to monitor your inverter via the SMA Sunny Portal for free. If an inverter fails, SMA will proactively inform the system operator and the installer. This saves valuable working time and costs.

With SMA Smart Connected, the installer benefits from rapid diagnostics by SMA. This allows the installer to rectify the fault quickly and offer customers a range of additional and highly attractive services.

* For details, see document "Description of Services - SMA SMART CONNECTED"

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