SUNNY TRIPOWER 3.0 / 4.0 / 5.0 / 6.0
With SMA SMART CONNECTED

STP3.0-3AV-40 / STP4.0-3AV-40 / STP5.0-3AV-40 / STP6.0-3AV-40

Compact

- One-person installation due to low weight of 17 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

SUNNY TRIPOWER 3.0 / 4.0 / 5.0 / 6.0

Higher yields for private homes – intelligent solar power generation

The new Sunny Tripower 3.0–6.0 ensures maximum energy yields for private homes. This inverter combines the integrated Service SMA Smart Connected service and intelligent technology for all ambient requirements. 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.

SMA SMART CONNECTED

The 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 e-mail. 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

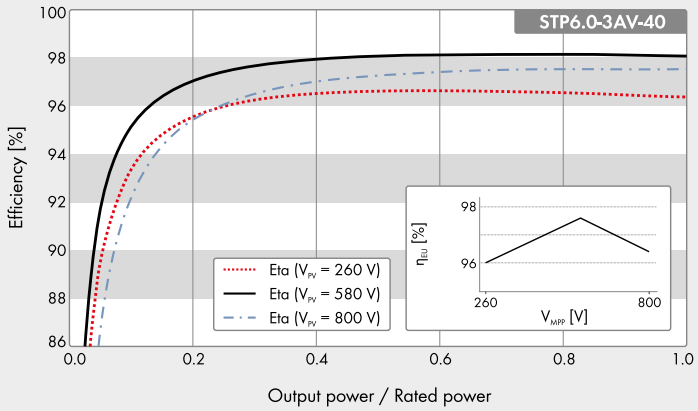
If a replacement device is necessary, SMA automatically supplies a new inverter within one to three days of the fault diagnosis. The installer can contact the PV system operator of their own accord and replace the inverter.

PERFORMANCE SERVICE

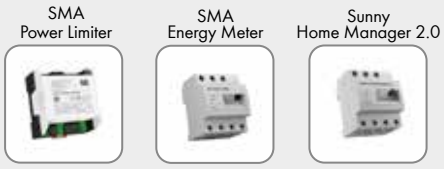
The PV system operator can claim compensation from SMA if the replacement inverter is not delivered within three days.

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

Efficiency curve



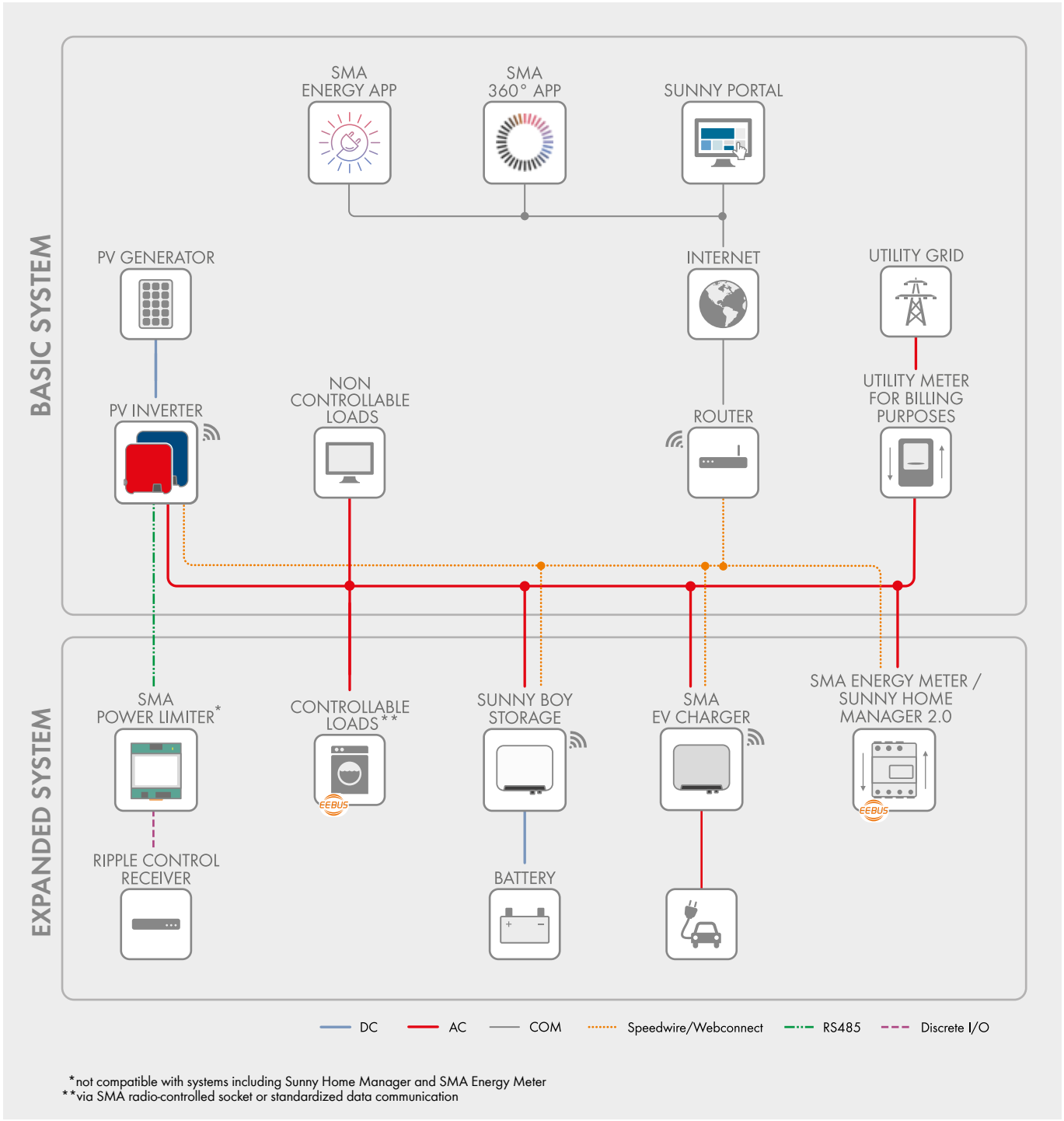
Accessories (optional)



● Standard features ○ Optional features – not available
Data in nominal conditions
Last revision: 12/2021

Technical data	Sunny Tripower 3.0	Sunny Tripower 4.0	Sunny Tripower 5.0	Sunny Tripower 6.0
Input (DC)				
Max. PV array power	6000 Wp	8000 Wp	9000 Wp	9000 Wp
Max. input voltage	850 V	850 V	850 V	850 V
MPP voltage range	140 V to 800 V	175 V to 800 V	215 V to 800 V	260 V to 800 V
Rated input voltage	580 V			
Min. input voltage / initial input voltage	125 V / 175 V			
Max. input current input A / input B	12 A / 12 A			
Max. DC short-circuit current input A/input B	18 A / 18 A			
Number of independent MPP inputs / strings per MPP input	2/A: 1; B: 1			
Output (AC)				
Rated power (at 230 V, 50 Hz)	3000 W	4000 W	5000 W	6000 W
Rated / Max. apparent power	3000 VA / 3000 VA	4000 VA / 4000 VA	5000 VA / 5000 VA	6000 VA / 6000 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 4.4 A / 3 x 4.6 A	3 x 5.8 / 3 x 6.1 A	3 x 7.3 A / 3 x 7.6 A	3 x 8.7 A / 3 x 9.1 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	98.2% / 96.5%	98.2% / 97.1%	98.2% / 97.4%	98.2% / 97.6%
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)	435 mm / 470 mm / 176 mm (17.1 inches / 18.5 inches / 6.9 inches)			
Weight	17 kg (37.4 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 concept	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%			
Equipment				
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	STP3.0-3AV-40	STP4.0-3AV-40	STP5.0-3AV-40	STP6.0-3AV-40

*) 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



*not compatible with systems including Sunny Home Manager and SMA Energy Meter
**via SMA radio-controlled socket or standardized data communication

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 solutions

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

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