



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



Sunny Tripower

for operation in Delta IT grids

3.0 / 4.0 / 5.0 / 6.0

Higher yields for private homes:
intelligent solar power generation



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

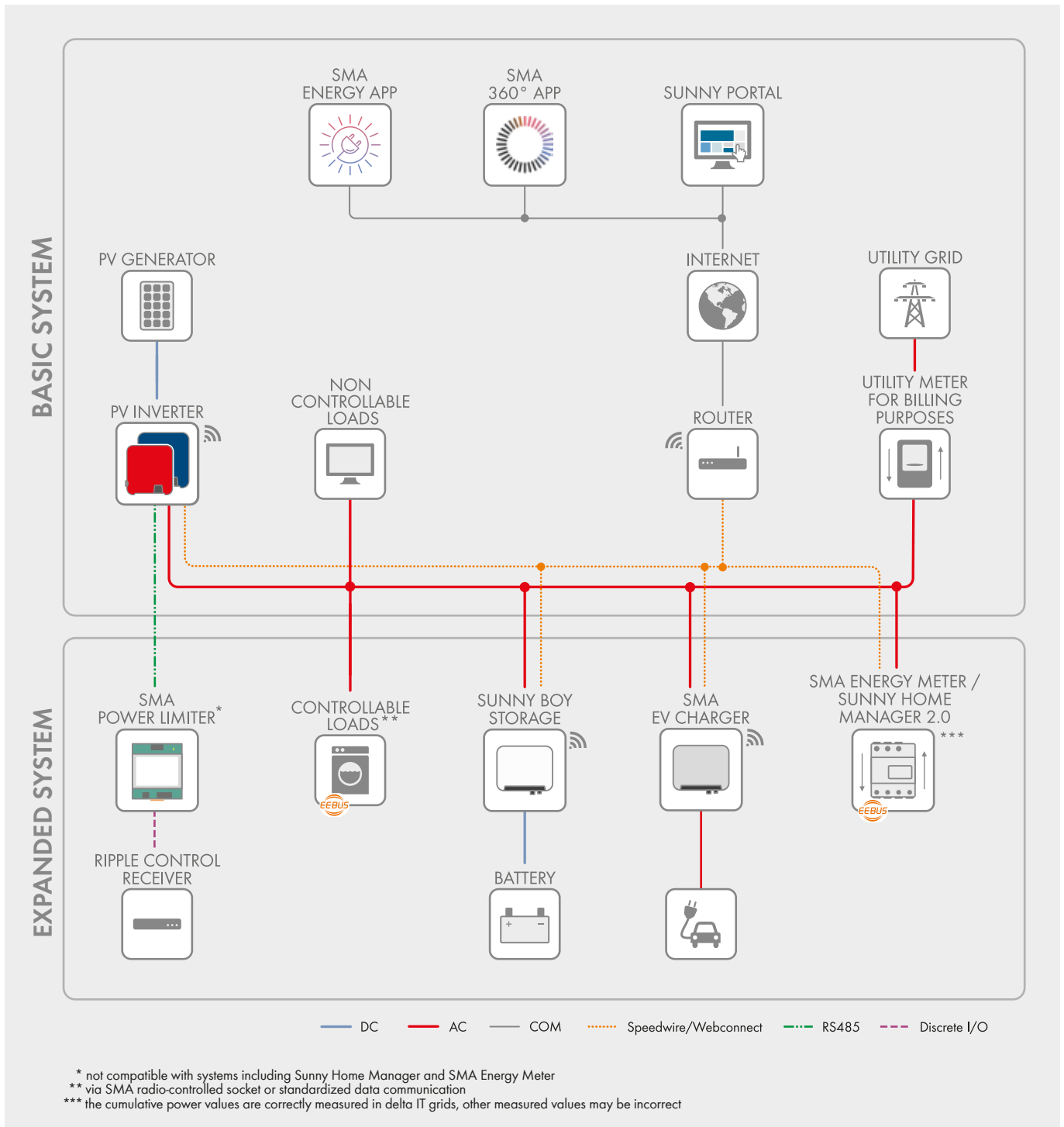
- Use of surplus energy through dynamic active power limitation
- Yield increase without installation effort due to integrated shade management SMA ShadeFix

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

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.



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

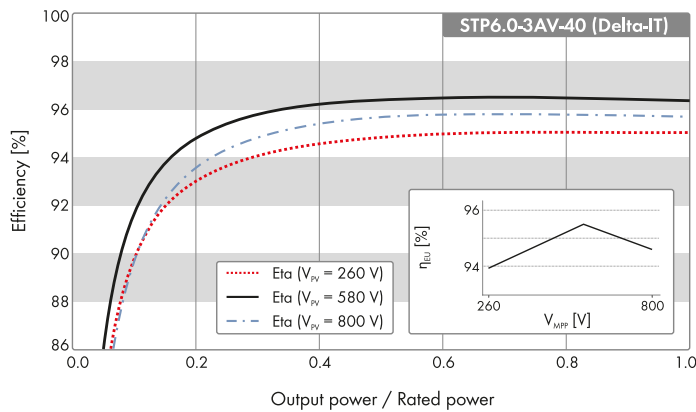
Expanded SYSTEM FUNCTIONS

- 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

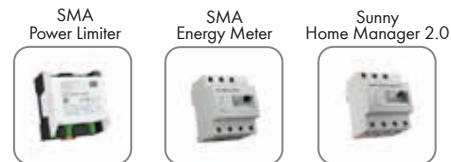
With SMA Energy Meter

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

Efficiency curve



Accessories (optional)



Technical data	Sunny Tripower 3.0	Sunny Tripower 4.0	Sunny Tripower 5.0	Sunny Tripower 6.0
Input (DC)				
Max. PV array power	2750 Wp	3650 Wp	4550 Wp	5450 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. usable input current at input A / input B	12 A / 12 A			
Max. DC short-circuit current at 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 133 V, 50 Hz)	1825 W	2425 W	3025 W	3625 W
Rated apparent power / max. apparent power	1825 VA / 1825 VA	2425 VA / 2425 VA	3025 VA / 3025 VA	3625 VA / 3625 VA
Nominal voltage	3/PE; 133 V / 230 V			
Voltage range	195.5 V to 253 V (line-to-line)			
Grid frequency / range	50 Hz / 45 Hz to 55 Hz			
Rated grid frequency / rated grid voltage	50 Hz / 133 V			
Rated output current / max. output current	3 x 4.6 A / 3 x 4.6 A	3 x 6.1 A / 3 x 6.1 A	3 x 7.6 A / 3 x 7.6 A	3 x 9.1 A / 3 x 9.1 A
Power factor at rated power / adjustable displacement power factor	1 / 0.8 overexcited to 0.8 underexcited			
Feed-in line conductors / connection line conductors	3 / 3			
Efficiency				
Max. efficiency / European Efficiency	96.4% / 95.9%	96.6% / 96.1%	96.6% / 96.1%	96.5% / 96.1%
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 inch / 18.5 inch / 6.9 inch)			
Weight	17 kg (37.4 lb)			
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 (as per IEC 60529)	IP65			
Climatic category (according to IEC 60721-3-4)	4K4H			
Maximum permissible value for relative humidity (non-condensing)	100%			
Equipment				
DC connection / AC connection	SUNCLIX / AC connector			
Display via smartphone, tablet, laptop	●			
Interfaces: Wi-Fi / 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)	CE, C10/C11:2021, IEC 62109-1, IEC 62109-2, EN 50549-1:2019, Renblad342:2020			
Certificates and approvals (planned)	-			
Country availability of SMA Smart Connected	AU, AT, BE, CH, DE, ES, FR, IT, LU, NL, SE, UK			
Model type number	STP3.0-3AV-40	STP4.0-3AV-40	STP5.0-3AV-40	STP6.0-3AV-40

● Standard equipment ○ Optional - Not available ▲ Depending on availability Data at nominal conditions Last revised: 08/2023

* 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 3.0 / 4.0 / 5.0 / 6.0



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"