

# SUNNY TRIPOWER SMART ENERGY

The Sunny Tripower Smart Energy hybrid inverter is the two-in-one system for supplying solar power at domestic or commercial systems.



SMA Sunny Tripower Smart Energy



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The Sunny Tripower Smart Energy hybrid inverter is the two-in-one system for supplying solar power at home.

With this, SMA has combined smart technology and integrated services to create a space-saving compact system, drawing on more than 30 years of experience in storage. With Sunny Tripower Smart Energy, users can easily and conveniently generate, use and store solar power.

It is possible to make additions to the system at any time, incorporating e-mobility or heat pumps.

The integrated battery-backup function safeguards the household electricity supply even in the event of a grid failure. That makes domestic PV systems comprehensive, smart energy systems with solar energy self-sufficiency of up to 100 percent.

### Store energy

- Three-phase / DC-coupled
- Integrated battery-backup function
- Fast charging
- Compatible with high-voltage batteries from leading manufacturers

### Smart and effective

- Smart energy management with the Sunny Home Manager
- Maximum energy yield thanks to SMA ShadeFix

### Connect to the grid easily

- Intuitive commissioning via app
- Quick and easy to install thanks to external terminals
- Compact design means minimum space requirements

### Convenient all round

- Full-scale professional support for solar power professionals
- Automated service thanks to SMA Smart Connected
- Warranty extension from 5 to 10 years – free of charge

## SPECIFICATIONS

	Sunny Tripower 5.0 Smart Energy	Sunny Tripower 6.0 Smart Energy	Sunny Tripower 8.0 Smart Energy	Sunny Tripower 10.0 Smart Energy
<b>Input (PV DC)</b>				
Max. PV array power	7.500 Wp	9.000 Wp	12.000 Wp	15.000 Wp
Max. input voltage	1000 V	1000 V	1000 V	1000 V
MPP voltage range	210 to 800 V	250 to 800 V	330 to 800 V	280 to 800V
Rated input voltage	600 V	600 V	600 V	600 V
Min. input voltage / initial input voltage	150 V / 180 V	150 V / 180 V	150 / 180 V	150 / 180 V
Max. input current, per input	12,5 A	12,5 A	12,5 A	12,5 A / 25 A
Max. DC Short-circuit current, per input	20 A	20 A	20 A	20 A / 40 A
Number of independent MPP inputs / strings per MPP input	2 / A: 1, B: 1	2 / A: 1, B: 1	2 / A: 1, B: 1	2 / A: 1, B: 2
<b>Battery connection</b>				
Battery type	Lithium-ion batteries			
Voltage range	150 to 600 V			
Max. charging / discharging current	30 A / 30 A			
Number of connectable batteries	1			
Max. charging / discharging power	7.500 / 6.000 W	9000 / 7200 W	10.600 / 10.600 W	10.600 / 10.600 W
<b>AC Connection</b>				
Rated power (at 230 V, 50 Hz)	5.000 W	6.000 W	8.000 W	10.000 W
Max. apparent AC power	5.000 VA	6.000 VA	8.000 VA	10.000 VA
Nominal voltage	3 / N / PE: 220 V / 380 V 3 / N / PE: 230 V / 400 V 3 / N / PE: 240 V / 415 V			
Voltage range	156 to 277 V			
Grid frequency	50 Hz			
Frequency range	45 - 55 Hz			
Max. output current	3 x 7,6 A	3 x 9,1 A	3 x 12,1 A	3 x 15,2 A
Nominal output current	3 x 7,3 A	3 x 8,7 A	3 x 11,6 A	3 x 14,5 A
Power factor at rated power	1			

Adjustable displacement power factor	1 / 0.8 overexcited to 0.8 underexcited			
Feed-in phases / connection phases	3 / 3			
<b>Efficiency</b>				
Max. efficiency	98,2 %	98,2 %	98,2 %	98,1%
European Efficiency	97,3 %	97,5 %	97,8 %	97,5 %
<b>Output AC Backup (OnGrid mode)</b>				
Max. connectable power for backup load	13.800 W			
Max. output current for backup load	3 x 20 A			
<b>Output AC Backup (OffGrid mode)</b>				
Rated power 1~/3~ (at 230 V, 50 Hz)	1.660 / 5.000 W	2.000 / 6.000 W	2.660 / 8.000 W	3.330 / 10.000 W
Max. apparent AC power	5.000 VA	6.000 VA	8.000 VA	10.000 VA
Output power / output apparent power < 5 min	6.000 W	7.200 W	12.000 W	12.000 W
Output power / output apparent power < 10 s	10.000 W	10.000 W	12.000 W	12.000 W
Nominal AC voltage	3/N/PE; 230 V / 400 V			
AC grid frequency	50 Hz			
Tariff switching to backup mode	30 ms to 10 s (adjustable)			
<b>Protective devices</b>				
Input-side disconnection point (PV DC)	Yes	Yes	Yes	Yes
Ground fault monitoring	Yes	Yes	Yes	Yes
Grid monitoring	Yes	Yes	Yes	Yes
Protección contra inversión de polaridad	Yes	Yes	Yes	Yes
DC reverse polarity protection	Yes	Yes	Yes	Yes
All-pole-sensitive residual-current monitoring unit	Yes	Yes	Yes	Yes
Protection class (according to IEC 61140)	I	I	I	I
Overvoltage category (according to IEC 60664-1) grid/battery/PV	III / II / II	III / II / II	III / II / II	III / II / II
SPD	AC: II; DC: II	AC: II; DC: II	AC: II; DC: II	AC: II; DC: II
<b>General data</b>				
Dimensions	500 x 598 x 173 mm			
Weight	30 Kg			
Operating temperature range	-25 to 60 °C			
Noise emission, typical	30 dB			
Self-consumption (at night)	44 W			
Topology	Transformerless			
Cooling method	Convection			
Degree of protection (according to IEC 60529)	IP65			
Climate category (according to IEC 60721-3-4)	4K26			
Humidity	100% (non condensing)			
<b>Equipment</b>				
PV connection / BAT connection	SUNCLIX / MC4, incl. MC4 battery cable, 3 m.			
AC Terminals	AC CONNECTOR (5 x 1.5 to 10 mm2)			
Display via smartphone, tablet, laptop	Yes	Yes	Yes	Yes
Ethernet	Yes, 2 ports	Yes, 2 ports	Yes, 2 ports	Yes, 2 ports
Wlan	Yes	Yes	Yes	Yes
Bat-CAN	Yes	Yes	Yes	Yes
Number of digital inputs / output	5 / 1	5 / 1	5 / 1	5 / 1
Communication protocols	SMA Modbus / SunSpec Modbus / Speedwire / Webconnect			
SMA ShadeFix	Yes	Yes	Yes	Yes
Warranty	5 years (10 years with product registration)			
Certificates and permits	CE, IEC 62109-1/-2, TOR Generator type A, VDE0126-1-1, VDE AR-E-2510-2, C10/11, VDE-AR-N4105			

## DOWNLOADS

### CATÁLOGO SMA SUNNY TRIPOWER SMART ENERGY

 STP-3SE-40-DS-es-11.pdf

Size: 606.52 KiB

### SMA SUNNY TRIPOWER SMART ENERGY BROCHURE

 STP-3SE-40-DS-en-11.pdf

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