

SUNNY TRIPOWER STORAGE 60

STPS60-10



Efficient

- Highest power density with 75 kVA at only 77 kg
- 98.8% maximum efficiency

Versatile

- Four quadrant operation
- Suitable for high-voltage batteries
- Easy to integrate through standard Modbus communication

Scalable

- Modular extendable to the MW range
- A single Inverter Manager manages up to 20 inverters

Universal

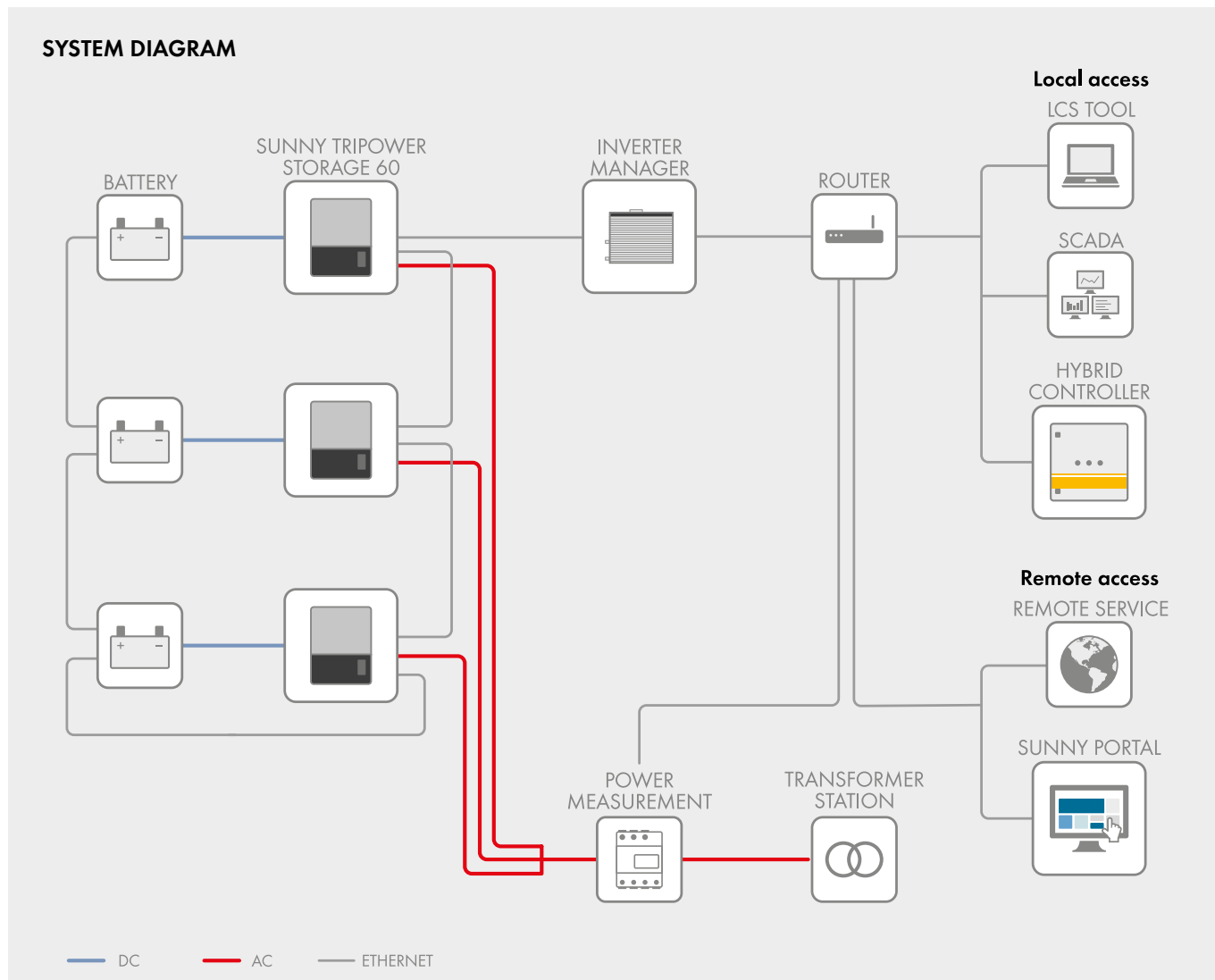
- Enables various applications
- Ideal for the commercial and industrial segment
- The perfect complement to your SMA solution

SUNNY TRIPower STORAGE 60

Highest power density for flexible applications

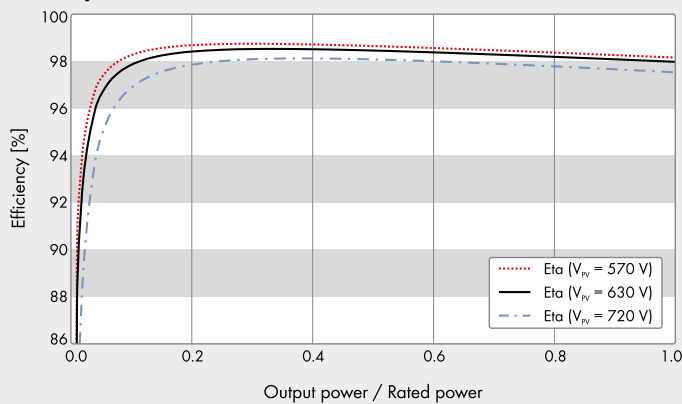
The new Sunny Tripower Storage 60 is the perfect solution for commercial and industrial storage solutions. Its modularity guarantees maximum flexibility up to the MW scale. Customers in the commercial and industrial segment profit from extraordinary versatility at low costs. Whether Peak Load Shaving, Time of Use-Tariffs (ToU) and the increase of PV self consumption for grid tied systems or the fuel cost reduction in PV-Diesel-Hybrid applications – the Sunny Tripower Storage offers various use cases and chances for new business models.

SUNNY TRIPOWER STORAGE 60



| Technical Data | SMA Inverter Manager |
|--|---|
| Voltage supply | |
| Input voltage | 9 to 36 Vdc |
| Power consumption | < 20 W |
| General data | |
| Dimensions (W/H/D) | 160 / 125 / 49 mm (6.3 / 4.9 / 1.9 inches) |
| Weight | 940 g (2 lbs) |
| Degree of protection | IP21 |
| Mounting | DIN top-hat rails or wall mounting |
| Operating temperature range | -40 °C to +85 °C (-40 ° F to +185 ° F) |
| Relative humidity (non-condensing) | 5 % to 95 % |
| Interfaces | |
| PC user interface | LCS tool |
| Sensor interface / protocol | RS485 / Modbus RTU for SunSpec Alliance |
| Interface to inverter | 1 Ethernet port (RJ45) |
| Interface for external network / protocol | 1 Ethernet port (RJ45) / Modbus TCP, SunSpec Alliance |
| Certificates and approvals (more available upon request) | UL 508, UL 60950-1, CSA C22.2 No. 60950-1-07, EN 60950-1, EN 55022 Class A, EN 61000-3-2 Class D, EN 61000-3-3, EN 61000-6-4, EN 55024, FCC Part 15, Sub-part B Class A |
| | |
| | |
| | |
| SMA Inverter Manager type designation | IM-20 |

Efficiency curve



- 1) The values are based on PV inverter SHP 75-10
 2) Does not apply to all national annexes of EN 50438 and/or EN 50549
 3) Restricted (Note Manufacturer's Declaration and/or certificates)

● Standard features ○ Optional – Not available

Data at nominal conditions

Last revision: 09/2020

| Technical Data | Sunny Tripower Storage 60 |
|---|---|
| Battery connection (DC) | |
| Max. DC charging power | 60000 W |
| DC voltage range | 575 V to 1000 V |
| Max. DC current | 140 A |
| Battery type | Li-ion |
| Grid connection (AC) | |
| Max. power | 75000 W |
| Max. apparent AC power | 75000 VA |
| Max. reactive power | 75000 Var |
| Nominal AC voltage | 3 / PE, 400 V, ±10 % |
| AC voltage range | 360 V to 530 V |
| AC power frequency / range | 50 Hz / 44 Hz to 55 Hz 60 Hz / 54 Hz to 65 Hz |
| Rated power frequency / rated grid voltage | 50 Hz / 400 V |
| Max. output current | 109 A |
| Power factor at rated power / displacement power factor adjustable | 1 / 0 overexcited to 0 underexcited |
| THD | ≤ 1 % |
| Feed-in phases/connection phases | 3 / 3 |
| Efficiency | |
| Max. efficiency ¹⁾ | 98.8 % |
| Protective devices | |
| Input-side disconnection point | ● |
| Ground fault monitoring / grid monitoring | ● / ● |
| Integrable DC surge arrester / AC surge arrester | Type II / type II + III (combined) |
| AC short-circuit current capability / galvanically isolated | ● / – |
| All-pole sensitive residual-current monitoring unit | ● |
| Protection class (as per IEC 62109-1) / overvoltage category (as per IEC 62109-1) | I / AC: III; DC: II |
| General data | |
| Dimensions (W/H/D) | 570 / 740 / 306 mm (22.4 / 29.1 / 12 inches) |
| Weight | 77 kg (170 lb) |
| Operating temperature range | -25°C to +60°C (-13°F to +140°F) |
| Noise emission, typical | 58 dB(A) |
| Self-consumption (standby) | < 3 W |
| Topology / cooling concept | Transformerless / active |
| Degree of protection (according to IEC 60529 / UL 50E) | IP65 / NEMA 3R |
| Climatic category (as per IEC 60721-3-4) | 4K4H/4Z4/4B2/4S3/4M2/4C2 |
| Max. permissible value for relative humidity (non-condensing) | 95 % |
| Features / function / accessories | |
| DC connection / AC connection | Screw terminal / screw terminal |
| Display | Graphical |
| Data interface | SunSpec Modbus TCP (via external SMA Inverter Manager) |
| Applicable for Off-Grid systems / with SMA Fuel Save Controller | – / ● |
| Warranty: 5 / 10 / 15 / 20 years | ● / ○ / ○ / ○ |
| Certificates and approvals (more available upon request) | AS/NZS 4777.2:2015, BDEW 2008, C10/11:2019 ³⁾ , EN 50438:2013 ²⁾ , EN 50549-1/-2:2019 ²⁾ , G99/1.3:2018 ³⁾ , IEC 62116, IEC 61727, IEC 62109-1/-2, NRS 097-2-1:2017 ³⁾ , RfG compliant, UTE C 15-712-1, VDE 0126-1-1/A1, VDE-AR-N 4105 ³⁾ , VDE-AR-N 4110:2018-11 ³⁾ , VFR 2019 |
| Type designation | STPS60-10 |

BENEFIT FROM VARIOUS BUSINESS CASES

enabled by Sunny Tripower Storage 60

The SMA solution for commercial & industrial storage applications enables various new business models for customers from these segments. As a key element of the innovative SMA portfolio the Sunny Tripower Storage 60 facilitates the economical integration of storage systems into a future-proof energy concept with or without solar supplement.

Peak Load Shaving

Supply peak loads with a storage system and thus reduce demand charges.

Increased PV self consumption

Store temporarily not utilizable solar energy for later use and save energy costs

Tariff depending business cases / Arbitrage models

Store low tariff energy for use it in high tariff periods

Energy trading

Make solar energy business more reliable through predictable energy volumes

E-mobility

Provide energy for public use by offering a solar powered charging infrastructure