

**NEW: Now with integrated arc-fault circuit interrupter**

**NEW: Now with DC surge protection Type 1/2**



**SMA  
ShadeFix**



**SMA  
Smart Connected**

#### More flexibility

- For large rooftop and ground-mounted systems up to the MW range
- 12 MPP trackers
- 24 strings with 1100 V<sub>DC</sub> Sunclix connectors
- Integrated arc-fault circuit interrupter (AFCI)

#### More power

- 110 kW for standard 400 V<sub>AC</sub>
- Fast commissioning without additional DC combiners
- Peak efficiency of 98.6%

#### More yield

- Premium monitoring service for reliable system performance
- Maximum yields thanks to the integrated software solution SMA ShadeFix

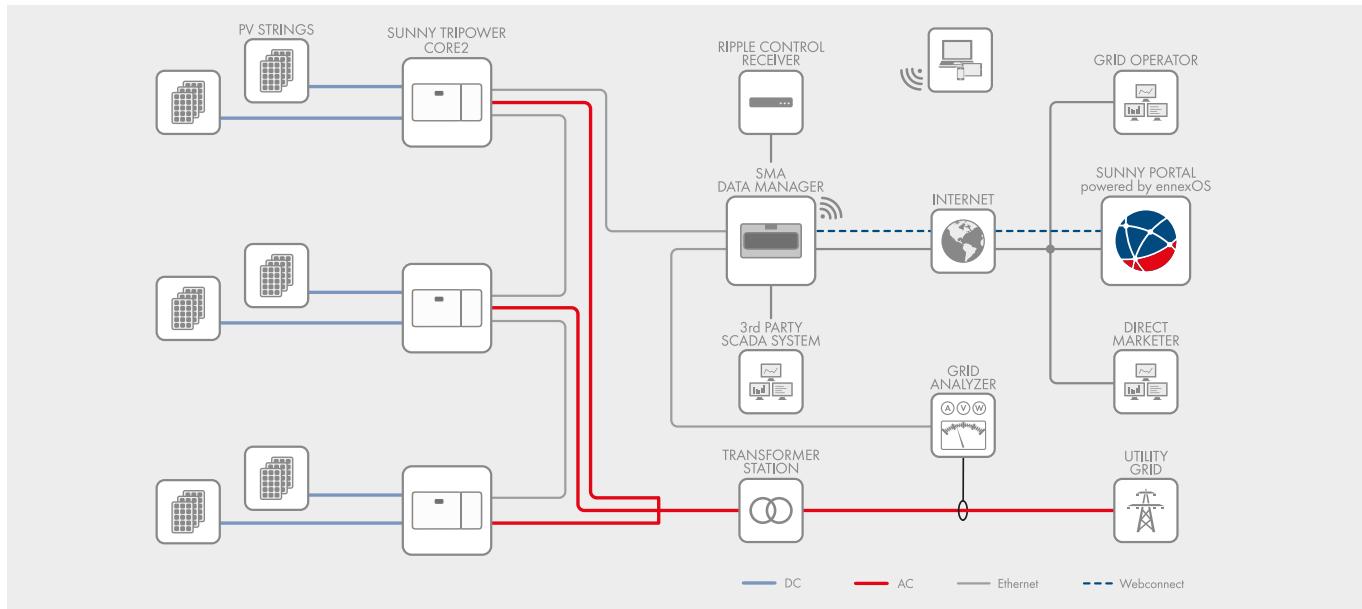
#### More system integration

- Flexible and future-proof expansion due to seamless system integration with the SMA Energy System Business
- Holistic energy management with ennexOS
- High IT security

## SUNNY TRIPower CORE2

Flexible system design and highest yields thanks to integrated features

Flexible system design for larger commercial PV systems: The Sunny Tripower CORE2 is the ideal inverter for decentralized system structures up to the megawatt range. With 110 kilowatts, 24 strings and 12 MPP trackers, the Sunny Tripower CORE2 allows for a particularly high solar coverage in ground-mounted PV systems as well as at different roof pitches during the day. The integrated SMA ShadeFix software solution automatically optimizes system performance anytime, even with partially shaded modules. The automatic inverter monitoring service SMA Smart Connected also ensures maximum PV system yields by detecting failures as fast as possible. The integrated arc-fault circuit interrupter AFCI contributes additionally to the safety. With the Sunny Tripower CORE2 as a central component of the SMA Energy System Business, installers and PV system operators will benefit from the high-quality components from a single source and future-proof options to expand their systems with SMA storage solutions.



| Technical data*   |  | Sunny Tripower CORE2   |
|---|--|--|
| <b>Input (DC)</b>   |  |  |
| Max. PV array power   |  | 165000 Wp STC  |
| Max. input voltage  |  | 1100 V   |
| MPP voltage range   |  | 500 V to 800 V   |
| Rated input voltage   |  | 585 V  |
| Min. input voltage / Start input voltage  |  | 200 V / 250 V  |
| Max. useable input current per MPP tracker / Max. short-circuit current per MPP tracker       |  | 26 A (22 A < 600 V) / 40 A   |
| Number of independent MPP trackers / Strings per MPP tracker                                  |  | 12 / 2   |
| <b>Output (AC)</b>  |  |  |
| Rated power (at 400 V, 50Hz)  |  | 110000 W   |
| Rated / Max. apparent power   |  | 110000 VA / 110000 VA  |
| Rated voltage   |  | 400 V  |
| Voltage range   |  | 320 V to 460 V   |
| Grid frequency / range  |  | 50 Hz / 45 Hz to 55 Hz<br>60 Hz / 55 Hz to 65 Hz   |
| Rated grid frequency  |  | 50 Hz  |
| Rated output current / max. output current  |  | 158.8 A / 158.8 A  |
| Power factor at rated power / displacement power factor adjustable                            |  | 1 / 0.8 overexcited to 0.8 underexcited  |
| Harmonic (THD)  |  | < 3%   |
| Feed-in phases / AC connection  |  | 3 / 3-PE   |
| <b>Efficiency</b>   |  |  |
| Max. efficiency / European efficiency   |  | 98.6% / 98.4%  |
| <b>Protective devices</b>   |  |  |
| Input-side disconnection device   |  | ●  |
| Ground fault monitoring / grid monitoring / DC reverse polarity protection                    |  | ● / ● / ●  |
| AC short-circuit current capability / galvanically isolated                                   |  | ● / -  |
| All-pole sensitive residual-current monitoring unit   |  | ●  |
| Monitored surge arrester AC / DC  |  | type 2 / type 1-2*   |
| Protection class (according to IEC 62109-1) / overvoltage category (according to IEC 62109-1) |  | I / AC: III; DC: II  |
| Arc-fault circuit interrupter (AFCI)  |  | ●*   |
| <b>General data</b>   |  |  |
| Dimensions (W / H / D)  |  | 1117 mm / 682 mm / 363 mm (44.0 in / 26.9 in / 14.3 in)  |
| Weight  |  | 93.5 kg (206.1 lbs)  |
| Operating temperature range   |  | -30 °C to +60 °C (-22 °F to +140 °F)   |
| Noise emission, maximum (1m)  |  | 78 dB(A)   |
| Self-consumption (at night)   |  | < 5 W  |
| Topology / cooling concept  |  | Transformerless / active cooling   |
| Degree of protection (according to IEC 60529)   |  | IP66   |
| Max. permissible value for relative humidity (non-condensing)                                 |  | 100%   |
| <b>Features / functions / accessories</b>   |  |  |
| DC connection / AC connection   |  | Sunclix / terminal lug (up to 240 mm <sup>2</sup> )  |
| LED display (Status / Fault / Communication)  |  | ●  |
| Ethernet interface  |  | (2 ports)  |
| Data interface  |  | Web Interface / Modbus SunSpec   |
| Mounting type   |  | Wall mounting / rack mounting  |
| Warranty: 5 / 10 / 15 / 20 years  |  | ● / ○ / ○ / ○  |
| Certificates and approvals (selection)  |  | IEC 62109-1/-2, EN50549-1/-2:2018, VDE-AR-N 4105/4110/4120:2018,<br>IEC 62116, IEC 61727, C10/C11 LV2/MV1:2018, CEI 0-16:2019, AS/<br>NZS 4777.2, SI 4777, TOR Generator Typ A/B |
| Type designation  |  | STP 110-60   |

● Standard features ○ Optional features — not available Data at nominal conditions Status 11/2023 \*) from production date 06/2023, [SMA material number 202724-00.01, Australia: 202725-00.01]