

coolcept fleX

StecaGrid 1511, StecaGrid 2011, StecaGrid2511, StecaGrid 3011, StecaGrid 3011_2, StecaGrid 3611, StecaGrid 3611_2, Steca Grid 4611_2

Reliable technology – even more versatile

With coolcept fleX Steca introduces the successor generation to the established coolcept-topology. Coolcept fleX offers a creative energy concept for any modern home.

What is coolcept fleX? The brand-new electronic platform is being used as the technological heart of the next generation of solar electronics and connects photovoltaics-based power generation, load management, and even e-mobility for the first time ever. The coolcept fleX platform is open with regard to its future use, it is still implemented on a single board. This extremely small and compact format permits the use of affordable standard components on the circuit board. Thus making it possible to use the same device for various differing applications.

coolcept fleX inverter Coolcept fleX is the centerpiece of the new inverter generation. As usual, with nominal powers of 1.5 – 4.6 kW, they attain particularly high peak efficiencies.

The advantages of coolcept fleX inverters coolcept fleX is flexible. Multiple MPP trackers allow handling simple or even complicated module fields.

coolcept fleX is tough und uncomplicated. Indoor and outdoor installation is enabled by a robust IP65- Casing. However, the product line is not only one of the lightest in its class, but is also very easy to install too.

coolcept fleX is future-proof. Steca is offering an integrated, future-proof concept for energy generation, consumption, storage and feeding for the modern home of tomorrow.

WORLD FIRST

One for all This incomparably affordable all-in one solution offers functions for very different applications and is even scalable in relation to the power requirement. Whether you need one or more MPP trackers, high-voltage or low-voltage storage, or a solution with or without an emergency power supply – everything is possible. Steca has already thought of and prepared for charging an electric vehicle straight from a PV generator. The new components and setting options enable use in many countries.

Maximum efficiencies at all input voltages and reliable cooling concept

The maximum efficiencies of the state-of-the-art power electronics topology ensure minimal losses, thus guaranteeing a very long service life thanks to extremely low levels of self-heating.



| | StecaGrid 1511 | StecaGrid 2011 | StecaGrid 2511 | StecaGrid 3011 | StecaGrid 3011_2 | StecaGrid 3611 | StecaGrid 3611_2 | StecaGrid 4611_2 |
|--|---|---|---|---|-----------------------------------|---|---|-----------------------------------|
| DC input side (PV generator) | | | | | | | | |
| Maximum input voltage | 450 V | 450 V | 450 V | 750 V | 750 V | 750 V | 750 V | 750 V |
| Operating input voltage range | 75 V ... 360 V | 75 V ... 360 V | 75 V ... 360 V | 125 V ... 600 V | 125 V ... 600 V | 150 V ... 600 V | 150 V ... 600 V | 150 V ... 600 V |
| Operating input voltage range at nominal power | 120 V ... 360 V | 160 V ... 360 V | 200 V ... 360 V | 230 V ... 600 V | 230 V ... 600 V | 280 V ... 600 V | 280 V ... 600 V | 280 V ... 600 V |
| Number of MPP tracker | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 |
| Maximum input current | 13.0 A | 13.0 A | 13.0 A | 13.0 A | 2 x 13.0 A | 13.0 A | 2 x 13.0 A | 2 x 13.0 A |
| Maximum input power at maximum active output power | 1540 W | 2050 W | 2560 W | 3070 W | 3070 W | 3770 W | 3770 W | 3770 W |
| AC output side (Grid connection) | | | | | | | | |
| Grid voltage | 185 V ... 276 V (depending on regional settings) | | | | | | | |
| Rated grid voltage | 230 V | | | | | | | |
| Maximum output current | 12.0 A | 12.0 A | 14.0 A | 14.0 A | 14.0 A | 16.0 A | 16.0 A | 16.0 A |
| Maximum active power (cos phi = 1) | 1500 W | 2000 W | 2500 W | 3000 W | 3000 W | 3680 W | 3680 W | 3680 W |
| Maximum apparent power | 1500 VA | 2000 VA | 2500 VA | 3000 VA | 3000 VA | 3680 VA | 3680 VA | 3680 VA |
| Rated power | 1500 W | 2000 W | 2500 W | 3000 W | 3000 W | 3680 W | 3680 W | 3680 W |
| Rated frequency | 50 Hz and 60 Hz | | | | | | | |
| Frequency | 45 Hz ... 65 Hz (depending on regional settings) | | | | | | | |
| Night-time power loss | < 3 W | | | | | | | |
| Feeding phases | single-phase | | | | | | | |
| Total harmonic distortion (cos phi = 1) | < 3 % | | | | | | | |
| Power factor cos phi | 0.8 capacitive ... 0.8 inductive | | | | | | | |
| Characterisation of the operating performance | | | | | | | | |
| Max. efficiency | 97.4 % | 97.4 % | 97.4 % | 97.0 % | 97.0 % | 97.0 % | 97.0 % | 97.0 % |
| European efficiency | 96.1 % | 96.5 % | 96.6 % | 96.3 % | 96.3 % | 96.3 % | 96.3 % | 96.3 % |
| MPP efficiency | > 99.7 % (static), > 99 % (dynamic) | | | | | | | |
| Own consumption | < 20 W | | | | | | | |
| Power derating at full power from | 50 °C (T _{amb}) | 50 °C (T _{amb}) | 50 °C (T _{amb}) | 50 °C (T _{amb}) | 45 °C (T _{amb}) | 45 °C (T _{amb}) | 45 °C (T _{amb}) | 45 °C (T _{amb}) |
| Safety | | | | | | | | |
| Isolation principle | no galvanic isolation, transformerless | | | | | | | |
| Grid monitoring | yes, integrated | | | | | | | |
| Residual current monitoring | yes, integrated (The design of the inverter prevents it from causing DC leakage current) | | | | | | | |
| Protection class | protection class 2 (RCD typ A sufficient) | | | | | | | |
| Operating conditions | | | | | | | | |
| Area of application | Outdoors & indoors | | | | | | | |
| Climate protection class as per IEC 60721-3-4 | 4K4H | | | | | | | |
| Ambient temperature | -25 °C ... +60 °C | | | | | | | |
| Storage temperature | -30 °C ... +80 °C | | | | | | | |
| Relative humidity | 0 % ... 100 %, non-condensating | | | | | | | |
| Noise emission (typical) | 31 dBA | | | | | | | |
| Fitting and construction | | | | | | | | |
| Degree of protection | IP 65 | | | | | | | |
| Overvoltage category | III (AC), II (DC) | | | | | | | |
| DC Input side connection | Phoenix Contact SUNCLIX (1 pair), mating connector included | Phoenix Contact SUNCLIX (1 pair), mating connector included | Phoenix Contact SUNCLIX (1 pair), mating connector included | Phoenix Contact SUNCLIX (1 pair), mating connector included | Phoenix Contact SUNCLIX (2 pairs) | Phoenix Contact SUNCLIX (1 pair), mating connector included | Phoenix Contact SUNCLIX (1 pair), mating connector included | Phoenix Contact SUNCLIX (2 pairs) |
| AC output side connection | Wieland RST25i3 plug, mating connector included | | | | | | | |
| Dimensions (X x Y x Z) | 399 x 657 x 222 mm | | | | | | | |
| Weight | 12.6 kg | 12.6 kg | 12.6 kg | 13.8 kg | 14.0 kg | 13.8 kg | 14.0 kg | 14.0 kg |
| Communication interface | RS-485 (1 x RJ45 sockets; connectable to Meteocontrol WEB'log or Solar-Log™, Ethernet interface (1 x RJ45), Modbus RTU (1 x RJ45 socket; connectable to energy counter) | | | | | | | |
| Integrated DC circuit breaker | yes, compliant with VDE 0100-712 | | | | | | | |
| Cooling principle | temperature controlled fan, variable speed, internal (dustproof) | | | | | | | |
| Test certificate | see certificate download on the product page | | | | | | | |