STECA COOLCEPT FLEX

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

StecaGrid Coolcept Flex

StecaGrid Coolcept Flex

Coolcept fleX offers an complette inverters family of grid conneciton inverters for the actual home.

What is coolcept?

Coolcept is Steca's new inverter topology that provides the highest peak efficiency. It is basically characterised by circuit simplicity combined with highest efficiency. The patented coolcept topology is a global innovation that is only available from Steca.

The advantages of coolcept

Coolcept is cool.
High peak efficiency means the lowest possible heat dissipation. This makes cooling elements unnecessary.

Coolcept is efficient.
Stable peak efficiency over the entire power range ensures maximum yields.

Coolcept is long-living.
Low heat dissipation and cool components guarantee a long service life.

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 the 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.

SPECIFICATIONS

	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 ... 360 V	75 ... 360 V	75 ... 360 V	125 ... 600 V	125 ... 600 V	150 ... 600 V	150 ... 600 V	150 ... 600 V
Operating input voltage range (maximum power)	120 ... 360 V	160 ... 360 V	200 ... 360 V	230 ... 600 V	230 ... 600 V	280 ... 600 V	280 ... 600 V	360 ... 600 V
Number of MPPT 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	1540 W	2050 W	2560 W	3070 W	3070 W	3770 W	3770 W	4740 W
AC output side (Grid connection)								
Grid voltage	185 ... 267 V (depending on regional setings)							
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	20,0 A
Maximum active power (cos phi = 1)	1500 W	2000 W	2500 W	3000 W	3000 W	3680 W	3680 W	4600 W
Maximum apparent power	1500 VA	2000 VA	2500 VA	3000 VA	3000 VA	3680 VA	3680 VA	4600 VA
Rated power	1500 W	2000 W	2500 W	3000 W	3000 W	3680 W	3680 W	4600 W
Rated frequency	50 / 60 Hz							
Frequency	45 ... 65 Hz (depending on regional setings)							
Night-time power loss	< 3 W							
Feeding phases	Single phase							
Total harmonic distorsion (cos phi = 1)	< 3 %							
Power factor cos phi	0,8 capacitative ... 0,8 inductive							
Performance								
Max. Efficiency	97,4 %	97,4 %	97,4 %	97 %	97 %	97 %	97 %	97,4 %
European efficiency	96,1 %	96,5 %	96,6 %	96,3 %	96,3 %	96,3 %	96,3 %	96,9 %
MPP Efficiency	> 99,7 % (static), > 99% (dynamic)							
Own consumption	< 20 W							
Power derating at full power from	50 °C (Tamb)	50 °C (Tamb)	50 °C (Tamb)	50 °C (Tamb)	45 °C (Tamb)	45 °C (Tamb)	45 °C (Tamb)	40 °C (Tamb)
Safety								
Isolation principle	Transformerless, No galvanic issolation							
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 Type A sufficient)							
Operating conditions								
Area of application	Outdoors & indoors							
Ambient class (IEC 6071-3-4)	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 (connectors included)							
AC input side connection	Connector Wieland RST25i3 (connectors included)							
Dimmensions (X x Y x Z)	657 x 399 x 222 mm							
Weight	11,7 Kg	11,7 Kg	11,7 Kg	12,4 Kg	13,0 Kg	12,4 Kg	13,0 Kg	13,1 Kg
Communication interface	RS-485 (1 x RJ45)							
Integrated DC circuit breaker	Yes, Compliant with DIN VDE 0100-712							
Cooling principle	Temperature controlled fan, variable speed, internal (dustproof)							
Certificates	See Steca website for updated certificates.							

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