

COOLCEPT FLEX

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 – 3.6 kW, they attain particularly high peak efficiencies.

	StecaGrid 1511	StecaGrid 2011	StecaGrid 2511	StecaGrid 3011	StecaGrid 3611	StecaGrid 3611_2
DC input side (PV generator)						
Maximum input voltage	450 V			750 V		
Operating input voltage range	75 V ... 360 V	75 V ... 360 V	75 V ... 360 V	125 V ... 600 V	150 V ... 600 V	150 V ... 600 V
Number of MPP trackers	1	1	1	1	1	2
Maximum input current	13.0 A					2 x 13.0 A
Maximum input power at maximum active output power	1540 W	2050 W	2560 W	3070 W	3770 W	3770 W
AC output side (Grid connection)						
Grid voltage	185 ... 267 V (depending on regional settings)					
Rated grid voltage	230 V					
Maximum output current	12.0 A		14.0 A		16.0 A	
Maximum active power (cos phi = 1)	1500 W	2000 W	2500 W	3000 W	3680 W	3680 W
Maximum apparent power	1500 VA	2000 VA	2500 VA	3000 VA	3680 VA	3680 VA
Rated power	1500 W	2000 W	2500 W	3000 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	0.2 capacitive ... 0.2 inductive					
Characterisation of the operating performance						
May efficiency	98.0 %					
European efficiency	97.4 %	97.5 %	97.6 %	97.7 %	97.7 %	97.7 %
Californian efficiency	97.6 %	97.7 %	97.7 %	97.8 %	97.8 %	97.8 %
MPP efficiency	> 99.7 % (static), > 99 % (dynamic)					
Own consumption	< 10 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})
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 type A sufficient)					
Operating conditions						
Area of application	outdoor use					
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					
AC output side connection	Wieland RST25i3 plug, mating connector included					
Dimensions (X x Y x Z)	399 x 657 x 227 mm			399 x 657 x 222 mm		
Weight	12,6 kg		13,8 kg		14 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 certificates	see certificate download on the product page					