coolcept fleX | 1 MPP-Tracker

Single-phase inverter with one MPP tracker



Proven technology - even more flexible
With coolcept fleX, Steca presents the successor generation of its proven coolcept topology. Coolcept fleX offers a creative energy concept for every modern home.

What is coolcept fleX?
The brand new electronic platform is used as the technological core of the next generation of solar electronics, combining power generation from photovoltaics, load management and even e-mobility. While the coolcept-fleX platform is open with regard to its future use, it is still implemented on a single circuit board. This means that it is now possible to use one and the same device for very different applications.

coolcept fleX inverters
Coolcept fleX is the core of the new generation of inverters from Steca.
With rated outputs of 1.5 - 5.0 kW, these achieve the usual high peak efficiencies.

Your advantages in using coolcept fleX inverters
coolcept fleX is flexible.
Multiple MPP trackers allow simple or even complicated module arrays to be handled.

coolcept fleX is robust and uncomplicated.
Indoor and outdoor installation is made possible by the robust IP65 housing. Yet the product range remains one of the lightest in its class and is also easy to install.

coolcept fleX is future-proof.
Kontron Solar GmbH offers the holistic concept for energy generation, consumption, storage and feed-in for the homes of tomorrow.

GLOBAL INNOVATION
One for all
This all-in-one solution is unmatched in price, offers functions for a wide range of applications, and is even scalable in terms of power requirements: Whether you need one or more MPP trackers, high-voltage or low-voltage storage, or a solution with or without an emergency power supply – anything is possible. Even charging an electric vehicle directly from a PV generator has already been considered and prepared. The new components and setting options also enable use in a large
number of countries.

Highest efficiency at any input voltage and proven 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 3611
DC input side (PV generator)					
Maximum input voltage	450 V	450 V	450 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	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	280 V ... 600 V
Number of MPP tracker	1				
Maximum input current	13.0 A				
Maximum input power at maximum active output power	1540 W	2050 W	2560 W	3070 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	16.0 A
Maximum active power (cos phi = 1)	1500 W	2000 W	2500 W	3000 W	3680 W
Maximum apparent power	1500 VA	2000 VA	2500 VA	3000 VA	3680 VA
Rated power	1500 W	2000 W	2500 W	3000 W	3680 W
Rated frequency	50 Hz and 60 Hz				
Frequency range	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 %
European efficiency	96.1 %	96.5 %	96.6 %	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})°
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				
AC output side connection	Wieland RST25i3 plug, mating connector included				
Dimensions (X x Y x Z)	399 x 657 x 222 mm				
Weight	11.7 kg	11.7 kg	11.7 kg	12.4 kg	12.4 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				