coolcept fleX | 2 MPP-Tracker

Single-phase inverter with two MPP trackers



Proven technology - even more flexible
With coolcept fleX, Kontron Solar GmbH presents the successor generation of the proven Steca 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.

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	StecaGrid 3011_2	StecaGrid 3611_2	StecaGrid 4611_2	StecaGrid 5011_2
DC input side (PV generator)				
Maximum input voltage	750 V			
Operating input voltage range	125 V ... 600 V	150 V ... 600 V	150 V ... 600 V	150 V ... 600 V
Operating input voltage range at nominal power	230 V ... 600 V	280 V ... 600 V	360 V ... 600 V	360 V ... 600 V
Number of MPP tracker	2			
Maximum input current	2 x 13.0 A			
Maximum short circuit current	15 A			
Maximum input power at maximum active output power	3070 W	3770 W	4740 W	5200 W
AC output side (Grid connection)				
Grid voltage	185 V ... 276 V (depending on regional settings)			
Rated grid voltage	230 V			
Maximum output current	14.0 A	16.0 A	20.0 A	22.0 A
Maximum active power (cos phi = 1)	3000 W	3680 W	4600 W	5000 W
Maximum apparent power	3000 VA	3680 VA	4600 VA	5000 VA
Rated power	3000 W	3680 W	4600 W	5000 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	97.0 %	97.0 %	97.4 %	97.4 %
European efficiency	96.3 %	96.3 %	96.9 %	96.8 %
MPP efficiency	> 99.7 % (static), > 99 % (dynamic)			
Own consumption	< 20 W			
Power derating at full power from	45 °C (T_{amb})°	45 °C (T_{amb})°	40 °C (T_{amb})°	40 °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 (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	14.0 kg	14.0 kg	13.0 kg	13.0 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			