



StecaGrid 300 and StecaGrid 500

The MiniString inverter series comprises the StecaGrid 300 and StecaGrid 500 inverters, with rated outputs of 300 W and 500 W, respectively.

StecaGrid 300 and StecaGrid 500 are built in a modular manner, and simple to install. With distribution over three phases, the system can at any time be expanded as desired, and thus flexibly adapts to your solar power system investment. StecaGrid 300 and StecaGrid 500 have an independent MPP tracker and achieve a very high efficiency of up to 95.8 %.

Product features

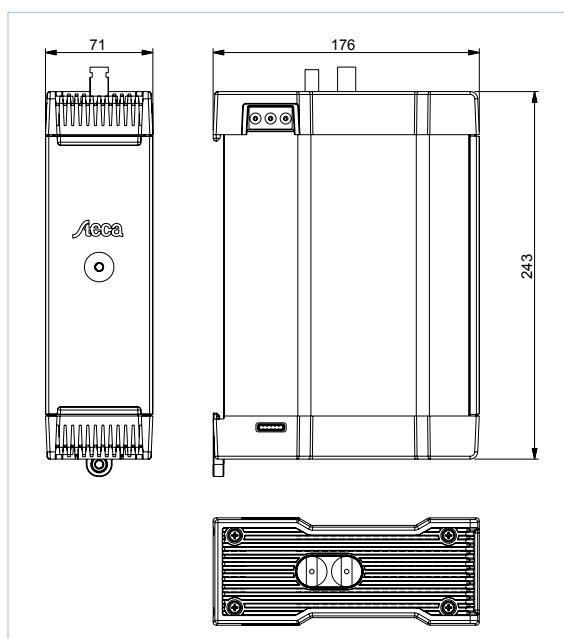
- Flexible and expandable
- High efficiency
- MiniString concept
- Low weight
- Simple installation
- One StecaGrid Control per system
- Wall-mounting with top-hat rail

Electronic protection functions

- Integrated temperature monitoring with output derating

Displays

- Multi-coloured LED shows operating status



	StecaGrid 300	StecaGrid 500
DC input side (PV-generator)		
Maximum start voltage	100 V	170 V
Maximum input voltage	135 V	230 V
Minimum input voltage	45 V	75 V
Minimum input voltage for rated output	64 V	106 V
MPP voltage	45 V ... 100 V	75 V ... 170 V
Maximum input current	5 A	
Maximum input power	320 W	530 W
Maximum recommended PV power	375 Wp	625 Wp
Derating / limiting	automatic when - input power is higher - the device is not cooled sufficiently - input currents > 5 A (higher currents are limited by the equipment and therefore will not damage the inverter)	
AC output side (Grid connection)		
Grid voltage	207 V ... 253 V [other values are possible]	
Rated grid voltage	230 V	
Maximum output current	1.5 A	2.5 A
Maximum output power	300 W	500 W
Rated power	300 W	500 W
Rated frequency	50 Hz	
Frequency	48 Hz ... 52 Hz [other values are possible]	
Night-time power loss	< 0.1 W	
Feeding phases	single-phase	
Power factor	> 0.95	
Distortion factor	< 6 % (max. power)	< 5 % (max. power)
Characterisation of the operating performance		
Maximum efficiency	94.8 %	95.8 %
European efficiency	93.4 %	94.5 %
MPP efficiency	99 %	
Power derating at full power	from 40°C	
Switch-on power	2 W	
Standby power	0 W	

	StecaGrid 300	StecaGrid 500
Safety		
Isolation principle	no galvanic isolation, transformerless	
Grid monitoring	optional via StecaGrid Control	
Operating conditions		
Area of application	indoor rooms, with or without air conditioning	
Ambient temperature	-20 °C ... +45 °C	
Relative humidity	0 % ... 95 %	
Noise emission	< 32 dBA	
Fitting and construction		
Degree of protection	IP 20	
DC Input side connection	MultiContact MC 3 (Solarline 1), MC 4 (Solarline 2)	
AC output side connection	Wieland Electric GST 18i3V plug	
Data connection	Steca data coupling [provided with the inverter]	
Dimensions (X x Y x Z)	176 x 243 x 71 mm	
Weight	1.4 kg	
DC circuit breaker	no	
Cooling principle	natural convection	
Test certificate	CE mark	





StecaGrid Control

StecaGrid Control monitors a system with a maximum output of 3,600 watts.

In Germany, Austria and France, for example, due to the applicable standards, the use of a StecaGrid Control D1 with grid-monitoring function (MSD) and integrated residual current circuit breaker is mandatory. In countries without impedance monitoring, e.g. the Netherlands, StecaGrid Control N is used.

The frontal display of the StecaGrid Control shows both the amount of energy produced by the MiniString inverters, and the current system status.



Electronic protection functions

- Universal current sensitive residual current monitoring

Displays

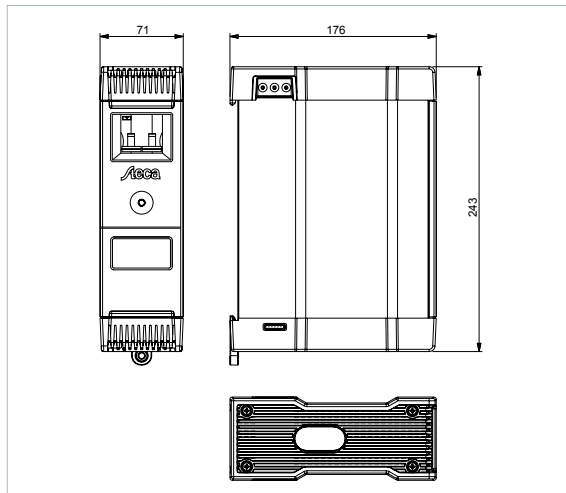
- Text LCD display
 - for energy yield

Operation

- Main switch

Options

- Grid monitoring as per DIN VDE 0126-1-1 for StecaGrid Control D1



	StecaGrid Control N	StecaGrid Control D1
AC output side (Grid connection)		
Grid voltage	-*	196 V ... 253 V
Rated grid voltage	230 V	
Maximum output current	16 A	
Maximum output power	3,600 W	
Rated frequency	50 Hz	
Frequency	-*	49.8 Hz ... 50.2 Hz
Night-time power loss	2.4 W	
Feeding phases	single-phase	
Safety		
Grid monitoring	none	compliant with DIN VDE 0126-1-1
Earth leakage circuit breaker	30 mA [DC sensitivity is suitable for StecaGrid 300 / 500]	30 mA [DC sensitivity is suitable for StecaGrid 300 / 500]
Operating conditions		
Area of application	indoor rooms, with or without air conditioning	
Ambient temperature	-20 °C ... +45 °C	
Relative humidity	0 % ... 95 %	
Noise emission	< 30 dBA	
Fitting and construction		
Degree of protection	IP 20	
AC output side connection	1.5 m mains cable with mains plug	Wieland Electric GST 18i V plug
Data connection	Steca data coupling [provided with the inverter]	
Dimensions (X x Y x Z)	176 x 243 x 71 mm	
Weight	1.75 kg	
Test certificate	CE mark	

* is not monitored.

[areas of application]

