



StecaGrid 1900, StecaGrid 2000+ and StecaGrid 2010+

1,840 W up to several 10,000 W

This product range consists of masters and slaves. Like the slaves, the master includes an inverter, but it also provides additional functions: a four-line display, a data logger for storing the yield values, country-specific grid monitoring of the alternating current output, and optional use of an interface card.

Flexible system design

Every inverter (Master or Slave) of the product range has two inputs, with each input having its own MPP tracker. One module string can be connected to each input. If required, the inputs can also be connected in parallel.

The advantage of such a system is the low sensitivity to negative influences such as (e.g.) partial shadowing, functional faults, or the dropout of a string. The use of several decentralised master-slave combinations reduces the cost of DC cabling, and minimises electrical losses.

Galvanic isolation

The StecaGrid 1900, StecaGrid 2000+ and StecaGrid 2010+ inverters are equipped with a high-frequency transformer, and are thus galvanically isolated. This enables unrestricted use of thin-film modules. Nevertheless, high efficiency of up to 95 % is achieved.

Diverse application situations

StecaGrid inverters offer constant high-power capability over a wide range of ambient temperatures. This is supported by maintenance-free, natural convection via the large-dimension cooling fins. Since no fans are used, the inverters work in virtual silence. Thanks to the high degree of protection, StecaGrid inverters are also suitable for outdoor installation.

StecaGrid 2010+ with integrated DC circuit breaker

To reduce the installation time, the StecaGrid 2010+ inverter has an integrated DC circuit breaker. For safety reasons, the cable cover located above the DC connector can only be removed when the DC circuit breaker is switched off.

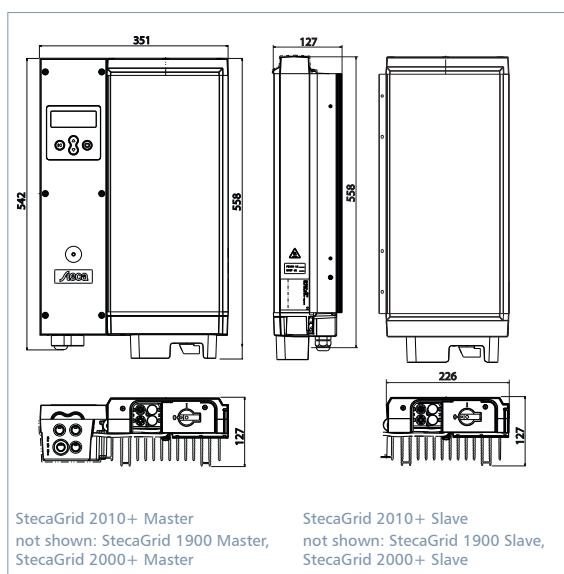
Product features

- Two Maximum Power Point Trackers (MPP tracker) per device
- Flexible and expandable
- High efficiency
- Low weight
- Simple installation
- Master-slave concept
- Integrated DC circuit breaker (StecaGrid 2010+)
- Suitable for outdoor installation
- Fanless and maintenance-free
- Integrated data logger
- Wall-mounting with steel wall bracket for very easy installation



StecaGrid 2010+ Master
not shown: StecaGrid 1900 Master,
StecaGrid 2000+ Master

StecaGrid 2010+ Slave
not shown: StecaGrid 1900 Slave,
StecaGrid 2000+ Slave



StecaGrid 2010+ Master
not shown: StecaGrid 1900 Master,
StecaGrid 2000+ Master

StecaGrid 2010+ Slave
not shown: StecaGrid 1900 Slave,
StecaGrid 2000+ Slave

StecaGrid 1900, StecaGrid 2000+ and StecaGrid 2010+ (Master and Slaves) can be combined with each other.

Displays

- Text LCD display
 - for current output, energy yields, operating parameters, date, time, service information
- Multi-coloured LED shows operating states

Operation

- Multilingual menu navigation
- Four cursor buttons for menu selection



	StecaGrid 1900 D Master	StecaGrid 2000+ D Master	StecaGrid 2000+ Master	StecaGrid 2010+ D Master	StecaGrid 2010+ Master
DC input side (PV-generator)					
Maximum start voltage	410 V				
Maximum input voltage	450 V (higher voltages can damage the device)				
Minimum input voltage	80 V				
Minimum input voltage for rated output	125 V	132 V			
MPP voltage	80 V ... 400 V				
Maximum input current	2 x 8 A [current limited by inverter] or 1 x 16 A [parallel inputs]				
Maximum input power	1,000 W [per input] or 2,000 W [2 parallel inputs]	1,075 W [per input] or 2,150 W [2 parallel inputs]			
Maximum recommended PV power	2,200 Wp	2,400 Wp			
Grounding	-			internal function grounding of the negative input for connecting amorphous and micromorphic thin-film modules	
Derating / limiting	automatic when - input power is higher (> 1,000 W resp. > 1,075 W / input) - the device is not cooled sufficiently - input currents > 2 x 8 A or 1 x 16 A (parallel inputs) (higher currents are limited by the equipment and therefore will not damage the inverter)				
AC output side (Grid connection)					
Grid voltage	190 V ... 265 V [depending on regional settings]				
Rated grid voltage	230 V				
Maximum output current	10 A				
Maximum output power	1,840 W	2,000 W			
Rated power	1,840 W	2,000 W			
Rated frequency	50 Hz	50 Hz, optional 60 Hz		50 Hz	
Frequency	47.5 Hz ... 52 Hz [depending on regional settings]				
Night-time power loss	1.3 W	1.3 W	1.0 W	1.3 W	1.0 W
Feeding phases	single-phase				
Power factor	> 0.95				
Distortion factor	< 5 % (max. power)				
Characterisation of the operating performance					
Maximum efficiency	95 %				
European efficiency	93.3 %				
MPP efficiency	> 99 %				
Power derating at full power	from 45 °C (T _{amb})	from 40 °C (T _{amb})			
Switch-on power	20 W				
Standby power	3 W				
Safety					
Isolation principle	HF-transformer with galvanic separation and amplified isolation				
Grid monitoring	yes, integrated				
Selectable parameter settings	Greece, France, Spain, Portugal, Italy, Great Britain	Netherlands, Belgium, France, Spain, Great Britain, Germany (Type with 60 Hz: DOM-TOM, Costa Rica)		Netherlands, Belgium, France, Spain, Great Britain, Germany	
Operating conditions					
Area of application	indoor rooms with or without air conditioning, outdoors with or without protection				
Ambient temperature	-25 °C ... +60 °C				
Relative humidity	0 % ... 95 %				
Noise emission	< 32 dBA				
Fitting and construction					
Degree of protection	IP 65				
DC Input side connection	MultiContact MC 4				
AC output side connection	WAGO 1.5 mm ² ... 10 mm ² (flexible) / 16 mm ² (solid)				
Dimensions (X x Y x Z)	351 x 542 x 140* mm			351 x 558 x 140* mm	
Weight	approx. 11 kg				
Communication interface	optional StecaGrid Connect with Ethernet interface				
Integrated DC circuit breaker	no			yes, compliant with VDE 0100-712	
Cooling principle	natural convection				
Test certificate	certificate of compliance as per DIN VDE 0126-1-1, CE mark	certificate of compliance as per DIN VDE 0126-1-1, CE mark, DK 5940, G83	CE mark, DK 5940, G83	certificate of compliance as per DIN VDE 0126-1-1, CE mark, G83	CE mark, G83

*incl. mounting plate



	StecaGrid 1900 Slave	StecaGrid 2000+ Slave	StecaGrid 2010+ Slave
DC input side (PV-generator)			
Maximum start voltage	410 V		
Maximum input voltage	450 V (higher voltages can damage the device)		
Minimum input voltage	80 V		
Minimum input voltage for rated output	125 V	132 V	
MPP voltage	80 V ... 400 V		
Maximum input current	2 x 8 A [current limited by inverter] or 1 x 16 A [parallel inputs]		
Maximum input power	1,000 W [per input] or 2,000 W [2 parallel inputs]	1,075 W [per input] or 2,150 W [2 parallel inputs]	
Maximum recommended PV power	2,200 Wp	2,400 Wp	
Grounding	-		internal function grounding of the negative input for connecting amorphous and micromorphic thin-film modules
Derating / limiting	automatic when - input power is higher (> 1,000 W resp. > 1,075 W / input) - the device is not cooled sufficiently - input currents > 2 x 8 A or 1 x 16 A (parallel inputs) (higher currents are limited by the equipment and therefore will not damage the inverter)		
AC output side (Grid connection)			
Grid voltage	190 V ... 265 V [depending on regional settings]		
Rated grid voltage	230 V		
Maximum output current	10 A		
Maximum output power	1,840 W	2,000 W	
Rated power	1,840 W	2,000 W	
Rated frequency	50 Hz	50 Hz, optional 60 Hz	50 Hz
Frequency	47.5 Hz ... 52 Hz [depending on regional settings]		
Night-time power loss	0 W		
Feeding phases	single-phase		
Power factor	> 0.95		
Distortion factor	< 5 % (max. power)		
Characterisation of the operating performance			
Maximum efficiency	95 %		
European efficiency	93.5 %		
MPP efficiency	> 99 %		
Power derating at full power	from 45 °C (T _{amb})	from 40 °C (T _{amb})	
Switch-on power	20 W		
Standby power	3 W		
Safety			
Isolation principle	HF-transformer with galvanic separation and amplified isolation		
Grid monitoring	via master		
Selectable parameter settings	via master		
Operating conditions			
Area of application	indoor rooms with or without air conditioning, outdoors with or without protection		
Ambient temperature	-25 °C ... +60 °C		
Relative humidity	0 % ... 95 %		
Noise emission	< 32 dBA		
Fitting and construction			
Degree of protection	IP 65		
DC Input side connection	MultiContact MC 4		
AC output side connection	via master		
Dimensions (X x Y x Z)	226 x 535 x 140* mm	226 x 558 x 140* mm	
Weight	approx. 9 kg		
Communication interface	optional StecaGrid Connect with Ethernet interface via master		
Integrated DC circuit breaker	no	yes, compliant with VDE 0100-712	
Cooling principle	natural convection		
Test certificate	CE mark	CE mark, DK 5940, G83	CE mark, G83

*incl. mounting plate



System monitoring for
StecaGrid 1900, StecaGrid 2000+,
StecaGrid 2010+

Data logger and Display

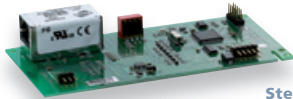
As standard, these inverters provide functions which enable complete integrated monitoring of the solar power system. The system's operating status (voltage, module output, grid frequency and grid voltage) and the energy yields of master and slaves are included. These measured values are shown on the display at all times.



System monitoring and accessories



DC circuit breaker



StecaGrid Connect
Network interface card



StecaGrid Connect User
User interface



StecaGrid Monitor
Data logger