

StecaGrid 8000+ 3ph and StecaGrid 10 000+ 3ph

Always symmetrical

The advantage of three-phase feeding is that the produced solar capacity is always symmetrically distributed on all three power conductors to the public power grid. This is the case across the whole output range offered by these inverters. When designing a system, the laborious avoidance of an asymmetry of more than 4.6 kW through the appropriate selection of separate inverters is thus dispensed with. Symmetrical feeding is greatly in the interests of energy supply companies. Lengthy discussions with such companies are therefore a thing of the past.

Long service life

While the voltage passes through zero on the grid-feeding phase, single-phase inverters must temporarily accommodate all energy supplied by the solar modules within the device. This is usually realised by electrolytic capacitors. These components influence the service life of an electronic device, due to the possibility of drying out.

With three-phase inverters, energy is fed into the grid on at least two phases at all times. Thus, the necessity of intermediate storage of energy in the device is greatly reduced, which is of benefit to the system operator with regard to a longer service life.

Flexible connection

Due to the wide input voltage range of 350 V to 845 V, and a maximum input current of 27 A / 32 A, all commonly available crystalline solar modules can be connected to the inverters in various configurations. Beyond this, the system is also approved for use with CdTe and CIS / CIGS thin-film modules (www.stecasolar.com/matrix). Four plug/socket pairs are available for flexible, mechanical DC connection.

Product features

- High efficiency
- Wide input voltage range
- Three-phase, symmetrical grid feeding
- Integrated data logger
- Firmware update possible
- Integrated DC circuit breaker
- Robust metal casing
- Suitable for outdoor installation
- Wall-mounting with steel wall bracket for very easy installation

Displays

- Multifunction graphical LCD display with backlighting
- Animated representation of yield

Operation

- Simple menu-driven operation
- Multilingual menu navigation

Options

- Type with mit 230 V / 60 Hz
- System monitoring with Solar-Log™ and WEB'log
- Can be connected to the StecaGrid Vision display unit or a large-format display



StecaGrid 8000+ 3ph

StecaGrid 10000+ 3ph

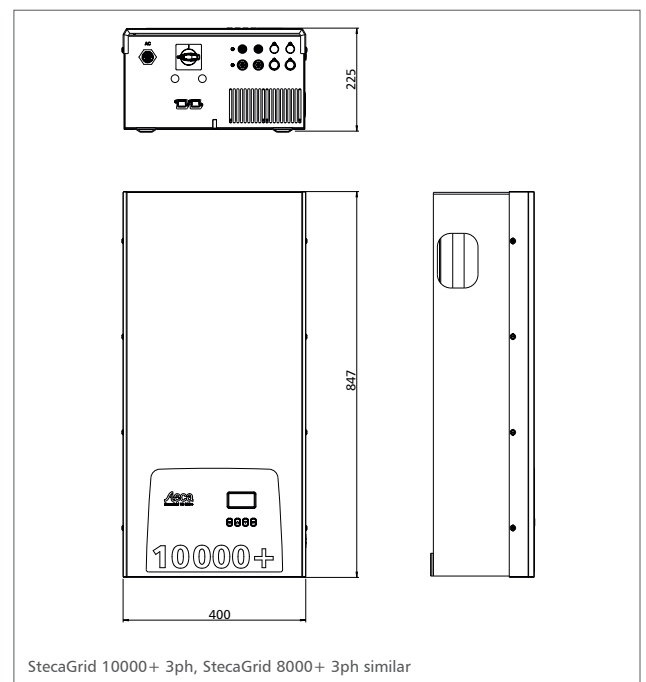
Easy handling

The StecaGrid 8000+ 3ph and StecaGrid 10 000+ 3ph have a graphical LCD display for visualising the energy yield values, current performance and operating parameters of the system. Its innovative menu allows individual selection of the various measurements. The guided, pre-programmed menu allows easy final commissioning of the device.

Despite their high output, the inverters are wall-mounted devices. Thanks to the high degree of protection, these inverters can be installed indoors or outdoors. Due to the integrated DC circuit breaker, installation work is made easier, and the installation time is reduced. It is not necessary to open the inverter during installation.

Flexible system design

The combination of the StecaGrid 8000+ 3ph and the StecaGrid 10000+ 3ph allows optimum design for almost any power class. A diverse range of combinations are possible but they all share the same goal: the effective use of solar irradiation.



StecaGrid 10000+ 3ph, StecaGrid 8000+ 3ph similar

System monitoring and accessories



StecaGrid User
Visualisation software



StecaGrid Vision
Display unit



Solar-Log 500/1000™ and
Meteocontrol WEB'log Comfort
Accessories



StecaGrid SEM
Energy manager

	8000+ 3ph	10 000+ 3ph
DC input side (PV-generator)		
Maximum input voltage	845 V	
Minimum input voltage for feeding	350 V	
MPP voltage for rated output	350 V ... 700 V	
Maximum input current	27 A	32 A
Maximum input power at maximum active output power	9,250 W	10,800 W
Maximum recommended PV power	10,500 Wp	12,500 Wp
AC output side (Grid connection)		
Grid voltage	320 V ... 480 V (depending on regional settings)	
Rated grid voltage	400 V	
Maximum output current	16 A	
Maximum active power (cos phi = 1)	8,800 W ^{1) 3)}	10,300 W ^{2) 3) 5)}
Maximum active power (cos phi = 0.95)	8,800 W ^{1) 3)}	9,800 W ³⁾
Maximum active power (cos phi = 0.9)	8,800 W ^{1) 3)}	9,300 W ³⁾
Maximum apparent power (cos phi = 0.95)	9,260 VA ⁴⁾	10,300 VA ⁴⁾
Maximum apparent power (cos phi = 0.9)	9,780 VA ⁴⁾	10,300 VA ⁴⁾
Rated power	8,000 W	9,900 W
Rated frequency	50 Hz, optional 60 Hz	
Frequency	47.5 Hz ... 52 Hz (depending on regional settings)	
Night-time power loss	< 2.5 W	
Feeding phases	three-phase	
Distortion factor (cos phi = 1)	< 3 % (max. power)	
Power factor cos phi	0.9 capacitive ... 0.9 inductive	

	8000+ 3ph	10 000+ 3ph
Characterisation of the operating performance		
Maximum efficiency	96.3 %	
European efficiency	95.2 %	95.4 %
MPP efficiency	> 99 %	
Power derating at full power	from 50 °C (T _{amb})	
Safety		
Isolation principle	no galvanic isolation, transformerless	
Grid monitoring	yes, integrated	
Residual current monitoring	yes, integrated ⁶⁾	
Operating conditions		
Area of application	indoor rooms with or without air conditioning, outdoors with protection	
Ambient temperature	-20 °C ... +60 °C	
Storage temperature	-30 °C ... +80 °C	
Relative humidity	0 % ... 95 %, non-condensating	
Noise emission (typical)	< 60 dBA	
Fitting and construction		
Degree of protection	IP 54	
Overvoltage category	III (AC), II (DC)	
DC Input side connection	Multicontact MC4 (4 pairs), rated current 22 A per input	
AC output side connection	Wieland RST25i5 plug, mating connector included	
Dimensions (X x Y x Z)	400 x 847 x 225 mm	
Weight	42 kg	
Communication interface	RS485; 2 x RJ45 sockets; connectable to Steca-Grid Vision, Meteocontrol WEB'log, Solar-Log, StecaGrid Monitor	
Integrated DC circuit breaker	yes, compliant with DIN VDE 0100-712	
Cooling principle	temperature-controlled fan, variable speed	
Test certificate	certificate of compliance as per DIN VDE 0126-1-1, CE mark, VDE AR N 4105, G59, G83, AS4777, UTE C 15-712-1	

¹⁾ Germany and Denmark_unlimited: 8,000 W

²⁾ Germany and Denmark_unlimited: 9,900 W

³⁾ Denmark: 6,000 W

⁴⁾ Denmark: 6,670 VA at cos phi = 0.90; 6,320 VA at cos phi = 0.95

⁵⁾ Belgium and Australia: 10,000 W

⁶⁾ The design of the inverter prevents it from causing DC leakage current

