

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

- 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

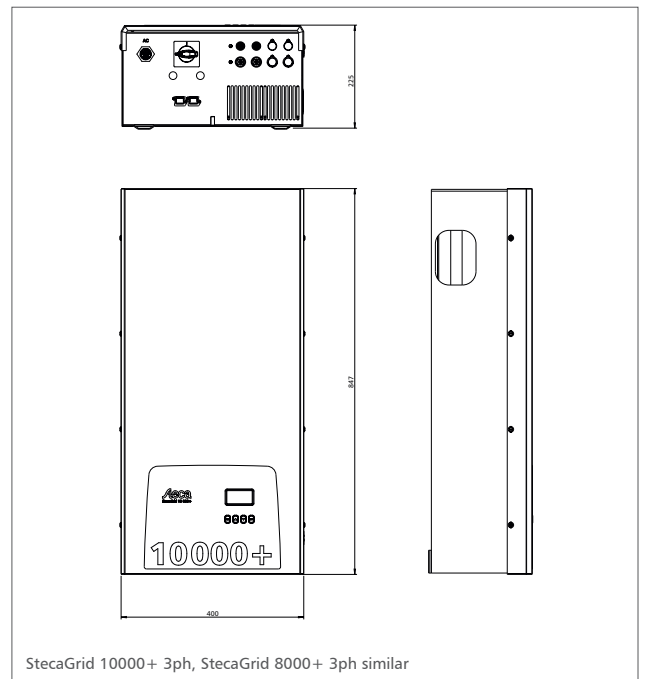
Easy handling

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.

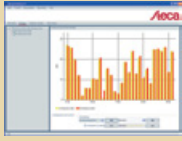
Flexible system design

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



**Meteocontrol WEB'log and
Meteocontrol WEB'log Comfort**
Data logger



Solar-Log 500/1000™
Data logger

| | 8000+ 3ph | 10 000+ 3ph |
|--|---|---------------------------|
| DC input side (PV-generator) | | |
| Maximum start voltage | 845 V | |
| Maximum input voltage | 845 V | |
| Minimum input voltage | 350 V | |
| Minimum input voltage for rated output | 350 V | |
| MPP voltage | 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)} |
| 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 | |
| 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}) | |
| Standby power | 9 W | |
| Safety | | |
| Isolation principle | no galvanic isolation, transformerless | |
| Grid monitoring | yes, integrated | |
| Residual current monitoring | yes, integrated ⁵⁾ | |
| 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 | < 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 or Solar-Log | |
| Integrated DC circuit breaker | yes, compliant with 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, CEI 0-21 | |

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

