



Data sheet
blueplanet
gridsave eco 5.0 TR1

Flexible. Modular. Intelligent.

The bidirectional battery inverter blueplanet gridsave eco 5.0 TR1.

Environmentally-friendly, reliable solar power supply around the clock – it's easy with the blueplanet gridsave eco 5.0 TR1. Save your solar power during the day and use it whenever you want with our battery inverter. This helps you bridge the gaps during the times between power generation and power consumption for private and small-scale commercial purposes – in both grid-parallel and off-grid operation. Thanks to its AC coupling, the blueplanet gridsave eco 5.0 TR1 is not only suitable for new plants but also ideal for expanding existing PV systems, regardless of the brand of the solar PV inverter in use.

This intelligent energy manager uses efficient control logic to communicate between the solar PV inverter, the PV array, the lead-based battery and the public power grid. This ensures that the entire system is operating as efficiently as possible and that you are achieving optimal energy consumption for your solar pow-

er. You select the battery capacity according to your needs. With this modular approach, blueplanet gridsave eco 5.0 TR1 also provides you with the highest level of flexibility.

A special highlight is the capacity to switch to back-up power, virtually without interruption in the event that the public grid fails. In pure off-grid networks, the blueplanet gridsave eco 5.0 TR1 is the heart of the whole system and takes charge of energy management including the actuation of additional energy sources such as emergency backup generators or diesel generators. On top of that, an emergency power supply from stored solar power is also possible when combined with KACO new energy solar PV inverters: the battery is recharged by the PV array.

Of course, with an appropriate number of components, the blueplanet gridsave eco 5.0 TR1 also allows synchronised

three-phase systems with the same features to be established. It can control up to five solar PV inverters.

Thanks to the monitoring software included in the delivery scope you can conveniently access your system at any time; also included: a temperature sensor. By continuously measuring the temperature and the midpoint, the blueplanet gridsave eco 5.0 TR1 keeps track of the status of the batteries much more precisely than the majority of our competitors' products. This guarantees the maximum service life of the batteries.

To make the subsequent integration of this storage solution as simple as possible, we offer you, in addition to the individual product, system upgrade packages that contain all the parts you need.



blueplanet gridsave eco 5.0 TR1

Flexible integration in existing systems thanks to AC connection

Variable battery capacity, can be used with all types of lead batteries

Convenient set-up and visualisation via PC access

Grid monitoring with switch-over to emergency power supply without virtually any interruption in the event of a grid failure

Off-grid capacity (1- and 3-phase)

Compatible with all commercially available inverters

Control of energy sources possible

Electrical data		blueplanet gridsave eco 5.0 TR1
Power		
Rated output and charging current (25 °C)	5 kVA / 104 A	
Peak output power (< 30 s)	12 kVA	
Max. recommended power of AC-coupled solar inverter (off-grid/emergency power)	10 kVA	
DC side		
Battery voltage (nominal)	48 V	
DC input voltage range	40 V ... 68 V	
Rated currents (25 °C)	104 A	
AC side		
Nominal voltage	230 V	
Rated current	22 A	
Rated frequency	50/60 Hz	
THD	< 3 %	
Emergency power supply	yes	
Transfer switch		
AC transfer current capacity	32 A	
Switching time	< 30 ms	
General electrical data		
Max. efficiency	96 %	
Stand-by losses	8 W	
Safety	IEC 62040-1-1:2002	
EMC	EN 61000.6.3:2007	
Certifications	overview: see homepage / download area	
Mechanical data		
Display	LED, acoustic warning	
Interfaces	USB, RS485, RS232, ethernet, 3 analog inputs, 4 analog outputs, 4 digital inputs, 3 digital outputs	
Battery/inverter connection cable*	max. length: 3 m at 50 mm ² 10 m at 70 mm ²	
Connection for battery/inverter: circuit breaker*	2-pole, 160 A	
Ambient temperature	-10 °C ... +60 °C	
Protection class	IP43	
Cooling	fan	
H x W x D	690 x 375 x 220 mm	
Weight	40 kg	
System upgrade package*		
Includes: Lead-acid battery system plus connection kit, External measuring point for optimising personal consumption, 3-phase grid monitoring and system protection, external interface converter		

Your retailer