

**NEW**

Data sheet  
blueplanet  
gridsave 50.0 TL3-S



# The clockwork of your energy storage system.

## The bidirectional battery inverter blueplanet gridsave 50.0 TL3-S.

The blueplanet gridsave 50.0 TL3-S is a bidirectional battery inverter with an output of 50 kilowatts for storage applications up to the megawatt range that are based on lithium ion battery technologies. Public utilities, distribution system operators, EPCs and large businesses alike will profit from its grid management capabilities in order to balance generation and load of power networks.

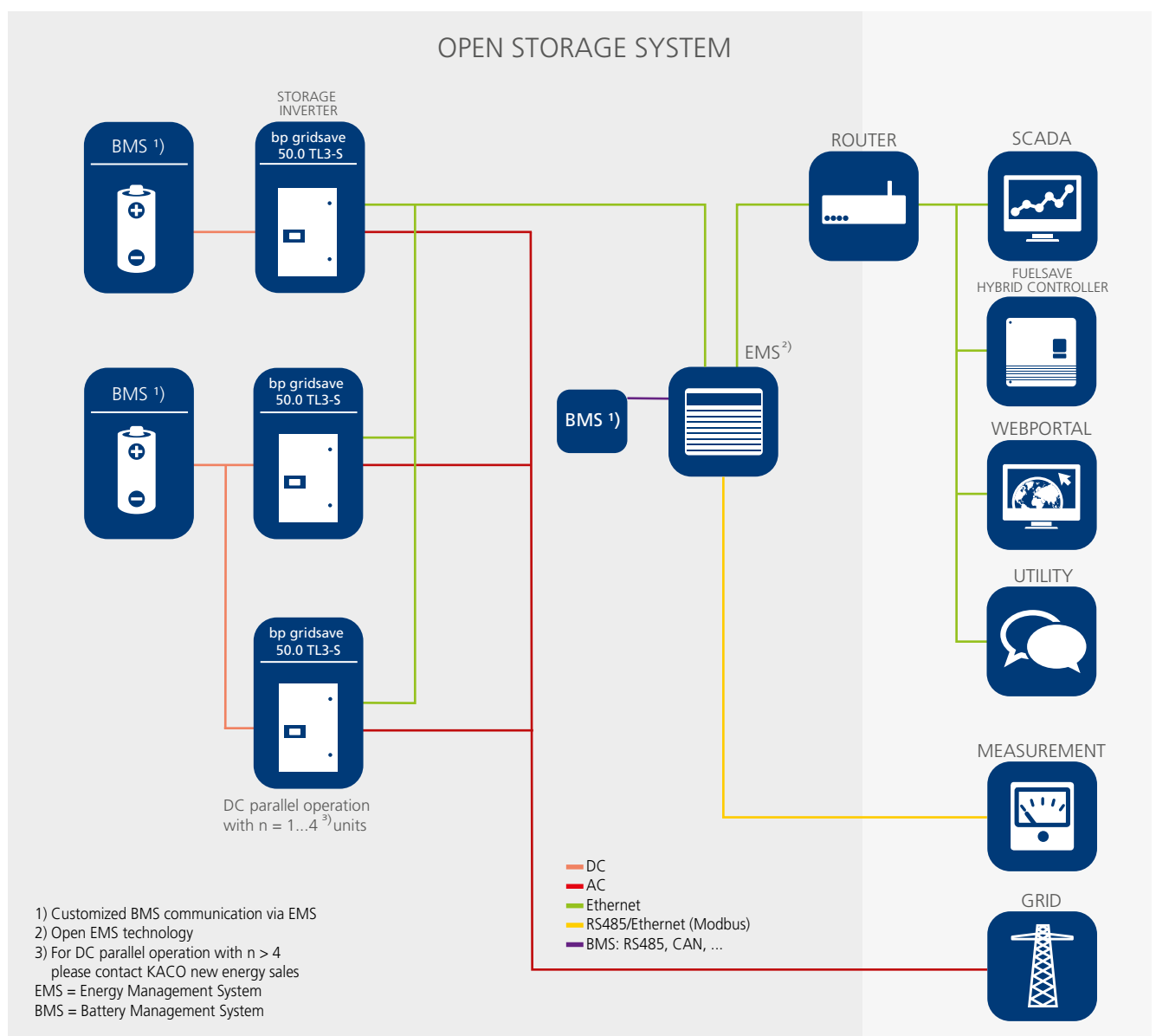
The blueplanet gridsave 50.0 TL3-S is deployed between battery storage and power grid. Controlled by an external

energy management system, the battery inverter moves energy from the grid during nighttime or excessive energy from solar inverters during the day into batteries. By supplying the stored energy in times of high energy demand during the day, it regulates energy peaks. Charging and discharging batteries, it also provides grid support by compensating reactive power or supplying additional active power.

The power grid can be the national grid, a power supply of a small town or in-

dustrial facility: The size of the storage system is scalable according to requirements.

The blueplanet gridsave 50 TL3-S communicates via Modbus. This widespread interface allows for a large number of available controllers to manage the energy storage system. It can therefore easily meet individual requirements in the design of a storage system.



# Technical data

## blueplanet gridsave 50.0 TL3-S

Electrical data	gridsave 50.0 TL3-S	PRELIMINARY
<b>DC input</b>		
Max. input current	90 A	
Max. short circuit current	150 A	
Min. starting voltage	665 V <sup>1)</sup>	
Operating range	580 V <sup>1)</sup> – 910 V	
Number of DC inputs	1	
<b>AC output</b>		
Rated output	50 kVA <sup>2)</sup>	
Line voltage	400 V <sup>1)</sup> / 230 V ± 10% (3/N/PE or 3/PEN)	
Rated current	3 x 72.4 A @ 230 V	
Max.current	3 x 76.5 A	
Frequency	50 / 60 Hz	
THD	≤1 %	
Number of grid phases	3	
Cos phi	0 inductive ... 1 ... 0 capacitive <sup>3)</sup>	
<b>General electrical data</b>		
Max. efficiency	98,5 %	
Standby consumption	≤ 3 W	
Topology	transformerless	
Interfaces	2 x Ethernet, USB	
AC connection	screw terminals, max. 95 mm <sup>2</sup>	
DC connection	cable lugs, max. 70 mm <sup>2</sup>	
Ambient temperature	-20° C ... +60° C <sup>4)</sup>	
Cooling	forced convection / speed controlled fan	
Noise emission	< 61 db(A)	
Protection class	IP65	
H x W x D	760 x 500 x 452 mm	
Weight	75 kg	
Altitude	< 2000 m	
<b>Supported functions</b>		
Communication	TCP/IP, Modbus TCP Sunspec	
Operation mode	on-grid (charge/discharge)	
Per-charge circuit	optional	
DC parallel operation	up to 4 <sup>5)</sup>	
Display and operation	LCD + LEDs, 4-way navigation + 2 buttons	
Protective function	overvoltage, overcurrent, overload, overheating, low voltage	
Standards	IEC 62477, IEC 62109, EN61000-6-2, EN61000-6-3, EN61000-6-4 <sup>6)</sup> , EN61000-3-11/-12	

<sup>1)</sup> Grid voltage  $U_{AC}$ , min. battery voltage  $U_{DCmin}$  and min. starting voltage  $U_{DCstartmin}$  are dependent of each other

<sup>2)</sup> Power derating for voltages < 380 V

<sup>3)</sup> for cos phi < 0,3 (inductive, capacitive) direct Q-setpoint required

<sup>4)</sup> Power derating at low and high ambient temperatures

<sup>5)</sup> For DC parallel operation with > 4 please contact KACO new energy sales

<sup>6)</sup> For DC parallel operation



## blueplanet gridsave 50.0 TL3-S

Static and dynamic grid support

Capable of reactive power

50 kVA rated power

Scalable system

AC-coupled

Lithium Ion Battery System

Modbus communication interface  
for use with different controllers

Compact and lightweight for wall  
mounting

Your retailer

---