KACO
new energy.



blueplanet gridsave
backup 100–165 TL3-S

- Black Start & Grid Forming
- Best-in-class Efficiency
- Compact & Quiet

Data Sheet.
blueplanet gridsave backup battery inverter

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Battery Input (DC)	gridsave backup 100 TL3	gridsave backup 120 TL3	gridsave backup 150 TL3	gridsave backup 165 TL3
Standard charging / discharging voltage range	668 V – 1500 V	801 V – 1500 V	1002 V – 1500 V	1102 V – 1500 V
Max. operating voltage	1500 V			
Nominal current	160 A			
Max. short circuit current $I_{sc\ max}$	300 A			
DC-Isolation measurement	yes, before connecting to AC			
RCMU	yes, electronic replica of RCD Type B[1)]			
Number of DC inputs	1			
AC Output (On-Grid operation)				
Nominal power	100 kVA	120 kVA	150 kVA	165 kVA
Nominal current	3 x 144,3 A			
Nominal voltage	400 V	480 V	600 V	660 V
Voltage range (Ph-Ph)	300 - 460 V	360 - 552 V	450 - 690 V	495 - 759 V
Frequency (range)	50 Hz / 60 Hz (45 Hz - 65 Hz)			
THD	< 3 % (on-grid & off-grid)			
Number of grid phases	3 + N (N must be connected)			
Reactive power, cos phi range	0 – 100 % Smax / 0,30 ind. – 0,30 cap.			
AC Output (Off-Grid operation)				
Backup operation	possible, activated by EMS			
Nominal power	100 kVA	120 kVA	150 kVA	165 kVA
Max. current	3 x 145 A			
Support of asymmetric loads	yes (limeted asymmetric current)			
General Data				
Max. efficiency	> 98.5 %			
Operation methode	grid following (on-grid) / gridforming (off-grid)			
DC parallel operation	yes, 2			
Communication	Ethernet (MODBUS TCP/IP) based on Sunspec			
Standby consumption	< 10 W			
Protective functions	overvoltage, overcurrent, overload, overheating, undervoltage			
Topology	transformerless			
Distribution system	TN-System, TT-System, Solid grounded wye			
Mechanical Data				
Display	LEDs			
Controls	web server			
Dimension (WxHxD)	719 x 699 x 450 mm			
Weight	< 85 kg			
Fault signalling relay	potential-free NOC max. 30 V / 1 A			
DC connection	cable lug, 240mm², cable gland 2 x M40			
AC connection	cable lug, 240mm², cable gland 5 x M40			
Communication connection	cable gland 2 x M25 / 3 x M16			
Ambient temperature range	-20 °C to 60 °C* [2)]			
Installation altitude	max. 3000 m (> 2000 m derating)			
Installation humidity	0~100 % (Non condensing)			
Cooling method	Forced air cooling & replaceable fans			
Noise emission	< 60 dB (A)			
Degree of protection	IP66 / NEMA 4X			
Certificates				
Safety	EN 62109-1, EN 62109-2			
Country grid codes	Overview: see homepage, download area			

[1)]Only in DC single mode.
[2)]Derating at higher temperature.

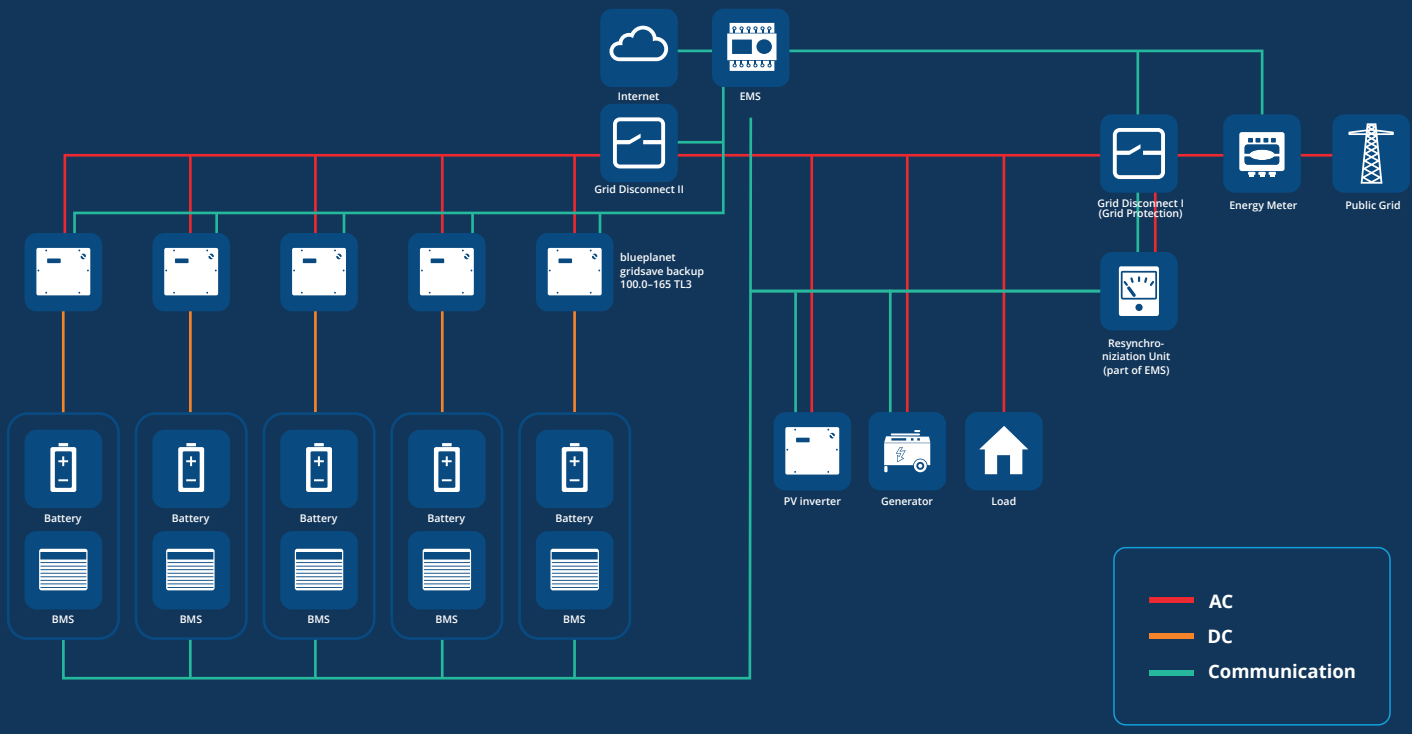
Versions	M	L	XL
Pre-charge	—	✓	✓
DC fuse	✓	✓	✓
DC load relay +	—	✓	✓
DC load relay -	—	—	✓

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The text and figures reflect the current technical state at the time of printing. Subject to technical changes. Errors omissions excepted. This current version replaces all older versions. Download the most current version at: www.kaco-newenergy.com

Data Sheet.

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CO₂-neutral production

WE TURN PASSION
INTO POWER.

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