KACO new energy.



blueplanet gridsave

92.0 TL3-S – 137 TL3-S

BIDIRECTIONAL BATTERY INVERTERS FOR COMMERCIAL STORAGE AND UTILITY ENERGY STORAGE SYSTEMS

Energy storage. Easy-going.

- 98.9% max. efficiency through silicon carbide technology (SiC)
- Significant power density of 1.7 kVA/kg
- High system flexibility, expandable to utility-scale applications via Virtual Central concept
- Easy to control through open communication standard
- All-in-one versions available including pre-charge unit and DC load relay

Technical Data.

DC input data	gridsave 92.0 TL3-S	gridsave 110 TL3-S	gridsave 137 TL3-S
Operating voltage	668 - 1315 V [1]	801 - 1315 V [1]	1002 - 1315 V [1]
Max. DC voltage	1315 V [1]	1315 V [1]	1315 V [1]
Max. input current	145 A	145 A	145 A
Max. short circuit current $I_{sc\ max}$	300 A	300 A	300 A
Number of DC inputs	1	1	1
AC output data			
Rated output	92 000 VA	110 000 VA	137 000 VA
Max. power	92 000 VA	110 000 VA	137 000 VA
Line voltage	400 V	480 V	600 V
Voltage range (Ph-Ph)	300 - 580 V	300 - 580 V	480 - 760 V
Rated frequency (range)	50 Hz / 60 Hz (45 Hz - 65 Hz)	50 Hz / 60 Hz (45 Hz - 65 Hz)	50 Hz / 60 Hz (45 Hz - 65 Hz)
Rated current	3 x 132.3 A	3 x 132.3 A	3 x 132.3 A
Max.current	3 x 132.3 A	3 x 132.3 A	3 x 132.3 A
Reactive power / cos phi	0 – 100 % Smax / 0.30 ind. – 0.30 cap.		
Max. total harmonic distorsion (THD)	<3 %		
Number of grid phases	3		
General data			
Max. efficiency	Charge: 98.5% Discharge: 98.7%	Charge: 98.6% Discharge: 98.8%	Charge: 98.7% Discharge: 98.9%
Operation mode	on-grid (charge / discharge)		
DC parallel operation	yes, 2		
Communication	TCP / IP, Modbus TCP based on Sunspec		
Standby consumption	<8 W without PCU, <14 W with PCU relay closed		
Protective functions	overvoltage, overcurrent, overload, overheating, undervoltage		
Circuitry topology	transformerless		
Mechanical data			
Display	LEDs		
Control units	webserver		
Interfaces	Ethernet, USB		
Fault signalling relay	potential-free NOC max. 30 V / 1 A		
DC connection	cable lug		
AC connection	screw terminal, max. 240 mm² Cu or Al		
Ambient temperature	-20 °C – +60 °C [2]		
Humidity	0 – 100 %		
Max. installation elevation (above MSL)	3 000 m		
Cooling	temperature controlled fan		
Protection class	IP66 / NEMA 4X		
Noise emission	<60 db (A)		
H x W x D	719 x 699 x 450 mm		
Weight	80 kg		
Certifications			
Safety	IEC 62477-1:2012, IEC 62109-1/2		
Grid connection rule	overview see homepage / download area		

[1]For country setting UD and IL, the operating range can be increased to 1450V, see manual - in chapter: Menu Structure
[1]Power derating at high ambient temperatures
Grid voltage UAC, min. battery voltage UDCmin and min. starting voltage UDCstartmin are dependent of each other;
BG92.0: 668VDC @ 230V, BG110: 801VDC @ 277V, BG137: 1001VDC @ 346V

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 and omissions excepted.
This current version replaces all older versions. Download the most current version at: www.kaco-newenergy.com

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