

All-in-one Storage Hybrid System



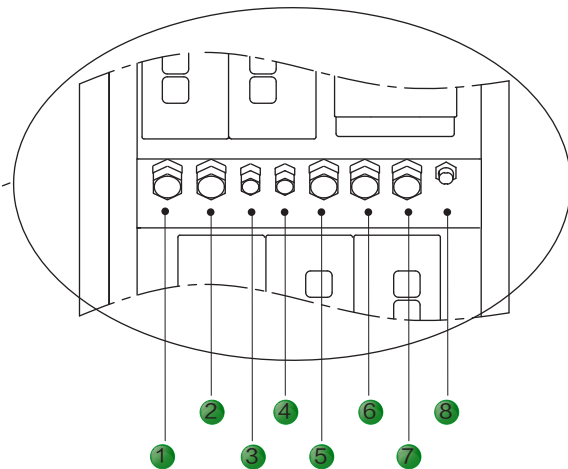
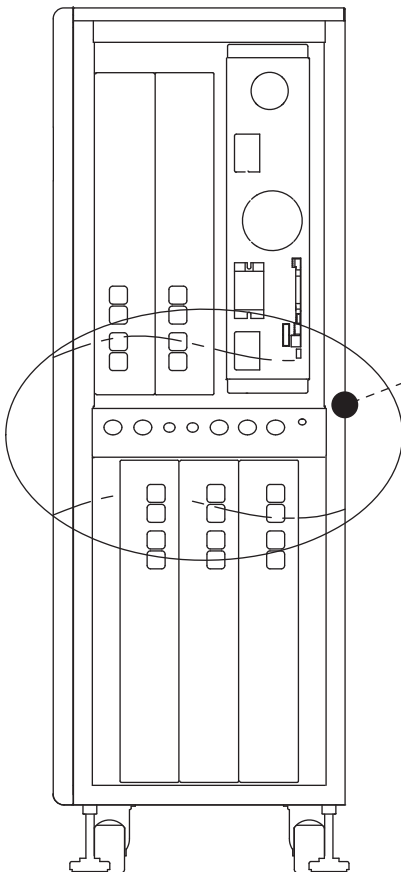
- The priority of power supply for battery and AC can be settable;
- There is no gap to switch between on-grid and off-grid in 20ms, and it will never go offline;
- Built-in lithium battery, and the capacity of 2.4-12kwh can be configured.



- The mode of on-grid and off-grid can be automatically determined and then it can be connected to the smart grid to realize the function of peak-saving and valley-filling and self-use;
- A variety of communication modules, such as RS485*3, CAN*2(with lithium battery), Wifi (optional);
- The charging and discharging time of the machine can be settable;
- The capacity of grid-connected output power can be settable.



- Professional energy management system, three-stage charging function, and compatible with lead-acid and lithium battery;
- To adjust the charging current via various battery types;
- Friendly man-machine interface, and with 4.3 inch LCD display;
- P54 protection level.



1	2	3	4	5	6	7	8
Negative	Positive	CAN	COM	Loads	Grid	PV	RS485

Specification

	BD3KTL-TD	BD5KTL-TD
DC input (PV)		
Max. DC input power (W)	3300	6600
Max. DC input voltage(V)	550	
Starting voltage (V) / Min. operation voltage (V)	100/80	
MPPT Range (V)	120~450	
Max. input current (A)	13A	13A×2
Number of MPPT /String per MPPT	1/1	2/1
Short circuit current (A)	15.6	15.6×2
AC output 1 (grid)		
Rated power (W)	3000	4600
Rated grid voltage (V)	208/220/230/240 (single phase)	
Rated grid frequency (Hz)	50/60	
Grid voltage range (V)	180~270	
Grid voltage frequency (Hz)	45~55/55~65	
Rated output current (A)	13	20
Power factor	≥0.99 (±0.95adjustable)	
THDi	≤3%(ar rated power)	
Max. efficiency	97.20%	97.70%
Euro-efficiency	96.50%	97%
AC output 2 (Loads)		
Rated output power (VA)	3000	5000
Rated output voltage (V)	208/220/230/240 (±2%)	
Rated output frequency (Hz)	50/60 (±0.2%)	
Off-network switching time	≤20ms	
Voltage harmonic distortion	≤3%(rated power)	
Peak power/duration	150%/10S	
Battery		
Rated voltage (V)	48	
Voltage range(settable) (V)	40-60	
Battery type	Lithium battery or Lead-acid battery	
Battery capacity	2.4kWh-12kWh(adjustable)	
Max. charging current(settable) (A)	60	100
Max. discharging current(settable)(A)	60	100
Max. efficiency	94%	
Others		
Isolation method (photovoltaic side)	Not isolation	
Isolation method (battery side)	High-frequency isolation	
Range of working temperature	-25 ~ +60℃ (40℃derating begins)	
Cooling method topology	Air cooling	
Degree of protection /Altitude (m)	IP54/ <1000m;	
Relative humidity	0~95%, no condensation	
Noise (dB)	≤50	
Protection	PV array insulation protection, PV array leakage current protection, Ground fault monitoring,Grid monitoring, Island protection, DC monitoring, Short current protection etc.	
Display	LCD	
Communication interface	RS485(standard), Wifi(optional), Ethenet(optional), CAN-BUS(internal communication), USB, Genset	
Dimension (H x W x D mm)	1300*650*440	
Weight (kg)	98.5	
Installation	Standing	
Grid standard	VDE-AR-N4105, AS/NZS 4777.2:2015, NB/T 32004-2013	
Ground fault alarm	Built-in buzzer	
Safe certificate /EMC certificates	IEC 62109-1 : 2010, , IEC 62109-2 : 2011, EN 61000-6-2: 2005,	
Factory warranty (years)	1(standard) / 3 (optional)	

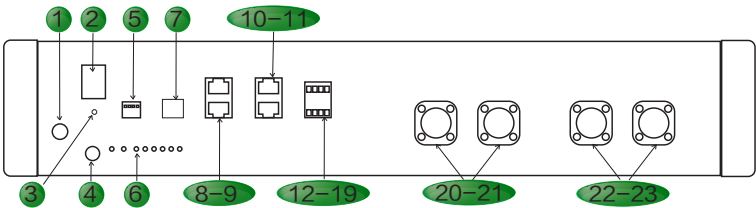
US2000B Lithium Iron Phosphate Battery



Features

- Support parallel application;
- The maximum charge and discharge rate reaches 2C;
- Awarded by TUV (IEC62619),CE, and UN38.3;
- With various communication modules: RS-485, CAN. And we can know of the station of battery whenever through such monitoring modes;
- Real-time monitoring, providing short circuit protection, reverse connection protection, high voltage protection, low voltage protection, charge over current protection, discharge over current protection, over charge protection and over discharge protection, high temperature protection as so on.

US2000B Lithium Iron Phosphate Battery



1	Ground
2	POWER(ON/OFF)
3	Power LED
4	Soft-start Switch
5	ADD
6	Status LED
7	RS232

↑ 8	CAN
↓ 9	RS485
↑ 10	Link Port 0
↓ 11	Link Port 1

↑ 12	13	14	15
IN+	GND	N01	COM1
↓ 16	17	18	19
NO2	COM2	NO3	COM3

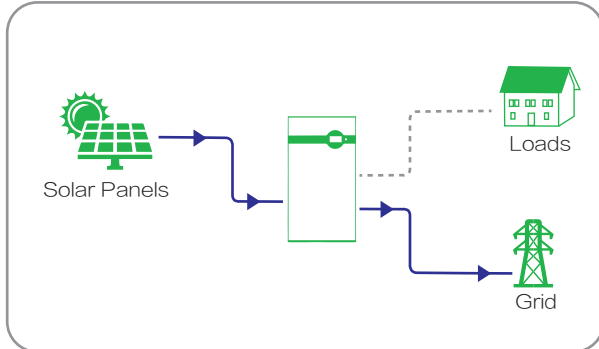
20-21	Negative
22-23	Positive

Specification

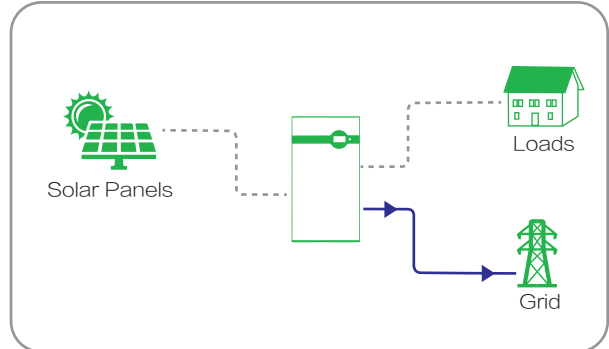
Items	Specification	Remarks
Standard voltage	48V	
Rated capacity	50Ah	
Charging ways	0.2C constantly charging to stop value 0.01C	
Size(mm):	440*410*89	
Weight(kg):	24	
Rated discharging value	25A	
Discharge voltage(V)	45~54V	
Charge Voltage (V)	52.5~54	
Discharging protection current	100A	Delay 15s protection, delay 1min after protection and recovery of charging current immediately
Rated charging current	25A	
Charging protection current	100A	Delay 15s protection, delay 1min after protection and recovery of discharging current immediately
Charge max voltage poing	54±0.1V	Suggest charging voltage 53.5±0.5V
Charge min voltage	44.5±0.1V	
Work temperature	Charge	-10~60℃
	Discharge	-10~60℃
Commnication	RS232,RS485,Can	
Certification	TUV/CE/Un38.3/TLC	
Life	>10years (25℃/77F)	
humidity	5%~95%	
Storage temperature	-25℃ ~65℃	
Circles	6000	

Work Mode

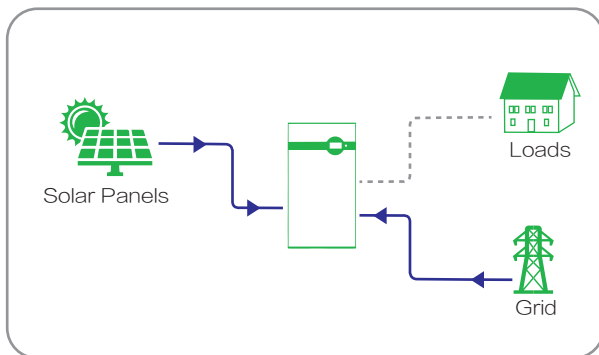
- 1 PV grid-connected mode: PV to Battery to Grid
PV & Battery grid-connected mode: PV & Battery to Grid



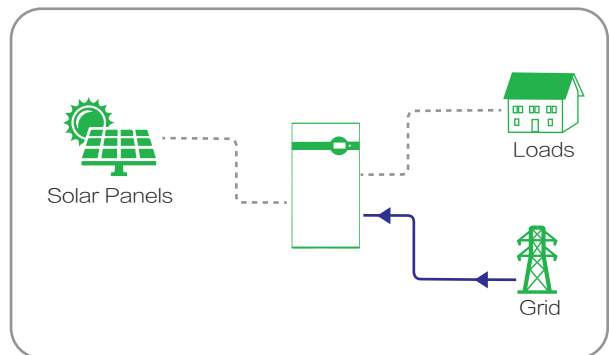
- 2 Battery grid-connected mode: Battery to Grid



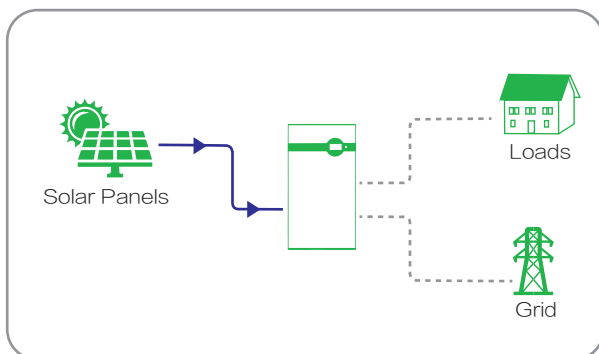
- 3 PV & Battery Charging mode: PV & Grid to Battery



- 4 Line Charging mode: Grid to Battery



- 5 PV Charging mode: PV to Battery



- 6 Discharge mode: Battery to Loads

