

## FlexCombi LiBatt 48V20Ah

<b>Rating:</b>	<b>48V</b>
<b>Capacity:</b>	<b>20AH</b>
<b>Configuration:</b>	<b>Rackmount</b>

PowerHub FlexCombi LiBatt 48V20Ah is a lithium-iron phosphate (LiFePO) battery unit with battery management system (BMS) that is used in conjunction with an external inverter or rectifier. The battery unit can be connected in parallel for up to 10 kWh (9.8 kWh usable) per battery cabinet (where applicable). This battery can be used as an off grid solution but also in a grid tied solution for energy storage or self consumption.



### General Features:

- RS485/RS232 Communication Output for monitoring
- Built-in BMS/PCM with charging current limitation
- Built-in automatic protection for over-charge, over-discharge and over temperature conditions
- Internal cell balancing
- Compatible with standard telecom rectifiers and Energy storage system
- Battery capacity indication



Item	Name	Description
A	Handle	Easy to move and install
B	Wiring terminal	For output
C	Bracket	For fixing the install, recommended to be used on 19 inch rack
D	Switch	Address allocation when system expands the application
E	Status Indicator	LED turns to green when normal running
F	RS232 Port	System communication RS232 interface
G	RS485 port	System communication RS485 interface
H	Reset	Emergency system reset, to ensure maintainability
I	Alarm Indicator	Alarm indication when system is abnormal
J	Capacity Indicator	Battery capacity indications

General Information	Specifications	Remarks
Rated Capacity	20Ah	
Rated Voltage	51.2V	
Rated Power	1024Wh	
Max Charge voltage	56.8V	Constant Current Charging to Constant Voltage Charging Voltage
Min Discharge voltage	44.0V	
Standard charge current	4A	
Standard Discharge current	4A	
Maximum continuous charging current	10A	
Maximum continuous discharge current	20A	
Cycle life	>2000	80%DOD@ 0.2C
Weight	10Kg	
Working temperature	Charge, 0°C ~ 45°C	
	Discharge, -10°C ~ 55°C	
Storage temperature	-20 ~ 45°C	≤1 month
	-20 ~ 35°C	≤ 3 month
	-20 ~ 25°C	≤ 12 month
	0~25°C	>12 month
PCM Parameter(s)	Details	Reference value
Over charge Protection	Units over-charge alarm voltage	3.60±0.02V
	System over-charge alarm voltage	57.6±0.5V
	Units over-charge detection voltage	3.65±0.02V
	System over-charge detection voltage	58.4±0.5V
Over discharge protection	Units over dis-charge alarm voltage	2.70±0.02V
	System over dis-charge alarm voltage	43.5±0.5V
	Units over dis-charge detection voltage	2.5±0.02V
	System over dis-charge detection voltage	30.0±0.5V
Over Current protection	Charging Over-current Alarm Current	10A±0.5A
	Discharge Over current Alarm Current	20A±0.5A
	Discharge Over current Protection Current	25A±0.5A
	Discharge over current detection delay time	1S
	Discharge Over current Protection release Conditions	Delayed recovery
	Charging Over current Protection Current	12A±0.5A
	Charging Over current Detection Delay Time	1S
Short protection	Short protection condition	Outer Circuit Short Circuit
	Detection delay time	≤1mS
	Resume Condition	Load disconnection; If the short circuit is triggered many times, it is locked in a protective state. need the user to check the external circuit, reset the BMS and Resume it.
Temperature protection	Charging High Temperature Protection Temperature	65°C±5°C
	Charging low Temperature Protection Temperature	-15°C±5°C
	Dis-Charging High Temperature Protection Temperature	65°C±5°C
	Dis-Charging low Temperature Protection Temperature	-20°C±5°C
Balanced	Open Voltage voltage	3.40V±0.02V
	Open Voltage voltage difference	50mV
	Balance current	85mA±20mA
Continuous through current	Maximum Continuous Charging and Discharging Current	20A
Communication	RS232	Default baud rate 9600bit/S
	RS485	Default baud rate 9600bit/S
Power consumption	Working mode	≤50mA
	sleep mode	≤300µA

\* Specifications are subject to change without prior notice

