## **Energy Storage System**

**Technical Parameter** 

DDBGSG48120

48V 120Ah-5.76kWh

Lithium Ion Battery Pack



## **DIPOWER**<sup>®</sup> GUANGDONG DIDU NEW ENERGY CO., LTD. 1.Scope of application

This product is a 5.76kWh energy storage Lithium Ion Battery Pack (including BMS).

It consists of 13 series and 1 parallel cells. This product is suitable for DC load equipment with operating current <100A.

1. Product description: 48V120Ah is an intelligent energy storage power supply product using Lithium Ion battery system. The main features of the product are as follows:

- 1) High energy density;
- 2) Ultra-long cycle life and low maintenance costs.
- 3) Equipped with RS485/RS232/CAN interface, which can realize data transmission and parallel networking.
- 4) Intelligent BMS system, equipped with host computer software to realize remote monitoring, alarm and shutdown functions.
- 5) Accurately measure SOC (remaining capacity/full charge capacity) and SOH (discharge capacity/nominal capacity).

## 2. Battery Specifications

ProductLithium Ion Battery PackModelDDBGSG48120Installation ModeWall MountedRated Voltage48VRated Capacity120AhEnergy5.76kWhCell BrandBYD-120AHCell typeNCMCell Unit3.7V120AhBMS BrandPACEBMS CommunicationRS485, RS232, CANConfiguration13S1PCharge cutoff voltage40.5VLife cycles(80% DOD, 25°C)6000 cyclesMaximum discharge continuous current100AMaximum discharge continuous current100ACharging efficiency298%Electricity charged in the shipped product30%-550% SOCOperating temperatureCharging: 0~55°CStorage temperature-20~60°CWorking humidity10~85%	Nominal Parameters	
Installation ModeWall MountedRated Voltage48VRated Capacity120AhEnergy5.76kWhCell BrandBYD-120AHCell typeNCMCell Unit3.7V120AhBMS BrandPACEBMS CommunicationRS485, RS232, CANConfiguration13S1PCharge cutoff voltage54VDischarge cutoff voltage40.5VLife time(25°C)15 yearsLife cycles(80% DOD, 25°C)6000 cyclesMaximum discharge continuous current100AMaximum discharge in the shipped product30%-50% SOCOperating temperature-20~60°CWorking humidity10~85%	Product	Lithium Ion Battery Pack
Rated Voltage48VRated Capacity120AhEnergy5.76kWhCell BrandBYD-120AHCell typeNCMCell Unit3.7V120AhBMS BrandPACEBMS CommunicationRS485, RS232, CANConfiguration13S1PCharge cutoff voltage54VDischarge cutoff voltage40.5VLife time(25°C)15 yearsLife cycles(80% DOD, 25°C)6000 cyclesMaximum charging continuous current100ACharging efficiency298%Electricity charged in the shipped product30%-50% SOCOperating temperature-20~60°CWorking humidity10~85%	Model	DDBGSG48120
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Energy5.76kWhCell BrandBYD-120AHCell typeNCMCell Unit3.7V120AhBMS BrandPACEBMS CommunicationRS485, RS232, CANConfiguration13S1PCharge cutoff voltage54VDischarge cutoff voltage40.5VLife time(25°C)15 yearsLife cycles(80% DOD, 25°C)6000 cyclesMaximum charging continuous current100AMaximum discharge continuous current100ACharging efficiency≥98%Electricity charged in the shipped product30%-50% SOCOperating temperature-20~60°CWorking humidity10~85%	Rated Voltage	48V
Cell BrandBYD-120AHCell UpeNCMCell Unit3.7V120AhBMS BrandPACEBMS CommunicationRS485, RS232, CANConfiguration13S1PCharge cutoff voltage54VDischarge cutoff voltage40.5VLife time(25°C)15 yearsLife cycles(80% DOD, 25°C)6000 cyclesMaximum charging continuous current100AMaximum discharge continuous current100ACharging efficiency≥98%Electricity charged in the shipped product30%-50% SOCOperating temperature-20~60°CWorking humidity10~85%	Rated Capacity	120Ah
Cell typeNCMCell Unit3.7V/120AhBMS BrandPACEBMS CommunicationRS485, RS232, CANConfiguration13S1PCharge cutoff voltage54VDischarge cutoff voltage40.5VLife time(25°C)15 yearsLife cycles(80% DOD, 25°C)6000 cyclesMaximum charging continuous current100AMaximum discharge continuous current100ACharging efficiency≥98%Electricity charged in the shipped product30%-50% SOCOperating temperatureCharging: 0~55°CStorage temperature-20~60°CWorking humidity10~85%	Energy	5.76kWh
Cell Unit3.7V120AhBMS BrandPACEBMS CommunicationRS485, RS232, CANConfiguration13S1PCharge cutoff voltage54VDischarge cutoff voltage40.5VLife time(25°C)15 yearsLife cycles(80% DOD, 25°C)6000 cyclesMaximum charging continuous current100ACharging efficiency≥98%Electricity charged in the shipped product30%-50% SOCOperating temperatureCharging: 0~55°CStorage temperature-20~60°CWorking humidity10~85%	Cell Brand	BYD-120AH
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BMS Communication   RS485, RS232, CAN     Configuration   13S1P     Charge cutoff voltage   54V     Discharge cutoff voltage   40.5V     Life time(25°C)   15 years     Life cycles(80% DOD, 25°C)   6000 cycles     Maximum charging continuous current   100A     Maximum discharge continuous current   100A     Charging efficiency   ≥98%     Electricity charged in the shipped product   30%-50% SOC     Operating temperature   Charging: 0~55°C     Discharge: -10~55°C   Discharge: -10~55°C     Working humidity   10~85%	Cell Unit	3.7V120Ah
Configuration13S1PCharge cutoff voltage54VDischarge cutoff voltage40.5VLife time(25°C)15 yearsLife cycles(80% DOD, 25°C)6000 cyclesMaximum charging continuous current100AMaximum discharge continuous current100ACharging efficiency≥98%Electricity charged in the shipped product30%-50% SOCOperating temperatureCharging: 0~55°CDischarge: -10~55°CDischarge: -10~55°CWorking humidity10~85%	BMS Brand	PACE
Charge cutoff voltage54∨Discharge cutoff voltage40.5∨Life time(25°C)15 yearsLife cycles(80% DOD, 25°C)6000 cyclesMaximum charging continuous current100AMaximum discharge continuous current100ACharging efficiency≥98%Electricity charged in the shipped product30%-50% SOCOperating temperatureCharging: 0~55°CDischarge: -10~55°CDischarge: -10~55°CStorage temperature-20~60°CWorking humidity10~85%	BMS Communication	RS485, RS232, CAN
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Maximum charging continuous current   100A     Maximum discharge continuous current   100A     Charging efficiency   ≥98%     Electricity charged in the shipped product   30%-50% SOC     Operating temperature   Charging: 0~55°C     Discharge: -10~55°C   Discharge: -10~55°C     Working humidity   10~85%	Life time(25°C)	15 years
Maximum discharge continuous current 100A   Charging efficiency ≥98%   Electricity charged in the shipped product 30%-50% SOC   Operating temperature Charging: 0~55°C   Discharge: -10~55°C Discharge: -10~55°C   Working humidity 10~85%	Life cycles(80% DOD, 25°C)	6000 cycles
Charging efficiency ≥98%   Electricity charged in the shipped product 30%-50% SOC   Operating temperature Charging: 0~55°C   Discharge: -10~55°C Discharge: -10~55°C   Storage temperature -20~60°C   Working humidity 10~85%	Maximum charging continuous current	100A
Electricity charged in the shipped product30%-50% SOCOperating temperatureCharging: 0~55°CDischarge: -10~55°CDischarge: -10~55°CStorage temperature-20~60°CWorking humidity10~85%	Maximum discharge continuous current	100A
Operating temperature Charging: 0~55°C   Discharge: -10~55°C Discharge: -10~55°C   Storage temperature - 20~60°C   Working humidity 10~85%	Charging efficiency	≥98%
Operating temperature Discharge: -10~55°C   Storage temperature - 20~60°C   Working humidity 10~85%	Electricity charged in the shipped product	30%-50% SOC
Storage temperature - 20~60°C   Working humidity 10~85%	Operating temperature	
Working humidity     10~85%	Storago tomporaturo	Discharge: -10∼55℃
10/~83%		- 20~60°C
Storage humidity 10~85%	Working humidity	10~85%
	Storage humidity	10~85%
Dimensions (L x W x H) About 530+-mm(L)*375+-mm+-(W)*147mm+-(H)	Dimensions (L x W x H)	About 530+-mm(L)*375+-mm+-(W)*147mm+-(H)
Carton packaging size(L x W x H) About 600+-mm(L)*465+-mm+-(W)*245mm+-(H)	Carton packaging size(L x W x H)	About 600+-mm(L)*465+-mm+-(W)*245mm+-(H)
Weight About 33kgs	Weight	About 33kgs
Modules Connection Maximum 16 in Parallel	Modules Connection	Maximum 16 in Parallel
Ingress Protection IP 21	Ingress Protection	IP 21
Battery packaging accessories		
Desiccant (5g) 2 Bag; User Manual 1 Set; Positive and negative power cables 1 Set; 1 meter with RJ45 connector 1 Pc; Mounting frame screw (M8*60mm) 4 Pc;		