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GROUP SIZE-W

48V 106AH



DATA SHEET

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AB-48V106-W

48V 106Ah LiFePO4 Battery

BRIEF INTRODUCTION:

ISO9001 certified mainly focus on the R&D and Manufacture of : 1)12V to 48V LiFePO4 Batteries used for RV, Marine, Energy storage, Golf carts applications. 2) 48V LiFePO4 batteries for Energy storage system.

AB-48V-106-W

ELECTRICAL SPECIFICATIONS

Nominal Voltage	51.2V
Nominal Capacity	106Ah
Parallel Connection	Max. 16units
Serial Connection	No
BMS	16S100A
Circuit Protection	Over charge, Over discharge, Over current, Over temp, Short, Balance
Communication	2×Rs485 and 1×CAN; LCD
Cycle Life	3000times Cycles @100%DOD and 6000times @80% DOD
Self Discharge	Less than 3% per month
Charge Efficiency	100% @0.2C
Discharge Efficiency	98-100% @1C

CHARGE SPECIFICATIONS

Charge Voltage	57.6±0.8V
Standard Current	20A
Fast Current	50A

DISCHARGE SPECIFICATIONS

Standard Current	20A
Max. Con. Current	100A
Peak Current	250A(2s)
Cut-off Voltage	40V

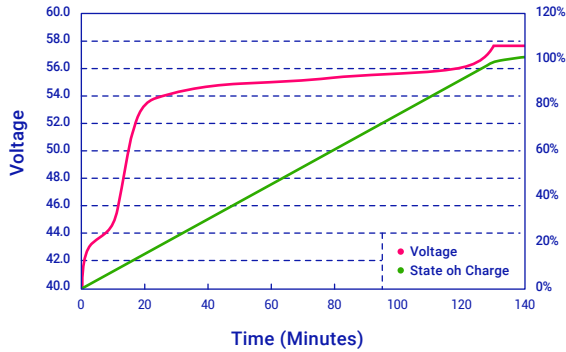
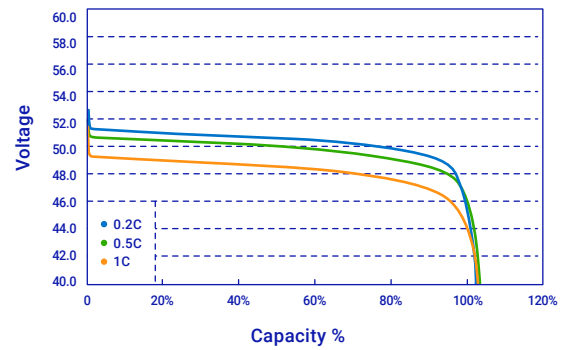
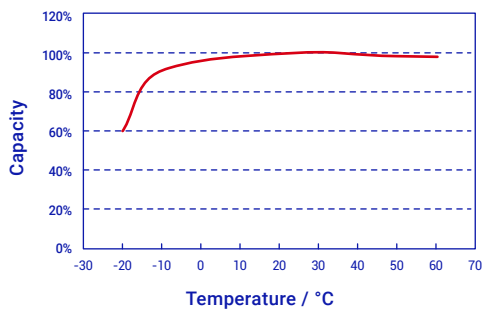
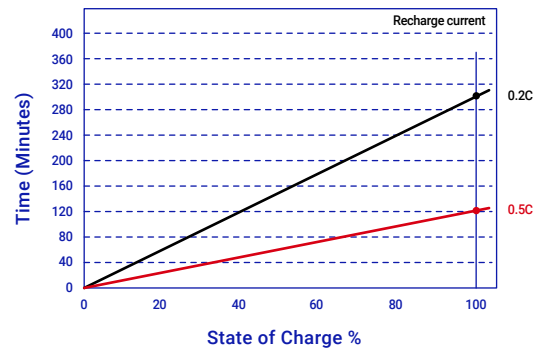
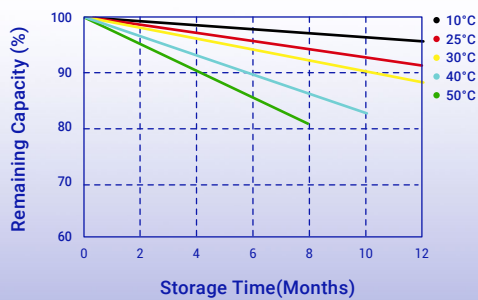
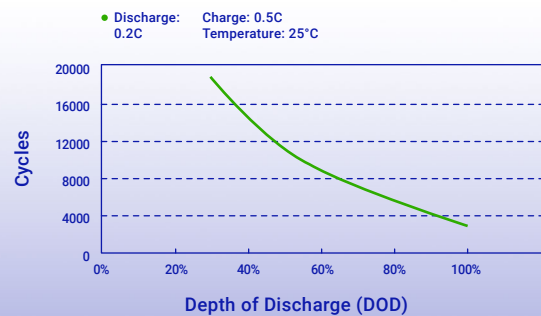
MECHANICAL SPECIFICATIONS

Dimensions (mm)	481x463x166.5mm
Approx Weight(KG)	45
Terminal Type	4 × M6
Case Color/material	White Metal case
IP Rating	IP56
Cell Type	3.2V106Ah prismatic cell

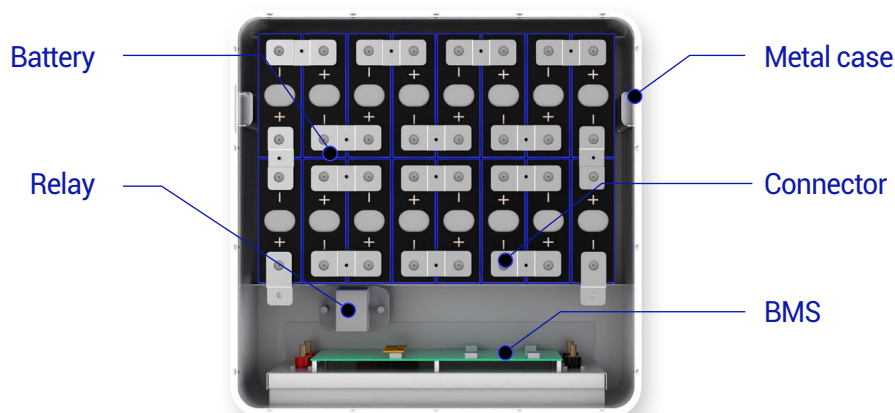
TEMPERATURE SPECIFICATIONS

Charge Temp	0°C to 55°C	(32°F to 131°F)
Discharge Temp	-20°C to 60°C	(-4°F to 140°F)
Storage Temp	-20°C to 45°C	(-4°F to 113°F)

CHARACTERISTICS CURVE:

CHARGING CHARACTERISTICS (0.5C @25°C)

DISHARGING CHARACTERISTICS (0.2C, 0.5C, 1C @25°C)

DIFFERENT TEMPERATURE CAPACITY CURVE

TYPICAL CHARGE TIME CURVE

DIFFERENT TEMPERATURE SELF DISCHARGE CURVE

DIFFERENT DOD DISCHARGE CYCLE LIFE CURVE


PRODUCT ADVANTAGES:



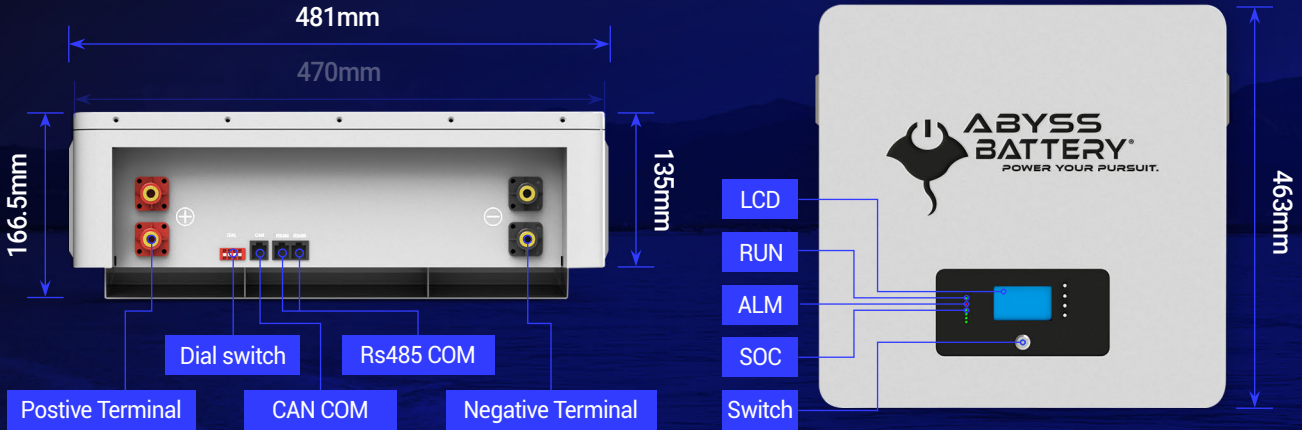
	Real double protection (comply with UL1973 and IEC62619).		High Temperature Tolerance.
	Max. 16pcs in Parallel to get Max. 86kwh system.		Compatible with most Brands inverters.
	Modular, Scalable & Proven Performance.		Maintenance Free.

AB-48V 106-3U module is compatible with the inverters as below:

INVERT BRAND	COMMUNICATION PROTOCOL	COMMUNICATION TYPE	COMMUNICATION BAUD RATE	PROTOCOL VERSION
PYLONTECH	CAN Bus protocol PYLON	CAN	500K	V1.3
固德威 GOODWE	Goodwe communication protocol	CAN	500K	V1.5
首航新能源 SOFAR	Sofar Inverter BMS-CAN protocol	CAN	500K	V1.0
Growatt	Growatt BMS CAN Bus protocol low voltage	CAN	500K	V1.05
Growatt	Growatt BMS communication protocol of growatt low voltage battery	CAN	500K	V1.01
SMA	SMA BMZ Protocol en	CAN	500K	
victron energy	Can bus bms protocol	CAN	500K	V1.0
LUXPOWER ^{TECH}	Luxpowertek Battery CAN Protocol	CAN	500K	V1.0
STUDER	Technical specification Studer BMS Protocol	CAN	500K	V1.03
TBB POWER	TBB Lithium battery BMS-CAN communication protocol V1.02	CAN	500K	V1.02
德业 Deye	Enjie CAN protocol V1.0	CAN	500K	V1.0
MUST 美世乐	1_PV1800F-CAN communication Protocol1.04.04	CAN	100K	Apply to PV1800 inverter
PYLONTECH	RS485 protocol pylon low voltage	485	9600	V3.5
Voltronic Power	Voltronic Inverter and BMS 485 communication protocol	485	9600	V1.0
Sine	PACE BMS Modbus Protocol for RS485	485	9600	V1.3
Growatt	SPF BMS RS485 protocol	485	9600	V2.01

OPERATING INSTRUCTION:

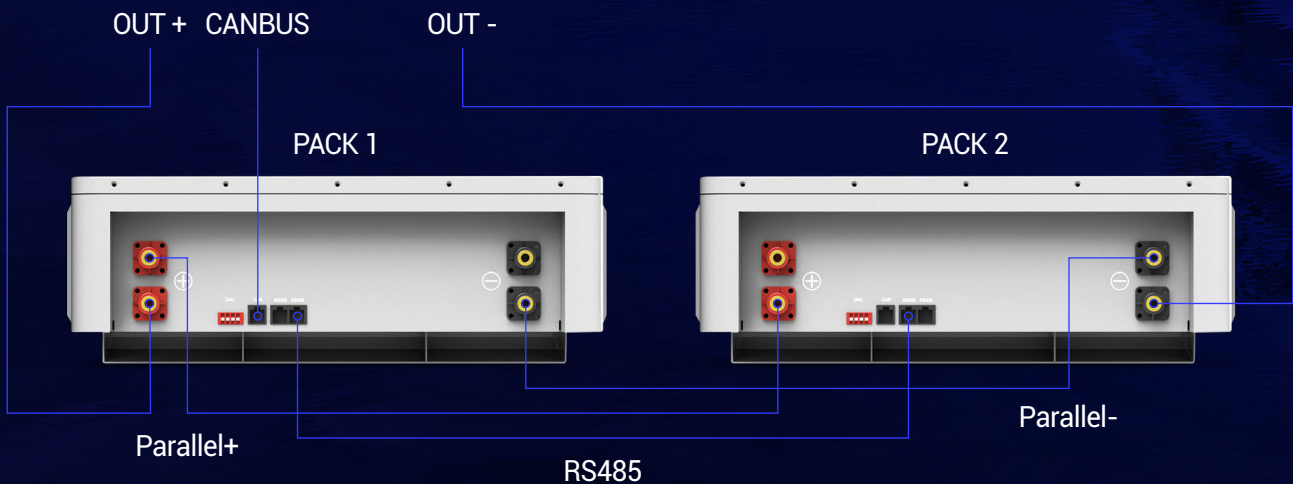
- Step 1: Learn Interface Instruction and demisions:



- Step 2: Installation:



- Step 3: Connection:



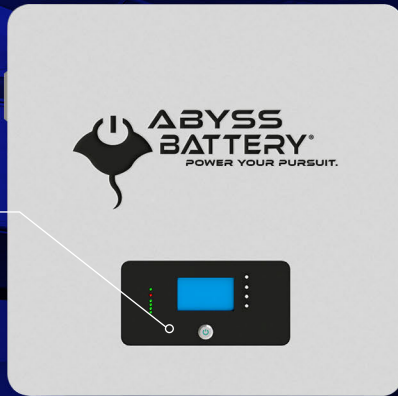
- **Step 4:** Dialing address
Automatic dialing. Manual dialing (optional)
Single machine address setting : 0000 0000

Address setting for parallel operation: the definition of dial switch is shown in the table below.

1P	2P	3P	4P	5P	6P	7P	8P	9P	10P	11P	12P	13P	14P	15P

- **Step 5:** Turn on the switch separately

Switch



- With a load/inverter, the energy storage system start to work!

NOTED:

Sleep mode:

- a: The system will immediately go into Standby mode without load or charger, and RUN LED will flash (1s ON, 1s OFF). After 48h later, the system will automatically go into sleep mode. All LEDs in panel will then turn off.
- b: With the standby state, the system can be forced into sleep mode through pressing the Switch.

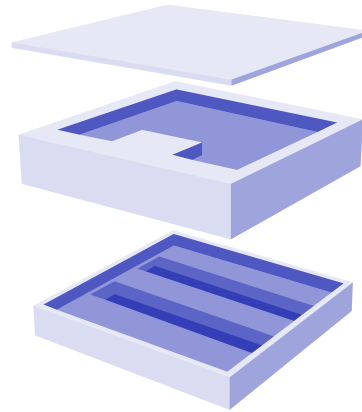
Wake up:

- The following operations can wake up the system from sleep mode:
- a. Automatically wake up when connecting a charger;
- b. Press on the "Switch" key;

PACKAGE:

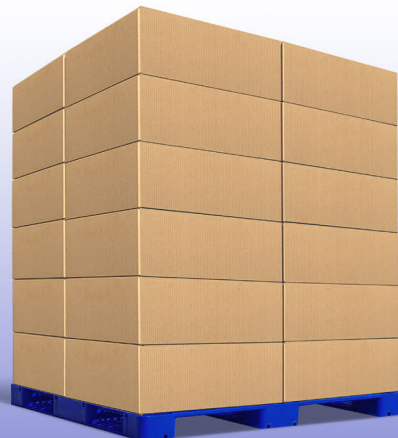
20' CONTAINER=10PALLETS=240CARTONS=240UNITS
40' CONTAINER=20PALLETS=480CARTONS=480UNITS

INTERNAL PACKAGE
FORMING PEARL FOAM



WEIGHT: 47KG/CARTON
SIZE(LXWXH): 536X517X260MM

1 CARTON=1 UNIT



WEIGHT: 1143KG/PALLET
SIZE(LxWxH)=1.2X1X1.7M * 2CBM

1 PALLET= 24 CARTONS



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