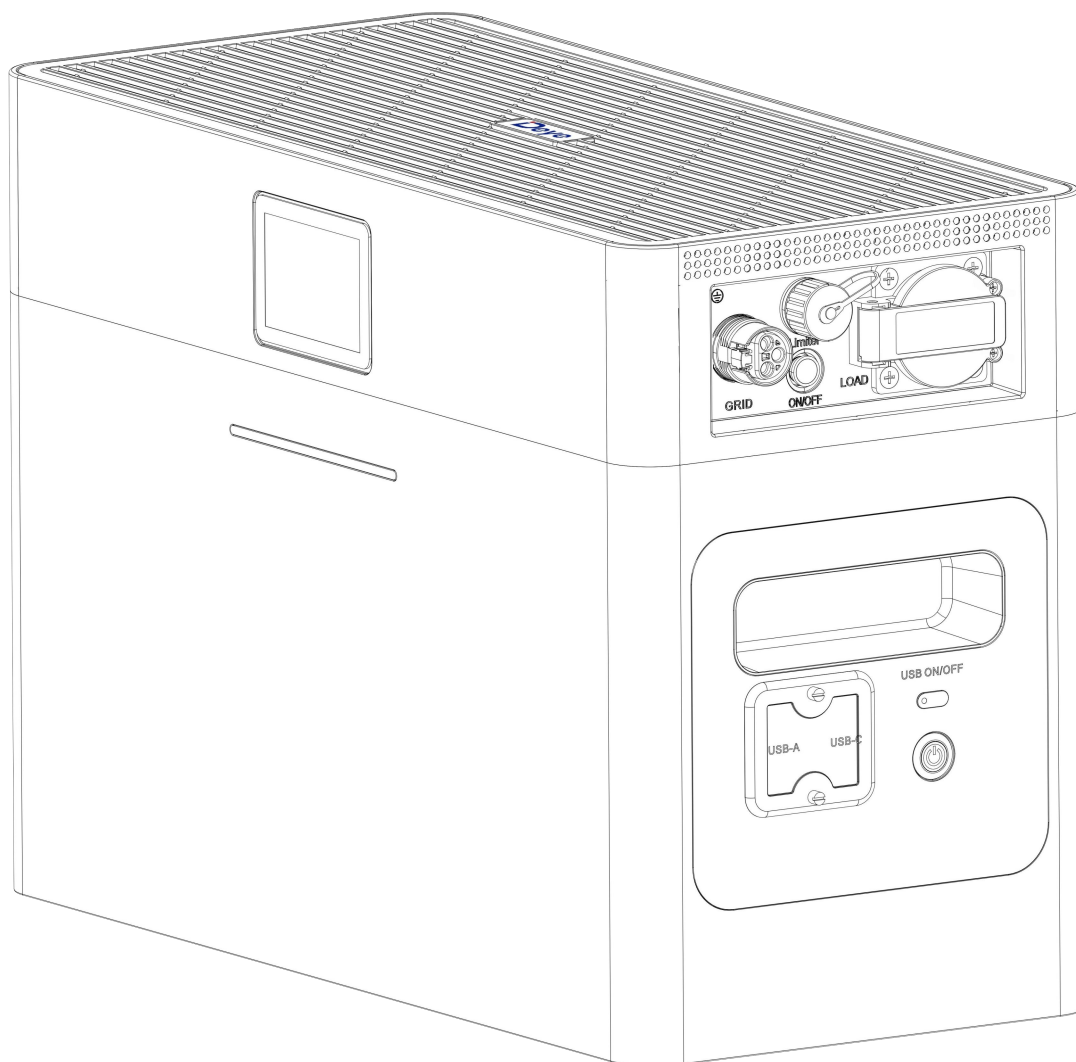


Balcony Energy Storage System User Manual

AE-FS2.0-2H2



1. Product Introduction

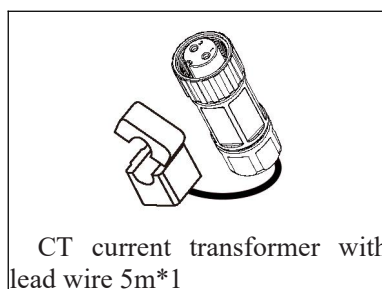
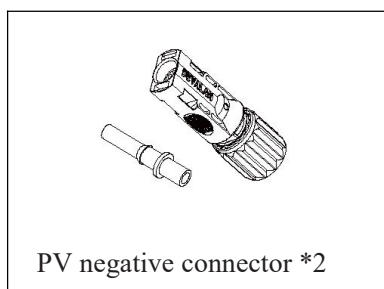
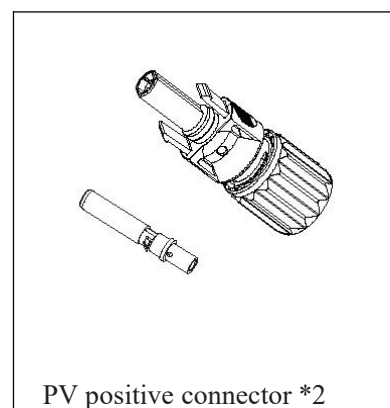
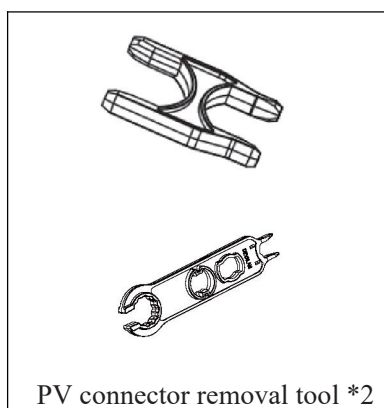
The DEYE1000/1000W Balcony Energy Storage System features built-in lithium iron phosphate battery cells and various functions including AC grid-connected charging/discharging, off-grid power supply (UPS) applications, direct digital devices charging via USB ports, 2200W PV power charging, and battery capacity expansion up to 10kWh. Real-time monitoring of the power status is possible either locally via a touch screen, or remotely via an app. It is an optimal solution for balcony PV energy storage and portable outdoor power supplies.

2. Parameters and Specifications

Model	AE-FS2. 0-2H2
AC Technical Specification	
Nominal Input/Output Power/UPS Power	1000/1000W
AC Inoput/Output Frequency and Voltage	50Hz(45Hz-55Hz),L/N(PE),220/230 Vac
Grid type	Single phase
Rated Grid input/output Current	4.6A/4.4A
Max.Grid input/output Current	5.0A/4.8A
Peak Power(off grid)	2 time of rated power,10s
Power Factor Adjustment Range	0.8 leading to 0.8 lagging
MAX. bypass (Grid to load)	10A
DC injection current	THD<3%(Linear load<1.5%) mA
DC Technical Specification	
Max.PV Input Power	2200W
Max.PV Input Current	18A+18A
Max.PV Short-circuit Current	27A+27A
Rated PV Input Voltage	42.5V(20V~55V)
Start Up DC Voltage	25Vdc
MPPT Voltage Range	20~55V
Number of MPPT	2
Battery Chemistry	LiFePO ₄
Battery Nominal Voltage	51.2V
Battery Nominal Energy	2000Wh
Battery Operating Voltage	44.8V-57.6V
Battery Cycle Life	≥6,000(@25℃±2℃,0.5C/0.5C,70%EOL)

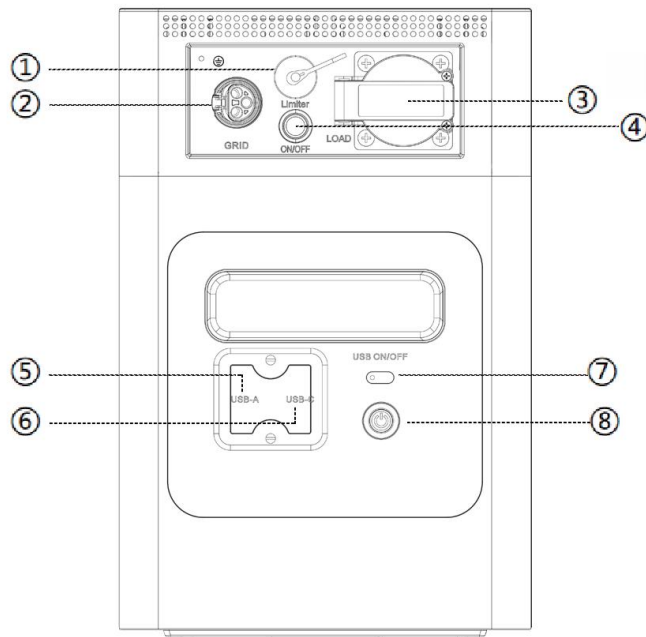
Other Technical Specification	
Display	LCD & APP
Communication interfaces	Wifi, Bluetooth
Dimension(W × D × H)	450 × 210 × 321mm
Weight Appr.	26kg
Operating Temperature Range	-10℃ ~ 50℃
Max.operating altitude	3000m
Relative Humidity	15% ~ 85% (No Condensing)
Safety EMC/Standard	IEC62619, UN38.3, IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4
Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150
Battery Certification	UN38.3, IEC62619
Installation Style	Floor-Mounted

3. Packing List

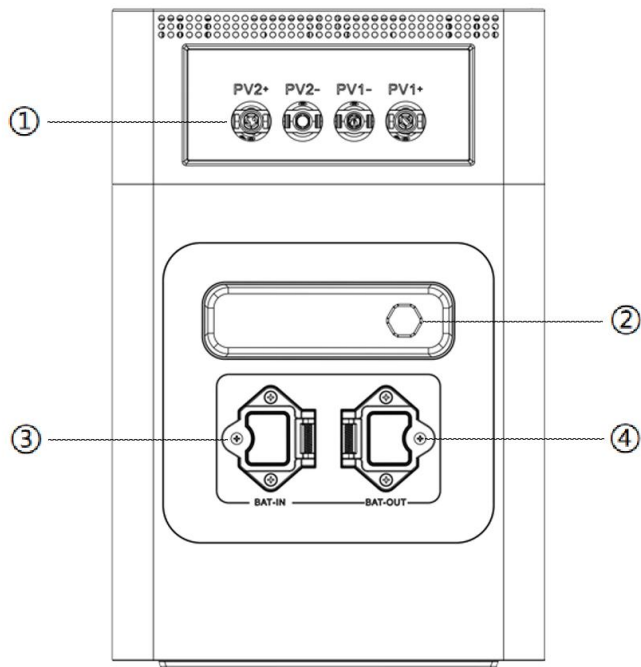


5. Quick Guide

5.1 Product Appearance



- ① CT interface
- ② Grid Interface
- ③ LOAD Interface
- ④ Main switch of AC output
- ⑤ USB-A output port *2
- ⑥ USB-C output port *2
- ⑦ USB output power switch
- ⑧ Main power switch



- ① PV input port
- ② Air vent valve
- ③ Battery expansion input port
- ④ Battery expansion output port

8. Use of the Extender Battery Module

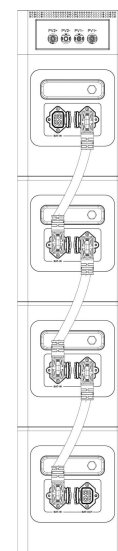
The extender battery module is used in conjunction with the AE-FS2.0-2H2 Balcony Energy Storage System. Up to four extender battery modules can be connected to the system, enabling a capacity expansion by up to 8kWh to meet the user's demand for a larger battery capacity.

8.1 Parameters and Specifications of the Extender Battery module

Model	AE-F2.0
Battery Technical Specification	
Battery Chemistry	LiFePO ₄
Battery Nominal Voltage	51.2V
Battery Nominal Energy	2kWh
Max.Charging/Discharging Current	40A
Battery Operating Voltage	44.8V~57.6V
Battery Cycle Life	≥6000(@25℃±2℃, 0.5C/0.5C, 70%EOL)
Parallel Capability	5pcs
Other Technical Specification	
Display	LED(SOC, ALARM)
Communication interfaces	CAN2.0, LoRa
Dimension(W × D × H)	450 × 210 × 244mm
Weight Appr.	20kg
Operating Temperature Range	-10℃ ~ 50℃
Max.operating altitude	3000m
Relative Humidity	15% ~ 85% (No Condensing)
Certification	UN38.3, IEC62619, CE
Installation Style	Floor-Mounted

8.2 Connection Method for AE-F2.0

1. First, make sure that AE-F2.0 extender battery module and AE-FS2.0-2H2 are turned off, and open the dust covers on the connection ports.
2. Connect the AE-F2.0 extender module to the AE-FS2.0-2H2 battery system using the connecting cable. (Note: The two connection ports on AE-FS2.0-2H2 are designated for input and output, respectively. Connect the BAT-IN port of the AE-F2.0 extender module to the BAT-OUT port of the AE-FS2.0-2H2 battery system.)
3. Check if the connecting cables between the AE-F2.0 extender module and the AE-FS2.0-2H2 battery system are securely plugged in.
4. Turn on the power switch of the AE-F2.0 extender module first and check that the LED indicator lights up, then turn on the power switch of the AE-FS2.0-2H2 battery system and check that the display screen lights up. If there is no faults or alarm, the connection is successful.



8.3 Precautions during Use

-
1. Before connecting the battery system with the extender modules, please make sure that they are all turned off.
 2. Do not connect or disconnect the extender modules during active charging or discharging . To disconnect or remove the extender modules, please first turn off the battery system and the extender modules.
 3. Please do not make physical contact with the connection joints of the extender modules with hands or any other objects. If foreign particles are found on the connection joints, gently wipe them off with a dry cloth.
 4. When connecting the extender modules, ensure that the connecting cables between the extender modules and the AE-FS2.0-2H2 battery system is inserted tightly. Failure to secure the connecting cables may result in overheating of the connection joints, affecting the system's performance. In severe cases, it could lead to a fire.