LITHIUMVALLEY

YOUR SAFE ENERGY

Version:V1.2

15-year Design Lifespan
A+ Grade Lithium Iron Phosphate Cells

Model: Flex16-n(n=3,4...6)
Model: Flex16-n(n=7,8...16)

Active Balancing Technology

Indoor installation
Smart Air-Cooled Battery



430 VDC Version (3–6 Battery Packs)
Energy Capacity: 48–96 kWh
Battery Voltage: 134.4–350.4 V

1000 VDC Version (7–16 Battery Packs)
Energy Capacity: 112–257 kWh
Battery Voltage: 313.6–934.4 V

Features and Advantages

Safety Technology

- Grade A+ lithium iron phosphate cells
- The system features multi-level fuse protection
- Built-in aerosol fire suppression device at pack level

Easy to Install and Use

- Modules use a wireless stacking connection
- Ergonomic handles provide a secure grip and better balance for lifting and manual handling

Flexible and Expandable

- Supports up to 12 clusters in parallel
- 48kWh~3086kWh capacity

Compatible inverters

- Solis, iNVT, Fox ESS, Solinteg and Growatt

Module Mixing

- Modules manufactured within one year can be mixed

Scheme 1: System Technical Parameters – 430 VDC Version (3–6 Battery Packs)

Model	Flex16-3	Flex16-4	Flex16-5	Flex16-6
Battery Data				
Number of battery packs	3	4	5	6
Nominal Energy	48.23kWh	64.30kWh	80.38kWh	96.46kWh
Nominal Voltage	153.6V	204.8V	256V	307.2V
Battery Model	Flex16-Unit			
Battery Chemistry	Lithium Iron Phosphate(LiFePO4)			
Cycle Life[1]	≥8000 cycles			
Cell Specification	3.2V 314Ah			
Battery Pack Energy	16.076 kWh			
Number of Clusters	1			
Cluster Configuration	1P48S	1P64S	1P80S	1P96S
Operating Voltage	134.4V - 175.2V	179.2V - 233.6V	224V - 292V	268.8V - 350.4V
Recommended Charge/Discharge C-rate	0.5C (157A)			
Maximum Charge/Discharge C-rate	0.64C (200A)			
Peak Discharge Current (25°C)	280A			
Recommended Charge/Discharge Power	8.038 kW			
Maximum Charge/Discharge Power	10.24 kW			
Depth of Discharge (DOD)	95%			
Cell Balancing Technology	Active balancing			
Installation	Cableless stacking			
Scalability	up to 12 clusters in parallel			
Safety				
Fire Extinguishing System	Integrated aerosol fire suppression device			
General				
Dimension(WxDxH) mm – 1 Column	830 x 490 x 1120	830 x 490 x 1350	830 x 490 x 1580	830 x 490 x 1810
Dimension(WxDxH) mm – 2 Columns	/	/	/	/
Weight	Approx. 407kg	Approx. 524kg	Approx. 641kg	Approx. 770kg
IP Rating	IP20			
Cooling Method	Smart air cooling			
Charging Temperature	0°C to +55°C			
Discharging Temperature	-20°C to +55°C			
Storage Temperature	-20°C to +45°C			
Relative Humidity	15%~90%(Non-condensing)			
Max. Operating Altitude	≤2000m			
Communication Interfaces	LAN/CAN/RS485/Wi-Fi			
Compliance	UN 38.3, MSDS			

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* The specifications are subject to change without prior notice.

[1]Test Conditions: Charge/discharge at 0.2C, 25℃, **90% depth of discharge (DOD)**, 70% end-of-life (EOL)

Scheme 2: System Technical Parameters – 1000 VDC Version (7–11 Battery Packs)

Model	Flex16-7	Flex16-8	Flex16-9	Flex16-10	Flex16-11
Battery Data					
Number of battery packs	7	8	9	10	11
Nominal Energy	112.53kWh	128.61kWh	144.69kWh	160.76kWh	176.84kWh
Nominal Voltage	358.4V	409.6V	460.8V	512V	563.2V
Battery Model	Flex16-Unit				
Battery Chemistry	Lithium Iron Phosphate(LiFePO4)				
Cycle Life[1]	≥8000 cycles				
Cell Specification	3.2V 314Ah				
Battery Pack Energy	16.076 kWh				
Number of Clusters	1				
Cluster Configuration	1P112S	1P128S	1P144S	1P160S	1P176S
Operating Voltage	313.6V - 408.8V	358.4V - 467.2V	403.2V - 525.6V	448V - 584V	492.8V - 642.2V
Recommended Charge/Discharge C-rate	0.5C (157A)				
Maximum Charge/Discharge C-rate	0.64C (200A)				
Peak Discharge Current (25°C)	280A				
Recommended Charge/Discharge Power	8.038 kW				
Maximum Charge/Discharge Power	10.24 kW				
Depth of Discharge (DOD)	95%				
Cell Balancing Technology	Active balancing				
Installation	Cableless stacking				
Scalability	up to 12 clusters in parallel				
Safety					
Fire Extinguishing System	Integrated aerosol fire suppression device				
General					
Dimension(WxDxH) mm 1 Column	/	/	/	/	/
Dimension(WxDxH) mm 2 Columns	2110 x 490 x 1170	2110 x 490 x 1300	2110 x 490 x 1400	2110 x 490 x 1530	2110 x 490 x 1630
Weight	Approx. 910kg	Approx. 1030kg	Approx. 1150kg	Approx. 1270kg	Approx. 1390kg
IP Rating	IP20				
Cooling Method	Smart air cooling				
Charging Temperature	0°C to +55°C				
Discharging Temperature	-20°C to +55°C				
Storage Temperature	-20°C to +45°C				
Relative Humidity	15%~90%(Non-condensing)				
Max. Operating Altitude	≤2000m				
Communication Interfaces	LAN/CAN/RS485/Wi-Fi				
Compliance	UN 38.3, MSDS				

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[1]Test Conditions: Charge/discharge at 0.2C, 25°C, **90% depth of discharge (DOD)**, 70% end-of-life (EOL)

Scheme 2: System Technical Parameters – 1000 VDC Version (12–16 Battery Packs)

Model	Flex16-12	Flex16-13	Flex16-14	Flex16-15	Flex16-16
Battery Data					
Number of battery packs	12	13	14	15	16
Nominal Energy	192.92kWh	208.99kWh	225.07kWh	241.15kWh	257.22kWh
Nominal Voltage	614.4V	665.6V	716.8V	768V	819.2V
Battery Model	Flex16-Unit				
Battery Chemistry	Lithium Iron Phosphate(LiFePO4)				
Cycle Life[1]	≥8000 cycles				
Cell Specification	3.2V 314Ah				
Battery Pack Energy	16.076 kWh				
Number of Clusters	1				
Cluster Configuration	1P192S	1P208S	1P224S	1P240S	1P256S
Operating Voltage	537.6V - 700.8V	582.4V - 759.2V	627.2V - 817.6V	672V - 876V	716.8V - 934.4V
Recommended Charge/Discharge C-rate	0.5C (157A)				
Maximum Charge/Discharge C-rate	0.64C (200A)				
Peak Discharge Current (25°C)	280A				
Recommended Charge/Discharge Power	8.038 kW				
Maximum Charge/Discharge Power	10.24 kW				
Depth of Discharge (DOD)	95%				
Cell Balancing Technology	Active balancing				
Installation	Cableless stacking				
Scalability	up to 12 clusters in parallel (3086kWh)				
Safety					
Fire Extinguishing System	Integrated aerosol fire suppression device				
General					
Dimension(WxDxH) mm – 2 Columns	/	/	/	/	/
Dimension(WxDxH) mm – 3 Columns	2560 x 490 x 1300	2560x 490 x 1400	3390 x 490 x 1530	3390 x 490 x 1530	3390 x 490 x 1630
Weight	Approx. 1530kg	Approx. 1650kg	Approx. 1770kg	Approx. 1890kg	Approx. 2010kg
IP Rating	IP20				
Cooling Method	Smart air cooling				
Charging Temperature	0°C to +55°C				
Discharging Temperature	-20°C to +55°C				
Storage Temperature	-20°C to +45°C				
Relative Humidity	15%~90%(Non-condensing)				
Max. Operating Altitude	≤2000m				
Communication Interfaces	LAN/CAN/RS485/Wi-Fi				
Compliance	UN 38.3, MSDS				

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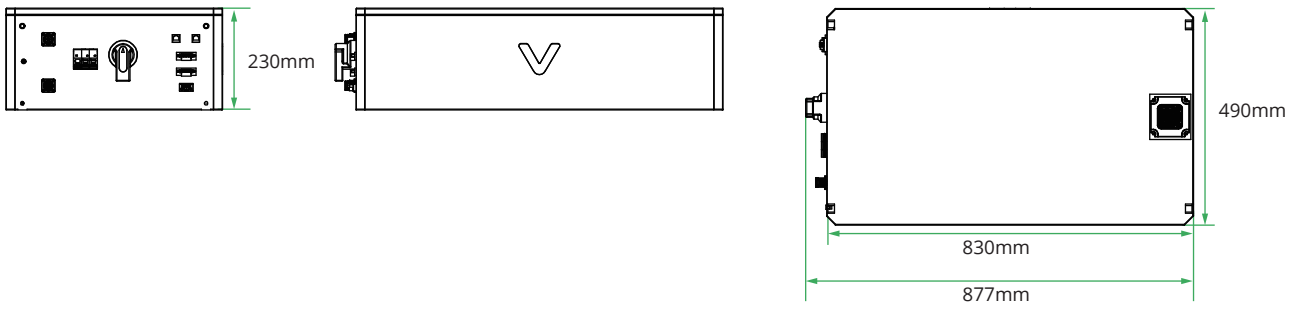
[1]Test Conditions: Charge/discharge at 0.2C, 25℃, **90% depth of discharge (DOD)**, 70% end-of-life (EOL)

High Voltage Box

Features and Advantages

- The product supports manual control and shunt trip control of the DC circuit breaker
- It supports temperature monitoring of busbars and power connectors in the high-voltage box to ensure system safety
- Built with high-reliability components and redundant protection design, the product withstands EMI, high temperature, and vibration ensuring high reliability and stability
- It provides accurate monitoring of battery cluster voltage, current, and insulation resistance status
- The front panel features operating status indicators for easy identification

Dimensions(WxDxH mm)



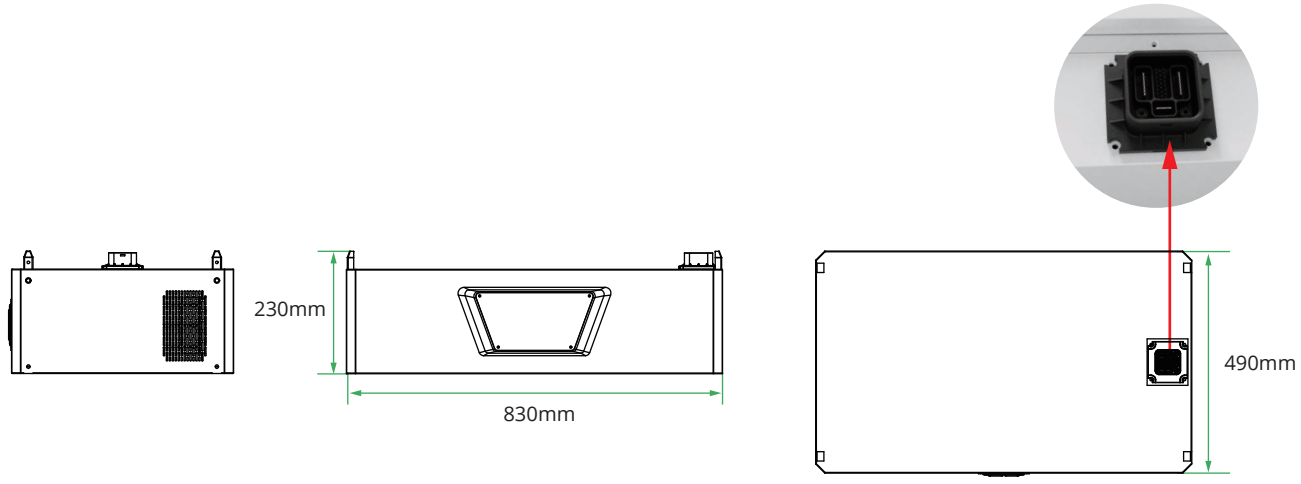
High Voltage Box Technical Parameters

Model	Flex16-HBox
Rated Voltage	1000 VDC (430 VDC optional)
Rated Current	250A
Insulation Resistance	≥10 MΩ at 1000 VDC (430 VDC optional)
Dielectric Strength	3390 VDC, leakage current ≤ 1 mA, no breakdown or flashover
Operating Temperature	-20°C to +65°C
Storage Temperature	-25°C to +65°C
Relative Humidity	≤95%
Cooling Method	Natural convection
Altitude	≤ 2000 m
Dimensions (W×D×H mm)	830×490×230 mm
Weight	40 kg
Communication	CAN/RS485/LAN
Ingress Protection	IP20

*Note: Two high-voltage box versions are available: 430 VDC and 1000 VDC.
*Please specify the required version when placing the order.

Battery Pack

Dimensions(WxDxH mm)



Battery Pack Technical Parameters

Model	Flex16-Unit
Nominal Energy	16.076 kWh
Nominal Voltage	51.2 V
Rated Capacity	314 Ah
Battery Balancing	Active balancing
Balancing Current	up to 2A
Recommended Charge/Discharge C-rate	0.5C (157A)
Maximum Charge/Discharge C-rate	0.64C (200A)
Peak Discharge Current (25°C)	280A
Recommended Charge/Discharge Power	8.038 kW
Maximum Charge/Discharge Power	10.24 kW
Charging Temperature	0°C to +55°C
Discharging Temperature	-20°C to +55°C
Storage Temperature	-20°C to +45°C
Dimensions(W x D x H mm)	830 x 490 x 230 mm
Battery Weight (Approx.)	117 Kg

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