# Belicitysolar®

Make life full of hope







Solar photovoltaic inverter / Lithium battery

**PRODUCT CATALOG** 



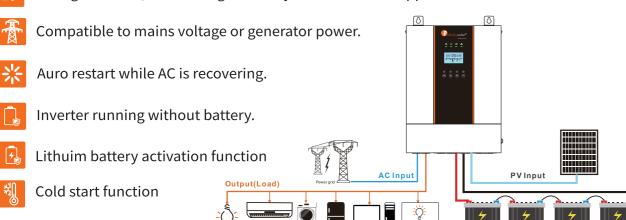
# SOLAR INVERTER IVEM SERIES





## **FEATURES**

- Pure sine wave inverter.
- Built-in MPPT solar charge controller.
- Configurable input voltage range for home appliances and personal computers via LCD setting.
- Configurable battery charging current based on applications via LCD setting.
- Configurable AC/Solar Charger Priority via the FSOLAR app.



#### **PRODUCT PARAMETERS**

Model	IVEM3024	IVEM5048	IVEM8048		
Rated Output Power(VA)	3000VA	5000VA	8000VA		
Rated Output Power(W)	3000W	3000W 5000W			
Nominal DC Input Voltage	24V	48V 48			
Nominal Input Voltage	230Vac				
Max AC Input Voltage	280Vac				
Nominal Input Frequency		50Hz/60Hz (Auto Detection)			
Efficiency (Line Mode)	>	95% (Rated R Load, Battery Full Charg	ed)		
Pass Through Without Battery		Yes			
Utility Charge Mode Specifications					
Input Voltage Range		90-280Vac			
Over Charge Protection		Yes			
Solar Charging & Utility Charging					
Max. PV Open Circuit Voltage		500V			
PV Voltage Working Range		120V-500V			
Max. Input Power	4000W	6000W	8000W		
Max. Solar Charging Current		100A			
Max. Charging Current(PV+Grid)	100A				
Max. Input Current	15A	20A	40A		
Min. Startup Voltage	125V				
Inverter Mode Specifications					
Output Voltage Waveform		Pure sine wave			
Nominal Output Voltage	230Vac±5%				
Nominal Output Frequency (Hz)		50±0.3Hz/60Hz±0.3Hz (Adjustable)			
Parallel Unit	-	12	12		
Peak Efficiency		93%			
Over-Load Protection (SMPS load)	5s	@≥150% load: 10s@105%~150% l	oad		
Surge Rating	2*rated power for 100ms				
Capable of Starting Electric		Yes			
Output Short Circuit Protection		Yes			
General Specifications					
Operating Temperature		0°C-55°C			
Range Storage Temperature		-15°C~60°C			
Net Weight(KG)	9 <b>.</b> 1KG	11.2KG	13.2KG		
Gross Weight(KG)	10 <b>.</b> 8KG	13.2KG	15.2KG		
Product Size (D*W*H)	395x295x129mm	415x320x129mm	415x320x129mm		
Package Dimension (D*W*H)	492x392x222mm	514x419x222mm	494x399x202mm		

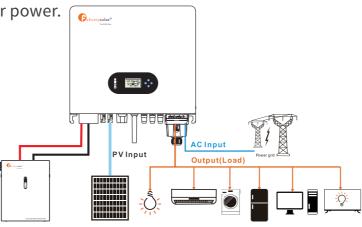
## HYBRID SOLAR INVERTER IVGM5048 SERIES





### **FEATURES**

- M Pure sine wave inverter
- Built-in MPPT solar charge controller.
- Configurable input voltage range for home appliances and personal computers via LCD setting
- Configurable battery charging current based on applications via LCD setting.
- Configurable AC/Solar Charger priority via LCD setting
- Compatible to mains voltage or generator power.
- 💥 Auto restart while AC is recovering
- Inverter running without battery
- Lithium battery activation function.
- Cold start function.



Model	IVGM5048		
Battery Input Data			
Battery Voltage Range	40V~60V		
Max. charging and discharging current	100A/100A		
Max. charging and discharging power	5000W		
Battery type	Li/Lead-acid		
DC Input Data (PV side)			
Max. recommended PV power	6500W		
Max. PV voltage	550V		
Start voltage	130V		
PV voltage PV voltage range	90V~550V		
MPPT voltage range	100V~500V		
MPPT Voltage Range for Full Load	220V~500V		
Nominal voltage	360V		
Max. input current	15A/15A		
Max. shorted curent	18A/18A		
Number of MPP trackers / strings per MPP tracker	2/1		
Grid Data			
Nominal Input Voltage	230Vac		
nput Voltage Range	184~264.5Vac*		
Nominal grid frequency	50/60Hz*		
Max. input current	40A		
Max. Charge Current	100A		
Max. AC output power	5000W		
AC Output Rated Current	21.7A		
Max. output current	25A		
Max. Continuous AC Passthrough	30A		
Power factor	>0.99		
Displacement power factor	0.8leading···0.8lagging		
THDI	<3%		
AC Output Data(Back Up)			
Rated output power	5000VA/5000W		
Max. Output current	30A		
Rated AC output voltage	230Vac		
Rated AC output frequency	50/60Hz		
Efficiency			
Max. efficiency	97.6%		
Euro efficiency	97.0%		
MPPT efficiency	99.9%		
Protection			
Output over current protection	Integrated		
Output over power protection	Integrated		
Output shorted protection			
	Integrated		
Anti-islanding protection	Integrated		
GFCI Protection	Integrated		
Insulation Resistor Detection	Integrated		
General Data			
Operating temperature range	−25°C~60°C,>45°C Derating		
Protection degree	IP65		
Relative humidity	100%		
Cooling concept	Nature		
Altitude	2000m		
Communication	RS232/RS485		
BMS Communication	CAN/RS485		
Monitor module	Wi-Fi/GPRS		
Display	LCD+LED		
nstallation Style	Wall-mounted		
Warranty	5 years		
Grid Regulation	VDE-AR-N 4105; G99/1; EN50549-1; CEI 0-21; AS 4777.2; NRS 097-2-1;		
Safety Regulation	IEC 62109-1/2, IEC 62040-1		
EMC	EN61000-6-1, EN61000-6-3		
Net Weight	34.2KG		
Gross Weight	38.6KG		
Product Dimension	493*530*203mm		
Package Dimension	632*585*315mm		

<sup>\*</sup> According to local grid-connected standards

## SOLAR INVERTER T-REX-50KHP3G01 SERIES



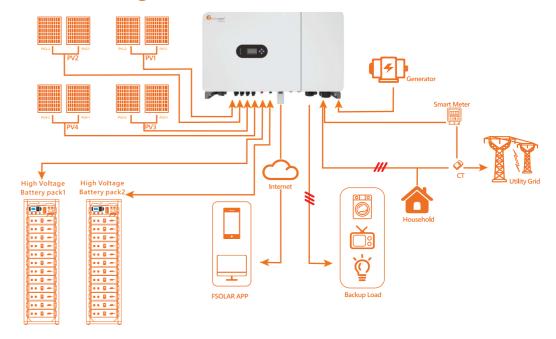
## **FEATURES**

- 🔅 5 years warranty.
- Support 4 MPPT / 8 strings input.
- Support multiple operating modes.
- Support up to 12 parallel connections.
- Support remote monitoring and scheduling.
- Support two independent high-voltage battery packs.
- Outdoor wall mounted installation with IP65 protection level.
- Support wide voltage input and external generator connection.
- The maximum capacity supporting the battery pack is 2041.6 KWH.



## **PRODUCT PARAMETERS**

Model	T-REX-50KHP3G01			
Battery Input Data				
Battery Voltage Range	160~800Vd.c			
Max.Charging Current	50+50 (A)			
Max. Discharging Current	50+50 (A)			
Number of battery input	2			
PV String Input Data				
Max.DC Input Power	65KW			
Max.DC Input Voltage	1000Vd.c.			
Min.DC Input Voltage	150Vd.c.			
Start-up Voltage	250Vd.c.			
Rated DC Input Voltage	600Vd.c.			
MPPT Range	200~850Vd.c.			
Full Load DC Voltage Range	450~850Vd.c.			
PV Input Current	36+36+36+36(A)			
Max.PV Isc	55+55+55(A)			
No.of MPP Trackers	4			
No.of Strings per MPP Tracker	2			
AC Output Data				
Rated AC Output Power	50 kW			
Max.AC Output Power	55 kW			
AC Output Rated Current	72.5A			
Max.AC Current	79.7A			
Rated AC Voltage	220/380,230/400Vac(-20%~+15%)			
AC Wiring Mode	L1/L2/L3/N/PE,230/400Vac			
Rated AC Frequency	50/60 Hz (45~55Hz/55~65Hz)			
THDI	<3%(At Rated Power)			
Power Factor	0.8(leading) to 0.8(lagging)			
General Data				
Ingress Protection	IP65			
Operating Temperature Range	-25 to 60C(>50C derating)			
Humidity	0~95%(No condensation)			
Cooling	Smart cooling			
Altitude	3000 m (> 2000 m derating)			
Communication with BMS	CAN/RS485			
Monitor module	WiFi/GPRS			
Installation Style	Wall-mounted			
Warranty	5 years			
Net Weight(KG)	70KG			
Product Dimension(MM)	940*595*340MM			



## LIFEPO4 BATTERY SYSTEM LPBA SERIES







## **FEATURES**

- High quality lithium iron phosphate battery.
- > ≥6000 times deep cycle charge and discharge.
- Super long warranty: 7 years warranty.
- Big capacity with small volume for household.
- Support 12 pcs connected in parallel mode for expansion.
- BMS High class of safety with built-in BMS protection.

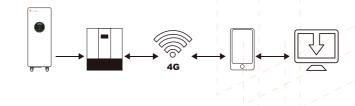


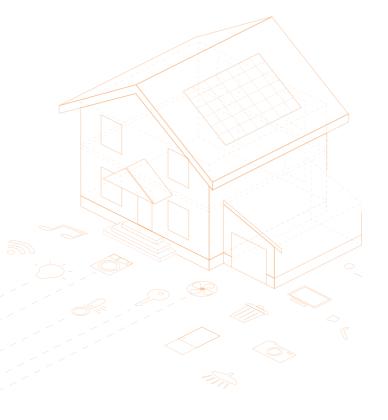
## **PRODUCT PARAMETERS**

MODEL	LPBA48100-OL	LPBA48170	LPBA48200	LPBA48300	
Total Capacity	5.12KWH	8.7KWH	10KWH	15KWH	
Nominal Voltage	51.2V	51.2V	51.2V	51.2V	
Voltage Range	48-57.6V	48-57.6V	48-57 <b>.</b> 6V	48-57.6V	
Recommend Charge Cut-off Voltage	51.2V	57.6V	57.6V	57.6V	
Recommend Discharge Cut-off Voltage	48V	48V	48V	48V	
MAX. Charge & Discharge Current	50A@10S	120A@10S	150A@10S	200A@120S	
Recommend Charge&Discharge Current	≤50A	≪80A	≤120A	≤160A	
MAX. Output Power	5000W	6000W	7500W	10000W	
Recommend Output Power	≤ 2500W	≤4000W	≤ 6000W	≤8000W	
DOD	≥ 95%				
Modules Connection	1-12 in parallel				
Communication	CAN&RS485				
Ingress Protection	IP21				
Cycle Life	≥6000@25°C,80%DOD				
Working Temperature Range	Discharge:-20°C to + 60°C, Charge: +0°C to +55°C				
Net Weight(KG)	45.5KG 71KG 73.5KG		73.5KG	143KG	
Gross Weight(KG)	61KG	89KG	100KG	180KG	
Product Dimension(mm)	755x600x160 mm	755x600x160mm	755x650x135mm	750x300x1285mi	
Package Dimension(mm)	855x700x330 mm	855x700x330 mm	850x745x335mm	855x375x1355mr	



**CAN&RS485 Communication** 





## LIFEPO4 BATTERY SYSTEM LPBF SERIES





## **FEATURES**

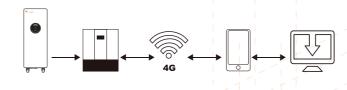
- High quality lithium iron phosphate battery.
- 🎇 ≥6000 times deep cycle charge and discharge.
- Super long warranty: 5 years warranty.
- Big capacity with small volume for household.
- Support 6 pcs connected in parallel mode for expansion.
- BMS High class of safety with built-in BMS protection.

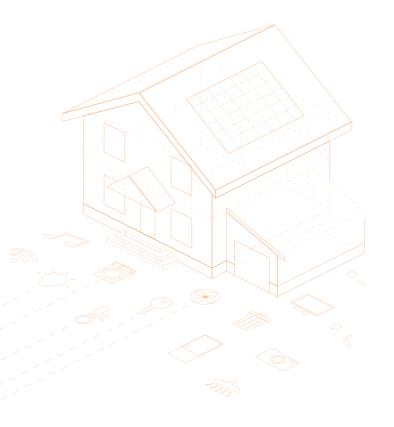


## **PRODUCT PARAMETERS**

MODEL	LPBF24100-M	LPBF48100-M	LPBF48250		
Usable Capacity	2.5KWH 5KWH		12.5KWH		
Nominal Voltage	25.6V 51.2V		51.2V		
Voltage Range	24-28.8V	48-57.6V	48-57.6V		
Recommend Charge & Discharge Current	≪ 60A	≤50A	≤200A		
MAX. Charge & Discharge Current	110A@120S	100A@30S	250A@120S		
Recommend Output Power	1500W 2500W		10000W		
MAX. Output Power	2750W	12500W			
DOD	>95%				
Modules Connection	1∼6 in parallel				
Communication	CAN&RS485				
Ingress Protection	IP21				
Cycle Life	≥6000@25°C,80%DOD				
Working Temperature Range	Discharge: -20°C to + 65°C, Charge: + 0°c to + 55C				
Net Weight(KG)	22KG 40KG 154KG				
Gross Weight(KG)	26KG 45KG		177KG		
Product Dimension(mm)	345x430x195mm	630x540x260mm	615x350x955mm		
Package Dimension(mm)	437x527x243 mm	642x552x278mm	715x450x1115mm		







## LIFEPO4 1C BATTERY SYSTEM LUX-E-48100LG03



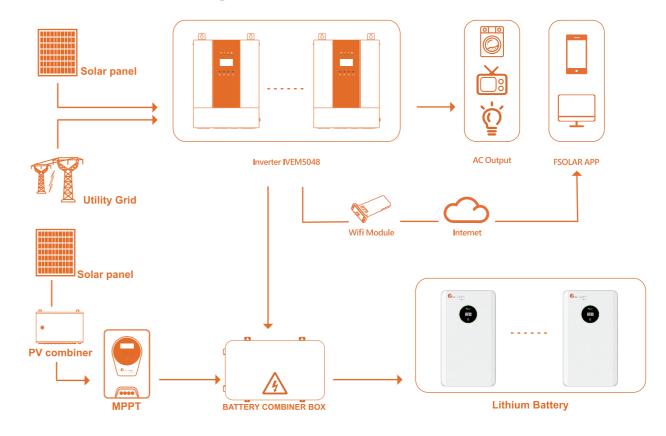


## **FEATURES**

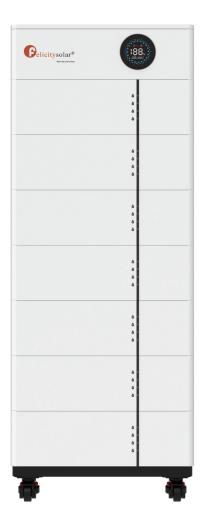
- High quality lithium iron phosphate battery.
- Super long warranty: 7 years warranty.
- Big capacity with small volume for household
- Support 12 pcs connected in parallel mode for expansion.
- BMS High class of safety with built-in BMS protection

## **PRODUCT PARAMETERS**

MODEL	LUX-E-48100LG03		
Battery Type	LiFePO4		
Energy	5.12kWh		
Capacity	100Ah		
Nominal Voltage	51.2V		
Operating Voltage	44.8-57.6V		
Recommend Charge/Discharge Current[1]	≤100A		
Recommend Charge/Discharge Power[1]	≤5,000W		
Maximum Charge/Discharge Current(15s)	150A		
Maximum Charge/Discharge Power(15s)	7,500W		
Depth of Discharge(DOD)	≥95%		
Scalability	Up to 12 units in parallel(61.44kWh)		
Communication	RS485 / CAN		
Protection Level	IP21		
Cycle Life[2]	≥ 6,000 Cycles		
Charging Temperature Range	0-55 ℃		
Discharging Temperature Range	-20-55 ℃		
Display	LCD+LED		
Installation	Floor-Mounted		
Protection	Built-in smart BMS, Breaker, Fuse		
Warranty	7 Years		
[1] Recommend charge/discharge current/p	ower is affected by temperature and SOC.		
[2] Test conditions: 0.2C Charging/Discharging @25°C, 80% DOD.			



## LIFEPO4 BATTERY SYSTEM LUX-X-48100LG01





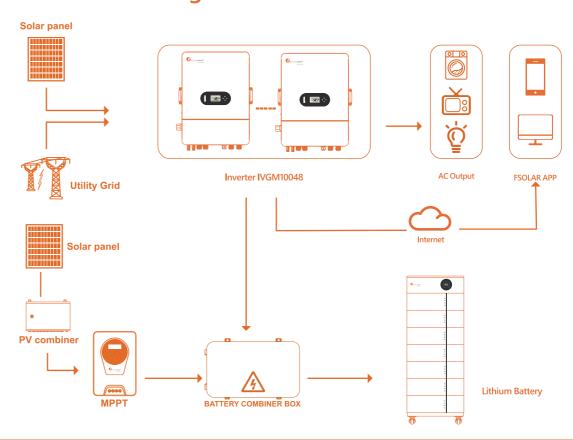


## **FEATURES**

- High quality lithium iron phosphate battery.
- 🎇 ≥6000 times deep cycle charge and discharge.
- Super long warranty: 7 years warranty.
- Big capacity with small volume for household
- Support 8 pcs connected in parallel mode for expansion.
- BMS High class of safety with built-in BMS protection

### **PRODUCT PARAMETERS**

Model	LUX-X-48100LG01							
Battery type	LiFePO4							
Number of Battery Modules	1	2	3	4	5	6	7	8
Capacity	5.12kWh	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh	35.84kWh	40.96kWh
Nominal Voltage				51.	2V			
Operating Voltage				44.8-	57.6V			
Recommend Charge/Discharge Current[1]	≤100A	≤200A	≤300A	≤400A	≤400A	≤400A	≤400A	≤400A
Recommend Charge/Discharge Power[1]	≤5KW	≤10KW	≤15KW	≤20KW	≤20KW	≤20KW	≤20KW	≤20KW
Maximum Charge/Discharge Current(15s)	150A	300A	450A	600A	600A	600A	600A	600A
Maximum Charge/Discharge Power(15s)	7,5KW	15KW	22.5KW	30KW	30KW	30KW	30KW	30KW
Depth of Discharge(DOD)	≥ 95%							
Scalability		Up to 8 units in parallel(40.96kWh)						
Communication		RS485 / CAN						
Protection Level				IP:	21			
Cycle Life[2]		≥ 6000 Cycles						
Charging Temperature Range				0-5	5 °C			
Discharging Temperature Range				-20-5	55 °C			
Display				LCD+	-LED			
Installation				Stac	king			
Protection			Built	-in smart BN	1S, Breaker,	Fuse		
Warranty	7 Years							
Net Weight	53kg	99kg	145kg	191kg	237kg	283kg	329kg	375kg
Gross Weight	60kg	110kg	160kg	210kg	260kg	310kg	360kg	410kg
Product Dimension	600×450×(180N+120)mm							
Main control outer packaging size	712×562×333mm							
[1] Recommend charge/discharge current/p	ower is affec	ted by temp	erature and	SOC.				
[2] Test conditions: 0.2C Charging/Dischargi	ng @25°C, 80	0% DOD.						



## HIGH VOLTAGE BATTERY PACK LUX-X-96050 SERIES

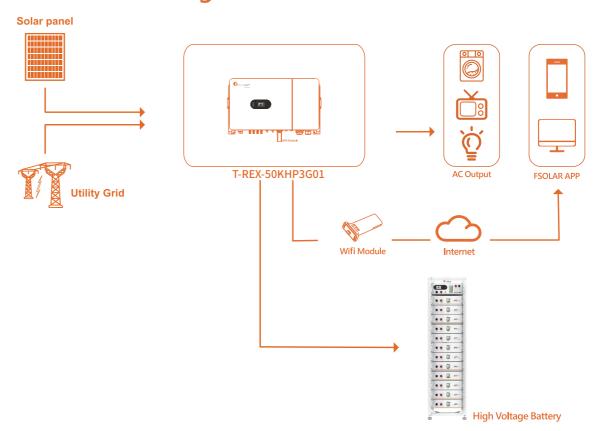


## **FEATURES**

- Long Warranty:10 Years.
- Æ Flexible Installation:Stack-Mounted.
- ## High Scalability:Capacity up to 983kwh.
- LiFePO4:Higher safe performance and longer cycle life.
- Wide Compatibility:Compatible with leading inverter brands.
- Inverter interface protection: Over voltage,
  Over current, External Short Circuit, Reverse
  Polarity GroundFault, Over Temp, In rush current.
- Battery Protection: Internal Short Circuit, Over voltage, over current, over temp, Under voltage The batterysystem contains the following Interface to allow it to connect and operate efficiently.

#### **Specification**

Model		LUX-X-96050				
Module Energy		5.12kWh				
Module Nominal \	/oltage	51.2V				
Module Capacity		100AH				
Number of Battery	/ Modules (Optional)	4(Min)	12			
System Energy		20.48kWh	61.44kWh			
System Nominal V	oltage/	204.8V	614.4V			
System Operating	Voltage	192-230.4V	192-230.4V 384-460.8V			
Recommend Charg	ge/Discharge Current	≤50A	≤50A	≤50A		
Recommend Char	ge/Discharge Power	≤10000W	≤20000W	≤30000W		
Max. Continuous C	Charge/Discharge Current[1]	≤100A	≤100A	≤100A		
Max. Continuous C	Charge/Discharge Power[1]	≤20000W	≤40000W	≤60000W		
Maximum Charge/Discharge Current(15s)		120A	120A	120A		
Maximum Charge	/Discharge Power(15s)	24000W	48000W	72000W		
Battery Type		LiFePO4				
Depth of Discharge(DOD)		≥95%				
Scalability		Up to 16 units in parallel (983kWh)				
Communication		CAN&RS485				
Ingress Protection		IP21				
Cycle Life[2]		≥ 6000 Cycles				
Charging Tempera	ature Range	0~55°C				
Discharging Temp	erature Range		-20~55°C			
Display			LED/LCD			
Installation			Stack-Mounted			
Protection			Built-in smart BMS, Breaker, Fuse			
Warranty		10 Years				
	Net Weight(KG)		10.3KG			
LUX-X-96050	Gross Weight(KG)	16.7KG				
HCG01	Product Dimension(MM)		440*150*515MM			
	Package Dimension(MM)	597*562*269MM				
	Net Weight(KG)		41.3KG			
LUX-X-96050	Gross Weight(KG)	44.35KG				
HMG01	Product Dimension(MM)	440*131*565MM				
	Package Dimension(MM)	687*562*244MM				



## BATTERY SYSTEM COMBINER BOX SYSTEM



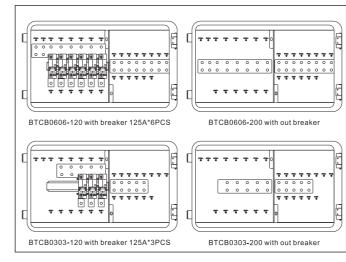


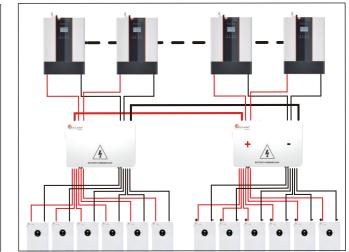
## **FEATURES**

- Higher current can be withstanded.
- Flow expansion capacity of circuit increased.
- Convenient circuit wiring.

#### **PRODUCT PARAMETERS**

MODEL	BTCB0606-120	BTCB0606-200	BTCB0303-120	BTCB0303-200	
Maximun number of input paths	6	6	3	3	
Rated Voltage of Branch[V]	80V	/	80V	/	
Branch rated Current [A]	125A	200A	125A	200A	
Battery Switch	PEBS-L	/	, PEBS-L	/	
Shell Material	Metal Chassis				
Protection Level	IP21				
Operating Temperature range	-10°C~50°C				
Net weight(KG)	8.1KG	7.1KG	7.4KG	6.8KG	
Gross Weight(KG)	9.7KG	8.7KG	9.0KG	8.4KG	
Product Dimension(mm)	516x300x136mm				
Package Dimension(mm)	592x392x218mm				





#### Introduction

The combiner box is a power collection and protection device in the solar power generation system, which brings together the DC energy of multiple panels and transmits the power to the inverter through the output interface. The bus box not only serves as a gathering function, but also monitors and protects each solar panel to ensure the safe and efficient operation of the system.