FelicityESS

Energy Storage System

Eco, Smart, Sustainable

Version 2024-05-10

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www.felicityess.com

Guangzhou · China

FelicityESS



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About US

Introduction

FelicityESS is located in Guangzhou, China, with 16 years of experience from Felicity Group, focuses on mid-to-high-end energy storage markets in Europe, the US, Australia, and South Africa. As a high-tech company in photovoltaic energy storage, FelicityESS offers eco-friendly, smart, sustainable energy storage solutions aimed at delivering high value and quality clean energy to upscale households and business clients. It drives green, low-carbon development and fosters the Broad adoption of clean energy for environmental sustainability.

To meet diverse market and customer needs, FelicityESS has expanded its range to include advanced residential and commercial energy storage products such as off-grid and on-grid inverters, integrated storage systems, and EV charging stations. These additions not only enrich our lineup but also strengthen our core competitiveness in smart energy solutions. Our products offer flexible energy conversion, efficient storage solutions for homes and businesses, and support the growth in electric vehicle charging demand, highlighting our commitment to promoting clean energy vehicles. FelicityESS continues its dedication to R&D and innovation, striving to provide safer, more reliable, And eco-friendlier clean energy products and services globally.

R&D Team:
200+

countries/regions:
100+

Area:
40,000 sqm

R&D Experience:
17+ years

Worldwide Offices:
30+

Patents:
100+



UN38.3

History

2007
Company Establishment.

2008-2010
Formation of the company team and development of photovoltaic product series.

2011
First solar panel produced.

2012-2014
Opened offline shops, achieved $500,000 sales in 2013.

2016-2017
Established first overseas branch in Nigeria.

2018-2020
Rapidly expanded its presence across Africa, establishing branches in key countries and essentially covering the entire continent.

2021
Expanded to Middle East & America, achieving $400 million sales, branches in Senegal, Dubai, Uganda, Cote d'Ivoire, Panama, Lebanon.

2022
Selected as a famous Brand, business has expanded to countries such as Netherlands, Germany, company's operations now span across numerous European countries, establishing a widespread presence throughout the region.

2023
Selected as a leading brand for residential hybrid photovoltaic energy storage products, relocated to an independent, self-sufficient photovoltaic smart park.

2024
Felicity Solar Technology Co., Ltd. changed to Felicity Group, comprising Felicity Solar, Felicity ESS New Energy, and Felicity Green Energy subsidiaries.

Contacts & Partnership Models

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Partnership Models

Join Us

01 Exclusive Distribution Rights
•Granting exclusive rights to distribute specific product lines or in designated areas.

02 Non-exclusive Cooperation
•Offering flexible non-exclusive partnership opportunities, allowing the sale of non-competitive brands.

03 Inventory Support
•Providing stock and logistical support based on the partnership level to ensure continuous product availability.

04 Marketing and Sales Support
•Supplying marketing materials, product training, and sales strategy support to enhance distributor market performance.



Product Series

Hybrid Inverter

T-REX Series



Battery Pack

LUX-S Series
LUX-E Series
LUX-X Series
LUX-Y Series



All-in-One Hybrid ESS

Apollo Series
EV charger
ZEUS Series



Balcony ESS Solutions

X-RAY Series
+
LUX-S Series



Commercial ESS Cabinet

FLS Series



Fsolar Smart Energy Management Platform



Hybrid Inverter

T-REX

Series

T-REX Hybrid Inverter

T-REX-4.6/5KLP1G01



Product Features

MPPT

Multi-way MPPT design

Lithium battery activation function

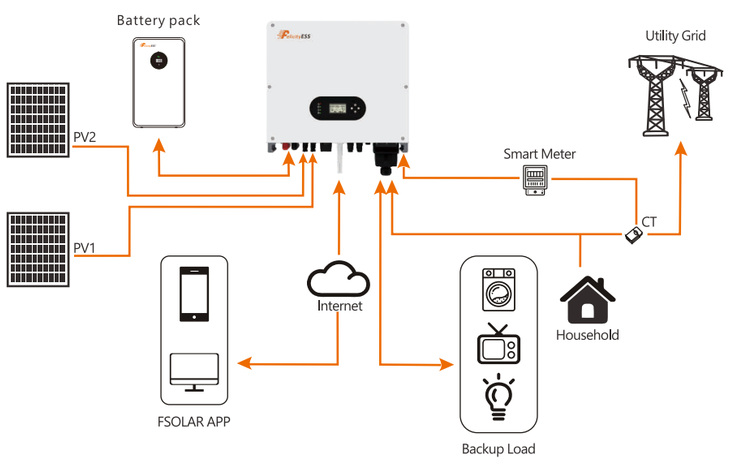
UPS grade on/off grid switching

6 pcs in parallel maximum

Realize remote monitoring and scheduling

Ip65 protection grade

Connection diagram



Specification

Model	T-REX-4K6LP1G01	T-REX-5KLP1G01
Battery Input Data		
Battery Voltage Range	40V~60V	
Max. charging and discharging current	100A/100A	
Max. charging and discharging power	4600W	5000W
Battery type	Li-Ion /Lead-acid	
DC Input Data(PV side)		
Max.recommended PV power	6000W	6500W
Max.PV voltage	550V	
Start voltage	130V	
PV voltage range	90V-550V	
MPPT voltage range	100V-500V	
MPPT Voltage Range for Full Load	200V-500V	220V-500V
Nominal voltage	360V	
Max.input current	15A/15A	
Max. shorted current	18A/18A	
Number of MPP trackers / strings per MPP tracker	2/1	
Grid Data		
Nominal Input Voltage	230Vac	
Input Voltage Range	184-264.5Vac*	
Nominal grid frequency	50/60Hz	
Max. input current	40A	
Max. Charge Current	100A	
Max. AC output power	4600W	5000W
AC Output Rated Current	20A	21.7A
Max. Output current	25A	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	4600VA/4600W	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	WiFi/GPRS	
Display	LCD+LED	
Installation Style	Wall-mounted	
Warranty[1]	10 years	
Grid Regulation	VDE-AR-N 4105; G99/1; EN50549-1; CEI -21; AS 4777.2; NRS 097-2-1;	
Safety Regulation	IEC 62109-1/2IEC 62040-1	
EMC	EN61000-6-1.EN61000-6-3	
Net Weight(KG)	32.4KG	
Gross Weight(KG)	39.1KG	
Product Dimension(MM)	530*493*228MM	
Package Dimension(MM)	632*570*315MM	

[1]Conditions apply, refer to FelicityESS Warranty Letter.

*According to local grid-connected standards

T-REX Hybrid Inverter

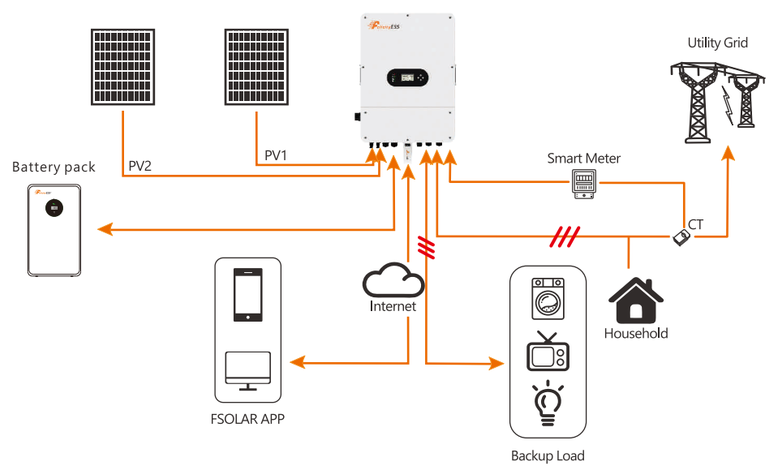
T-REX-10KLP3G01



Product Features

- Multi-way MPPT design
- Lithium battery activation function
- UPS grade on/off grid switching
- Support half-wave load, and unbalanced load
- Equipped with remote real-time monitoring platform
- Ip65 protection grade

Connection diagram



Specification

Model	T-REX-10KLP3G01
Battery Input Data	
Battery Voltage Range	40V~60V
Max. charging and discharging current	200A/200A
Max. charging and discharging power	10000W
Battery type	Li-Ion /Lead-acid
DC Input Data(PV side)	
Max.recommended PV power	13000W
Max.PV voltage	900V
Start voltage	180V
PV voltage range	160V-900V
MPPT voltage range	200V-850V
MPPT Voltage Range for Full Load	450V-850V
Nominal voltage	720V
Max.input current	15A/15A
Max. shorted current	18A/18A
Number of MPP trackers / strings per MPP tracker	2/1
Grid Data	
Nominal Input Voltage	L1/L2/L3/N/PE, 230/400Vac
Input Voltage Range	184-264.5Vac*
Nominal grid frequency	50/60Hz
Max. input current	30A
Max. Charge Current	200A
Max. AC output power	10000W
AC Output Rated Current	14.5A
Max. Output current	18A
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	10000VA/10000W
Max. Output current	30A
Rated AC output voltage	L1/L2/L3/N/PE, 230/400Vac
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	Smart cooling
Altitude	2000m
Communication	RS232/RS485
BMS Communication	CAN/RS485
Monitor module	WiFi/GPRS
Display	LCD+LED
Installation Style	Wall-mounted
Warranty[1]	10 years
Grid Regulation	VDE-AR-N 4105; G99/1; EN50549-1; CEI -21; AS 4777.2; NRS 097-2-1;
Safety Regulation	IEC 62109-1/2IEC 62040-1
EMC	EN61000-6-1.EN61000-6-3
Net Weight(KG)	38.9KG
Gross Weight(KG)	47.1KG
Product Dimension(MM)	655*475*266MM
Package Dimension(MM)	792*597*351MM

[1]Conditions apply, refer to FelicityESS Warranty Letter.

*According to local grid-connected standards

T-REX Hybrid Inverter

T-REX-10KHP3G01



Product Features

WiFi for mobile monitoring

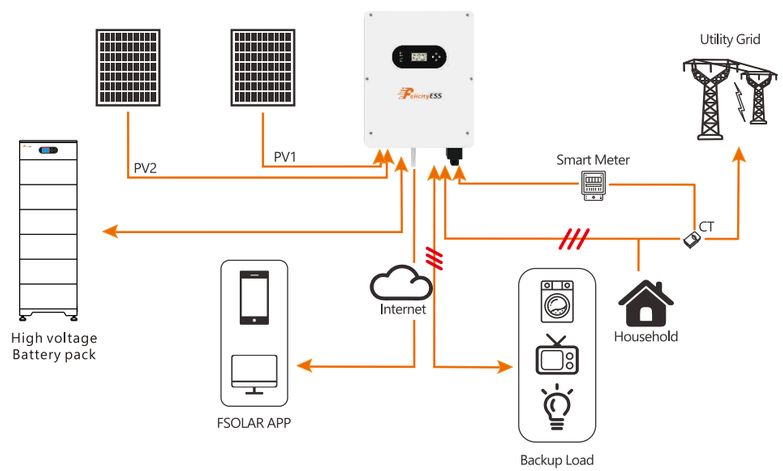
Max.charging/discharging current of 25A

AC couple to retrofit existing solar system

Support storing energy from diesel generator

Automatically and switching time within 20ms

Connection diagram



Specification

Model	T-REX-10KHP3G01
Battery Input Data	
Battery Voltage Range	180V~580V
Max. charging and discharging current	25A
Max. charging and discharging power	10000W
Battery type	Li-Ion /Lead-acid
DC Input Data(PV side)	
Max.recommended PV power	13000W
Max.PV voltage	900V
Start voltage	160V
PV voltage range	160V-900V
MPPT voltage range	200V-850V
MPPT Voltage Range for Full Load	450V-850V
Nominal voltage	720V
Max.input current	15A/15A
Max. shorted current	18A/18A
Number of MPP trackers / strings per MPP tracker	2/1
Grid Data	
Nominal Input Voltage	L1/L2/L3/N/PE, 230/400Vac
Input Voltage Range	184-264.5Vac*
Nominal grid frequency	50/60Hz
Max. input current	30A
Max. Charge Current	25A
Max. AC output power	10000W
AC Output Rated Current	14.5A
Max. Output current	18A
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	10000VA/10000W
Max. Output current	30A
Rated AC output voltage	L1/L2/L3/N/PE, 230/400Vac
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	WiFi/GPRS
Display	LCD+LED
Installation Style	Wall-mounted
Warranty[1]	10 years
Grid Regulation	VDE-AR-N 4105; G99/1; EN50549-1; CEI -21; AS 4777.2; NRS 097-2-1;
Safety Regulation	IEC 62109-1/2IEC 62040-1
EMC	EN61000-6-1.EN61000-6-3
Net Weight(KG)	35.3KG
Gross Weight(KG)	39.7KG
Product Dimension(MM)	533*431*213MM
Package Dimension(MM)	635*533*315MM

[1]Conditions apply, refer to FelicityESS Warranty Letter.

*According to local grid-connected standards

T-REX Hybrid Inverter

T-REX-50KHP3G01



Product Features

3.5-inch LCD touch screen

Smart Cloud Monitoring System

2 independent battery inputs

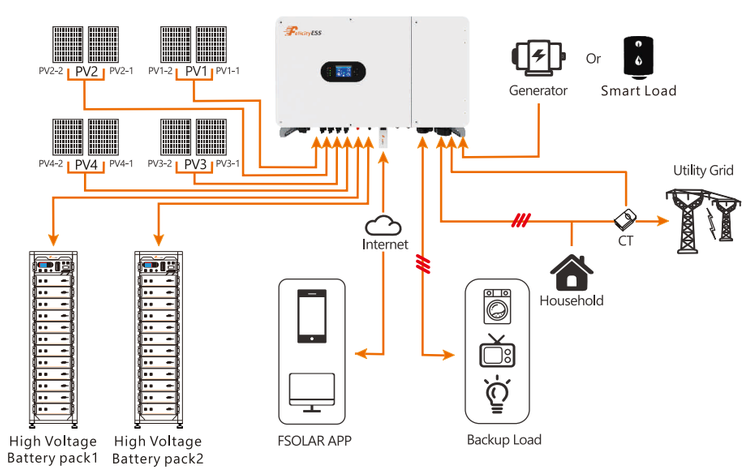
Programmable generator port

Support multi Working mode

The maximum support is 12 parallel machines.

Ip65 protection grade

Connection diagram



Specification

Model	T-REX-50KHP3G01
Battery Input Data	
Battery Type	LFP (LiFePO4)
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	65 kW
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+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	72.5 A
Max. AC Current	79.7 A
Rated AC Voltage	220/380,230/400 Vac (-20%~+15%)
AC Wiring Mode	3W+N+PE/3W+PE
Rated AC Frequency	50 /60 Hz (45~55Hz/55~65Hz)
THDI	<3% (At Rated Power)
Power Factor	0.8(leading) to 0.8(lagging)
Efficiency	
Max. efficiency	97.6%
Euro efficiency	97.0%
MPPT efficiency	99.9%
Protection	
PV Input Lightning Protection,	Integrated
PV String Input Reverse Polarity Protection,	
Battery Input Lightning Protection,	
Battery Input Reverse Polarity Protection,	
Insulation Resistor Detection,	
Residual Current Monitoring Unit,	
Output Over Current Protection,	
Output Shorted Protection,	
Output Over Voltage Protection,	
Anti-islanding Protection,	
AC Output Lightning Protection。	
Certification and Standards	
Grid Regulation	NRS 097-2-1,VDE4105,EN50549-1,AS 4777.2,GB/T 34120,GB/T 34133,GB/T 34129
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4,IEC/EN 62109-1,IEC/EN 62109-2
General Data	
Protection Degree	IP65
Operating Temperature Range	-25 to 60 °C (> 50 °C derating)
Humidity	0 ~ 95 % (No condensation)
Cooling	Smart cooling
Altitude	3000 m (> 2000 m derating)
Communication with BMS	RS485,CAN
Monitor module	WiFi/GPRS
Installation Style	Wall-mounted
Warranty[1]	10 years
Net Weight(KG)	85.6KG
Gross Weight(KG)	98.4KG
Product Dimension(MM)	940*340*582MM
Package Dimension(MM)	463*770*1110MM

[1]Conditions apply, refer to FelicityESS Warranty Letter.

*According to local grid-connected standards

Battery Pack

LUX-SE

Series

XY

LUX-S Battery Pack

Built-in Controller

LUX-S-1600LG01



Product Features

Storing Excess Energy

Timing function supports

IP65, natural cooling

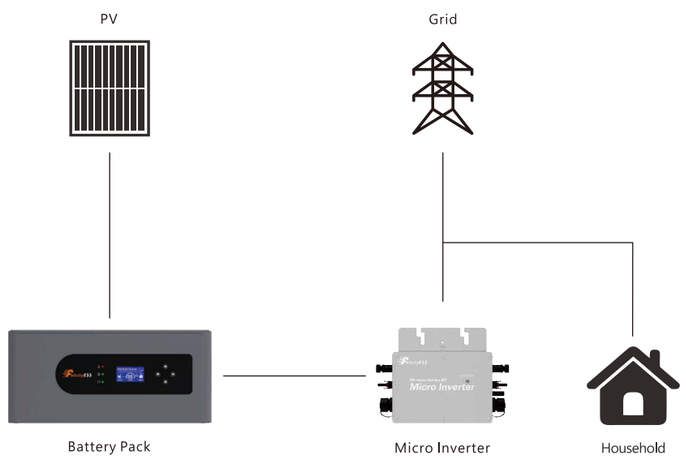
Stacking and wall mounting installation

Built-in WIFI/BLE

Power Controllable

Aerosol Fire Extinguishing System

Connection diagram



Specification

Model	LUX-S-1600LG01
INPUT DATA	
Commonly Used Module Power	210 to 670W+ (2 Pieces)
Maximum Input Voltage	95Vdc
MPPT Voltage Range	16-60Vdc
Start-up Voltage	22V
Maximum Input Current	2x30A
Maximum Input Short Circuit Current	2x35A
Number of MPPTs	2
Number of Inputs per MPPT	1
OUTPUT DATA	
Output Voltage Range	28-36Vdc
Maximum Output Current	2x25A
BATTERY DATA	
Capacity	1600Wh
Battery Type	LiFePO4
Nominal Voltage	32Vdc
Operating Voltage	28-36Vdc
Depth of Discharge(DOD)	≥95%
Charging Temperature Range	0 to 55°C
Discharging Temperature Range	-20 to 55°C
Maximum Charge Current	50A
Maximum Discharge Current	50A
MECHANICAL DATA	
Noise(dB)	<35dB (1 meter)
Protection Level	Ip65
Cooling	Natural convection – No fans
Humidity	0-95% (no condensation)
Altitude	Up to 2,500 meters
Installation	Wall-Mounted
Net Weight	23kg
Gross Weight	26kg
Product Dimension(WxHxD)	325×440×199mm
Package Dimension(WxHxD)	537×387×272mm
FEATURES	
Display	LCD+LED
Communication	WIFI/Bluetooth
Monitoring	Fsolar APP
Protection	Bulti-in Smart BMS,Breaker,Fuse
Bypass Setting	When the battery is fully charged to 100%, user can choose whether to bypass (enabled by default) the PV energy directly to the micro inverter(user forbid discharge period).
Output Timer Setting	Timing function supports user setting to Output time through APP or LCD Display.
Charging Low Temperature	When the cell temperature is lower than the allowable charging temperature, user can choose whether to turn on the forced discharge function (prohibited by default), so that the cell temperature rises to meet the charging temperature limit.
Limited Warranty2	>60% capacity, up to 5 years or 6,000 cycles

1 External 2-in-1 PV cable.
2 Whichever occurs frst. Restrictions apply.

Battery Pack

LUX-ESS

Series

XY

LUX-E Battery Pack

LUX-E-48100LG04



Product Features

LiFePO4:
Higher safe performance
and longer cycle life

Multiple Protection:
Built-in smart
BMS and Breaker

Flexible Installation:
Wall-Mounted or
Floor-Mounted

Wide Compatibility:
Compatible with leading
inverter brands

Aerosol Fire
Extinguishing System

Long Warranty:
10 Years

Specification

Model	LUX-E-48100LG04
Battery Type	LiFePO4
Nominal Energy	5.12kWh
Nominal Capacity	100Ah
Nominal Voltage	51.2V
Operating Voltage	44.8~57.6V
Recommend Charge/Discharge Current	50A
Max.continuous charge/Discharge current[1]	60A
Peak Charge/Discharge Current(15s)	100A
Scalability	Max. 12 PCS in Parallel (61.44kWh)
Depth of Discharge(DOD)	≥ 95%
Display type	LED
Protection Level	IP65
Working Temperature Range	Charge: 0°C~55°C
Working Temperature Range	Discharge:-20°C~55°C
Storge Temperature Range	0°C-+35°C
Humidity	5%~95%
Altitude	≤ 2000m
Communication	RS485 / CAN
Cycle Life[2]	≥ 6000 Cycles
Installation	Wall-Mounted / Floor-Mounted
Protection	Built-in smart BMS, Breaker
Warranty Period[3]	10 Years
Product Weight Approximate	48.5 kg
Package Weight Approximate	64.5 kg
Product Dimension	665x440x175 mm
Package Dimension	760x540x345 mm

[1] Max. continuous charge/discharge current is affected by temperature and SOC.

[2] Test conditions: 0.2C Charging/Discharging @25°C, 80% DOD.

[3] Conditions apply, refer to FelicityESS Warranty Letter.

LUX-E Battery Pack

LUX-E-48100/48200/48230/48250LG03



Product Features

LiFePO4:
Higher safe performance and longer cycle life

Multiple Protection:
Built-in smart BMS and Breaker

Flexible Installation:
Wall-Mounted or Floor-Mounted

Wide Compatibility:
Compatible with leading inverter brands

High Scalability

Long Warranty:
10 Years

Built-in WIFI:
Remote monitoring of battery pack data

Aerosol Fire Extinguishing System

Specification

Model	LUX-E-48100LG03	LUX-E-48200LG03	LUX-E-48230LG03	LUX-E-48250LG03
Battery Type	LiFePO4			
Nominal Energy	5.12kWh	10.5kWh	11.8kWh	12.5kWh
Nominal Capacity	100Ah	205Ah	230Ah	250Ah
Nominal Voltage	51.2v			
Operating Voltage	44.8~57.6V			
Recommend Charge/Discharge current	50A	100A	100A	100A
Max. continuous charge/Discharge current[1]	100A	150A	150A	150A
Peak Charge/Discharge current(15s)	150A	200A	200A	200A
Scalability	Max. 15(76.8kWh)	Max. 15(157.4kWh)	Max. 15(176.6kWh)	Max. 15(187kWh)
Depth of discharge(DOD)	≥95%			
Display type	LCD			
Protection Level	IP21			
Working Temperature Range	Charge:0~+55℃			
	Discharge:-20C~+55°C			
Storge Temperature Range	0°C~+35°C			
Humidity	5%~95%			
Altitude	≤2000m			
Communication	RS485 / CAN			
Cycle Life[2]	≥6000 Cycles			
Installation	Wall-Mounting / Floor-Mounting			
Protection	Built-in smart BMS, Breaker, Fuse			
Warranty Period[3]	10 Year			
Product Weight Approximate	55kg	90kg	92kg	92kg
Package Weight Approximate	75kg	108kg	110kg	110kg
Product Dimension	775×425×209mm	783x450x274mm	783x450x274mm	783x450x274mm
Package Dimension	892×545×385mm	900x570x450mm	900x570x450mm	900x570x450mm

[1] Max. continuous charge/discharge current is affected by temperature and SOC.

[2] Test conditions: 0.2C Charging/Discharging @25°C, 80% DOD.

[3] Conditions apply, refer to FelicityESS Warranty Letter.

Battery Pack

LUX-EV

Series

LUX-X Battery Pack

LUX-X-48050LG01



Product Features

Flexible: Modular design, easy to expand, Max. 4pcs in parallel

Wide temperature range: -20°C to 55°C

Safer: Cobalt Free Lithium Iron Phosphate (LFP) Battery, safety and long lifespan

Quick Installation: Flat and stackable design, support wall-mounted & floor-mounted wiring, rapid and easy installation

Reliable: Support high discharge power. Ip65, natural cooling

Aerosol Fire Extinguishing System

Specification

Model		LUX-X-48050LG01-1	LUX-X-48050LG01-2	LUX-X-48050LG01-3	LUX-X-48050LG01-4
Battery Type		LiFePO4			
Module Energy		2.56kWh			
Module Nominal Voltage		51.2V			
Module Capacity		50Ah			
Number of Battery Modules		1	2	3	4
System Energy		2.56kWh	5.12kWh	7.68kWh	10.24kWh
System Nominal Voltage		51.2V			
System Operating Voltage		44.8~57.6V			
Scalability		Max. 4 pcs in Parallel			
Recommend Charge/Discharge current		25A	40A	40A	40A
Max. continuous charge/discharge current[1]		50A	80A	80A	80A
Peak Charge/Discharge current(15S)		100A	100A	100A	100A
Depth of discharge(DOD)		≥ 95%			
Display type		Control Module：LCD/Battery Module：LED*4			
Protection Level		IP65			
Operating Temperature Range		Charge:0~+55°C/Discharge:-20°C~+55°C			
Storge Temperature Range		0°C~+35°C			
Humidity		5%~95%			
Altitude		≤2000m			
Cycle Life[2]		≥ 6000 Cycles			
Installation		Stacking-Mounting / Floor-Mounting			
Protection		Built-in smart BMS, Breaker			
Communication Port		RS485 / CAN			
Warranty Period[3]		10 Year			
Control Module (with battery) LUX-X-48050LCG01	Product Dimension(W*H*D)	530*350*176mm(with base：262)			
	Product Weight Approximate	30Kg(with base：37)			
	Package Dimension(W*H*D, with base)	612*452*330mm			
	Package Weight Approximate (with base)	41Kg			
Battery Module LUX-X-48050LM01	Product Dimension(W*H*D)	530*350*176mm			
	Product Weight Approximate	30Kg			
	Package Dimension(W*H*D)	612*452*245mm			
	Package Weight Approximate	34Kg			

[1] Recommend charge/discharge current/power is affected by temperature and SOC.

[2] Test conditions: 0.2C Charging/Discharging @25°C, 80% DOD.

[3] Conditions apply, refer to FelicityESS Warranty Letter

LUX-X Battery Pack

LUX-X-48100LG01



Product Features

LiFePO4:
Higher safe performance
and longer cycle life

Multiple Protection:
Built-in smart BMS,
Breaker and Fuse

Flexible Installation:
Movable type
Floor-Mounted

Wide Compatibility:
Compatible with leading
inverter brands

High Scalability

Modular design for easy
installation and increased
capacity

Aerosol Fire
Extinguishing
System

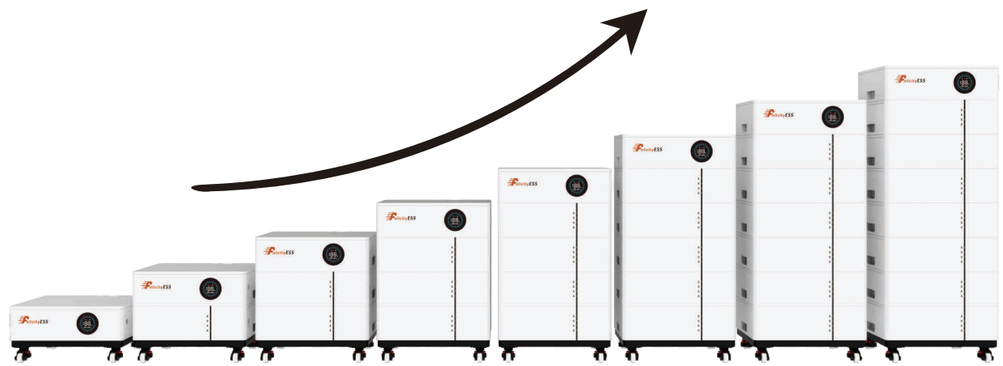
Specification

Model		LUX-X-48100LG01							
Battery Type		LiFePO4							
Module Nominal Energy		5.12kWh							
Module Nominal Capacity		100Ah							
Module Nominal Voltage		51.2V							
Number of Battery Modules		1	2	3	4	5	6	7	8
System Nominal Energy		5.12kWh	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh	35.84kWh	40.96kWh
System Nominal Voltage		51.2V							
System Operating Voltage		44.8~57.6V							
Recommend Charge/Discharge Current		50A	100A	150A	200A	250A	300A	350A	400A
Max. continuous charge/discharge current[1]		60A	120A	180A	240A	300A	360A	400A	400A
Peak Charge/Discharge current(15S)		100A	200A	300A	400A	500A	600A	700A	800A
Scalability		Max. 8 PCS in Parallel							
Depth of discharge(DOD)		≥ 95%							
Display type		Control Module:LCD/Battery Module:LED*4							
Protection Level		Ip21							
Working Temperature Range		Charge:0~+55°C/Discharge:-20°C~+55°C							
Storge Temperature Range		0°C~+35°C							
Humidity		5%~95%							
Altitude		≤2000m							
Communication		RS485 / CAN							
Cycle Life[2]		≥ 6000 Cycles							
Installation		Wall-Mounted / Floor-Mounted							
Protection		Built-in smart BMS, Breaker, Fuse							
Warranty Period[3]		10 Year							
Control Module LUX-X-48100LCG01	Product Weight Approximate	46 kg							
	Package Weight Approximate (with base)	60 kg							
	Product Dimension	600x450x180 mm							
	Package Dimension(with base)	712x562x333 mm							
Battery Module LUX-X-48100LMG01	Product Weight Approximate	46 kg							
	Package Weight Approximate	50 kg							
	Product Dimension	600x450x180 mm							
	Package Dimension	712x562x298 mm							

[1] Max. continuous charge/discharge current is affected by temperature and SOC.

[2] Test conditions: 0.2C Charging/Discharging @25°C, 80% DOD.

[3] Conditions apply, refer to FelicityESS Warranty Letter



LUX-X Battery Pack

LUX-X-96050HG01



Product Features

Inverter Interface Protection

Multiple Protection: Built-in smart BMS, Breaker and Fuse

LiFePO4: Higher safe performance and longer cycle life

Aerosol Fire Extinguishing System

Flexible Installation: Stack-Mounted

Wide Compatibility: Compatible with leading inverter brands

High Scalability

Long Warranty: 10 Years

Specification

Model		LUX-X-96050HG01					
Battery Type		LiFePO4					
Module Energy		5.12kWh					
Module Nominal Voltage		102.4V					
Module Capacity		50Ah					
Number of Battery Modules		1	2	3	4	5	6
System Energy		5.12kWh	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh
System Nominal Voltage		102.4V	204.8V	307.2V	409.6V	512V	614.4V
System Operating Voltage		96-115.2V	192-230.4V	288-345.6V	384-460.8V	480-576V	576-691.2V
Scalability[4]		Max. 4 PCS in Parallel(122.88kWh)					
Recommend Charge/Discharge current		25A	25A	25A	25A	25A	25A
Max. continuous charge/discharge current[1]		50A	50A	50A	50A	50A	50A
Peak Charge/Discharge current(15S)		60A	60A	60A	60A	60A	60A
Depth of discharge(DOD)		≥ 95%					
Display type		LED+LCD(Touch)					
Protection Level		IP65					
Operating Temperature Range		Charge:0~+55°C/Discharge:-20°C~+55°C					
Storge Temperature Range		0°C~+35°C					
Humidity		5%~95%					
Altitude		≤2000m					
Cycle Life[2]		≥ 6000 Cycles					
Installation		Stacking-Mounting / Floor-Mounting					
Protection		Built-in smart BMS, Breaker					
Communication Port		RS485 / CAN					
Warranty Period		10 Year					
Control Module LUX-X-96050HCG01	Net Weight	12 kg					
	Gross Weight(with base)	24.5 kg					
	Product Dimension	600x385x200 mm					
	Package Dimension(with base)	712x497x352 mm					
Battery Module LUX-X-96050HMG01	Battery Designation	IFpP24/141/161/[(1P32S)nS]E/-20+60/90					
	Net Weight	51 kg					
	Gross Weight	54 kg					
	Product Dimension	600x385x260 mm					
	Package Dimension	712x497x378 mm					

[1] Max. continuous charge/discharge current is affected by temperature and SOC.

[2] Test conditions: 0.2C Charging/Discharging @25°C, 80% DOD.

[3] Conditions apply, refer to FelicityESS Warranty Letter

[4] Future models will be designed to allow for parallel connectivity.



Battery Pack

LUX-SEX

Series

Y

LUX-Y Battery Pack

LUX-Y-48280/48300LG01



Product Features

Higher safe performance and longer cycle life

Multiple Protection: Built-in smart BMS, Breaker and Fuse

Flexible Installation: Wall-Mounted or Floor-Mounted

Aerosol Fire Extinguishing System

Wide Compatibility: Compatible with leading inverter brands

High Scalability

Built-in WIFI: Remote monitor of the battery pack data

Long Warranty: 10 Years

Specification

Model	LUX-Y-48280LG01	LUX-Y-48300LG01
Battery Type	LiFePO4	
Nominal Energy	14.3kWh	15kWh
Nominal Capacity	280Ah	300Ah
Nominal Voltage	51.2V	
Operating Voltage	44.8~57.6V	
Recommend Charge/Discharge Current	120A	
Max.continuous charge/Discharge current[1]	150A	
Peak Charge/Discharge Current(15s)	200A	
Scalability	Max.15(215kWh)	Max.15(225kWh)
Depth of Discharge(DOD)	≥95%	
Display type	LCD	
Protection Level	IP21	
Working Temperature Range	Charge: 0°C~+55°C	
	Discharge:-20°C~+55 °C	
Storge Temperature Range	0°C~+35°C	
Humidity	5%-95%	
Altitude	≤2000m	
Communication	RS485 / CAN	
Cycle Life[2]	≥ 6000 Cycles	
Installation	Wall-Mounted / Floor-Mounted	
Protection	Built-in smart BMS, Breaker, Fuse	
Warranty Period[3]	10Years	
Product Weight Approximate	135kg	
Package Weight Approximate	160kg	
Product Dimension	480x1100x300mm	
Package Dimension	1150x635x498mm	

[1] Max.continuous charge/Discharge current is affected by temperature and SOC.

[2] Test conditions: 0.5C Charging/Discharging @25°C, 80% DOD, 60%EOL.

[3] Conditions apply, refer to FelicityESS Warranty Letter.

LUX-Y Battery Pack

LUX-Y-48100HG01



Product Features

Inverter interface protection: Over voltage, Over current, External Short Circuit

Battery Protection: Internal Short Circuit, Over voltage, over current, over temp

LiFePO4:Higher safe performance and longer cycle life

Aerosol Fire Extinguishing System

Flexible Installation: Stack-Mounted

Wide Compatibility: Compatible with leading inverter brands

High Scalability

Long Warranty: 10 Years

Specification

Model		LUX-Y-48100HG01		
Battery Type		LiFePO4		
Module Energy		5.12KWh		
Single Module Nominal Voltage		51.2V		
Module Capacity		100AH		
Number of Battery Modules (Optional)		4(Min)	8	12
System Energy		20.48kWh	40.96kWh	61.44kWh
System Nominal Voltage		204.8V	409.6V	614.4V
System Operating Voltage		192-230.4V	384-460.8V	576-691.2V
Scalability[4]		Max. 16 PCS in Parallel(983.04kwh)		
Recommend Charge/Discharge current		50A		
Max. continuous charge/Discharge current[1]		100A		
Peak Charge/Discharge current(15S)		120A		
Depth of Discharge(DOD)		≥ 95%		
Display type		LED+LCD(Touch)		
Protection Level		IP21		
OperatingTemperature Range		Charge:0~+55℃/Discharge:-20℃~+55℃		
Storge Temperature Range		0℃~+35℃		
Humidity		5%~95%		
Altitude		≤2000m		
Cycle Life[2]		≥ 6000 Cycles		
Installation		Rack-Mounting		
Protection		Built-in smart BMS, Breaker		
Communication Port		RS485 / CAN		
Warranty Period[3]		10 Year		
Control Module LUX-Y-48100HCG01	Product Dimension	482.6x565x150mm		
	Package Dimension	687x562x269mm		
	Product Weight Approximate	10.3kg		
	Package Weight Approximate	16.7kg		
Battery Module LUX-Y-48100HMG01	Product Dimension	482.6x565x131mm		
	Package Dimension	687x562x250mm		
	Product Weight Approximate	41.3kg		
	Package Weight Approximate	45kg		
Rack LUX-Y-48100HR13G01	Product Dimension	560×590×2077.5mm (13th floor)		
	Package Dimension	678×708×2200mm		
	Product Weight Approximate	68.5kg		
	Package Weight Approximate	108.5kg		
Rack LUX-Y-48100HR9G01	Product Dimension	560×590×1532.5mm (9th floor)		
	Package Dimension	678×708×1655mm		
	Product Weight Approximate	51kg		
	Package Weight Approximate	80.5kg(Approx)		

[1] Max. Continuous charge/discharge current/power is affected by temperature and SOC.

[2] Test conditions: 0.5C Charging/Discharging @25°C, 80% DOD.

[3] Conditions apply, refer to FelicityESS Warranty Letter.

[4] Future models will be designed to allow for parallel connectivity.

All-in-One Hybrid ESS

Apollo

Series

Apollo All-in-One Hybrid ESS

Apollo-4.6/5KLP1G01-MX



Product Features

Flexible Storage Capacity

Programmable supply priority for battery or grid

100% output in off-gird mode

All in one design

Smart settable three stages MPPT charging

Real-time Remote Control via APP and website

Specification

Model	Apollo-4K6LP1G01-M1	Apollo-4K6LP1G01-M2	Apollo-5KLP1G01-M1	Apollo-5KLP1G01-M2
System Specification				
Nominal Output Power	4600VA/4600W		5000VA/5000W	
AC Output Frequency and Voltage	50/60Hz;L/N/PE 220/230Va.c			
Grid Type	Single Phase			
Energy Range (kWh)	5.12	10.24	5.12	10.24
Max. Charging/Discharging Current (A)	100			
Battery Operating Voltage (V)	44.8-57.6			
Battery Type	LiFePO4			
IP Rating ofEnclosure	IP21			
System Certification	VDE-AR-N 4105; G99/1; EN50549-1; CEI 0-21; AS 4777.2			
Warranty Period[1]	10 years			
Inverter Technical Specification				
Max. PV Input Power(W)	6000		6500	
Max. PV Input Current(A)	15/15			
Rated PV Input Voltage (Vdc)	90~550			
Start Up DC Voltage (Vdc)	130			
MPPT Voltage Range(Vdc)	100~500			
Max. PV Short-circuit Current (A)	18/18			
No. of MPP Tracker	2/1			
Peak Power (off grid)	2 time of rated power, 0.2s			
Power Factor	0.8leading to 0.8lagging			
DC injection current (mA)	THD<3% (Linear load<2%)			
Display	LCD+LED			
Operating Temperature Range (℃)	-20℃~55℃,>45℃ Derating			
Relative Humidity	15% ~ 85% (No Condensing)			
Dimension(Wx Dx H,mm)	600x450x640			
Weight Appr.(kg)	60			
Communication with BMS	CAN/RS485			
Grid Regulation	VDE-AR-N 4105; G99/1; CE:EN50549-1, NRS 097-2-1; CEI 0-21:AS 4777.2			
Safety Regulation	IEC 62109-1/2, IEC 62040-1			
EMC	EN61000-6-1, EN61000-6-3			
Max. efficiency	97.6%			
Euro efficiency	97.0%			
MPPT efficiency	99.9%			
Battery Technical Specification				
Nominal Voltage (V)	51.2			
Battery Module Energy (kWh)	5.12	10.24	5.12	10.24
Scalability	Max.8pcs,Max. capacity of 40.96kWh			
Battery Module Dimension (WxDxHmm)	600*450*180	600*450*360	600*450*180	600*450*360
Battery Base Dimension (WxDxHmm)	590*440*120			
Battery Module Weight Appr.(kg)	46	92	46	92
Charging Temperature Range	0-55℃			
Discharging Temperature Range	-20-55℃			
Cycle Life	≥6,000 Cycles(Test conditions: 0.2C Charging/ Discharging @25℃, 80% DOD.)			
Battery Module Certification	UN38.3.CE			
AC Output Voltage	230Va.c			
AC Output Frequency	50/60Hz			
AC Output Rated Current	20Aa.c		21.7Aa.c	
Max. AC Output Current	40Aa.c			
AC Output Rated Active Power	4600W*		5000W*	
AC Output Rated Apparent Power	4600VA*		5000VA*	
AC Output Power Factor	0.8 Leading To 0.8 Lagging			

[1] Conditions apply, refer to FelicityESS Warranty Letter.

Apollo All-in-One Hybrid ESS

Apollo-10KHP3G01-MX



Product Features

Higher efficiency energy density

Programmable supply priority for battery or grid

100% output in off-gird mode

Flexible Storage Capacity

Smart settable three stages MPPT charging

Real-time Remote Control

Specification

Model	Apollo-10KHP3G01-M2	Apollo-10KHP3G01-M3	Apollo-10KHP3G01-M4	Apollo-10KHP3G01-M5	Apollo-10KHP3G01-M6
System Specification					
Nominal Output Power	10000VA/10000W				
AC Output Frequency and Voltage	50/60Hz;L1/L2/L3/N/PE, 230Vac/400Vac				
Grid Type	Three Phase				
Energy Range (kWh)	10.24	15.36	20.48	25.6	30.72
Max. Charging/Discharging Current (A)	25				
Battery Operating Voltage (V)	204.8	307.2	409.6	512	614.4
System output Power(W)[1]	5120	7680	10000	10000	10000
Battery Type	LiFePO4				
IP Rating ofEnclosure	IP65				
System Certification	PPDS:2021,VDE-AR-N 4105,EN 50549-1,IEC 62109-1/-2,CE-EMC				
Warranty Period[2]	10 Years				
Inverter Technical Specification					
Max. PV Input Power(W)	13000				
Max. PV Input Current(A)	15/15				
Rated PV Input Voltage (Vdc)	160~900				
Start Up DC Voltage (Vdc)	160				
MPPT Voltage Range(Vdc)	200~850				
MPPT Voltage Range for Full Load(Vdc)	450~850				
Max. PV Short-circuit Current (A)	18/18				
No. of MPP Tracker	2/1				
Power Factor	0.8 leading to 0.8 lagging				
DC injection current (mA)	THD<3% (Linear load<1.5%)				
Display	LCD+LED				
Operating Temperature Range (℃)	-20℃~55℃,>45℃ Derating				
Relative Humidity	15% ~ 85% (No Condensing)				
Dimension(Wx Dx H,mm)	533×431×213				
Weight Appr.(kg)	35.3				
Communication with BMS	CAN/RS485				
Grid Regulation	PPDS:2021、VDE-AR-N 4105、EN 50549-1、G99/1、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				
Max. efficiency	97.6%				
Euro efficiency	97.0%				
MPPT efficiency	99.9%				
Battery Technical Specification					
Number of batteries	2	3	4	5	6
Nominal Voltage(V)	204.8	307.2	409.6	512	614.4
Battery Module Energy(kWh)	10.24	15.36	20.48	25.6	30.72
Scalability(kWh)	Max. 6 PCS in parallel(30.72kWh)				
Battery Module Dimension(mm)	600x385x520	600x385x780	600x385x1300	600x385x1040	600x385x1560
Battery Module Weight Appr.(kg)	102	153	204	255	306
Charging Temperature Range	0~55℃				
Discharging Temperature Range	-20-55℃				
Cycle Life[3]	6000 Cycles				
Battery Module Certification	CB、UN 38.3、MSDS				

[1] If you want the machine to be fully loaded, you must connect at least 4 battery Module in series.

[2] Conditions apply, refer to FelicityESS Warranty policy.

[3] Test conditions: 0.2C Charging/Discharging @25℃, 80% DOD.

Micro Inverter

X - RAY

Series

X-RAY Micro Inverter

X-RAY-WVC800W



Product Features

The maximum output power can reach 800W

Peak efficiency 92.70%. The CEC weighted efficiency is 92.50%

Static MPPT efficiency 99.80%. The efficiency of dynamic MPPT on cloudy days is 99.76%

Power factor (adjustable) 0.8 lead...0.8 lag

External antenna for stronger communication with WiFi sources

High reliability: NEMA 3R (IP65) enclosure. 6000V surge protection

Specification

Model	X-RAY-WVC800W
DC Input	
Maximum Input Power	Max 2× 500W
Mppt Voltage Range (Module Open Circuit Voltage)	30-60V
Starting Voltage	22V d.c.
Working Voltage Range	22-60V d.c.
Maximum Input Voltage	60V
Maximum Input Current	2×18A
Maximum Input Short Circuit Current	2×20A
Maximum Feedback Current Of The Array	0A
AC Output	
Maximum Output Power	800VA
Rated Output Current	@120V 6.6A @230V 3.5A
Nominal Output Voltage Range	@120V a.c. (Application area: such as Japan, North America, etc.) @230V a.c. (Application area: such as Europe)
Nominal Frequency Range	50Hz/60Hz
Power Factor	> 0.99 default 0.95 leading...0.95 lagging
Harmonic Distortion Of Output Current	<3%
Maximum Number Of Connections Per Branch	@120V 6 PCs @230V 12Pcs
Efficiency, Safety and Protection	
Peak Microinverter Efficiency	92.70%
CEC weighted efficiency	92.50%
Nominal MPPT Efficiency	99.80%
Night power consumption (mW)	0
Mechanical Data	
Ambient temperature range	-20 to +50C°
Storage temperature range	-20 to +50C°
Dimensions (L×W×H)	283×200×41.6mm
Weight	1.46kg
Waterproof level	Outdoor Nema 3r (IP65)
Cooling method	Natural Convection (no Fans)
Degree of pollution	PD3
Feature	
Power Delivery Mode	Reverse transmission, load priority
Communication method	WiFi
Rated transmit power	802.11b: +17dBm ± 1.5dBm (@11Mbps) 802.11g: +15dBm ± 1.5dBm (@54Mbps) 802.11n: +14dBm ± 1.5dBm (@HT20, MCS7)
Surveillance system	Smart Life
Warranty	5 years
Electrical Standard	EN 50549-1:2019, EN 50549-2:2019 EN 61000-6-1:2007, EN 61000-6-3:2007 + A1:2011 + AC2012 IEC/EN 62109-1:2010, IEC/EN 62109-2:2011
Bluetooth	2402-2480MHz Bluetooth EIRP Power (Max.) 7.89dBm
Wifi 2.4G	2412-2472MHz Wifi 2.4G EIRP Power (Max.) 18.08dBm

*Note: Voltage and frequency ranges may exceed nominal values if required by the utility company.

Package	FCL (5units)
Standard 3m AC grid-connected cable	12.3Kg
	450×400×260mm

EV charger

ZEUS Series

ZEUS EV charger

ZEUS-A7-ST/ZEUS-A11-ST



Introduction

Multi-scene applicable column, wall hanging can be installed

Garage charging/underground garage charging/outdoor charging, etc No fear of wind and rain, charge as you like

Greatly improved charging efficiency

The 7KW device is compatible with all power modules below 7KW. Charging is more stable and efficient.

Eight Protection Functions Ensure Safe and Reliable Charging

- Overcurrent Protection
- Leakage Protection
- Undervoltage Protection
- Waterproof Protection
- Short Circuit Protection
- Lightning Protection
- Overvoltage Protection
- Flame Retardant Protection





Specification

Model	ZEUS-A11-ST	ZEUS-A7-ST
Rated voltage	AC400V (50/60Hz)	AC230V (50/60Hz)
Rated Ampere	16A	32A
Rated power	11kW	7kW
Wire	Three phase (3P+N+PE)	Single phase (P+N+PE)
Ingress Protection	Ip65	
Installation Options	Column / Wall mounted	
Colour	White	
Weight	5kg	
Dimension (MM)	190*110*320MM	
Operating temperature	-40°C to 60°C	-40°C to 60°C/50°C to 60°C(16A)
Humidity	5-95%humidity	
Altitude	≤2.0m	
Charging Cable Length	3.5M	
Environmental requirements	Meet ROHS2.0 requirements	

*Conditions apply, refer to FelicityESS Warranty Letter.

Status Indicator Light

Green breathing lamp Online Idle	Green all bright Online prepare
	

Yellow breathing lamp reserved	Yellow breathing lamp Charging suspension
	

Red all bright Disable	White water lamp Upgrading
	

Purple breathing lamp Offline Idle	Purple all bright Offline prepare
	

Green flashing End of charging	Red flashing Error
	

Green water lamp In the Charging The higher the charging current, the faster the rhythm of the status indicator	Green water lamp In the Charging The higher the charging current, the faster the rhythm of the status indicator
	

Residential & Commercial ESS Solutions

Balcony ESS Solutions

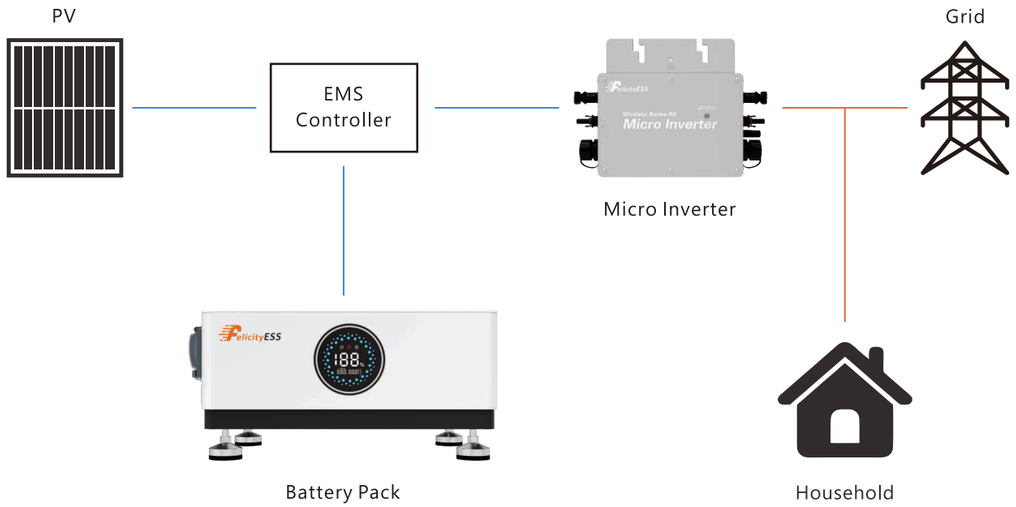
2.5kWh, AC-output 800W

System Highlights

- Space-efficient
- Easy installation
- Renewable integration
- Scalable
- Smart management
- Safety features

Connection Diagram

DC AC



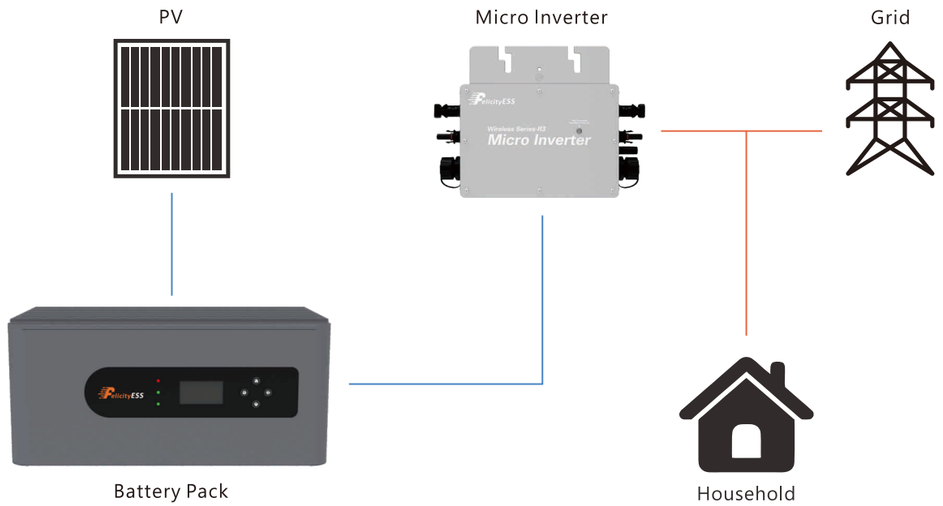
1.6kWh, AC-output 800W

System Highlights

- Compact Design
- Low Maintenance
- Versatile Applications
- Noise Reduction
- Grid Independence
- Increased Energy Security

Connection Diagram

DC AC



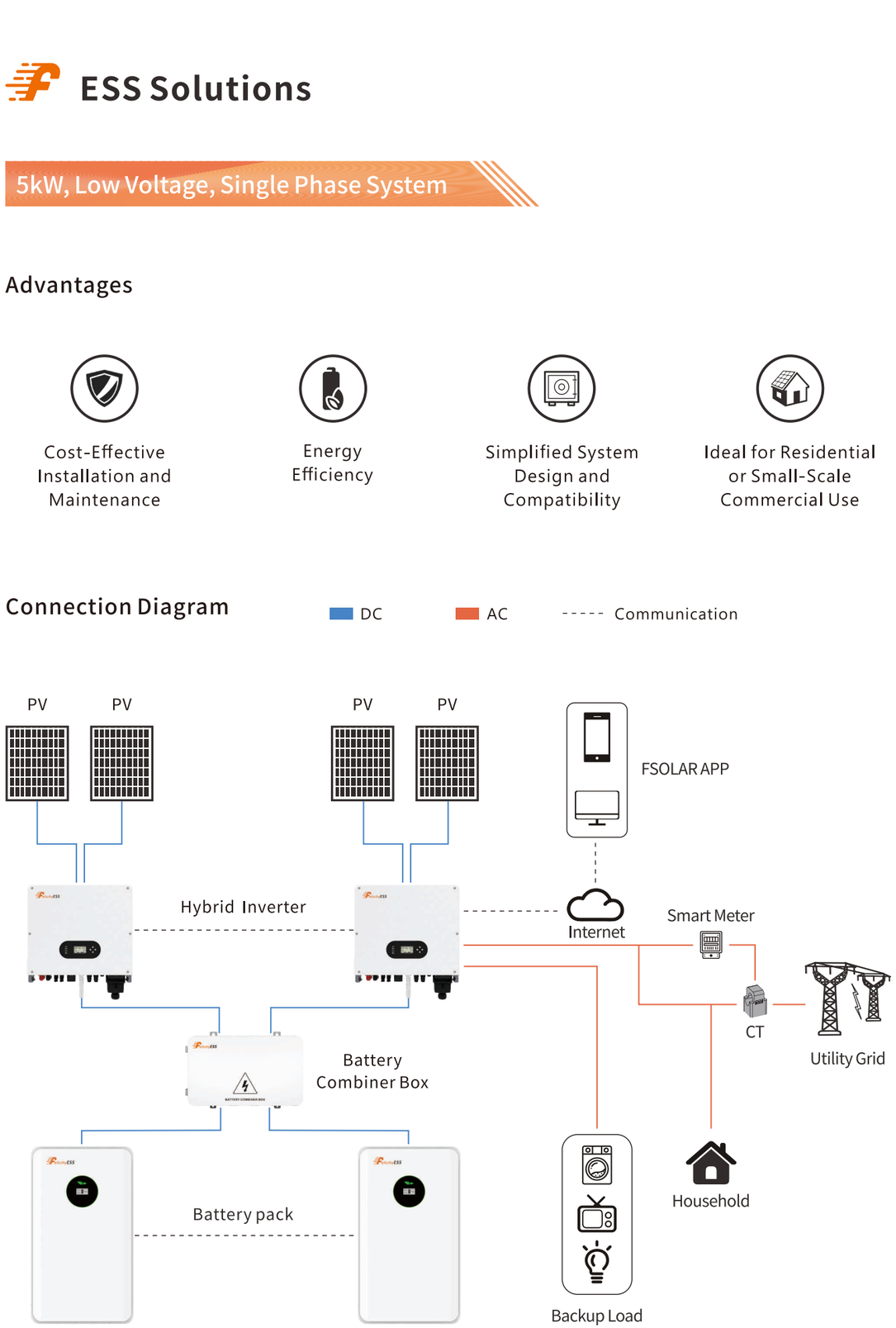
ESS Solutions

5kW, Low Voltage, Single Phase System

Advantages

- Cost-Effective Installation and Maintenance
- Energy Efficiency
- Simplified System Design and Compatibility
- Ideal for Residential or Small-Scale Commercial Use

Connection Diagram

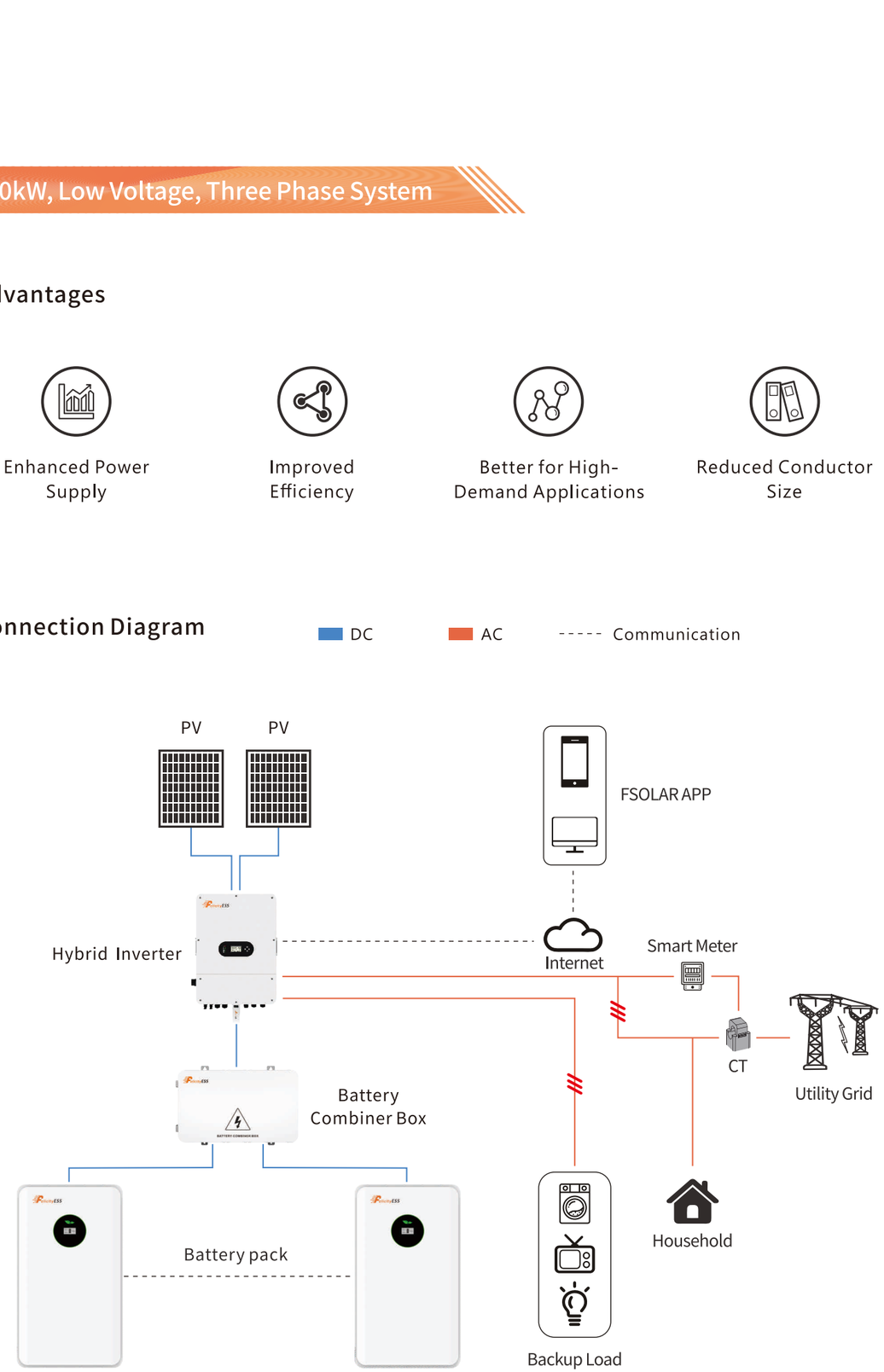


10kW, Low Voltage, Three Phase System

Advantages

- Enhanced Power Supply
- Improved Efficiency
- Better for High-Demand Applications
- Reduced Conductor Size

Connection Diagram



ESS Solutions

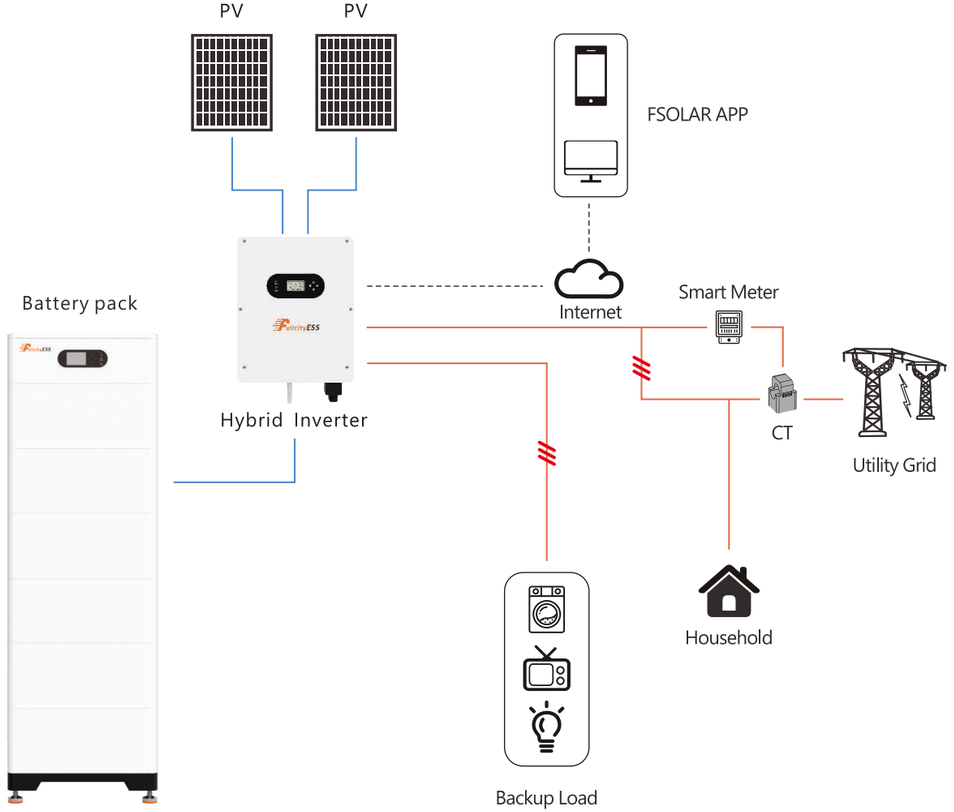
10kW, High Voltage, Three Phase System

Advantages

- Reduced Transmission Losses
- Increased Efficiency for Heavy Machinery
- Lower Operating Costs
- Enhanced Safety Features

Connection Diagram

DC AC ----- Communication



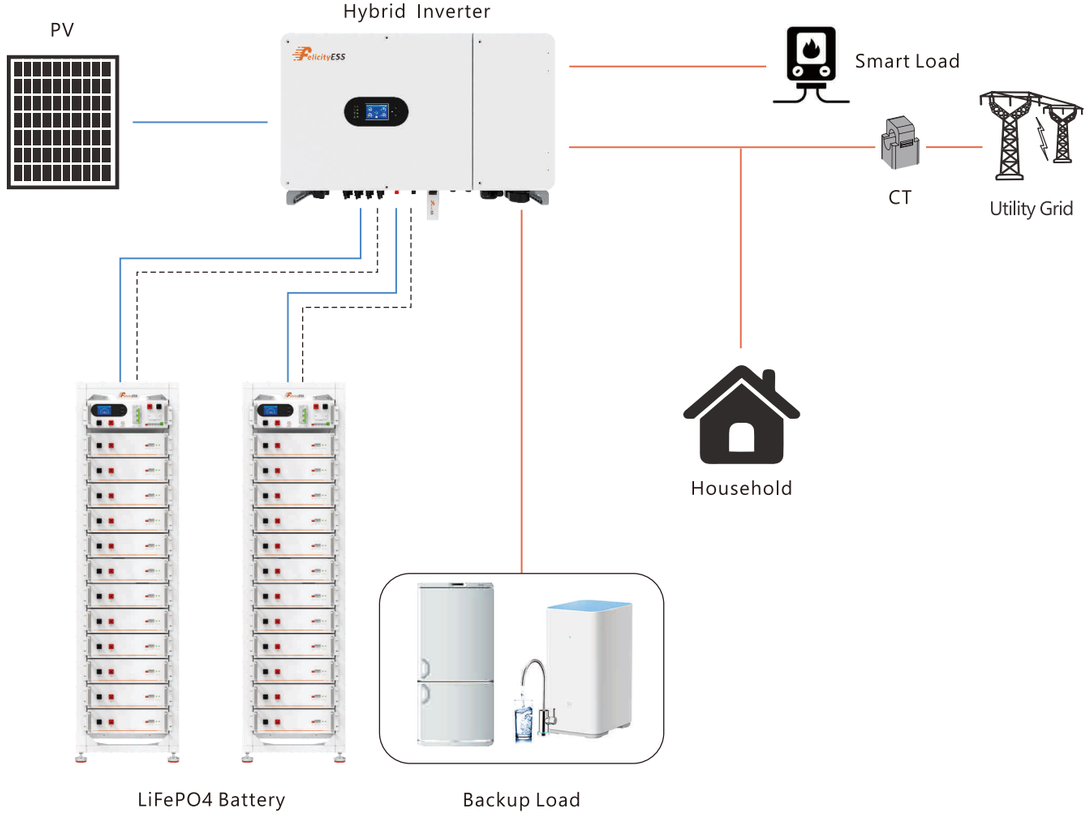
50kW, High Voltage, Three Phase System

Smart Loads Application Scenarios

- Home Energy Management Systems: Optimizing energy use in smart homes for efficiency and cost savings.
- Demand Response: Automatically adjusting power consumption in industrial and commercial buildings during peak demand periods.
- Intelligent Lighting Systems: Utilizing adaptive lighting based on occupancy and daylight to reduce energy use.

Connection Diagram

DC AC ----- Communication



ESS Solutions

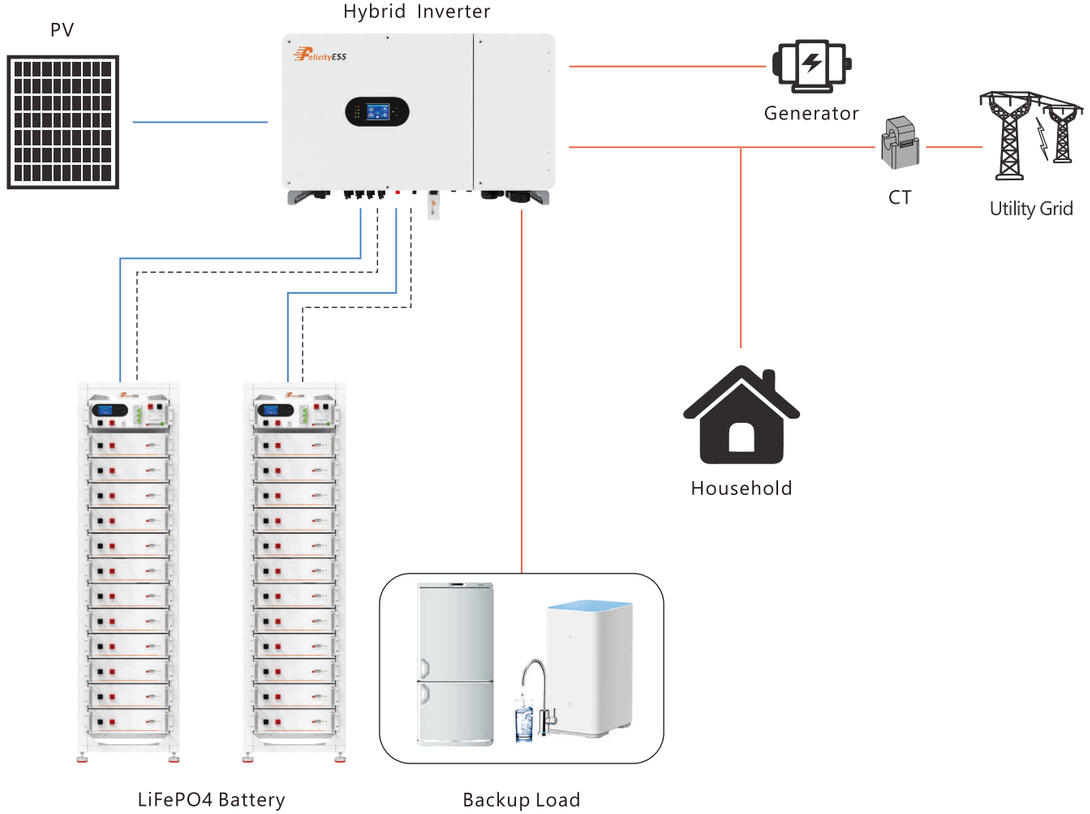
50kW, High Voltage, Three Phase System

Generator Application Scenarios

- Standby Power for Critical Infrastructure: Ensuring continuous operation of hospitals, data centers, and emergency services during power outages.
- Power for Remote Locations: Providing electricity for off-grid sites, including rural communities and isolated research stations.
- Supplemental Power during Peak Loads: Offering additional power to supplement the grid during periods of high electricity demand.

Connection Diagram

DC AC ----- Communication



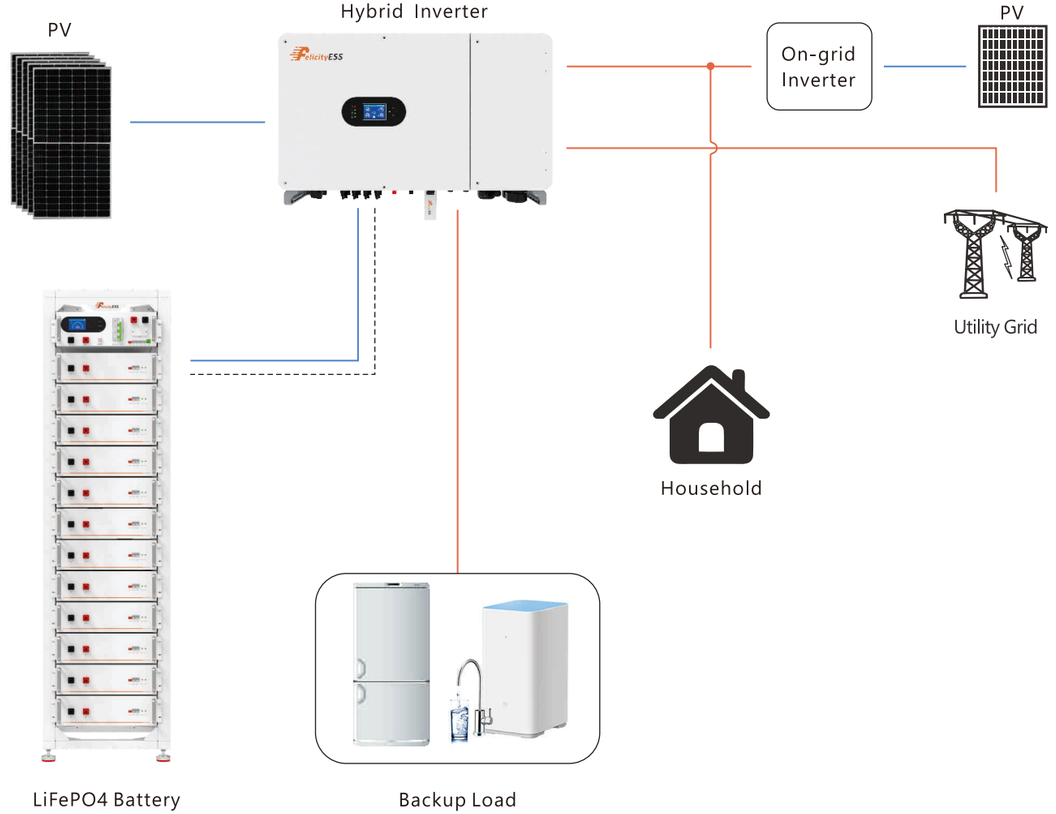
50kW, High Voltage, Three Phase System

Microgrid Application Scenarios

- Islanded Communities: Supplying reliable power to remote or island communities with limited access to the main grid.
- Renewable Energy Integration: Facilitating the incorporation of renewable sources like solar and wind into local energy systems.
- Campus and Bases: Providing energy security and sustainability for educational campuses through localized grid control.

Connection Diagram

DC AC ----- Communication



Fsolar Smart Energy Management Platform

Allow to access historic data in centralized data center

Data transmission to data center

Access inverter for remote monitoring and controlling via APP



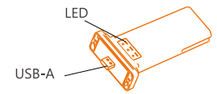
Introduction

Smart WiFi-S WiFi Module for Solar Inverter,WiFi module can enable wireless communication between off-grid inverters and monitoring platform. Simply but this module connected to an inverter with communication cable, and installed APP from Google Play or Apple stores, it can not only monitor the inverters' parameters of the inverters through your mobile phone.

Specification

Model	Wifi Module
General Data	
Product size (width/height/thickness) MM	122.5*68.5*27.2MM
Packaging Size (width/height/thickness) MM	155*8035MM
Net Weight(g)	74.1g
Gross Weight(g)	128.4g
WiFi Performance	
Wireless Standards	802.11b/g/n
Working Frequency	802.11b/g/n
Output Power	802.11b:18± 2dBm
	802.11g: 16± 2dBm
	802.11n:15± 2dBm
Receive Sensitivity	CCK,1 Mbps:-96+2dBm
	CCK.11 Mbps: -85dBm
	6 Mbps (1/2 BPSK): -88dBm
	54 Mbps (3/4 64-QAM):-70dBm
	HT20(MCS7):-73±2dBm
	HT40(MCS7): -70±2dBm
Electrical Parameters	
Operating Voltage	12V
Maximum Current	500mA
Working Environment	
Protection Level	IP65
Operating Temperature	-40°C -- +85°C
Storage Temperature	40°C -- +125°C, < 90%RH
Application Parameters	
Communication with Server	MQTT
Supported Network	2.4G
User Configuration Interface	FSolar APP or Website
Data Upload Cycle	10 minutes
Server Domain Name	https://shine.felicitysolar.com

Instructions

Model	IOTH2401	IOTH2402
NAME	Smart WiFi-S	Smart WiFi-M
WiFi NET WORK	2.4G WiFi	2.4G WiFi
PICTURE		
LED status:	802.11b/g/n	
PWR	ON,Normalpower supply	
COM	ON,Normalpower supply	
NET	ON,Normal communication with the data server	

*Conditions apply, refer to FelicityESS Warranty Letter.

Commercial & Industrial ESS Solutions

C&I ESS Cabinet

Liquid Cooling System 0.5P

FLS-ES232LC-S



Application Scenario

- Industrial and commercial energy storage
- Distributed energy
- 5G Base Station
- Micro-grid
- Battery change station

Features

- **Integrated:** All in one design
- **High Safety:** no parallel、no Circulating currents、three fire prevention
- **Long Life:** cycle life ⩾ 6000
- **Easy Manage:** ready to work，auto switch on grid / off grid mode
- **High Efficiency：** battery 94%，system 87%
- **Easy Management:** self diagnosis and fault location

Specification

Model	FLS-ES232LC-S
DC	
Cell	LFP 280Ah
Voltage	650~949V
Pack Capacity /Arrangement	46.6KWH / 1P52S
Protection	Circuit Braker and fuse
Enclosure Protection	IP67
System Capacity /Arrangement	232.9KWH/1P260S
Nominal Current	140A
Charge/Discharge Rate	≤0.5Cp
DC Efficiency	94%
AC（On Grid）	
Nominal Output Power	100KW
Nominal Input Voltage	AC340V~460V
Power Factor	-0.99～0.99
Nominal Output Current	145A
Nominal Grid Frequency	50Hz/60Hz
Wiring	3P+N+PE（Non isolated）
AC（Off Grid）	
Nominal Output Power	100KW
Nominal Input Voltage	AC400V±3%
THD	Linear Load ≤3%
Nominal Output Current	145A
Nominal Grid Frequency	50Hz/60Hz
Output Wiring	3P+N+PE（Non isolated）
System	
Overall System Efficiency	87%&0.5P (STD)
Communication	LAN, ModbusTCP
Fire Prevention	Pack level FK5112+pack level Aerosol + water
DOD	5~95%
Charging/Discharging Rate	≤0.5Cp
Cooling Power	2.2kW/5.0kW@W18/L35
Cooling	Liquid cooling
Operation Temperature	-20°C～50°C(>45°C derating)
Cabinet Enclosure Protection for Cabinet	IP54
Relative Humidity Range	5~95%RH（no condensing）
Noise	<75dB
Weight	3000KG
Max. Operation Altitude	≤2000M
Size（MM）	1600L×1400D×2200H

*Conditions apply, refer to FelicityESS Warranty Letter.

C&I ESS Cabinet

Air Cooling System 0.5Cp

FLS-MES215AF-S



Application Scenario

Industrial and commercial energy storage

Distributed energy

Car showroom

Micro-grid

Battery change station

Features

Integrated:
All in one design

High Safety:
no parallel、no Circulating currents 、three fire prevention

Long Life:
cycle life ≥ 6000

Easy Management:
ready to work, auto switch on grid / off grid mode

High Efficiency:
battery 94%, system 87%

Easy Mantaince:
self diagnosis and fault location

Easy Expand:
with module design

Multi Branch:
support load, battery and PV.

Specification

Model	FLS-MES215AF-S
DC	
Cell	LFP 280Ah
Number of MPPT	2
MPPT Operating Voltage/Full Load Voltage	250~ 850/450 ~850
Protection	Circuit Braker and fuse
Pack Capacity /Arrangement	14.336KWH / 1P16S
Maximum PV Input Voltage/Power	1000V / 120kW
System Capacity /Arrangement	215KWH/1P240S
Nominal Current	140A
Charge/Discharge Rate	≤0.5Cp
DC Efficiency	94%
AC（On Grid）	
Nominal Output Power	100KW
Nominal Input Voltage	AC340V~460V
Power Factor	-1～1
Nominal Output Current	144A
Nominal Grid Frequency	50Hz/60Hz
Wiring	3P+N+PE
AC（Off Grid)	
Nominal Output Power	100KW
Nominal Input Voltage	AC400V
THD	Linear ≤1%/Nonlinear ≤5%
Nominal Output Current	144A
Nominal Grid Frequency	50Hz/60Hz
Output Wiring	3P+N+PE (Isolated transformer, STS inside)
System	
Overall System Efficiency	87%&0.5P (STD)
Communication	RS485, CAN, TCP/IP
Fire Prevention	Fk5112
DOD	5~95%
Charging/Discharging Rate	≤0.5Cp
Cooling Power	1.1 kW/ 3.0 kW
Cooling	Forced air cooling
Operation Temperature	-20°C～50°C(>45°C derating)
Cabinet Enclosure Protection for Cabinet	IP54
Relative Humidity Range	5~95%RH（no condensing）
Noise	<75dB
Weight	3900KG
Max. Operation Altitude	≤3000M
Size（MM）	2450L*1550D*2400H

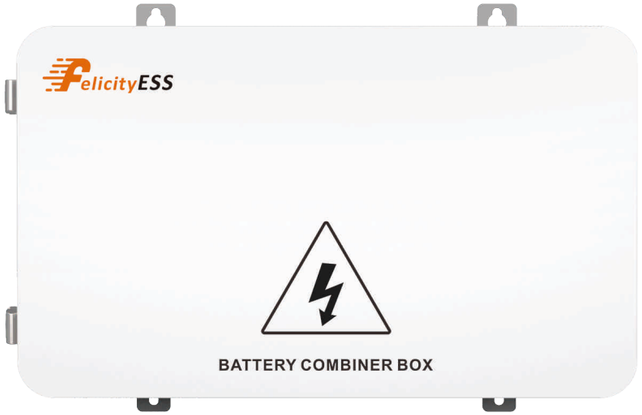
*Conditions apply, refer to FelicityESS Warranty Letter.

Accessory Series

Battery Combiner Box

BTCB0606-120/200

BTCB0303-120/200



Product Features

Convenient circuit wiring.

Flow expansion capacity of circuit increased.

Higher current can be withstanded.

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.

Specification

Model	BTCB0606-120	BTCB0606-200	BTCB0303-120	BTCB00303-200
Maximum number of input paths	6	6	3	3
Rated voltage of branch[V]	80	/	80	/
Branch rated current[A]	125	200	125	200
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)	516*300*136MM	516*300*136MM	516*300*136MM	516*300*136MM
Package Dimension(MM)	592*392*218MM	592*392*218MM	592*392*218MM	592*392*218MM

*Conditions apply, refer to FelicityESS Warranty Letter.

Connection diagram

