

# FelicityESS

## Energy Storage System

**Eco, Smart, Sustainable**



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[www.felicityess.com](http://www.felicityess.com)

Guangzhou · China

Version 2024-05-10



# 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+**





## 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.



## Manufacturer

 Tel: 0086-20-36719108  
 Email: sales@felicityess.com  
 Web: www.felicityess.com  
 Add : No. 2, Donghua Huaye Road, Renhe Town, Baiyun District, Guangzhou, China (10mins to Baiyun Airport)

## Europe



### Office in Europe

Felicity Solar EU B.V  
 Tel: +31 629760867  
 Email : europe@felicitysolar.com  
 Web: www.felicityess.com  
 Add : Shannonweq 39, 3197LG, BoliekRotterdam, Netherlands

### Office in Poland

Felicity Solar Poland SP.ZO.O  
 Tel: +48 799049508  
 Email: poland@felicitysolar.com  
 Web: www.felicityess.com  
 Add: ul. Domaniewska 17/19 Lok. 133, 02-672, Warsaw, Poland



### Office in Turkey

Felicity Solar Turkey Ltd.  
 Tel: +86 130 2807 6385 / +86 189 2801 2454  
 Email: Italy@felicitysolar.com  
 Web: www.felicityess.com  
 Add: Block A, Kurban Sokak, Umraniye, Istanbul, Turkey

### Office in Ukraine



Felicity Solar UA TOB  
 Tel: +86 188 0200 2288 / +44 751 057 8947  
 Email: ali@felicitysolar.com  
 Web: www.felicityess.com  
 Add: St. Kyiv, 8, Vishnevoe, Kiev region, Ukraine, 08132

### Office in UK

Felicity Solar UK Ltd.  
 Tel: +44 07747 208191 / +86 195 6637 5890  
 Email: europe@felicitysolar.com  
 Web: www.felicityess.com  
 Add: 7 Copperfield Road, Coventry, West Midlands, England, United Kingdom, CV24AQ

## America





### Office in USA

Felicity USA Corporation  
 Tel: +1 626 673 1176  
 Email: joseph@felicitysolar.com  
 Web: www.felicityess.com  
 Add: 13021 Leffingwell Rd; Santa Fe springs CA.90670,USA

### Office in Panama

Felicity Solar PANAMÁ Ltd.  
 Tel/Whatsapp: +507 6499-8108  
 Email: anaqin@felicitysolar.com  
 Web: www.felicityess.com  
 Add: Oficina 10D, Edison Corporate Center, Ciudad de Panamá, Panamá

### Office in Puerto Rico


Felicity Puerto Rico corporation  
 Tel: +16266731176  
 Email: joseph@felicitysolar.com  
 Web: www.felicityess.com  
 Add: Calle A, Lote 2, Amelia Industrial Park, Guaynabo, 00969,PR,USA

### Office in Mexico

ETS FELICITYSOLAR MEXICO S.A DE CV  
 Tel: +52 5540860548  
 Email: kelvin-liu@felicitysolar.com  
 Web: www.felicityess.com  
 Add: Rio Rhin 63, Cuauhtémoc,06500 Ciudad de México CDMX, México




## South Africa

### Office in South Africa

Felicity Solar South Africa (PTY) LTD  
 Tel: +27 83 356 8552  
 Email: infoza@felicitysolar.com  
 Web: www.felicityess.com  
 Add: A3, Growthpoint Industrial Estate, 1 Bell St, Meadowdale, Germiston, 1614, South Africa

## Australia

### Office in Australia

 Tel: +86 188 2627 4381  
 Email: bruce@felicitysolar.com  
 Web: www.felicityess.com

## 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.



### 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



LUX

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# LUX-S Battery Pack

## Built-in Controller








### LUX-S-1600LG01



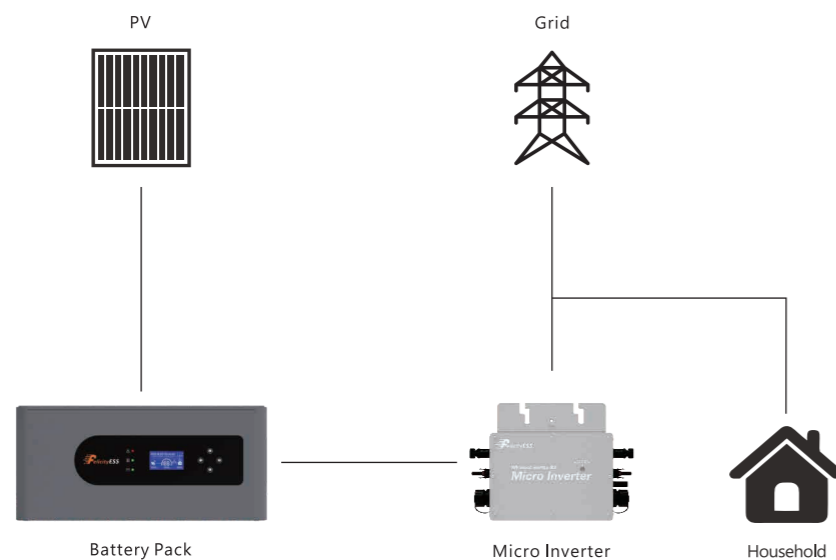
## Specification



## 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



Model	LUX-S-1600LG01
<b>INPUT DATA</b>	
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
<b>OUTPUT DATA</b>	
Output Voltage Range	28-36Vdc
Maximum Output Current	2x25A
<b>BATTERY DATA</b>	
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
<b>MECHANICAL DATA</b>	
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)	325x440x199mm
Package Dimension(WxHxD)	537x387x272mm
<b>FEATURES</b>	
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 Warranty <sup>2</sup>	> 60% capacity, up to 5 years or 6,000 cycles
1 External 2-in-1 PV cable. 2 Whichever occurs frst. Restrictions apply.	

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# LUX-E Battery Pack

LUX-E-48100LG04



## 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
Storage 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.

## 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

# LUX-E Battery Pack

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



## 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°C			
	Discharge:-20C~+55°C			
Storage 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	783×450×274mm	783×450×274mm	783×450×274mm
Package Dimension	892×545×385mm	900×570×450mm	900×570×450mm	900×570×450mm

[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.

## 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

LUX

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# LUX-X Battery Pack

LUX-X-48050LG01



## Specification



### 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

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			
Storage 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		
Battery Module LUX-X-48050LM01	Package Weight Approximate (with base)	41Kg		
	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



## Specification



### 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**



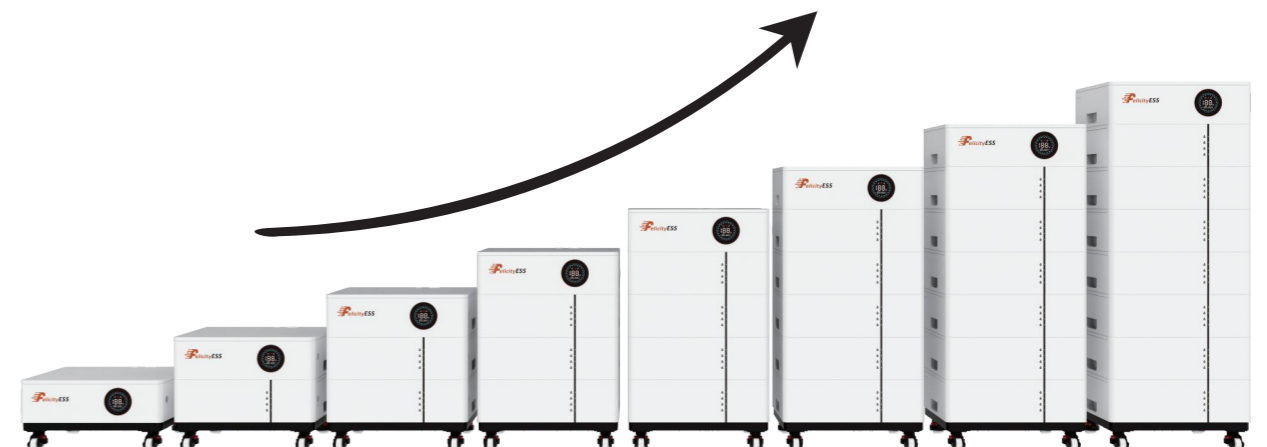
**Aerosol Fire  
Extinguishing  
System**

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								
Storage 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-48100LGG01	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

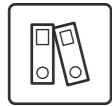
LUX-X-96050HG01



## Specification



### 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

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	
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						
Storage 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 LUX-X-96050HCG01	Net Weight	12.5 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[4]	IFpP/41/150/102/[(1P32S)NSJM/-10+50/90					
	Net Weight	57.5 kg					
	Gross Weight	62 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] "N" means the number of battery packs connected parallel and should not exceed 6.(N≤6)



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# LUX-Y Battery Pack

LUX-Y-48280/48300LG01



## 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	
Storage 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.

## 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



# LUX-Y Battery Pack

LUX-Y-48100HG01



## Specification



### 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

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			
Operating Temperature Range	Charge:0~+55°C/Discharge:-20°C~+55°C			
Storage Temperature Range	0°C~+35°C			
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	560x590x2077.5mm (13th floor)		
	Package Dimension	678x708x2200mm		
	Product Weight Approximate	68.5kg		
	Package Weight Approximate	108.5kg		
Rack LUX-Y-48100HR9G01	Product Dimension	560x590x1532.5mm (9th floor)		
	Package Dimension	678x708x1655mm		
	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.

# Apollo

# Series

# Apollo All-in-One Hybrid ESS

Apollo-4.6/5KLP1G01-MX



## Specification



### Product Features



Flexible Storage Capacity



Programmable supply priority for battery or grid



100% output in off-grid mode



All in one design



Smart settable three stages MPPT charging



Real-time Remote Control via APP and website

Model	Apollo-4K6LP1G01-M1	Apollo-4K6LP1G01-M2	Apollo-5KLP1G01-M1	Apollo-5KLP1G01-M2
<b>System Specification</b>				
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 of Enclosure	IP21			
System Certification	VDE-AR-N 4105; G99/1; EN50549-1; CEI 0-21; AS 4777.2			
Warranty Period[1]	10 years			
<b>Inverter Technical Specification</b>				
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 (°C)	-20°C~55°C, >45°C 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%			
<b>Battery Technical Specification</b>				
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°C			
Discharging Temperature Range	-20-55°C			
Cycle Life	≥6,000 Cycles (Test conditions: 0.2C Charging/ Discharging @25°C, 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

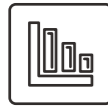
Apollo-10KHP3G01-MX



## Specification



### Product Features



Higher efficiency energy density



Programmable supply priority for battery or grid



100% output in off-grid mode



Flexible Storage Capacity



Smart settable three stages MPPT charging



Real-time Remote Control

Model	Apollo-10KHP3G01-M2	Apollo-10KHP3G01-M3	Apollo-10KHP3G01-M4	Apollo-10KHP3G01-M5	Apollo-10KHP3G01-M6
<b>System Specification</b>					
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 of Enclosure	IP65				
System Certification	PPDS:2021,VDE-AR-N 4105,EN 50549-1,IEC 62109-1/-2,CE-EMC				
Warranty Period[2]	10 Years				
<b>Inverter Technical Specification</b>					
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 (°C)	-20°C~55°C, >45°C Derating				
Relative Humidity	15% ~ 85% (No Condensing)				
Dimension(Wx Dx H,mm)	533x431x213				
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%				
<b>Battery Technical Specification</b>					
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°C				
Discharging Temperature Range	-20~55°C				
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°C, 80% DOD.					