

# Lithium Battery



The stackable design  
easy to install



Automatic restarts  
while undervoltage



Remote diagnose and  
software upgrades



Real-time data  
monitoring



Automatic identify



Plug-in connection



Lithium battery			
Model	ES-FW612	ES-FW1024	ES-FW1536
Nominal energy(kwh)	5.12KWH	10.24KWH	15.36KWH
Module Number	1PCS	1PCS	1PCS
Max charge discharge current	100A	200A	300A
Dimension (mm)	487*235.3*1670MM	771*271.3*1781.5MM	818*250*1736MM
Weight	51kg	96kg	126kg
Nominal Voltage(kwh)		51.2V	
Chemistry		LiFePO4	
Operating voltage range		40V-58.4V	
Communication method		CAN, RS485	
Cycle life		>6000 Cycles	
Installation method	Wall-mounted/floor-standing	Floor-standing(Withcaster)	Floor-standing(Withcaster)
Color		white	
Humidity		≤95%/non-condensing	
Altitude		<2000 m	
Cooling method		Free Cooling	
Operating temperature range		Charging:0-55°C,Discharging -20-55°C	
Protection level		IP20	
Picture			

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Lithium battery			
Model	ES-HL601	ES-HL602	ES-HL603
Nominal energy(kwh)	5.12KWH	10.24KWH	15.36KWH
Module Number	1pcs	1pcs	1pcs
Nominal voltage	51.2V		
Chemistry	LiFePO4		
Operating voltage range	40V-58.4V		
Max charge/discharge current	100A	200A	300A
Communication method	CAN, RS485		
Cycle life	>6000 Cycles		
Operating temperature range	Charging:0-55°C,Discharging:-20-60°C		
Protection level	IP20		
Color	Yellow / green		
Dimension (mm)	420*260.5*690	840*521*1380	1260*781.5*2070
Weight	51kg	88kg	119kg
Installation method	Floor type		
Humidity	<95% non-condensing		
Altitude	<2000 m		
Cooling method	Free Cooling		
Photos			



# GEL BATTERY



Deep Cycle



maintenance-free



low self-discharge rate



stable and durable



Model		ES12V-200AH	ES12V-200AH	ES12V-200AH	ES12V-200AH	ES12V-100AH	ES12V-100AH
Nominal Voltage		12V	12V	12V	12V	12V	12V
Capacity (25°C)		200AH	200AH	200AH	200AH	100AH	100AH
Dimension	20HR(10.8V)	250AH	200AH	200AH	200AH	150AH	100AH
	Length	520 ± 2mm(20.47inch)	522 ± 2mm(20.55inch)	483 ± 2mm(19.02inch)	483 ± 2mm(19.02inch)	405 ± 2mm(15.94inch)	405 ± 2mm(15.94inch)
	Width	268 ± 2mm(10.55inch)	238 ± 2mm(9.37inch)	170 ± 2mm(6.69inch)	170 ± 2mm(6.69inch)	174 ± 2mm(6.85inch)	174 ± 2mm(6.85inch)
Total Height	Height	220 ± 2mm(8.66inch)	218 ± 2mm(8.58inch)	240 ± 2mm(9.45inch)	240 ± 2mm(9.45inch)	207 ± 2mm(8.15inch)	207 ± 2mm(8.15inch)
	Total Height	F12.225 ± 2mm(8.89inch)	F12.223 ± 2mm(8.76inch)	F12.240 ± 2mm(9.45inch)	F12.240 ± 2mm(9.45inch)	F12.240 ± 2mm(9.45inch)	F12.240 ± 2mm(9.45inch)
Approx. Weight		68kg(145.5 lbs) ± 2%	58kg(127.87lbs) ± 4%	41kg (90.39lbs) ± 2%	41kg (90.39lbs) ± 2%	28kg(63.59lbs) ± 4%	28kg(63.59lbs) ± 4%
Terminal type		F12	F12	F12	F12	F12	F12
Internal resistance (Fully charged, 25° C)		Approx.3.5mΩ	Approx.3.8mΩ	Approx.4.5mΩ	Approx.4.5mΩ	Approx.5mΩ	Approx.5mΩ
Capacity affected by temperature (20HR)	40° C	102%	102%	102%	102%	102%	102%
	25° C	100%	100%	100%	100%	100%	100%
	0° C	85%	85%	85%	85%	85%	85%
	-15° C	68%	68%	68%	68%	68%	68%
Normal operating temperature		25° C ± 3° C(77° F ± 5°F)	25° C ± 3° C(77° F ± 5°F)	25° C ± 3° C(77° F ± 5°F)	25° C ± 3° C(77° F ± 5°F)	25° C ± 3° C(77° F ± 5°F)	25° C ± 3° C(77° F ± 5°F)
Cooling method	Discharge	-15°C-50°C(5°F-122°F)	-15°C-50°C(5°F-122°F)	-15°C-50°C(5°F-122°F)	-15°C-50°C(5°F-122°F)	-15°C-50°C(5°F-122°F)	-15°C-50°C(5°F-122°F)
	Charge	-10°C-50°C(14°F-122°F)	-10°C-50°C(14°F-122°F)	-10°C-50°C(14°F-122°F)	-10°C-50°C(14°F-122°F)	-10°C-50°C(14°F-122°F)	-10°C-50°C(14°F-122°F)
	Storage	-20°C-50°C(-4°F-122°F)	-20°C-50°C(-4°F-122°F)	-20°C-50°C(-4°F-122°F)	-20°C-50°C(-4°F-122°F)	-20°C-50°C(-4°F-122°F)	-20°C-50°C(-4°F-122°F)
Float charging voltage(25° C)		13.50 to 13.80V	13.50 to 13.80V	13.50 to 13.80V	13.50 to 13.80V	13.50 to 13.80V	13.50 to 13.80V
	temperature compensation	-18mV/°C	-18mV/°C	-18mV/°C	-18mV/°C	-18mV/°C	-18mV/°C
Cyclic charging voltage(25° C)		14.10 to 14.40V	14.10 to 14.40V	14.10 to 14.40V	14.10 to 14.40V	14.10 to 14.40V	14.10 to 14.40V
	temperature compensation	-30mV/°C	-30mV/°C	-30mV/°C	-30mV/°C	-30mV/°C	-30mV/°C
Maximum charging current		62.5A	50A	37.5A	37.5A	25A	25A
Maximum discharge current		1800A(5 sec.)	1800A(5 sec.)	1200A(5 sec.)	1200A(5 sec.)	800A(5 sec.)	800A(5 sec.)
Designed floating life(20° C)		12 years	12 years	12 years	12 years	12 years	12 years
Terminal type		F12	F12	F12	F12	F12	F12