

HYBRID / OFF-GRID SPECIFICATIONS



SkyBox gives everyone freedom and independence from the power grid.

Acting as a central 'brain,' the SkyBox manages incoming power from your solar, wind, or hydro generators.

Balancing these power sources and storing excess energy in the internal batteries, SkyBox creates a reliable off-grid electricity supply.



SBX5S



SBX8S

INVERTER	Transfer Switch	35A	50A
	Max AC Input (A)	35A	50A
	Output (V)	Output Voltage: 230VAC. Frequency 50Hz	
	Rated AC Output Active Power (W)	5000W	8000W
	Max AC Output Active Power (W)	5500W	8800W
	Peak Power 5s (W)	10000W	16000W
	Max AC Output Current (A)	21.7A	34.8A
	Maximum efficiency	97.6%	97.6%
	CHARGER		
	Max Charging Current	120	190
SOLAR	Max Discharging Current	120	190
	Max PV Input Power	7500W	12000W
	Max Open Circuit Voltage	500V	500V
	Max PV Short Circuit Current	44A	44A
	MPPT Input / (strings per tracker)	1(1) / 2(1) / 3(2)	
	Efficiency	99.9%	99.9%
	MPPTs (Strings per Tracker)	2 (1)	2 (1)
	BATTERIES		
		PYLONTECH	BSLBATT
	Nominal Voltage	48V	
	Nominal Capacity (Wh)	4800 (Wh) multiplied by number of modules	5120 (Wh) multiplied by number of modules
	Usable Capacity (Wh)	4560 (Wh) multiplied by number of modules	4966 (Wh) multiplied by number of modules
	Max No. Modules	6	6
	Max Capacity	PYLONTECH 28.8kWh	PYLONTECH 28.8kWh
		BSLBATT 30.72Wh	BSLBATT 30.72Wh
	Working Temperature	0° to +60°, >45° Derating	
	Design Life	15+ years	
	Cycle Life	>6000 Cycles	
	Authentication Level	IEC62619/CE/UN38.3	
	Warranty	10 Years to 70% retention	
MONITORING			
	WiFi	Yes	
	Ethernet	Yes	
ENCLOSURE			
	Colour	White	
	Protection Category	IP54	
	Weight	270kg	
	Dimensions (h x w x d)	1354mm x 1072mm x 601mm	1354mm x 1072mm x 601mm



FEATURES



Protection Built to IP54 protection standards

Standard IEC62208, IEC/EN/AS60529

Material Body: 1.5mm galvanised steel sheet
Gland Plate: 1.5mm galvanised steel sheet
Door: 1.5mm galvanised steel sheet
Device Mounting Plate: 1.5mm galvanised steel sheet
Seal: EPDM Rubber

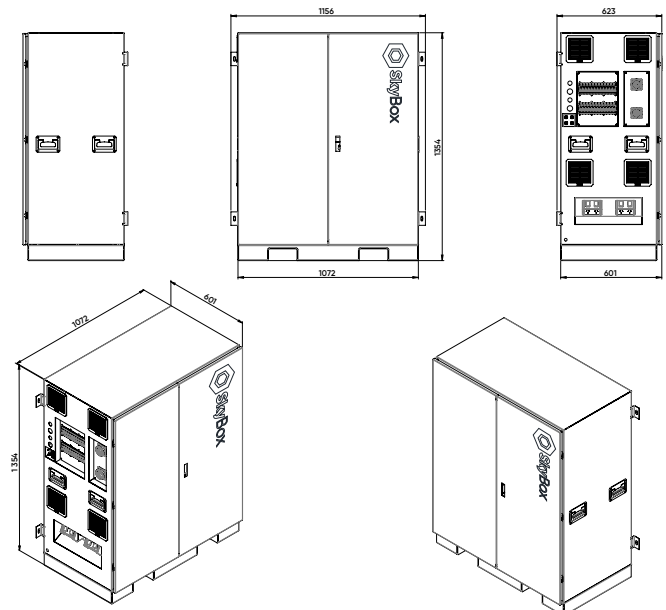
Body The robust monoblock body is fabricated using 1.5mm galvanised steel sheet. Flat face sealing surfaces are provided to increase seal life. Pre-fitted blind nutserts are incorporated to accommodate mounts and accessory fasteners to eliminate drilling and retain IP rating. Integral device plate mounts and M6 earth stud is provided.

Double Doors The robust surface mounted door is fabricated using 1.5mm galvanised steel sheet and incorporates concealed removable hinges with captive pins. The door is designed for a 110° opening. Each door contains integral cable management rail studs, M6 earth stud.

Seal Pinchweld EPDM replaceable seal

Lock 3 point locking system with key-lock swing handle.

DIMENSIONS (5kW and 8kW MODEL)



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SBX12S



SBX16S

	Transfer Switch	100A	100A
	Max AC Input (A)	100A	100A
INVERTER			
	Output Frequency and Voltage	50/60Hz; L/N/PE 230	50/60Hz; L/N/PE 230
	Rated AC Output and UPS Power (W)	12000W	16000W
	Max AC Output Power (W)	12000W	16000W
	Peak Power 5s (W)	24000W	32000W
	Max AC Output Current (A) Maximum	52.2A	69.6A
	Maximum efficiency	97.6%	
	Backup Power (W)	10000W	14000W
	Backup Rated Current (A)	45A	63A
	Backup UPS	6ms Automatic switchover time	
CHARGER			
	Max Charging Current (A)	220A	290A
	Max Discharging Current (A)	220A	290A
SOLAR			
	Max PV Input Power	18000W	24000W
	Max Open Circuit Voltage	500V	
	Max PV Short Circuit Current	44A	
	MPPT Input / (strings per tracker)	1(1) / 2(1) / 3(2)	
	MPPT Efficiency	99.9%	
	MPPTs (Strings per Tracker)	150-425V	
BATTERIES			
	Nominal Voltage	40-60V	
	Nominal Capacity (Wh)	5120 (Wh) multiplied by number of modules	
	Usable Capacity (Wh)	4966 (Wh) multiplied by number of modules	
	Max No. Modules	14	
	Max Capacity	PYLONTECH 67.2kWh	
		BSLBATT 71.68Wh	
	Working Temperature	0° to +60°, >45° Derating	
	Design Life	15+ years	
	Cycle Life	>6000 Cycles	
	Authentication Level	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2	
	Warranty	10 Years to 70% retention	
MONITORING			
	WiFi	Yes	
	Ethernet	Optional	
ENCLOSURE			
	Colour	White	
	Protection Category	IP65	
	Weight	350kg	
	Dimensions (h x w x d)	1802mm x 1757mm x 597mm	

HYBRID / OFF-GRID SPECIFICATIONS



SBX12T



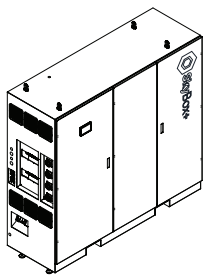
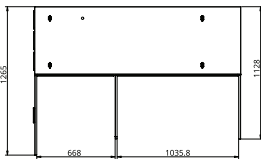
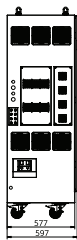
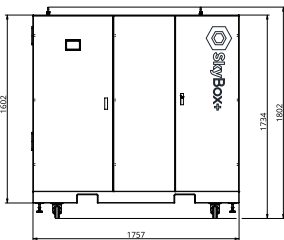
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Transfer Switch	40A per phase
Max AC Input (A)	20A per phase
INVERTER	
Output (V)	Output Voltage: 230VAC. Frequency 50Hz
Rated AC Output and UPS Power (W)	12000W
Max AC Output Power (W)	12000W
Peak Power 10s (W)	24000W
Max AC Output Current (A)	52.17A
Maximum efficiency	97.6%
CHARGER	
Max Charging Current (A)	240A
Max Discharging Current (A)	240A
SOLAR	
Max PV Input Power	19300W
Max Open Circuit Voltage	800V
Max PV Short Circuit Current	44A
MPPT Input / (strings per tracker)	2 (2)
Efficiency	99.9%
MPPTs	2/2+1
BATTERIES	
Nominal Voltage	48V
Nominal Capacity (Wh)	5120 (Wh) multiplied by number of modules
Usable Capacity (Wh)	4966 (Wh) multiplied by number of modules
Max No. Modules	14
Max Capacity	PYLONTECH 67.2kWh
	BSLBATT 71.68Wh
Working Temperature	0° to +60°, >45° Derating
Design Life	15+ years
Cycle Life	>6000 Cycles
Authentication Level	IEC62619/CE/UN38.3
Warranty	10 Years to 70% retention
MONITORING	
WiFi	Yes
Ethernet	Yes
ENCLOSURE	
Colour	White
Protection Category	IP54
Weight	350kg
Dimensions (h x w x d)	1802mm x 1757mm x 597mm



BOS-G



◆ Convenient

Quick installation standard of 19-inch embedded designed module is comfortable for installation and maintenance.

◆ Safe and reliable

Cathode material is made from LiFePO₄ with safety performance and long cycle life, The module has less self-discharge, up to 6 months without charging it on shelf, no memory effect, excellent performance of shallow charge and discharge.

◆ Intelligent BMS

It has protection functions including over-discharge, over-charge, over-current and over-high or low temperature. The system can automatically manage charge and discharge state and balance current and voltage of each cell.

◆ Eco-friendly

The whole module is non-toxic, non-polluting and environmentally friendly.

◆ Flexible configuration

Multiple battery modules can be in parallel for expanding capacity and power. Support USB upgrade, wifi upgrade(optional), remote up grade(Compatible with Deye inverter).

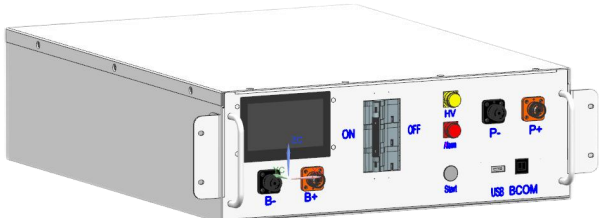
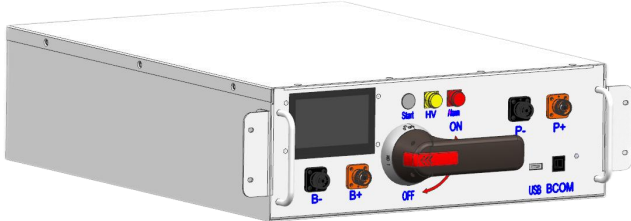
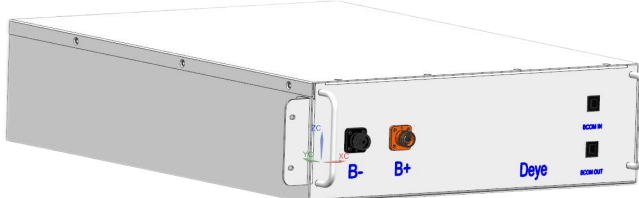


◆ Wide temperature

Working temperature range is from -20°C to 55°C, with excellent discharge performance and cycle life.

Model	BOS-GX(X=3,4,5,6,7,8,9,10,11,12)
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Main Parameter											
Cell Chemistry			LiFePO4								
Module Energy (kWh)			5.12								
Module Nominal Voltage (V)			51.2								
Module Capacity (Ah)			100								
Battery Module Number		BOS-G15	BOS-G20	BOS-G25	BOS-G30	BOS-G35	BOS-G40	BOS-G45	BOS-G50	BOS-G55	BOS-G60
Battery Module Qty In Series (Optional)		3	4	5	6	7	8	9	10	11	12
System Nominal Voltage (V)		153.6	204.8	256	307.2	358.4	409.6	460.8	512	563.2	614.4
System Operating Voltage (V)		124.8~175.2	166.4~233.6	208~292	249.6~350.4	291.2~408.8	332.8~467.2	374.4~525.6	416~584	457.6~642.4	499.2~700
System Energy (kWh)		15.36	20.48	25.6	30.72	35.84	40.96	46.08	51.2	56.32	61.44
System Usable Energy (kWh) ¹		13.82	18.43	23.04	27.64	32.25	36.86	41.47	46.08	50.68	55.29
Rated DC Power		15.36	20.48	25.6	30.72	35.84	40.96	46.08	51.2	56.32	61.44
Charge/Discharge ² Current (A)	Recommend	50									
	Nominal	100									
	Peak Discharge (2 mins, 25°C)	125									
Working Temperature (°C)			Charge: 0~55/Discharge: -20~55								
Status Indicator			Yellow: Battery High Voltage Power On Red: Battery System Alarm								
Communication Port			CAN2.0/ RS485								
Humidity			5%~85%RH								
Altitude			≤2000m								
IP Rating of Enclosure			IP20								
Dimension (W/D/H,mm)				530*602*1599				530*602*2187			
Weight Approximate (kg)				408				594			
Installation Location			Rack Mounting								
Storage Temperature (°C)			0~35								
Recommend Depth of Discharge			90%								
Cycle Life			25±2°C,0.5C/0.5C, EOL70%≥6000								
Warranty ³			10 years								
Certification			CE/IEC62619 /VDE2510-50/ UL1973 /UL9540A/UN38.3								

1. DC Usable Energy, test conditions: 90% DOD, 0.2C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.
2. The current is affected by temperature and SOC.
3. The warranty is due whichever reached first of warranty period or life cycle power.
4. Made in China.

Model	Description	
HVB750V/100A-EU	High Voltage Battery cluster control box conforming to European or British Standards	
Operating Voltage	120~750Vdc	
Nominal Charge/Discharge Current	100A	
Max.Charge/Discharge Current	125A	
DC Input Rating	12±2%V/4.15A	
Operating Temperature Range	-20~65°C	
Ingress Protection	IP20	
Dimension (W/D/H)	440*570*150mm	
Weight Approximate	15.5kg	
HVB750V/100A-US	High Voltage Battery cluster control box conforming to North American Standard	
Operating Voltage	120~750Vdc	
Nominal Charge/Discharge Current	100A	
Max.Charge/Discharge Current	125A	
DC Input Rating	12±2%V/4.15A	
Operating Temperature Range	-20~65°C	
Ingress Protection	IP20	
Dimension (W/D/H)	440*570*150mm	
Weight Approximate	17kg	
High voltage box Standard configuration:		
① 120 ohm terminal resistance		
② 140mm communication cable		
③ 220mm power cable		
④ 1.5m power cable (US Version)		
2.1m power cable (EU Version)		
⑤ Power plug		
BOS-GM5.1	5.12 kwh battery module	
Battery Type	LiFePO4(LFP)	
Nominal Voltage	51.2Vdc	
Rated Capacity	100Ah	
Rated Energy	5.12kWh	
Nominal Charge/Discharge Current	100A	
Peak.Discharge Current	125A	
Charge Temperature	0~55°C	
Discharge Temperature	-20°C~55°C	
Storage Temperature	0°C~35°C	
Ingress Protection	IP20	
Dimension (W/D/H)	440*570*133mm	
Weight Approximate	44kg	
Battery module Standard configuration:		
① 110mm communication cable		
② 200mm power cable		
EPCable5.0(Optional)	Standard 5-meter power cable connected to the positive pole of the external PCS	
1000V/4AWG cable		
ENCable5.0(Optional)	Standard 5-meter power cable connected to the negative pole of the external PCS	
1000V/4AWG cable		

Model	Description
EPWR Cable5.0(Optional)	Standard 5-meter cable connected to external 12VDC power supply



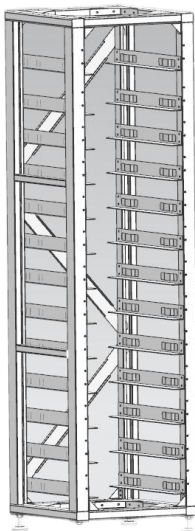
ECOM Cable5.0(Optional)	Standard 5-meter communication cable connected to the external device
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3U-HRACK(Optional)	Standard 19inch rack, caninstall 12 pcs batteries and 1 pcs High Voltage Battery cluster control box
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Dimension (W/D/H)
Weight Approximate

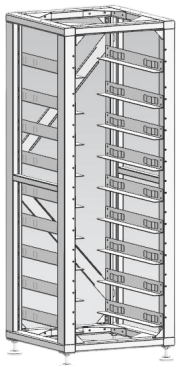
589*590*2240mm
85kg



3U-LRACK(Optional)	Standard 19inch rack, caninstall 8 pcs batteries and 1 pcs High Voltage Battery cluster control box
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Dimension (W/D/H)
Weight Approximate

589*590*1640mm
65kg



SKYBOX MAX - O SPECIFICATIONS



The SkyBox Max - O has a massive 61.4 kWh of high voltage battery storage enclosed in an IP55-rated enclosure with a built-in air conditioner, smoke alarm, and fire suppression system. It can be paired with a mighty 299kW or 50kW three-phase inverter to accommodate any residential or small business solar and battery storage needs.

The SkyBox Max - O is an ideal solution for power storage batteries for home or commercial centers needing high power backup or off-grid supply, as well as frequency regulation or renewable integration. It can work with solar, wind, diesel generators and grid supply. Safety is a key focus with multiple alarms, exhaust ventilation, and automatic fire suppression using aerosol extinguishing.

The SkyBox Max - O is a comprehensive lithium iron phosphate (LFP) battery energy storage solution rated for 50kW continuous power output and 61.4kWh total energy capacity. As an all-in-one system, it integrates the battery modules, battery management system, power conversion system, and auxiliary components into a single outdoor-rated enclosure. It is the ideal solution for a power storage battery for your home or small business.

The SkyBox Max - O utilizes safe and long-lasting lithium iron phosphate battery chemistry in a modular design. The system consists of 12 battery modules rated for 5.12kWh and 51.2Vdc each. These battery modules use LFP cathode material paired with graphite anode material, providing high current rate capabilities. The modules also feature multiple safety mechanisms, including voltage, current, and temperature monitoring.

The battery management system actively balances cell voltages in each module to prevent drift and ensure long cycle life. Integrated contactors allow full disconnection of battery power when required. With over 6000 cycles under standard test conditions, the batteries support daily cycling applications over an extended operating lifetime.

The floor-mount SkyBox Max - O enclosure provides an IP55-rated interior environment to protect the batteries and other sensitive components from dust, moisture, and other contaminants. The dimensions are 2235mm (H) x 1045mm (D) x 735mm (W). Integrated air conditioning regulates internal temperatures for safe and optimized battery operation.

Also inside is a hybrid power conversion system to efficiently manage bi-directional power flow between the DC battery system and AC electrical connections. This PCS provides key capabilities like black start, off-grid supply, frequency regulation, and renewable energy integration.

The entire system is monitored by the energy management system controller which tracks component health, usage metrics, and critical alarms. Both local and remote interfaces give insight into the current operating status. Multiple communication buses support system expansion and 3rd party integration.

- High capacity of 230kWh in a compact footprint
- Nominal power output of 100kW with max round trip efficiency of 88%
- Intelligent temperature control keeps batteries under 38°C during operation
- Adopts aerosol fire suppression for enhanced safety
- Scalable and modular design supports adding MPPT, charging modules, and generators
- Reliable LFP chemistry provides over 6000 cycles and 10-year warranty

SKYBOX MAX - O SPECIFICATIONS

AC DATA
(OUTPUT/INPUT)

Rated AC output and UPS power	29900W
AC output rated current (A)	43.4A
Peak power (off-grid)	1.5 times of rated power, 10 S
Max. three-phase unbalanced output current (A)	60A
Max. continuous AC passthrough (A)	200A
Generator input / smart load AC couple current (A)	43.4A/ 200 / 43.4A

PV STRING
INPUT DATA

Max. PV input power (W)	44,850W
Max. DC input voltage (V)	1,000V
Start-up voltage (V)	180V
MPPT range (V)	150V-850V
PV input current (A)	36 A+ 36A + 36A
Max PV Isc(A)	55A + 55A + 55A
No. of MPPT trackers	3
No. of strings per MPPT tracker	2 + 2 + 2

BATTERY
INPUT DATA

Battery capacity	61.4kWh per cabinet. Max. of six cabinets (=368.4kWh)
Battery voltage range (V)	160V-800V
Max. charging current (A)	50A + 50A
Max. discharging current (A)	50A + 50A
Number of battery input	2

PROTECTION

Integrated	Anti-islanding protection, PV string input reverse polarity protection, insulation resistor detection, residual current monitoring unit, output over current protection, output shorted protection, surge protection, arc fault circuit interruption (AFCI optional)
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CERTIFICATIONS
AND STANDARDS

Grid regulation	AS/NZS 4777.2
Safety EMC / standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2

GENERAL DATA

Operating temperature range (°C)	-40 to +60°C, >45°C derating
Cooling	Air-conditioner for battery cabinet + smart cooling for inverter
Noise (dB)	≤65 dB
Weight (kg)	1015 per battery cabinet + 80 inverter
Size (mm)	1050W x 735D x 2235H per cabinet + 527W x 294D x 894H for inverter
Protection degree	IP55 battery cabinet IP65 inverter
Inverter topology	Non-isolated
Sky Energy warranty	10 years (Australia & New Zealand)

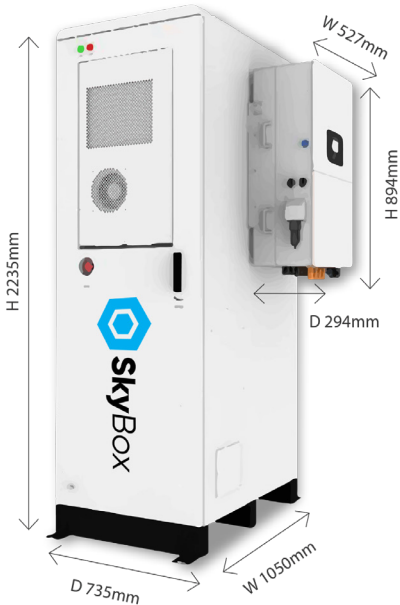
* The SkyBox Max - O can support up to six battery cabinets (total 364.8kWh)

SKYBOX MAX - O SPECIFICATIONS



FEATURES

Power Output Options	Max. AC output power of 29.9kW
Solar Input	Connect up to 44kW of solar panels to the dual MPPTs (200-650dc max. 800Vdc) Connect another 30kW PV inverter to the Smart Port for a total of up to 89kW of PV panels
Battery	61.4kWh. Add up to 5 more cabinets 60kWh modules for a total of 368.4kWh max.
Electrical Connections	PV cables connected directly to pre-installed MC4s. LOAD, GRID and SMART PORT (Gen) connections directly to the inverter
Monitoring	Monitoring hardware included and activated (subject to network availability and Optimum subscription)
Energy Trading	On-grid systems only
EV Charger	Up to 25kW DC fast charger



- 3 x MPPTs built-in
- Air-conditioned battery cabinet
- 4G monitoring backup included
- Compatible with RedHead EMS
- 10-year warranty