

Firefly OS

RESS(INV+BAT Integrated)

Features

- Highly integrated optical storage integrated inverter, high voltage battery system, BMS, EMS. There is no external cable connection between the structure, which effectively protects the safety of users and simplifies the on-site installation.
- Perfect combination with the wall and higher space utilization. The shape is more beautiful and fits the style of residential appliances.
- Built-in active perfluorohexanone fire extinguisher to ensure the ultimate safety of home applications.
- Built-in leading management system, integrated coordination and linkage management of battery, grid, photovoltaic and load. The data is more abundant and intuitive, and the household electricity is fully controlled.
- The backup time can be increased by separate battery system, or the power and electricity can be increased simultaneously by system parallel. Support up to 6 parallel expansion, up to 48kW/90kWh, plug and play design and automatic allocation of parallel machine ID.
- Covering the product models that can be used in Europe, Australia, Africa, North America and so on. Compatible with single-phase, three-phase and split-phase grid system. At the same time, the high-voltage battery system can be used separately, match the mainstream inverter brands in the market, so as to flexibly respond to the market and terminal methods.



Cell System Model	BH-OS-10	BH-OS-15
Cell Type	Ferrous Lithium Phosphate	
Rated Capacity	10kWh	15kWh
Available Capacity ^{*1}	9.4kWh	14.25kWh
Depth of Discharge	Maximum 95%, adjustable	
Rated Voltage	204.8Vdc	307.2Vdc
Operating Voltage Range	179.2 ~ 230.4 Vdc	268.8 ~ 345.6 Vdc
Dimension (W*D*H)	742×176×1200mm	
Weight	Approximately 120kg	Approximately 180kg
Maximum Continuous Charge/Discharge Power	10kW	15kW
Maximum Continuous Charge/Discharge Current	50A/1C	
Operating Temperature Range ^{*2}	-20~50°C discharge; 0.5°C charge	
Relative Humidity	5% ~ 95%	
Protection Class	IP65	
Installation Method	Floor to Wall/Wall Mount	
Communication	CAN / RS485 / WIFI / Ethernet	
Cell Cycle Times	<6000 times @ 0.5C / 25°C / 90%DOD	
Certification Standards	IEC62619、CE、UN38.3、UL1973、UL9540A、FCC	
Parallel Scaling	5 units in parallel up to 75 kWh	

Note: ^{*1}. Test conditions: 25°C±2°C, 0.5°C, etc;
^{*2}. The cell temperature is too high and too low, and the cell performance is degraded.

Inverter Model	Hybrid-OS-US7.6K
Photovoltaic Input	
Maximum Input Power	11.4kW
Maximum Access Voltage	600Vdc
MPPT Voltage Range	80~550Vdc / 360Vdc
Number of MPPTs / Number of MPPT Access Strings Per Channel	3 / 1
Maximum Input Current	15.5A / 15.5A / 15.5A
Maximum Short-circuit Current	26A / 26A / 26A
AC Output (Grid Side)	
Rated Output Power	7.6kW
Maximum Output Current	31.7A
Rated Output Current	31.7A
Operating Phase	1P
Rated Voltage	240Vac
Operating Voltage Range	211.2 ~ 264Vac
Rated Frequency	60Hz
Operating Frequency Range	55 ~ 65Hz
Power Factor	>0.99
THDI	<3%
AC Output (Off-grid Side)	
Rated Output Power	7.6kW
Maximum Peak Output Power	8.36kw
Switching Time between Parallel and Off-grid	<10ms
Rated Output Voltage/Range (L/N/PE)	220/380, 230/400, 240/415, 312~520Vac
Rated Frequency	50 / 60Hz
Rated Output Current	31.7A
Total Voltage Harmonic Distortion Rate (@ Linear Load)	<2%
Efficiency	
Maximum Efficiency	97.6%
European Efficiency/CEC Efficiency (North America)	97%
Basic Parameters	
Weight	Approximately 20kg
Dimension (W×D×H)	742×200×597mm
Operating Temperature	-25~60°C
IP Rating	IP65
Heat Dissipation Methods	Intelligent Air-cooled
External Communication	WIFI, Bluetooth, RS485, and CAN
Certification	
Safety Regulation	IEC-62109-1/-2,IEC-62477-1,IEC-61000-6-1/-3 (under certification)
Grid-connection	AS/NZS 4777.2:2020, EN50549-1:2019, G98:2021, G99:2021, VDE-AR-N 4105 (under certification)

Inverter Model	Hybrid-OS-E5K-S	Hybrid-OS-E8K-S	Hybrid-OS-E10T	Hybrid-OS-E15T	Hybrid-OS-E20T
Photovoltaic Input					
Maximum Input Power	10kW	16kW	16kW	24kW	32kW
Maximum Access Voltage	600Vdc		110Vdc		
MPPT Voltage Range	80~580Vdc		100~1080Vdc		
Number of MPPTs / Number of MPPT Access Strings Per Channel	2, 1/2		2/2		
Maximum Input Current	18/36A		36/36A		
Maximum Short-circuit Current	22/44A		44/44A		
AC Output (Grid Side)					
Rated Output Power	5kW	8kW	10kW	15kW	20kW
Maximum Output Current	21.7A	34.8A	14.5A	21.7A	29A
Rated Output Current	21.7A	34.8A	14.5A	21.7A	29A
Operating Phase	1P		3P		
Rated Voltage	220 / 230Vac		220/380, 230/400, 240/415, 312~520Vac		
Operating Voltage Range	180~300Vac		180~300Vac		
Rated Frequency	50 / 60Hz		50 / 60Hz		
Operating Frequency Range	45 ~ 55 / 55 ~ 65Hz		45 ~ 55 / 55 ~ 65Hz		
Power Factor	>0.99		>0.99		
THDI	<3%		<3%		
AC Output (Off-grid Side)					
Rated Output Power	5kW	8kW	10kW	15kW	20kW
Maximum Peak Output Power	8kW	9.6kW	20kW	22.5kW	24kW
Switching Time between Parallel and Off-grid	<10ms		<10ms		
Rated Output Voltage/Range (L/N/PE)	220/230/240V, 180~300Vac		220/380, 230/400, 240/415, 312~520Vac		
Rated Frequency	50 / 60Hz		50 / 60Hz		
Rated Output Current	21.7A	34.8A	14.5A	21.7A	29A
Total Voltage Harmonic Distortion Rate (@ Linear Load)	<2%		<2%		
Efficiency					
Maximum Efficiency	98.6%		98.8%		
European Efficiency/CEC Efficiency (North America)	98.1%		98.3%		
Basic Parameters					
Weight	Approximately 20kg				
Dimension (W×D×H)	742×200×597mm				
Operating Temperature	-25~60°C				
IP Rating	IP65				
Heat Dissipation Methods	Intelligent Air-cooled				
External Communication	WIFI, Bluetooth, RS485, and CAN				
Certification					
Safety Regulation	IEC-62109-1/-2,IEC-62477-1,IEC-61000-6-1/-3 (under certification)				
Grid-connection	AS/NZS 4777.2:2020, EN50549-1:2019, G98:2021, G99:2021, VDE-AR-N 4105 (under certification)				



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