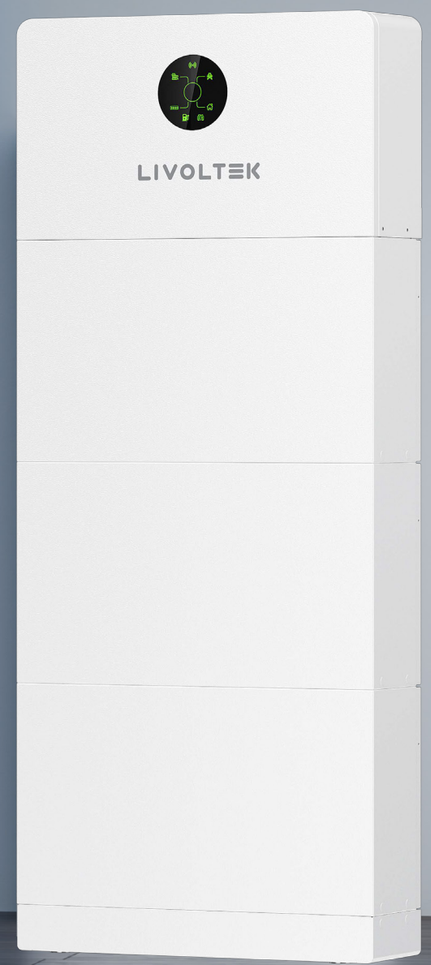
LIVOLTEK

ALL-IN-ONE ESS

iPower HES1-3K/3K6/4K6/5K/5K5/6K S2
HES1-1K5/3KL2

The all-new iPower HES1-3K/3K6/4K6/5K/5K5/6K S2 series is an integrated residential solar-storage-charging solution. Featuring a completely redesigned exterior that blends with home decor styles, it offers simple and convenient installation with a neat, aesthetically pleasing result after setup. Compatible with large photovoltaic modules, it can simultaneously charge batteries and feed power to the grid at rated capacity. With millisecond-level grid-tie/off-grid switching capability, the off-grid mode supports 2x power output for 10 seconds. Its integrated solar-storage-charging logic delivers greater economic benefits for users.



High Performance

- Supports 200% PV oversizing with 210 mm modules for maximum solar yield.
- Low PV start voltage enables earlier, more efficient generation.
- Up to 13.8 kW PV input, supporting 200% of rated capacity.
- Smart CT metering for cost-efficient, fast installation.
- Ultra-quiet <35 dB for a seamless, silent home experience.

High Reliability

- Supports 200% overload for 10 seconds under peak demand.
- IP66 protection ensures reliable operation in humid conditions.
- Built-in battery heating maintains performance in extreme cold.

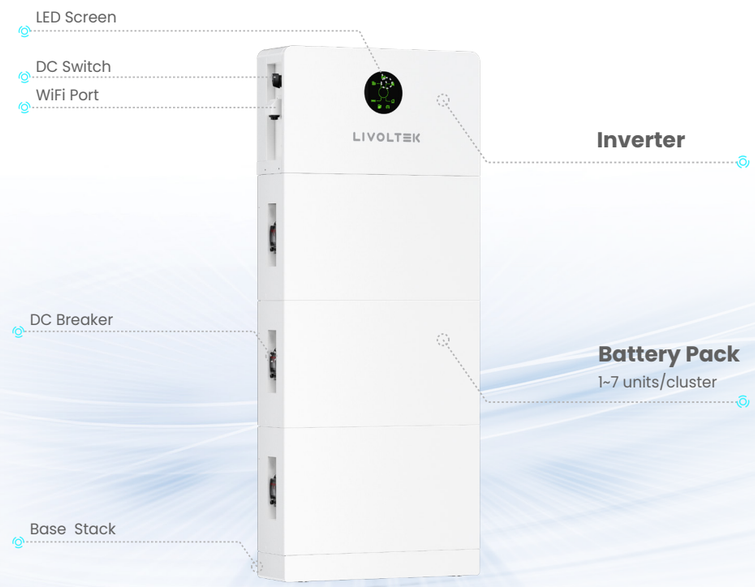
Intelligent Control

- Seamless switching <10 ms for uninterrupted backup.
- 7×24 scheduling with six periods maximizes energy savings.
- Integrated PV & storage with ECO mode for cleaner, cheaperelectricity.
- Smart heat pump control uses surplus PV energy for green heating.

Flexible Expansion

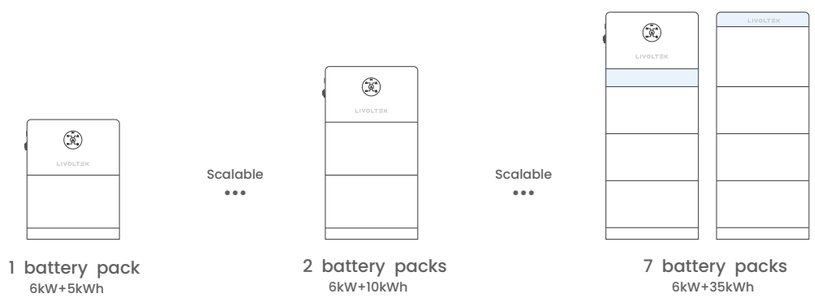
- Plug-and-play design enables fast installation.
- Expandable battery capacity up to 35 kWh per unit.
- Up to 2 units in parallel, delivering 12 kW output and 70 kWh storage.

PRODUCT STRUCTURE



TYPICAL APPLICATION SCENARIOS

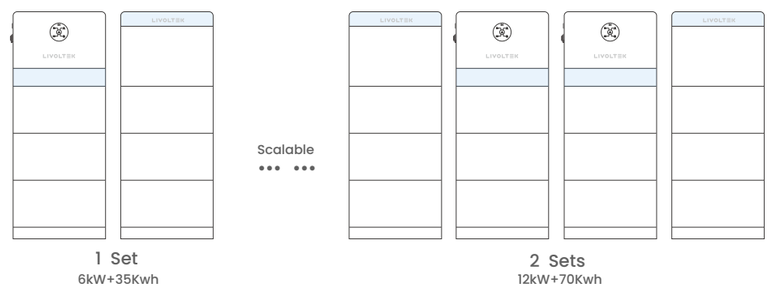
One **HES1-3-6K** can support up to 7 **BHF-SR** battery packs in parallel



6kW+35kWh
Supports 7 battery packs in parallel

*Systems with 1 inverter and >3 battery packs require one Combiner Box(Parallel Connection)and one Junction Box.

Up to 2 **HES1-3-6K** can be connected in parallel



12kW+70kWh
Supports 2 inverters in parallel

*Note: Parallel Operation (Coming Soon): This feature is currently in development and will be released soon.

ALL-IN-ONE ESS

INVERTER

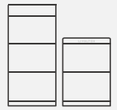
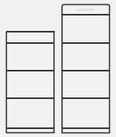
iPower HES1-3K/3K6/5K/6K S2 HES1-1K5/3KL1

Model	HES1-1K5L2	HES1-3KL2	HES1-3KS2	HES1-3K6S2	HES1-4K6S2	HES1-5KS2	HES1-5KS2C	HES1-5K5S2	HES1-6KS2
PV Parameters									
Max. PV Input Power(kW)	3	6	6	7.2	9.2	10	10	11	12
Max. PV Input Voltage(V)	500								
Nominal Input Voltage(V)	370								
MPPT Voltage Range(V)	60~500								
Start-up Voltage (V)	70								
No. of MPPTs/Strings per MPPT	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1
Max.PV Current (A) per MPPT	18/18	18/18	18/18	18/18	18/18	18/18	18/18	18/18	18/18
Max. Short Circuit Current (A) per MPPT	22/22	22/22	22/22	22/22	22/22	22/22	22/22	22/22	22/22
AC Parameters @ Grid									
Nominal AC Output Power (kW)	1.5	3	3	3.68	4.6	5	5	5.5	6
Max.apparent output power (kVA)	1.7	3.3	3.3	4	5	5.5	5	6	6.6
Max. AC Input Power (kW)	7.2	7.2	13.8	13.8	13.8	13.8	13.8	13.8	13.8
Nominal AC Voltage (V)	L/N/PE , 110/120/127		L/N/PE, 220/230/240						
AC Frequency (Hz)	50/60, 45-55 / 55-65								
Rated Output Current (A)	12.5@120V 11.8@127V	25@120V 23.6@127V	13.6@220V 13@230V	16.7@220V 16@230V	20.9@220V 20@230V	22.7@220V 21.7@230V	22.7@220V 21.7@230V	25@220V 23.9@230V	27.3@220V 26.1@230V
Max. Output Current (A)	13.8@120V 13@127V	27.5@120V 26@127V	15@220V 14.4@230V	18.4@220V 17.6@230V	23@220V 22@230V	25@220V 23.9@230V	22.7@220V 21.7@230V	27.5@220V 26.3@230V	30@220V 28.7@230V
Max.Input Current (A)	60								
THDi,Rated Power(%)	<3								
Power Factor	~1 (0.8 lagging to 0.8 leading)								
AC Parameters @ Generator									
Max. AC Input Power (kW)	7.2	7.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
Nominal AC Voltage (V)	L/N/PE , 110/120/127		L/N/PE, 220/230/240						
AC Frequency (Hz)	50/60, 45-55 / 55-65								
Backup Parameters @ Off Grid									
Nominal Backup Power (kW)	1.5	3	3	3.68	4.6	5	5	5.5	6
Backup Peak Power @10s (kW)	2 times of rated power, 10s								
Nominal Frequency (Hz)	50/60, 45-55 / 55-65								
Nominal Output Currentc(A)	12.5@120V 11.8@127V	25@120V 23.6@127V	13.6@220V 13@230V	16.7@220V1 6@230V	20.9@220V 20@230V	22.7@220V 21.7@230V	22.7@220V 21.7@230V	25@220V 23.9@230V	27.3@220V 26.1@230V
THDv,Rated Power(%)	<3								
Switch time	<10ms								
Battery Parameters									
Battery Type	Lithium-ion								
Battery Voltage Range (V)	40~60								
Max. Charge/Discharge Current (A)	65		125						
Efficiency									
Max. Efficency(%)	97.6								
Euro Efficency(%)	96.8								
Min. Efficency @30% Rate Power(%)	93								
General Data									
Topology	Transformerless								
Dimension W*H*D(mm)	680*1388.4*200@6kW+10kWh (inverter: 680*405*200; battery: 680*431.2*198)								
Weight（kg）	28								
Warranty	5 Years/10 Years the Warranty Period Depends the Final Installation Site of Inverter,more Info Please Refer to Warranty Policy								
Noise(Typical)	≤35dB								
Altitude	2000m								
Cooling	Natural cooling								
Protection Rating	IP66								
Mounting Method	wall or floor mounting								
Operating Temperature Range(°C)	-25 ~+60(＞45 Derating)								
Ambient Humidity(%)	0-100(Non-condensing)								
Display	LED &APP&Web								
Scalability	2								
Surge Protection Level	TYPE II(DC), TYPE II(AC)								
Over Voltage Category	OVC II(DC), OVC III(AC)								
AFCI	Optional								
Protection	PV Reverse Polarity Protection/Battery Reverse Polarity Protection/Anti-islanding Protection/AC Overcurrent Protection/AC Overvoltage Protection								

LOW-VOLTAGE RESIDENTIALBATTERY

BATTERY

BLF-SR05-35

Model	BLF-SR05	BLF-SR10	BLF-SR15	BLF-SR20	BLF-SR25	BLF-SR30	BLF-SR35
Technical Properties							
Component	1*Base+1*Module	1*Base+2*Modules	1*Base+3*Modules	2*Bases+4*Modules +1*Junction Box+1*Combiner Box	2*Bases+5*Modules +1*Junction Box+1*Combiner Box	2*Bases+6*Modules +1*Junction Box+1*Combiner Box	2*Bases+7*Modules +1*Junction Box+1*Combiner Box
Cell Type	LFP						
Nominal Voltage	51.2V						
Operating Voltage Range	43.2V-57.6V						
Battery Pack Module	51.2V 100Ah 5.12 kWh						
Pack Number	1	2	3	4	5	6	7
Total Energy	5.12kWh	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh	35.84kWh
Rated Capacity	100Ah	200Ah	300Ah	400Ah	500Ah	600Ah	700Ah
Max. Power	5.8KW	7.68KW	7.68KW	7.68KW	7.68KW	7.68KW	7.68KW
Depth of Discharge	0.9						
Max. Charge/Discharge Current	85A/100A	150A/150A	150A/150A	150A/150A	150A/150A	150A/150A	150A/150A
Operating Temperature	Charge: 0°C - 60°C; Discharge: -10°C - 60°C						
Operating Humidity	5% - 95%						
Storage Temperature	-20°C to +60°C						
Operating Attitude	< 4000m						
Communication	RS485 / CAN						
Cooling Type	Natural Cooling						
Ingress Protection	IP65						
Installation Location	Wall-mounted / Ground-mounted						
Cycle Life	6000 Cycles[2]						
Dimension(W*D*H)	680*198*552.2 mm	680*198*983.4mm	680*198*1414.6mm	680*198*1183.4mm + 680*198*1091.9mm	680*198*1614.6mm + 680*198*1091.9mm	680*198*1614.6mm + 680*198*1523.1mm	680*198*1614.6mm + 680*198*1954.3mm
Weight (Wire Harness: 2.8kg)	58.5 kg	109 kg	159.5 kg	227.4 kg	277.9 kg	328.4 kg	378.9 kg

[1]: Systems with 1 inverter and >3 battery packs require a parallel box and dedicated parallel terminals.
[2]: Test conditions: 0.5C Charge/0.5C Discharge, @25℃, 90% DOD, 70% EOL.

Preliminary
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