



Hybrid Inverter

Single Phase:

HP1-1K5/3K/3K6/5K/6KS2

HP1-1K5/3KL2

The Livoltek HP1-3~6KS2 series of single-phase energy storage inverters, with their superior multifunctionality and high-quality performance, bring a qualitative improvement to residential and commercial energy management. This product is designed with flexibility to seamlessly integrate with existing solar photovoltaic systems, ensuring efficient energy conversion. It can not only store energy from generators but also supports the parallel expansion of multiple battery sets to meet the growing demand for energy storage. The HP1-3~6KS2 series provides a future-oriented energy solution equipped with a range of advanced features, offering unprecedented convenience and intelligence for your energy management.

High Generation & Scalability

- Max charging and discharging current of up to 125A.
- Up to 200% DC input oversizing and PV current to 18A.

Safe & Protection

- Seamless Transition: Backup with UPS-level switching < 10ms
- 10 seconds of 200% overload capability.
- IP66 ingress protection

Adaptable Applications

- Max 6 pcs parallel for on-grid and off-grid operation.
- Supports storing energy from diesel generators.

Friendly & Thoughtful Design

- Color touch LCD screen combined with auxiliary function buttons.
- 6 adjustable time slots for charging and discharging the battery.

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Model	HP1-1K5S2	HP1-3KS2	HP1-3K6S2	HP1-5KS2	HP1-5KS2C	HP1-6KS2
PV Input						
Max. PV Input Power	3000Wp	6000Wp	7200Wp	10000Wp	10000Wp	12000Wp
Max. PV Input Voltage	500V					
Min. PV Input Voltage	60V					
MPPT Voltage Range	60 ~ 500V					
Start-up Voltage	70V					
No. of MPPTs/Strings per MPPT	1 / 1	2 / 1				
Max. PV Input Current	18 A	18 / 18 A				
Max. Short Circuit Current	22 A	22 / 22 A				
AC Output @Grid						
Max. AC Input Power	5000W	9200W				
Max. AC Input Current	22A	40A				
Nominal Output/Apparent Power	1500W	3000W	3680W	5000W	5000W	6000W
Max. Output/Apparent Power	1650W	3300W	4048W	5500W	5000W	6600W
Nominal Grid Voltage	L/N/PE, 220/230/240V					
Nominal Grid Frequency	50 / 60 Hz					
Nominal Grid Frequency Range	45 – 55 Hz / 55-65 Hz					
Max. Output Current	7.5 A	15.0 A	18.4 A	25.0 A	22.8 A	30.0 A
Nominal Output Current	6.8 A	13.6 A	16.7 A	22.8 A	22.8 A	27.3 A
Total Harmonic Distortion Rate	< 3 %					
Power Factor	> 0.99 at Rated Power (Adjustable 0.8 Leading - 0.8Lagging)					
AC Output @ Off Grid						
Nominal Output Apparent Power	1500 VA	3000VA	3680 VA	5000 VA	5000 VA	6000 VA
Peak output/apparent Power	2 times of rated power, 10s					
Nominal Output Voltage	L/N/PE, 220/230/240V					
Nominal Output Frequency	50 / 60 Hz					
Nominal Output Current	6.8 A	13.6 A	16.7 A	22.8 A	22.8 A	27.3 A
Total Harmonic Distortion Rate	< 3%					
On/Off-grid Switchover Time	< 10 ms					
Generator						
Max. Input Power	1500W	3000W	3680W	5000W	5000W	6000W
Max. Input Current	6.8 A	13.6 A	16.7 A	22.8 A	22.8A	27.3 A
Nominal Input Frequency	50 / 60 Hz					
Efficiency						
Max. Efficiency	97.60%					
Euro Efficiency	96.80%					
Battery						
Battery Type	Li-ion					
Battery Voltage	40V ~ 60V					
Max. Charge/Discharge Current	63A	125A	125A	125A	125A	125A
Communication with BMS	CAN / RS485					
Inverter Data						
Dimension (W*H*D)	480*342*190					
Weight	15 kg					
Cooling	Natural cooling					
Protection Rating	IP66					
Mounting Method	Wall Mounting					
Operating Temperature Range	-25°C to +60°C (derating at 45°C)					
Display	LCD + APP					
Nosie	< 35 dB					
Operating Attitude	< 2000 m					
Operating Humidity	0 ~ 95 %					
Standard	EN 62109-1/2, EN 62920:2017+A11+A1, EN IEC 61000-6-1/2/3/4, IEC61727, IEC62116, EN 50549-1/10, CEI 0-21, UNE 217001/217002, IEC 61683					

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PV Input		
Max. PV Input Power	3000Wp	6000Wp
Max. PV Input Voltage	500V	
Min. PV Input Voltage	60V	
MPPT Voltage Range	60 – 500V	
Startup Voltage	70V	
No. of MPPTs/Strings per MPPT	1 / 1	2 / 1
Max. PV Input Current	18 A	18 / 18 A
Max. Short Circuit Current	22 A	22 / 22 A
AC Output @ Grid		
Nominal AC Output Power	1500W	3000W
Max. AC Input Power	4800W	
Max. AC Input Current	40A	
Nominal Grid Voltage	L/N/PE, 110/120/127V	
Nominal Grid Frequency	50 / 60 Hz	
Nominal Grid Frequency Range	45 – 55 Hz / 55 – 65 Hz	
Max. Output Current	15.0 A	30.0 A
Nominal Output Current	13.6 A	27.3 A
Total Harmonic Distortion Rate	<3%	
Power Factor	> 0.99 at Rated Power (Adjustable 0.8 Leading – 0.8Lagging)	
AC Output @ Off Grid		
Nominal Output Apparent Power	1500W	3000W
Peak output/apparent Power	2 times of rated power, 10s	
Nominal Output Voltage	L/N/PE, 110/120/127V	
Nominal Output Frequency	50 / 60 Hz	
Nominal Output Current	13.6 A	27.3 A
Total Harmonic Distortion Rate	< 3%	
On/Off-grid Switchover Time	< 10 ms	
Battery		
Battery Type	Li-ion	
Battery Voltage	40 – 60V	
Max. Charge/Discharge Current	63A	125A
Communication with BMS	CAN / RS485	
Efficiency		
Max. Efficiency	97.60%	
Euro Efficiency	96.80%	
Generator		
Max. Input Power	1500W	3000W
Max. Input Current	13.6A	27.3A
Rated Input Frequency	50 / 60 Hz	
Inverter Data		
Dimension (W*H*D)	480*340*190 mm	
Weight	15 kg	
Mounting Method	Wall Mounting	
Protection Rating	IP66	
Cooling	Natural cooling	
Operating Temperature Range	–25°C to +60°C (derating at 45°C)	
Display	LCD + APP	
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Operating Attitude	< 2000 m	
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