



HYBRID INVERTER

HP1-1K5/3K/3K6/5K/6KS2
HP1-1K5/3KL2

The Livoltek HP1-3~6kW S2 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 HP1-3~6kWS2 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.
- Max 10 pcs parallel for on-grid and off-grid operation.

🛡 Safe & Protection

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

🔌 Adaptable Applications

- AC couple to retrofits existing solar systems.
- 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.

HYBRID INVERTER

SINGLE PHASE: HP1-1K5/3K/3K6/5K/6KS2

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					
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 Input/Output @Grid						
Max. AC Input Power	9200W					
Max. AC Input Current	40A					
Nominal AC Output Power	1500W	3000W	3680W	5000W	5000W	6000W
Max. AC Output Power	1650W	3300W	4048W	5500W	5000W	6600W
Nominal AC Voltage	L/N/PE, 220/230/240					
AC Frequency	50 / 60 Hz					
AC 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
THDi, Rated Power[%]	<3%					
Power Factor	> 0.99 at Rated Power (Adjustable 0.8 Leading – 0.8Lagging)					
EPS Output @ Off Grid						
Nominal EPS Power	1500W	3000W	3680W	5000W	5000W	6000W
EPS Peak Power (10s)	2 times of rated power, 10s					
Nominal Output Voltage	L/N/PE, 220/230/240					
Nominal 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
THDv,Rated Power[%]	< 3%					
On/Off-grid Switchover Time	< 10 ms					
Inverter Data						
Dimension (W*H*D)	480*340*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 %					
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
Rated Input Frequency	50 / 60 Hz					
Efficiency						
Max. Efficiency	97.60%					
Euro Efficiency	96.80%					
Battery						
Battery Type	Li-ion / Lead-acid					
Battery Voltage	40V – 60V					
Max. Charge/Discharge Current	63A	125A	125A	125A	125A	125A
Communication with BMS	CAN / RS485					

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INVERTER

Model	HP1-1K5L2		HP1-3KL2	
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			1650W	
Nominal AC Voltage			L/N/PE, 110/120	
AC Frequency			60 Hz	
AC Frequency Range			55-65 Hz	
Max. Output Current	15.0 A		30.0 A	
Nominal Output Current	13.6 A		27.3 A	
THDi,Rated Power[%]			<3%	
Power Factor	> 0.99 at Rated Power (Adjustable 0.8 Leading - 0.8Lagging)			
EPS Output @ Off Grid				
Nominal EPS Power	1500W		3000W	
EPS Peak Power (10s)	2 times of rated power, 10s			
Nominal Output Voltage	L/N/PE, 110/120			
Nominal Frequency	60 Hz			
Nominal Output Current	13.6 A			
THDv,Rated Power[%]	< 3%			
On/Off-grid Switchover Time	< 10 ms			
Inverter Data				
Dimension (W*H*D)	480*340*190 mm			
Weight	15 kg			
Mounting Method	Natural cooling			
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Operating Temperature Range	-25°C to +60°C (derating at 45°C)			
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Generator				
Max. Input Power	1500W		3000W	
Max. Input Current	13.6A		27.3A	
Rated Input Frequency	60 Hz			
Efficiency				
Max. Efficiency	97.60%			
Euro Efficiency	96.80%			
Battery				
Battery Type	Li-ion / Lead-acid			
Battery Voltage	40 - 60V			
Max. Charge/Discharge Power	1500W		3000W	
Max. Charge/Discharge Current	63A		125A	
Communication with BMS	CAN / RS485			