LIVOLTEK

Split Phase Hybrid Inverter

HP2-6K/7.5K/8K/10K/12KL1P

The Livoltek all-new Split-phase Hybrid Inverter series features a native 120/240 V split-phase design, making it ideal for residential solar-storage applications in North America and Latin America. It supports on-grid, off-grid, and backup modes in one integrated solution, reducing system complexity and installation cost. With high-current AC input and generator compatibility, it reliably powers heavy household loads. Built on a safe 48 V low-voltage platform, it delivers high power output with lower installation and certification costs. Advanced MPPT technology supports high-power PV modules and maximizes solar yield on complex rooftops. Its scalable parallel design and intelligent cloud monitoring provide a flexible, reliable, and cost-effective home energy solution.

Smart Integration

- Native 120/240 V split-phase design for North & Latin America.
- Supports on-grid, off-grid, and backup modes.
- Generator-compatible design reduces extra equipment and system complexity.

Powerful Performance

- 90 A AC input supports high-impact household loads.
- Up to 250 A battery charge/discharge current for high-power output.
- 48 V low-voltage architecture balances safety, performance, and lower installation cost.

Cold-Weather Ready

- 4 PV inputs (2+1+1) for flexible rooftop applications.
- Compatible with 182 mm / 210 mm PV modules.

Flexible & Reliable

- Supports up to 4 units in parallel.
- IP66 protection and built-in AFCI ensure reliable outdoor operation.
- Livoltek cloud-based monitoring reduces maintenance costs.



202611V3 Edition
Design and specifications are subject to change without notice

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INVERTER

HP2-6K/7.5K/8K/10K/12KL1P

Model	HP2-6KL1P	HP2-7K5L1P	HP2-8KL1P	HP2-10KL1P	HP2-12KL1P
PV Parameters					
Max. PV Input Power (W)		12000		18000	
Max. PV Input Voltage (V)			500		
Nominal Input Voltage (V)			370		
Start-up Voltage (V)			90		
MPPT Voltage Range (V)			75-500		
No. of MPPTs		2		3	
Max. Input Current per MPPT (A)		20+20		32+20+20	
Max. Short-Circuit Current per MPPT (A)		22+22		40+25+25	
Strings per MPPT		1+1		2+1+1	
Battery Data					
Battery Type			Li-ion / Lead-acid		
Battery Voltage Range (V)			40-60		
Max. Charge/Discharge Current (A)	125	156	167	208	250
Max. Charge/Discharge Power (W)	6000	7500	8000	10000	12000
Communication with BMS			CAN / RS485		
Charge/Discharge Strategy for Li-ion Battery			Self-adaption to BMS		
AC Output @ Grid					
Nominal Output/Apparent Power (W/VA)	6000	7500	8000	10000	12000
Max. Output Apparent Power (VA)	6000	7500	8000	10000	12000
Max. AC Input Apparent Power (VA)		14400		21600	
Nominal Grid Voltage (V)			2L+N+PE; 120/240; 120/208		
Nominal Grid Frequency (Hz)			50/60		
Nominal Grid Frequency Range (Hz)			45-55/55-65		
Nominal Output Current (A)	25	31.3	33.4	41.7	50
Max. Output Current (A)	25	31.3	33.4	41.7	50
Max. Input Current (A)		60		90	
Power Factor (cosθ)			>0.99 at Rated Power (Adjustable 0.8 Leading - 0.8 Lagging)		
Total Harmonic Distortion Rate (%)			<3		
AC Output @ Off-Grid					
Nominal Output/Apparent Power (W/VA)	6000	7500	8000	10000	12000
Peak Output/Apparent Power (W/VA)			2 times of rated power, 10s		
Nominal Output Voltage (V)			2L+N+PE; 120/240; 120/208		
Nominal Output Frequency (Hz)			50/60		
Nominal Output Current (A)	25	31.3	33.4	41.7	50
Total Harmonic Distortion Rate (%)			<3		
Switching Time Between Parallel and Off-grid (ms)			<10		
Generator Data					
Max. Input Power (W)		12800		19200	
Max. Input Current (A)		53.4		80	
Nominal Input Frequency (Hz)			50/60		
Efficiency					
Max. Efficiency (%)			97.5		
Euro Efficiency (%)			97		
MPPT Efficiency (%)			>99		
General Data					
Dimensions (W × H × D)			520 × 740 × 248 mm (20.5 × 29.1 × 9.8 in)		
Weight (kg)			50 (110 lbs)		
Mounting Method			Wall Mounting		
Ingress Protection			IP66 (TYPE 4X)		
Cooling			Intelligent Air Cooling		
Operating Temperature Range (°C)			−25 to +60 (derating at 45°C)		
Permissible Ambient Humidity			0-100		
Max. Altitude (m)			3000		
Noise (dB)			≤45		
Display			LCD+APP		
Topology (Solar to AC)			Transformerless		
Scalable			4		