

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.

Preliminary



Split Phase Hybrid Inverter

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

INVERTER

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)				75-450		
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					