

HYBRID INVERTER

Three Phase: HP3-40/50/60KS1

As the core of the energy storage solution, LIVOLTEK three phase hybrid inverter offers flexible and social able solutions for both residential and commercial applica tions. With the ability of scalable battery storage, the high-voltage inverter facilitate powerful energy backup and also present high self-consumption with optimized built-in EMS to reduce energy cost.

Economical & Efficient

- Supports up to 200% PV oversize, maximizing solar energy utilization.
- Each MPPT supports a max input current of 45A, compatible with high-power solar panels.
- Supports up to 10 units in parallel for grid-tied and off-grid operation.
- Directly connectable to a diesel generator for multi-energy complementary power supply.

Superior Performance

- Supports grid-tied and off-grid switching with a switching time <10ms.
- Supports up to 160% short-term overload in off-grid mode.
- Supports 100% three-phase unbalanced output.
- Compatible with 314Ah high-capacity battery cells, optimizing energy storage configuration flexibility.

Excellent Safety

- Intelligent IV curve scanning for early panel diagnosis.
- Standard AFCI.
- Type II AC/DC surge protection, ensuring continuous protection for the inverter.
- Supports MC4 terminal temperature detection, providing real-time warnings of connection hazards.

Intelligent Management

- Supports 7×24h scheduling mode.
- Equipped with an LCD display for an intuitive user experience.
- Supports intelligent load management.
- Supports remote settings and upgrades.



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INVERTER

Model	HP3-40KS1	HP3-50KS1	HP3-60KS1
PV Input			
Max. PV Input Power	80000Wp	100000Wp	120000Wp
Max. PV Input Voltage	1100V		
Nominal Input Voltage	620V		
MPPT Voltage Range	150 V ~ 1000 V		
No. of MPPTs/Strings per MPPT	5/(2+2+2+2+2)	5/(2+2+2+2+2)	5/(2+2+2+2+2)
Max.PV Current	45/45A/45A/45A/45A	45/45A/45A/45A/45A	45/45A/45A/45A/45A
Max. Short Circuit Current	55A/55A/55A/55A/55A	55A/55A/55A/55A/55A	55A/55A/55A/55A/55A
AC Output @ Grid			
Nominal AC Output Power	40000W	50000W	60000W
Max.apparent outout power	44000VA	55000VA	66000VA
Max. AC Input Power	120000W		
Nominal AC Voltage	3W+N+PE, 380V, 400V, 415V		
AC Frequency	50 Hz / 60 Hz		
Rated Output Current	60.6A	75.8A	90.9A
Max. Output Current	66.7A	83.4A	100A
THDi,Rated Power[%]	< 3%		
Power Factor	~1 (Adjustable from 0.8 Leading to 0.8 Lagging)		
AC Input @ Generator			
Max. AC Input Power	80000W	100000W	120000W
Nominal AC Voltage	3W+N+PE, 380V, 400V, 415V		
AC Frequency	50 Hz / 60 Hz		
EPS Output @ Off Grid			
Nominal EPS Power	44000W	55000W	66000W
EPS Peak Power (10s)	75000W	80000W	
Nominal Output Voltage	3W+N+PE, 220/380V, 230/400V, 240/415V		
Nominal Frequency	50 Hz / 60 Hz		
Nominal Output Current	66.7A	83.4A	100A
THDv,Rated Power[%]	< 3%		
Switch time	<10ms		
Battery Input			
Battery Type	Lithium		
Battery Voltage Range	120V ~ 900 V		
Max. Charge/Discharge Current	80A*2 / 80A*2		
Communication with BMS	CAN		
Efficiency			
Max. Efficiency	98.40%	98.40%	98.40%
Euro Efficiency	98.00%	98.00%	98.00%
Protection			
PV Reverse Polarity Protection	Yes		
Anti-islanding Protection	Yes		
AC Overcurrent Protection	Yes		
AC Short Circuit Protection	Yes		
Leakage current protection	Yes		
DC switch	Yes		
Battery input reverse polarity protection	Yes		
Surge protection	DC Type II/AC Type II		
AFCI	Yes		
General Data			
Topology	Transformerless		
Dimension (W*H*D)	600*850*325 mm		
Weight	75kg		
Noise(Typical)	<65dB		
Altitude	2000m		
Cooling	Intelligent Fan		
Protection Rating	IP66		
Mounting Method	Wall-mounted		
Operating Temperature Range	-25 °C~+60 °C		
Ambient Humidity(Non-condensing)	0~95%		
Display	LED & APP		
Communication	Wi-Fi/DO/DI/RS485		
Standrad	IEC61727/62116,EN50549-1/10, IEC/EN 62109-1/-2, EN61000-6-1,EN61000-6-2,EN61000-6-3, EN61000-6-4、 IEC/EN 62920		