

HYBRID INVERTER

THREE PHASE: HP3-40K/50K/60K S1

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.

Cost-effective and Efficient

- 2Supports up to 200% PV oversizing to maximize solar energy utilization
- Maximum 45A input current per MPPT, support high power solar panel
- Max. 10 pcs parallel for on-grid and off-grid operation
- Directly compatible with diesel generators for multi-energy complementary power supply

High Performance

- Supports grid-connected and off-grid switching, and the switching time is less than 10 ms
- Supports up to 160% short-term overload capacity in off-grid mode
- Supports 100% three-phase unbalanced output
- Compatible with 314Ah high-capacity battery cells to optimize energy storage configuration

High safety

- Smart IV Curve scan for early panel diagnosis Support half-wave loads Remote control and upgrade
- AFCI is standardly equipped
- AC&DC SPD type II, always guarding the inverter
- Temperature detection of MC4 terminals is supported to give real-time warnings of connection potential hazards.

Intelligent management

- Supports the 7×24h scheduling mode
- Equipped with an LCD display screen, providing an intuitive user experience
- Supports intelligent load management
- Supports remote setting and upgrading



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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	56.5A/56.5A/56.5A/56.5A/56.5A	56.5A/56.5A/56.5A/56.5A/56.5A	56.5A/56.5A/56.5A/56.5A/56.5A
AC Output@ Grid			
Nominal AC Output Power	40000W	50000W	60000W
Max.apparent outout power	44000VA	55000VA	66000VA
Max. AC Input Power @220Vac	120000W		
Nominal AC Voltage	3W+N+PE, 380V, 400V, 415V		
AC Frequency	50 Hz / 60 Hz		
Rated Output Current@220Vac	60.6A	75.8A	90.9A
Max. Output Current@220Vac	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 @220Vac	80000Wp	100000Wp	120000Wp
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@220Vac	66.7A	83.4A	100A
THDv @Linear Power[%]	< 3%		
Switch time	< 10ms		
Battery Input			
Battery Type	Lithium		
Battery Voltage	100V ~ 800 V		
Max. Charge/Discharge Current	80A*2 / 80A*2		
Communication with BMS	CAN		
Efficiency			
Max. Efficiency	98.4%	98.4%	98.4%
Euro Efficiency	98.0%	98.0%	98.0%
Protection			
Surge protection	DC Type II / AC Type II		
Others	PV Reverse Polarity Protection, Anti-islanding Protection, AC Overcurrent Protection, AC Short Circuit Protection, Leakage current protection, DC switch, Battery reverse protection, AFCI		
General Data			
Topology	Transformerless		
Dimension (W*H*D)	600*850*325 mm		
Weight	75kg		
Noise (Typical)	<65dB		
Altitude	2000m		
Cooling	Intelligent Fan		
Ingress Protection	IP66		
Mounting Method	Wall-mounted		
Operating Temperature Range	-25 °C to +60 °C		
Ambient Humidity	0-95% (Non-condensing)		
Display	LED & APP		
Communication	Wi-Fi / DO / DI / RS485		
Standrad	IEC61727/62116, CEI 0 21, EN50549-1, IEC62109-1/-2, EN61000-6-1,EN61000-6-2,EN61000-6-3, EN61000-6-4		