LIVOLTEK

Hybrid Inverter

Three Phase:
HP3-5K/6K/8K/10K/12KD2 (EN)
HP3-5K/6K/8K/10K/12K/15KL2

As the core of the energy storage solution, LIVOLTEK three phase hybrid inverter offers flexible and sociable solutions for both residential and commercial applications. 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.

High Performance

- 200% PV oversizing and up to 110% AC output
- 200% overload for backup loads
- Seamless on grid/off grid switching time <10ms

Flexible Application

- Max. 10 units in parallel for on-grid and off-grid operation
- 100% unbalanced output
- Compatible with generator

Safe and Reliable

- Type II AC/DC surge protection
- AFCI function optional
- IP65 Ingress protection

Safe and Reliable

- Peak shaving mode
- Support half-wave loads
- Remote control and upgrade

202608V1 Edition
Design and specifications are subject to change without notice

Hybrid Inverter

INVERTER

Three Phase: HP3-5K/6K/8K/9K9/10K/12KD2 (EN)

Model	HP3-5KD2	HP3-6KD2	HP3-8KD2	HP3-9.9KD2	HP3-10KD2	HP3-12KD2
PV Input						
Max. PV Input Power	10000 Wp	12000 Wp	16000 Wp	20000 Wp	20000 Wp	24000 Wp
Max. PV Input Voltage	1000 V					
Nominal Input Voltage	600 V					
MPPT Voltage Range	150 V-950 V					
Start-up Voltage	180 V					
No. of MPPTs/Strings per MPPT	2/(1+1)			2/(2+1)		
Max. PV Current	16A/16A			32A/16A		
Max. Short Circuit Current	20/20A			40A/20A		
AC @ Grid						
Max. AC Input Power	21000 W	21000 W	21000 W	21000 W	21000 W	21000 W
Max. AC Input Current	31.0 A	31.0 A	31.0 A	31.1 A	31.0 A	31.0 A
Nominal AC Output Power	5000 W	6000 W	8000 W	9900 W	10000 W	12000 W
Max. AC Output / Apparent Power	5 kVA	6 kVA	8 kVA	9.9 kVA	10 kVA	12 kVA
Nominal AC Voltage	3W+N+PE, 380V, 400V, 415V					
AC Frequency	45-55Hz/55-65Hz					
Max. AC Current	7.6 A	9.1 A	12.1 A	15.1 A	15.2 A	18.2 A
THDi @ Rated Power [%]	<3%					
Power Factor	~1 (Adjustable from 0.8 Leading to 0.8 Lagging)					
EPS Output @ Off Grid						
Nominal EPS Power	5000 W	6000 W	8000 W	9900 W	10000 W	12000 W
EPS Peak Power (10s)	5500 W	6600 W	8800 W	10900 W	11000 W	13200 W
Nominal Output Voltage	3W+N+PE, 220/380V, 230/400V, 240/415V					
Nominal Frequency	50Hz/60Hz					
Nominal Output Current	7.3 A	8.7 A	11.6 A	14.4 A	14.5 A	17.4 A
THDv @ Linear Power [%]	<3%					
Battery Input						
Battery Type	Lithium					
Battery Voltage	100V-700 V					
Max. Charge/Discharge Current	50A/50A					
Communication with BMS	CAN					
Efficiency						
Max. Efficiency	98.20%	98.20%	98.20%	98.20%	98.20%	98.20%
Euro Efficiency	97.20%	97.50%	97.90%	97.90%	97.90%	97.90%
General Data						
Dimensions (W × H × D)	540 × 470 × 210 mm					
Weight	26 kg					
Cooling	Natural Convection					
Protection Rating	IP65					
Mounting Method	Wall-mounted					
Operating Temperature Range	-25 °C to +60 °C					
Display	LED & APP					
Communication	Wi-Fi/DO/DI/RS485					
Protection Function	Islanding Protection, PV DC Reverse Polarity Protection, DC Short Circuit Protection Device, AC Short Circuit Protection Device, PV DC Overcurrent Protection, AC Overcurrent Protection, Leakage Current Protection, Over/Under Frequency Protection, Over/Under Voltage Protection, Insulation Resistance Protection, Over-Temperature Protection, AC Current Imbalance Protection, Arc Detection Protection, Buzzer Warning					
Standrad						
Safty	EN 62109-1, EN 62109-2, IEC 62109-1, IEC 62109-2, IEC 61727, IEC 62116, IEC 61683					
EMC	EN 62920, EN IEC 61000-6-1, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 61000-6-4, EN 55011, EN 61000-3-12, IEC 61000-3-11, IEC 62920, IEC 61000-6-1, IEC 61000-6-2, IEC 61000-6-3, IEC 61000-6-4, CISPR 11, IEC 61000-3-12, IEC 61000-3-3					
Grid Regulation	EN 50549-1, COMMISSION REGULATION (EU) 2016/631, PSE, PTPiREE, NRS 097-2-1, Engineering Recommendation G99, CEI 0-21, UNE 217001, ITC-BT-40, UNE 217002, RD 413, TED/749/2020, RD 647, RD 1699, UE 2016/631, NTS Type A, VDE-AR-N-4105, DIN VDE V 0124-100					

Hybrid Inverter

INVERTER

Three Phase: HP3-5K/6K/8K/10K/12K/15KL2

Model	HP3-5KL2	HP3-6KL2	HP3-8KL2	HP3-10KL2	HP3-12KL2	HP3-15KL2
PV Input						
Max. PV Input Power	10000 Wp	12000 Wp	16000 Wp	20000 Wp	24000 Wp	30000 Wp
Max. PV Input Voltage	1000 V					
Nominal Input Voltage	380 V					
MPPT Voltage Range	150V-950V					
Start-up Voltage	180 V					
No. of MPPTs/Strings per MPPT	2/(2+1)		3/(2+2+1)		3/(2+2+2)	
Max. PV Current	32A/16A		32A/32A/16A		32A/32A/32A	
Max. Short Circuit Current	40A/20A		40A/40A/20A		40A/40A/40A	
AC @ Grid						
Nominal AC Output Power	5000 W	6000 W	8000 W	10000 W	12000 W	15000 W
Max. AC Input Power	12000 W	12000 W	17000 W	23000 W	23000 W	23000 W
Max. AC Input Current	31.0 A	31.0 A	43.5 A	58.0 A	58.0 A	58.0 A
Nominal AC Output Power	5000 W	6000 W	8000 W	10000 W	12000 W	15000 W
Nominal AC Voltage	3W+N+PE, 208/220/230V					
AC Frequency	50Hz/60Hz					
Max. AC Current	13.2 A					
THDi @ Rated Power [%]	<3%					
Power Factor	~1 (Adjustable from 0.8 Leading to 0.8 Lagging)					
EPS Output @ Off Grid						
Nominal EPS Power	5000W	6000W	8000W	10000W	12000W	15000W
EPS Peak Power (10s)	10.7kW		20.0kW		22.7kW	
Nominal Output Voltage	3W+N+PE, 208/220/230V					
Nominal Frequency	50Hz/60Hz					
Nominal Output Current	12.6A	15.1A	20.1A	25.2A	30.2A	37.7A
THDv @Linear Power[%]	<3%					
Battery Input						
Battery Type	Lithium					
Battery Voltage	100V-700 V					
Max. Charge/Discharge Current	50A/50A					
Communication with BMS	CAN					
Efficiency						
Max. Efficiency	98.10%	98.10%	98.10%	98.20%	98.20%	98.20%
Euro Efficiency	97.70%	97.70%	97.70%	97.80%	97.80%	97.80%
General Data						
Dimensions (W × H × D)	540 × 470 × 210 mm		595 × 485 × 235 mm			
Weight	26 kg		38 kg			
Cooling	Natural Convection		Intelligent Fan			
Protection Rating	IP65					
Mounting Method	Wall-mounted					
Operating Temperature Range	-25 °C to +60 °C					
Display	LED & APP					
Communication	Wi-Fi/DO/DI/RS485					
Protection Function	Islanding Protection, PV DC Reverse Polarity Protection, DC Short Circuit Protection Device, AC Short Circuit Protection, Device, PV DC Overcurrent Protection, AC Overcurrent Protection, Leakage Current Protection, Over/Under Frequency, Protection, Over/Under Voltage Protection, Insulation Resistance Protection, Over-Temperature Protection, AC Current Imbalance Protection, Arc Detection Protection, Buzzer Warning					
Standrad	EN 62109-1/2, EN 62920: 2017+A11+A1, EN IEC 61000-6-1/2/3/4, IEC61727, IEC62116					