



LHS-LV-3/3.6/4.6K F2

Single Phase Hybrid Inverter

- Safety protection with integrated AFCI function, which actively detects arc faults in the PV array
- UP to 16A of MPPT current input
- Up to 125A/6kW max. charge/discharge rating with industry highest level 6kW of backup loads support capability
- UPS level switching time (<10ms) supporting critical loads all the time
- Supports pure off grid applications with generator communication support

MODEL	LHS-LV-3K F2	LHS-LV-3.6K F2	LHS-LV-4.6K F2
Input DC (PV side)			
Max. Input Power (kW)	4.8	5.7	7.0
Rated PV Input Voltage (V)		330	
Max. Input Voltage (V)		600	
Start-up Voltage (V)		90	
MPPT Voltage Range (V)		90~520	
Max. Input Current (A)		2x16	
Max. Input Current (A)		2x24	
No. of MPP Trackers		2	
No. of Strings per MPP Tracker		1	
Battery Input Data			
Battery Type	Lead-acid or Lithium-ion		
Battery Voltage Range (V)	42~58		
Max. Charging/Discharging Current (A)	62.5	75.0	100.0
Charging Curve	3 Stages / Equalization		
Charging Strategy for Li-Ion Battery	Self-adaptation to BMS		
Output AC (Back up)			
Rated Output Power (kW)	3.0	3.6	4.6
Max. Apparent Output Power	4.2kVA, 60 sec	5kVA, 60 sec	6.4kVA, 60 sec
Back-up Switch Time (ms)	<10		
Rated Output Voltage (V)	1/N/PE 220/230		
Rated Frequency (Hz)	50/60		
Max. Output Current (A)	21.8	26.2	33.4
THDv (@linear load)	<2%		
Input AC (Grid side)			
Input Voltage Range (V)	187-253		
Max. Input Current (A)	20.5	24.6	31.4
Frequency Range (Hz)	45~55/55~65		
Features			
DC Connection	Stäubli MC4 EVO 2		
AC Connection	Quick Connection Plug		
Display	LED		
Communication	RS485; CAN, Optional: Wi-Fi, GPRS, LAN, BT		

MODEL	LHS-LV-3K F2	LHS-LV-3.6K F2	LHS-LV-4.6K F2
Output AC (Grid side)			
Rated Output Power (kW)	3.0	3.6	4.6
Max. Apparent Output Power (kVA)	3.3	4.0	4.6
Operating Phase	1/N/PE		
Rated Grid Voltage (V)	220/230		
Rated Grid Frequency (Hz)	50/60		
Rated Grid Output Current (A)	13.6/13.0	16.4/15.7	20.9/20.0
Max. Output Current (A)	15.0	18.2	21.0
Power Factor	>0.99 (0.8 leading to 0.8 lagging)		
THDi	<2%		
Protection			
DC Reverse-Polarity Protection	Yes		
Ground Fault Monitoring	Yes		
Integrated AFCI (DC arc-circuit protection)	Yes ¹⁾		
Protection Class/Overvoltage Category	I/II		
General Data			
Dimensions (WxHxD mm)	405x480x205		
Weight (kg)	24.2		
Operating Temperature Range (°C)	-25~60		
Ingress Protection	IP66		
Cooling Concept	Natural Convection		
Max. Operation Altitude (m)	4000		
Grid Regulation	G98, G99, VDE-AR-N-4105,VDE V 0124,C10-11,VDE 0126 UTE C 15/VFR: 2019, UNE217002, NBR16149/NBR16150, RD 1699/RD244/UNE206006/UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018 .2, IEC61727, IEC62116, IEC 60069, IEC61683, EN50530, EN50549-1 MEA, PEA		
Safety EMC / Standard	IEC/EN 62109-1/2, EN 61000-6-1/2/3/4		
Topology	High frequency insulation (for battery)		
Efficiency			
Max. Efficiency	97.0%	97.0%	97.5%
Euro Efficiency	96.2%		

1) Activation required.