VEICHI

VLS1-(6-12)K-H
Low Voltage Single-Phase Hybrid Inverter

Application Scenarios

Platform Capacity Expansion / Urban Households / Villa & Luxury Residence Users / Areas with Unstable Grid Power

Flexible Adaptability

Supports parallel operation of up to 10 units for both on-grid and off-grid applications, features an integrated generator function for versatile operations, and accepts a maximum input of 28A per string to support high-power solar panels

High Performance

Supports 160% PV oversizing for up to 110% AC output, delivers 200% peak EPS power for 60 seconds, and features a maximum 220A charging/discharging current with an 80V low start-up voltage for extended operation

Safe and Secure

Features battery terminal temperature detection, an IP65 protection rating, Type II SPDs on both AC and DC sides, and offers optional AFCI protection

Efficient Management

Smart load management includes cloud system & LCD screen control， UPS-level switchover time ＜4ms on a single unit

Model	VLS1-6K-H	VLS1-8K-H	VLS1-10K-H	VLS1-12K-H
PV Input				
Recommended Max.input power(kW)	9.6	12.8	16	19
Start-up voltage(V)	80			
Max.DC input voltage*(V)	500			
Rated DC input voltage(V)	360			
MPPT voltage range*(V)	90 ~ 425			
No.of MPP trackers	2			
No.of DC inputs per MPPT	1 + 1	2 + 2		
Max.input current(A)	18 + 18	28 + 28		
Max.short-circuit current(A)	27 + 27	42 + 42		
Battery Side				
Battery type	Lead acid / Li-ion			
Battery voltage range(V)	40 ~ 60			
Maximum charging/discharge current(A)	135	190	210	220
List of compatible batteries	VEICHI、GreenCN、BYD 、Deye、WECO、ect.			
Grid Side				
Rated output power(kW)	6	8	10	12
Max.output apparent power(kVA)	6.6	8.8	11	13.2
Max.input apparent power(kVA)	6.6	8.8	11	13.2
Max.charging power of battery(kW)	6	8	10	12
Rated AC voltage	220 / 230 Vac, L / N / PE			
Rated AC frequency(Hz)	50/60			
Max.output current(A)	28.7	38.3	47.8	57.3
Power factor	-0.8 lagging ~ 0.8 leading			
Max.total harmonic distortion	< 3% (of nominal power)			
Back-up Side				
Rated output power(kW)	6	8	10	12
Max.output current(A)	28.7	38.3	47.8	57.3
UPS switching time(ms)	< 4 ms			
Rated output voltage	220 / 230 Vac, L / N / PE			
Rated output frequency(Hz)	50/60			
Voltage harmonic distortion	< 3% (of nominal power)			
Efficiency				
Max.efficiency(%)	97.6%			
European efficiency(%)	96.5%			
Protection				
Integration	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, AC Output Overvoltage Protection AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter, Power Network Monitoring, Island Protection Monitoring Earth Fault Detection, DC Input Switch			
Over voltage category	PV:II Main:III			
General Data				
Dimensions [W×H×Dmm]	411×631×236			
Weight(kg)	28.6		30	31
Protection degree	IP65			
Topology	Transformerless			
Operating Temperature Range(℃)	-25 to +60℃ (>45 ℃ derating)			
Relative Humidity(%)	5 to 95% (condensing)			
Operating Altitude(m)	< 3000			
Cooling	Intelligent Air Cooling			
Noise Level(dB)	<45			
Display	LED+LCD			
Communication	LED + LCD / CAN, RS485, CT, NTC, WiFi / (4G, LAN Optional)			
Safety Certification	IEC 62109、IEC 61000			
Grid Connection Certification	EN 50549-1/10、IEC 61683、IEC 61727、IEC62116			