VEICHI

VLT1-(10-15)K-H Low Voltage Three-Phase Hybrid Inverter

Application Scenarios

Platform Capacity Expansion / Villas & Luxury Residences / Large Self-Built Homes / Small Farms / Integrated Solar-Storage-Charging Compact Charging Stations

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 30A 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 10 seconds, and features a maximum 290A charging/discharging current

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 ＜6ms on a single unit

Model	VLT1-10K-H	VLT1-12K-H	VLT1-15K-H
PV Input			
Recommended Max.input power(kW)	16	19.2	24
Start-up voltage(V)	160		
Max.DC input voltage*(V)	800		
Rated DC input voltage(V)	550		
MPPT voltage range*(V)	200 ~ 700		
No.of MPP trackers	2		
No.of DC inputs per MPPT	2 + 2		
Max.input current(A)	30 + 30		
Max.short-circuit current(A)	36 + 36		
Battery Side			
Battery type	Lead-acid or Lithium-ion		
Battery voltage range(V)	40 ~ 60		
Maximum charging/discharge current(A)	220	250	290
List of compatible batteries	VEICHI、GreenCN、BYD 、Deye、WECO、ect.		
Grid Side			
Rated output power(kW)	10	12	15
Max.output apparent power(kVA)	11	13.2	16.5
Max.input apparent power(kVA)	11	13.2	16.5
Max.charging power of battery(kW)	10	12	15
Rated AC voltage	220 / 380 , 230 / 400， 3 L / N / PE		
Rated AC frequency(Hz)	50/60		
Max.output current(A)	15.9	19.2	24
Power factor	-0.8 lagging ~ 0.8 leading		
Max.total harmonic distortion	< 3% (of nominal power)		
Back-up Side			
Rated output power(kW)	8	10	12
Max.output current(A)	15.9	19.2	24
UPS switching time(ms)	< 6ms		
Rated output voltage	220 / 380 , 230 / 400 , 3 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]	422 × 658 × 254 (Excluding Connectors and Brackets)		
Weight(kg)	45		
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)	≤ 55		
Display	LED+LCD		
Communication	RS485/CAN/WIFI / (4G, LAN Optional)		
Safety Certification	IEC 62109、IEC 61000		
Grid Connection Certification	EN 50549-1/10、IEC 61683、IEC 61727、IEC62116		