

SMART GRID-TIE MICRO INVERTER

APHV Series



APHV-700/800/1000W
conversion efficiency reaches up to 97%+.

FUNCTIONS



High-precision MPPT PV Fast Charging
Real-time capture of maximum power point, ultra-high conversion efficiency of over 97%+.



Aluminum alloy housing
Streamlined, lightweight design with an IP67-rated enclosure.



Grid-connected Inverter Output
Suitable for single crystal/polycrystalline/thin film modules, with peak efficiency exceeding 97%+.



LAN high-speed anti-backflow control
The anti-backflow control adopts the internal LAN control mode, and the high-speed control prevents the backflow output.

FEATURES



The latest DAB full-bridge topology technology is adopted to achieve high power density and flexible energy management capabilities, which can effectively improve power generation efficiency (peak efficiency is as high as over 98%).



All-round protection functions: overvoltage and undervoltage protection, overfrequency and underfrequency protection, overload protection, and anti-islanding function.



The mobile phone remote monitoring function can realize the functions of turning on and off the inverter, adjusting the output power, data analysis, power statistics, etc.



Built-in high-precision MPPT can quickly capture and locate the optimal operating point of the I-V curve, with a maximum power tracking efficiency of up to 99.9%.



Built-in temperature detection ensures stable operation in extreme temperature environments, and the AI intelligent temperature control management function effectively improves safety and service life.



Anti-backflow control function: It utilizes high-speed anti-backflow control via an internal LAN, allowing a single anti-backflow meter to control up to nine inverters within the same network to achieve high-speed anti-backflow regulation.

TUYA Monitoring System



Smart Life



Technical Specifications

MODEL	APHV-700	APHV-800	APHV-1000
DC Input			
Max Solar Panel Input Power	2*435W	2*500W	2*625W
MPPT Voltage Range (Module Open Circuit Voltage)	80-230V		
Starting Voltage	>80V d.c.		
Working Voltage Range	80-230V d.c.		
Maximum Input Current	2*9A	2*10A	2*13A
Maximum Input Short Circuit Current	2*11A	2*12A	2*15A
Maximum Feedback Current Of The Array	0A		
AC Output			
Maximum Output Power	700W	800W	1000W
Rated output current (A)	@230V 3.1A	@230V 3.5A	@230V 4.4A
Nominal Output Voltage Range	@230V a.c. (e.g. Europe)		
Nominal Frequency Range	50Hz/47.5~51.5Hz; 60Hz/57.5~61.5Hz		
Power Factor	>0.99 default , 0.85 leading ... 0.85 lagging		
Total harmonic distortion (@nominal power)	≤3%		
Maximum Number Of Connections Per Branch	@230V 10 Pcs		
Efficiency			
Peak Microinverter Efficiency	98.3%		
CEC Weighted Efficiency	97.6%		
Nominal MPPT Efficiency	99.8%		
Night power consumption (mW)	0		
Mechanical Data			
Ambient Temperature Range(°C)	-40 to +60°C		
Dimensions(W×H×D)	230×200×42 mm		
Weight	3.25Kg		
Enclosure Rating	Outdoor-IP67		
Cooling	Natural Convection- No Fans		
Features			
Communication	Built-in Wi-Fi & Bluetooth		
Monitoring	Smart Life		
Compliance	VDE-AR-N 4105:2018, VDE 0124-100:2020, VFR 2019, IEC/EN 61000-6-1/2/3/4,IEC/EN 62109-1/-2,IEC/EN 61000-3-2/-3		