



ENV Hybrid Solar Inverter

ENV 4/5K

Benefits

Smart & Efficient

- Save surplus electricity; increase self-use rate of PV generation
- Dual energy storage design; batteries can be charged by PV&AC
- Lead-acid battery and lithium battery can be configured flexibly
- Charging control and contravariant integrated design
- Compatible with off-grid and on-grid mode

Easy Operation

- Wi-Fi/Ethernet/GPRS/RS485 multiple communication mode for selection
- Settable peak-to-trough period; auto peak-shift
- Local/remote monitoring via PC or mobile phone
- Capacitive sensing key operation and LCD display, Man-machine interaction for more convenience and more stability

Safe & Reliable

- High ingress protection; applicable to outdoor installation
- 3 stages/2 stages charging control; extend battery lifetime
- Natural convection to lower single point of failure

Technical Data

ENV 4/5K

Model	ENV 4K	ENV 5K
DC Input	4200	5200
Max Input Power [W]		
Max Input Voltage [V]		580
MPPT Voltage Range [V]		90~550
Starting Voltage [V]		120
Min Input Voltage [V]		80
Max Input Current PV1/PV2 [A]		11/11
Number of DC Input/MPPT		2/2
DC Switch		Integrated
Battery Parameters		
Battery Type		Lead-acid battery/lithium battery
Rated Input Voltage/Voltage Range [V]	50/50	48/42~58
Max/Rated Charging Current [A]	100	100
Min Battery Capacity [AH]		
Charging Mode Control		3-stages/2-stages
Grid Parameters	3680 ¹ /4000	4600 ² /5000
Rated Output Power [W]	16/17.4	20/21.7
Rated Output Current [A]		
Rated Grid Voltage/Range [V]		220,230,240/180~280
Rated Grid Frequency/Range [Hz]		50,60/±5
Power Factor		>0.99
Total Harmonic Distortion of Current		<3%
AC Output [Back-up Mode]	3680W/4000VA	4600W/5000VA
Rated Output Power		
Output Voltage [V]		220/230/240*[1±1%]
Output Frequency [Hz]		50/60±0.02
Total Harmonic Distortion of Voltage	6000VA (150% 10s)	7500VA (150% 10s)
Overload (Battery Mode)	6000VA (150% 1min)	7500VA (150% 1min)
Overload (Grid Mode)		
Efficiency		
Max Efficiency		97.6%
Euro Efficiency		97.0%
MPPT Efficiency		>99.5%
Protection		
AC Short-circuit Protection		Integrated
Overload Protection		Integrated
DC Overvoltage/Undervoltage Protection		Integrated
AC Overvoltage/Undervoltage Protection		Integrated
AC Overfrequency/Underfrequency		Integrated
Over Thermal Protection		Integrated
Island Protection		Integrated
Peak-to-trough Period Setting		Integrated
Interface		
PV Input		MC4/H4
Battery		Terminal Blocks
AC Output		Terminal Blocks
Display		LCD
Communication Mode		RS232 & 2*RS485 [standard] ; Wi-Fi / GPRS / Ethernet [optional]
General data		
Topology		Transformerless
Ingress Protection		IP65
Ambient Temperature		-25~60°C (45°C~60°C with derating)
Humidity		0%~100% (Non-condensing)
Altitude		2000m
Noise		<25dB
Cooling Method		Natural convection
Dimension (W*H*D)		470mm*470mm*200mm
Weight		30kg
Certificate		CE&VDE&SAA
Warranty		5 years

Note: 1.Meet the requirements that on-grid current can not exceed 16A 2.Meet the VDE-ARN-N 4105 Single phase on-grid power; it can not exceed 4600VA