

ES Uniq Series

8-12kW | Single Phase | 2 MPPTs
Hybrid Inverter (LV)

The ES Uniq Series is a dedicated single-phase hybrid inverter engineered for residential applications, delivering cost-effective energy storage solutions with a capacity ranging from 8 to 12kW. Tailored for households, this inverter is adaptable to both lithium and lead-acid batteries, enabling the creation of comprehensive energy storage systems.

This inverter is designed to work seamlessly with 182mm modules, providing a 200% oversizing capacity. Crucially, it can manage up to a 200% overload, ensuring dependable performance, especially during peak usage. It facilitates the parallel connection of up to 16 inverters for both on-grid and off-grid operations, making it well-suited for expanding energy requirements. Moreover, the ES Uniq inverter facilitates generator management and allows for the storage of energy generated by generators.



COMING
SOON



Smart Control & Monitoring

- Smart load control
- Backup with UPS-level switching <10ms



Friendly & Thoughtful Design

- Plug & Play installations
- Elegant and compact design



Superb Safety & Reliability

- Optional AFCI¹
- IP65 ingress protection
- Optional Type II SPD on the DC side¹



Flexible & Adaptable Applications

- Max. 16A DC input current per string
- Up to 200% DC input oversizing
- Parallel connection capability for increased output power

¹: Optional functions or devices are purchased separately.

Technical Data	GW8000-ES-C10	GW10K-ES-C10	GW12K-ES-C10
Battery Input Data			
Battery Type	Li-Ion / Lead-acid		
Nominal Battery Voltage (V)	48		
Battery Voltage Range (V)	40 ~ 60		
Max. Continuous Charging Current (A)	160	200	240
Max. Continuous Discharging Current (A) ^{*1}	160 (176 at 10min)	200 (220 at 10min)	240 (264 at 10min)
Max. Charging Power (W)	8000	10000	12000
Max. Discharging Power (W)	8800	11000	13200
PV String Input Data			
Max. Input Power (W)	16000	20000	24000
Max. Input Voltage (V)	600		
MPPT Operating Voltage Range (V)	60 ~ 550		
Start-up Voltage (V)	58		
Nominal Input Voltage (V)	360		
Max. Input Current per MPPT (A)	32 / 16	32 / 32	32 / 32
Max. Short Circuit Current per MPPT (A)	48 / 24	48 / 48	48 / 48
Number of MPP Trackers	2		
Number of Strings per MPPT	2 / 1	2 / 2	2 / 2
AC Output Data (On-grid)			
Nominal Apparent Power Output to Utility Grid (VA)	8000	10000	12000
Max. Apparent Power Output to Utility Grid (VA)	8800	11000	13200
Max. Apparent Power from Utility Grid (VA)	16500	16500	16500
Nominal Output Voltage (V)	220 / 230 / 240		
Output Voltage Range (V)	170 ~ 280		
Nominal AC Grid Frequency (Hz)	50 / 60		
AC Grid Frequency Range (Hz)	45 ~ 55 / 55 ~ 65		
Max. AC Current Output to Utility Grid (A)	40	50	60
Max. AC Current From Utility Grid (A)	75		
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)		
Max. Total Harmonic Distortion	<3%		
AC Output Data (Back-up)			
Back-up Nominal Apparent Power (VA)	8000	10000	12000
Max. Output Apparent Power (VA)	8800 (16000 at 10s)	11000 (20000 at 10s)	13200 (24000 at 10s)
Max. Output Current (A)	40	50	60
Nominal Output Voltage (V)	220 / 230 / 240		
Nominal Output Frequency (Hz)	50 / 60		
Output THDv (@Linear Load)	<3%		
AC Data (Generator)			
Nominal Apparent Power from AC generator (VA)	8000	10000	12000
Max. Apparent Power from AC generator (VA)	11000	12000	12000
Nominal Output Voltage (V)	220 / 230 / 240		
Output Voltage Range (V)	170 ~ 280		
Nominal AC generator Frequency (Hz)	50 / 60		
AC generator Frequency Range (Hz)	45 ~ 55 / 55 ~ 65		
Max. AC Current From AC generator (A)	50.0	54.5	54.5
Nominal AC Current From AC generator (A)	36.4 / 34.8 / 33.3	45.5 / 43.5 / 41.7	54.5 / 52.2 / 50.0
Nominal Output Current (A)	36.4 / 34.8 / 33.3	45.5 / 43.5 / 41.7	54.5 / 52.2 / 50.0
Efficiency			
Max. Efficiency	97.6%		
European Efficiency	96.2%		
Max. Battery to AC Efficiency	95.5%		
MPPT Efficiency	99.9%		
Protection			
PV String Current Monitoring	Integrated		
PV Insulation Resistance Detection	Integrated		
Residual Current Monitoring	Integrated		
PV Reverse Polarity Protection	Integrated		
Battery Reverse Polarity Protection ^{*2}	Optional		
Anti-islanding Protection	Integrated		
AC Overcurrent Protection	Integrated		
AC Short Circuit Protection	Integrated		
AC Overvoltage Protection	Integrated		
DC Switch	Integrated		
DC Surge Protection ^{*3}	Type III (Type II Optional)		
AC Surge Protection	Type III		
AFCI	Optional		
Remote Shutdown	Integrated		
General Data			
Operating Temperature Range (°C)	-35 ~ +60		
Relative Humidity	0 ~ 95%		
Max. Operating Altitude (m)	3000 (>2000 derating)		
Cooling Method	Smart Fan Cooling		
User Interface	LED, WLAN + APP		
Communication with BMS	CAN		
Communication with Meter	RS485		
Communication with Portal	LAN / WiFi / 4G		
Weight (kg)	29		
Dimension (W x H x D mm)	560 x 445 x 226		
Topology	Non-isolated		
Ingress Protection Rating	IP65		
Mounting Method	Wall Mounted		

*1: The max. transient discharging current is especially based on the off-grid scenario.

*2: This function is only for Brazil market.

*3: SPD Type II is only for Brazil market.

*: Please visit GoodWe website for the latest certificates.

*: All pictures shown are for reference only. Actual appearance may vary.

*: As a part of our policy of continuous improvement, we reserve the right to alter design and specifications without further notice.