QI Series
Inverter/Charger

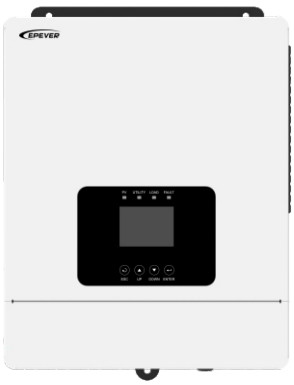
Overview

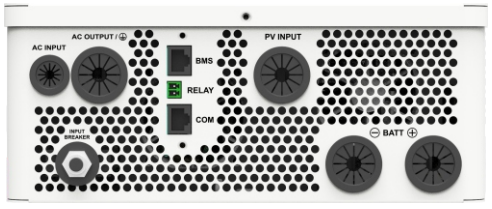
The QI series inverter charger is a residential energy storage system that integrates grid/generator charging, solar charging, utility bypass, inverter output, and intelligent energy management.This series features advanced DSP control technology, ensuring superior quality, stability, and reliability. With flexible configuration options, users can seamlessly switch between solar energy and utility power, optimizing energy utilization for maximum efficiency.

Designed to enhance power supply reliability, the QI series is superb option for solar and utility/generator hybrid power generation systems, delivering highly stable and dependable electricity for residential needs.

Features

- **Compact & Versatile Design**
  Smart energy management; Pure sine wave output
- **Flexible Operation**
  Battery mode / Non-battery mode for different scenarios
- **Optimized PV Utilization**
  MPPT tracking efficiency >99.5%
- **UPS-Level Fast Transfer**
  Switching time < 10 ms for critical loads
- **Flexible Charging Control**
  Adjustable battery charge/discharge current
  Configurable utility charging current and power
  Smart generator control with auto start-stop and charging
- **Extended Battery Life**
  Energy-saving mode + Low-voltage disconnect
- **Easy Monitoring & Control**
  Large color LCD for real-time status
  One-touch AC output on/off
- **Remote Monitoring Ready**
  Isolated RS485, optional WiFi/TCP modules
  Remote monitoring + firmware upgrade
  Built-in BMS communication for lithium battery management
- **Optional Data Logging**
  Up to 25,000 historical records (operational traceability)
- **Designed for Diverse Climates**
  Operating temperature: -20°C to 50°C





Technical Specifications

Model	QI1012-0610C	QI1021-0415C	QI1522-0515C
Battery (DC)			
Battery type	Lithium battery/Lead-acid battery		
Voltage range	10.6-16V	21.2-32V	24V
Rated voltage	12V	24V	21.2 ~ 32V
Max. charging current	90A	45A	70A
Max. utility charging current	60A	30A	50A
Max. PV charging current	60A	40A	50A
PV Input (DC)			
Max. input power	1,000W	1,280W	1,500W
Max.input voltage	95V	145V	145V
Max. PV input current	50A	35A	30A
MPPT voltage range	12-76V	23-116V	23-120V
Number of MPPTs	1		
Number of Strings per MPPT	1		
Utility Input			
Rated input power (charging+bypass)	1,500W		2,250W
Rated input voltage	220VAC/230VAC	110VAC/120VAC	220VAC/230VAC
Input voltage range	170-280VAC	80-140VAC	170-280VAC
Input frequency range	45-65Hz		
Inverter Output			
Rated power	1,000W		1,500W
Transient surge output power	2 Times rated power (5s)		
Output voltage level	220VAC	110VAC	230Vac±3%
Output voltage waveform	Pure sine wave		
Output frequency level	50Hz	60Hz	50/60Hz
THDu	< 3%		≤3%
Switch time	< 10ms		
Environmental Parameters			
Operating temperature	-20°C to 50°C		
Storage temperature	-25°C to 60°C		
Relative humidity	< 95% (N.C.)		
Altitude	4,000m (> 2,000m Derating)		
Ingress protection	IP20		
Mechanical Parameters			
Dimensions (L x W x H)(mm)	380 × 265 × 110		417 × 293 × 100
Weight（kg）	8		7.2
Others			
Display	3.5 inch LCD		2.8 inch LCD
Certifications	EN IEC 61000-6-2; EN IEC 61000-6-4; EN IEC 61000-3-2; EN 61000-3-3; IEC 62109-1; IEC 62109-2		