

Low Voltage Three-Phase Hybrid Inverter



Application Scenarios

Households, Large Villas, Supermarkets, Shopping Malls, Small Farms, Studios, Critical Load Backup, Areas with Unstable Power Grids

Flexible Adaptability

- On-chip intelligent and dynamic load management
- LCD display for real-time monitoring
- UPS-level transfer time, <6s

Safe and Secure

- IP65 protection rating
- Intelligent terminal temperature detection
- AC/DC side equipped with Type II SPDs
- AFCI (optional)

High Performance

- Up to 160% PV overloading capability
- Up to 200% EPS power output for 60 seconds
- Maximum charge/discharge current of 290A

Efficient Management

- Supports parallel connection of up to 10 units
- Multiple control modes to meet diverse needs
- Compatible with diesel generators
- Maximum MPPT current of 30A

Specification

| Model | GS-LV-12K-3P | GS-LV-15K-3P |
|---------------------------------------|--|--------------|
| PV Input | | |
| Recommended Max.input power(kW) | 19.2 | 24 |
| Start-up voltage(V) | 160 | 160 |
| Max.DC input voltage*(V) | 800 | 800 |
| Rated DC input voltage(V) | 550 | 550 |
| MPPT voltage range*(V) | 200 ~ 700 | 200 ~ 700 |
| No.of MPP trackers | 2 | 2 |
| No.of DC inputs per MPPT | 2 + 2 | 2 + 2 |
| Max.input current(A) | 30 + 30 | 30 + 30 |
| Max.short-circuit current(A) | 36 + 36 | 36 + 36 |
| Battery Side | | |
| Battery type | Lead-acid or Lithium-ion | |
| Battery voltage range(V) | 40 ~ 60 | |
| Maximum charging/discharge current(A) | 250 | 290 |
| Grid Side | | |
| Rated output power(kW) | 12 | 15 |
| Max.output apparent power(kVA) | 13.2 | 16.5 |
| Max.input apparent power(kVA) | 13.2 | 16.5 |
| Max.charging power of battery(kW) | 12 | 15 |
| Rated AC voltage | 220 / 380 , 230 / 400 , 3 L / N / PE | |
| Rated AC frequency(Hz) | 50/60 | |
| Max.output current(A) | 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) | 12 | 15 |
| Max.output current(A) | 19.2 | 24 |
| UPS switching time(ms) | < 6 | |
| 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) | ≤38.5 | |
| Protection degree | IP65 | |
| Topology | Transformerless | |
| Operating Temperature Range(°C) | -25 ~ +60(>45 derating) | |
| Relative Humidity(%) | 5 ~ 95 (No condensation) | |
| Operating Altitude(m) | < 3000 | |
| Cooling | Intelligent Redundant Fan 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 | |