

Single Phase Hybrid Inverter

Hybrid inverters can convert direct current into alternating current and store energy in batteries. Can be used to optimize self-consumption. Batteries can store it for future use or feed it into the public grid. The working mode depends on the photovoltaic energy and user preferences. For example, during peak electricity usage periods, inverters can prioritize the use of electricity from batteries to reduce the burden on the power grid. When the electricity price on the grid is low, inverters can store excess electricity for future use.



Product Core Highlights



Maximum charging and discharging current of 120A battery



Maximum parallel operation of 16 units



MPPT current 15A, supporting high-power components



The critical load UPS and off grid switching time is less than 10ms



Support integration of diesel and electricity



Fanless natural heat dissipation

| Product Model | ESS1-3K1P-02-LV | ESS1-3.6K1P-02-LV | ESS1-4.6K1P-02-LV | ESS1-5K1P-02-LV | ESS1-6K1P-02-LV |
|--|----------------------------|-------------------|-------------------|-----------------|-----------------|
| Input DC(PV) | | | | | |
| Recommended max.PV power | 5kW | | 5.5kW | 8kW | |
| Max.input voltage | 580V | | | | |
| Rated input voltage | 350V | | | | |
| Start-up voltage | 120V | | | | |
| MPPT voltage range | 90-520V | | 120-520V | | |
| Max.input current | 15A/15A | | | | |
| Max.short circuit current | 22.5A/22.5A | | | | |
| MPPT number/Max.input strings number | 2/2 | | | | |
| Input/Output oc(Battery) | | | | | |
| Battery type | Lead-acid/Li-ion | | | | |
| Battery voltage range | 42-58V | | | | |
| Max.charge/discharge power | 3kW | | 5kW | | |
| Max.charge/discharge current | 72A | | 120A | | |
| Communication Mode | RS485/CAN | | | | |
| Output Ac | | | | | |
| Rated output power | 3kW | 3.6kW | 4.6kW | 5kW | 6kW |
| Max.output power | 3.3kW | 4kW | 4.6kW | 5.5kW | 6.6kW |
| Max.apparent output power | 3.3kVA | 4kVA | 4.6kVA | 5.5kVA | 6.6kVA |
| Rated output current | 13.6A | 16.4A | 20.9A | 22.7A | 27.3A |
| Max.output current | 15.1A | 18.2A | 23.2A | 25.2A | 30A |
| Switch time of grid-connected and off-grid | <10ms | | | | |
| Rated grid output voltage/frequency | L/N/PE 220V/230V 50Hz/60Hz | | | | |
| Power factor | 0.8 leading ...0.8 lagging | | | | |
| THDv(@linear load) | <3% | | | | |
| THDi | <2% | | | | |
| Input AC | | | | | |
| Max.apparent input power | 3.3KVA | 4KVA | 4.6KVA | 5.5KVA | 6.6KVA |
| Max.input current | 15.1A | 18.2A | 23.2A | 25.2A | 30A |
| Rated grid input voltage/frequency | L/N/PE 220V/230V 50Hz/60Hz | | | | |
| Efficiency | | | | | |
| Max.efficiency | 97.50% | | | | |
| Standard | | | | | |
| Safety | IEC62109-1/-2 | | | | |
| EMC | EN61000-6-1/EN61000-6-3 | | | | |
| Basic parameters | | | | | |
| Dimensions (W*H*D) | 362mmx546mmx252mm | | | | |
| Cooling concept | Natural | | | | |
| Weight | 21.5kg | | | | |
| Degree of protection | IP66 | | | | |
| Operating ambient temperature | -25~+60 C (>45 derating) | | | | |
| Max.operation attitude | 3000m | | | | |
| Communication Mode | RS485/WIFI/GPRS/LAN | | | | |