ZGR PCS GRID
ADVANCED ENERGY STORAGE

ZGR PCS GRID has advanced grid stabilization and regulation functions

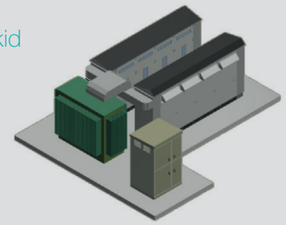
ZGR PCS GRID is a three-phase inverter with the latest bidirectional technology. The objective of the equipment is to convert the energy of the grid into energy in batteries and return it when there is energy demand.

This system facilitates the integration of renewable energies and allows reducing investments in the grid to improve its stability or demand growth.

Thanks to its different operating modes, ZGR PCS GRID offers grid operators and other grid agents an integral tool for a more flexible energy distribution by regulating power, voltage and frequency, guaranteeing the availability of the electrical grid; it also has Black-Start function, increasing the manageability of the energy within the installation. In addition, ZGR PCS GRID inverters can be integrated into a container-type solution providing the necessary flexibility and robustness to power generation systems. This type of integral solutions guarantees the operation and monitoring of the installation at all times, with a considerable reduction of the operation and installation costs.

Container solutions are a perfect solution for large-scale storage projects and are specially designed to meet the most demanding specifications and to operate under adverse environmental conditions.

Skid

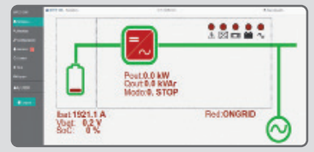


Container

Characteristics

- Automatic operation modes:
  - Frequency control
  - Black-Start (island mode)
  - Active energy reserve
  - Voltage control
  - Active / Reactive power control
- Low harmonic distortion, HF filter integrated
- Quick response to set point changes
- Wide range of working temperatures, from 0ºC to +50ºC
- Scalable, parallel equipments of 300 kVA
- AC protections
  - Short-circuits and overcharges
  - Overvoltages and low voltages
- DC protections
  - Overvoltage
- AC and DC isolator integrated
- Galvanic isolation*
- Local monitoring via LCD screen
- Remote monitoring via Web Server
- Supports various communications standards: SNMP, TPC/IP
- Other communication standard on demand: IEC 104, etc.

Communication gateway integrated. It enables the communication via Web Server (http). The Web Server provides full access to all information of ZGR PCS GRID: voltage and current measures, alarms, configuration, etc.



TECHNICAL SPECIFICATIONS		
Model	ZGR PCS GRID 150	ZGR PCS GRID 300
ELECTRICAL CHARACTERISTICS		
AC nominal voltage	150 kVA	300 kVA
AC nominal voltage	3 x 400 V	
Nominal frequency	50 / 60 Hz	
Power factor	1 adjustable ± 0.8 (without exceeding the apparent power of the inverter)	
Phase nominal current	217 A	435 A
AC current distortion	< 3 % THD at nominal power (1)	
Battery voltage	600 – 850 Vdc (2)	
DC maximum current	257 A	515 A
Peak efficiency	97 %	
Battery charging current limitation	Configurable	
COMMUNICATIONS		
Monitoring	Web interface, LCD control panel, LED signalling	
Communications	SNMP, Ethernet	
MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS		
Protections	AC surge, AC low voltage, oven and under frequency, DC surge	
Cooling	Forced ventilation	
Range ambient temperature	-10 ºC ~ +50 ºC	
Degree of protection	IP20	
Operating altitude	< 1000 m without power loss	
Relative humidity	0 a 95 % without condensation	
Dimensions (HxWxD)	800 x 2150 x 600 mm	
Approx. Weight	360 kg	450 kg
STANDARDS		
Marks	CE (3)	
General directives	IEC 62909-1, IEC 62477-1+AMD1, CISPR-11, CISPR-11, UNE 217002, UNE 206007-1 IN	

(1) For THDV < 1% and nominal power
(2) The voltage of the battery must not exceed this value in any case
(3) With isolation transformer and external filter

To customize the equipment consult ZIGOR
These specifications may change without notice

Use case