

ZGR-PCS3000/4500 IEC

BIDIRECTIONAL BATTERY CHARGER

ZGR-PCS3000/4500 guarantees **Max Power up to 50°C** throughout DC voltage range **975-1500V**.

ZGR-PCS3000/4500 integrates advanced grid stabilization and regulation functions.

ZGR-PCS 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.

Thanks to its different operating modes, ZGR-PCS3000/4500 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 Grid Forming and Black-Start functions, increasing the manageability of the energy within the installation. In addition, outdoor solutions are a perfect solution for large-scale storage projects.

Characteristics

- Operational modes:
 - Frequency control.
 - Black-Start (island mode).
 - Active energy reserve.
 - Voltage control.
 - Active / Reactive power control.
 - Grid Forming.
 - Inertia emulation
- Quick response to set point changes.
- Wide range of working temperatures, from -20°C to +60°C.
- Scalable, parallel equipment's.
- AC protections:
 - Short-circuits and overcharges.
- DC protections:
 - Short-circuits (fuse).
 - Overvoltage.
- AC and DC breaker integrated.
- Remote monitoring via Web Server.
- Communication standard: Modbus TCP/IP.
- Other communication standard on demand: SNMP, IEC 104... etc.



Applications



TECHNICAL SPECIFICATIONS		
Model	ZGR-PCS3000	ZGR-PCS4500
Power modules	4	6
DC INPUT		
Max power voltage range (Pmax)	975 - 1500 V	
Max DC voltage, V dc max	1500 V	
Max input current, Idc	3080 A	4620 A
Max short circuit current, Isc	250 kA	
Max N° input (Up to)	16	28
Overvoltage category	OVC II	
AC OUTPUT		
Nominal Power with cos phi = (@ 50°C)	3000 kW	4500 kW
Nominal output current, Iac	2508 A	3762 A
Nominal voltage	690 Vac ± 10%	
THDi	<3% at nominal power	
Power Factor range	0 - 1 lead / lag (configurable)	
Grid frequency AC / range	50 Hz ±5 Hz	
Maximum short circuit current, Isc (Breaking capacity)	65 kA	
Maximum fault current (Ipeak 5 mseg)	6500 A	9750 A
Output overcurrent electronic protection (2 seg)	3008 A	4512 A
Output overcurrent protection (<500 mseg)	5016 A	7524 A
Overvoltage category	OVC III	
EFFICIENCY		
Max	98,8% ± 0,1%	
PROTECTIONS		
DC connection protection	Fuse + DC breaker	
AC connection protection	AC breaker	
DC surge protection	Surge arrester, type II	
AC surge protection	Surge arrester, type II	
Ground fault monitoring	Isolation monitoring	
Degree of protection: (according to IEC 60529)	Outdoor - IP55	
PHYSICAL AND ENVIRONMENTAL		
Dimensions (H x W x L)	2529 x 2014 x 2850 mm	2529 x 2014 x 4053 mm
Approx. Weight	5250 Kg	6200 Kg
Self-consumption (stand-by)	< 250 W	
Internal auxiliary power supply	Integrated transformer	
Operating temperature range	-20°C - +60°C (Max power up to 50°C)	
Noise emissions	<65 dB @ 10m	
Max. relative humidity (without condensation)	0% to 95%	
Protection class	Class I	
Max. operating altitude (without derating / with derating)	2000 m / 4000 m	
Air consumption	16000 m3 / h	24000 m3 / h
DC connection	Connection for cable terminal for each inlet (one per pole)	
AC connection	Connection for cable terminal for each inlet (one per phase)	
Enclosure colour	RAL 7035	
COMMUNICATIONS		
Communications	Ethernet, Modbus TCP	
CERTIFICATIONS & COMPLIANCE		
Standards	UNE-EN IEC 62109-1; UNE-EN IEC 62109-2; CISPR 11/EN 55011 + AMD1 + AMD2; EN 61000-6-2; NTS UE 2016/631 Rev 2.1; NTS P.O.12.2 SENP; EN IEC 62477-1; UNE 217002	

*Specifications subject to change