

ZGR SOLAR CTRh 3300

CENTRAL INVERTER

The **ZGR SOLAR CTRh 3300** guarantees high performance in PV plants medium and large size.

The ZGR SOLAR CTRh 3300 modular inverters have been specifically designed to take advantage of the performance and power density in medium and large PV plants.

It has a great power density per unit volume, making possible a significant reduction of space in the surface area required for the implementation of PV Inverters in utility-scale plants.

Another very important feature is its reactive power regulation and its capabilities regarding communications between inverters and centralized systems of control and supervision.

ZGR SOLAR CTRh 3300 inverters adapt to different regulations to comply with the requirements for response to voltage drops without disconnection.

They are perfect for PV Utility projects Medium - Large scale and are specifically designed for operate under severe weather conditions.



Applications



Characteristics

- Maximum Power Point Tracker (MPPT)
- High energy efficiency > 99.8%
- Very low harmonic distortion, THD < 3%
- Selectable power factor.
- Anti-island protection with automatic disconnection.
- Quick response to change in set point.
- Wide range of working temperatures, from -20 °C to +60 °C
- Scalable and modular through power stacks.
- AC Protections:
 - Short circuits and overloads
 - Over voltages and voltages drops
 - Over frequency and frequency drops
- IP55 Protection Rating
- Operation at altitude up to 4000 m.
- Low-cost maintenance
- Remote monitoring.
- Support for tension sags.
- Protection against:
 - Polarity - reverse
 - Short circuits
 - Overvoltages

TECHNICAL SPECIFICATIONS

Model	ZGR SOLAR CTRh 3300
INPUT [DC]	
MPPT range	950 - 1350 V
MPPT number	1-2 (configurable on demand)
Minimum input voltage, V _{dc min}	950 V
Maximum input voltage, V _{oc max}	1500 V
Maximum input current, I _{dc}	3158 A
Short circuit current, I _{sc}	4737 A
Number of inputs	Up to 24 protected by one pole
DC fuses size	Fuse NH2 160 A, 200 A, 250A (Screwable)
OUTPUT [AC]	
Rated power [cos phi = 1 (50°C)]	3000 kW
Maximum output current, I _{ac}	2510 A
Rated voltage	690 V ± 10%
THDi	<3% at rated power
Grid frequency	50 Hz / 60 Hz (± 5 Hz)
Short circuit current, I _{sc}	50 kA
EFFICIENCY	
Max / European / Californian	98,9 % / 98,7 % / 98,6%
PROTECTIONS	
DC connection point	Fuse + DC breaker
AC connection point	AC breaker
DC surge protection	Surge arrester, type II
AC surge protection	Surge arrester, type II
Ground fault monitoring	GFDI / (Optional isolation monitoring)
Degree of protection (according to IEC 60529)	IP55
ENVIRONMENTAL AND MECHANICAL CHARACTERISTICS	
Dimensions (Height x Width x Length)	2529 x 2014 x 2850 mm
Weight	5250 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	<60 dB @10m
Max. relative humidity (without condensation)	0 % a 95 %
Max. operating altitude (without derating / with derating)	2000 m / 4000 m
Air consumption	8000 m ³ / h
EQUIPMENT	
DC connection	Connecting bar for cable terminal at each inlet
AC connection	Three busbars, one per phase
Color of the enclosure	RAL 7035
COMMUNICATIONS	
Communications	Ethernet, Modbus TCP
REGULATIONS	
Certifications and Standards	EN 5501 + AMD1 + AMD2; UNE-EN IEC 62109-1; UNE-EN IEC 62109-2; EN 61000-6-2 & EN 61000-6-4; NTS 631 P.O.12.2

These specifications may change without notice