ZGR SOLAR HITC
CENTRAL HYBRID THREE-PHASE INVERTERS

zgr

always ON

ZGR SOLAR HITC
solar inverters are the ideal solution for off-grid applications.

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The range of ZGR SOLAR HITC hybrid solar inverters are designed to meet the energy needs where the power grid does not reach, for rural electrification and/or electrification of remote areas.

The main characteristic of ZGR SOLAR HITC hybrid inverters is that it is able to generate electricity from different resources: photovoltaic, batteries, grid or generator set.

The three-phase hybrid inverters of ZGR SOLAR HITC can aggregate energies from different sources and simultaneously control all energy contributions from a single system.

APPLICATIONS

ISOLATED GRIDS

CHARACTERISTICS

- » Wide range of input voltage (350-700 Vdc) for solar panels
- » Very low harmonic distortion, THD< 3%
- » Grid input or Generator set
- » Photovoltaic field input through internal charger
- » Back up battery
- » Degree of environmental protection IP21

- » Galvanic isolation through transformer
- » Protection against
  - Reverse - polarity
  - Short-circuits
  - Overvoltages
  - Isolation faults
- » Local monitoring via LCD
- » Remote monitoring via Web Server

CONNECTIVITY AND MONITORING

INTEGRATED WEB SERVER

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

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TECHNICAL SPECIFICATIONS

Model	ZGR HITC 30	ZGR HITC 50	ZGR HITC 100	ZGR HITC 100+	ZGR HITC 150
AC OUTPUT ELECTRICAL CHARACTERISTICS					
Nominal active power	30 kW	50 kW	100 kW	100 kW	150 kW
Output nominal voltage	208 / 220 / 240 or 380 / 400 / 440 Vac (3F + N)				380 / 400 / 440 V
Frequency range	50 – 60 Hz				
Maximum current per phase	83 A / 46 A	139 A / 76 A	278 / 152 A	278 A / 152 A	228 A
AC surge protection	Yes				
Short-circuit protection	Yes				
FV INPUT ELECTRICAL CHARACTERISTICS					
FV field recommended power	32 kWp	52 kWp	105 kWp	105 kWp	157 kWp
Maximum input current	76 A	125 A	250 A	250 A	375 A
Input numbers	1				
FV voltage range	350~700 Vdc				
FV optimum generation voltage range	420~470 Vdc				
DC open circuit maximum voltage	880 Vdc [1]				
DC overvoltage protection	Yes				
Reverse – polarity connection protection	Yes				
GENERATOR SET INPUT ELECTRICAL CHARACTERISTICS					
Nominal power	≥ 70 kVA	≥ 95 kVA	≥ 180 kVA	≥ 280 kVA	≥ 340 kVA
Input nominal voltage	208 / 220 / 240 or 380 / 400 / 440 Vac (3P + N)				
Frequency range	50 / 60 ± 5 Hz				
Maximum current per phase	139 A / 76 A	194 A / 106 A	389 A / 213 A	595 / 345 A	725 A / 420 A
Set start control	Dry contact (230 Vac / 4 A max.)				
Short-circuit protection	Yes				
BATTERY					
Nominal voltage	340 Vdc				
Voltage range	300~420 Vdc				
Charge maximum current	50 A	50 A	100 A	300 A	300 A
Discharge maximum current	105 A	173 A	350 A	350 A	510 A
Short-circuit protection	Yes				
Reverse – polarity connection protection	Yes				
Over-discharge protection	Yes				
Charge management	Yes				
OTHERS					
Efficiency	>96 % transformer included. Between renewable resource and AC output				
Control panel	2 lines display, keyboard and 3 signalling LEDs				
Monitoring	Auto checking / Data and events log / Web interface				
Communications	Ethernet – Web Server, SNMP				
AC and DC isolators	Integrated into the system				
Isolation transformer	Integrated into the system				
Cooling	Forced ventilation				
Range ambient temperature	-10~50 ºC				
Degree of environmental protection	IP21				
Operating altitude	< 1000 m without power loss				
Relative humidity	0 ~ 95% without condensation				
Dimensions (mm)	1950 x 1200 x 730		2150 x 1600 x 630	2150 x 2400 x 630	
Approx. Weight	850 kg	850 kg	1320 kg	1420 kg	1480 kg
STANDARDS					
Marks	CE				
General directives	2006/95/CEE-93/68/CEE, 2004/108/CEE				
Regulations	IEC 62909-1, IEC 62109-1, IEC 62109-2, IEC 61000-6-4, IEC 61000-6-2, UNE 217002, UNE 206007-1 IN				

(1) This voltage must not be exceeded in any case.
* To customize the equipment consult ZIGOR.
* These specifications may change without notice.

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