

PRODUCT SPECIFICATIONS GIH INVERTERS

Product Specification Range of Grid Intractive Hybrid PCU	3KVA/48V	5KVA/48V
Mains Input Mode		
Mains AC Low Cut	170 ± 5V	170 ± 5V
Mains AC Low Cut Recovery	10V Hysterisis from > Low Cut Voltage	
Mains AC High Cut	265 ± 5V	265 ± 5V
Mains AC High Cut Recovery	10V Hysterisis from < High Cut Voltage	
Input Frequency Range	47-53Hz	
Output voltage in Mains mode	Same as Mains Input	
Output frequency in Mains mode	Same as Mains Input	
Mains Export Mode		
Inverter output voltage in Grid export mode	Same as Mains Voltage	
Full Scale Export Power	2400W	4000W
Export Power Control	Can be Done from Front Panel by using Load Following Mode Load Following ON: Zero Export Activated Load Following OFF: Export Mode Activated	
Battery		
Battery Type (user setable parameter float voltage,bulk voltage and charging current etc.as per battery specification)	TUBULAR VRLA FLAT PLATE	
DC Input Voltage (Nominal)	48V	
Battery Quantity (12V 100Ah to 220Ah)	4	
Float Charging Voltage (Tubular/ VRLA/ Flat Plate)	13.2/13.5/13.4 (per Battery) ± .5V	
Bulk Charging Voltage(Tubular/ VRLA/ Flat Plate)	14.5/13.8/13.7 (per Battery) ± .5V	
Boost Charging Voltage Range for Tubular and SMF Batts	Provided above	
Bulk Absorption Battery Voltage	Same as above	
Battery Deep Discharge Recovery	YES	
Default Charging Current By Grid	Half of Solar Chargng Current	
Max Charging Current By PV	60.0 ± 1.0A	100.0 ± 1.0A
Backup Mode		
Output Voltage	230 ± 2% V	
Output Frequency	50 ± 0.5 Hz	
Output Waveform	PURE SINE WAVE	
Maximum No Load losses	<100W	<150W
Max Nominal output current	10.5 A± 1 Amp.	17.5 A ± 1 Amp.
Low Battery Warning	11.1V (per Battery) ± 0.2V	
Low Battery Cut	10.8V (per Battery) ± 0.2V	
Change Over Time From Mains To Inverter	≤ 10 msec	≤ 10msec
Change Over Time From Inverter To Mains	≤ 10 msec	≤ 10msec
Cooling	FORCED COOLING BY FAN	
Protections		
Overload in Backup Mode	YES	
Short Circuit in Backup Mode	YES	
Short Circuit in Mains Mode	Mains MCB Trip	
Over Temperature	YES	
Reverse Battery	YES	
Grid/Load/PV Surge Protection	YES (MOV Provided)	
Solar Charge Controller		
Solar Charge Controller Type	MPPT	
Max Panel Wattage That Can Be Connected	3300W	5500W
No. of Input Channel	1	1
Max. input Current per Channel (Maximum Isc)	(30 ± 1)A	(50 ± 1)A

Maximum PV Voltage Voc	(190 ± 5)V	
Minimum PV Voltage Vmp	70V	
Maximum PV Voltage Vmp	(160 ± 5)V	
Maximum Battery Current	60A	100A
MPPT Charger Efficiency (Peak)	94%	
Reverse PV Protection	YES	
Reverse Current Flow to PV	NO	
Switching Element(MPPT Charger)	IGBT	
DOD (Depth of Discharge)	as per battery voltage setting (1.8V/cell)	
Modes of Operations		
Modes Available (User Settble)	i). Hybrid with Export ii). Hybrid with Zero Export iii). Stand alone (Similar to MPPT PCU)	
Display and Alarms		
	1. Battery Voltage & Current	
	2. PV Voltage & Solar charger O/P Current	
	3. Solar charger O/P kW , Total KWh	
	4. Mains Voltage & Mains Power, Frequency	
	5. Load Current & Frequency	
	6. Load Power	
	7. Battrey Charging/ Discharging Status	
	8. Time & Date	
	9. User Settings & Factory Settings	
LCD Status Display		
LCD Fault/Protection Status Display	i) Overload	
	ii) Over Current	
	iii) Battrey Over/Under Voltage	
	iv) Mains Over/Under Voltage	
	v) System Over Temperature	
Buzzer	YES	
Safety		
HV Test Input to Earth	YES	
HV Test Output to Earth	YES	
IR Test Input to Earth	YES	
IR Test Output to Earth	YES	
Environment		
Operating Temperature	0°C to 50°C	
Storage Temperature	10°C to 70°C	
Operating Relative Humidity	5-95% (Non-condensed)	
Dimensions		
Dimensions in mm(LXWXH)	As Mutual agreed	
Box Dimensions in mm (LXWXH)	As Mutual agreed	
Weight in Kg	Net Weight	
	Gross Weight	