

ADVANCED SOLAR HYBRID HOME INVERTERS



CONVENIENCE

Solar Hybrid DSP uses both Solar Power as well as A.C. Mains for charging the battery bank according to priority settings which provides the users uninterrupted power supply always.

SALIENT FEATURES

- ▶▶ Smart load sharing compatibility.
- ▶▶ Inbuilt Solar Charge Controller with high charging current
- ▶▶ Three stage solar charging (TSSC), suitable for all type of battery charging .
- ▶▶ PV availability, battery charging from solar power indication with display on LCD.
- ▶▶ Deep discharge battery charging from A.C. Mains as well as solar .
- ▶▶ Battery type charging selection (Tubular /Flat /SMF/GEL)
- ▶▶ Dual Modes of operation (EC/NC)
- ▶▶ Smart grid charging with Enable/Disable option.
- ▶▶ User selectable UPS and Normal Mode.
- ▶▶ Resettable AC circuit breaker which reduce service calls.
- ▶▶ Compatible with D.G. sets.
- ▶▶ Protections against short-circuit ,Mains Fuse Trip , Overload, Reverse Phase, Low Battery, Reverse Battery And Over Temperature (With proper indications with buzzer as well as display on LCD available).
- ▶▶ User friendly, feather touch control and selection switches with LED indication on front panel.
- ▶▶ Battery charging even at low voltage.
- ▶▶ External D.C. Fuse (Easy to replace).

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TECHNICAL SPECIFICATIONS

Model	700VA 12 V DC	900VA 12VDC	1100VA 12V DC	1600VA 24V	2100 VA 24 VDC
System Rating (Name Plate)	700	900	1100	1600	2100
Full Load Input Current ±2A	<45Amp.	<55Amp.	<65Amp.	<50Amp.	<63Amp.
Operating DC voltage	12	12	12	24	24
PV Input voltage max Voc	25	25	25	45	45
Maximum Solar array power	500	500	500	1000	1500
Max PV modules of 150/250/300Wp	2	2	2	4	4
Parallel strings	2	2	2	4	4
Max current rating of SCC	40 Amp DC				
Efficiency of SCC	>90 %				
Type of Control	PWM				
Nominal Output voltage in inverter mode	220V ± 7V V AC				
Output supply phases	Single				
Nominal Frequency (in inverter mode)	50 ± 1 HZ				
Output voltage regulation	195 -220 V				
Output THD (v) at linear load	<5%				
Crest Factor	3:01				
Overload Capacity 125%	6 (6 Retry)				
Cooling Fan ON at temp	60 (or 45% of rated Load or Solar I>15A) °C				
Cooling Fan Off at temp	55 (or 40% of rated Load or Solar I<10A) °C				
Battery low voltage cut per battery	10.5 ± 0.1 (With 4 Retry)				
Batter low cut recovery per battery through Solar	12.7 ± 0.1 (or Mains or reset switch on front panel)				
Max Battery charging voltage by Grid per battery	"14.4 ± 0.1 Settable for Tub-14.4V/28.8V, GEL-14.2V/28.4V, SMF-14.2V/28.4V Settable for Tub-13.8V/27.6V, GEL-13.8V/27.6V, SMF-13.8V/27.6, Flat-13.6V/27.2V"				
Max Battery charging current by Grid in Hi/Lo option	"16/12 ±2A Settable for Tub-12/16A, GEL-10/16A, SMF-10/14A, Flat-14/10"				
Max Battery charging voltage by Solar per battery	"14.4 ± 0.1 Settable for Tub-14.4V/28.8V, GEL-14.2V/28.4V, SMF-14.2V/28.4, Flat-14.2V/28.4V Settable for Tub-13.8V/27.6V, GEL-13.8V/27.6V, SMF-13.8V/27.6, Flat-13.6V/27.2V"				
Battery High cut with Alarm per battery	14.8±0.1 VDC				
Battery High cut Recovery per battery	14.3±0.1 VDC				
Max Battery charging current by Solar	20±2A VDC				
Max Charging current to battery by Solar+Grid	20±2A VDC				
Grid low cut voltage (IT load/Normal load)	180/100 ± 10 VAC				
Grid low cut voltage recovery (IT load/Normal load)	190/110 ± 10 VAC				
Grid high cut voltage (IT load/Normal load)	265/280 ± 10 VAC				
Grid high cut voltage recovery (IT load/Normal load)	255/270 ± 10 VAC				
Grid charging Enable/Disable	Yes				
Selection of UPS Load/Normal Load	Yes				
Selection of Operating Mode	"HC-Charging current = 20A ±1A Solar + Mains till battery boost voltage with maximum Solar Sharing. System will not be disconnect Grid in any case EC-Charging current= 20A ±1A Solar + Mains till boost voltage, System will cut off the mains when battery voltage reaches boost voltage level and output load is transferred to Solar + Battery and Grid reconnected <=11.8V/11.2V per Battery"				
Output Voltage at No load at rated Battery voltage	220 VAC				
Noise @ 1 meter	<50 DB				
Protections	Overload, Battery Deep discharge, Battery Overcharge, Short circuit (1retry),Battery Hi, PV Reverse, Over Temp				
Display parameters	"PV Current, Battery voltage, Mains voltage, UPS ON/OFF, UPS Mode, Symbol of sun (Smily) if solar available, (non smily symbol in absense of solar), Load percentage (0 to 150%), over load, short ckt, fault, battery low, over temp, PV reverse, Fuse trip, (Customised LCD)"				
Indication	Manis status, Mains Charging, Solar Charging, Tast switch Status				
Operating Temperature range	0-50				
Storage Temperature range	0+65				
RH	95				
Front panel details (MCB, Display, Selection switch etc)	Display with tact switch				
Rear panel details (MCB, Terminals etc)	O/P Socket, Fuse, Mains & Battery Cable and Fan				
Enclosure protection	20				
Changeover time from inverter to mains in UPS mode	<10 Msec				
Changeover time from mains to inverter in Normal mode	<40 Msec				
WEIGH & DIMENSIONS IN MM					
Dimensions360 x 345 x 185	342 x 320 x 195	360 x 345 x 185	360 x 345 x 185	405 x 345 x 240	380 x 350 x 33
Net Weight in Kg.	9.1	9.95	11.2	17.25	19
Gross Weight in Kg.	9.8	10.80	12	18.6	21