

SINE- WAVE INVERTER

INDUSTRIAL (Three Phase)



Our Sine-wave Inverter (Three Phase) are much perfect for solar system. It has inbuilt sine wave inverter and PWM charger/SMPS charger in a single unit. It is specially designed to keep battery healthy for longer time period.

Convenience

Solar Hybrid PCU(off grid) uses both solar power as well as A.C. Mains for charging the battery bank according to priority setting providing the users availability of uninterrupted power supply.

Salient Features

- ▶ User friendly Wide LCD display for battery user interface.
- ▶ Smart Load sharing compatibility.
- ▶ Monitoring/data logging feature for better system information at user end (optional)
- ▶ Selectable charging current with high charging (HI) and Normal Charging (Low).
- ▶ PV availability, battery charging from solar power indication with solar power priority
- ▶ User friendly, control and selection switches with LCD indication on front panel
- ▶ Protections such as Mains MCB Trip, Overload, Short circuit, Battery low, over temperature indication with buzzer as well as display on LCD available
- ▶ Power Saving through No Load Shutdown Feature
- ▶ Maximum Solar Power Utilization during charging and backup mode
- ▶ PV pole reversal protection indication on LCD
- ▶ Deep discharge battery charging from A.C. Mains as well as Solar
- ▶ No humming Noise (Silent UPS)
- ▶ AC Mains available, battery charging/charged and it voltage indication provided on LCD display
- ▶ Triple Modes of operation (EC/SC/QC)
- ▶ Grid bypass option available.

2.5KVA | 3 KVA | 3.5 KVA | 5 KVA | 7.5 KVA | 10 KVA

Also Available in
SNMP & GPRS
(Simple Network Management Protocol)

Toll Free No. 1800-313-0746

www.lentoindia.com

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Technical Specifications

Model Name	Units	Eco-Smart 3000	Eco-Smart 3500	Eco-Smart 4000	Eco-Smart 6000	Eco-Smart 6000	Eco-Smart 8500	Eco-Smart 12000	Eco-Smart 12000
System rating	VA	2500	3000	3500	5000	5000	7500	10000	10000
Full Load Input Current ±2A	Amp	63/46	63/48	63	104	50	75/63	77	48
Operating DC voltage	Volts	36/48	36/48		48	96	96/120	120	192
PV input									
Maximum Solar PV Power	Vdc		75/90	75/90		180		180/235	300
Maximum Solar array power	Wp	2500	3000	3500	5000	5000	7500	10000	10000
Max PV modules	Nos	10	12	14	16	20	30	30	40
Modules in series	Nos	3/2	3/2	2	2	4	4/5	5	8
Parallel strings	Nos	5	4	7	8	5	6	6	5
Type of solar charger SCC	Adc	50.0	50.0	50.0	70.0	PWM 50.0	70/50	70.0	50.0
Efficiency of SCC	%					>90			
Type of solar charger									
Nominal Output voltage in inverter mode	Vac			220V ± 7V				230±7V	
Output supply phases									
Nominal Frequency (in inverter mode)	Hz					50 ± 1			
Frequency (Min - Max during Grid by pass) UPS mode	Hz					47-53			
Frequency (Min - Max during Inverter mode)	Hz					40-60			
Output voltage regulation	%			195-220				195-230	
Output THD (v) at linear load	%					<5%			
Crest Factor									
Overload capacity 125%	Sec					3:01			
Overload capacity 150%	Sec					6 (6 Retry)			
Cooling Fan ON at temp	°C	60 (or >45%load and Solar >15A)					Continuous Run		
Cooling Fan Off at temp	°C	55 (or <40%load and Solar <10A)					Continuous Run		
Peak efficiency of inverter	%	86	82	89	88	87	88	89	88
Battery low voltage alarm per battery	Vdc					10.8 ± 0.2			
Battery low voltage cut per battery	Vdc					10.5 ± 0.2 (4 Retry)			
Batter low cut recovery per battery through Solar	Vdc					12.7 ± 0.2 (Or mains and Front Switch)			
Max Battery charging voltage by grid per battery	Vdc					14.4±0.2V			
Max Battery charging current by grid in Hi/Lo option	Adc					18±2			
Max Battery charging voltage by Solar per battery	Vdc					14.4±0.2V			
Battery High cut with Alarm per battery	Vdc					14.8±0.2			
Battery High cut Recovery per battery	Vdc					14.3±0.2			
Max Battery charging current by Solar	Adc					20±2			
Max Charging current to battery by Solar+Grid	Adc					20±2			
Grid low cut voltage (IT load/Normal load)	Vac					180/100 ± 10			
Grid low cut voltage recovery (IT load/Normal load)	Vac					190/110 ± 10			
Grid high cut voltage (IT load/Normal load)	Vac					265/280 ± 10			
Grid high cut voltage recovery (IT load/Normal load)	Vac					255/270 ± 10			
Grid charging Enable/Disable						Yes			
Selection of UPS Load/Normal Load						Thru switch			
QC-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 <=11.5V per Battery. SC-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 <=12.0V per Battery or Solar fails or if Solar <5A check if Solar < discharging connect grid									
Selection of Operating Mode									
Output Voltage at 100% load at Nominal Battery voltage	Vac			218±5				228±5	
Input current at no load at Nominal Battery voltage	Adc	2.2	2.2	2	2.2	2.2	2	2	2.2
Noise @ 1 meter	dB					<50			
Protections Batt. Low, Batt. High, Overload, Short circuit, Over temp, PV reverse, MCB Trip/Fuse Trip									
LCD Display parameters PV Current, Bty voltage, Mains voltage, PCU on-off, UPS Mode on-off, Solar On-off, Load percentage (0 to 150%), Load status (on solar, battery or grid), Charging status, over load, short ckt, fault, battery low, over temp, PV reverse, MCB trip, (Alpha numeric 16x2)									
Operating Temperature range	°C					0-50			
Storage Temperature range	°C					0 +65			
Max RH	%					95			
Front panel details (MCB, Display, Selection switch etc) Display with Rocker Switch									
Rear panel details (MCB, Terminals etc) Fan, mcb, rotary, terminal, switch									
Changeover time from inverter to UPS mode	ms					<10			
Changeover time from inverter to mains in Normal mode	ms					<10			
Changeover time from mains to inverter in UPS mode	ms					<10			
Changeover time from mains to inverter in Normal mode	ms					<50			
MCB in battery path						Yes			
Fuse in battery path						NO			
MCB in Solar path						Yes			
Fuse in Solar Path						NO			
TDR (For Compressive Load)		NA					Provided		
Input Protection Through MCB									
Dimension (LxWxH) in mm		470x440x610	470x440x610	470x440x610	470x440x610	500x495x660	600x500x740	600x500x740	600x500x740
Net Weight		38	38	40	52	52	72	92	92
Gross Weight		40	40	42	56	56	76	96	96

Technical Specifications can be changed without prior notice.

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