

**TECHNOLOGICAL SMART
SOLAR INVERTER****Advanced DSP SINEWAVE****INBUILT LITHIUM POWER
BACKUP****BATTERY LIFE 10-12 YEARS**

KEY FEATURES

- Range includes all types of Solar Inverters having compatible battery pack
- Sleek in design which will save space
- No maintenance and higher no of years warranty and life of battery
- Battery chargeable by Grid and Solar
- Charging up to 3 times faster than a normal Inverter
- No Acid Fumes, Maintenance free
- Lower power consumption than normal Inverter
- Longer life of battery up to 2000 cycles



TECHNICAL SPECIFICATIONS

| S. No. | Parameter | Unit | Rating | | | | | |
|--------|---|------|---|------------|------------|------------|------------|--|
| | | | L- iON500 | L- iON1500 | L- iON2500 | L- iON3500 | L- iON5500 | |
| 1 | Model name (Name Plate) | | L- iON500 | L- iON1500 | L- iON2500 | L- iON3500 | L- iON5500 | |
| 2 | System rating | VA | 300 | 1000 | 2000 | 3000 | 5000 | |
| 3 | Battery Type (Inbuilt) | | Lithium Ion (LFP) | | | | | |
| | | AH | 18 / 30 | 60 | 42 / 54 | 42 | 100 | |
| 4 | Full Load Input Current ±2A | Amp | 20 | 63 | 63 | 52 | 80 | |
| 5 | Operating DC voltage | V | 12.8 | 12.8 | 25.6 | 51.2 | 48 | |
| 6 | Input voltage max Voc | Vdc | 25 | 25 | 45 | 90 | 90 | |
| 7 | Maximum Solar array power | Wp | 100 | 660 | 1340 | 2680 | 4000 | |
| 8 | Switching element in SCC | | MOSFET | | | | | |
| 9 | Type of control | | Micro | | | | | |
| 10 | Type of solar charger | | PWM | | | | | |
| 11 | Max current rating of SCC | Adc | 10 | 40.0 | | 50.0 | 50.0 | |
| 12 | Efficiency of MPP tracking | % | NA | NA | | | | |
| 13 | Efficiency of SCC | % | >90 | >90 | | | | |
| 14 | Switching element in Inverter | | MOSFET | | | | | |
| 15 | Type of Control | | PWM | | | | | |
| 16 | Nominal Output voltage in inverter mode | Vac | 220V ± 7V | | | | | |
| 17 | Output supply phases | | single | | | | | |
| 18 | Nominal Output Frequency of Inverter | Hz | 50 ± 1 | | | | | |
| 19 | Frequency (Min - Max during Grid by pass) UPS mode | Hz | 47-53 | | | | | |
| 20 | Frequency (Min - Max during Grid by pass) Inverter mode | Hz | 40-60 | | | | | |
| 21 | Output voltage regulation | % | 180-220 | | | | | |
| 22 | Output THD (v) at linear load | % | <5% | | | | | |
| 23 | Creast Factor | | 03:01 | | | | | |
| 24 | Overload capacity 125% | Sec | 6 (6 Retry) | | | | | |
| 25 | Overload capacity 150% | Sec | 2 (6 Retry) | | | | | |
| 26 | Cooling Fan ON at temp | °C | 60 (or 45% of rated Load or Solar I>15A) | | | | | |
| 27 | Cooling Fan Off at temp | °C | 55 (or 40% of rated Load or Solar I<15A) | | | | | |
| 28 | Peak efficiency of inverter | % | < 82 | | | | | |
| 29 | Battery low voltage alarm per battery | Vdc | 11.0 ± 0.2 | | | | | |
| 30 | Battery low voltage cut per battery | Vdc | 10.8 ± 0.2 (With 4 Retry) | | | | | |
| 31 | Batter low cut recovery per battery through Solar | Vdc | 12.7 ± 0.2 (or Mains or reset switch on front panel) | | | | | |
| 32 | Max Battery charging voltage by grid | Vdc | 14.4 ± 0.2 | | 28.8± 0.4 | | 57.6± 0.8 | |
| 33 | Max Battery charging current by grid | Adc | 6A±1A | | 15A±2A | | 14A±2A | |
| 34 | Max Battery charging voltage by Solar per battery | Vdc | 14.3 ± 0.2 | | | | | |
| 35 | Battery High cut with Alarm per battery | Vdc | 15.0±0.2 | | | | | |
| 36 | Battery High cut Recovery per battery | Vdc | 14.6±0.2 | | | | | |
| 37 | Max Battery charging current by Solar | Adc | 6A±1A | | 15±2A | | 14±2A | |
| 38 | Max Charging current to battery by Solar+Grid | Adc | 12A±1A | | 15±2A | | 14±2A | |
| 39 | Grid low cut voltage (IT load/Normal load) | Vac | 180/100 ± 10 | | | | | |
| 40 | Grid low cut voltage recovery (IT load/Normal load) | Vac | 190/110 ± 10 | | | | | |
| 41 | Grid high cut voltage (IT load/Normal load) | Vac | 265/280 ± 10 | | | | | |
| 42 | Grid high cut voltage recovery (IT load/Normal load) | Vac | 255/270 ± 10 | | | | | |
| 43 | Grid charging Enable/Disable | | yes | | | | | |
| 44 | Selection of UPS Load/Normal Load | | yes | | | | | |
| 45 | Selection of Operating Mode | | <p>HC-Charging current = 15A ±1A Solar + Mains till battery boost voltage with maximum Solar Sharing. System will not be disconnect Grid in any case</p> <p>EC-Charging current= 15A ±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(1KVA/2KVA) & 11.5V For 3KVA</p> | | | | | |
| 46 | Input current at no load at Nominal Battery voltage | Adc | <1 | | < 2 | | | |
| 47 | Noise @ 1 meter | dB | <50 | | | | | |

| | | | | | | | |
|----|---|-----|--|--|-----------------|-----------------------|--|
| | Protections | | Overload, Battery Deep discharge, Battery Overcharge, Short circuit (1 retry), Battery HI, PV Reverse, Over Temp, Fuse/ MCB Trip, battery reverse. | | | | |
| 48 | LCD Display parameters | | LED | PV Current, Battery voltage, Mains voltage, UPS ON/OFF, UPS Mode, Symbol of sun (Smily) if solar available, (non smily symbol in absence of solar), Load percentage (0 to 150%), over load, short ckt, fault, battery low, over temp, PV reverse, Fuse trip, (Customised LCD) | | | PV Current, Battery voltage, Mains voltage, UPS ON/OFF, UPS Mode, Load percentage (0 to 150%), over load, short ckt, fault, battery low, over temp, PV reverse, Fuse trip, (16X2 LCD) |
| 49 | Indication LEDs | | Yes | Tact switch Status | | | NA |
| 50 | Operating Temperature range | °C | 0 -50 | | | | |
| 51 | Storage Temperature range | °C | 0 +65 | | | | |
| | Max RH | % | 95 | | | | |
| 52 | Front panel details (Display, Selection switch etc) | | LED with switches | Display with tact switch | | Display with switches | |
| 53 | Enclosure protection | | IP20 | | | | |
| 54 | Changeover time in UPS mode | ms | <10 | | | | |
| 55 | Changeover time in Normal mode (Inv mode) | ms | <40 | | | | |
| 56 | Mains connection | | 3 core copper cable size 0.75sqmm, 1.5mtr length w/o TOP | | | Terminal Block 30Amp | |
| 57 | Output | | 3pin Universal socket 13A | | | Terminal Block 30Amp | |
| 58 | MCB in battery path | | SWITCH | Yes | | | Yes |
| 59 | Fuse in Solar Path | | Rated Fuse | | | Rated MCB | |
| 60 | Input Protection | | FUSE | Resettable Circuit breaker | | | Rated MCB |
| 61 | Backup @ 400Watt Load | Hrs | 1 / 1.45hrs* | 2.00 -2.15hrs | 3.3-3.45 / 4hrs | 5.30-6hrs | 10-11hrs |
| 62 | Weight without Packing | Kg | 8.5 | 20 | 32 | 53 | 54 |
| 63 | Dimension (LXWXH) without Packing | mm | 330X130X310 | 405X385X140 | 445X385X170 | 410X285X800 | 495x430x575 *Battery weight and dimension extra (Battery will be separate) |



L-iON 500 12.8V, 18AH/30AH



L-iON 1500 12.8V, 60AH



L-iON 2500 25.6V, 42AH/54AH



L-iON 3500 51.2V, 42AH



L-iON 5500 48V, 100AH/200AH



UNLIMITED POWER

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