



## ELSONIC® NITESUN® SOLAR DC LIGHTING SYSTEMS



### ELSONIC® NITESUN® -T SOLAR LIGHTING DC POWER PACKS

Compact, custom-built 12 Volt Direct Current (DC) Power Sources with built-in batteries or external batteries. These power storage generators are charged using Solar Panels and also have the facility to be charged from mains utility supplies. They can power strings of 12 to 18 Nos. of 11-Watt to 18-Watt CFL Lamps with light output from 4 to 12 Hours, depending on the battery size. Some models can also power 12 V DC Car Televisions with 7 inch to 12 inch screens. The conversion efficiency of these purely DC powered battery systems is over 95%.

Provided with independent solar charger source or dual-charging options of solar with utility-electricity supply. Typically connected to an 80-Watt Solar Panel. For faster charging, especially in areas with no utility-electricity supply, larger Solar Panels may be connected. The built-in facility with solar regulator and charge regulator-controller from AC Power source is thyristor-controlled to ensure pulsed fast-charging with dynamic cut-off from battery overcharge and excess discharge. System will automatically choose Solar charge if both AC power and Solar Power are connected and there is sufficient sunlight.

#### Standard Technical Features:-

- Built-in or external valve-regulated SMF battery for maintenance-free use up to 4 years
- Dusk-Dawn sensor-triggered switch, automatically switches on lamp at night & off during the day
- Mains Utility input at 220 Volts, 50 Hz. A.C. (or optional 110 Volts, 60 Hz. A. C.-North America)
- Solar Panel input 15% Efficiency Polycrystalline ranging from 80 Watts to 160 Watts
- Standard IP-65 plastic enclosures with option for supply of steel enclosures

All control features including automatic overcharge shut-off & excess discharge shut-off are indicated through 5 LED status indicators as follows:-

- Red LED shows AC-Power battery-charge status. When fully charged the red LED shuts off or flashes when the battery has almost reached full charge status.
- Yellow LED shows Solar-Power battery-charge status. When fully charged the yellow LED shuts off or flashes when the battery has almost reached full charge status.
- Orange LED shows AC-Utility Power connected status.
- Green LED shows automatic lamp action when external utility power fails.
- Blue LED shows Battery low status. The excess battery discharge cut-off circuit is activated thereby preventing further use till after re-charge through solar energy or mains utility.