

## ON LINE SOLAR UPS

Standard Online UPS commonly used for backup power support for computer, server, telecom and other critical equipments where un-interrupted quality power is required even when grid power is available or when there is black out.

These UPS is normally backed up by small SMF batteries for short duration support like 20 – 30 mins and for longer period needs provision of stand-by generator.

UPS are not capable of taking up normal office / domestic load like light, fan, fridge, pump, air conditioner etc. simultaneously.

ON LINE SOLAR UPS (OLS) is being developed to support longer backup and using maximum solar power thereby reducing running cost and with a capability to run mix load within its capacity.

*Also duration of operation may be unrestricted depending upon the system design.*

### Special Features :

- Un-interrupted quality power
- Solar priority battery charging
- Option for MPPT Charging & data acquisition.
- Additional gadget like stabilizer / UPS - not required
- Major savings with electricity bill.
- System can be designed for day time operation with minimum consumption of electricity from Grid cutting down electricity bill drastically.
- Duration of operation – any hours
- By-pass switch to divert load
- Both LED and LCD Display version available.
- Capable of powering computer, light, fan, fridge, pump, air conditioner etc simultaneously

### Major Advantages

- Long backup without support of generator during power cut / black out.
- Savings on capital investment on stabilizer generator and high capacity battery.
- Ideal for running day time establishment.
- Major savings on electricity bill operating day-time.
- Considerable savings on recurring cost, fuel, battery and generator maintenance.
- Enhanced system bty. life due to less charge and discharge cycle.
- Grid use is in standby mode.



## Technical Specifications

MODEL	1KVA	2KVA	3KVA	5KVA	10KVA
<b>OUTPUT PARAMETERS</b>					
Capacity	1KVA/800W	2KVA / 1600W	3KVA / 2400W	5KVA/4000W	10KVA/8000W
Power factor	0.8				
Nominal Voltage	220 – 240 V AC				
Wave Shape	Pure Sine wave				
Voltage THD	<3%				
Surge rating	150% for 10 ms, 120% for 20 sec, 110% for 1 minute.				
UPS efficiency	> 91%				
Frequency Regulation –	50 ± 0.5Hz				
Transfer time Mains to Battery / Solar	0 millisecond				
<b>BATTERY PARAMETERS</b>					
Nominal Battery voltage	24 / 48	24 / 48	48 / 96	48 / 96	120
Solar PV Voltage					
Nominal	34 / 68	34 / 68	68 / 136	68 / 136	170
Minimum	26 / 52	26 / 52	52 / 104	52 / 104	130
Maximum	46 / 92	46 / 92	92 / 184	92 / 184	230
Solar PWM Charging Current	20 – 100A (Factory Settable)				
Solar MPPT Charging Current	20 – 100A (Factory Settable)				
Battery charging by mains	Solar is unavailable and battery voltage reached 40% depth of discharge, mains will support the load and charge the battery up to its 80% capacity leaving scope for solar charging.				
<b>INPUT PARAMETERS</b>					
Configuration	1 Phase				
Nominal Voltage	220V AC				
Voltage range	135 – 270V AC				
Nominal Frequency	50 / 60 Hz				
Frequency range	40 – 60Hz				
<b>ENVIRONMENTAL PARAMETERS</b>					
Operating temperature	0 – 50 °C				
Storage temperature	- 20 to 50 °C				
Noise Level	< 45 db				
Max. utilization of solar power	<p>When battery is fully charged by solar excess power being wasted normally. In this system the inverter disconnects mains power automatically and goes into battery mode and support the load together with excess solar power and partly discharging the battery if needed.</p> <p>This feature ensures full utilization of solar power when battery is fully charged.</p>				