



Flyline Solar Hybrid Inverter(compact system)

Murickens Group, Reliable ISO 9001:2015 certified company, and it is the one of the best Kerala based Manufactures & Dealers of Solar power saving electronic Products. As we all know Sun is the Master Power of Energy but nobody is taking pain to think about the entire power of the Sun which has a direct involvement in the day-to-day affairs of every living thing and to be more precise we can convert different kinds of energy of the sunlight or sunrays for our day to day use. We the Murickens Group, always concentrating on this power convert sun energy into electrical energy .by developing some of the conversion equipment's like MG Solar Water Heaters, Flyline Solar Inverters, Flyline Solar DC Street Light System, Solar UPS, Solar Lantern etc. and have already installed thousands of fully automatic smaller and bigger solar power units all over India since 2000. For your kind information we use only the most modern technology available in the world for the manufacturing of solar power plants and arrange Ministry of New Renewable Energy (MNRE) subsidies for the solar products as per the availability.

Solar hybrid inverter refers to the inverter system that can work both in KSEB and in solar power as a two in one system. In day time it will function by solar energy by giving output and charging battery at the same time. In night times it continues its function by battery which was charged in the day time and when the battery backup is low the Hybrid inverter automatically changes over to the KSEB and the next day it automatically changes over to the solar power. The most important advantage of this system is that in the day time we can avoid KSEB current to reduce our electricity bills and this may kindly be noted that the available capacity is 650 VA to 5 KVA.

We have made a reputation in the field of solar based power units since our installation in 2000 and have done thousands of solar power unit installations in many places including Agricultural University in Malapuram, Government of Kerala, CISF 7th battalion military camp, Karipoor International Airport, ISRO Sriharikotta, Marine Fisheries Dept. of India, Vallarpadam Container Terminal (IGTPL) etc. and in many other private organizations. For the trouble free service of the system, it is very important that the installation should be undertaken by a well experienced technical person to get 100% output of the system and to avoid unnecessary expenses.

FLYLINE SINE WAVE SOLAR UPS CUM INVERTER FEATURES

► Flyline pure sine wave solar system is a solar charged automatic inverter that can be used for lighting up a house as well as powering computers and other electronic equipment's that need uninterrupted power supply. ► Separate mains on /off charger switch. ► Works with the power of solar power/AC power (KSEB line), the best way to save money and nation by using natural resource. ► Provision for connecting KSEB current and solar power. ► Attractive Designs. ► Pollution free type. ► Single Switch Operation. ► DSP based very low component cost design. ► Single sided PCB, easy to assemble without any SMD components. ► Auto resetting. ► Protection from lightning, high/Low Voltage Trip. ► Over Load Protection. ► Over Charge and Deep Discharge cut off. ► Independent Digital display for Solar or KSEB charging voltage, main voltage, inverter voltage, load etc. ► Solar charger LCD display-panel voltage, battery voltage, out current, solar in use, direct mains, saved unit - only 36 and above volt system. ► Audio and Visual Indicators. ► Can be connected to the existing wiring. ► Bridge type center aligned switching MOSFET based topology. ► No husking sound. ► It is a fully automatic built-in charging control system, no need of any manpower. ► The Special feature of the system is, when the battery is full and there is sufficient sunlight the system will automatically cut the main line off (KSEB Line) and connect the solar system. This feature is applicable only if you use the recommended capacity of solar panel and solar inverter. ► The main advantage of our built in solar charger is floating type and once it fully charges the battery, it goes to trickle charging. This will provide more battery life and can utilize 100 % efficiency of solar panel power. ► The first preference is for solar charging and when the battery is low and if there is no sufficient sunlight, there is an option for manual or automatic grid charging through separate switch. ► ISO: 9001 -2015 Certified solar power conditioner. ► An ideal unit for part time power supply with low investment.



TECHNICAL SPECIFICATION OF FLY LINE TRIPLE POWER SYSTEM: -

SL.No.	Parameter	Single Phase Unit
1	Rating	650 VA to 6000 V A
2	Input Voltage Range	180V-270 AC or Solar power 12,24,36 or 48V
3	Normal Output Voltage	230V AC
4	Output Frequency	50 Hz \pm 1 %
5	Input Frequency	45 - 55
6	Power Factor	-0.8 Lagging to unit
7	Efficiency	95%
8	Control	Digital/Analogue
9	Winding	Copper Wires
10	Wave Form	Pure Sine Wave
11	Mounting Free	Free
12	Compact in size, Can work on Generators	
13	Charging - AC or Solar Power	Floating type & Trickle charging.
14	Noise	Low Noise <50db
15	Battery	12, 24 or 48 V
16	Heat	< 40° C

FLYLINE HYBRID SOLAR PCU WORKING MECHANISM:-

System priority Stage : - solar-battery-grid

- 1) When solar energy is sufficient total output load will operate on solar Inverter. Excess solar power will charge batteries.
- 2) When solar energy is weak then inverter will take DC source from batteries to compensate the output load.
- 3) When the battery discharge level reaches 11.2 volt or below, the output load is shifted to grid and the batteries are charged with the help of solar power only.
- 4) At Day time when each battery becomes 13.5 v the output load again shifts to solar Inverter.
- 5) In 48 and above DC volt system of solar inverter - At night or when there is no sunlight the batteries reach 70% discharge level (30 % kept as a buffer) the output load is shifted to grid without any change over time. (Each battery discharging level become 1.5 v)
- 6) In 12 and 24 volt DC system of solar inverter - At night or when there is no sunlight, the output load is shifted to grid and the battery back-up is used only when there is a grid failure.
- 7) After shifting the load to grid there is an optional on –off switch (manual) to charge the battery from grid up to 13.5 volt .
- 8) At night during changeover of load from battery backup to grid supply (i.e. 70 % battery discharged) and if grid supply is absent then load is shifted to solar inverter to use buffer battery backup (i.e. balance 30 %)
- 9) By using solar power the solar charger high cut-off is 14.5 V of each battery.

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Under the name **MG** and **FLYLINE**, MURICKENS GROUP is a company with experience and credibility in the manufacture and marketing of electronic and electrical products.



MG Servo Voltage Stabilizer, Solar Water Heater, DeepFreezer, Mobile Mortuary, Mortuary Chamber etc.



Solar On Grid , Off Grid & Battery Less Grid Compensating Inverter, Solar Street Light Garden Light, Online & Off line UPS,Solar Panel, Solar Charging Controller,110V Step Down Stabilizer, Solar Battery, Modular Voltage Protector .
