

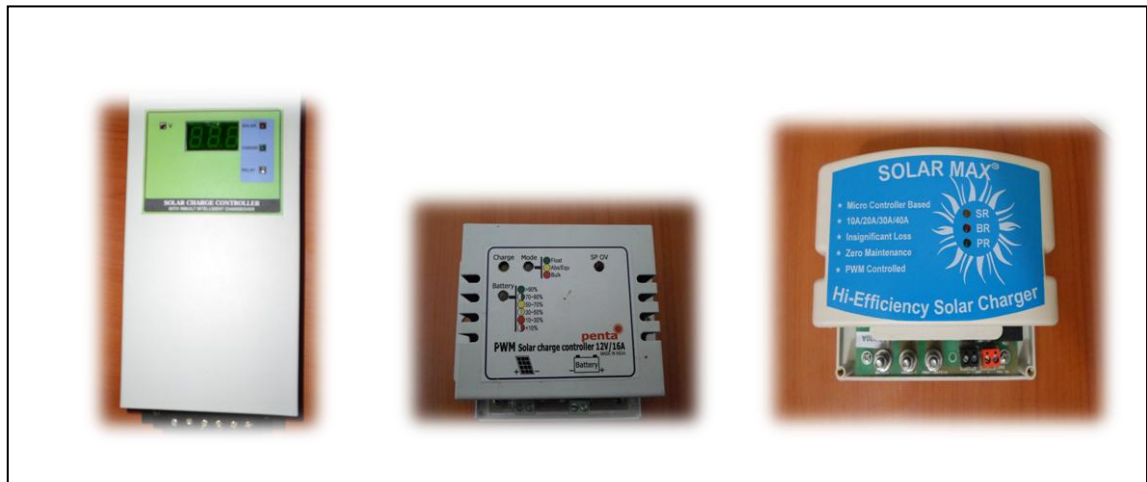
# SOLAR CHARGE CONTROLLERS:

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- Suitable for using with solar home lighting, street lighting, etc.,
- Protecting the battery against over and deep discharge of battery
- Electronic circuit more than 85%
- Low ideal current consumption
- Pure polyester powder coated MS or good quality ABS plastic body
- LED indicators for status of system

## SOLAR CHARGE CONTROLLER:

The solar charge controller of 10 amps comes with an automatic selection of 12/24V batteries and PWM (pulse width modulation) technology which reduces the dependency on the batteries while providing upto 98% efficiency. It has an inbuilt load controller with LVD (low voltage disconnect) features which ensures the safety of the attached batteries. The charge controller is also available in 12V / 6Amps.



A solar charge controller is needed in virtually all solar power systems that utilize batteries. The job of the solar charge controller is to regulate the power going from the solar panels to the batteries. Overcharging batteries will at the least significantly reduce battery life and at worst damage the batteries to the point that they are unusable.

The most basic charge controller simply monitors the battery voltage and opens the circuit, stopping the charging, when the battery voltage rises to a certain level. Older charge controllers used a mechanical relay to open or close the circuit, stopping or starting power going to the batteries.



More modern charge controllers use pulse width modulation (PWM) to slowly lower the amount of power applied to the batteries as the batteries get closer and closer to fully charged.

This type of controller allows the batteries to be more fully charged with less stress on the battery, extending battery life. It can also keep batteries in a fully charged state (called "float") indefinitely. PWM is more complex, but doesn't have any mechanical connections to break.

The most recent and best type of solar charge controller is called maximum power point tracking or MPPT. MPPT controllers are basically able to convert excess voltage into amperage. This has advantages in a couple of different areas.

Most solar power systems use 12 volt batteries, like you find in cars. Solar panels can deliver far more voltage than is required to charge the batteries. By, in essence, converting the excess voltage into amps, the charge voltage can be kept at an optimal level while the time required to fully charge the batteries is reduced. This allows the solar power system to operate optimally at all times