Overview

GPS1250 is an intelligent power management system, which provides uninterrupted power to a load by incorporating a battery charger and a seamless switch over circuit. It is designed for mission critical equipments such as EM locks, Access card readers and controllers, CCTV cameras etc. Powered by Device4U proprietary electronic circuitry design, the GPS1250 provides high-regulated power to devices. In the event of power failure, the circuitry seamlessly switches over to backup mode without any interruption to deliver power.

Features

- High efficiency
- Low noise
- Regulated power supply
- Over-voltage, under-voltage and overload protection
- Seamless switchover to backup supply during power failure
- Intelligent charging circuitry to prolong battery life
- Automatic low battery cut off
- Smart cooling fan for temperature control
- Status panel for diagnostics and maintenance
- Optional remote diagnostics module for offsite monitoring

Application

- Building Systems requiring the use of Power Supply Units – CCTV and Access Control
General Specifications

Power Supply
- Input voltage 180 ~ 264 VAC
- Output1 voltage and current 20V, 1A max*
- Output2 voltage and current 11.5V ~ 14V adjustable, 3A max*
- Efficiency is 80%
- Maximum output power is 48W
- Protection and safety features
  - Over current
  - Over power
  - Over temperature
  - Under and over voltage

Status Panel
- Green color LED indicator for AC
- Green color LED for charging
- Amber/Yellow color LED for Backup
- Red color LED for Overload
- Reset button

Controller board

Battery charger
- Battery 12V 7Ah sealed Lead acid
- Charging voltage 13.8 ~ 14.5 VDC
- Charging profile constant voltage, limited current
- Charging current 700mA max

Display
- Signal output for AC LED
- Signal output for charging LED
- Signal output for Backup LED
- Signal output for Overload LED
- Signal output for Reset status button

Fan Control
- Switch on the Fan when the load is > 50%

Switch Over Circuit
- Switch MOSFET (Fast and seamless switchover)
- Sense1 (Mains input voltage)
- Sense2 (Power supply output voltage)
- Battery protection (Battery low voltage cutoff)
During normal operation, the PSU supplies 13Vdc output to the load (through the switchover circuit) as well as 20Vdc to the charger circuit. The charger converts the 20Vdc to a constant voltage between 13.8 to 14.5Vdc at a maximum limited current of 700mA to charge the battery.

In the event of a power failure, the switchover circuit automatically senses the drop in the AC voltage and 13Vdc from the PSU and initiates a switchover to power the load through the SLA Battery. This ensures an uninterrupted supply of power to the load. The switchover circuit also incorporates a low battery voltage cut off circuit, which ensures that the battery is not drained below the recommended level of 10.5Vdc.