PC/104 DC/DC supplies provide power management for renewable energy sources in off-grid computing apps

WinSystems introduced PC/104 and PC/104-Plus integrated, “green energy” power supply modules for remote applications requiring renewable power sources. The PS394 Series of DC/DC supplies support two inputs from solar panels, wind turbines, or other DC sources. Also included is a controller for battery charging and uninterruptable power supply (UPS) operation. These products are designed for applications not able to run off the standard AC power grid. They require only convection cooling and do not require a fan or heat sink while operating from -40° to +85°C. The modules provide a complete power management solution for embedded computers by directly powering the device from one of the dual DC inputs as well as providing smart battery charging and switching to battery power when the input voltage(s) drop below operational levels. The battery charging controls support 6-V or 12-V batteries including Lead Acid, Li-Ion/Polymer, LiFePO, and SLA chemistries. The UPS feature provides a fast switchover which is free of oscillations between the two external sources and battery. Multiple options are available for setting charge times, float voltages, and charge current monitoring. The charger also has built in state-of-charge (SOC), bad battery detection, preconditioning, and end-of-charge (EOC) features as well as an optional thermistor to monitor the battery’s temperature. Maximum Power Point Tracking (MPPT) is supported for solar panels for more efficient charging during cloudy or low-light conditions.

WinSystems

817-274-7553, www.winsystems.com [1]

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[1] http://www.winsystems.com