

PS351 Power Supply Module



Features

- Ambient temperature monitoring, fan and heater control within programmable temperature ranges from -50°C
- System events logging with time and date reference
- Watchdog timer with output power control functions
- Automatic switching to a redundant power source
- Scheduled switching on/off
- Security functions for switched off system

Overview

PS351 is a PC/104-Plus power supply module optimized for use in unmanned systems operating in hard-to-reach areas, for autonomous systems powered from solar cell panels, for battery powered vehicle systems, for systems operating in extreme environments.

Technical Specifications

- Form-factor: PC/104-Plus (top side connection only)
- Input voltage: 10.5-36 V DC (40V abs. maximum)
- Input voltage transient protection: 3000 W
- Switched off state consumption current: 1 mA
- Input/output isolation: 1500 V
- Outputs:
 - +12V at 1.6A
 - +5V at 6A Total power 30W max.
 - +3.3V at 3A Total power 30W max.
- Overload and overheating protection
- Power circuits operating temperature range: -40°C to +85°C
- Control system operating temperature range: -55°C to +85°C
- Vibration: 5 g
- Single shock: 100g
- Multiple shock: 50g
- Control system:
 - Isolated (500V) from input and output control interface: RS232 or RS422 (38400 bit/s)
 - Programmable output voltage switch on/off schedule
 - Watchdog timer switching the output voltage off in case of system hang-up
 - Integrated temperature sensor
 - Integrated RTC with battery backup (for scheduled operation support)
 - System events signals routed to additional connector (input voltage below the limit, switching to power backup etc.)
- Possibility to switch system events signals to IRQ5, IRQ6, IRQ10, IRQ11 interrupts of PC/104 connector
- Cold start: at temperatures below -40°C an external heater can be used to preheat the system to the specified temperature. Output voltages are switched on when the temperature reaches -40°C
- Cooling system control: additional cooling fan speed control in function of temperature
- I2C interface connector for connection of an external temperature sensor (LM77) or a redundant power source charging unit
- Dry contact external signals input with programmable assignment
- UPS function: automatic switching to an external redundant power source on main power source failure
- Input and RTC battery voltages monitoring
- Output voltages are routed to PC/104-Plus connectors as well as to additional on-board connector
- On-board LEDs can be disabled using jumpers; connectors for external LEDs

List of deliverables

- PS351 power supply module
- CD with documentation and software
- Mating cable connectors, jumpers
- Package

Ordering Information

PS351 Configuration

PS351-01 \Options

Device Type

- PS351-01 5V at 6A, 12V at 1.6A, 3.3V at 3A; Input / Output isolation: 1500 V; UPS function; PC/104-Plus connectors.
- PS351-02 5V at 6A, 12V at 1.6A, 3.3V at 3A; Input / Output isolation: 1500 V; UPS function; Control system.
- PS351-03 5V at 6A, 12V at 1.6A, 3.3V at 3A; Input / Output isolation: 1500 V; UPS function; PC/104-Plus connectors; Heat spreading plate.

Options

- \xxx Choose available options from the table

PS351 Available Options

Coating
\COATED Protective coating

Other configurations and options are available upon request.

Example

PS351-01\COATED

5V at 6A, 12V at 1.6A, 3.3V at 3A; Input / Output isolation: 1500 V; UPS function; PC/104-Plus connectors. Protective coating

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Product specifications are subject to change without notice