power-one™
Changing the Shape of Power

PCU 5/7

Controller



The PCU 5/ 7 Controllers are used in PPS5 and PPS7 Power Systems.

Description

The Power-One Control Unit (PCU 5/7) provides monitoring and control for the PPS 5 and PPS 7 power systems. These hot-swappable controller modules supervise output voltages, currents, rectifier performance, battery condition, and breaker status. Visual notification of an alarm condition is provided with an LED. A description of the exact alarm condition is provided through an LCD. Additionally, four Form "C" contacts are provided to indicate a failure.

Features

User controls and interfaces:

- Simple menu-guided operation using front panel mounted pushbuttons and an LCD
- User-selectable alarm parameters
- Data logging of last 40 events
- SNMP interface adapter available
- RS232 interface and Form "C" dry alarm contacts
- Compatible with PowCom™ PC-based software

Intelligent battery management:

- Temperature compensation with programmable compensation factor
- Automatic and manual load testing
- Battery voltage and symmetry monitoring
- Capacity testing
- Low voltage disconnect

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Input

Voltage	18-72V DC
Current	<200 mA at 48V, <400 mA at 24V

Interface

Display	2x16 character LCD
Communication	RS232 Serial interface for remote control from a PC with PowCom software.
Indications	Green LED - Power ON Yellow LED - System warning message Red LED - System alarm
Controls	Four pushbutton controls allow menu navigation

Battery Management

Battery Disconnection	A feature that allows voltage controlled disconnection of batteries.
Boost Charging	Manual time controlled or automatic boost charging with adjustable time and voltage levels.
Battery Test	Automatic or manual testing of batteries up to four times per year. Variables include: test duration, end voltage, Ah, and allowable symmetry variation.
Symmetry Measurement	Optional tool that measures batteries for early detection of thermal runaway. Allows for separate measurements of up to three parallel battery branches, each divided into four blocks.
Temperature Compensation Charging	Allows continuous adjustment of output voltage according to battery temperature. Feature includes adjustable compensation factor and separate thresholds for alarms.
PLD	Optional feature that allows voltage or time controlled disconnection of non-essential load.

Alarms

Alarm History	The last 40 events are saved and include a time and date stamp.	
Alarm Contacts	Four potential free change over alarm contacts. Two open collector outputs for LVD.	
Alarms	High DC Voltage Low DC Voltage Load/ Battery Disc. Battery Fuse Failure DC Fuse Failure Module Failure Urgent Module Failure Main AC Failure Battery Failure Symmetry Failure High Temperature High Load	1* 1* 1* 1* 1* 2* 1* 3* 4* 4* 4* 2*

* All alarms are indicated using an LED and displayed in the LCD. The numbers represent an example of alarm routing:
1) Urgent alarm, 2) Service alarm,
3) Main AC failure, 4) Battery related failure
Alarms are configurable by changing the EPROM

Other Technical Data

Dimensions (WxHxD)	62 x 129 x 231mm (2.4 x 5.1 x 9.1in.)	
Weight	0.45kg (1.0lbs.)	
Operating Temperature	-25 to +55°C	
Storage Temperature	-50 to +85°C	
Environment	Storage: Transport: Operation:	ETS 300 019-2-1 ETS 300 019-2-2 ETS 300 019-2-3

Note: All specifications are subject to change without notification.