DESCRIPTION

ACX Advanced is a pluggable microprocessor controller that provides monitoring and control for a broad range of UNIPOWER DC Power Systems. The ACX Advanced monitors all system parameters including: DC voltage, rectifier current, rectifier temperature, system capacity, battery parameters, and circuit breaker status.

Alarm and warning notifications are indicated by front panel LEDs, and through potential free alarm contacts that allow remote signaling. External monitoring of alarms and the system is accomplished through a USB or RS232 port using PC-based PowCom™ software. The ACX Advanced has an Ethernet port allowing control over a TCP/IP network and web based support. Alarms can be mapped via SNMP traps to customer OSS (Operation Support System) platforms such as Castle Rock Computing SNMPc Network Manager™.

To meet individual site requirements, the ACX Advanced contains a Programmable Logic Units that can be used to monitor and control specified requirements. This allows individual alarm routing and logic operations to be set as actions, alarms to be triggered and outputs to be activated, based on internal or external signal monitoring, comparing and processing.

FEATURES

- User-selectable alarm parameters
- Password controlled environment
- USB or RS232* Interface
- Form "C" dry alarm contacts
- Programmable alarm routing, logic unit and analog inputs
- Energy Saving Mode (Rectifier Sleep)
- 100 Mbps Ethernet interface + web server support + SNMPv1, v2, v3
- 1000-event alarm log
- Audible Alarm
- Remote configuration upgrade
- Micro SD card data logging
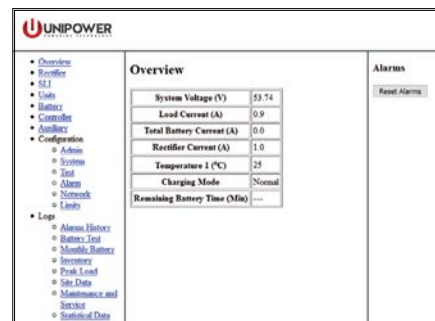- Multiple Language Support

INTELLIGENT SITE MANAGEMENT

- Supports up to 64 rectifiers as standard or 256 with 4 x 64 multiplexer board (see page 3).
- Battery tests and log
- Battery voltage and symmetry monitoring
- Remaining battery capacity measurement
- Low Voltage Disconnect
- Temperature compensation with programmable compensation factor
- Monthly data logging
- Site log tools

ORDERING GUIDE

Model	Part Number	Application
ACX Advanced With SD Card Slot	YCU.00069	Aspiro (not M22) and Guardian
ACC01 Extended *	YCU.00077	Aspiro M22

* Used for spares only

WEB INTERFACE

SAFETY CERTIFICATIONS

CAN/CSA C22.2 No 62368-1:2014
UL 62368-1:2014
EN 62368-1:2014/A11:2017

THREE YEAR WARRANTY

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Input

Voltage	18 - 60VDC
Current	< 200mA

Interface

Display	3 x 16 character LCD
Language Support	English, German, Spanish, Russian, Chinese
Internal Communication	RS485 Data Bus (64 modules max.) microSD card (up to 4GB)
External Communication	USB or RS232* interface for remote control via modem or directly from a PC with PowCom™ software. Ethernet port allowing monitoring and control over a TCP/IP network. Web browser support + SNMPv1,v2,v3.
Indications	Green LED - Power ON Yellow LED - System warning Red LED - System alarm
Signal Input	Battery current reading (via shunt) Output voltage reading Analog inputs for battery symmetry reading or general use Battery temperature sensor Load fuse failure Battery fuse failure 2 x Digital inputs
Signal Outputs	LVD / PLD disconnect (max 4*) LVD / PLD reconnect 2 x Digital outputs
Software	Site upgradeable by Flash memory

Alarms

Alarm Contacts	4 (optional 10*) potential free change-over alarm contacts
Alarms	Low/High Voltage Batteries on Discharge Overvoltage Shutdown High Load (Rectifier Capacity) Battery Test Failure Battery Symmetry Mains Failure Module Urgent Module Battery Fuse Failure Load Breaker Failure Battery/Load Disconnect High/Low Battery Temperature Temperature Probe Failure High/Low AC Voltage** 16 x Additional User Definable

Other Technical Data

Dimensions, In (mm)	3.4 W x 1.6 H x 8.9 D (85 W x 40 H x 225 D)	
Weight	0.44lb (0.2kg)	
Operating Temp.	-40 to +70°C	
Storage Temp.	-40 to +85°C	
Safety	CAN/CSA C22.2 No 62368-1:2014 UL 62368-1:2014 EN 62368-1:2014/A11:2017	
EMC	EN 61000-6-2, EN 61000-6-3, EN 300 386-2	
Environment	Storage: Transport: Operation:	ETS 300 019-2-1 ETS 300 019-2-2 ETS 300 019-2-3

Battery Management

Battery Disconnection	Allows voltage controlled disconnection of batteries.
Boost Charging	Manual time controlled or automatic boost charging with adjustable time and voltage levels.
Battery Tests	Automatic or manual testing of batteries up to six times per year with a 10 test memory. Variables include test duration and end voltage. Battery discontinuance test to ensure battery connection.
Enhanced Battery Monitoring	Monthly logging of essential battery parameters including temperature, temperature hours, current, charging voltage and symmetry voltage, Data logged for 5 years.
Site Logs	System tools developed to assist site management. Daily peak load and statistic logs available.
Symmetry Measurement	Optional tool that measures batteries for early detection of thermal runaway.
Temperature Compensation Charging	Allows continuous adjustment of output voltage according to battery temperature. Features include adjustable compensation factor and separate thresholds for high temperature alarms.
Load Shedding (PLD)	Optional feature that allows voltage or time controlled disconnection of non-essential load.

* Depending on system configuration
** Depending on rectifier used

Rectifier Management

Energy Saving Mode	Controller turns off the redundant rectifiers automatically depending on the load.

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