



Description

The Power-One Xscend™ Controller System (XCS) provides comprehensive monitoring and control for Power-One's Xscend DC power systems. This digital controller monitors total system conditions including DC voltage, rectifier current, rectifier temperature, system capacity, battery parameters and circuit breaker status.

The XCS enables data storage of system configuration information such as battery type, installation date and system commission date. Visual notification of alarm and warning conditions are indicated by front panel LEDs, while descriptions of the alarms are provided through an LCD, or as an option, may be accessed remotely through a modem or a Network Interface (PNI) module.

To meet individual site requirements, the XCS contains a logic operator that can be programmed to monitor and control specified requirements. This allows actions to be set, alarms to be triggered, and outputs to be activated based on internal and external signal monitoring, comparing and processing.

Features

User controls and interfaces:

- Simple menu-guided operation using front panel mounted pushbuttons and an LCD
- User-selectable alarm parameters
- 40 event data logging
- Password controlled environment
- Multiple language options
- RS232 Interface and Form "C" dry alarm contacts

Intelligent battery management:

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

Input

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

Interface

Display	2x20 character LCD with backlight
Internal Communication	RS485 Data Bus for communication with a maximum of 128 rectifiers and 128 sub-controllers
Internal 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 failure message
Controls	Four pushbutton controls
Signal Collection	Wide range of interface units with analog and digital input/outputs
Software	Site upgradeable by EEPROM flash
Language	Multiple language options

Alarms

Alarm History	The last 40 events are saved and include a time and date stamp.	
Alarm Contacts	6 potential free change-over alarm contacts. Two open collector outputs for LVD operation.	
Alarms	High System Voltage	1*
	Low System Voltage	2*
	Load/ Battery Disc.	4*
	Mains Error	3*
	Distribution Fuse Failure	4*
	Battery Failure	6*
	Module Failure	5*
	Battery Temp. Alarm	6*
	Symmetry Fault	6*
	Battery Fuse Failure	4*
	High Load	5*
	Battery Fuse Disc.	5*
	Urgent Module Failure	4*
	Communication Failure	5*
	Partial Load Disc.	4*
* All alarms are indicated using an LED and displayed in the LCD. The numbers represent an example of alarm routing. Sixteen additional alarms are available and are configurable by changing the PCS EEPROM.		

Other Technical Data

Dimensions (WxHxD)	483/584 x 44 x 274mm (19/23 x 1.75 x 10.8in.)	
Weight	4.94kg (11lbs.)	
Operating Temperature	-40 to +65°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

Battery

Battery Disconnection	An optional 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 with a 10 test memory. Variables include: test duration, end voltage, and amount of Ah's to be discharged during test.
Symmetry Measurement	Optional tool that measures batteries for early detection of thermal runaway. Allows for separate measurements of up to 12 parallel battery branches, each divided into four blocks.
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.
PLD	Optional feature that allows voltage or time controlled disconnection of non-essential load.
Enhanced Battery Monitoring	Monthly logging of essential battery parameters, including temperature, temp. hours, current, charging voltage, and symmetry voltage. Parameters are stored for 5 years.

Note: All specifications are subject to change without notification.