

# Smartpack



POWERFUL TECHNOLOGY

## Product Description

Smartpack is the monitoring and control unit used in all Flatpack2 and Powerpack -based DC power solutions.

The unit allows both local and remote monitoring and control via three buttons, LCD-display, USB- or RS-232 interface, as well as via modem, Ethernet, web and SNMP.

## Applications

### CAN bus communication

Smartpack utilizes a digital interface architecture (CAN bus communication). It allows the unit to support dedicated communication channel with each rectifier, providing for increased number of functions and greater flexibility.

### Modular design

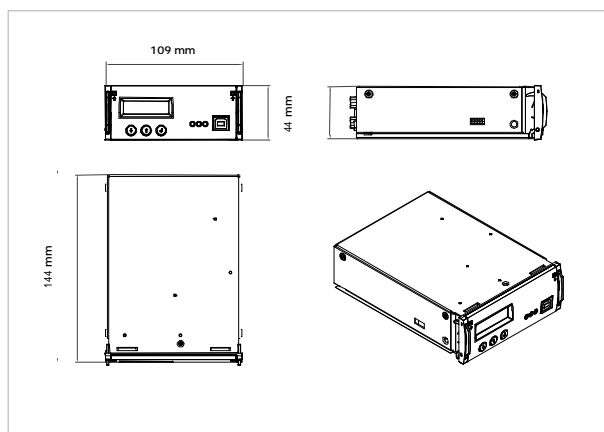
The Smartpack is extremely flexible in its expandability. Additional units connected to the CAN bus can be added to provide extended functionality and increased number of measuring points. Accordingly, system components can be set up and upgraded to meet the demand of any tailor-made power solution.

## Key features

- ü Front panel LCD and buttons for on-site service without PC. (Not on Basic Slave model)
- ü USB- or RS-232 interface for PC connection locally or remote monitoring and control via modem, Ethernet, web or SNMP.
- ü 6 user programmable relay outputs for traditional remote monitoring
- ü 6 user programmable inputs for monitoring of other equipment on site
- ü Battery monitoring and testing without site attendance
- ü Temperature compensated charging for increased battery lifetime
- ü Battery lifetime indication
- ü Password protected operator access levels
- ü Alarm/event log with time and date
- ü Windows-based PC communication software



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## Remote Monitoring / Control

From a PC running Windows-based communication software (Smartpack PowerSuite)  
With the Windows-based communication program installed on a remote computer, the system can be monitored and controlled via modem or Ethernet network.

From an NMS via Ethernet (SNMP)  
With an SNMP agent connected to the Smartpack, the system can be monitored and controlled from a Network Management System (NMS) through Ethernet on Simple Network Management Protocol (SNMP).

Using alarm relays (voltage free contacts)  
6 internal failsafe alarm relays provide voltage free contacts that can be connected to equipment used for traditional alarm monitoring.

## Features

### System

Output Voltage Measurement  
Total Load Current Measurement  
Load/Battery Disconnect  
Alarm Level Settings (major / minor)  
Alarm Log (up to 1000 events)  
Real Time Clock with Battery Backup  
Site Text/ID  
Test of Relay Outputs  
Voltage Level setup  
Datalogging (up to 7000 datapoints)

### Battery

Battery Current Measurement  
Battery Temperature Measurement (optional)  
Battery Testing (acc. to discharge table or set time limit)  
Battery Test Information (10 latest tests)  
Setup of Battery Data  
Battery shunt setup  
Battery quality indication  
Battery Boost Charging  
Battery Cable Voltage Drop Compensation  
Temperature Compensated Charging  
Protection against Temperature Probe Failure

### Rectifier

Available information about each rectifier, e.g. serial number, version, internal temperature  
Individual Rectifier Current Measurement  
Individual Rectifier Input Voltage  
Efficiency Management

## Local Monitoring / Control

From a PC running Windows-based communication software (Smartpack PowerSuite)  
Windows-based comm. software can also communicate with the Smartpack through an USB serial or RS-232 cable.

LCD and three keypads for local operations.  
If any alarm (major or minor) is activated, a (red or yellow) LED is lit in the front panel, the alarm text appears in the LCD and the corresponding alarm relay is activated.

In normal operation, the front LCD will display the output voltage, battery current, load current and charge mode.  
(Not on Basic Slave version)

## Available Alarms

All alarms can be set up with monitoring of minor, major, average and peak levels.

### System

Mains Failure (individual phases)  
Digital Inputs (programmable names)  
Load Disconnect (voltage or timer)  
Load Fuse  
Load Current

### Battery

High Battery voltage  
Low Battery voltage  
High Battery temperature  
Low Battery temperature  
Battery Capacity  
Battery Disconnect  
Battery Fuse  
Symmetry Failure  
Battery quality indication  
Battery discharge current

### Rectifier

Rectifier Failure  
Critical Rectifier Failure (> 1, programmable)  
Rectifier Capacity w. programmable level  
Rectifier Current Limit  
Rectifier Overvoltage Protection  
Rectifier Current

## Specifications

<b>Input voltage:</b>	24/48/60 VDC nominal system voltages
<b>Dimensions (wxhxd):</b>	109 x 44 (1U) x 140mm 4.3 x 1.7 x 5.5"

Specifications are subject to change without notice.

## ORDERING INFORMATION

Part no.	Description
242100.110	Smartpack Extended
242100.111	Smartpack RS-232 front
242100.112	Smartpack RS-232 rear
242100.113	Smartpack WEB/SNMP
242100.000	Smartpack Basic Slave (without display, buttons & internal power for distributed systems)

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