ACM1000
FLEXIBLE ALARM AND CONTROL
MODULE FOR MONITORING
AND CONTROL OF STAND-ALONE
POWER SYSTEMS

KEY FEATURES

» Individual control of up to 12 rectifiers with extension capability
» Automatic detection of rectifier and system faults
» Hot-plug capability
» Local key pad (three buttons) for local parameters configuration
» Back lit display for monitoring (alarms and system status), control and configuration
» Load voltage and current monitoring
» Battery voltage and current monitoring
» Flexible battery management: programmable temperature compensation and current limitation
» Automatic/manual boost charge
» Low voltage disconnect (LVD) to protect batteries against deep discharge
» Non essential load disconnection to expand battery autonomy
» Battery discharge test at constant current with automatic/manual initiation
» Battery connection test with automatic/manual initiation
» Battery capacity meter
» Local and remote alarm reporting with ~50 built in alarms + 10 spare alarms (customer defined)
» Alarm and battery tests history log files of 512 events with time stamping
» Spare inputs for monitoring external devices
» Spare outputs to control auxiliary devices (configurable conditions)
» Proprietary protocol to monitor/configure the system with password protection (4 levels)
» Win1000/Winsite Windows-compatible software
» Remote access via optional modem
» Remote access via optional TCP/IP gateway (SNMP, email, Web,...)
» Alert capabilities on modem and SMS
» Modbus/Jbus protocol
» Equation interpreter for total customer flexibility in alarm condition definition and configuration
» Expandable with optional extension boards (8 relays board,...)
# ACM1000 SPECIFICATION

**INPUT**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input voltage</td>
<td>18-75Vdc</td>
</tr>
<tr>
<td>Nominal current</td>
<td>0.4A (48V input)</td>
</tr>
</tbody>
</table>

**CONNECTIONS**

<table>
<thead>
<tr>
<th>Measurements</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery voltage</td>
<td>Load voltage</td>
</tr>
<tr>
<td>Load voltage</td>
<td>Battery current (shunt measurement/Hall effect selectable)</td>
</tr>
<tr>
<td>Load current</td>
<td>Temperature through analogue sensor</td>
</tr>
<tr>
<td>Battery current</td>
<td>Temperature through digital sensor (up to 2 sensors)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alarm and general purpose outputs</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opto isolated outputs</td>
<td>Urgent/Non urgent alarm reporting</td>
</tr>
<tr>
<td>Spur output for customer defined control (fans, ...)</td>
<td></td>
</tr>
<tr>
<td>Front panel LED alarm indication (green/red)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low voltage disconnect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opto-isolated output</td>
<td>LVD1 drive/feedback-controls battery low voltage contactor</td>
</tr>
<tr>
<td></td>
<td>LVD2 drive/feedback-controls non-essential load contactor</td>
</tr>
</tbody>
</table>

**Auxiliary inputs**

17 digital inputs for rectifier fault detection, protection devices monitoring (fuses) and auxiliary equipment monitoring

**Communications**

- Direct RS232 connection
- Or optional modem connection (PSTN/GSM),
- Or TCP/IP gateway (*Win1000 Windows interface software package available)

**PROTECTION**

**DC supply inputs**

Internal input fusing on both DC polarities

**MECHANICAL SPECIFICATION**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controller board + display module assembly: height: 43mm (1U)/width: 108mm/depth: 198mm Controller board standalone: height: 25mm/width: 100mm/depth: 167mm</td>
<td></td>
</tr>
</tbody>
</table>

**WEIGHT**

<0.5kg

**Ingress Protection**

IP00 alone (IP20 when integrated in a system)

**Mounting**

Horizontal 1U, within associated systems, with adequate runners

**Connections**

Hot pluggable, with rear connection. Possibility for the display to be remote

**ENVIRONMENTAL**

**Cooling**

Natural cooling

**Operating temperature**

-25°C to + 70°C ambient

**Storage temperature**

-25°C to + 80°C ambient

**Humidity**

0% to + 95%, non condensing

**Altitude**

0 - 4000m operating maximum

**STANDARDS**

**Safety**

EN60950

**EMC (inside system)**

Emission: EN61000-6-3/6.4, EN61000-3-2/3.3, EN55022 Class B

Immunity: EN61000-6-1/6-2, EN61000-4-2/4-3/4.4/4.5/4.6/4.11

**Environment**

EN300019 (transportation storage and operation)

ROHS Directive on Restriction of use of certain Hazardous Substances

WEEE directive on Waste Electrical and Electronic Equipment

**Approvals**

CE, with the associated system

**AVAILABLE CONFIGURATION**

**Products reference**

ACM1000 controller module

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For further information please refer to:

www.aegps.com
solar@aegps.com