ControlPlex® RACK
Intelligent Power distribution and overcurrent protection
We offer a wide range of conventional or intelligent power distribution systems for server and network cabinets, including flexible power distribution units as standard products and customised solutions. Many customers from the telecommunications, data center, industrial, energy and railroad infrastructure sectors place their trust in us.

Those who choose us also choose:

**MAXIMUM SYSTEM AVAILABILITY**
Our products for the network cabinet guarantee selective load disconnection. In the event of a short circuit, the faulty load is selectively disconnected while the other loads continue to operate undisturbed. This avoids downtimes and increases the availability of your systems.

**BEST ECONOMIC EFFICIENCY**
Our power distribution systems are flexibly expandable thanks to their modular design. They guarantee best economic efficiency due to short installation times and a maintenance-friendly design. Thanks to plug-in type circuit breakers, the system can be expanded during operation. This prevents a breakdown of the entire system.

**MAXIMUM FLEXIBILITY**
We offer individual power distribution systems perfectly matched to your application. Our well-designed modular system guarantees short development times. From customer-specific small quantities to projects running several years - we guarantee the highest quality and permanently uniform standards.
ControlPlex® RACK SYSTEM
Customised power distribution and overcurrent protection

The ControlPlex® Rack system is our complete solution for DC power distribution and overcurrent protection in communication technology. The modular concept allows configurations to be tailored exactly to individual requirements. From purely electronic overcurrent protection to a fully integrated complete system with remote access: thanks to its flexibility, the system covers all needs and guarantees maximum system availability.

By system flexibility we mean:
- Short installation times and easy handling
- Overcurrent protection pluggable under voltage enables simple load channel expansion
- Selective disconnection of loads
- Minimal space requirement in the network cabinet

Using our unique circuit breaker technology ensures precise overcurrent protection and enables remote control, current monitoring and remote alarming if required.
ControlPlex® RACK SYSTEM
Upgrade and configuration options

**BASIS**

**ELECTRONIC OVERCURRENT PROTECTION**
- Protection of connected loads against overcurrent and short-circuit currents
- Protection against voltage dips thanks to integrated electronic current limitation
- The selective disconnection ensures continued operation and supply of fault-free devices
- Precise tripping behaviour even with long cable lengths and small cross-sections

**CONVENIENT REMOTE CONTROL**
- Extended range of functions with smart control and monitoring functions through simple integration into the network environment
- ON-/OFF-switching or restarting connected loads by accessing all installed circuit breakers via a web interface
- Querying, caching and forwarding of individual measurement data, status conditions and error messages to the central management system or the master computer.

**UPGRADE 1**

**TRANSPARENT GROUP SIGNALLING**
- Entry into transparent monitoring of the connected loads
- Bus communication with all installed circuit breakers
- Trip signalling of the circuit breakers to an external monitoring system
- Option to initiate immediate measures to remedy the malfunction, both for stand-alone solutions and centrally monitored systems

**UPGRADE 2**

**EXTERNAL SENSOR DATA INTEGRATION**
- Connection of external sensors including system protection, network integration, remote control and monitoring
- All functions in a compact 19” system: from power distribution and overcurrent protection in the system cabinet to door contact control
- Automatic initiation of actions thanks to programmable logical links between operating states of the electronic circuit breakers and sensor signals

**UPGRADE 3**
**BASIS**

*Power-D-Box® CP*
Compact power distribution system

*ESX300-S*
Electronic circuit breakers for positive or negative voltage range

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**UPGRADE 1**

*RSl10*
Signalling interface

**UPGRADE 2**

*RCl11*
Communication module

**UPGRADE 3**

*RCl11*
Communication module

*EAI300*
I/O module

Learn more about the individual components on our website.
# TECHNICAL DATA

**Power-D-Box® CP (intelligent power distribution system)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage range</td>
<td>Minus: DC -38 … -72 V&lt;br&gt;Plus: DC 18 … 72 V</td>
</tr>
<tr>
<td>Protected pole</td>
<td>1pole minus or 1pole plus</td>
</tr>
<tr>
<td>Total current</td>
<td>2x 150 A for redundant design&lt;br&gt;200 A for non-redundant design</td>
</tr>
<tr>
<td>Number of loads</td>
<td>2 x 9 for redundant design&lt;br&gt;1 x 19 for non-redundant design</td>
</tr>
<tr>
<td>Load and supply terminal</td>
<td>Available at the front or back</td>
</tr>
<tr>
<td>Mounting dimensions (WxHxD)</td>
<td>Width: 482.6 mm (19&quot;) x Height: 89 mm (2 HU) x Mounting depth: max. 205 mm (depending on version)</td>
</tr>
</tbody>
</table>

**ESX300-S minus and ESX300-S plus (electronic circuit protector)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage range</td>
<td>Minus: DC -38 … -72 V&lt;br&gt;Plus: DC 18 … 72 V</td>
</tr>
<tr>
<td>Rated current</td>
<td>2 A, 5 A, 8 A, 12 A, 16 A *, 20 A *, 24 A *</td>
</tr>
<tr>
<td>Fail-safe element</td>
<td>Integral</td>
</tr>
<tr>
<td>Voltage monitoring</td>
<td>Integral</td>
</tr>
<tr>
<td>Temperature monitoring</td>
<td>Integral</td>
</tr>
<tr>
<td>Active current limitation</td>
<td>at typically 1.2 times rated current</td>
</tr>
<tr>
<td>Short circuit disconnection</td>
<td>typically after 10 ms</td>
</tr>
<tr>
<td>Overcurrent disconnection</td>
<td>typically after 30 s</td>
</tr>
</tbody>
</table>

*16 A/20 A/24 A can be connected in parallel via an optionally available set. This allows load protection up to 60 A.

**RSI10 (interface sub-assembly, signalling)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>DC 20 V to 72 V</td>
</tr>
<tr>
<td>External terminals</td>
<td>2 plug-in type 3-pole screw terminals with mating connector</td>
</tr>
<tr>
<td>Alarm contacts</td>
<td>Potential-free change-over contact</td>
</tr>
<tr>
<td>Signalling</td>
<td>Supply group A and/or B</td>
</tr>
</tbody>
</table>

**RCI111 (Communication module)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>DC 20 V to 72 V</td>
</tr>
<tr>
<td>Interface</td>
<td>10/100 Mbit/s 10 Base-T Ethernet</td>
</tr>
<tr>
<td>Supported protocols</td>
<td>SNMP v1, v2c, v3; Modbus TCP; http/https; NTP, IPv4 / IPv6; SSHv2, DHCP</td>
</tr>
<tr>
<td>Web server</td>
<td>Integral</td>
</tr>
</tbody>
</table>

**EAI300 (I/O module)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>DC 20 V to 72 V</td>
</tr>
<tr>
<td>Internal supply voltage for I/O connection</td>
<td>Typical DC 24 V</td>
</tr>
<tr>
<td>Number of digital inputs:</td>
<td>8 physically isolated inputs</td>
</tr>
<tr>
<td>Number of analogue inputs:</td>
<td>1 physically isolated input</td>
</tr>
<tr>
<td>Number of digital outputs (relay outputs)</td>
<td>2 physically isolated relay outputs (break contacts)</td>
</tr>
<tr>
<td>Alarm contacts</td>
<td>Potential-free group signalling with connection to the management system</td>
</tr>
</tbody>
</table>
The **ControlPlex® Rack** system offers an intuitive, graphical user interface that reflects the system structure and offers the following options, for example:

- Monitoring and manual switching of circuit breakers
- Configuration of threshold values for automatic circuit breaker ON/OFF switching
- Checking and saving log and measurement data files
- Programming logical links between the electronic circuit breakers and sensor signals

**YOUR BENEFITS**

The Graphical User Interface provides extensive data logging functions. This includes querying and displaying the following measurement data:

- System-relevant processes, e.g. plugging in a new module (System Log).
- Internal messages of the RCI11 control module, e.g. error messages (Error Log)
- Measured values of each individual installed electronic circuit breaker, e.g. voltage, load current and temperature values (Fuse Log)
- Additional download of all log files for further external processing
ControlPlex® RACK

At a glance

HIGHEST SYSTEM AVAILABILITY

• Selective overcurrent protection with integrated current limitation

• Early error detection and active prevention of failures through remote monitoring and diagnosis of the connected loads

• Remote control of the circuit breakers for flexible troubleshooting - no matter when and where

HIGH ECONOMIC EFFICIENCY

• Shorter maintenance times thanks to remote maintenance and less on-site visits

• Energy saving thanks to time-controlled ON/OFF-switching of the connected loads
MAXIMUM FLEXIBILITY

- Simple adaptation to the respective application due to a modular system design
- System expansion possible under voltage - „hot swappable“
- Simple system expansion without downtimes due to pluggable circuit breakers (Plug & Play)

UNLIMITED TRANSPARENCY

- Easy integration into a management system via SNMP or Modbus TCP
- Monitoring of ambient and environmental parameters through sensor integration