Inverter system type PCI10
4kVA to 48kVA – 230VAC

Inverter system type PCI10 for interconnection with DC system wherever uninterruptible power supply is needed, e.g. for computers and process control.

Plug-in inverter modules
Provides flexibility for adjusting the output power, easy maintenance and high availability with hot swappable and parallel modules.

Uninterruptible switching
Switching automatically and uninterruptible to alternative AC network through the bypass unit.

Safe maintenance
Easy to bypass through the manual bypass switch for uninterrupted isolation during maintenance and service.

Safe operation and high availability
We help you with commissioning and service and provide training in the operation and maintenance.

System monitoring
Built-in controller that regulate and supervise the system and activate the bypass device that connects the load to the alternate network in case of failure.

Complete documentation
Makes design and maintenance efficient and can be delivered in electronic format.
**Inverter system type PCI10**

**General**
Inverter system PCI10 is a modular system that consists of one or more inverter modules working in parallel and monitored by a controller. A bypass unit will switch the load to an external mains supply in case of inverter module failure. For safe service and maintenance of the system, isolation can be provided with the manual bypass unit. The system is built in a floor standing cubicle with connections made directly to terminals. As an option it can be prepared for additional inverters or distribution modules.

**Inverter module**
- Output power: 4 kVA
- Control principle: Sinusoidal, processor controlled
- Output stage: IGBT, low impedance

**Controller**
- Under voltage trip: 38,5 VDC/86 VDC/174 VDC
- Restart, low: 48 VDC/110 VDC/220 VDC
- Over voltage trip: 75 VDC/138 VDC/276 VDC
- Restart, high: 72 VDC/132 VDC/264 VDC
- Synchronization range: ±3 Hz

**Bypass unit**
- Rated current: 120 A, 200 A
- Switching time: 3ms (controlled switching at overload, under-voltage etc.), 20 ms (switching off controller), 100 ms (system off)

**Manual Bypass switch**
- Type: Contactor
- Switching time: <20 ms

**Electrical connections**
- DC IN: screw terminal, see table
- AC OUT: screw terminal, see table
- AC IN (bypass): screw terminal, see table
- Alarm: Disconnect terminal blocks, 4 mm²

**Output AC**
- Output voltage: 230VAC ±5 %
- Frequency: 50/60 Hz
- Power factor: 0,8
- Crest factor: >2,5
- Overload protection: >125 % 12 sec., >150 % 3 sec.
- Efficiency: approx. 85 %
- Other: See table

**Environment**
- Ambient temperature: Operation, -5 to +40 °C
- Storage, -40 to +70 °C
- Humidity: < 90 % RH, non-condensed
- Altitude, a.s.l.: < 2000 m

### Table: Input voltage / Output power

<table>
<thead>
<tr>
<th>Input voltage V&lt;sub&gt;DC&lt;/sub&gt;</th>
<th>Output power VA</th>
<th>Output power W</th>
<th>Maximum output current A&lt;sub&gt;AC&lt;/sub&gt; @ 230V&lt;sub&gt;AC&lt;/sub&gt;</th>
<th>Maximum input current A&lt;sub&gt;DC&lt;/sub&gt;</th>
<th>Terminal block capacity mm²</th>
<th>Maximum output fuse A</th>
</tr>
</thead>
<tbody>
<tr>
<td>48/60</td>
<td>38-72</td>
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</table>

### Indications
- Control unit: Plain text display for status, control and alarm
- Inverter module: LED indicator for output power
- Extern alarm signal: Floating changeover contact
- Remote communication: Standard RS232 data interface

### Enclosure
- Type: Floor standing cubicle with 19" combined swing frame and door
- Cable entrance: Top or bottom
- Size (h/w/d): 2100 mm/840 mm/654 mm
- Color: RAL 7035 light grey
- Class of enclosure: IP21
- Ventilation: Power controlled fans in the inverter modules and bypass unit, otherwise natural convection

### Standards
- Safety: EN 50178
- Galvanic isolation: 3.75 kV DC
- EMC, emission: EN 61000-6-3/4
- EMC, immunity: EN 61000-6-2
- Class of enclosure: EN 60529

### Option
- AC-distribution: Distribution modules with 9 pcs MCB per module
- Expansion Slot: Pre-wiring for future expansion of inverter modules
- Class of enclosure: IP43-IP54 (floor cubicle)