PCD 100
Single Phase Coupling / Decoupling Network for PSURGE 8000 Platform

- IEC and EN standards cover testing of single phase AC mains and DC power ports. They include recommendations for coupling and decoupling characteristics. These recommendations are based on the European model for AC power lines.

The PCD 100 fulfills also the recently approved IEC 61000-4-5 Edition 2.

- The ANSI standards contain much the same information as the IEC but based around the American experience with AC power lines.

Impedance of the low voltage mains supply to earth is simulated by the addition of a 10 ohm resistor for IEC tests. ANSI has NO series resistor in the impulse path. This difference comes from the practice in Europe of connecting ground to neutral at the distribution transformer, not the power service entry as in the USA. The PCD 100 fulfills all requirements.

The integration in the WinFEAT&R control and reporting software package enhances an efficient set-up and operation of this test system. Most importantly, the test load can be transferred to a computer freeing valuable resources.

**FEATURES**
- Two high voltage inputs
- Combination wave 1.2/50us - 8/20us
- Ring wave 100kHz
- 7.5kV impulse voltage
- Line voltage 240V
- 16A EUT current
- Overcurrent protection

**BENEFITS**
- Safe and easy - The interlocked HC connections allow your operators to test safely and easily.
- Sturdy and reliable - Careful component selection ensures that the PCD 100 will continue to operate under the most strenuous testing regime.
- Faster completion of testing program - The PCD 100 has two multiplexed inputs, enabling testing to continue with other pulses without having to remove power from EUT.

**APPLICATION**
- Single phase power line systems
- Surge tests with combination wave 1.2/50us - 8/20us and ring wave 100kHz

**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum impulse voltage</td>
<td>7.5kV</td>
</tr>
<tr>
<td>Maximum AC voltage</td>
<td>240V RMS</td>
</tr>
<tr>
<td>Maximum DC voltage</td>
<td>110V</td>
</tr>
<tr>
<td>Maximum AC and DC current</td>
<td>16A</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Specification</th>
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</tr>
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<tbody>
<tr>
<td>EUT connection</td>
<td>Schuko socket</td>
</tr>
<tr>
<td>Coupling elements and paths</td>
<td>controlled by the PSURGE 8000</td>
</tr>
<tr>
<td>Voltage drop due to the decoupling inductors</td>
<td>≤10% with max. current and cos φ ≥0.7</td>
</tr>
<tr>
<td>Residual voltage at Test supply input</td>
<td>max. 15% of the applied impulse voltage</td>
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</tbody>
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