

PCD 130

3 Phase Coupling / Decoupling Network for PSURGE 8000 Platform

■ **IEC and EN** standards cover testing of 3 phase AC and DC power ports. They include recommendations for the coupling and decoupling component values within the CDN. These values are largely based on the European model for AC power lines. PCD 130 includes all the IEC and EN requirements with automatic coupling path switching. PCD 130 EUT output has specially designed 4mm connectors, which provide enhanced personnel safety in relation to the high voltage impulse.

ANSI / IEEE standards are the reference for power line tests in many American standards such as **TIA-968-A** (FCC part 68) and **Telcordia** (Bellcore) **GR-1089-CORE**. The ANSI standard contains 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. PCD 130 automatically sets the correct coupling elements for either IEC or ANSI as selected by the user.

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

- ☑ **Three** high voltage inputs
- ☑ **Combination wave** 1.2/50us - 8/20us
- ☑ **Ring wave** 100kHz
- ☑ **8kV** impulse voltage
- ☑ Line voltage **690Vac** phase-phase
- ☑ **32A** EUT Current per phase
- ☑ **Phase angle** synchronization for each path

■ Benefits

International application – Specifically designed to meet and exceed the requirements of IEC, EN, and ANSI tests for power line applications.

Synchronization path Switching - The PCD 130 synchronizes impulses with the selected coupling path.

Safe and Easy - The interlocked HV connections allow your operators to test safely and easily.

Full 32A capability – Both AC and DC loads up to 32A per phase can be connected through the PCD 130.

Sturdy and Reliable – Careful component selection ensures that the PCD 130 will continue to operate under the most strenuous testing regime.

Faster completion of testing program - The PCD 130 has 3 multiplexed inputs, enabling testing to continue with other pulses without having to remove power from the EUT.

■ Applications

- ☑ Single & Three phase power line systems
- ☑ **IEC 61000-4-5 Edition 1 & 2** Power line testing
- ☑ IEC 61000-4-12 Power line testing
- ☑ ANSI C62.41 & C62.45 Power lines
- ☑ Many IEC & EN Product standards

■ Technical Specifications

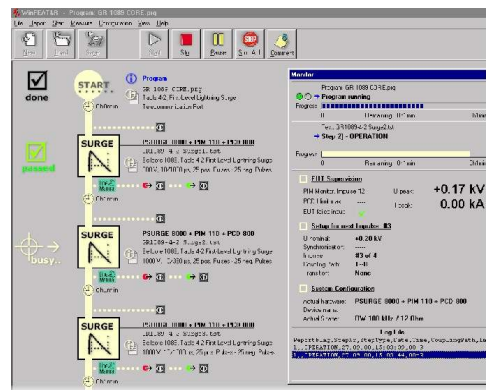
Maximum Impulse Voltage	8kV	EUT Connections	4mm HV Safety sockets
Maximum AC Voltage	690V _{RMS} (Phase – Phase)	Phase Sync.	Follows coupling path
Maximum DC Voltage	110V	Phase Sync accuracy	±1°
Maximum AC Current	32A _{RMS}	Coupling Elements and paths	Controlled by the PSURGE 8000
Maximum DC Current	32A	Power Supply	85 – 264V 50/60Hz
Residual voltage at Test supply input	max. 15% of the applied impulse voltage	Voltage drop due to the decoupling inductors	≤10% with max. current and $\cos \varphi \geq 0.7$

Weights and Dimensions (W x H x D, net weight)

PCD 130	45 x 50 x 57 cm	69 kg
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■ PCD 130 Art. No. 249964 Scope of supply WinFEAT&R Control Window

- Qty. 1 PCD 130 CDN
- Qty. 1 Haefely Bus cable 1m
- Qty. 1 Earth bonding cable 1m
- Qty. 1 Earth bonding cable 0.25m
- Qty. 1 10A Mains cable (country specific)
- Qty. 1 Users Manual



■ Options and Accessories

- PIM 100** Combination Wave tester according to ANSI C62.41 and IEC 61000-4-5.
Art. No. 249902
- PIM 110** 100kHz Ring wave tester according to ANSI C62.41 and IEC 61000-4-12
Art. No. 249903
- ADAPTERS** Single phase input & output adapters enable PCD 130 to be used for single phase applications.
Art. No. Input 249978
Art. No. Output 249979
- WinFEAT&R** Control and reporting software. Runs under windows 98, NT, ME, 2000, XP
Art. No. 249970
- Rack Mounting** Modules can be rack mounted for greater mechanical stability and mobility.
Art. No. 4 Units high: 249692
Art. No. 6 Units high: 249693

Typical Test System with 3 Impulse Modules



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