

PIM 100

1.2/50us & 8/20us Combination Wave Impulse Module

■ **IEC 61000-4-5 and ANSI C62.41** describe a combination Wave or Hybrid generator with defined open AND short circuit waveforms. The Combination Wave is used to test AC and DC power systems.

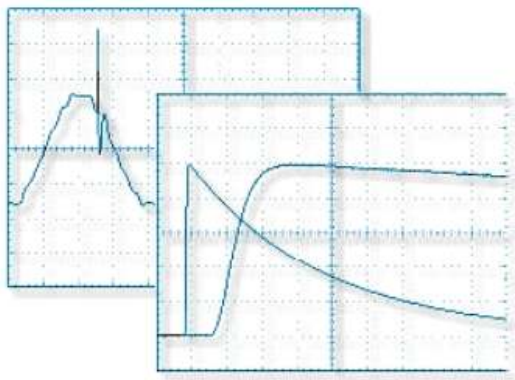
Safety is paramount with surge impulses. The PIM 100 High Voltage connections are all linked into the System Safety Concept which prevents high voltage plugs or cables from exposing operators to potentially lethal voltages. This concept is extended to Coupling/Decoupling Networks (CDNs) connected to the PIM 100 output.

PIM 100 as part of the PSURGE 8000 Surge Platform System can be used together with

Coupling/Decoupling Networks (CDNs) for superimposition of the impulse on AC and DC power lines. Single and three phase CDNs have multiplexed inputs, allowing up to 3 impulse modules to be connected. A full suite of test impulses can then be performed completely automatically and without the need to power down and reconnect the EUT.

PSURGE 8000 Surge Platform can perform all the programming functions required to perform IEC and ANSI testing without the need of a control computer. Voltage and Current monitor circuits enable quick and easy verification of the impulse shape and amplitude. In addition, **peak measurement circuits** are used to help determine EUT PASS/FAIL criterion.

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

- ☑ **Floating** high voltage output
- ☑ **Combination wave** 1.2/50us - 8/20us
- ☑ **7.4kV** impulse voltage
- ☑ **3.7kA** impulse current
- ☑ Impulse voltage & current **monitors**
- ☑ Accurate **phase angle** synchronisation

■ Benefits

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

Accurate Impulse Synchronisation - The PIM 100 impulses can be applied to the AC power wave with $\pm 1^\circ$ accuracy.

Safe and Easy - The interlocked HV section and the integrated controller allow your operators to test safely and easily.

Sturdy and Reliable – Careful component selection ensures that the PIM 100 will continue to operate under the most strenuous testing regime.

Report Generation - The unit can automatically generate test reports without a computer. Add WinFEAT&R control and reporting software to collect and collate data in any format you like.

Faster completion of testing program - The PIM 100 connects to an EUT via either a PCD 100 or 130. Both have 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 and 2 Power & Data lines
- ☑ ANSI C62.41 Power lines
- ☑ Many IEC & EN Product standards
- ☑ Other international requirements for Hybrid impulses

■ Technical Specifications

Impulse Voltage	0.20 – 7.4kV $\pm 10\%$	Impulse front time	V= 1.2 μ s $\pm 30\%$ & I= 8 μ s $\pm 20\%$
Impulse Current	0.10 – 3.7kA $\pm 10\%$	Impulse duration	V= 50 μ s $\pm 20\%$ & I= 20 μ s $\pm 20\%$
Source Impedance	2 Ohms	Monitor Outputs	BNC, volts(750/1) current(400A/V)
Repetition @ Umax	10 seconds / 6 per minute	Impulse Polarity	Positive and Negative
Line Synchronisation	1° steps $\pm 1^\circ$ @50Hz	Impulse Output	HV connector with safety circuit

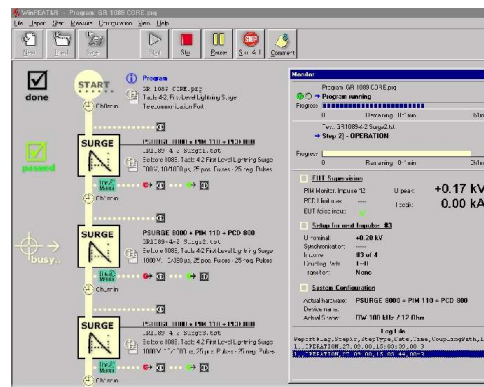
Weights and Dimensions (W x H x D, net weight)

PIM 100	45 x 20 x 57 cm	44 lbs (29 kg)
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■ PIM 100 Art. No. 249902 Scope of Supply

- Qty. 1 PIM 100 Impulse Module
- Qty. 1 HV DC Bus cable 1m
- Qty. 1 Haefely Bus cable 0.5m
- Qty. 1 Earth bonding cable 1m
- Qty. 1 Earth bonding cable 0.25m
- Qty. 1 Users Manual

WinFEAT&R Control Window



■ Options and Accessories

- PCD 100 Single phase CDN 16Aac & dc. Automatic coupling path switching. Two multiplexed high voltage inputs.
- PCD 130 Three phase CDN 32Aac & dc. Automatic coupling path switching. Three multiplexed high voltage inputs.
- PCD 121 Manual coupling network for symmetrical data lines according to IEC 61000-4-5
- PCD 126 Manual coupling network for asymmetrical networks according to IEC 61000-4-5
- PIM 110 100kHz Ring wave tester according to ANSI C62.41 & IEC 61000-4-12
- ADAPTERS Single phase input & output adapters enable PCD 130 to be used for single phase applications
- WinFEAT&R Control and reporting software. Runs under windows 98, NT, ME, 2000, XP
- Rack Mounting Modules can be rack mounted for greater mechanical stability and mobility.

PCD 130 Three phase power line CDN



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