

# PIM 150

## 100kHz & 1MHz Oscillating Wave Module

■ IEC 61000-4-12 Ed.1, IEC 61000-4-18 Ed.1 and ANSI C37.90 describe an oscillating wave generator with defined open circuit waveforms parameters. The oscillating wave, also called a “damped sine” is used to test the immunity of electronic relays and relay systems mounted in an electrical substation or similar harsh environment. IEC product standards such as IEC 60255-22-1 include this wave shape too.

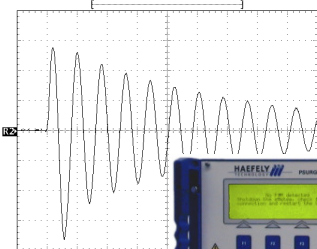
**Safety is paramount** when AC and impulse voltages are being used. The PIM 150 High Voltage connections are all designed so no accidental contact can occur. In addition, the CDN input and output terminals use touch-proof connectors.

PIM 150 contains an integrated **Coupling/Decoupling Network** (CDs) for superimposition of the impulse on AC and DC power lines. The integrated CDN is specially designed to ensure wave shape integrity at the test system output. PIM 150 maintains wave shape AND amplitude, even with multiple coupling paths selected.

PIM 150 with the 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 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

- ☑ 100kHz & 1MHz frequencies
- ☑ 75ns rise-time
- ☑ 3.3kV impulse voltage
- ☑ Source Impedance 200 Ohm
- ☑ Integrated **three phase CDN**
- ☑ **Variable** burst duration

### BENEFITS

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

**Accurate Impulses** – The PIM 150 wave shape and amplitude are guaranteed to conform to specification at the CDN output. Also with simultaneous, multiple coupling path selections.

**Safe and Easy** – The interlocked HV section and the specially designed output sockets, allow your operators to test safely and easily.

**Sturdy and Reliable** – Careful component selection ensures that the PIM 150 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.

### APPLICATIONS

- Single & Three phase power line systems
- IEC 61000-4-12 Ed.1 Power & Data lines
- IEC 61000-4-18 Ed.1 D.O.W.
- ANSI C37.90.1-2002 Power lines
- IEC 60255-22-1 Measuring relays and protection equipment
- IEEE 1613 Substation Equipment

## TECHNICAL SPECIFICATIONS

Impulse Voltage	0.25 – 3.3kV
Burst Frequency	100kHz & 1MHz
Impulse Repetition	40 Hz & 400Hz
Source Impedance	200 ohms
Burst Duration	2 seconds to continuous
Rise time	75ns
Damping Rate	50% Vpk between 5th and 10th peak

EUT Voltage	480Vac (phase - phase) / 110Vdc
EUT Current	16A ac/dc per path
Impulse Coupling	Single & Multiple Path
Impulse Polarity	Positive, Negative & Alternating
Impulse Output	HV connector & CDN
EUT Safety switch	16A Thermo magnetic
Monitor Output	BNC, volts (500 / 1)

Other decoupling elements on request.

## Weights and Dimensions

45 x 20 x 57 cm (W x H x D)

44 lbs (29 kg net weight)

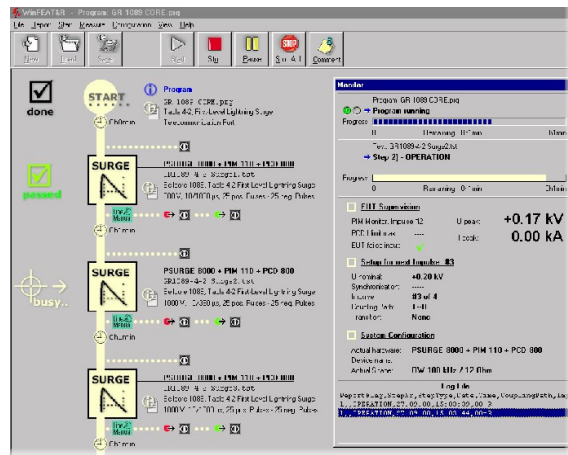
## PIM 150 ART. NO. 249939

Qty. 1	PIM 150 Impulse Module
Qty. 1	HV DC Bus cable 1m
Qty. 1	HAEFELY HIPOTRONICS Bus cable 0.5m
Qty. 1	Earth bonding cable 1m
Qty. 1	Earth bonding cable 0.25m
Qty. 1	EUT Input cables (5) 2m
Qty. 1	High Voltage EUT Output cables (5) 1m
Qty. 1	Users Manual

## OPTIONS AND ACCESSORIES

ADAPTERS	Single phase input & output adapters enable PIM 150 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 150	Coupling decoupling network for data and control lines according to IEC 61000-4-12 Ed.1 and IEC 61000-4-18 Ed.1.
IP4A	Capacitive coupling clamp as described in ANSI C37.90.
PIM 110	100kHz Ring Wave module according to IEC 61000-4-12 Ed.1 and Ed.2.
AXOS5	EFT generator according to IEC 61000-4-4 and ANSI C37.90.

## WinFEAT&R Control Window



## IP4A Capacitive Coupling Clamp



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PRECISION TEST

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HAEFELY HIPOTRONICS has a policy of continuous product improvement. Therefore we reserve the right to change design and specification without notice.