



ABN 43 064 478 842

231 Osborne Avenue Clayton South, VIC 3169  
PO Box 1548, Clayton South, VIC 3169  
t 03 9265 7400 f 03 9558 0875  
freecall 1800 680 680  
www.tmgtestequipment.com.au

## Test & Measurement

- > sales
- > rentals
- > calibration
- > repair
- > disposal

## Complimentary Reference Material

This PDF has been made available as a complimentary service for you to assist in evaluating this model for your testing requirements.

TMG offers a wide range of test equipment solutions, from renting short to long term, buying refurbished and purchasing new. Financing options, such as Financial Rental, and Leasing are also available on application.

TMG will assist if you are unsure whether this model will suit your requirements.

Call TMG if you need to organise repair and/or calibrate your unit.

If you click on the "Click-to-Call" logo below, you can call us for FREE!

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Product Lifecycle Management System

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# PIM 150

## 100kHz & 1MHz Oscillating Wave Module

■ **IEC 61000-4-12 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

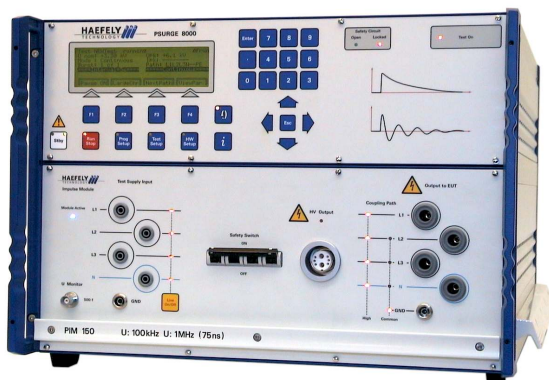
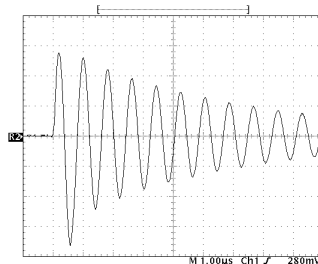
**International application** – Specifically designed to meet and exceed the requirements of IEC, EN, and ANSI tests for power line applications.

**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 Power & Data lines
- ☑ 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	EUT Voltage	480Vac (phase - phase) / 110Vdc
Burst Frequency	100kHz & 1MHz	EUT Current	16A ac/dc per path
Impulse Repetition	40 Hz & 400Hz	Impulse Coupling	Single & Multiple Path
Source Impedance	200 ohms	Impulse Polarity	Positive, Negative & Alternating
Burst Duration	2 seconds to continuous	Impulse Output	HV connector & CDN
Rise time	75ns	EUT Safety switch	16A Thermo magnetic
Damping Rate	50% Vpk between 5th and 10th peak	Monitor Output	BNC, volts (500 / 1)

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

PIM 150	45 x 20 x 57 cm	44 lbs (29 kg)
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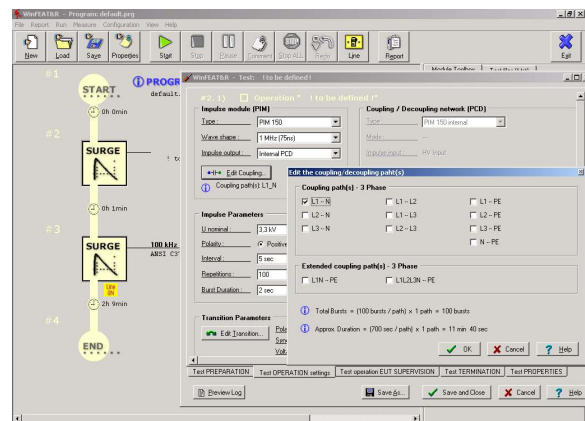
## ■ PIM 150 Art. No. 249939 Scope of supply

- Qty. 1 PIM 150 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 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 610000-4-12.
- IP4A** Capacitive coupling clamp as described in ANSI C37.90.
- PIM 110** 100kHz Ring Wave module according to IEC 61000-4-12.
- PEFT 4010** EFT generator according to IEC 61000-4-4 and ANSI C37.90.

## WinFEAT&R Control Window



## IP4A Capacitive Coupling Clamp



Headquarters  
**Haefely Test AG**  
 Lehenmattstrasse 353  
 CH-4052, Basel  
 Switzerland

+ 41 61 373 41 11  
 + 41 61 373 45 99  
[EMC-sales@haefely.com](mailto:EMC-sales@haefely.com)

Locate your local  
 sales representative at  
[www.haefelyEMC.com](http://www.haefelyEMC.com)



**HAEFELY** EMC  
 TECHNOLOGY

North American Office  
**Hipotronics Inc.**  
**Haefely EMC Division**  
 1650 Route 22  
 Brewster, NY 10509

+1 845 279 3644 x264  
 +1 845 279 2467  
[EMCsales@hubbell-haefely.com](mailto:EMCsales@hubbell-haefely.com)