

# PIM 400, PIM 410 PCD430

## UL 1449 IMPULSE TEST SYSTEM



Top-down: Controller, PIM 110, PIM 400 & PIM 410 impulse modules, PCD430 coupling network

To be used for transient voltage surge suppressor testing of:

- Surge Current Tests
- Transient Voltage Surge
- Duty Cycle.

Using combination wave impulses for 50 and 60Hz power circuit applications.

Transient Voltage Surge Suppressors are fitted on the load side of domestic and commercial power outlets to protect electrical and electronic equipment from the effects of lightning surge pulses.

Applications are for the testing of single and three phase protection devices of the following categories:

- Permanently connected
- Cord connected
- Direct plug-In

A suitable CDN is required as the tests are performed with the TVSS energized

ONE SOLUTION for :  **UL 1449 Table B1.1 (Appendix B)**  
 add a **PIM 110** for full **ANSI C62.41**

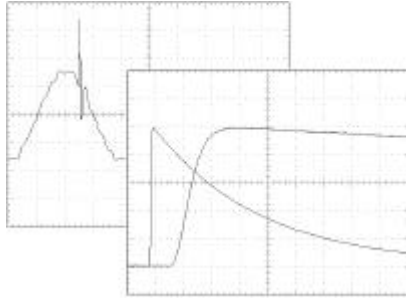
### FEATURES

- Impulse voltage up to 7kV
- 3000A impulse (2 ohm)
- 500A impulse (12 ohm)
- 100kHz Ring wave (12 & 30 ohm)
- Oscilloscope Impulse monitors
- 10s impulse repetition @ 6kV
- Automatic polarity switching
- Automatic impulse switching
- 32A 3 phase CDN @ 600V/60Hz
- impulse defined at CDN output
- allowable fault current > 200A
- synchronization with each phase
- Remote control using WinFEAT&R
- Supplied to ISO 9001

### BENEFITS

- Fully automatic waveform switching
- Reproducible and reliable test results
- Fault current through CDN > 200A

## TECHNICAL EXCELLENCE



e.g. accurate, clean pulses

### PIM400,410/PCD430

modules are fully compliant to UL 1449 requirements.

- System can be configured for UL and ANSI testing.
- Impulse parameters guaranteed at CDN output.
- Automatic impulse type switching during testing.
- Highly accurate and reliable semiconductor discharge switch places the pulse at the selected angle on the selected phase.

UL 1449 requires synchronization of the surge impulse with the test phase. Haefely's Surge Platform solution switches the synchronization source automatically between phases.

## EASY OPERATION

**UL 1449** test system can be assembled into a rack or used as separate bench standing units. The advantage of this architecture is that the test equipment can be tailored to fit in your application, not the other way around.

A built-in Micro processor is the user interface and controls:

- Test/Program setup
- System configuration
- Peak Voltage monitoring
- Test Log file printing

Operating the **UL 1449 system**, from WinFEAT&R Software opens additional possibilities such as:

- EUT failed limits control
- Automatic Test reporting in MS Word™ format
- EUT monitoring during testing
- Pre programmed test routines.

**WinFEAT&R**®

## SAFETY & QUALITY

Designed as an expandable system, Modules can be used either

- in a desktop configuration or
- rack mounted with other system modules.

All EUT connections are on the unit front panels providing a clean separation between test instrument and EUT connections.

A full range of accessories is available to provide safe and easy connections with the test object.

The unit is designed according to EMC and LV directives.

**UL 1449** system is supplied with an additional high-visibility warning lamp.

Access to all operational high voltage and AC power circuits is safety interlock protected.

All Haefely EMC products carry a two year manufacturers warranty.

## TECHNICAL SPECIFICATION

PIM 400/410		PCD 430	
Impulse Voltage	0.50kV ... 7.0 kV	EUT AC Voltage	690V (phase-phase)
Impulse Repetition	5 ... 10 seconds @ 6kV	EUT AC Current	32A per phase
Voltage Waveform	Risetime 1.2µs Backtime 50µs	Overcurrent protection	32A in all phases
Current Waveform	Risetime 8µs Backtime 20µs	Synchronisation	with coupling phase
Impulse Impedance	2 ohm & 12 ohm		

## ORDERING INFORMATION

PSURGE 8000 Controller	249 900
PIM 400 Impulse Module	249 946
PIM 410 Impulse Module	249 947
PCD 430 Coupler/Decoupler	249 948
PIM 110 Impulse Module	249 903
WinFEAT&R Software	249 700

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