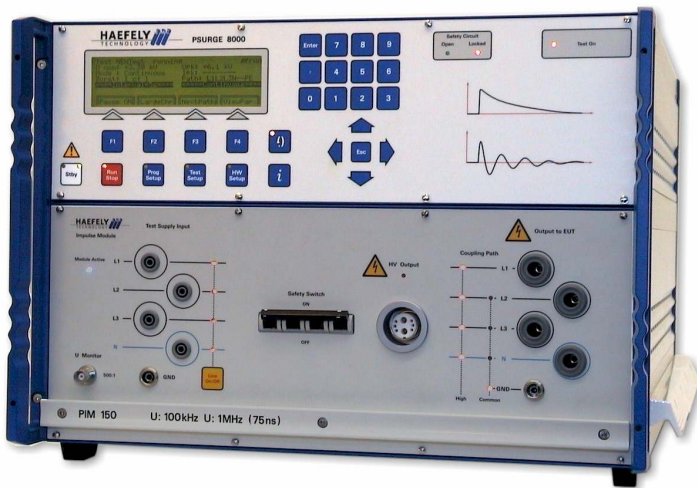


PSURGE 8000 CONCEPT OVERVIEW

SURGE PLATFORM © TEST SYSTEM

■ Hardware Concept

This system meets ALL your current and future Surge Testing requirements! A modular expandable system that grows with your application needs.



The modular concept is built around a PC based host controller (the PSURGE 8000 Controller) with physically and functionally independent modules for impulses (PIM #X), coupling/decoupling (PCD #X). The system uses distributed intelligence, and each module has its own application-specific program, runs internal routines and communicates with the host controller. System modules are automatically detected by the host controller, providing true Plug & Play functionality.

Whether you test to the IEC 61000 series "CE Mark" standards, the IEC 60601 Medical Device standards, or any number of telecom and product specific standards, the Surge Platform is your one stop test station for everything from precompliance to full compliance to product development testing.

A wide range of cost-efficient Coupling / Decoupling Networks for symmetrical and asymmetrical data- and signal-lines is available as an option.

With a 100 year history of innovation, service centers on three continents, and a full staff of development and support engineers, Haefely is the clear choice for all your transient immunity test needs.

■ Features

- ☑ Our standard PIM #X modules cover the **most common surge standards**, such as EN, ETSI, IEC, Telcordia (Bellcore), FCC (TIA) 68, UL, ITU, ANSI, IEEE & more.
- ☑ Any **customized Waveform** can be easily realized and integrated in a new or existing PSURGE 8000 system.
- ☑ Various **Coupling/Decoupling networks** for **power lines** 1 Phase and 3 Phase up to 690V / 100A are available.
- ☑ A selection of **Coupling network for data & signal lines** up to 24 outputs are on-hand.
- ☑ Test routine **Storage and Recall**, up to 36 tests & programs.
- ☑ **WinFEAT&R** Windows 98/00/NT/XP Software, is a Drag & Drop **control, measuring and reporting software**, for your full automated test procedure and test report.

■ Benefits

Hardware concept – we are using the latest technology; ultra fast high power semiconductor switches, for the highest waveform integrity. High quality HV connectors with integrated safety circuit.

Plug & Play philosophy – turn on the system, and after the auto scan is finished, your newly connected module will be ready to use.

Single connect solution – No reconfiguration during testing, no reconnection errors. Reduces test time and operator interventions.

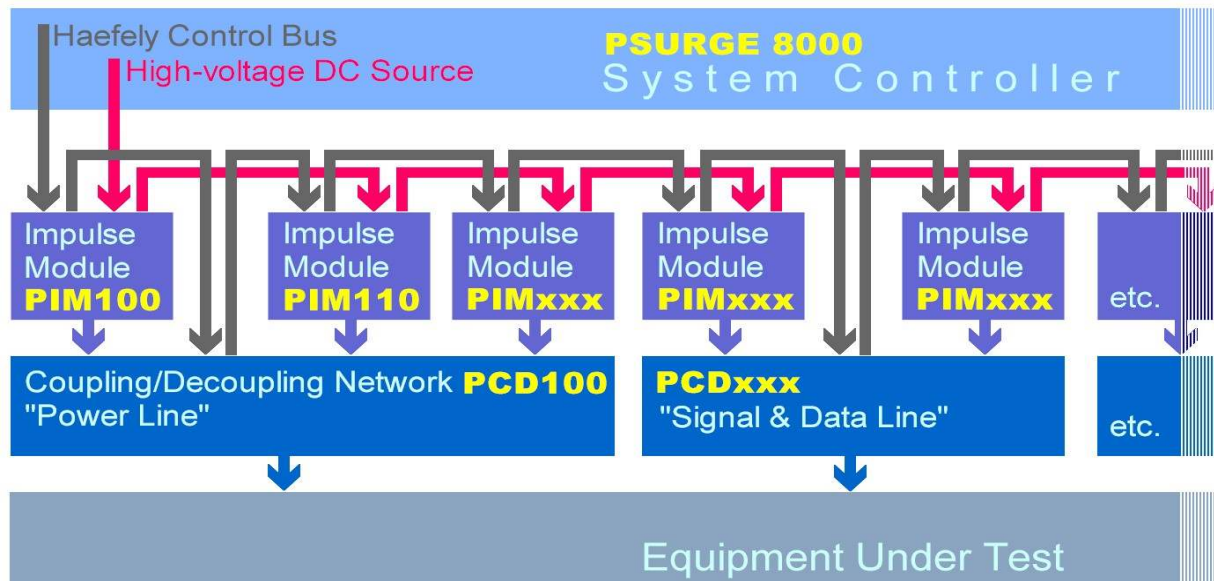
Safety – A fully integrated hardware safety circuit links EVERY high voltage connector and cable. Safety features like external emergency stop or warning lamp protect the user from hazardous and dangerous situations.

Test Reporting – the WinFEAT&R software automatically documents test parameters and results.

Reliable and Economical – World-renowned Haefely quality, reliability, service and support in a flexible and modular surge system.

■ Hardware Concept

MODULARITY



■ Modularity

The Surge Platform hardware comprises a control unit with access to maximum 99 modules interconnected on the HAEFELY BUS.

An innovative platform concept can help reduce time to market and provide a high degree of future proofing against changing standards or new applications.

Also included in the host controller is the system's **high voltage DC supply**, which is distributed between impulse modules (PIMxxx) using a safety interlocked bus system. **Up to 99 modules** in any combination can be controlled from just one PSURGE 8000 control unit, ranging from a stand-alone single impulse generator to a complete and fully automated test system

Modules are application-specific and can include impulse units or coupling units in any combination. This is possible through the use of distributed intelligence. Each module contains information stored in non-volatile memory which the control unit interprets and uses as the basis for test templates. This concept leaves an opening for future expansions of the system without having to modify the controller, a true PLATFORM concept. Flexibility can be enhanced by use of the REMOTE USER INTERFACE software. This opens opportunities for integration into manufacturing and quality systems. Access to process interfaces means that the system can also make measurements on the EUT and control other remote applications either based on EUT function or status.

■ Single Connect Solutions

Eliminate reconnection errors, reduce down time. The Single Connect solution performs tests to AC/DC power, telecom and I/O ports simultaneously without having to power down or reboot the EUT. Switching between all required impulse types and coupling paths - without having to reconnect or reconfigure hardware. Reduced operator intervention increases throughput. Fully automatic coupling path selection through the power, Tip & Ring telecom and I/O line couplers plus waveform selection can all be programmed either from the PSURGE 8000 front panel controls or from the all new WinFEAT&R PC based software package.

■ Applications

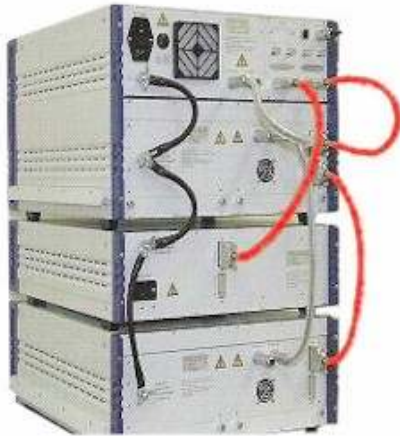
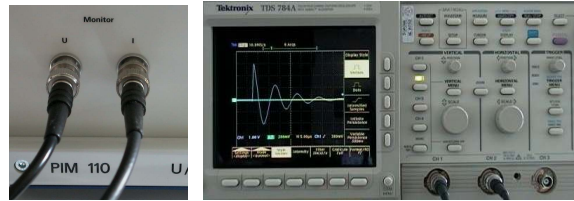
- ☑ **Industrial**
- ☑ **CE Mark**
- ☑ **Safety**
- ☑ **Household**
- ☑ **Component**
- ☑ **Telecommunication**

■ Plug & Play

High quality HV Connectors with integrated safety circuit, easy to engage for total system security.

Surge platform system uses the latest circuit design techniques and high voltage technology by the use of ultra fast high power semiconductor switches. This ensures highest waveform integrity, unprecedented phase angle synchronisation, reliability and total test repeatability.

Integrated **voltage and current monitors** with BNC outputs allow fast waveform verification using an oscilloscope without high voltage probes



■ Plug & Play

Plug & Play is implemented by the **HAEFELY Control Bus** connected in daisy chain fashion between all system modules and the host controller.

Testing with new modules is as simple as connecting to the host controller through the Haefely Bus and restarting the system controller. Once an auto scan has been performed, the modules are available for testing. No software upgrade or reconfiguration. That's what we call **REAL Plug & Play!** This feature also provides the freedom to configure a test lab layout in any way.

Systems can be tailored to application or user specifications and then simply expanded by the addition of further modules.

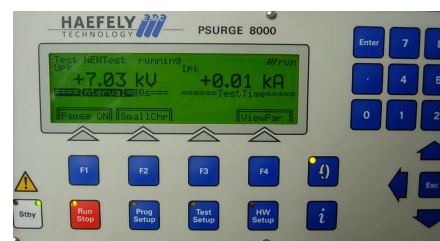
■ Safety

A fully integrated hardware safety circuit links EVERY high voltage connector and cable, ensuring high voltage system integrity. Using safety circuit connectors on the PSURGE 8000 controller, test cabinets or protective barriers can be integrated in the test system. A clear system of red and green lamps, indicate the system status (safe/testing) and further enhances operator safety.



■ Easy Front Panel Operation

The BOOSTER START function enables Tests or complete Programs to be started with a minimum number of keystrokes. The front panel layout and software structure are both intuitive and powerful.



■ Interfacing

RS232 / IEEE

In addition to front panel control, a system can be controlled from the WinFEAT&R software package. Both RS232 and IEEE interfaces are supported.

EUT fail input

Connect pass/fail detection hardware to this BNC input and the EUT condition, as determined by specific EUT supervision hardware, is added to the database of test information and finally the log file. EUT condition can also be used to determine the test course.

Start / Stop

This feature can be used to create a semi-automatic test environment where multiple samples must be tested using the same routines. A test cabinet cover or other safety device connected to the Start/Stop input is used to start or stop the same test routine. When the safety device is open, the test system is rendered safe and test samples can be exchanged. Close and the system pulses.

Synchronisation input

Impulses can be synchronised to any external cyclic signal with a high degree of accuracy.

Trigger Input

External signals can be used to trigger impulse generation to a particular event.

Trigger Output

BNC socket to trigger an oscilloscope or other device coincident with the impulse. The trigger signal is a negative edge transition. Level +5Vdc



■ PLUG & PLAY to accurate SURGE IMPULSES DRAG & DROP to easy CONTROL and REPORTING

■ WinFEAT&R

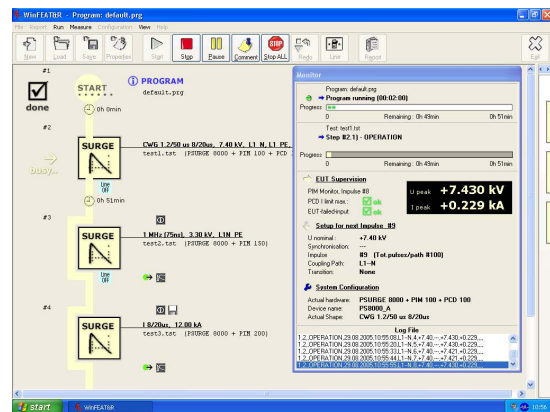
WinFEAT&R is a completely new from the ground up software package that is designed from the outset to run under Win 9x, WinNT and XP operating systems.

Haefely EFT, LINE and SURGE platform systems are all integrated for fully automatic control of a complete test suite.

WinFEAT&R

WinFEAT&R is the product of market feedback and experience gained over many years in the EMC testing world. The acronym stands for **Fast Easy Accurate Testing & Reporting**, in WinFEAT&R we have achieved all these things.

Particular care was taken in designing the GUI (Graphical User Interface), which incorporates many new and innovative features aimed at simplifying user interactions. Drag and drop techniques combined with on screen graphics make WinFEAT&R truly intuitive.



System configuration is an extension of the plug & play philosophy. Hardware attached to the system bus is auto-detected. Individual test instrument specifications are displayed and made available. Individual test and program execution times are displayed giving a detailed preview of the complete process.

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

+ 41 61 373 41 11
+ 41 61 373 45 99
EMC-sales@haefely.com

Locate your local
sales representative at
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