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WHEN QUALITY IS AN ISSUE, THE CHOICE IS HAEFELY EMC



PLINE 1610

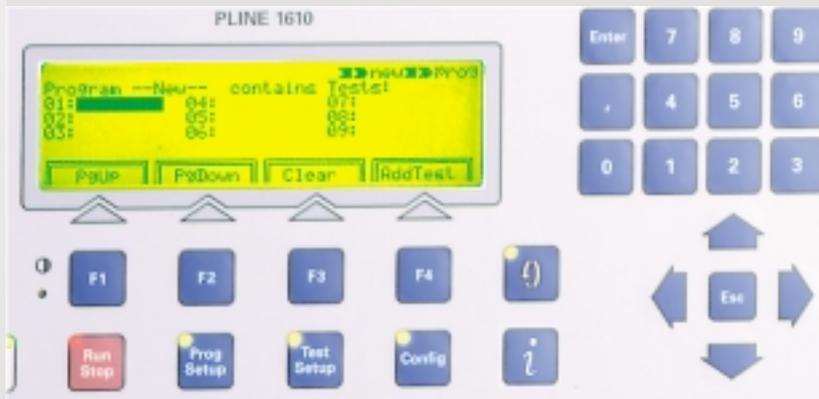
PLINE 1610

TESTER FOR VOLTAGE DIPS, INTERRUPTIONS
AND VARIATIONS

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PLINE 1610 INTERRUPT TESTER

THE PLINE 1610 OFFERS



- **totally reproducible test results**
- **fully automated, time saving design**
- **integration in a full EMC test system**
- **a compact test system for IEC 61000-4-11 EN 61000-4-11**
- **user friendly test programming**
- **no additional voltage sources wiring or variacs are required.**

Voltage dips
Interruptions
Variations

The solution for EMC tests to

EN/IEC 61000-4-11

EN 61000-4-11

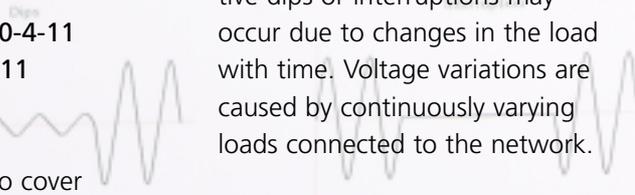
EN 50082-1

EN 50082-2

Expandable to cover

EN/IEC 61000-4-8

Voltage dips and short interruptions are caused by faults in the network or by sudden large load changes. Two or more consecutive dips or interruptions may occur due to changes in the load with time. Voltage variations are caused by continuously varying loads connected to the network.



PLINE 1610



COMPACT SOLUTION

PLINE 1610 contains all the features expected from a top quality generator. A reliable semiconductor switch is built-in the unit.

The semiconductor switch operates to generate programmed Dips and Interrupts with the full 500 A in-rush current capability and provide increased current (in the case of a constant power load) up to 40 A.

This totally integrated solution guarantees compliance with standard requirements in particular the interrupt rise and fall time and inrush current.

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PC INSIDE

For ease of use, the PLINE 1610 is controlled by a built in computer, this enhances user flexibility by providing:

- Pre-defined tests for the standards
- Program and test storage
- Simplified software updates using the RS232 interface
- Time-stamped test protocols and recalibration info
- Possibility to name tests and protocol headers
- Remote control from external PC.

TWO VARIACS ADVANTAGES

PLINE 1610 has two integrated variable transformers (variacs). One transformer is used to adjust the nominal voltage in the range 0 to (Vin+10%) up to maximum 250 V. A second transformer responds to programmed inputs and adjusts the Dip voltage or slow variation voltage.

The two variacs solution enables:

- testing to lower mains voltages (115V) without having to change the supply voltage

- Ensure totally reproducible (mains quality independent) test results
- No overtesting or undertesting of the EUT
- No external voltage source and wiring is required.
- Plug & Play.

EFFICIENT OPERATION

Flexibility and operating efficiency are enhanced still further by:

- Test failure detection and EUT protection through user definable software limits
- Hardware input for EUT failure detection
- Current monitor to protect EUT
- A dedicated centronics printer interface
- Fully automatic testing
- Integration into our WinFEAT&R and WinPATS remote control packages together with other EMC simulators, increase the power and flexibility of his system still further.

PERFORMANCE SPECIFICATION

Power unit		Control unit	
Output voltage range	0 to 264 VAC	Memory for test sequences	18 program and 18 test memory locations
Frequency range	48-62 Hz	EUT current limit parameter	0 to 16 A
Output current	up to 16 A _{rms} (40 A for 5 s)	software controlled	
Inrush current	>500 A at 230 V	Linear transitions/ramps	voltage, phase, interruption and repetition time
in acc. EN/IEC61000-4-11	>250 A at 115 V	BNC-monitor output	voltage 40:1 and current 4 A/V
I _{rms} and U _{rms} measurement	3%	Trigger	manual or automatic
Dips/Interruption amplitude	0 to 80%	Remote control interface	serial (RS232) as standard
Synchronisation	asynchronous synchronous 0 to 360° resolution 1°	Optional interfaces	IEEE 488 (GPIB)
Dips/Interruption duration	30 μs to 70 min.	Printer interfaces	centronics
Dips/Interruption repetition rate	3 ms to 11 hours	Weight	49 kg
Test time	1 s to 100 hours	Dimensions	W 450mm, H 278mm, D 500mm
Voltage variation amplitude	0 to 115%		
Voltage variation time	2 s to 10 hours		

ACCESSORIES



MAG 100 for EN/IEC 61000-4-8
generates power frequency magnetic fields
up to 100 A/m at 50/60 Hz

Haefely EMC also
manufacture quality products for
SURGE EN/IEC 61000-4-5
EFT EN/IEC 61000-4-4
ESD EN/IEC 61000-4-2
and many other industry specifications

For more information contact your
Haefely EMC representative

PLINE 1610

Ordering Information	Ordering Nr.
PLINE 1610 tester	249555
including:	
1 Mains cable 16 A	
1 Mains cable 10 A	
1 RS232 null modem cable	
1 Safety short circuit plug	
1 User manual	
1 Pack extra fuses	
Accessories:	
Adaptor set	249200
IEEE-488 GPIB interfaces (has to be mounted in factory)	249556
Optical DEC 95 RS232 optical link	249689
WinPats software	249309
WinFEAT&R software	249970
Instrument trolley	249568
MAG100 Magnetic field test system to EN/IEC 61000-4-8	249004
Stand for MAG 100	249003

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