

PEFT 8010

EFT / Burst Test System
according to IEC/EN 61000-
4-4 Edition 1 & 2 up to 7.3 kV

Datasheet



HAEFELY

Current and voltage – our passion

General Description

Electrical fast transients (EFT) are the most popular sources of disturbances in modern electronic circuits. EFT/bursts are caused by the operation of electro-mechanical switches, motors or power distribution switchgears.

The PEFT 8010 instrument contains all the features expected from a top quality EFT generator. Unbeaten performance paired with a high end assembly guarantee a cost effective, long-lasting investment and valuable test results.

PEFT 8010 can either be operated by the front panel keys in a stand-alone manner or be controlled by PC via RS232 or IEEE 488 as part of a complete EMC test system.

Tests can be performed manually or automatically with predefined test programs. The front panel layout with its large LCD display and the intuitive software are especially designed for self-explanatory and safe operation of the instrument. Up to 36 test setups can

be programmed and saved on the internal non-volatile memory.

Bursts are generated according to the related standards IEC 61000-4-4 and EN 61000-4-4. The PEFT 8010 can deliver EFT impulses in different formats including normal, continuous, random and real pulse distribution.

For better handling, the PEFT 8010 is equipped with two grounding connections, one at the front panel and one at the rear panel. This is very helpful in making connections to the ground plane if the PEFT 8010 is used either horizontally or vertically. With the integrated "Transition Function" Unominal, the spike frequency, the burst duration and the burst period can be varied automatically during a test. Besides this, it is also possible to edit the parameters manually during a test. Besides conventional safety features, the PEFT 8010 contains a separate "Line ON/OFF" switch with which the main supply can be disconnected from the equipment under test.

Features	Advantages
EFT/Burst impulse generation according to newest standards and latest technology	☒ Unmatched Performance – Accurate and fast measurements make this instrument a unique tool for cost-effective and reliable testing practices
Automatic test operation for shortest measuring time and minimal setup effort	☒ Wide Range of Extension Options – A wide range of options ensures a customized EMC test solution. Compatibility to other generators or detectors increases the functionality of the instrument up to an overall EMC test system
Data exchange to printer or computer is possible without any additional hardware/software	☒ Simple and Safe Operation – Intuitive and clear graphical presentation of the results helps finding exact failure levels. Software menus are simple to follow and do not have too many layers in the structure
Compact and reliable construction for factory, laboratory or field use	☒ Help Function – A help function has been built into the software, so that pressing the soft key "HELP" will give you more information about the operation you are attempting
Remote control is provided by optional software (WinFEAT&R) designed especially for EMC testing	☒ Safe Operation – Safety features like external emergency stop or warning lamp protect the user from hazardous and dangerous situations
ISO 9001 : 2000 certified manufactured	

Scope of Supply

- PEFT 8010
- Cable set
- User's Manual
- Calibration Certificate

Technical Data

Wave shape		
Rise time	5 ns ± 30%	into 50 Ω load
	5 ns ± 30%	into 1000 Ω load
Impulse Duration	5 ns ± 30%	into 50 Ω load
	50 ns – 15 / + 100 ns	into 1000 Ω load
Burst characteristics		
Voltage at HV Output	1.0 ... 7.3 kV	
Voltage at CDN Output	1.0 ... 6.6 kV	
Spike Frequency	1 Hz ... 110 kHz	
Burst Duration	0.01 ... 999 ms	
Burst Period	0.1 Hz ... 400 Hz	
	2.5 ms ... 10 s	
	1 period ... 500 periods	
Impulses per second	max. 250 for Unom > 4 kV	
	max. 500 for Unom ≤ 4 kV	
Impulses per burst	max. 75 for Unom > 4 kV	
	max. 150 for Unom ≤ 4 kV	
Spike distribution	Normal, Continuous, Random, Real	
Polarity	Positive and Negative	
Test Time	10 s ... 8 h per path	
Single Phase Coupling/Decoupling Network		
Maximum AC Voltage	264 V @ 16 ... 440 Hz	
Maximum AC Current	16 A @ 50 ... 60 Hz	
	10 A @ 400 Hz	
Maximum DC Voltage	125 V	
Maximum DC Current	16 A (dependant on DC voltage)	
Coupling Modes	L-GND, N-GND, PE-GND, LN-GND, LPE-GND, NPE-GND, LNPE-GND	
Residual Voltage at Test Supply Input	≤ 10% of applied test voltage	
System Configuration		
EUT Fail Input	BNC, logic low to trigger	
P90 Interface	for a 3-phase CDN extension	
PESD Interface	for connecting an ESD generator	
Printer Interface	Centronix	
Computer Interface	RS-232, IEEE-488 (optional)	
Synchronization		
Frequency	16.6 Hz, 40 Hz, 50 Hz, 60 Hz, 400 Hz, auto	
Impulse trigger	automatic, manual, external	
Mechanical and Power Supply		
Dimensions (W x D x H)	450 x 570 x 130 mm (17.7 x 22.4 x 5.1 in)	
Weight	14 kg (30.9 lb)	
Power supply Spec.	85 ... 264 V _{AC} , 150 VA, 50 / 60 Hz	

Global Presence

EUROPE

HAEFELY AG
Birsstrasse 300
4052 Basel
Switzerland

☎ +41 61 373 4111
✉ sales@haefely.com
💻 www.haefely.com

CHINA

HAEFELY AG Representative Office
8-1-602, Fortune Street, No. 67,
Chaoyang Road, Beijing 100025
China

☎ +86 10 8578 8099
✉ sales@haefely.com.cn
💻 www.haefely.com

INDIA

HAEFELY Services Private Ltd.
1st Floor, 1, 2, 3 & 4,
Vedas Spaces Commercial,
Nashik – 422 009, India

☎ +1 800 266 4052 (toll free)
✉ sales@haefely.com
💻 www.haefely.com

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HIGH VOLTAGE



INSTRUMENTS



EMC

