

Data Sheet 5.61-9/1

Software Package for Impulse Test, Type HiRES IAS IMPULSE

General

For testing with lightning and switching impulse an impulse generator, divider and measuring equipment are necessary. A HiRES measuring system is used for convenient measurements. The HiRES is controlled by the HiRES IAS main software. This package is specially prepared for impulse tests. Special dialogues and menus enable simple and convenient use.

Software requirements

The HiRES IAS IMPULSE is an additional software package to the main software HiRES IAS (see Data Sheet 5.61-1), that means, the main software HiRES IAS is necessary to use HiRES IAS IMPULSE.

Parameter settings

Whereas the left hand side of the display shows the measurements, the right hand side is provided to set the measuring parameters such as peak voltage, polarity, time deflection, and undershoot in one setup dialog (see Fig. 1). The software controls the related internal functions.

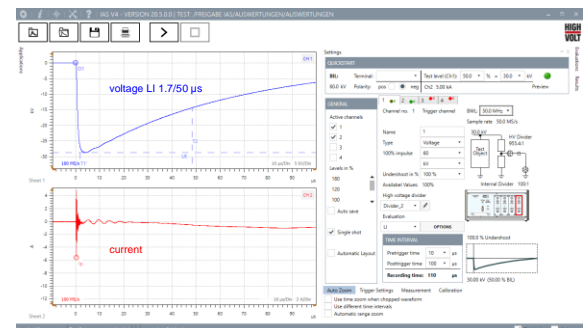


Figure 1: User interface

Quick start and parameter display

In case identical test routines are applied, short cuts and quick start functions on the upper side of the display allow a very fast impulse measuring routine. Evaluated parameters are shown on the right hand side of the display.

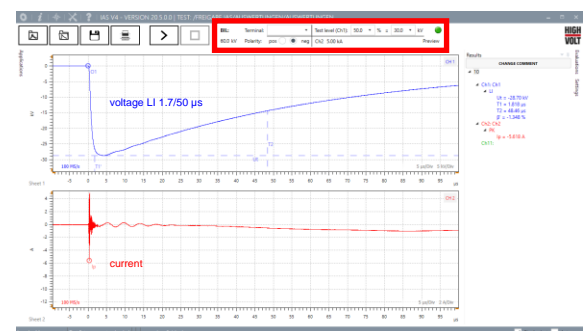


Figure 2: User interface with quick start menu

Analyzing by standard procedures

The evaluation procedure of recorded impulses is fixed in standards, for HV testing especially in IEC 60060-1:2010. Different modes of evaluation can be chosen according to the test conducted.

Impulse voltage and current evaluation according to IEC 60060-1:2010 by:

- LI mode for lightning impulses and chopped lightning impulses
- SI mode for switching impulses
- IC mode for impulse currents

Furthermore:

- PK mode for peak value evaluation
- CMP mode for compare function

Figure 3: Different evaluation modes available

Software check

The software's curve evaluation is based on the representative impulse curves (TDG) according to IEC 61083-2. The parameters generated by the software are within the associated tolerances. If necessary, these curves can be loaded by the operator of the IAS software, e.g. from the TDG-CD. The resulting parameter values can be compared with the associated tolerances of the standard.