

# DEC 6

## Decoupling Network for Symmetrical Data and Control Lines

■ The **DEC 6** is used for decoupling auxiliary equipment from an EUT tested with 10/700us impulses up to 6.6kV peak. It is used to decouple unshielded symmetrical data and signal lines according standard ITU K.44. Up to 4 wires can be tested simultaneously.

**To obtain maximum flexibility** only decoupling and protection elements are included in the DEC 6. Coupling circuits, which depends on the EUT to be tested, can be placed separately in the test setup.

**Manual coupling selection of the protection elements** for best protection of the auxiliary equipment.

**Default protection elements** are gas arrestors and breakdown avalanche diodes (ABDs). With such elements the capacitive load to the EUT lines is small. The decoupling elements can be selected easily. It is also possible to test without any protection elements.

The DEC 6 can be used together with the coupling networks PCD 120, PCD 122 and PCD 800. These provide all the coupling elements as required to perform IEC, ANSI, FCC and EN testing.

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



### ■ Features

- ☑ Decoupling resistors 200 Ohm
- ☑ 10/700us telecom impulses and combination wave 1.2/50us - 8/20us impulses
- ☑ 100kHz ring wave impulses
- ☑ Breakdown avalanche diodes and gas arrestors as protection elements
- ☑ Up to 4 wires can be tested
- ☑ Signal Bandwidth up to some 10MHz

### ■ Benefits

**International application** – Specifically designed to meet and exceed the requirements of:

- IEC / EN 61000-4-5 Edition 1 Figure 12 (\*)
  - IEC / EN 61000-4-5 Edition 2 Figure 14 (\*)
  - IEC / EN 61000-4-12 Edition 2 Figure 12 (\*)
  - ITU K.44: 2003 Figures A.5-1, A.6.1-1 to A.6.1-5
- (\*) The DEC 6 is not normative for IEC standards!

**Safe and Easy** - All the sockets are safety banana plugs to ensure maximum safety to the user. The selected protection element can be seen at a glimpse.

**Sturdy and Reliable** – Careful component selection ensures that the DEC 6 will continue to operate under the most strenuous testing regimen.

**Report Generation** - The unit controller can automatically generate test reports without a computer. Add WinFEAT&R control and reporting software on a host PC to collect and collate data in any format you like.

### ■ Applications

- ☑ Unshielded symmetrical data and signal lines
- ☑ Telecommunication equipment

Other international requirements for surge testing symmetrical data- and control lines such as TIA-968-A (FCC part 68)

## ■ Technical Specifications

|                                      |  |   |
|--------------------------------------|--|---|
| Impulse shapes                       | 10/700us - 5/320us<br>1.2/50us - 8/20us<br>100kHz ring wave  |   |
| Impulse amplitude                    | max. 6.6kV   |   |
| Decoupling elements                  | Resistors 200 Ohm  |   |
| Voltage on EUT lines                 | max. 72V <sub>DC</sub> or 50V <sub>AC,RMS</sub><br>max. 144V <sub>DC</sub> or 100V <sub>AC,RMS</sub> | with gas arrestors as protection elements<br>with ABDs as protection elements |
| Current on EUT lines                 | max. 0.1A  |   |
| Signal bandwidth for the EUT signals | up to some 10MHz   |   |

Other decoupling elements on request.

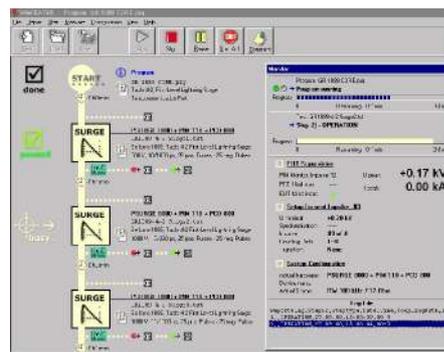
## Weight and Dimensions

|        |                  |            |                             |
|--------|------------------|------------|-----------------------------|
| Weight | approx. 2 kg net | Dimensions | 30 x 20 x 16 cm (w x h x d) |
|--------|------------------|------------|-----------------------------|

## ■ DEC 6 Art. No. 2490151 Scope of Supply

- Qty. 1 DEC 6
- Qty. 1 Cable set
- Qty. 4 Short circuit bridges
- Qty. 1 Users Manual

## WinFEAT&R Control Window



## ■ Options and Accessories

- PCD 120 Automatic operated coupling unit according ITU K.44 and IEC 61000-4-5
- PCD 122 Manual operated coupling unit according IEC 61000-4-5 and ITU K.44
- PCD 800 Automatic operated coupling unit according to TIA-968-A (FCC part 68)
- PSURGE 8000 Mainframe of the Surge Platform
- PIM 120 10/700µs impulse module
- PIM 800 10/560us, 10/160us and 9/720us impulse module according to FCC part 68
- WinFEAT&R Control and reporting software. Runs under windows 98, NT, ME, 2000, XP

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