DEC 7

Decoupling Network for Asymmetrical Data and Control Lines

Datasheet

HAEFELY

Current and voltage – our passion

General Description

The DEC 7 is used for decoupling auxiliary equipment from an EUT tested with either 1.2/50 µs- 8/20 µs combination wave impulses or ring wave 100kHz impulses up to 6.6 kV peak. It is used to decouple unshielded asymmetrical control and data lines according IEC/EN standards. Up to 4 wires can be tested simultaneously.

To obtain maximum flexibility only decoupling and protection elements are included in the DEC 7. 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 varistors 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 7 can be used together with the coupling networks PCD 126A and IP6.2. These provide all the coupling elements as required to perform IEC, ANSI and EN testing.

Features	Advantages
▪ Decoupling inductors 20 mH not compensated	☑ **International application –** Specifically designed to meet and exceed the requirements of: - IEC / EN 61000-4-5 Edition 2: Figures 11 - 13 - IEC / EN 61000-4-5 Edition 3: Figure 9 - IEC / EN 61000-4-12 Edition 2: Figures 9 - 11 - IEC / EN 61000-4-12 Edition 3: Figure 8
▪ 1.2/50 us-8/20 us combination wave impulses	☑ **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.
▪ 100 kHz ring wave impulses	☑ **Sturdy and Reliable –** Careful component selection ensures that the DEC 7 will continue to operate under the most strenuous testing regimen.
▪ Breakdown avalanche diodes and varistors as protection	
▪ Up to 4 wires can be tested	
▪ Signal Bandwidth up to some 100 Hz	

Applications

- Unshielded asymmetrical control and data lines
- Industrial and residential equipment
- Other international requirements for surge testing asymmetrical data- and control lines

Scope of Supply

- DEC 7
- Cable set
- Short circuit bridges – 4 Nos.
- Users Manual

Technical Data

Device	
Impulse Shapes	1.2 / 50 µs – 8 / 20 µs combination wave 100 kHz ring wave
Impulse Amplitude	max. 6.6 kV
Decoupling elements	Inductors 20 mH not current compensated
Voltage on EUT lines	max. 375 V_{DC} or 265 $V_{AC, RMS}$ max. 72 V_{DC} or 50 $V_{AC, RMS}$
Current on EUT Lines	max. 1.5 A
Signal Bandwidth for the EUT Signals	Up to some 100 Hz

Other decoupling elements on request

Environmental, Mechanical and Power Supply	
Dimensions (W x D x H)	300 x 160 x 200 mm (11.8 x 6.3 x 7.9 in)
Weight	approx.. 6 kg Net. (13.2 lb)

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