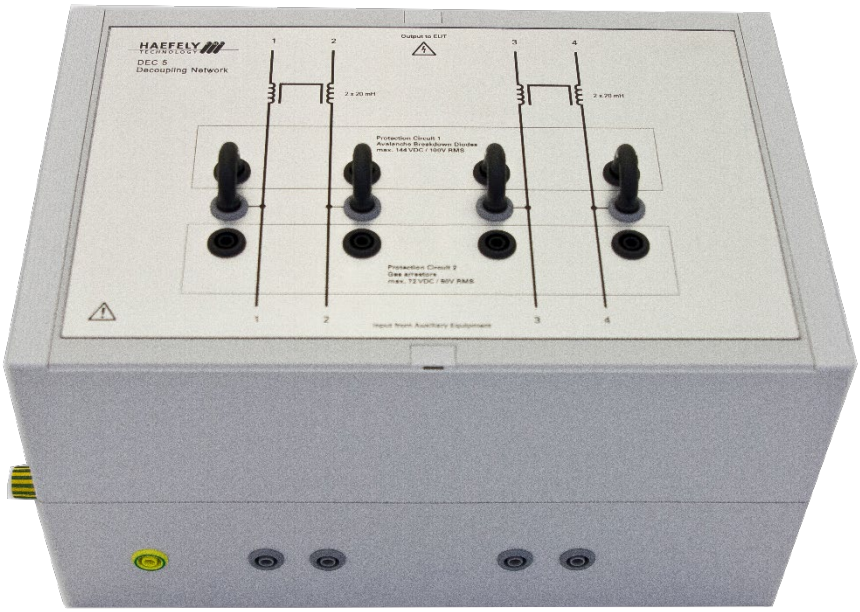
DEC 5

Decoupling Network for Symmetrical Data and Control Lines

Datasheet



HAEFELY

Current and voltage – our passion

General Description

The DEC 5 is used for decoupling auxiliary equipment from an EUT tested with either 1,2/50 µs - 8/20 µs combination wave impulses,10/700 µs telecom wave, and ring wave impulses up to 6.6 kV peak.

It is used to decouple unshielded symmetrical data and signal lines according standards IEC 61000-4-5 Edition 3 and 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 5. 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. 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 5 can be used together with the coupling networks PCD 120, PCD 121, and PCD 122. These provide all the coupling elements as required to perform IEC, ANSI and EN testing.

Features	Advantages
▪ Inductors 20 mH compensated	☑ **International application** – Specifically designed to meet and exceed the requirements of: - IEC / EN 61000-4-5 Edition 2: Figure 14 - IEC / EN 61000-4-5 Edition 3: Figure 10 - IEC / EN 61000-4-12 Edition 2: Figure 12 - IEC / EN 61000-4-12 Edition 3: Figure 9 - ITU K.44: 2003 Figures A.5-1, A.6.1-1 to A.6.1-5
▪ Combination wave 1.2/50 us - 8/20 us impulses 10/700 us telecom 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 5 will continue to operate under the most strenuous testing regimen.
▪ Breakdown avalanche diodes and gas arrestors as protection elements	
▪ Up to 4 wires can be tested	
▪ Signal Bandwidth up to some 100 kHz	

Scope of Supply

- DEC 5
- Cable set
- Short circuit bridges – 4 Nos.
- Users Manual

Technical Data

Device	
Impulse Shapes	1.2 / 50 µs – 8 / 20 µs 10 / 700 µs – 5 / 320 µs 100 kHz ring wave
Impulse Amplitude	max. 6.6 kV
Decoupling elements	20 mH current compensated (two inductors with two coils each)
Voltage on EUT lines	max. 72 V_{DC} OR 50 $V_{AC, RMS}$ (with gas arrestors as protection elements) max. 144 V_{DC} or 100 $V_{AC, RMS}$ (with ABDs as protection elements)
Current on EUT Lines	max. 1 A
Signal Bandwidth for the EUT Signals	Up to some 100 kHz Up to some 100 kBaud

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.. 9 kg Net. (19.8 lb)

Global Presence

Europe
HAEFELY AG
Birsstrasse 300
4052 Basel
Switzerland

☎ + 41 61 373 4111
sales@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

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I INSTRUMENTS
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precision. swiss made.