

DEC 6

Decoupling Network for Symmetrical Data and Control Lines

Datasheet



HAEFELY

Current and voltage – our passion

General Description

The DEC 6 is used for decoupling auxiliary equipment from an EUT tested with Combination wave, Telecom wave, and Ring wave impulses up to 6.6 kV 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.

Features	Advantages
<ul style="list-style-type: none">Decoupling resistors 200 Ohm	<ul style="list-style-type: none"><input checked="" type="checkbox"/> International application – Specifically designed to meet the requirements of:<ul style="list-style-type: none">IEC / EN 61000-4-5 Edition 1 Figure 12 ⁽¹⁾IEC / EN 61000-4-5 Edition 2 Figure 14 ⁽¹⁾IEC / EN 61000-4-12 Edition 2 Figure 12⁽¹⁾ITU K.44: 2003 Figures A.5-1, A.6.1-1 to A.6.1-5
<ul style="list-style-type: none">10/700 us telecom impulses	<ul style="list-style-type: none"><input checked="" type="checkbox"/> 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.
<ul style="list-style-type: none">combination wave 1.2/50 us - 8/20 us impulses	<ul style="list-style-type: none"><input checked="" type="checkbox"/> Sturdy and Reliable – Careful component selection ensures that the DEC 6 will continue to operate under the most strenuous testing regimen.
<ul style="list-style-type: none">100 kHz ring wave impulses	
<ul style="list-style-type: none">Breakdown avalanche diodes and gas arrestors as protection elements	
<ul style="list-style-type: none">Up to 4 wires can be tested	
<ul style="list-style-type: none">Signal Bandwidth up to some 10 MHz	

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)

Haefely Model	Combination Wave		Ring Wave	
	symmetric	asymmetric	symmetric	asymmetric
PCD 121	✓			
PCD 126A		✓	✓	✓
PCD121 + PCD 126A	✓	✓	✓	✓

Scope of Supply

- DEC 6
- Cable set
- Short circuit bridges – 4 Nos.
- Users Manual

Technical Data

Device	
Impulse Shapes	10 / 700 μ s – 5 / 320 μ s 1.2 / 50 μ s – 8 / 20 μ s 100 kHz ring wave
Impulse Amplitude	max. 6.6 kV
Decoupling elements	Resistors 200 Ω
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. 0.1 A
Signal Bandwidth for the EUT Signals	Up to some 100 MHz

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.. 2 kg Net. (4.4 lb)

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V2023.07



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Current and voltage – our passion



HIGH VOLTAGE



INSTRUMENTS



EMC

