

DEC 4A

High Speed Data/Telecom Decoupling Unit for Surge Testing

Data and Telecommunications systems have come a long way since the analog age. Conventional Surge decoupling units, such as those described in IEC 61000-4-5, operate fine for analog communications but do not contain sufficient bandwidth to successfully pass digital signals. With the increase in data transfer rates for widely used high speed systems such as ISDN and Ethernet, where interfaces operate in the range of **144 kbps** up to **10 Mbps** and are pressing towards 100 Mbps, a need exists to enable continuous and uninterrupted traffic flow while simultaneously applying Surge test impulses. **DEC 4A** enables Surge tests to be performed on an active data transmittal system with two line voltage ranges; up to $\pm 80V$ and $\pm 120V$.

Suitable applications would be as described in the basic standards **IEC/EN 61000-4-5** and **ITU K 44**.

Safety is paramount with surge impulses. The DEC 4A uses safety connections which eliminate the danger of accidental contact with high voltage impulses.

DEC 4A is a **decoupling** unit which protects auxiliary equipment required to send and receive data during a test. It is fully compatible with all existing Haefely Surge systems. Suitable coupling units are the IP6.2 (IEC), PCD 800 (FCC part 68) and PCD 120 (ITU).

DEC 4A has been designed to operate with the 1.2/50(8/20) μs combination wave impulse **AND** the widely used **10/700 μs** ITU pulses.

Features

- DC .. **10MHz** analogue bandwidth
- Line voltages up to $\pm 120V$
- Impulse voltage up to 6.6kV
- Application with **CWG AND 10/700 μs** impulses
- 4 wire** decoupling
- Use with many Haefely coupling units

Benefits

International application – Specifically designed to meet and exceed the requirements of IEC, EN, and ITU tests for telecom line applications.

Multiple System Usage – DEC 4A can be used for up to 4 unshielded balanced or unbalanced lines.

Safe and Easy – DEC 4A uses safety connectors which eliminate accidental contact with active circuits, allowing operators to test safely and easily.

One box does all – Because DEC 4A can be operated with impulse levels up to 6.6kV, it can be applied in systems covering a wide range of test applications.

Applications

High Speed Data Links

Digital Telecommunications Systems



Technical Specifications

Impulse Voltage	6.6kV maximum	Line Voltage Selections	$\pm 80V$ and $\pm 120V$
Impulse Types	1.2/50(8/20) μ s & 10/700 μ s	Line Current	0.1A per path
Insertion Loss	15dB maximum ($Z_{sys}=120\Omega$)	Decoupling Elements	Resistive

Weights and Dimensions (W x H x D, net weight)

DEC 4A	52 x 12 x 50 cm	10 kg
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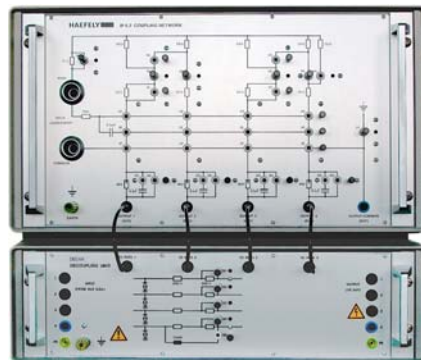
Scope of Supply

Qty. 1	DEC 4A Decoupling Unit
Qty. 4	4mm safety banana cables 0.2m
Qty. 5	4mm safety banana cables 1.0m
Qty. 1	Users Manual

Options & Accessories

IP6.2	Four wire coupling unit for IEC 61000-4-5 testing with both the 1.2/50(8/20) μ s combination wave and 10/700 μ s impulses.
PCD 120	Four wire coupling unit for IEC 61000-4-5 and ITU K series testing using the 10/700 μ s impulse.
PIM 120	10/700 μ s impulse module up to 7.4kV
PIM 100	1.2/50(8/20) μ s combination wave impulse module up to 7.4kV

IP6.2 Coupling Unit



PCD 120 4 wire IEC & ITU Coupling Unit



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