



Advanced Test Equipment Corp.
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PCD 126A

Coupling Network for
Asymmetrical Data and
Control Lines

Datasheet



HAEFELY

Current and voltage – our passion

General Description

The PCD 126A is used for surge coupling of 1.2 / 50 us – 8 /20 us combination wave impulses onto unshielded asymmetrical data and signal lines according IEC/EN standards. It is also used for surge coupling ring wave impulses onto both unshielded asymmetrical and symmetrical data and control lines according to IEC/EN standards. Up to 6.6 kV peak value are possible. Up to 4 wires can be tested simultaneously.

To obtain maximum flexibility only coupling elements are included in the PCD 126A. Decoupling circuits, which depends on the EUT to be tested, can be placed separately in the test setup.

Manual coupling path switching for common mode (longitudinal, line to earth) and differential mode (transversal, line to line) testing.

Default coupling elements are capacitors, breakdown avalanche diodes and gas arrestors. The coupling elements can be selected easily. The direct coupling output allows the customer to use his own coupling elements.

The PCD 126A can be used together with the impulse modules PIM 100 and PIM 110 from the Surge Platform and the PSURGE 4010. These provide all the programming functions required to perform IEC, ANSI and EN testing also without the need of a control computer.

Features	Advantages
<ul style="list-style-type: none">▪ Combination wave 1.2/50 us - 8/20 us impulse	<ul style="list-style-type: none">☑ International Application – Specially designed to meet and exceed the requirements of: IEC / EN 61000-4-5 Edition 1 Figures 10 and 11 (combination wave) IEC / EN 61000-4-5 Edition 2 Figures 11, 12 and 13 (combination wave) IEC / EN 61000-4-12 Edition 1 Figures 9, 10, 13 and 14 (ring wave) IEC / EN 61000-4-12 Edition 2 Figures 9, 10 and 11
<ul style="list-style-type: none">▪ Serial resistor 40 Ohm included	<ul style="list-style-type: none">☑ Safe and Easy – All the sockets are safety banana plugs to ensure maximum safety to the user. The selected coupling path can be seen at a glimpse
<ul style="list-style-type: none">▪ Up to 4 wires can be tested	<ul style="list-style-type: none">☑ Sturdy and Reliable – Careful component selection ensures that the PCD 126A will continue to operate under the most strenuous testing regimen
<ul style="list-style-type: none">▪ Signal Bandwidth up to a few MHz	<ul style="list-style-type: none">☑ 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
<ul style="list-style-type: none">▪ Manual coupling path selection	

Applications

- Unshielded asymmetrical data and signal lines
- Unshielded symmetrical data and signal lines (ring wave testing only)
- Industrial equipment
- Other international requirements for combination wave and ring wave impulses on asymmetrical data- and control lines

Scope of Supply

- PCD 126A
- HV cable Fischer - Fischer
- Cable set
- Short circuit bridge
- Users Manual

Technical Data

Device		
Impulse Shape	Combination wave 1.2 us/50 us – 8/20 us Ring wave 100 kHz	Z= 2 Ω Z= 12 Ω, 30 Ω and 200 Ω
Impulse Amplitude	Max. 6.6 kV	for both impulse shapes
Serial Resistor	1 x 40 Ω	for testing according to IEC 61000-4-5
Coupling Elements	Capacitor 0.5 uF / 3 uF Avalanche breakdown diode (ABD) Avalanche breakdown diodes (ABDs) Gas arrestors Direct	for asymmetrical lines, both impulse shapes for asymmetrical lines, both impulse shapes for symmetrical lines, ring wave only for symmetrical lines, ring wave only for customer specific coupling elements
Voltage on EUT lines	Max. 375 V _{DC} or 265 V _{AC, RMS} Max. 72 V _{DC} or 50 V _{AC, RMS}	with capacitors as coupling elements with ABDs or gas arrestors as coupling elements
Signal bandwidth	Up to > 1 kHz Up to > 1 MHz Up to > 10 MHz	with capacitors as coupling elements with ABDs as coupling elements with gas arrestors as coupling elements

Other decoupling elements on request

Mechanical	
Dimensions (W x D x H)	450 x 570 x 195 mm (17.7 x 22.4 x 7.7 in)
Weight	Approx.. 12 kg net (26.5 lb)

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Current and voltage – our passion



HIGH VOLTAGE



INSTRUMENTS



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precision.
swiss made.