

IMN2

IMPEDANCE MATCHING NETWORK FOR SURGE IMPULSE GENERATORS



FOR TESTS ACCORDING TO ...

- › EN 61000-4-5
- › EN 61000-4-9
- › IEC 61000-4-5
- › IEC 61000-4-9

SURGE IMPULSE VERIFICATION

The IMN2 replaces, at the HV-COM output, the surge generator's external coupler. It is required as per IEC 61000-4-5 Ed.3 so that the pulse specifications can be accurately matched. It is required for the following applications:

- Direct surge application to an EUT without coupling network
- Surge impulse matching for pulsed H-field tests to match the waveshape using magnetic field antenna
- Surge impulse verification at the HV - COM output when no coupling decoupling network is used

HIGHLIGHTS

- › Impedance Matching Network for surge generators as per IEC 61000-4-5 Ed.3
- › Surge output HV-COM fitting, if no CDN is used
- › Impulse Range: Up to 8,000 V and 4,000 A
- › Surge impulse verification at direct output HV-COM
- › Match Surgepulse to H-field Antenna circuit as per Draft IEC 61000-4-9 Ed.2

APPLICATION AREAS

-  INDUSTRY
-  RENEWABLE ENERGY
-  MEDICAL
-  RESIDENTIAL
-  COMPONENTS

TECHNICAL DETAILS

IMN2 APPLICATION

TYPICAL APPLICATION FOR THE IMN2

The EM TEST surge generator HV-COM output, located at the rear side, is designed to connect external coupling/decoupling networks and other devices to the generator. The standard IEC 61000-4-5 Ed.3 defines the Surge wave shape at the CDN output. The missing coupling capacitors (0.5 uF, 9 uF or 18 uF) for the surge circuit for verification, are built in the external CDN,s.

Therefore the pulse verification at the HV-COM generator output conforms to the Surge waveform specification only when an IMN2 is used.

Typical applications for the IMN2 are:

Surge pulse verification / calibration:

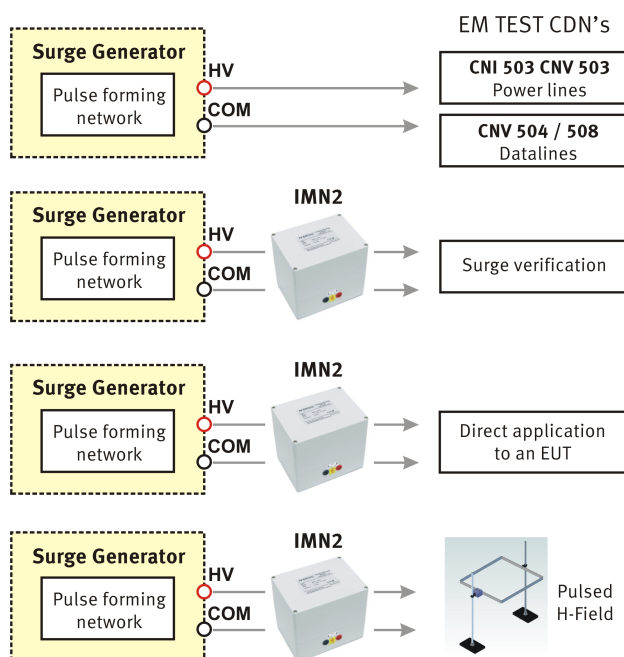
The IMN2 is connected between the HV-COM output and the verification equipment.

Direct coupling to a EUT:

The IMN2 is connected between the HV-COM output and the EUT when no coupling- decoupling network is used.

Pulsed magnetic field test:

The draft IEC 61000-4-9 Ed.2 standard recommends a surge generator with an internal/external 18 uF capacitor for the calibration and the coupling. The IMN2 includes this capacitor for coupling into a magnetic field antenna.



IMPEDANCE MATCHING NETWORK

TECHNICAL DATA

Impulse	Surge impulse 1.2/50 us, 8/20 us
Impulse voltage	8,000 V max.
Impulse current	4,000 A max.
Coupling capacitance	18 uF ± 20%

ACCESSORIES

Cable	HV cable, 2 x 0.25 m, 1 x red, 1 x black
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GENERAL DATA

DIMENSIONS

Dimension	160 mm x 120 mm x 145 mm (L x W x H)
Weight	1.30 kg

ENVIRONMENT

Temperature	10 °C to 35 °C
Rel. Humidity	Max. 85 %, non condensing
Atmospheric pressure	86 kPa (860 mbar) to 106 kPa (1 060 mbar)

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Information about scope of delivery, visual design and technical data correspond with the state of development at time of release. Subject to change without further notice.