

Surge, ring wave CDN for signal and data lines CDN-DATA-4L and CDN-DATA-8L

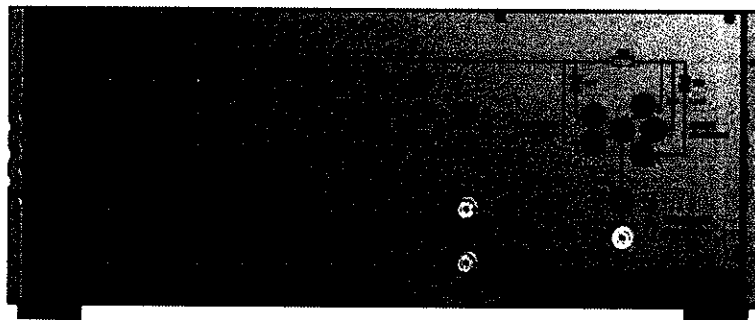
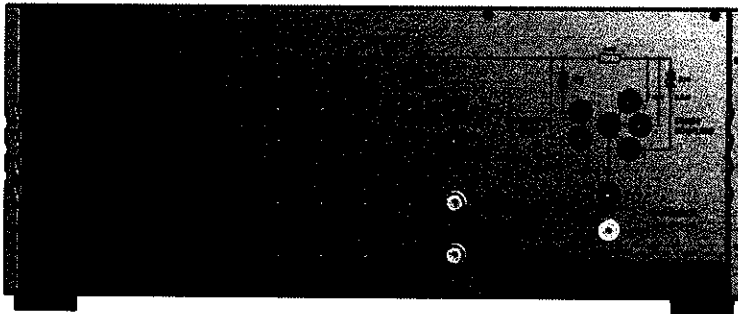
Technical specification
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1 Brief description

The CDN-DATA-4L and CDN-DATA-8L can be used together with EMC Partner generators for Surge and Ring wave in order to superpose pulses on signal and data lines, in accordance with latest editions of IEC 61000-4-5 and IEC 61000-4-12. The two robust products address 4 lines and 8 lines, asymmetrical, differential mode coupling (L-L) and common mode coupling (L-PE). A broad range of EUTs can be tested, due to outstanding capability regarding pulse maximum voltage and EUT maximum voltage and current.



2 Key facts

Features

Surge as per IEC 61000-4-5 Ed. 3
Ring wave as per IEC 61000-4-12 Ed. 2
Models available for 4 lines or 8 lines
Safety protected connections
High flexibility with EUT current and voltage

Benefits

Maximum 6 kV surge pulse voltage
Maximum 6 kV ring wave pulse voltage
Flexibility, price optimization possible
Increased operation safety
Broad range of applications covered

3 Unique features

CDN-DATA-4L and CDN-DATA-8L offer:

1. Unique combination between test level, EUT voltage and current capability, and price.
2. Flexible coupling elements, multiple choices on the front panel.
3. Intuitive and easy to use connection matrix.

4 Technical Parameters

	CDN-DATA-4L	CDN-DATA-8L
Max. number of lines	4 asymmetrical lines	8 asymmetrical lines
Max. EUT voltage per line	DC 200V, AC 240V	DC 200V, AC 240V
Max. EUT current per line	3A continuous (5A for 5 minutes)	3A continuous (5A for 5 minutes)
Max. EUT frequency	As per IEC61000-4-5 (100 kHz)	As per IEC61000-4-5 (100 kHz)
Max. surge voltage	6 kV	6 kV
Surge coupling resistor	40 Ω	40 Ω
Surge coupling element	0,5 μ F, 33V bi-polar diode, 90V GDT	0,5 μ F, 33V V bi-polar diode, 90V GDT
	Other coupling elements can be defined and used flexibly	
Surge decoupling	20 mH, as per IEC61000-4-5	20 mH, as per IEC61000-4-5
Max. ring wave voltage	6 kV	6 kV
Ring wave coupling	33V bi-polar diode	33V bi-polar diode
	Other coupling elements can be defined and used flexibly	
Ring wave decoupling	As per IEC61000-4-12	As per IEC61000-4-12

4.1 Mechanical dimensions and environmental conditions

IMU4000 generator is a 19" plug-in system for 19" racks

Type	CDN-DATA-4L	CDN-DATA-8L
Dimensions wxdxh [mm]	57 x 45 x 19 cm	57 x 45 x 19 cm
Weight [kg]	17 kg	25 kg
Construction	Standard 19" rack, 4 HU	Standard 19" rack, 4 HU

4.2 Environmental conditions

Temperature range [°C]	Rel. humidity [%]	Pressure [kPa]
0 – 35	25 - 80	86 - 106

5 Recommended generators

Following generators can be used with CDN-DATA-4L and CDN-DATA-8L

- ✓ IMU Series: all IMU4000 or IMU3000 generators equipped with surge and/or ring wave modules.
- ✓ MIG Series: all MIG generators equipped with surge/CWG and/or ring wave modules. For example: MIG0603IN, MIG1203 CWG, MIG1206-1P, MIG1206-3P (limited to 6 kV for use with CDN-DATA-).

Connection example for surge test, coupling with $40\ \Omega + 0,5\ \mu\text{F}$:

