CDN for Lightening Surge Immunity Tests on Unshielded

Asymmetric Communication Line CDN 405AF8



In Compliance with

- > EN/IEC 61000-4-5
- > ITU-T K.20
- > ITU-T K21
- > ITU-T K.45
- > GB/T 17626.5

Introduction

The CDN 405AF8 unshielded asymmetric coupling/decoupling network is designed for surge te sting on low-speed communication lines (up to 10 MBit/s Ethernet speed). There is no need f or extra protection of AE because of high decoupling capacity of CDN 405AF8 to make sure t est repeatability. Max. residual voltage on AE port is only 90 V when the surge voltage is 2 k V. It fully meets the requirements of figure 9 in IEC/EN 61000 - 4 - 5: 2017. It also boasts st able decoupling capacity and transmission rate, easy to operate and compact size.

Features

- > Data rate up to 10 MBit/s;
- > Test output to 1 pair, 2-pair or 4-pair com munication line;
- > No need to extra protect AE;
- > Replaceable current-limiting resistors;
- > Compatible with the output port of other c ompany' s generators for communication te st;

Application Areas

Communication

-communication	211
> Telecom	> Military
> Medical	> Avionics
> Broadcasting	> New energy
>Railway	>new energy autom
	obile

< IT



Technical parameters		
Coupling	1.2/50 μs, 8/20 μs	
Waveform		
Pulse Voltage	6 kV (10 kV can be customized)	
Coupling	4 pair unshielded asymmetric	
Mode	line	
Coupling	SCD 90 (90 V gas discharging	
Device	tube, built-in)	
Output	$40\Omega\pm5\%$	
Impedance		
Communicati	4 mm port (for telecom lines)	
on Interface		
	Pair 1: pins 1/2	
Pin	Pair 2: pins 3/4	
assignment	Pair 3: pins 5/6	
	Pair 4: pins 7/8	
Data Rate	Up to 10 MBit/s	
Operating	DC 3 V – 90 V	
Voltage		
Operating	Max. 1 A	
current		
Decoupling	20 mH	
Inductance		
Residual	< 15% (surge voltage)	
Voltage		

General Parameters		
Weight	Approx. 10 kg	
Dimension	360 mm(L)×220 mm(W)×135	
	mm(H)	
Shell	Aluminum	
Material		
Operating	15 °C -35 °C	
Temperature		
Operating	45% - 75%	
Humidity		
Package	Carton	

Standard Accessories		
HV Cable	1 m HV silicone-rubber	1 pc
	line with banana plug	
Grounding	0.5 m yellow/green	1 pc
Cable		
Short-circuit	black	1 pc
Cable		
NR40	Current-limiting module	1 pc
NR0	Current-limiting module	1 pc
Network	1 m	2 pcs
Cable		
	Factory test report	1 pc
Documents	User manual	1 pc

Optional Accessories		
NR100	100 Ω	
NR160	160 Ω	
NR200	200 Ω	
NR320	320 Ω	

Equipment Connection Diagram







Design Schematic Circuit



As per Figure 9 in IEC 61000-4-5:2017



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