



## MAIN FEATURES

- Coupling networks designed for IEC/EN 61000-4-6
- CDN M series for mains applications
- Models with frequency range 150 kHz to 230 MHz
- for 2 Lines application
- Models with 4 mm safety banana sockets
- with maximum current of 32 A

## CDN M2, ≤32 A from 150 kHz CDN IEC 61000-4-6

IEC/EN 61000-4-6 specifies the design and performance of a range of coupling/decoupling networks (CDNs). Each CDN is specific to the type of cable and the intended signal carried on the cable. AMETEK CTS with its brand TESEQ offers an extensive range of CDNs which fully comply with the requirements of the standard and provide a simple and reliable method of injecting RF energy into the equipment under test (EUT). In this datasheet, CDN used with unscreened supply (mains) with two line applications with maximum of 32 A starting from 150 kHz as required by IEC/EN 61000-4-6 is presented.

The CDN M2 series is used to Inject common mode disturbance signal to supply lines for AC or DC two line applications in the frequency range from 150 kHz to 230 MHz. The CDN M210B is special design with european outlet that fit with two lines appliances. It is convenient to test typical two lines home appliances.

Verification results is supplied with each unit. Traceable and accredited calibration according to ISO17025 is available upon request. The CDN can be ordered alone or as a kit, which includes the necessary adapters for verification. please refer to the set order information for more details.

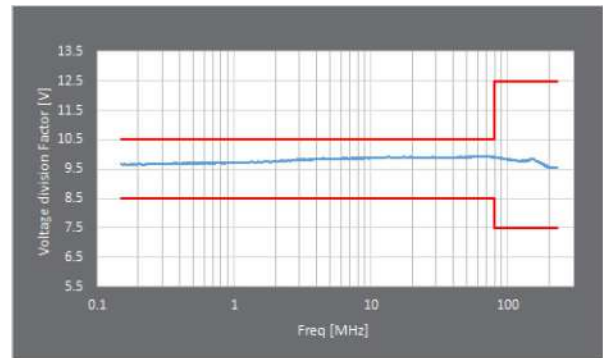
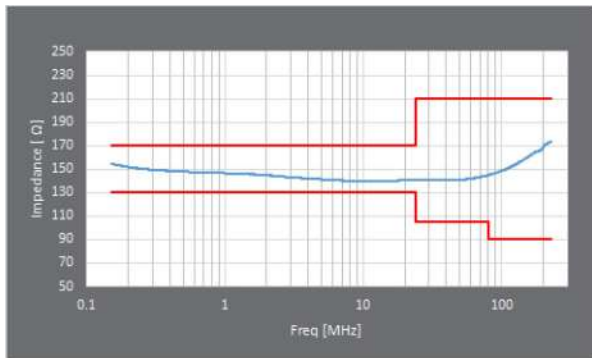
For safety, AMETEK provides a protective earth bolt attached to the bottom plate of all CDN series which can be used to connect it with ground. Furthermore, CDN series comes with a safety banana socket to avoid accidental contact with the metal socket.

Typical performance with limit lines for common mode impedance and voltage division factor can be found in this datasheet.

## Electrical Specifications

	CDN M210B	CDN M216	CDN M216-1000V	CDN M232	CDN M232A	CDN M232-1000V
Frequency Range	150 kHz to 230 MHz					
Connector EUT Port	CEE 7 / 17	4 mm safety banana				
Connector AE Port	IEC 60320 C14					
Line Parameters	2 lines					
Application Configuration	2 power line	(L+N) (DC+, DC-)				
AC max. voltage (L-N) / (L-L)	250 V / 433 V		500 V / 1000 V	300 V / 520 V		500 V / 1000 V
DC max. voltage (L-N)/ (L-L)	400 V / 800 V		1000 V / 2000 V	400 V / 600 V		1000 V / 2000 V
Current Max	10 A	16 A		32 A		
Test Voltage, 2 sec.	3.1 kVDC					4.7 kVDC
Common Mode Impedance (EUT Port)	150 kHz to 24 MHz: 150 Ω ±20 Ω 24 MHz to 80 MHz: 150 Ω +60 Ω / -45 Ω 80 MHz to 230 MHz: 150 Ω ±60 Ω					

### Typical Performance for Common Mode Impedance and Voltage Division Factor



### RF to EUT/AE Specifications

	CDN M210B	CDN M216	CDN M216-1000V	CDN M232	CDN M232A	CDN M232-1000V
RF Port	BNC 50 Ω					
RF Voltage	< 30 V <sup>1</sup>				< 50 V <sup>2</sup>	< 30 V <sup>1</sup>
Voltage division factor (RF input to EUT port)	150 kHz to 80 MHz: 9.5 dB ±1 dB 80 MHz to 230 MHz: 9.5 dB +3 dB/-2 dB			10 dB +3 dB / -1 dB 10 dB +3 dB / -1 dB	10 dB ±2 dB 10 dB ±2 dB	10 dB ±1 dB 10 dB ±2 dB
Insertion loss (EUT / AE)	f < 400 Hz: <0.1 dB					
Decoupling of CM disturbance (RF port / AE) typ.	150 kHz: >30 dB 1.5 MHz: >60 dB 30 MHz: >40 dB 230 MHz: >20 dB			150 kHz: >20 dB 1.5 MHz: >50 dB 30 MHz: >50 dB 230 MHz: >20 dB	150 kHz: >20 dB 1.5 MHz: >50 dB 30 MHz: >40 dB 230 MHz: >20 dB	
Footnote	1. refers to 50 V test level in 300 Ω / 2. refers to 83 V test level in 300 Ω					

### General Specifications

	CDN M210B	CDN M216	CDN M216-1000V	CDN M232	CDN M232A	CDN M232-1000V
Operating / Cooling Time	-	at 40°C & 16 A: 25 min. / 25 min. at 23°C & 16 A: 35 min. / 70 min.		-		
Dimensions (WxHxD)	100 x 100 x 240 mm <sup>3</sup>			160 x 160 x 470 mm <sup>3</sup>	203 x 203 x 470 mm <sup>3</sup>	160 x 160 x 470 mm <sup>3</sup>
Net Weight	approx. 1.5 kg			approx. 6.5 kg	approx. 7.8 kg	approx. 6.5 kg
Operating Environment	Indoor use only					
Operating Temperature	+5°C to +40°C					
Humidity	up to 80%					

### Set Information

	CAL U100B 247825	CAL U100M 25713B	A50-N 257521	SAR M116 239915	SAR M210M 257955	TRA M21B 242457	SAR MA21 247827
CDN M210BS 244113	-	1	-	-	1	1	-
CDN M216S 244112	2	-	1	1	-	-	2
CDN M232S 244291	2	-	1	1	-	-	2
CDN M216-1000VS 247776	2	-	1	1	-	-	2
CDN M232-1000VS 256671	2	-	1	1	1	-	2