

Features

Frequency Range - 150 kHz - 80 MHz

Meets EN 61000-4-6 requirements

Current Rating: up to 25 Amps

Individual Calibration

Two Year Warranty



Description

The M series powerline Coupling / Decoupling Networks (CDN) are for testing from 150 kHz - 80 MHz according to the EN 61000-4-6 standard for immunity to conducted disturbance induced by radio frequency fields. The standard M series CDNs are available with 25 amperes current rating.

The coupling network delivers injected common mode current disturbance signals through the power line conductors to the equipment under test (EUT). The decoupling networks are used to ensure that the disturbing signals injected on the powerline of the EUT by the coupling networks do not interfere with any of the auxiliary equipment connected to the EUT. Each CDN contains integrated direct capacitive coupling along with the high impedance choke for inductive decoupling.

All CDNs are individually calibrated to meet the impedance requirement per EN61000-4-6. However, test level calibration must be performed on site to determine the minimum required test signal needed to achieve the required voltage levels specified by IEC-1000-4-6. The appropriate calibration accessories for conducting the level test is available from Com-Power.

Application

During the test, the CDN is connected to the powerline cables between the equipment under test (EUT) and auxiliary equipment (AE). The number of conductors in the cable will determine which CDN to use for the test.

The M125 CDN is used to couple common mode and modulated signals onto single power line systems. This CDN is ideal for electronic systems that uses the chassis as the DC return. The M225 CDN is for systems with two wire power conductor cables with earth terminals and the M325 is for single phase two line cables with the an earth ground conductor. The M425 is used for three phase systems. The M525 CDN is used for three phase systems with neutral and protected earth ground conductors. All CDNs are also fitted with safety sockets for connecting device under test.

CDN selection table

Model	# Lines	Application
CDN-M125	1	Single line
CDN-M225	2	Single phase + neutral
CDN-M325	3	Single phase + neautral + earth
CDN-M425	4	Three phase + earth
CDN-M525	5	Three phase + neutral + earth

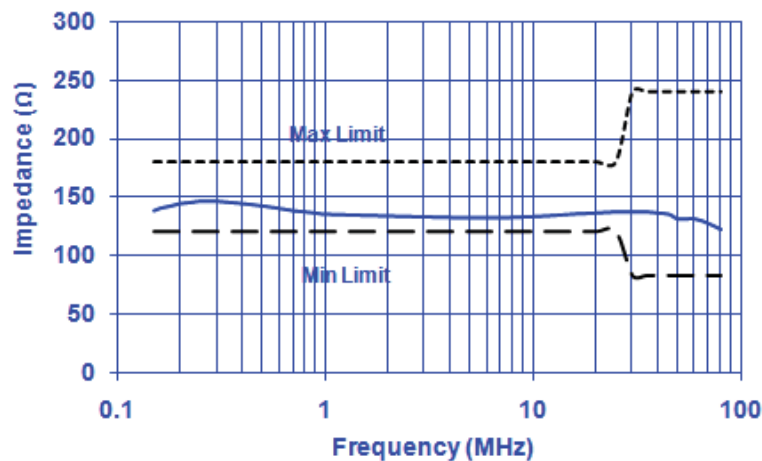
Specifications

Frequency Range:	150 kHz - 80 MHz
I/O rating for EUT/AE ports:	480 V AC 600 V DC
Current rating:	25 Amperes
Common mode impedance:	150 kHz - 26 MHz: 150 Ohms ± 20 Ohms 26 MHz - 80 MHz: 150 Ohms + 60 Ohms and - 45.5 Ohms
Maximum RF voltage input:	40 V max
Voltage attenuation (RF/EUT):	9 dB to 12 dB
Insertion loss EUT/AE:	30 dB min from 150 kHz to 2 MHz 50 dB min from 2 MHz to 80 MHz
Coupling factor:	0.3 dB max up to 3 kHz
Decoupling attenuation (RF/AE):	50 dB min, 150 kHz - 80 MHz
I/O connections:	Safety Socket
RF (Disturbance coupling) connector:	BNC (f) 50Ω
Dimensions:	6 × 6 × 12.5 in / 15.2 × 15.2 × 31.7 cm
Weight:	5 lbs. / 2.2 kg

CDN test level input calibration accessories.

Model	CDN-M125	CDN-M225	CDN-M325	CDN-M425	CDN-M525
Shorting adapter set	ADA-M1	ADA - M2	ADA-M3	ADA-M4	ADA-M5
50 Ω Terminator	TEP-050	TEP-050	TEP-050	TEP-050	TEP-050
Two 150 Ω to 50 Ω adapters	ADA-515	ADA-515	ADA-515	ADA-515	ADA-515

Typical impedance graph on all models compared to IEC 61000-4-6 requirements



All values are typical unless specified.
All specifications are subject to change without notice.