

MDC Drive Filters

Current Ratings: **1 - 50 AMPS**.
Operating Voltage: 48VDC – 210VDC

The MDC series of EMI/RFI filters is designed specifically for DC applications which have to comply with the rigorous requirements of Def Stan: 59-41 and Mil Stan 461/462.

High attenuation on both common and differential modes allows for high performance filtration especially at the low frequency end of the spectrum. Polypropylene capacitors are used for high pulse power handling at high frequencies.

The filter components are housed in compact chassis mounted enclosures, and encapsulated in a polyurethane potting compound to give excellent protection against shock and vibration, thus making it ideal for ruggedized requirements.



TYPICAL APPLICATIONS

- DC Drive units
- High current switch mode power supplies
- Thyristor driven equipment
- Air conditioners/Fan controllers
- Uninterruptible power supplies
- Pulse width modulation circuits

TECHNICAL ADVANTAGES

- High current capability - Micro size
- High common & differential mode insertion loss
- Improved low frequency performance
- Insulated safety screw contacts
- Side or base mounting
- Optional input transient suppression to suit application



COMMERCIAL ADVANTAGES

- Assists compliance with the EMC directive
- State of the art technology ensures superior performance
- Competitively priced
- Micro size - Reduced weight - Cost effective component

STANDARDS

The MDC range of filters is built in accordance with the relevant BS, VDE, UL, CE & CSA safety standards.

All Total EMC Products Ltd filters & power supplies are designed to meet the latest requirements for Health and Safety, Particularly EN 60939-2-2005

The MDC range is specifically designed to assist DC equipment to meet European and International Emission standards. eg. EN55011, EN55014, EN55022 and EN61000.

Military Def Stans 59/41, 59/411.

Mil Standards 461/462.

REGULATIONS

From the 15th of December 2004 all electrical/electronic apparatus - with few exceptions - sold or taken into service within the European Community must comply with the essential requirements of the EMC directive 2004/108/EC.

Failure to do so is a criminal offence in the U.K.

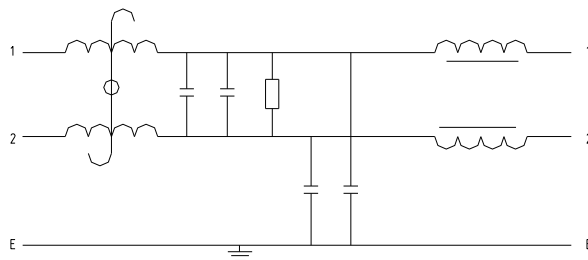
Technical Specifications (12-48VDC)

Current (Amps)	No of Lines	Operating Voltage @ 50-60Hz	Max DC Volt Drop @ Full Load	Inductance Per Line (Typical) mH	Transient Energy Absorption (Typical)	Storage Temp Range	Temp Rise @ Full Load	Termination Type	Dimensions						
									A	B	C	D	E	F	G
1	2	12/24/28/48	<1V/Line	0.8 + 9 (x2)	75J Optional	-25 ~ +85°C	<40°C	Fast On	85	50	36	75	60	5 DIA	N/A
3				0.45 + 5(x2)											
6				0.3 + 2.5(x2)											
10				0.15 + 1.4 (x2)											
16				TBA											
25				TBA					113	60	60	102.5	40	92	M4 X 10
50				TBA											

Technical Specifications (63-120V DC)

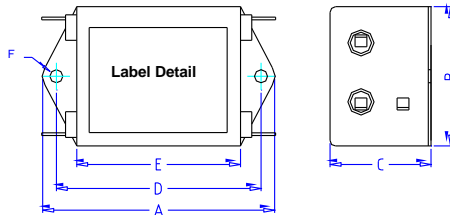
Current (Amps)	No of Lines	Operating Voltage @ 50-60Hz	Max DC Volt Drop @ Full Load	Inductance Per Line (Typical) mH	Transient Energy Absorption (Typical)	Storage Temp Range	Temp Rise @ Full Load	Termination Type	Dimensions						
									A	B	C	D	E	F	G
1	2	63/100/120	<1V/Line	0.8 + 9 (x2)	75J Optional	-25 ~ +85°C	<40°C	Fast On	85	50	36	75	60	5 DIA	M4 x 10
3				0.45 + 5(x2)											
6				2.4 + 0.5(x2)											
10				0.85 + 0.2 (x2)					124	70	51	112	44	5 DIA	M4 x 10
16				0.45 + 0.2 (x2)											
25				0.6 + 0.7 (x2)					119	85.5	57.6	109	51	5 DIA	M4 x 10
50				TBA											

Schematics

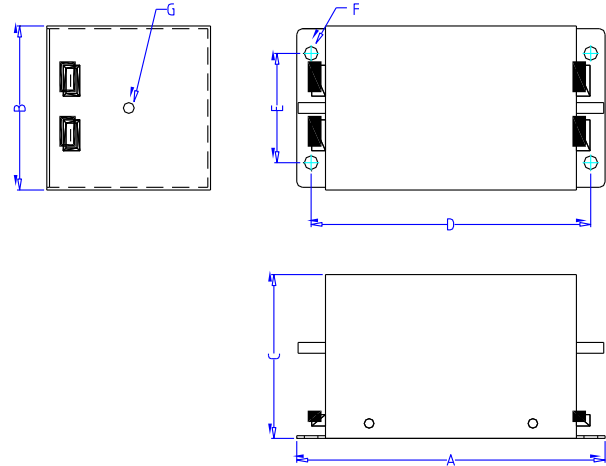


Dimensional Data

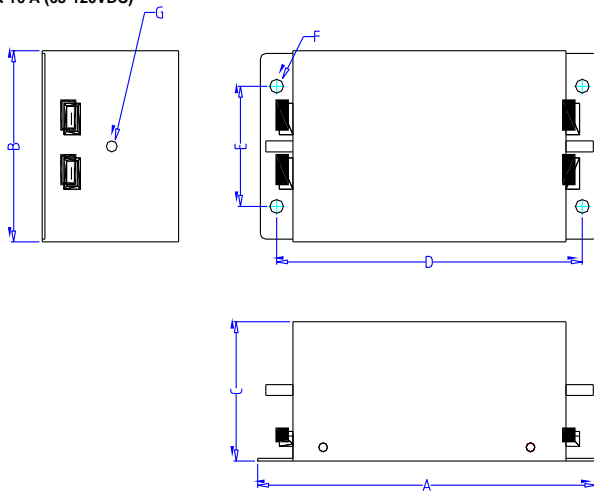
1 - 10A (12-48VDC)



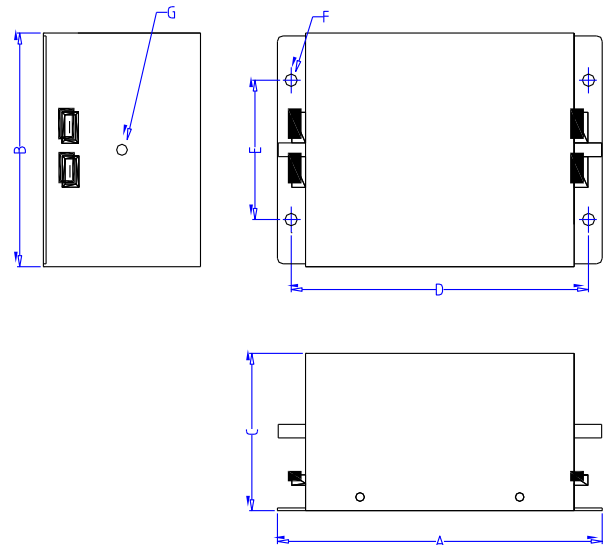
16 - 50A (12-48VDC)
1 & 3 A (63-120VDC)



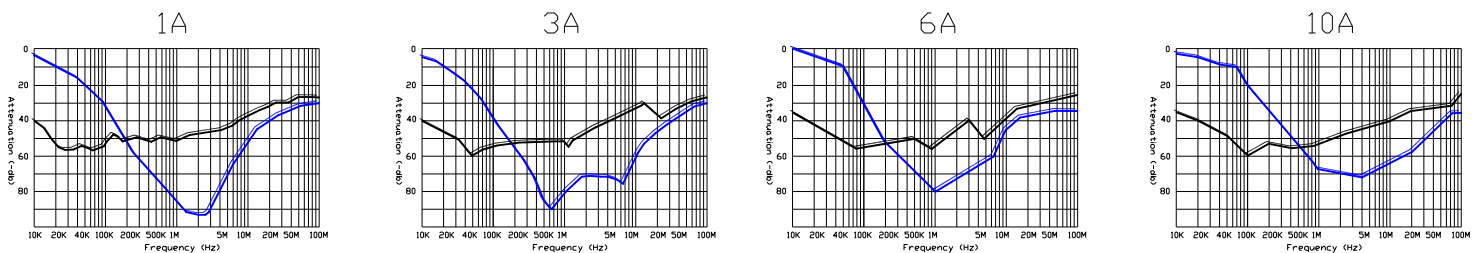
6 & 16 A (63-120VDC)



25 - 50A (63-120VDC)

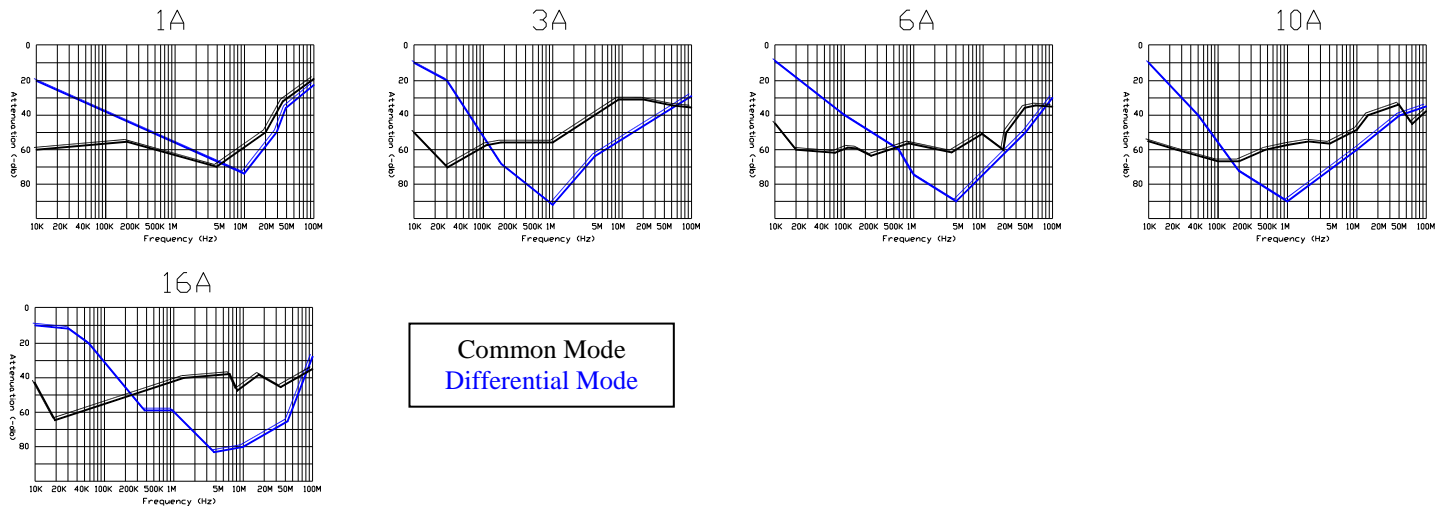


Performance characteristics insertion loss curves (12-48VDC)



Common Mode
Differential Mode

Performance characteristics insertion loss curves (63-120VDC)



Part number / Ordering information

U7DC/***/*/2/*

U7DC = Range of filter

* = No of Lines on filter (2,3,4)

* = Options (listed below)

*** = Amp Rating of filter

2 = No of Stages on filter

Options: T = Transient, H = High Transient, - = Neither (no options)

In addition to the standard range of filters & power supplies, Total EMC Products specialize in the design and manufacture of filters to suit your specific requirements.

Due to continuous development Total EMC Products Ltd reserve the right to amend any information contained within this datasheet without prior notice.

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