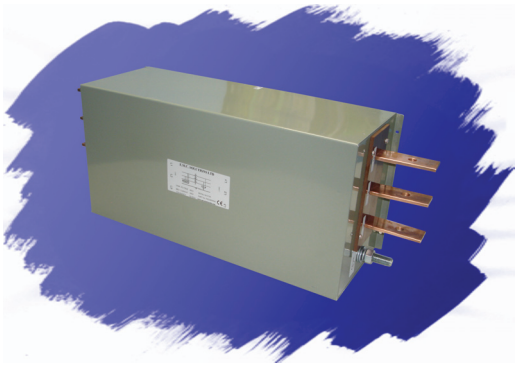
U300 Filter Range

Current Ratings: 6, 20, 32, 40, 50, 60, 80, 110, 180, 220, 280, 400, 600 AMPS.
Operating Voltage: Three Phase 440VA.C.

CE RoHS



The U300 drive filter has been specifically designed to overcome EMC problems inherently caused by variable speed drives, especially in applications where size constraints are an issue. This new range of filters has high attenuation factors and high current capabilities without having a large profile. Variable speed drives electronically switch high voltages and currents to improve efficiency and reduce acoustic noise in the motor. This switching generates high levels of Radio Frequency Interference (RFI) and high-energy surges, which can disturb or damage other electronics circuits.
The U300 drive filter is a two-stage design in 3 and 4 line formats, with an output damping core for additional mid-range performance.
The filter components are housed in compact, chassis mounted, aluminum enclosures that allow side or base mounting (except 600A). They are then encapsulated in a polyurethane potting compound to give excellent protection against shock and vibration.
These filters are now available in "Flat Pack" form.

TYPICAL APPLICATIONS

- Variable speed drives
- High current switch mode power supplies
- Thyristor driven equipment
- Air conditioners/Fan controllers
- Uninterruptible power supplies
- Pulse width modulation circuits
- Medical Devices

TECHNICAL ADVANTAGES

- High current capability - Micro size
- High common & differential mode insertion loss
- Improved low frequency performance
- Insulated safety screw contacts (excludes 220 – 600A)
- Side or base mounting (excludes 220 – 600A)
- 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
- Compact size - Reduced weight - Cost effective component

Technical Specifications

Current (Amps)	No of Lines	Operating Voltage @ 50-60Hz	Max AC Volt Drop @ Full Load	Earth Leakage mA	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	H	I	J
6	3/4	440V	<1V/Line	2.5	6	75J Optional	-25 ~ +85°C	<40°C	Phoenix Contact Insulated Screw Terminal	170	80	50	150	160	36	50	70	5	M6 x 20mm
20				2.5	5														
32				5	4														
40				5	3.5					230	130	70	200	214	50	60	105	6	
50				5	3														
60				10	2.5														
80				10	2					300	200	100	260	276	80	20	180	6	M8 x 50mm
110				25	0.8														
180				25	0.5				P/C HDFK 95	430	240	130	390	410	215	M10 x 38mm	80	25	N/A
220				50	0.3				Busbar (M10 fastening)	450	242			420	180		8.2	N/A	
280				50	0.2														
400				50	0.1														
600				50	0.1					570	330	200	542	555	55	M16 x 60mm	6.2	310	N/A

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STANDARDS

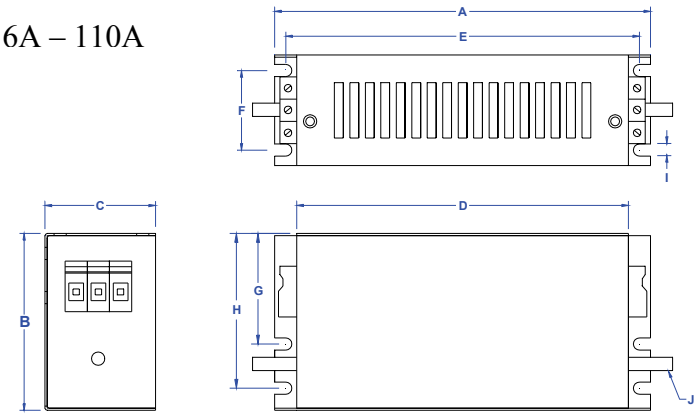
The U300 range of filters are built in accordance with the relevant BS, VDE, UL, CE & CSA safety standards.
All Total EMC Products Ltd filters & power supplies are designed to meet the latest requirements for Health and Safety, Particularly EN 60939-2-2005
The U300 range is specifically designed to assist AC input - AC Output Variable Speed Drives to meet European Emission standards. E.g. EN55011, EN55014, EN55022, EN50081-2 and EN50082-1.

REGULATIONS

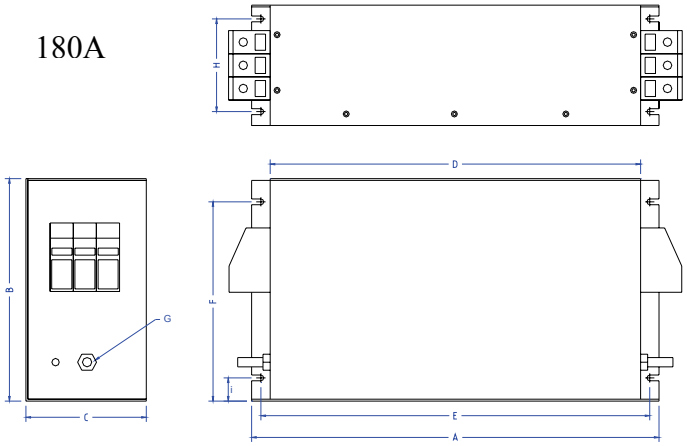
From the 15th of December 2004 all electrical/electronic apparatus - with few exceptions - sold or taken into service within the European Community must comply with the essential requirements of the EMC directive 2004/108/EC.
Failure to do so is a criminal offence in the U.K.

Dimensional Data

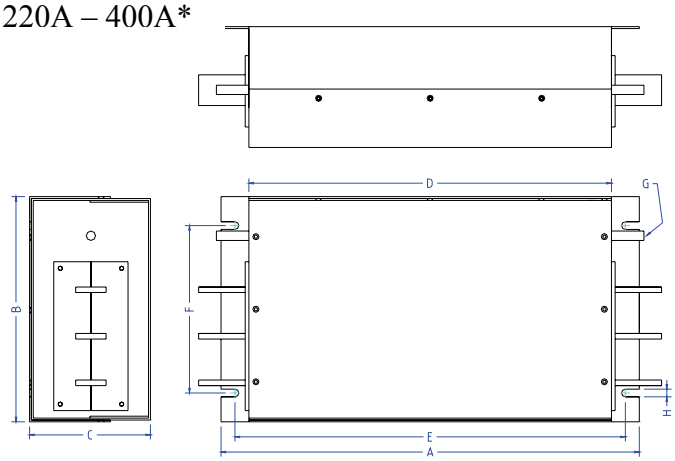
6A – 110A



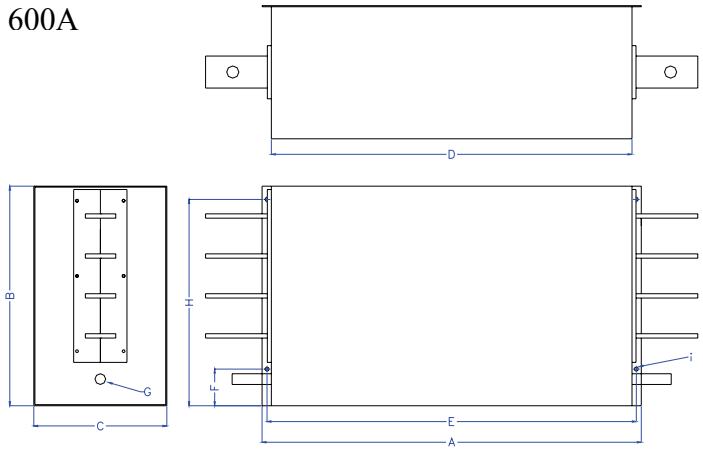
180A



220A – 400A*



600A



* Optional side mounting brackets available

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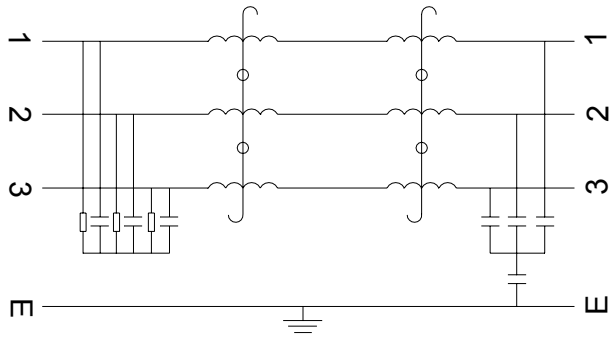
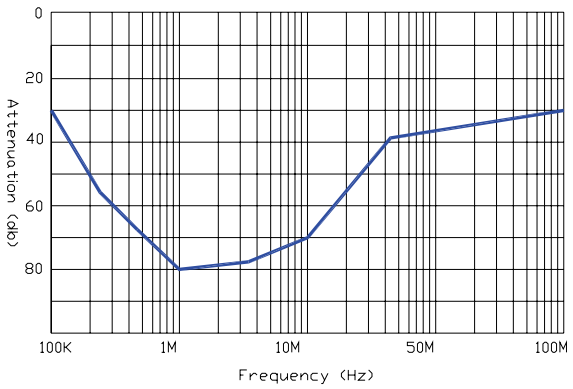
Schematic(s)



Performance characteristics insertion loss curves



Part number / Ordering information

U300/***/*/-

*** = Amp Rating of filter

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

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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