

T2020 EMI Filter Range

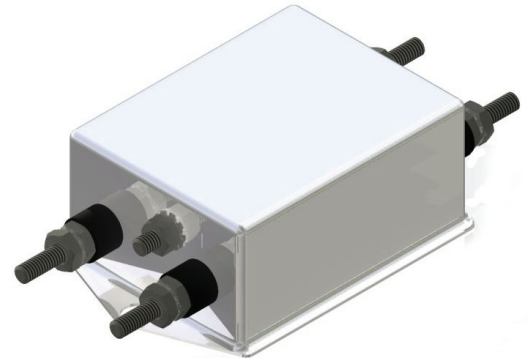
Current Ratings: 1 – 60 AMPS.

Operating Voltage: Single phase 115/230V AC 50/60Hz.

The T2020 range of filters are an innovative development and has been designed to ensure EMC compliance for various equipment applications in particular for IT equipment. Its physical compactness along with its outstanding performance in attenuation of unwanted interference makes this range unique. The In-line design allows ease of application and installation including retro fitting.

The T2020 filter series is a single stage device with effective attenuation characteristics at low frequencies. The housing is plated mild steel and the filter is encapsulated within this surround. This allows the unit to be securely mounted.

This filter is available in a range of current ratings 1A and 60A. This makes it a very compact multi-application unit providing the ultimate attenuation package.



TYPICAL APPLICATIONS

- IT equipment
- Power supplies
- Laptop computers
- Uninterruptible power supplies

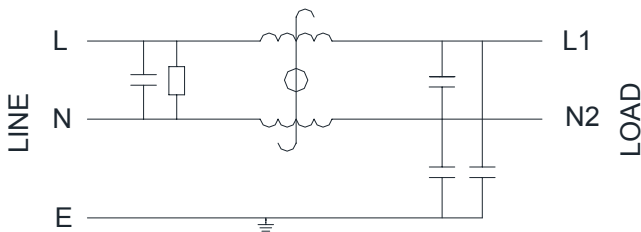
TECHNICAL ADVANTAGES

- Compact dimensions
- High attenuation characteristics
- Transient protection
- In line device

COMMERCIAL ADVANTAGES

- Reduced volume
- Reduced weight
- Cost effective

TYPICAL ELECTRICAL SCHEMATIC



APPROVALS



These filters are also available with Medical or Safety considerations in mind. Medical have removed capacitance to ground, Safety have reduced capacitance for low leakage current safety focused applications.

To request one of these specifications simply add an **A** (Safety) or **B** (Medical) suffix to the end of the part number.

E.g. T2020-1-FA (1A filter, fast-on connections, Safety spec)

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.

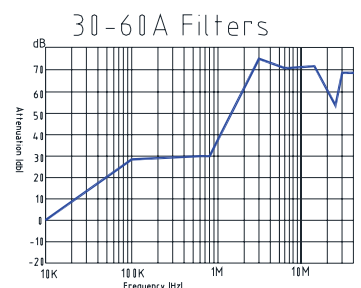
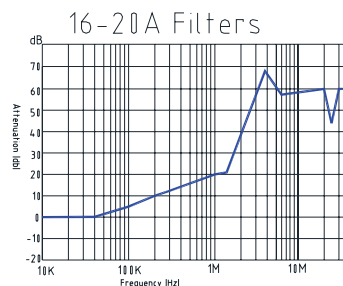
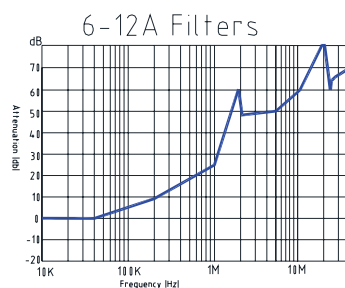
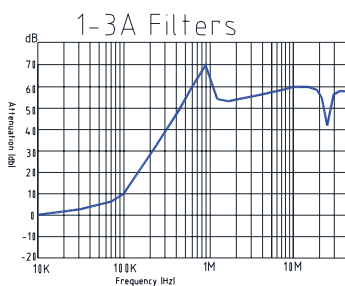
STANDARDS

The T2020 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

Technical Specifications

Part	Rated Current (Amps)	No of Lines	Operating Voltage @ 50/60Hz	Earth Leakage mA	Inductance Per Line (Typical) mH @230V AC 50/60Hz	Temp Range Operation and Storage	Available Termination Types	Case styles
T2020-1-*	1	2	230V AC	0.74	12	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-3-*	3	2	230V AC	0.74	2.5	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-6-*	6	2	230V AC	0.74	1	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-10-*	10	2	230V AC	0.74	0.8	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-12-*	12	2	230V AC	0.74	0.7	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-16-*	16	2	230V AC	0.74	0.65	-25 to +100 C (25/100/21)	F / FL	B / D
T2020-20-*	20	2	230V AC	0.74	0.6	-25 to +100 C (25/100/21)	F / S	B / E
T2020-30-S	30	2	230V AC	0.87	0.67	-25 to +100 C (25/100/21)	S (M4)	F
T2020-60-S	60	2	230V AC	0.87	1	-25 to +100 C (25/100/21)	S (M6)	G
T2020-1-*A	1	2	230V AC	0.074	12	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-3-*A	3	2	230V AC	0.074	2.5	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-6-*A	6	2	230V AC	0.074	1	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-10-*A	10	2	230V AC	0.074	0.8	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-12-*A	12	2	230V AC	0.074	0.7	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-16-*A	16	2	230V AC	0.074	0.65	-25 to +100 C (25/100/21)	F / FL	B / D
T2020-20-*A	20	2	230V AC	0.074	0.6	-25 to +100 C (25/100/21)	F / S	B / E
T2020-30-SA	30	2	230V AC	0.074	0.67	-25 to +100 C (25/100/21)	S (M4)	F
T2020-60-SA	60	2	230V AC	0.074	1	-25 to +100 C (25/100/21)	S (M6)	G
T2020-1-*B	1	2	230V AC	0.002	12	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-3-*B	3	2	230V AC	0.002	2.5	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-6-*B	6	2	230V AC	0.002	1	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-10-*B	10	2	230V AC	0.002	0.8	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-12-*B	12	2	230V AC	0.002	0.7	-25 to +100 C (25/100/21)	F / FL	A / C
T2020-16-*B	16	2	230V AC	0.002	0.65	-25 to +100 C (25/100/21)	F / FL	B / D
T2020-20-*B	20	2	230V AC	0.002	0.6	-25 to +100 C (25/100/21)	F / S	B / E
T2020-30-SB	30	2	230V AC	0.002	0.67	-25 to +100 C (25/100/21)	S (M4)	F
T2020-60-SB	60	2	230V AC	0.002	1	-25 to +100 C (25/100/21)	S (M6)	G

Performance characteristics insertion loss curves



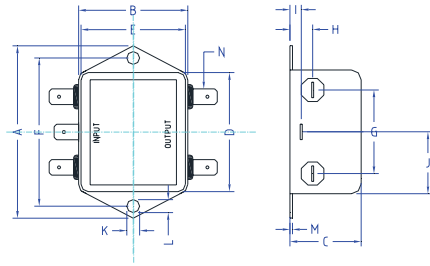
Dimensional Data (mm)

All dimensions in mm, Tolerances $\pm 0.5\text{mm}$

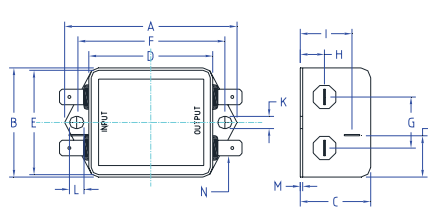
		Dimensions (mm)												
		A	B	C	D	E	F	G	H	I	J	K	L	M
1A-12A	Case style (A/C)	64	35	29.3	43.5	32.5	54	21	9.3	15.3	21.8	5.3	6.3	0.7
16A	Case style (D)	71	46	29.3	50.5	44.5	61	21	10.8	19.3	20.1	5.3	6.3	0.7
16A-20A	Case Style (B)	71	46	29.3	50.5	44.5	61	21	10.8	19.3	20.1	5.3	6.3	0.7
20A	Case style (E)	85	54	30.3	64.8	49.8	75	27	12.3	20.8	19.9	5.3	6.3	0.7
30A	Case style (F)	113.5	57.5	45.4	94	56	103	25	12.4	32.4	15.5	4.4	6	0.9
60A	Case style (G)	105	145.9	57.6	84.5	99.5	95	40	19.6	10.1	42.25	4.4	6	1.2

Connection Data (Options)							
N Fast on	FL – Flying Lead				S – Stud		
	O	P	AWG	Cut Length	N	N	Q
6.3 x 8	8.3	21.8	20 (1A-3A) 18(6A-10A) 16(12A-16A)	140			
6.3 x 8	8.3	14	16	140			
6.3 x 8					M4		
6.3 x 8					M4		
					M4		
						M6	51

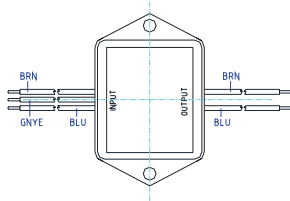
Case Style A



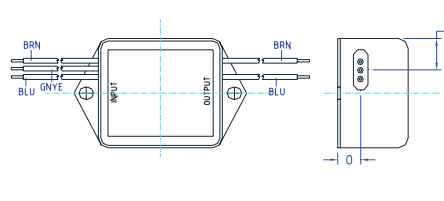
Case Style B



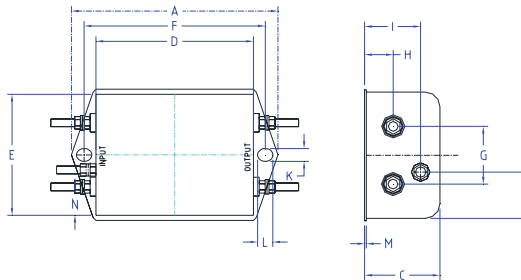
Case Style C



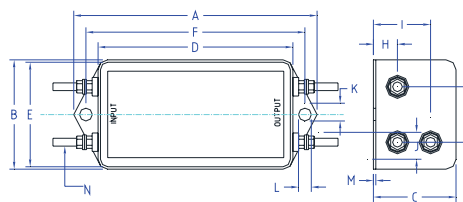
Case Style D, Metalwork dimensions same as Case style B



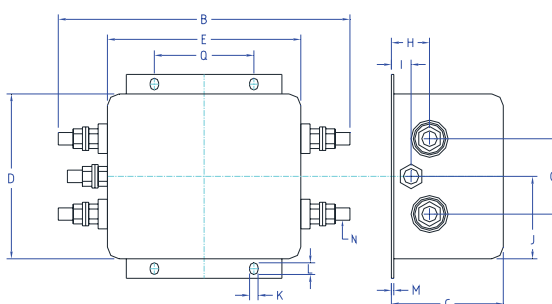
Case Style E



Case Style F



Case Style G





Part number / Ordering information

Part Numbering

T2020-*-*

- * - Current selection
- * - Termination type
- * - Medical or Safety (leave blank if neither)

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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