

Dual-Stage General Performance AC/DC EMI FILTER

Feature and Benefits

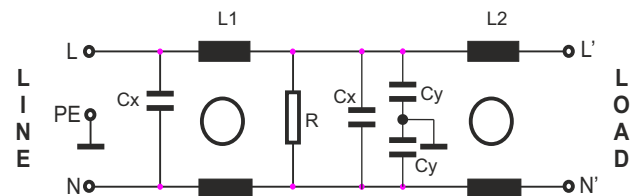
- EN 2060 Dual-stage filters are designed for easy and fast chassis mounting.
- The EN 2060 filters are also available as B versions with no Y-capacitors for medical applications as well as A versions with low capacitance for safety critical applications with a requirement for low leakage currents.
- The EN 2060 Filter can be use to cover broad range of uses and they can offer a good size/amperages ratio
- EN 2060 filters are also available as Single stage filters (EN 2010 Series)
- Various terminal options allow you to select the desired connection style
- Rated current from 1 to 20 A
- High deferential mode performance
- Optional medical version (Type B)
- Optional safety version (Type A)



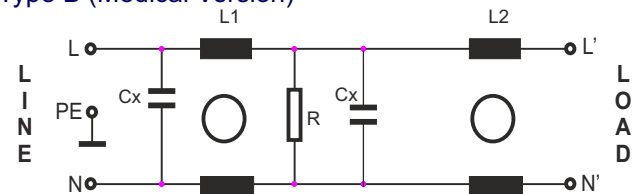
Technical specifications

Maximum continuous operating voltage	250VAC, 50/60Hz
Operating Frequency	DC to 400Hz
Rated Currents	1 to 20A @40°C
High Potential Test voltage	L-GND 2550 VDC for 2 sec L-GND 3500 VDC for 2 sec (B types) L - N 1100 VDC for 2 sec
Temperature range (operation and storage)	-25°C to +100°C (25/100/21)
Certified to	UL 1283,EC/EN60939 (Applies to AC and DC Applications)
Flammability Corresponding to	UL 94V-2 better

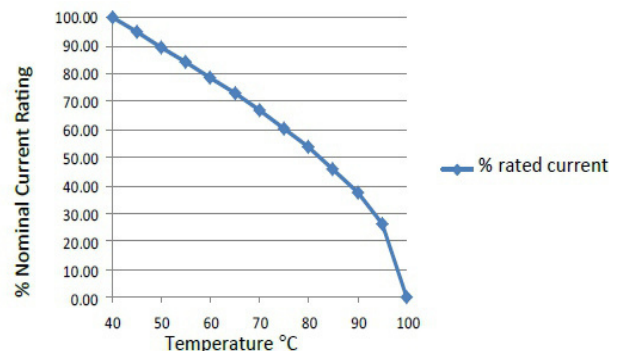
ELECTRICAL SCHEMATIC



Type B (Medical Version)






Temperature Derating Curve for EMC Filters Rated at 40°C Ambient and 100°C Maximum



Typical Application

- Electrical and electronic equipment
- Consumer goods/Industrial Application
- Machinery & Building Automation
- Medical equipment
- Electronic data processing equipment
- Office automation and datacom equipment
- Vending Machine

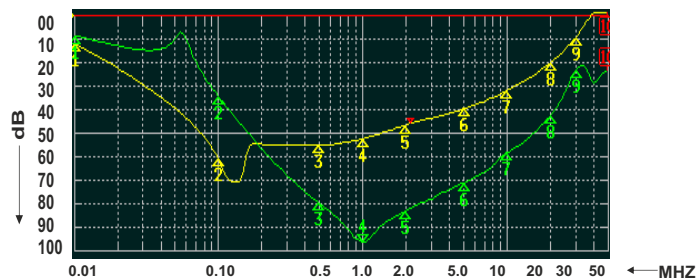
FILTER SELECTION TABLE

Filters**	Rated current @40°C (25°C)	Leakage current @250V/50Hz	Inductance (L-L) ΣL	Capacitanc e(L-N) ΣCx	Capacitance (L-G) ΣCy	Resistance (L-N) ΣR	Connetion type			Weight
	A	mA	mH	μF	nF	K Ω				gram (g)
EN2060-1-X	1(1.15)	0.66	24	0.44	9.4	1000	F	W		120
EN2060-3-X	3(3.45)	0.66	5	0.44	9.4	1000	F	W		120
EN2060-6-X	6(6.90)	0.66	1.94	0.44	9.4	1000	F	W		120
EN2060-10-X	10(11.5)	0.66	1.6	0.94	9.4	470	F	W		210
EN2060-12-X	12(13.8)	0.66	1.16	0.94	9.4	470	F	W		210
EN2060-16-X	16(18.4)	0.66	1.3	0.66	9.4	1000	F	W	S	250
EN2060-20-X	20(23.0)	0.66	1.2	2.00	9.4	220	F		S	480
Low Leakage Version										
EN2060A-1-X	1(1.15)	0.07	24	0.44	0.94	1000	F	W		120
EN2060A-3-X	3(3.45)	0.07	5	0.44	0.94	1000	F	W		120
EN2060A-6-X	6(6.90)	0.07	1.94	0.44	0.94	1000	F	W		120
EN2060A-10-X	10(11.5)	0.07	1.6	0.94	0.94	470	F	W		210
EN2060A-12-X	12(13.8)	0.07	1.16	0.94	0.94	470	F	W		210
EN2060A-16-X	16(18.4)	0.07	1.3	0.66	0.94	1000	F	W	S	250
EN2060A-20-X	20(23.0)	0.07	1.2	2.00	0.94	220	F		S	480
Medical Version Without Y cap										
EN2060B-1-X	1(1.15)	0.002	24	0.44		1000	F	W		120
EN2060B-3-X	3(3.45)	0.002	5	0.44		1000	F	W		120
EN2060B-6-X	6(6.90)	0.002	1.94	0.44		1000	F	W		120
EN2060B-10-X	10(11.5)	0.002	1.6	0.94		470	F	W		210
EN2060B-12-x	13(00.0)	0.002	1.16	0.94		470	F	W		210
EN2060B-16-X	16(18.4)	0.002	1.3	0.66		1000	F	W	S	250
EN2060B-20-X	20(23.0)	0.002	1.2	2.00		220	F		S	480

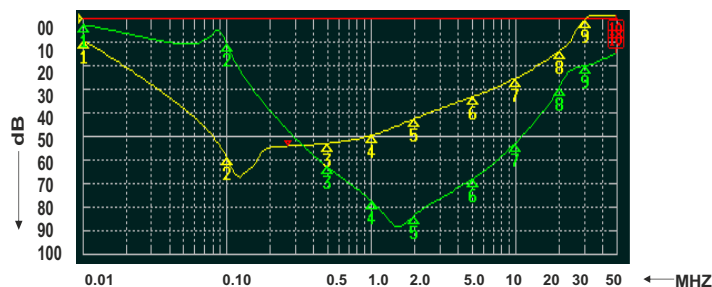
To compile a complete part number, please replace the -.. with the required I/O connection style (e.g. EN 2060-16-S, EN 2060B-10-F). The different letters code the
 ** Maximum leakage under usual AC operating conditions (acc. IEC 60939-3). Note: if the neutral line is interrupted, worst case leakage could reach twice this level.

TYPICAL INSERTION LOSS, dB (50/50 Ohm)

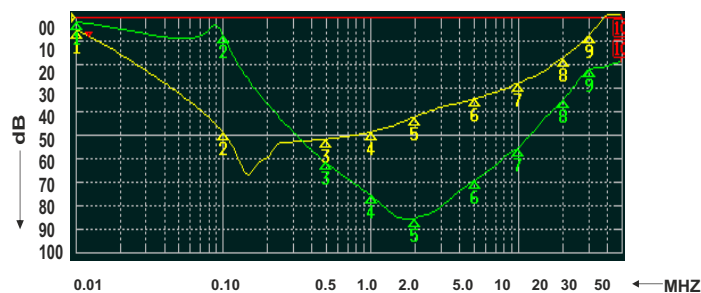
Insertion Loss: Common mode - —
 Differential mode- —
 1 to 3 A



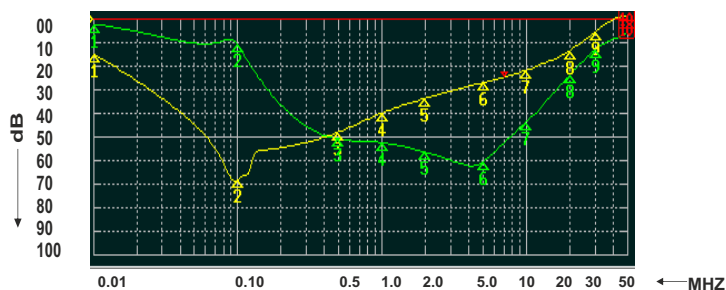
6 to 10 A



12 to 16 A

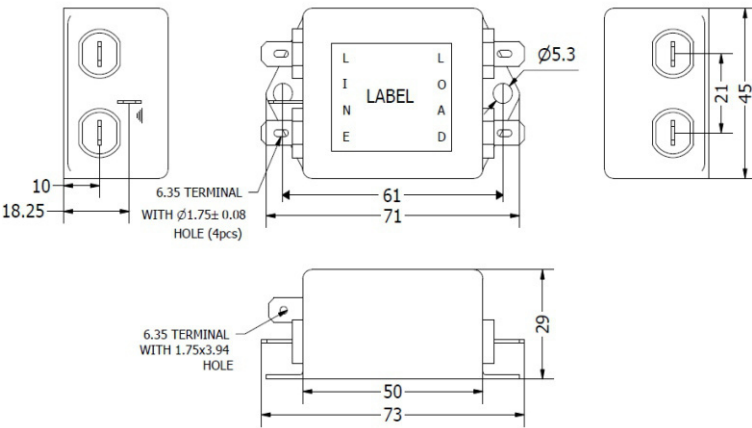


20A to 30 A

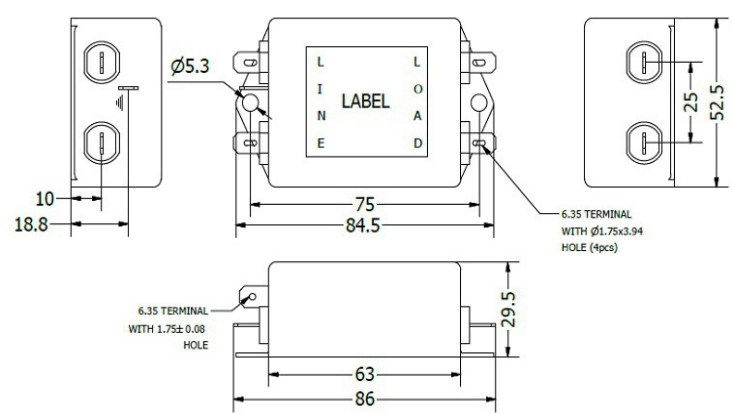


MECHANICAL DETAILS

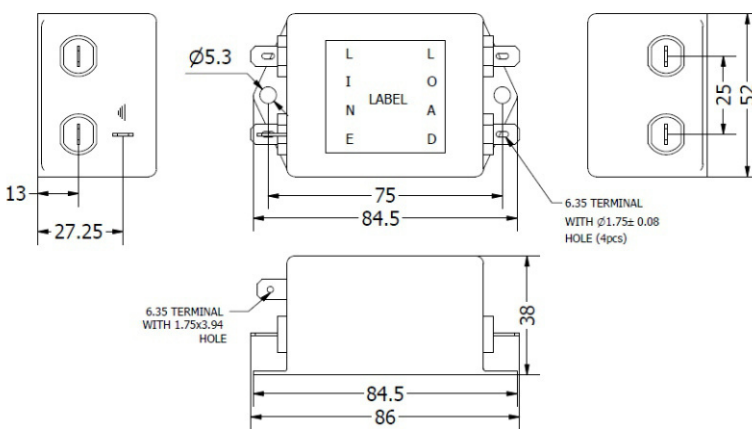
1 To 6 Amp



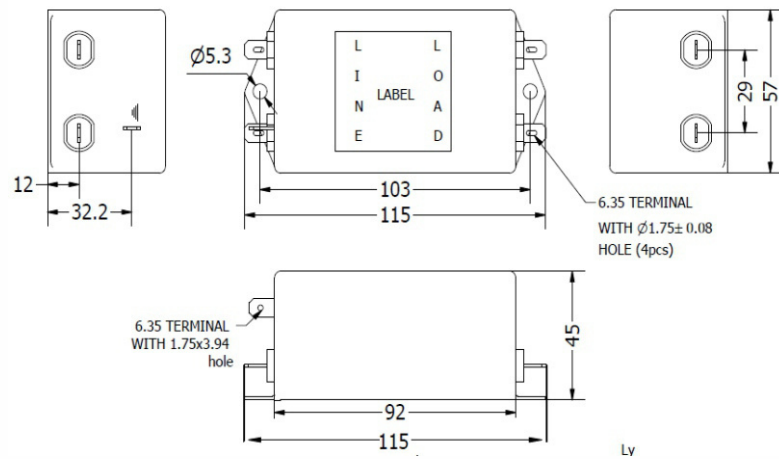
10 & 12 Amp Faston Terminal



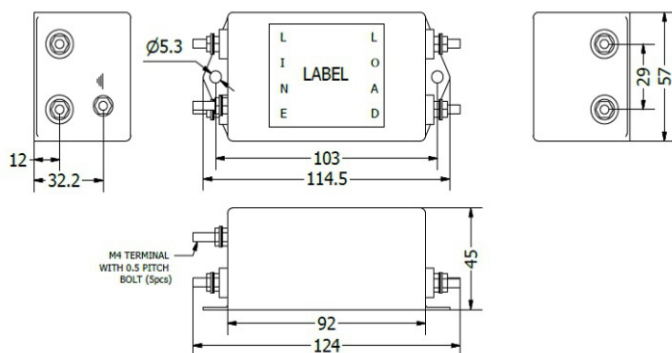
16 Amp Faston Terminal



20 Amp Faston Terminal



20 Amp Screw Terminal(M4)



**All Dimension are in mm



FILTERS RECOMMENDATIONS

Contact Us: 0044 (0) 1704-516 501 enquiries@united-automation.com www.united-automation.com



APPLICATION AND BASIC DIFFERENCE OF ALL EN20XX SERIES

Sn	Series	Type	Rated Current (A)	Stage	Performance	Circuit details	Application	Medical Version	Low Leakage	Surge Protection
1	EN2010	Single Phase	1, 3, 6, 10, 12, 13, 16, 20, 30	Single	General Attenuation		General Purpose Application, Household equipment, medical equipment office automation & Electrical and Electronics equipment	Available	Available	
2	EN2020	Single Phase	1, 3, 6, 10, 12, 16, 20, 30	Single	High differential Mode Attenuation		General Purpose Application, Household equipment, medical Equipment office automation, datacom application & Electrical and Electronics equipment	Available	Available	
3	EN2030	Single Phase	1, 3, 4, 6, 8, 10, 12, 16, 20, 30	Single	High differential Mode Attenuation		General Purpose Applications, Household equipment, medical Equipment office automation & Electrical and Electronics equipment, high noise application	Available	Available	**Available, 2KV IEC 61000-4-5
4	EN2060	Single Phase	1, 3, 6, 10, 12, 16, 20, 30	Dual	High differential & Common Mode attenuation		Industrial Applications, Building Automation, Household equipment, medical equipment office automation, Electronics data processing equipment & Various Noisy applications, Motor drives and applications.	Available	Available	
5	EN2070	Single Phase	1, 3, 6, 10, 12, 16, 25, 36	Dual	High differential & Common Mode attenuation		Industrial Applications, Building Automation, Household equipment, Medical Equipment office automation, Electronics data processing equipment & Various Noisy applications, Motor drives and applications.	Available	Available	
6	EN2080	Single Phase	1, 3, 6, 10, 12, 16	Dual	High differential & Common Mode attenuation		Industrial Applications, Building Automation, Household equipment, medical equipment, office automation, Electronics data processing equipment & Various Noisy applications, Motor drives and applications.	Available	Available	
7	EN2090	Single Phase	1, 3, 4, 6, 8, 10, 12, 16, 20, 30	Dual	Very high differential & Common Mode attenuation		Industrial applications, Building Automation, Household equipment, Medical Equipment, office automation, Electronics data processing equipment & Various Noisy applications, Motor drives and applications.	Available	Available	**Available, 2KV IEC 61000-4-5

Note: ** Surge protection Filter is only CE and ROHS Approved



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