

General EMI Filter with High Attenuation Performance

Feature and Benefits

- EN 2030 Single-stage filters are designed for easy and fast chassis mounting.
- The EN2030 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.
- All filters provide an exceptional conducted attenuation performance, based on chokes with high permeable core material and excellent thermal behavior
- EN 2030 Single-stage filters are designed for noisy applications requiring excellent filter performance
- EN 2030 filters are also available as dual stage filters (EN2090 series)
- Various terminal options allow you to select the desired connection style
- Rated current from 1 to 30 A
- Very high differential and common mode Attenuation
- Optional medical version (Type B)
- Optional safety version (Type A)

Technical specifications

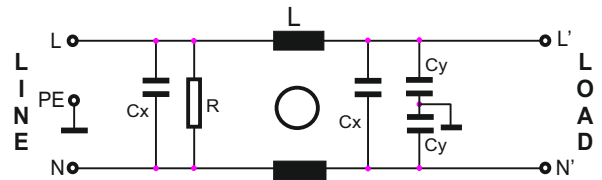
Maximum continuous operating voltage	250VAC, 50/60Hz
Operating Frequency	DC to 400Hz
Rated Currents	1 to 30A @40°C
High Potential Test voltage	L-GND 2550 VDC for 2 sec L-GND 3500 VDC for 2 sec (B types) L - N 1100 VDC for 2 sec
Temperature range (operation and storage)	-25°C to +100°C (25/100/21)
Certified to	UL 1283,EC/EN60939 (Applies to AC and DC Applications)
Flammability Corresponding to	UL 94V-2 better

Typical Application

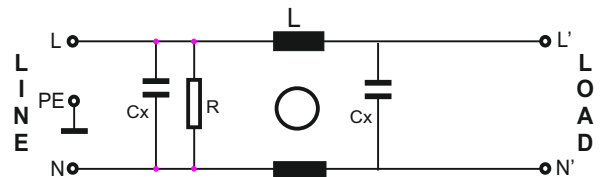
- Electrical and electronic equipment
- Consumer goods
- EV Application
- Medical equipment
- Electronic data processing equipment
- Very Noisy Application high performance Filter
- Motor drive and VFD, Automation



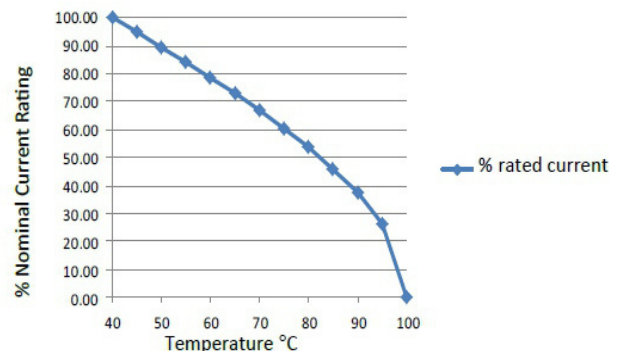
ELECTRICAL SCHEMATIC






Type B (Medical Version)



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



FILTER SELECTION TABLE

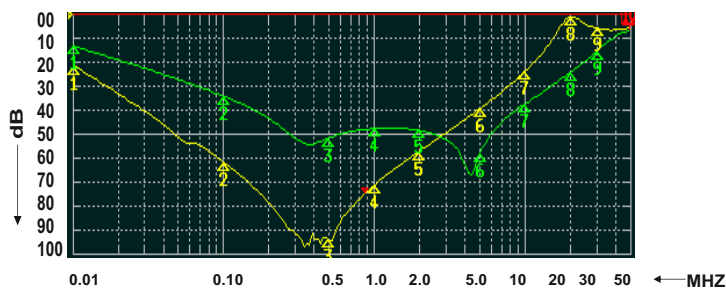
Filters**	Rated current @40°C A	Leakage current @250V/50Hz mA	Inductance (L-L) ΣL mH	Capacitance (L-N) ΣCx μF	Capacitance (L-G) ΣCy nF	Resistance (L-N) ΣR KΩ	Connexion type			Weight gram (g)
										
EN2030-1-X	1(1.15)	0.34	20	0.44	4.4	1000	F	W		60
EN2030-3-X	3(3.45)	0.52	14	0.66	6.6	1000	F	W		85
EN2030-4-X	4(4.50)	0.52	14	0.66	6.6	1000	F	W		90
EN2030-6-X	6(6.90)	0.73	8	0.94	9.4	680	F	W		100
EN2030-8-X	8(8.90)	0.73	8	0.94	9.4	680	F	W		170
EN2030-10-X	10(11.5)	0.73	8	0.94	9.4	680	F	W		200
EN2030-12-X	12(13.8)	0.87	4	2.00	20	330	F	W		185
EN2030-16-X	16(18.4)	0.87	4	2.00	20	330	F	W		220
EN2030-20-X	20(23.0)	0.87	4	2.00	20	330	F	W	S	290
EN2030-30-S	30(34.5)	0.87	2	2.00	20	330			S	330
Low Leakage Version										
EN2030A-1-X	1(1.15)	0.074	20	0.44	0.94	1000	F	W		60
EN2030A-3-X	3(3.45)	0.074	14	0.66	0.94	1000	F	W		85
EN2030A-4-X	4(4.50)	0.074	14	0.66	0.94	1000	F	W		90
EN2030A-6-X	6(6.90)	0.074	8	0.94	0.94	680	F	W		100
EN2030A-8-X	8(8.90)	0.074	8	0.94	0.94	680	F	W		170
EN2030A-10-X	10(11.5)	0.074	8	0.94	0.94	680	F	W		200
EN2030A-12-X	12(13.8)	0.074	4	2.00	0.94	330	F	W		185
EN2030A-16-X	16(18.4)	0.074	4	2.00	0.94	330	F	W		220
EN2030A-20-X	20(23.0)	0.074	4	2.00	0.94	330	F	W	S	290
EN2030A-30-S	30(34.5)	0.074	2	2.00	0.94	330			S	330
Medical Version Without Y cap										
EN2030B-1-X	1(1.15)	0.002	20	0.44		1000	F	W		60
EN2030B-3-X	3(3.45)	0.002	14	0.66		1000	F	W		85
EN2030B-4-X	4(4.50)	0.002	8	0.66		1000	F	W		90
EN2030B-6-X	6(6.90)	0.002	8	0.94		680	F	W		100
EN2030B-8-X	8(8.90)	0.002	8	0.94		680	F	W		170
EN2030B-10-X	10(11.5)	0.002	8	0.94		680	F	W		200
EN2030B-12-x	13(00.0)	0.002	4	2.00		330	F	W		185
EN2030B-16-X	16(18.4)	0.002	4	2.00		330	F	W		220
EN2030B-20-X	20(23.0)	0.002	4	2.00		330	F	W	S	290
EN2030B-30-S	30(34.5)	0.002	2	2.00		330			S	330

To compile a complete part number, please replace the -.. with the required I/O connection style (e.g. EN 2030-20-S, EN 2030B-6-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.

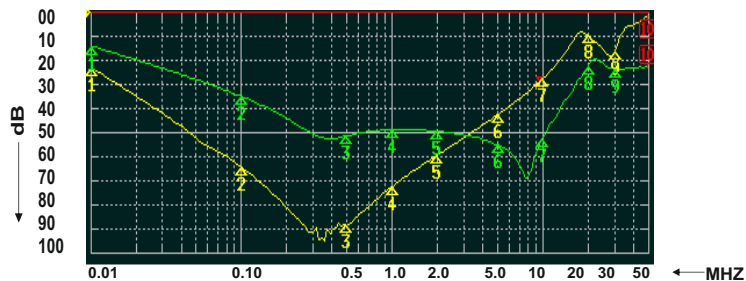
TYPICAL INSERTION LOSS, dB (50/50 Ohm)

Insertion Loss: Common mode - —
 Differential mode- —

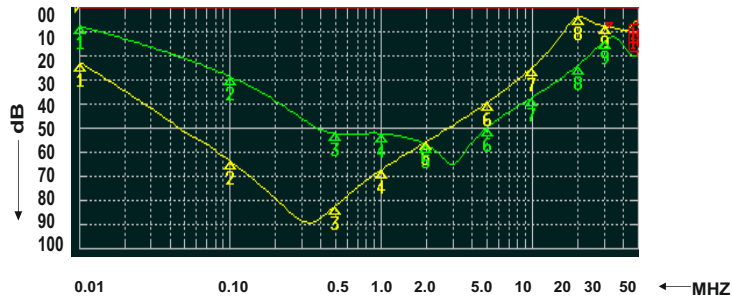
1 to 6 A



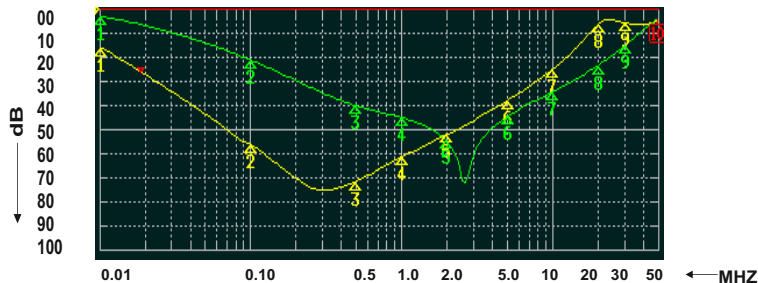
8 to 12 A



16 to 20 A

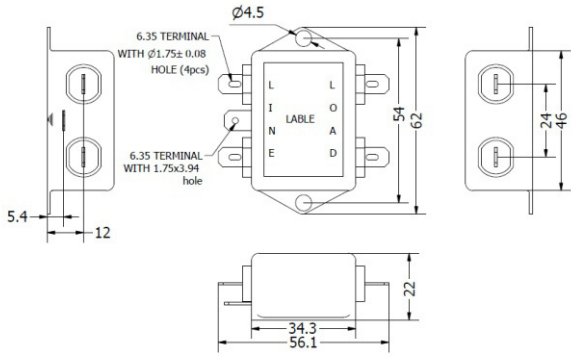


30 A

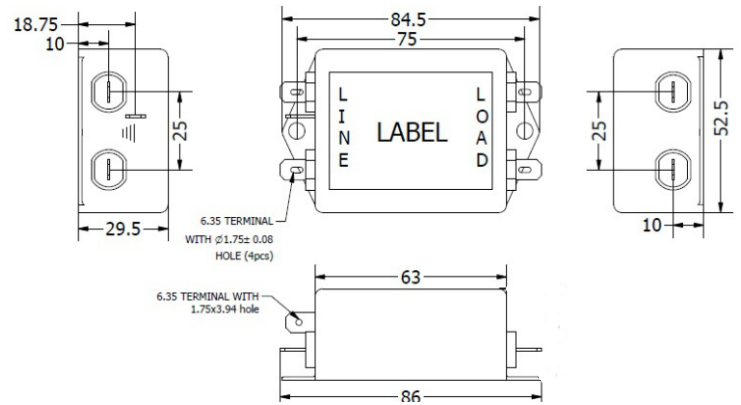


MECHANICAL DETAILS

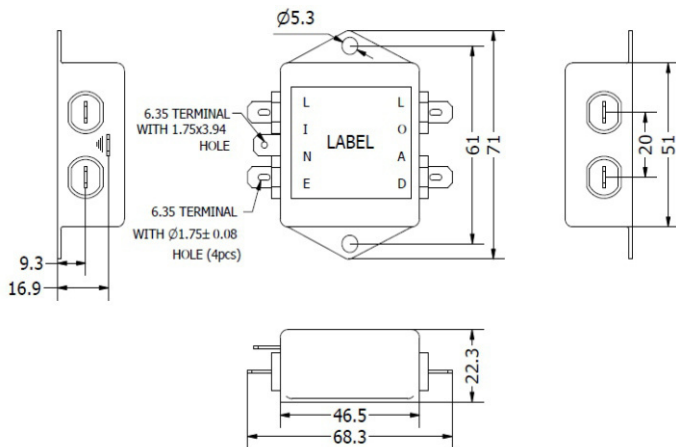
1Amp



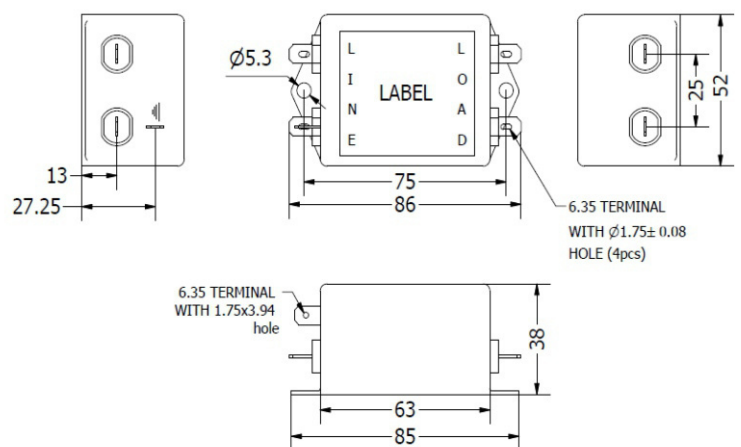
8,10 & 12 Amp Faston Terminal



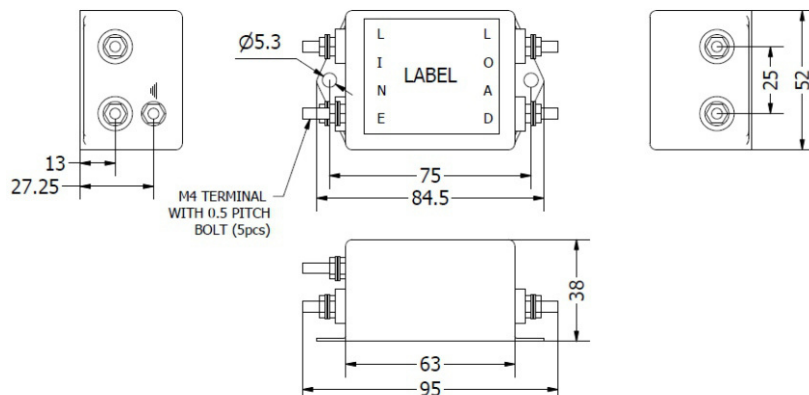
3,4 & 6 Amp Faston Terminal



16 & 20 Amp Faston Terminal



20 & 30 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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