

X10843

Power Line Filter – EMI Filter

EN 2080 Series

Dual-Stage High Performance EMI/EMC Filters



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KEY FEATURES:

- ✓ Dual-stage filtering for enhanced EMI/EMC attenuation
- ✓ Rated for 1A–16A @ 250VAC, 50/60Hz
- ✓ High differential & common-mode noise rejection
- ✓ Optional medical (Type B) and safety (Type A) versions
- ✓ Wide temperature range: -25°C to +100°C
- ✓ Certified to UL 1283, EN60939 standards
- ✓ DC and AC compatible
- ✓ Flexible terminal configurations for fast chassis mounting

APPLICATIONS:

- Medical equipment
- Consumer electronics
- Office automation and datacom
- Household appliances
- Electronic control systems
- Industrial and commercial AC/DC installations

EN 2080 – Dual-Stage High Performance EMI/EMC Filters

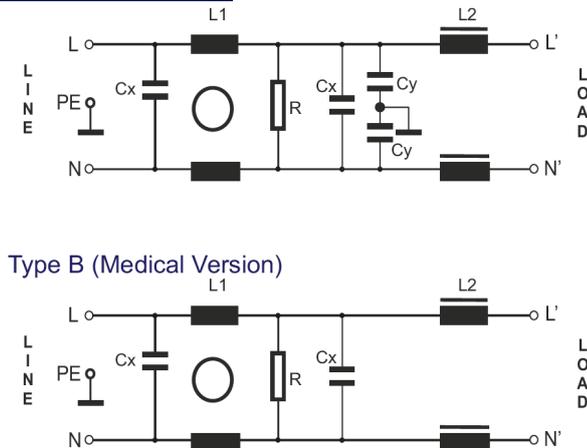
The **EN 2080 series** offers high-efficiency **dual-stage EMI/EMC filters** designed for demanding AC and DC applications. These filters deliver excellent **differential and common-mode noise suppression**, thanks to robust chokes with high saturation resistance and superior thermal behavior. With **rated currents from 1A to 16A**, EN 2080 filters are ideal for space-saving installations in both commercial and industrial environments.

Optional **Type A** (low leakage) and **Type B** (medical-grade Y-capacitor-free) variants provide tailored solutions for safety-critical and medical devices. Multiple terminal configurations ensure seamless integration into various system architectures.

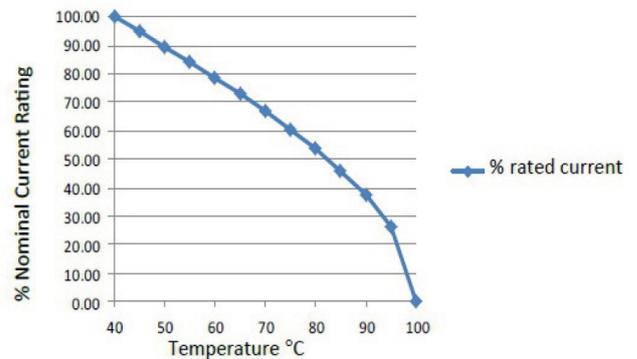
TECHNICAL SPECIFICATIONS

Maximum continuous operating voltage	250VAC, 50/60Hz
Operating Frequency	DC to 400Hz
Rated Currents	1 to 16A @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



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



YOU MUST READ THIS BEFORE INSTALLATION

<p>⚠ ELECTRICAL SAFETY</p> <p>WARNING: RISK OF ELECTRIC SHOCK Always consult the Installation & Maintenance Instructions before connecting this product to the power supply.</p> <p>WARNING: Disconnect Power Before Servicing Ensure the electrical supply is safely disconnected before connecting to any supply, load, or control terminals.</p>	<p>🔧 INSTALLATION REQUIREMENTS</p> <p>WARNING: Installation by Qualified Personnel Only This product must only be installed or fitted by a competent, qualified installer familiar with the relevant electrical standards and installation practices.</p>	<p>🚫 USER RESTRICTIONS</p> <p>WARNING: Not for Use by Vulnerable Individuals This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised or instructed by a person responsible for their safety.</p>	<p>🏭 USAGE ENVIRONMENT</p> <p>WARNING: Industrial Use Only This is an industrial-grade product and is not intended for household use.</p>	<p>🔥 HOT SURFACE WARNING</p> <p>WARNING: Hot Surfaces On certain models, surfaces marked with this symbol become hot during use. Avoid direct contact and follow all thermal safety precautions.</p>
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EN 2080 Series

Dual-Stage High Performance EMI/EMC Filters

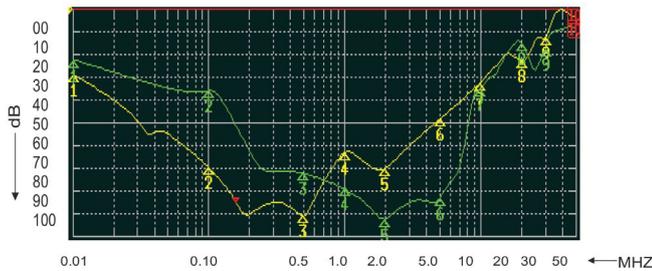
FILTER SELECTION TABLE

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	Connection type			Weight gram (g)
										
EN2080-1-X	1(1.15)	0.66	22.49	0.66	9.4	1000	F	W		210
EN2080-3-X	3(3.45)	0.66	9.96	0.94	9.4	470	F	W		270
EN2080-6-X	6(6.90)	0.66	7.91	2	9.4	220	F	W		450
EN2080-10-X	10(11.5)	0.66	4.66	2	9.4	220	F	W		750
EN2080-12-X	12(13.8)	0.66	3.75	2	9.4	220	F	W	S	750
EN2080-16-X	16(18.4)	0.66	2.483	2	9.4	220	F	W	S	1000
Low Leakage Version										
EN2080A-1-X	1(1.15)	0.07	22.49	0.66	0.94	1000	F	W		210
EN2080A-3-X	3(3.45)	0.07	9.96	0.94	0.94	470	F	W		270
EN2080A-6-X	6(6.90)	0.07	7.91	2	0.94	220	F	W		450
EN2080A-10-X	10(11.5)	0.07	4.66	2	0.94	220	F	W		750
EN2080A-12-X	12(13.8)	0.07	3.75	2	0.94	220	F	W	S	750
EN2080A-16-X	16(18.4)	0.07	2.483	2	0.94	220	F	W	S	1000
Medical Version Without Y cap										
EN2080B-1-X	1(1.15)	0	22.49	0.66	0	1000	F	W		210
EN2080B-3-X	3(3.45)	0	9.96	0.94	0	470	F	W		270
EN2080B-6-X	6(6.90)	0	7.91	2	0	220	F	W		450
EN2080B-10-X	10(11.5)	0	4.66	2	0	220	F	W		750
EN2080B-12-X	13(00.0)	0	3.75	2	0	220	F	W	S	750
EN2080B-16-X	16(18.4)	0	2.483	2	0	220	F	W	S	1000

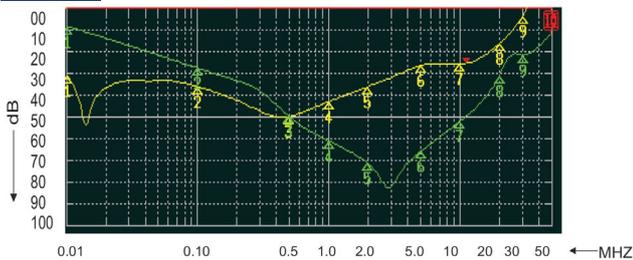
To compile a complete part number, please replace the -.. with the required I/O connection style (e.g. EN 2080-16-S, EN 2080B-10-F). The different letters code the ** Maximum leakage under usual AC operating conditions (acc. IEC 60939-3). Note: if the neutral line is interrupted, worst case leakage could reach twice this level.

TYPICAL INSERTION LOSS, dB (50/50 Ohm)

1 to 3 A

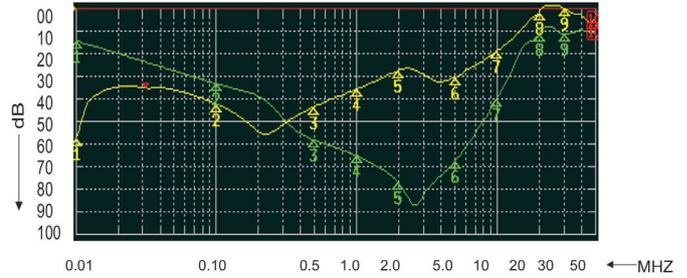


6 to 10 A



Insertion Loss: Common mode - —
Differential mode- —

6 to 10 A



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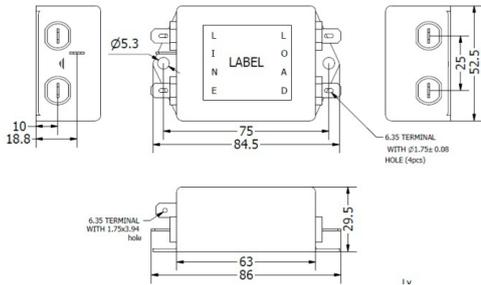


EN 2080 Series

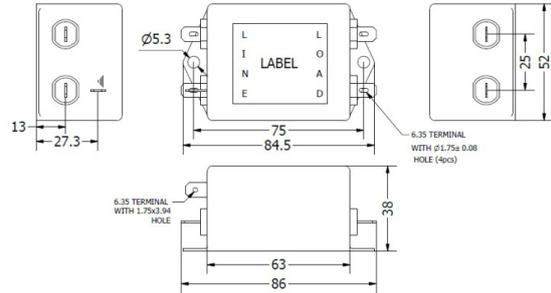
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Mechanical Details

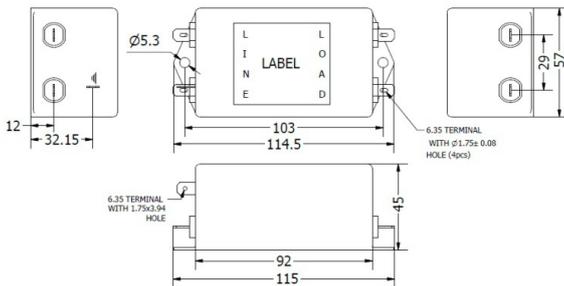
1 Amp Faston Terminal



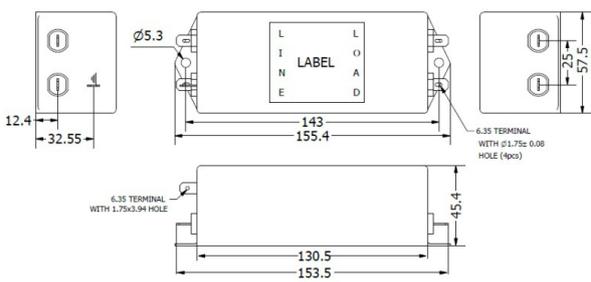
3 Amp Faston Terminal



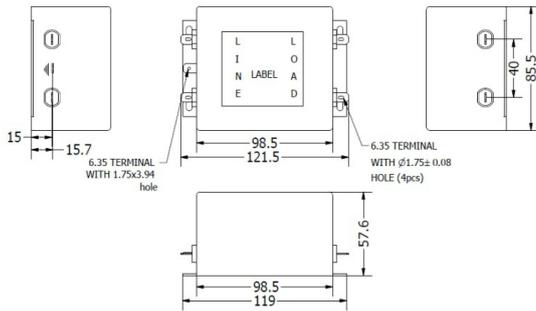
6 Amp Faston Terminal



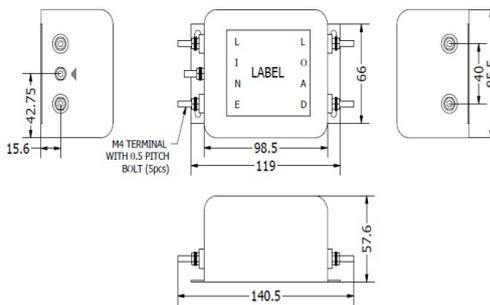
10 & 12 Amp Faston Terminal



16 Amp Faston Terminal



16 Amp Screw Terminal (M4)



**All Dimension are in mm

RECOMMENDATIONS

FUSING

It is recommended to use semiconductor (fast acting) type fuses or circuit breakers (Semiconductor - MCB) for unit protection. On initial switch on some loads may need an increased Factor of Safety (F of S) for unit and/or device protection. See SRA datasheet for information.

DOCUMENTS

Other documents available on request, which may be appropriate for your application:

Code	Identity	Description
X10229	RFI	Filter recommendations: Addressing the EMC Directive
X10213	ITA	Interaction: Uses for phase angle and for burst fire control
X10255	SRA	Safety Requirements: Addressing the Low Voltage Directive (LVD) including, Thermal Data/Cooling, Live Parts Warning, Earthing Requirements and Fusing Recommendations

It is recommended that installation and maintenance of this equipment should be done with reference to the current edition of the I.E.T. regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding the safety of electrical equipment. For International standards refer STANDARDS on D of C.

PRODUCT CODE AND RELATED PRODUCT CODE

Product Code	Product Description
A-EN2080-16-F	Single-phase Chassis Mount EMI/RFI filter 80 series, 16A, Fast On
A-EN2080-12-F	Single-phase Chassis Mount EMI/RFI filter 80 series, 12A, Fast On



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FILTERS RECOMMENDATIONS

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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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