

High Performance EMI Power Inlet Filter

EC Series



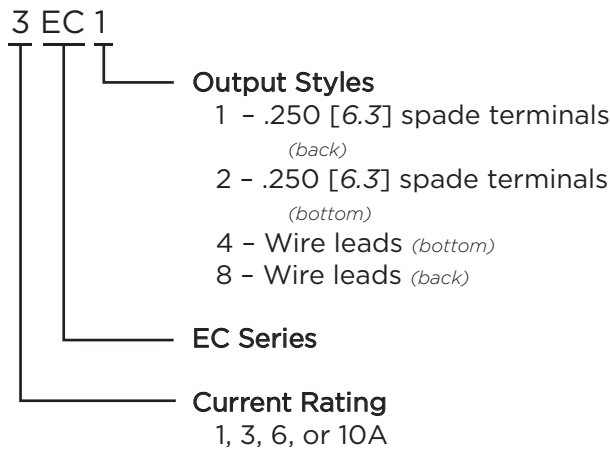
UL Recognized
CSA Certified
VDE Approved



EC Series

- Three element differential mode circuit provides the highest attenuation of any available standard inlet filter
- High common mode inductance
- High differential mode capacitance
- Effective attenuation of Line to Ground and Line to Line noise across the frequency range
- Performance and application similar to the ED series but with higher differential mode performance
- Includes several termination options

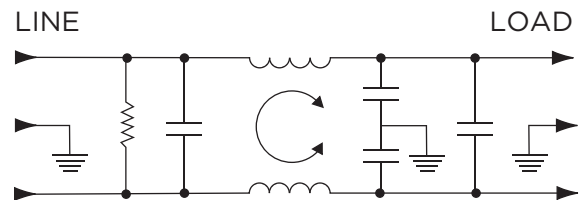
Ordering Information



Specifications

- Maximum leakage current each Line to Ground:**
- @ 120 VAC 60 Hz: .25 mA
 - @ 250 VAC 50 Hz: .50 mA
- Hipot rating (one minute):**
- Line to Ground: 2250 VDC
 - Line to Line: 1450 VDC
- Rated Voltage (max.):** 250 VAC
- Operating Frequency:** 50/60 Hz
- Rated Current:** 1 to 10A
- Operating Ambient Temperature Range (at rated current I_r):** -10°C to +40°C
- In an ambient temperature (T_a) higher than +40°C the maximum operating current (I_O) is calculated as follows: $I_O = I_r \sqrt{(85 - T_a) / 45}$

Electrical Schematic



Available Part Numbers

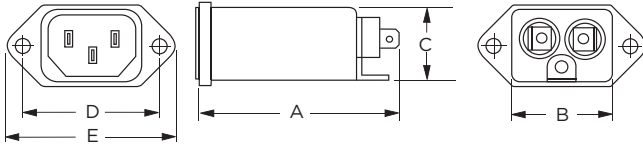
1EC1	1EC2	1EC4	1EC8
3EC1	3EC2	3EC4	3EC8
6EC1	6EC2	6EC4	6EC8
10EC1			

High Performance EMI Power Inlet Filter (continued)

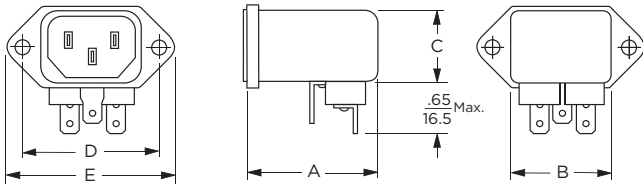
EC Series

Case Styles

EC1



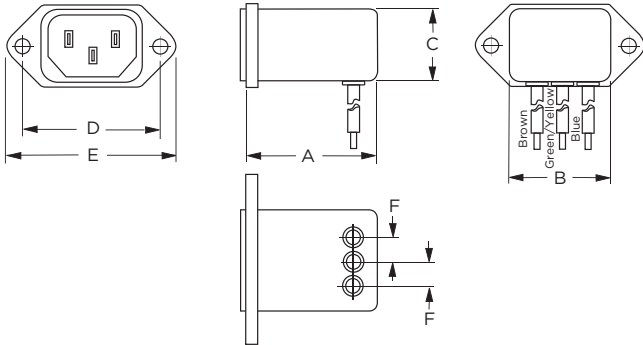
EC2



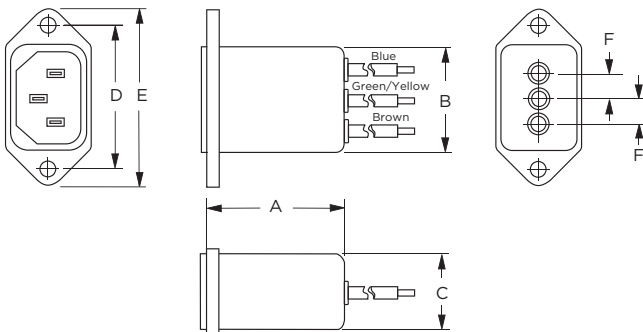
Typical Dimensions:

- Line Inlet (1): IEC 60320-1 C14
- Load Terminals (2): .250 [6.3] with .07 [1.8] Dia. hole
- Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot

EC4



EC8



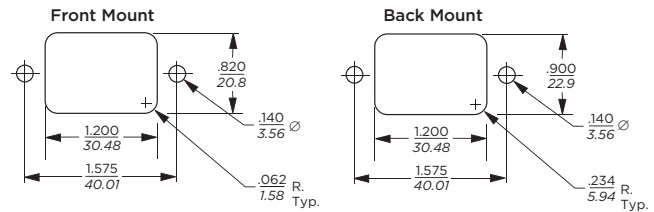
Typical Dimensions:

- Line Inlet (1): IEC 60320-1 C14
- Wire Leads: 4.0 [101.6] Min., 18AWG, UL1015

Case Dimensions

Part No.	A (max.)	B (max.)	C (max.)	D $\pm .015$ $\pm .38$	E (max.)	F (ref.)
EC1	2.62 66.5	1.19 30.2	0.81 20.6	1.575 40.01	1.98 50.3	-
EC2	1.97 50.0	1.19 30.2	0.85 21.6	1.575 40.01	1.98 50.3	-
EC4	1.97 50.0	1.19 30.2	0.85 21.6	1.575 40.01	1.98 50.3	.295 7.5
EC8	1.98 50.0	1.19 30.2	0.81 20.6	1.575 40.01	1.98 50.3	.298 7.5

Recommended Panel Cutouts

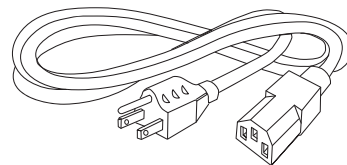


Tolerances $\pm .005$ [0.13] unless otherwise noted

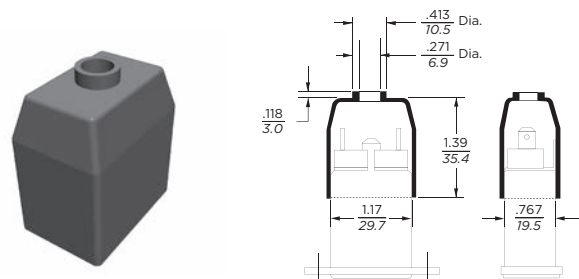
- Note 1: EC1 and EC8 allow for front or back mounting
- Note 2: EC2 and EC4 allow for back mounting only

Accessories

GA400: NEMA 5-15P to IEC 60320-1 C-13 line cord



FA601: Insulating Shroud



High Performance EMI Power Inlet Filter *(continued)*

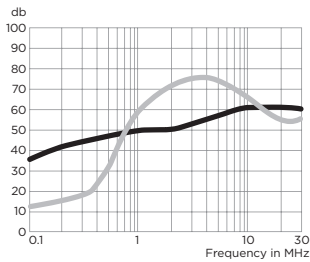
EC Series

Performance Data

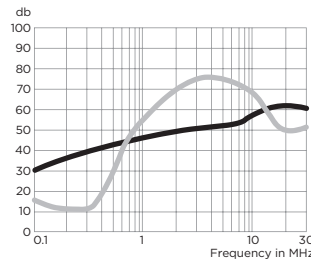
Typical Insertion Loss

Measured in closed 50 Ohm system

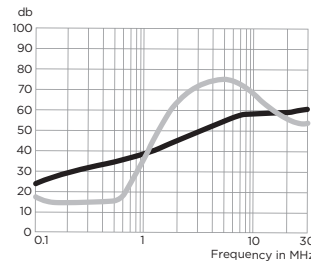
1EC



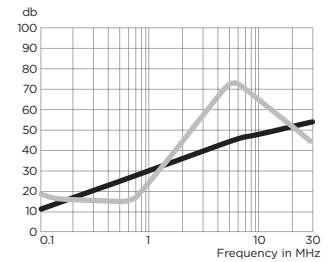
3EC



6EC



10EC



— Common Mode / Asymmetrical (L-G)
— Differential Mode / Symmetrical (L-L)

Minimum Insertion Loss

Measured in closed 50 Ohm system

Common Mode / Asymmetrical (Line to Ground)

Current Rating	Frequency – MHz					
	.15	.5	1	5	10	30
1A	25	35	40	50	50	50
3A	20	30	37	47	48	50
6A	15	22	25	40	45	50
10A	7	14	20	35	39	48

Differential Mode / Symmetrical (Line to Line)

Current Rating	Frequency – MHz						
	.15	.5	1	5	10	20	30
EC1, EC2 & EC8							
1A	5	35	50	60	60	40	40
3A	5	25	45	60	55	34	34
6A	10	10	40	65	60	40	40
10A	10	10	27	65	56	38	38
EC4							
1A	5	35	50	60	60	33	33
3A	5	30	45	60	55	34	34
6A	10	10	40	65	60	33	33