

Medium Performance Compact EMI Power Inlet Filter

# ED Series



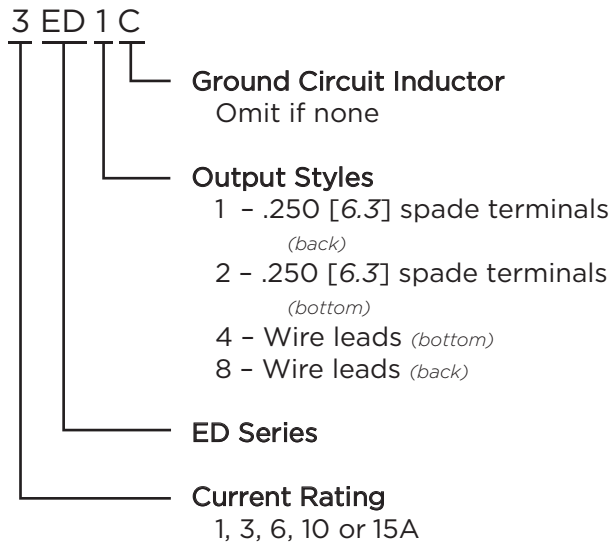
UL Recognized  
CSA Certified  
VDE Approved\*



## ED Series

- Two element circuit provides medium attenuation
- Available with an internal ground-circuit inductor (C versions) to isolate equipment chassis from power line ground at radio frequencies
- Versions up to 15A\*
- Similar to EEJ Series with alternative termination options
- See the EC Series for better differential mode performance

## Ordering Information



\*15A versions are tested by Underwriters Laboratories to US and Canadian requirements and are VDE approved at 10A, 250VAC

## Specifications

**Maximum leakage current each Line to Ground:**  
 @ 120 VAC 60 Hz: .22 mA  
 @ 250 VAC 50 Hz: .38 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

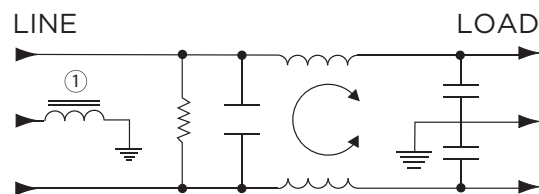
**Rated Current:** 1 to 15A\*

**Operating Ambient Temperature Range (at rated current I<sub>r</sub>):** -10°C to +40°C  
 In an ambient temperature (T<sub>a</sub>) higher than +40°C the maximum operating current (I<sub>O</sub>) is calculated as follows:  $I_O = I_r \sqrt{(85 - T_a) / 45}$

## Available Part Numbers

1ED1	1ED2	1ED4	1ED8
3ED1	3ED2	3ED4	3ED8
6ED1	6ED2	6ED4	6ED8
10ED1			
15ED1			15ED8
Ground Circuit Inductor Versions			
6ED1C		6ED4C	6ED8C
10ED1C			

## Electrical Schematic



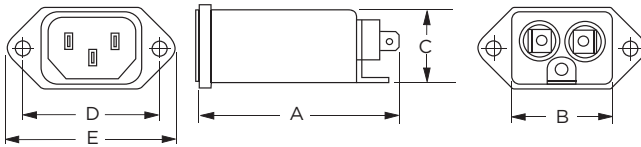
Note 1: C versions only

Medium Performance Compact EMI Power Inlet Filter (continued)

# ED Series

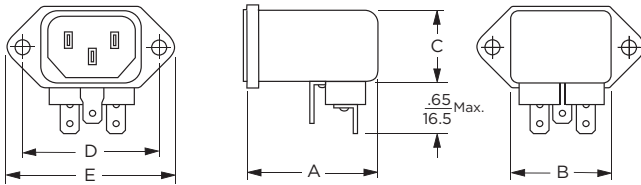
## Case Styles

### ED1 & ED1C



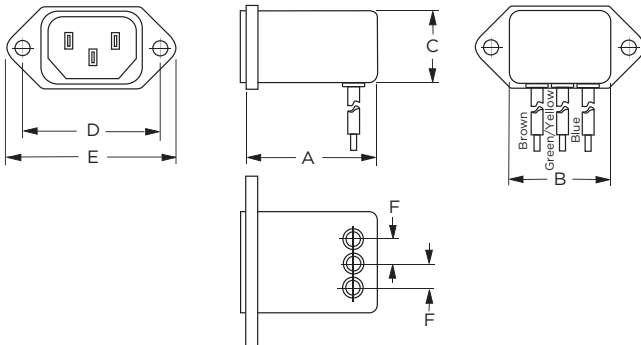
Typical Dimensions:  
 Mounting holes (2): .132 [3.35] Dia. with .236 [5.99] Dia. x 90° countersink for #4 flathead screw  
 Line Inlet (1): IEC 60320-1 C14  
 Load Terminals (2): .250 [6.3] with .07 [1.8] Dia. hole  
 Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot

### ED2



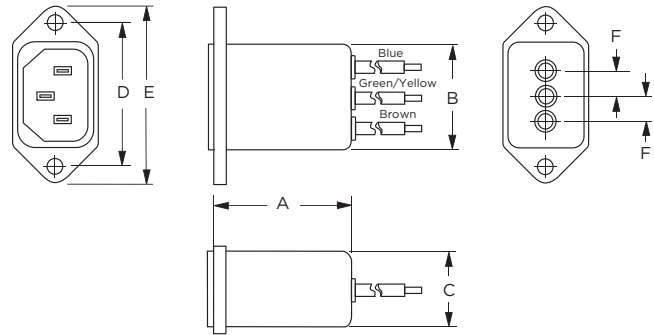
Typical Dimensions:  
 Mounting holes (2): .132 [3.35] Dia. with .236 [5.99] Dia. x 90° countersink for #4 flathead screw  
 Line Inlet (1): IEC 60320-1 C14  
 Load Terminals (2): .250 [6.3] with .07 [1.8] Dia. hole  
 Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot

### ED4 & ED4C



Typical Dimensions:  
 Mounting holes (2): .132 [3.35] Dia. with .236 [5.99] Dia. x 90° countersink for #4 flathead screw  
 Line Inlet (1): IEC 60320-1 C14  
 Wire Leads: 4.0 [101.6] Min., 18AWG, UL1015

### ED8 & ED8C



Typical Dimensions:  
 Mounting holes (2): .132 [3.35] Dia. with .236 [5.99] Dia. x 90° countersink for #4 flathead screw  
 Line Inlet (1): IEC 60320-1 C14  
 Wire Leads: 4.0 [101.6] Min., 18AWG, UL1015

## Case Dimensions

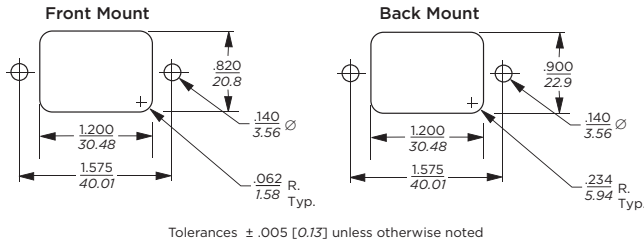
Part No.	A (max.)	B (max.)	C (max.)	D $\pm .015$ $\pm .38$	E (max.)	F (ref.)
1ED1, 3ED1, 6ED1	<b>2.21</b>	<b>1.19</b>	<b>0.81</b>	<b>1.575</b>	<b>1.98</b>	-
1ED2, 3ED2, 6ED2	<b>1.55</b>	<b>1.19</b>	<b>0.85</b>	<b>1.575</b>	<b>1.98</b>	-
1ED4, 3ED4, 6ED4	<b>1.55</b>	<b>1.19</b>	<b>0.85</b>	<b>1.575</b>	<b>1.98</b>	<b>.295</b>
1ED8, 3ED8, 6ED8	<b>1.55</b>	<b>1.19</b>	<b>0.81</b>	<b>1.575</b>	<b>1.98</b>	<b>.295</b>
6ED1C	<b>2.62</b>	<b>1.19</b>	<b>0.81</b>	<b>1.575</b>	<b>1.98</b>	-
6ED4C	<b>1.98</b>	<b>1.19</b>	<b>0.85</b>	<b>1.575</b>	<b>1.98</b>	<b>.295</b>
6ED8C	<b>1.98</b>	<b>1.19</b>	<b>0.81</b>	<b>1.575</b>	<b>1.98</b>	<b>.295</b>
10ED1 /1C, 15ED1	<b>2.62</b>	<b>1.19</b>	<b>0.81</b>	<b>1.575</b>	<b>1.98</b>	-
15ED8	<b>1.98</b>	<b>1.19</b>	<b>0.81</b>	<b>1.575</b>	<b>1.98</b>	-



**Medium Performance Compact EMI Power Inlet Filter** *(continued)*

# ED Series

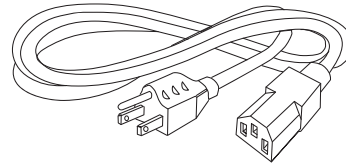
## Recommended Panel Cutouts



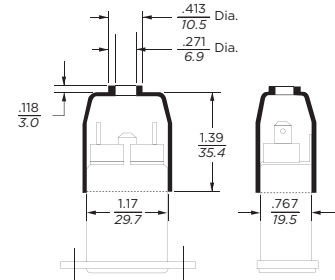
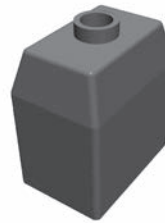
Note 1: ED1 and ED8 allow for front or back mounting  
Note 2: ED2 and ED4 allow for back mounting only

## Accessories

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



**FA601:** Insulating Shroud

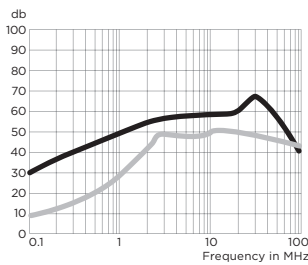


## Performance Data

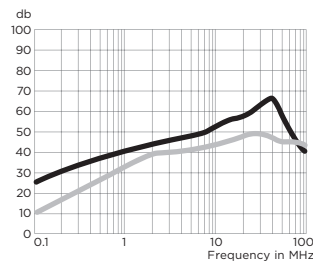
### Typical Insertion Loss

Measured in closed 50 Ohm system

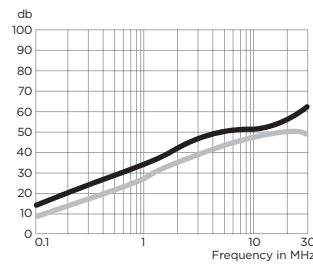
**1ED**



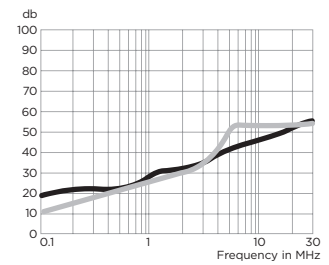
**3ED**



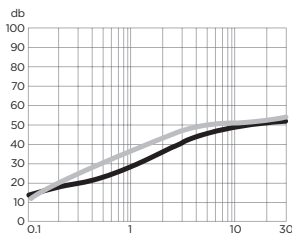
**6ED**



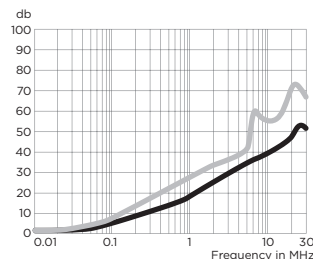
**6ED1C**



**10ED1 & 10ED1C**



**15ED**



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

**Medium Performance Compact EMI Power Inlet Filter** *(continued)*

# ED Series

## Performance Data *(continued)*

### 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
<b>ED1, ED2, ED4 &amp; ED8</b>						
1A	24	35	42	49	52	54
3A	20	29	36	45	50	54
6A	14	23	30	41	45	50
10A	8	14	20	35	39	45
15A	4	9	12	28	34	40
<b>ED1C</b>						
6A	14	20	25	37	42	50
10A	8	14	20	35	39	45
<b>ED4C &amp; ED8C</b>						
6A	14	20	25	37	42	50

Differential Mode / Symmetrical (Line to Line)

Current Rating	Frequency – MHz					
	.15	.5	1	5	10	30
<b>ED1, ED2, ED4 &amp; ED8</b>						
1A	3	15	20	37	37	36
3A	3	15	20	37	37	36
6A	3	15	20	31	35	34
10A	6	15	20	23	44	47
15A	6	18	23	33	44	47
<b>ED1C</b>						
6A	7	17	23	36	42	42
10A	6	15	20	23	44	47
<b>ED4C &amp; ED8C</b>						
6A	7	17	23	29	38	42

