

**EMI Power Inlet Filter**

# EF Series



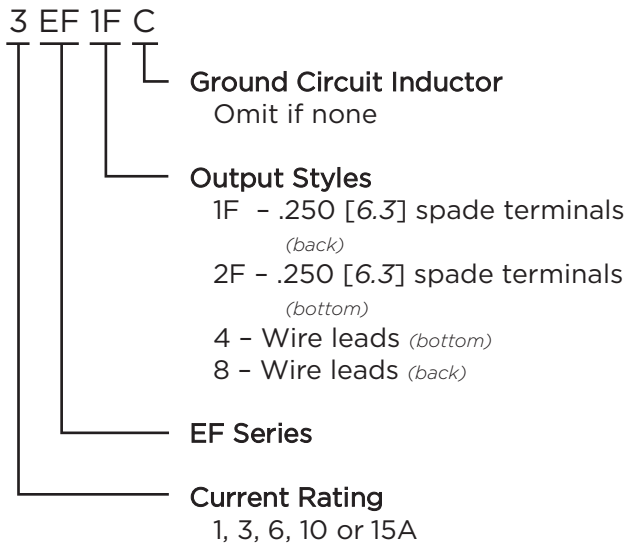
UL Recognized  
CSA Certified  
VDE Approved\*



## EF Series

- Compact single stage EMI filter with IEC 60320-1 C14 inlet
- Two element circuit provides basic attenuation
- Available with an internal ground-circuit inductor (C suffix versions) to isolate equipment chassis from power line ground at radio frequencies
- Superseded by the EEA Series

## Ordering Information



## Available Part Numbers

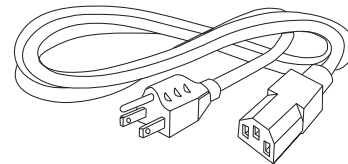
1EF1F	1EF2F	1EF4	1EF8
3EF1F	3EF2F	3EF4	3EF8
6EF1F	6EF2F	6EF4	6EF8
10EF1F			
15EF1F			
Ground Circuit Inductor Versions			
10EF1FC			

## Specifications

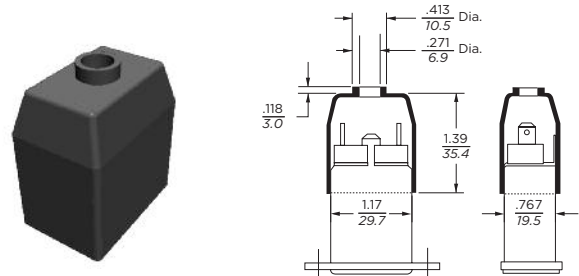
- Maximum leakage current each Line to Ground:**
- @ 120 VAC 60 Hz: .21 mA
  - @ 250 VAC 50 Hz: .36 mA
- Hipot rating (one minute):**
- Line to Ground: 2250 VDC
  - Line to Line: 1450 VDC
- Rated Voltage (max.):** 250 VAC
- Operating Frequency:** 50/60 Hz
- Rated Current:** 1 to 15A\*
- Operating Ambient 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:  $I_O = I_r \sqrt{(85-T_a)/45}$

## Accessories

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



**FA601:** Insulating Shroud

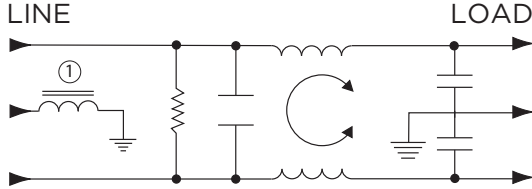


\*15A versions are tested by Underwriters Laboratories to US and Canadian requirements and are VDE approved at 10A, 250VAC

EMI Power Inlet Filter (continued)

# EF Series

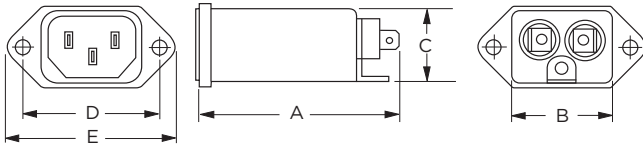
## Electrical Schematic



Note 1: C Suffix (ground choke) versions only

## Case Styles

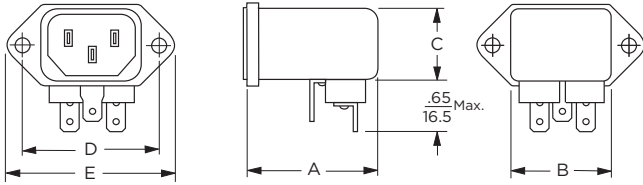
### EF1F & EF1FC



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

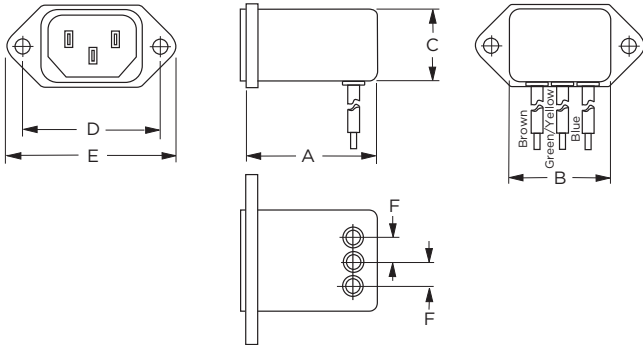
### EF2F



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

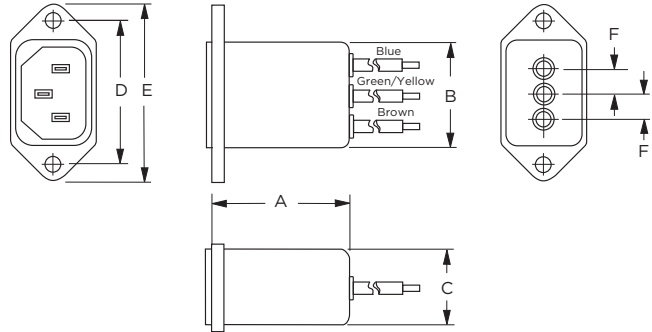
### EF4



Typical Dimensions:

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

### EF8



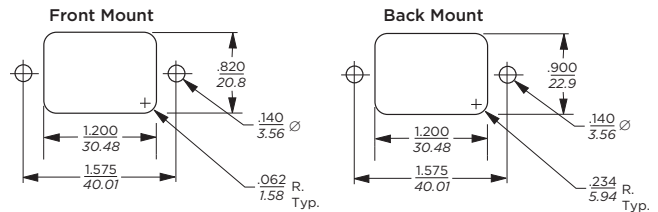
Typical Dimensions:

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.)
1EF1F, 3EF1F, 6EF1F	2.21	1.19	0.81	1.575	1.98	-
1EF2F, 3EF2F, 6EF2F	1.55	1.19	0.85	1.575	1.98	-
1EF4, 3EF4, 6EF4	1.55	1.19	0.85	1.575	1.98	.295
1EF8, 3EF8, 6EF8	1.55	1.19	0.81	1.575	1.98	.295
10EF1F, 10EF1FC	2.62	1.19	0.81	1.575	1.98	-
15EF1F	2.62	1.19	0.81	1.575	1.98	-

## Recommended Panel Cutouts



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

Note 1: EF1F, EF1FC and EF8 allow for front or back mounting  
Note 2: EF2F and EF4 allow for back mounting only

**EMI Power Inlet Filter** *(continued)*

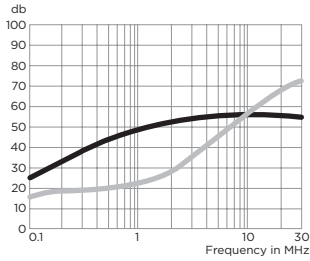
# EF Series

## Performance Data

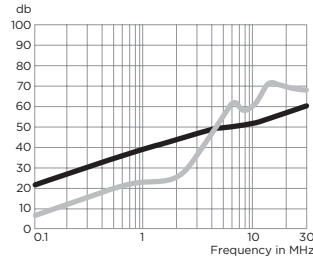
### Typical Insertion Loss

Measured in closed 50 Ohm system

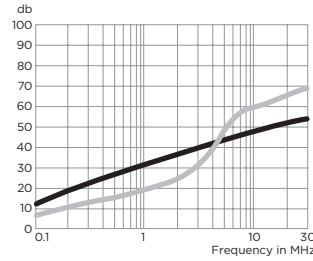
#### 1EF



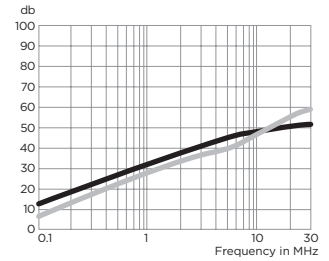
#### 3EF



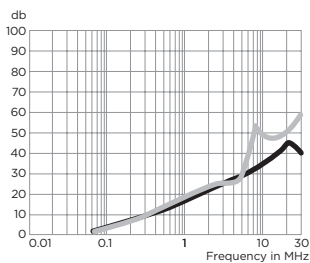
#### 6EF



#### 10EF



#### 15EF



— 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
<b>EF1F, EF2F</b>						
1A	22	35	40	46	50	49
3A	15	25	30	45	50	54
6A	9	20	25	41	45	50
10A	8	15	20	34	39	44
15A	-	6	12	20	25	25
<b>EF4, EF8</b>						
1A	22	35	40	46	50	49
3A	15	25	30	45	50	54
6A	9	20	25	41	45	47
<b>EF1FC</b>						
10A	8	15	20	34	39	44