

## Introduction



Corcom EJS Series  
IEC Inlet RFI Filter

**Power Inlet Filters** feature power sockets integrated with EMI filters enclosed in RFI jackets. The AC power socket complies with IEC standard to assure worldwide power cord compatibility. These filters are available in a wide variety of filtering, shielding, mounting and termination styles that provide the most compact and cost-effective inlet filtering available. For DC power inlet filters, see the DC section.



Corcom P Series CHAMELEON  
Power Entry Module

**Power Entry Modules** incorporate power sockets with filtering, fuses, switching and voltage selection in a variety of configurations to reduce cost, space and labor. The power sockets comply with IEC standards to assure worldwide AC power cord compatibility. For DC power entry modules, see the DC section.

Equipment marketed worldwide, must operate with

- Multiple different wall plugs and sockets
- Different fuse standards in America and Europe
- Different voltages in different regions
- On/Off switching options
- Different EMI requirements in different regions

The combinations are endless. Your equipment needs a single solution.

TE Connectivity's power entry modules can provide ONE mechanical solution for a variety of power entry needs. Each series supports several different configurations to suit the market requirements. Each starts with an international standard power cord connector, and includes options for fusing, voltage selection, switching, and filtering. Selecting one power entry module series simplifies the mechanical design, and each version within the series replaces the cost and labor of up to including up to five individual parts in the equipment bill of materials. With hundreds of different combinations of power entry functions, the modules in this catalog offer a cost-effective solution to the power entry needs of many systems. It is easy to select the module that best serves your needs.

## Introduction *(continued)*

The selector guides on the next two pages help you configure the best power entry module for your application. Just select options from this menu of five categories.

**IEC60320-1 Socket** – Common to all modules, the 60320-1 universal socket allows your equipment to be used in every country. Simply select a power cord with a mating IEC 60320-1 plug on one end, and a regionally appropriate plug on the other.

**Fusing Options** – North American ( $\frac{1}{4}$ " x  $1\frac{1}{4}$ " 3AG) or Metric (5mm x 20mm) or both? One fuse or two?

**Voltage Selection Options** – 4-voltage, 2-voltage, or 1-voltage? Multitap? Center-tap? Dual primary?

**Power Switch** – Yes or no? Double pole (DPST) or single (SPST)? These power entry module switches feature international on - off markings, current ratings up to 15A and high inrush current.

**Shielding** – reduce radiated emissions through the panel cut-out by selecting a module with a shield (optional on the C, CU, M and P).

**Filtering options** – Choice of six filter circuits (all with low leakage current to meet international standards) to fit specific filtering objectives:

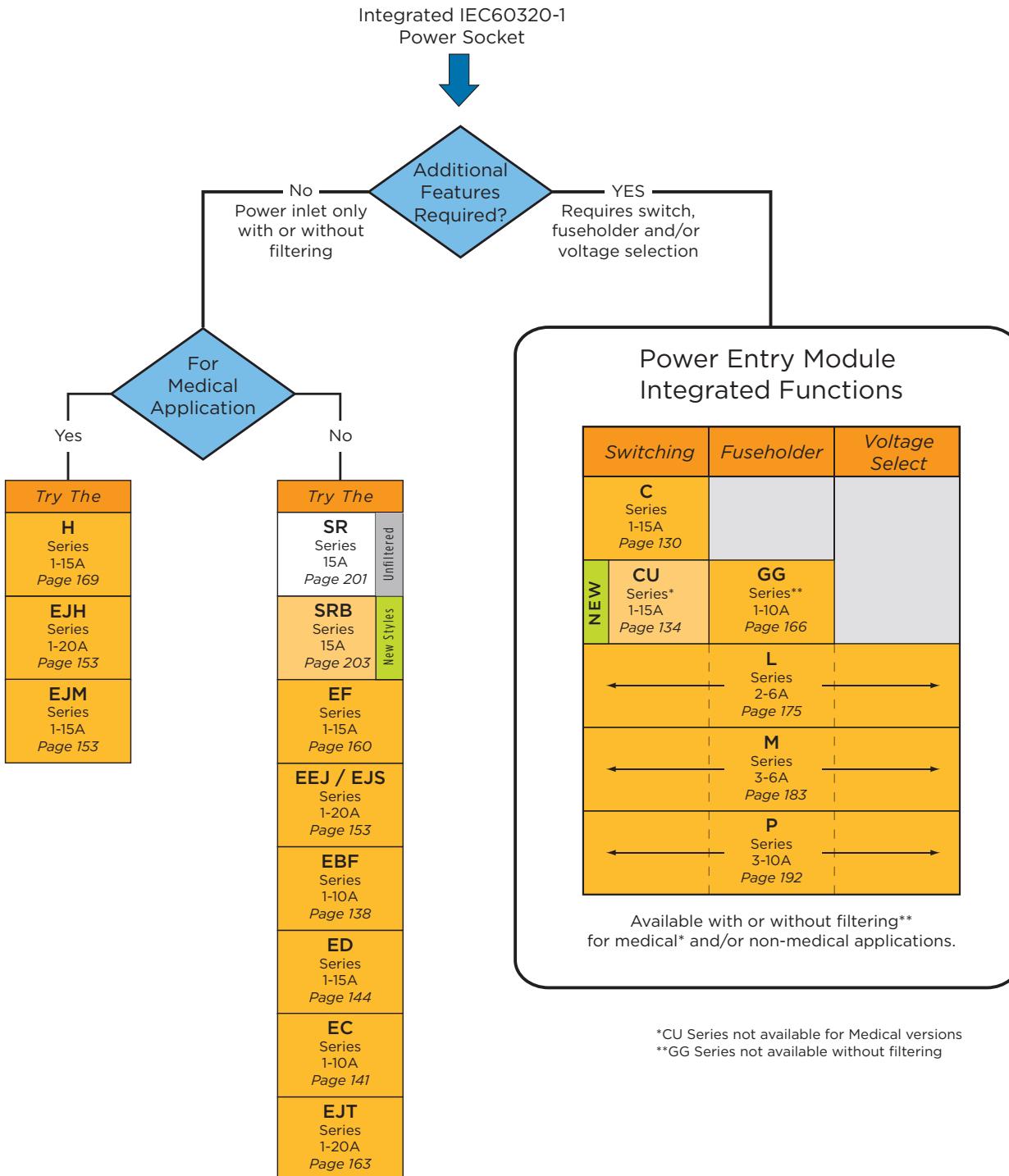
- **General purpose** (C, CU, GG, J, LA, M and P) – most cost-effective, for susceptibility and for high-frequency “clean-up” when used with a board-level filter
- **Medical** (in C, GG, L, M, and P series) – for medical equipment
- **Emissions/Linear** (in L and P series) – capable of bringing most digital equipment with linear power supplies into FCC compliance
- **Emissions/SMPS-FCC** (in P, LA and M series) – capable of bringing most digital equipment with switch-mode power supplies into FCC Class B compliance
- **Emissions/SMPS-VDE** (in P, LA and M series) – capable of bringing most digital equipment with switch-mode power supplies into VDE level B (as well as FCC Class B) compliance

Want more filtering options? Select a general purpose or an unfiltered module (C, CU, J, L, M, P, or SR series) and wire it up connect it to the load through one of the many Corcom chassis-mounted filter of your choice from the choices found in this comprehensive catalog. TE’s Corcom product engineers can also design a custom filter for your specific application.

Available accessories expand your options even further. A Corcom product sales engineer can assist you with selecting the right filter for your application.

Having arrived at the best possible combination of power entry elements, TE’s worldwide agency approvals will help ease your product through the necessary safety agencies. File numbers and Safety Agency information is listed in Section 7.

## Selector Chart



## Power Entry Module Selector Guide

Series	Unfiltered		Filtered			Options		
	Product Photo	Max. Current Rating	Product Photo	Max. Current Rating	Filter Type	On/Off Switch	Voltage Selections	Fuse Holder
C		15A <b>NEW</b>		10A	Medical & General Purpose	Yes DPST	N/A	N/A
CU <b>NEW</b>		15A		15A	General Purpose	Yes SPST	N/A	N/A
GG	Filtered Only			10A	Medical & General Purpose	N/A	N/A	Metric
L		6A		6A	Medical & General Purpose	Optional DPST	Single or 4	North American or Metric
M		6A		6A	Medical, General Purpose & Switch Mode Power Supply	Optional DPST	Single, 2 or 4	North American or Metric
P		10A		10A	Medical, General Purpose & Switch Mode Power Supply	Optional DPST	Single or 2	North American or Metric
<b>New</b> High Performance versions in PE and PM Mounting Styles								

N/A = Not Available

## Power Entry Module with Switch

# C Series



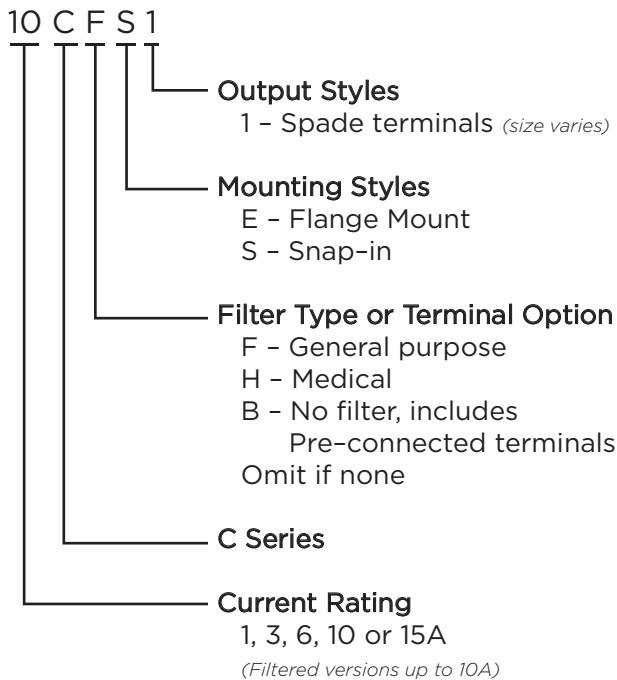
**UL Recognized**  
**CSA Certified**  
**VDE Approved\***



## C Series

- Two function power entry module combining a DPST switch and an IEC 60320-1 inlet
- Snap-in or flange mounting
- Available with or without a shielded general purpose or medical grade filter
- Two element circuit provides enhanced EMI attenuation
- Reduce OEM wiring time with optional pre-connected line and switch terminals

## 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:

	F Models	H & Unfiltered
@ 120 VAC 60 Hz:	.25 mA	2 µA
@250 VAC 50 Hz:	.40 mA	5 µA

### Hipot rating (one minute):

Line to Ground:	2250 VDC
Line to Line:	1450 VDC

### Rated Voltage:

250 VAC

### Operating Frequency:

50/60 Hz

### Rated Current:

1 to 15A\*

### Switch:

DPST

10,000 operations at 51A max. inrush

### .250 Terminal Push-on Force:

18 lb. / 80N (max.)

### .188 Terminal Push-on Force:

15 lb. / 67N (max.)

## Available Part Numbers

Filtered Versions	
1CHE1	1CFE1
3CHE1	3CFE1
6CHE1	6CFE1
10CHE1	10CFE1
1CHS1	1CFS1
3CHS1	3CFS1
6CHS1	6CFS1
10CHS1	10CFS1

### Non-filtered Versions

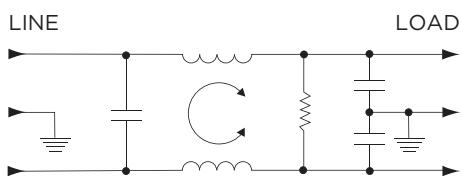
Standard Terminals	Pre-connected Terminals
10CS1	10CBS1
10CE1	10CBE1
15CS1	15CBS1
15CE1	15CBE1

## Power Entry Module with Switch (continued)

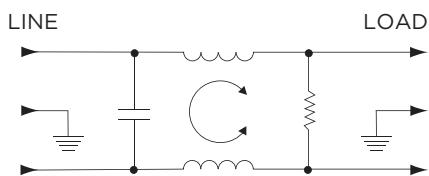
# C Series

## Electrical Schematics

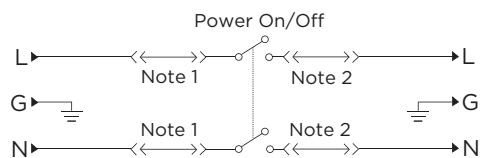
### F Models



### H Models



### B Models

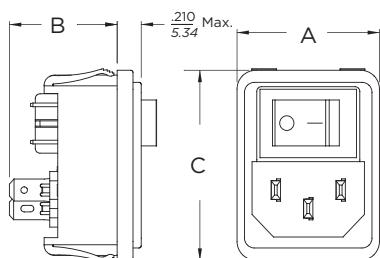


Note 1: Jumpers provided on CBS and CBE versions only

Note 2: Location of optional filter

## Case Styles

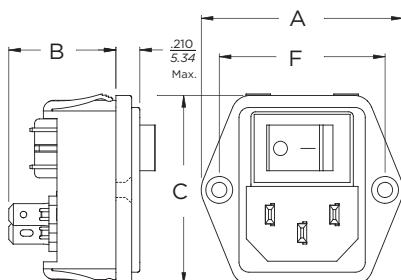
### CS, CBS



#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
 Terminals (6): .187 [4.8] with .055 [1.4] Dia. hole  
 Ground Terminal (1): .187 [4.8] with .112 x .06 [2.8 x 1.5] slot

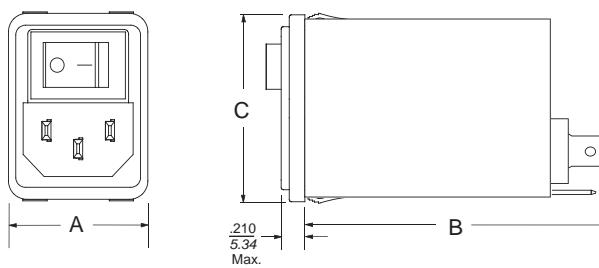
### CE, CBE



#### Typical Dimensions:

Mounting holes (2): .13 [3.3] Dia. with .23 [5.9] Dia. x 90° countersink for #4 flathead screw  
 Line Inlet (1): IEC 60320-1 C14  
 Terminals (6): .187 [4.8] with .055 [1.4] Dia. hole  
 Ground Terminal (1): .187 [4.8] with .112 x .06 [2.8 x 1.5] slot

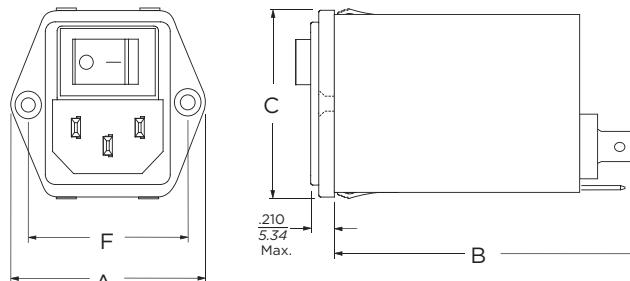
### CFS, CHS



#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
 Terminals (3): .25 [6.35] with .07 [1.8] Dia. hole

### CFE, CHE



#### Typical Dimensions:

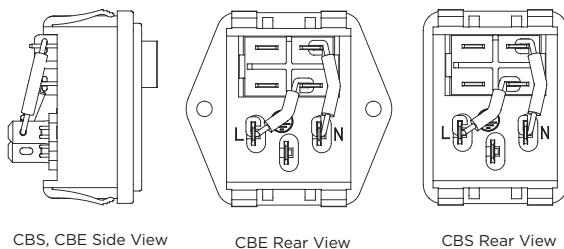
Mounting holes (2): .13 [3.3] Dia. with .23 [5.9] Dia. x 90° countersink for #4 flathead screw  
 Line Inlet (1): IEC 60320-1 C14  
 Terminals (3): .25 [6.35] with .07 [1.8] Dia. hole

## Power Entry Module with Switch (continued)

# C Series

## Case Styles (continued)

### CBS, CBE Pre-Connected Terminals

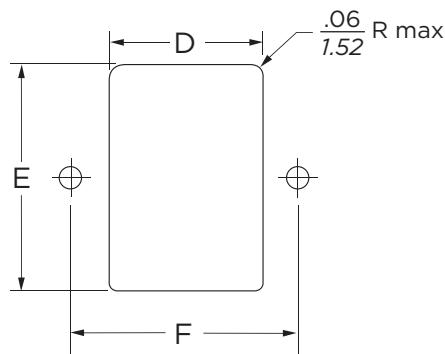


## Case Dimensions

Part No.	A (max.)	B (max.)	C (max.)	D <i><math>\pm .01</math></i> <i><math>\pm .254</math></i>	E <i><math>\pm .01</math></i> <i><math>\pm .254</math></i>	F <i><math>\pm .006</math></i> <i><math>\pm .152</math></i>
CS, CBS	<b>1.22</b> 31.0	<b>.93</b> 23.6	<b>1.62</b> 41.2	<b>1.06</b> 26.92	<b>1.54*</b> 39.12"	-
CE, CBE	<b>1.74</b> 44.2	<b>.93</b> 23.6	<b>1.62</b> 41.2	<b>1.06</b> 26.92	<b>1.56</b> 39.62	<b>1.417</b> 36.0
CFS, CHS	<b>1.22</b> 31.0	<b>2.53</b> 64.3	<b>1.62</b> 41.2	<b>1.12</b> 28.5	<b>1.54*</b> 39.12"	-
CFE, CHE	<b>1.74</b> 44.2	<b>2.53</b> 64.3	<b>1.62</b> 41.2	<b>1.12</b> 28.5	<b>1.56</b> 39.62	<b>1.417</b> 36.0

\*+.000 [.000] / -.008 [.20]

## Recommended Panel Cutout



Panel Thickness: .031 - .098 [0.8 - 2.5]

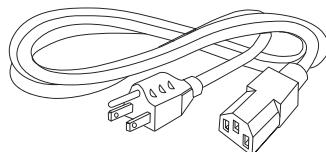
Not recommended for plastic panels.

Snap-in models suitable for front mounting only.

For Snap-in applications, the D sides of the cutout must have a .02 [.508] radius on the installation side.

## Accessories

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



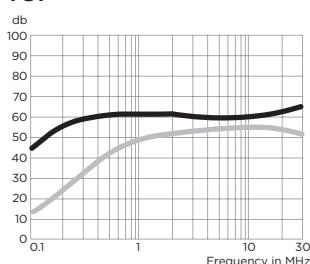
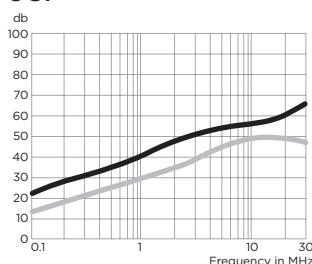
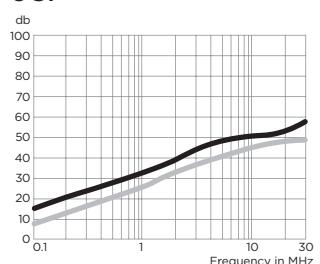
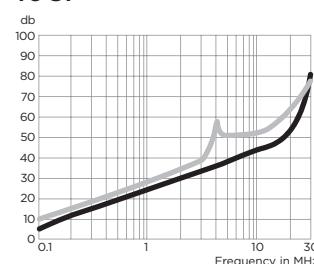
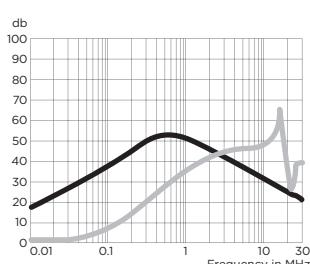
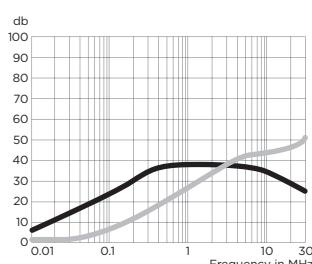
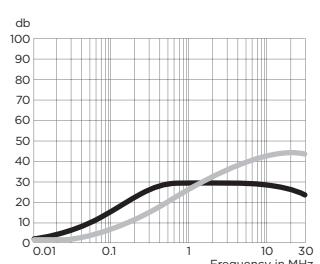
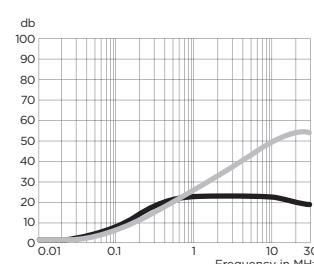
**Power Entry Module with Switch (continued)**

# C Series

## Performance Data

### Typical Insertion Loss

Measured in closed 50 Ohm system

**1CF**

**3CF**

**6CF**

**10CF**

**1CH**

**3CH**

**6CH**

**10CH**


— 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						
	.05	.15	.5	1	5	10	30
<b>F Models</b>							
1A	10	26	46	48	46	47	46
3A	8	16	32	36	43	48	50
6A	4	11	22	27	36	41	50
10A	1	4	14	18	27	33	42
<b>H Models</b>							
1A	16	21	37	44	26	21	10
3A	9	14	31	32	26	24	14
6A	4	10	22	23	19	18	13
10A	2	6	10	15	11	11	9

#### Differential Mode / Symmetrical (Line to Line)

Current Rating	Frequency – MHz						
	.05	.15	.5	1	5	10	30
<b>F Models</b>							
1A	1	3	13	28	62	67	42
3A	2	6	14	23	65	65	67
6A	2	6	14	27	46	48	58
10A	1	7	14	23	42	44	62
<b>H Models</b>							
1A	1	6	13	29	38	42	26
3A	1	5	10	22	36	34	36
6A	1	5	14	20	31	33	37
10A	1	4	11	19	32	37	38

## Compact 1U Height Switched Power Entry Module

# CU Series



**UL Recognized**  
**CSA Certified**  
**VDE Approved\***

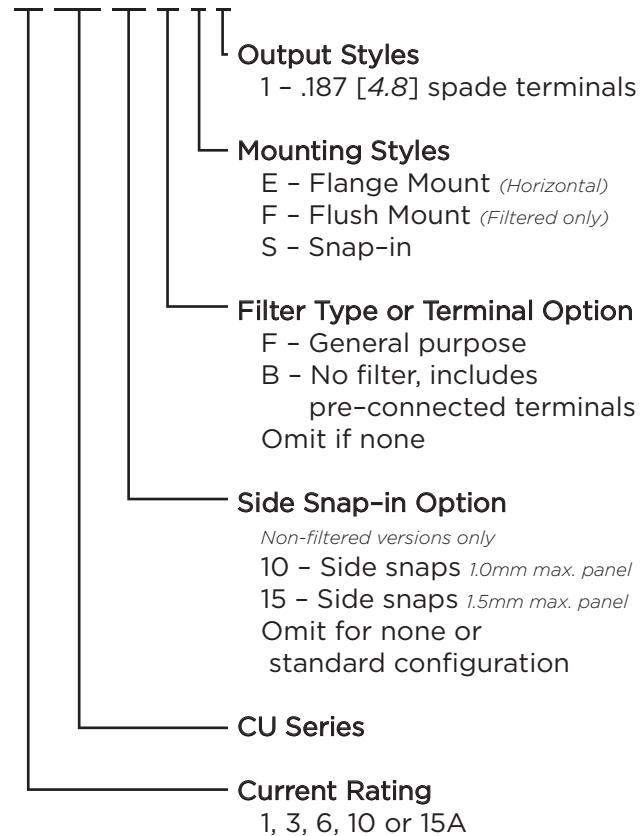


## CU Series

- Designed for popular 1U (1 ¾") height rack mounted equipment
- Two function power entry module combining a SPST switch and an IEC 60320-1 inlet
- Snap-in, flange and flush mounting
- Reduce OEM wiring time with optional pre-connected line and switch terminals

## Ordering Information

15 CU 10 B S 1



## Specifications

### Maximum leakage current each Line to Ground:

	<u>Filtered</u>	<u>Unfiltered</u>
@ 120 VAC 60 Hz:	.25 mA	2 µA
@ 250 VAC 50 Hz:	.40 mA	5 µA

### Hipot rating (one minute):

Line to Ground:	2250 VDC
Line to Line:	1450 VDC

### Operating Voltage:

120/250 VAC

### Operating Frequency:

50/60 Hz

### Rated Current:

1 to 15A\*

### Switch:

50A inrush capable SPST

### Terminal Push-on Force:

15 lb. / 67N (max.)

## Available Part Numbers

Filtered Versions		
1CUFE1	1CUFF1	1CUFS1
3CUFE1	3CUFF1	3CUFS1
6CUFE1	6CUFF1	6CUFS1
10CUFE1	10CUFF1	10CUFS1
15CUFE1	15CUFF1	15CUFS1

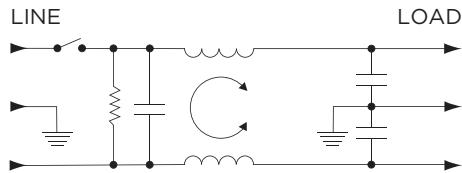
Non-filtered Versions	
Standard Terminals	Pre-connected Terminals
15CUE1	15CUBE1
15CUS1	15CUBS1
15CU10S1	15CU10BS1
15CU15S1	15CU15BS1

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

## Compact 1U Height Switched Power Entry Module (continued)

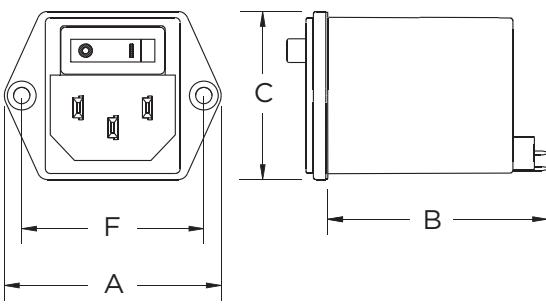
# CU Series

## Electrical Schematic



## Case Styles

### CUFE1



#### Typical Dimensions:

Mounting holes (2):

.138 [3.5] Dia. with .228 [5.8] Dia. x 90° countersink for M3 flathead screw

Line Inlet (1):

IEC 60320-1 C14

Terminals (2):

.187 [4.8] with .055 [1.4] Dia. hole

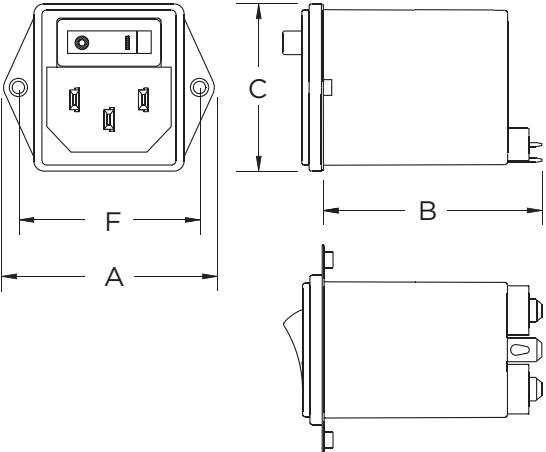
Ground Terminal (1):

.187 [4.8] with .112 x .06 [2.8 x 1.5] slot

Output Shroud:

.21 x .34 [5.2 x 8.6] inside dimension

### CUFF1



For rear mounted applications only. Maximum panel thickness: .157 [4.0]

#### Typical Dimensions:

Mounting Holes(2):

M3 x 0.5 Threaded flange

Line Inlet (1):

IEC 60320-1 C14

Terminals (2):

.187 [4.8] with .055 [1.4] Dia. hole

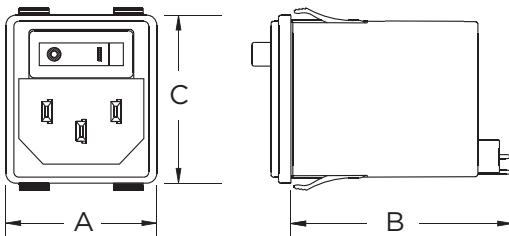
Ground Terminal (1):

.187 [4.8] with .112 x .06 [2.8 x 1.5] slot

Output Shroud:

.21 x .34 [5.2 x 8.6] inside dimension

### CUFS1



#### Typical Dimensions:

Line Inlet (1):

IEC 60320-1 C14

Terminals (2):

.187 [4.8] with .055 [1.4] Dia. hole

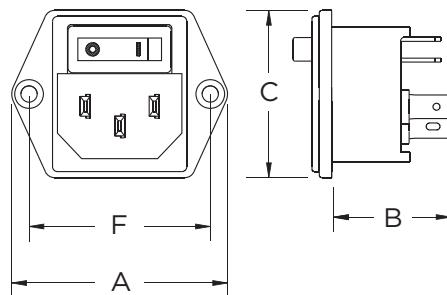
Ground Terminal (1):

.187 [4.8] with .112 x .06 [2.8 x 1.5] slot

Output Shroud:

.21 x .34 [5.2 x 8.6] inside dimension

### CUE1



Note: Switch output terminal configuration may vary

#### Typical Dimensions:

Mounting holes (2):

.138 [3.5] Dia. with .228 [5.8] Dia. x 90° countersink for M3 flathead screw

Line Inlet (1):

IEC 60320-1 C14

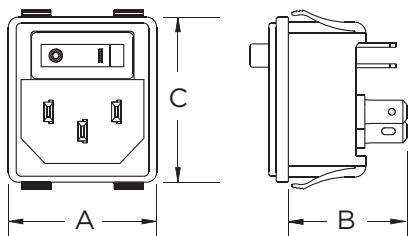
Terminals (4):

.187 [4.8] with .055 [1.4] Dia. hole

Ground Terminal (1):

.187 [4.8] with .112 x .06 [2.8 x 1.5] slot

### CUS1



Note: Switch output terminal configuration may vary

#### Typical Dimensions:

Line Inlet (1):

IEC 60320-1 C14

Terminals (4):

.187 [4.8] with .055 [1.4] Dia. hole

Ground Terminal (1):

.187 [4.8] with .112 x .06 [2.8 x 1.5] slot

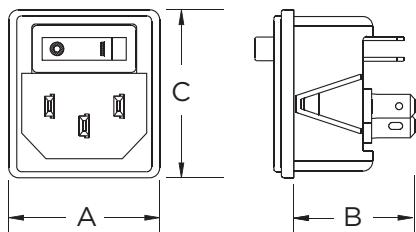


## Compact 1U Height Switched Power Entry Module (continued)

# CU Series

## Case Styles (continued)

### CU10S1 & CU15S1



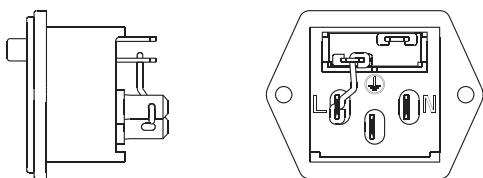
Available for panel thickness .07 - 1.0mm (CU10S1) or 1.2 - 1.5mm CU15S1

Note: Switch output terminal configuration may vary

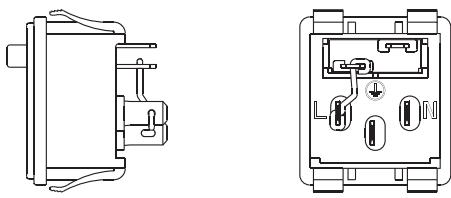
Typical Dimensions:

Line Inlet (1):	IEC 60320-1 C14
Terminals (4):	.187 [4.8] with .055 [1.4] Dia. hole
Ground Terminal (1):	.187 [4.8] with .112 x .06 [2.8 x 1.5] slot

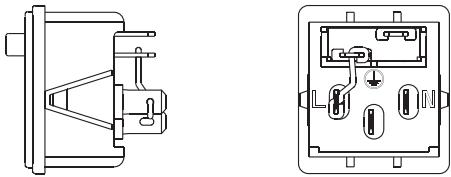
### CUBE1 Pre-Connected Terminals



### CUBS1 Pre-Connected Terminals



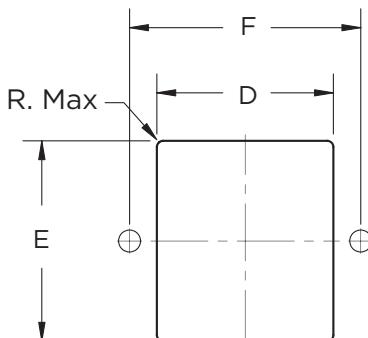
### CU10BS1 & CU15BS1 Pre-Connected Terminals



## Case Dimensions

Part No.	A (max.)	B (max.)	C (max.)	D <i>± .004</i> <i>± .100</i>	E <i>± .004</i> <i>± .100</i>	F <i>± .004</i> <i>± .100</i>
CUFE1	<b>1.73</b> 43.9	<b>1.75</b> 44.5	<b>1.34</b> 34.1	<b>1.11</b> 28.1	<b>1.26</b> 31.9	<b>1.45</b> 36.8
CUFF1	<b>1.7</b> 43.1	<b>1.8</b> 45.0	<b>1.34</b> 34.1	<b>1.21</b> 30.8	<b>1.35</b> 34.3	<b>1.45</b> 36.8
CUFS1	<b>1.20</b> 30.6	<b>1.8</b> 45.0	<b>1.34</b> 34.1	<b>1.11</b> 28.1	<b>1.26</b> 32.0	-
CUE1,	<b>1.73</b> 43.9	<b>.96</b> 24.6	<b>1.34</b> 34.1	<b>1.06</b> 26.9	<b>1.09</b> 27.6	<b>1.45</b> 36.8
CUBE1	<b>1.20</b> 30.6	<b>0.97</b> 24.6	<b>1.34</b> 34.1	<b>1.04</b> 26.4	<b>1.26</b> 32.0	-
CUS1,	<b>1.20</b> 30.6	<b>0.97</b> 24.6	<b>1.34</b> 34.1	<b>1.04</b> 26.4	<b>1.26</b> 32.0	-
CUBS1	<b>1.20</b> 30.6	<b>0.97</b> 24.6	<b>1.34</b> 34.1	<b>1.05</b> 26.7	<b>1.24</b> 31.6	-
10CUS1,	<b>1.20</b> 30.6	<b>0.97</b> 24.6	<b>1.34</b> 34.1	<b>1.05</b> 26.7	<b>1.24</b> 31.6	-
10CUBS1	<b>1.20</b> 30.6	<b>0.97</b> 24.6	<b>1.34</b> 34.1	<b>1.05</b> 26.7	<b>1.24</b> 31.6	-
15CUS1,	<b>1.20</b> 30.6	<b>0.97</b> 24.6	<b>1.34</b> 34.1	<b>1.05</b> 26.7	<b>1.24</b> 31.6	-
15CUBS1	<b>1.20</b> 30.6	<b>0.97</b> 24.6	<b>1.34</b> 34.1	<b>1.05</b> 26.7	<b>1.24</b> 31.6	-

## Recommended Panel Cutout



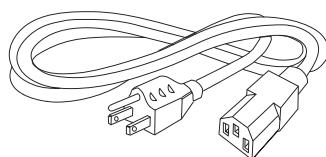
Model	Panel Thickness	R Dim.
CUFF1	.157 [4.0] max.	1.8 [45.72]
CUFS1, CUS1	.025 - .082 [0.63 - 2.1]	1.0 [25.4]
CU10S1	.028 - .039 [0.7 - 1.0]	1.0 [25.4]
CU15S1	.047 - .059 [1.2 - 1.5]	1.0 [25.4]

Note 1: CUFF1 allows for back mounting only

Note 2: All other models allow for front mounting only

## Accessories

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



## Compact 1U Height Switched Power Entry Module (continued)

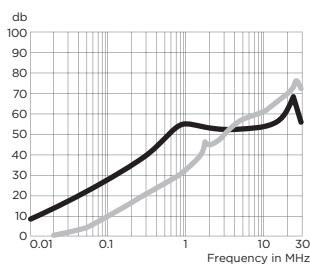
# CU Series

## Performance Data

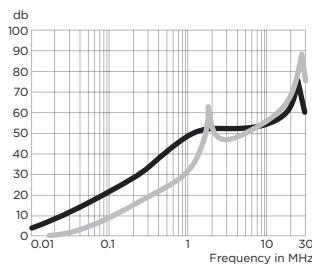
### Typical Insertion Loss

Measured in closed 50 Ohm system

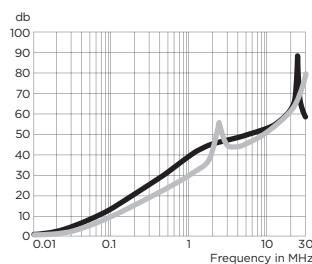
**1CUF**



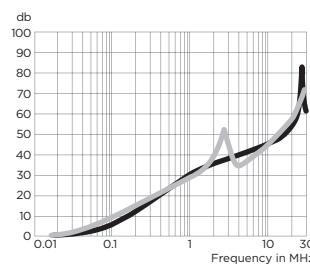
**3CUF**



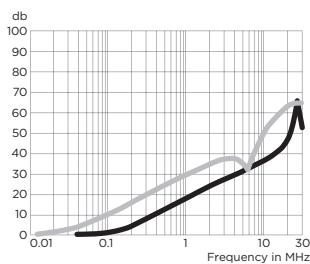
**6CUF**



**10CUF**



**15CUF**



— 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						
	.05	.15	.05	1	5	10	30
1A	19	30	44	49	47	44	45
3A	13	23	37	43	47	44	49
6A	5	14	28	34	43	43	48
10A	1	7	19	25	35	36	52
15A	-	1	10	13	25	27	42

Differential Mode / Symmetrical (Line to Line)

Current Rating	Frequency – MHz						
	.05	.15	.05	1	5	10	30
1A	1	10	21	26	48	51	60
3A	1	10	20	26	42	45	65
6A	1	10	20	23	38	41	65
10A	1	10	20	23	29	34	56
15A	1	10	20	23	28	39	54

## Accessory Outlet Filter

# EBF Series



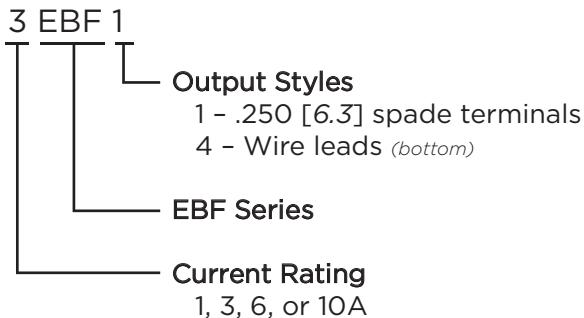
**UL Recognized**  
**CSA Certified**  
**VDE Approved**



## EBF Series

- Accessory IEC 60320-1 C13 filtered outlet
- Allows connection of accessories while filtering noise between a system and the accessory
- Enhanced performance across the frequency range
- Grounded connection
- Suitable for international usage

## 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

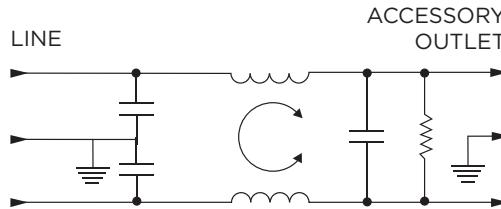
### Rated Current:

1 to 10A

### Operating Ambient Temperature Range

(at rated current  $I_r$ ):  $-10^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$   
In an ambient temperature ( $T_a$ ) higher than  $+40^{\circ}\text{C}$   
the maximum operating current ( $I_o$ ) is calculated as  
follows:  $I_o = I_r \sqrt{(85-T_a)/45}$

## Electrical Schematic



## Available Part Numbers

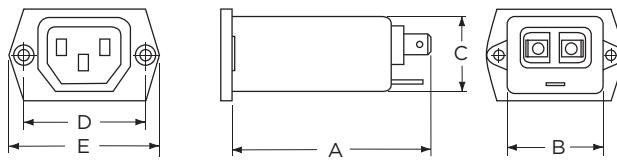
1EBF1	1EBF4
3EBF1	3EBF4
6EBF1	6EBF4
10EBF1	10EBF4

## Accessory Outlet Filter (continued)

## EBF Series

### Case Styles

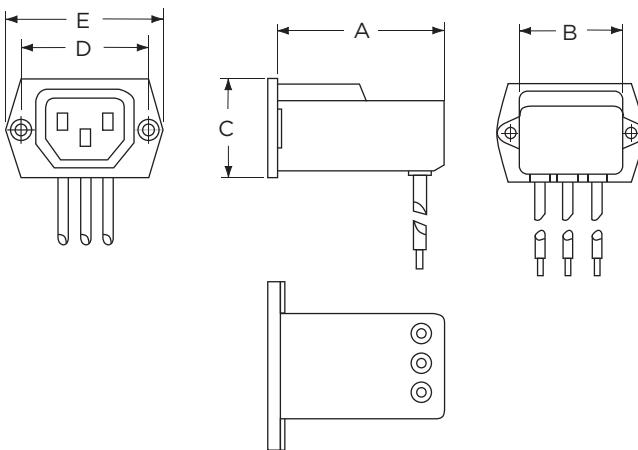
#### EBF1



##### Typical Dimensions:

- Mounting holes (2): .132 [3.35] Dia. with .236 [5.99] Dia. x 90° countersink for #4 flathead screw  
Load Outlet (1): IEC 60320-1 C13  
Line 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

#### EBF4



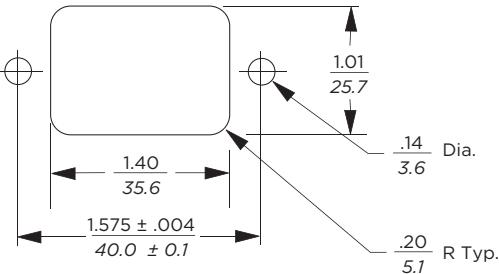
##### Typical Dimensions:

- Mounting holes (2): .132 [3.35] Dia. with .236 [5.99] Dia. x 90° countersink for #4 flathead screw  
Load Outlet (1): IEC 60320-1 C13  
Wire Leads (3): 10.0 [254.0] min., 18AWG, UL1015

### Case Dimensions

Part No.	A (max.)	B (max.)	C (max.)	D $\frac{+.01}{-.25}$	E (max.)
EBF1	<b>2.57</b> 65.3	<b>1.33</b> 33.8	<b>1.00</b> 25.4	<b>1.575</b> 40.01	<b>1.99</b> 50.5
EBF4	<b>2.09</b> 53.01	<b>1.39</b> 35.31	<b>1.16</b> 29.46	<b>1.575</b> 40.01	<b>1.99</b> 50.5

### Recommended Panel Cutout



Front Mount Only  
Tolerance + .008 [.203] / - .000 [.000]



## Accessory Outlet Filter (continued)

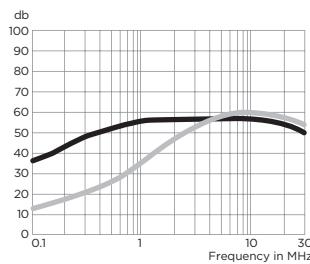
# EBF Series

## Performance Data

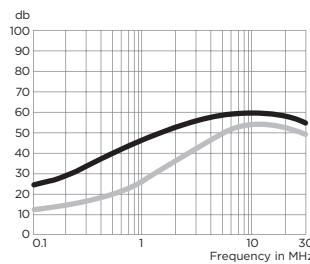
### Typical Insertion Loss

Measured in closed 50 Ohm system

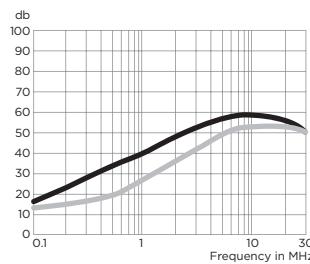
**1EBF**



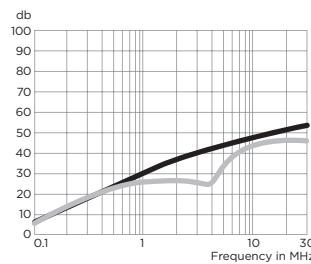
**3EBF**



**6EBF**



**10EBF**



— 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						
	.05	.15	.5	1	5	10	30
1A	23	32	41	47	47	47	40
3A	10	19	30	36	48	50	47
6A	1	10	22	28	42	48	47
10A	1	5	14	20	32	38	47

#### Differential Mode / Symmetrical (Line to Line)

Current Rating	Frequency – MHz						
	.05	.15	.5	1	5	10	30
1A	3	14	23	41	47	50	44
3A	2	11	14	25	38	44	40
6A	2	10	14	20	33	42	40
10A	2	10	16	19	19	39	40

## High Performance EMI Power Inlet Filter

# EC Series



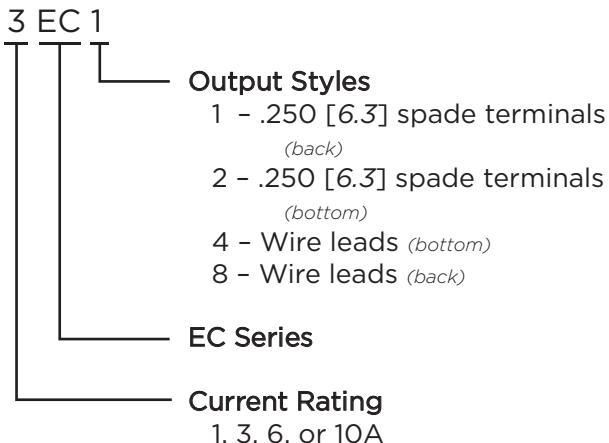
**UL Recognized**  
**CSA Certified**  
**VDE Approved**



## 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

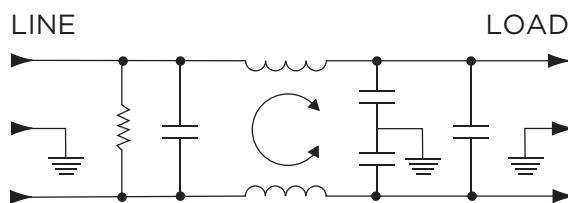
### Operating Ambient Temperature Range

#### (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



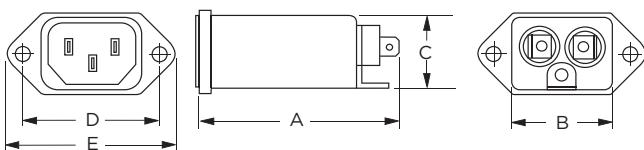
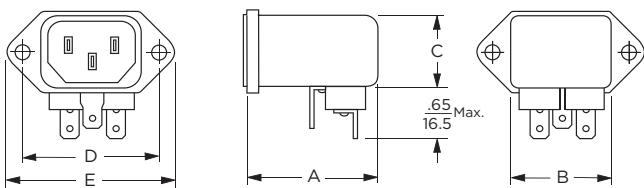
## Available Part Numbers

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

## High Performance EMI Power Inlet Filter (continued)

# EC Series

## Case Styles

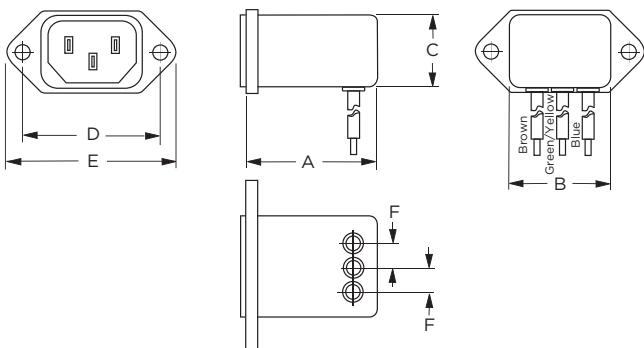
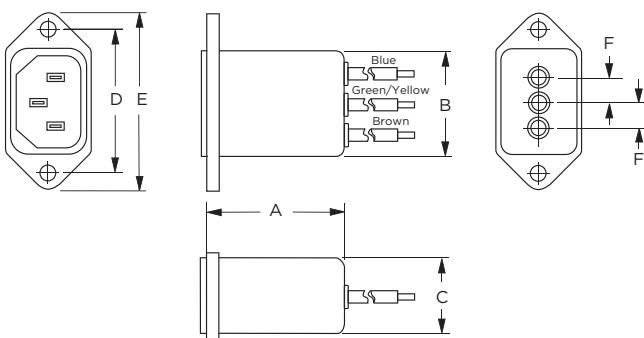
**EC1**

**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):

Wire Leads:

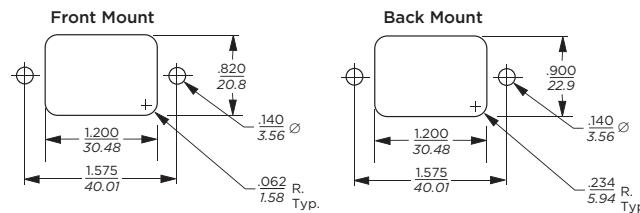
IEC 60320-1 C14

4.0 [101.6] Min., 18AWG, UL1015

## Case Dimensions

Part No.	A (max.)	B (max.)	C (max.)	D <sup>±.015</sup> <sub>± .38</sub>	E (max.)	F (ref.)
EC1	<b>2.62</b> 66.5	<b>1.19</b> 30.2	<b>0.81</b> 20.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	—
EC2	<b>1.97</b> 50.0	<b>1.19</b> 30.2	<b>0.85</b> 21.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	—
EC4	<b>1.97</b> 50.0	<b>1.19</b> 30.2	<b>0.85</b> 21.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	.295 7.5
EC8	<b>1.98</b> 50.0	<b>1.19</b> 30.2	<b>0.81</b> 20.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	.298 7.5

## Recommended Panel Cutouts

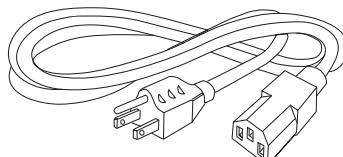

Tolerances  $\pm .005$  [0.13] unless otherwise noted

Note 1: EC1 and EC8 allow for front or back mounting

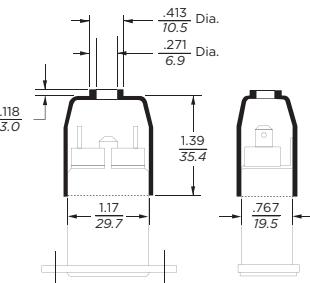
Note 2: EC2 and EC4 allow for back mounting only

## Accessories

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



FA601: Insulating Shroud



## High Performance EMI Power Inlet Filter (continued)

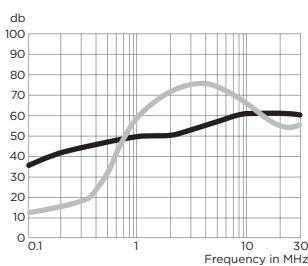
# EC Series

## Performance Data

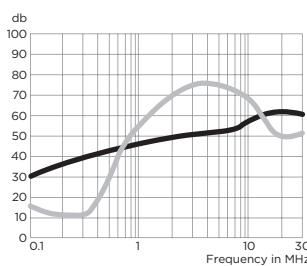
### Typical Insertion Loss

Measured in closed 50 Ohm system

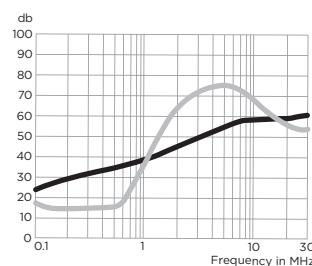
**1EC**



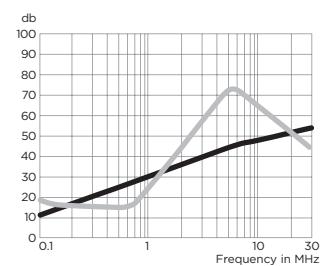
**3EC**



**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	.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	.15	.5	1	5	10	20	30
<b>EC1, EC2 &amp; EC8</b>							
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
<b>EC4</b>							
1A	5	35	50	60	60	33	33
3A	5	30	45	60	55	34	34
6A	10	10	40	65	60	33	33

## 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

3 ED 1 C	
	Ground Circuit Inductor Omit if none
	<b>Output Styles</b>
	1 - .250 [6.3] spade terminals <i>(back)</i>
	2 - .250 [6.3] spade terminals <i>(bottom)</i>
	4 - Wire leads <i>(bottom)</i>
	8 - Wire leads <i>(back)</i>
	<b>ED Series</b>
	<b>Current Rating</b>
	1, 3, 6, 10 or 15A

\*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  $I_r$ ): -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:  $I_o = I_r \sqrt{(85-T_a)/45}$

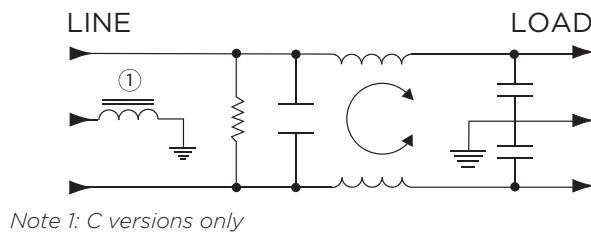
## Available Part Numbers

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

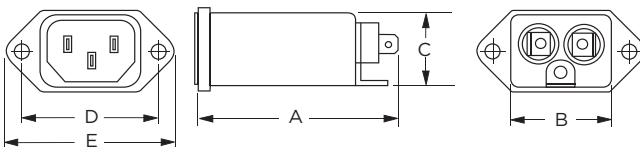


## Medium Performance Compact EMI Power Inlet Filter (continued)

# ED Series

## Case Styles

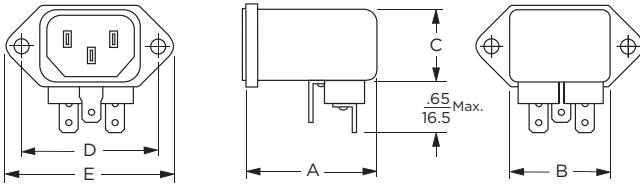
### ED1 & ED1C



#### 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

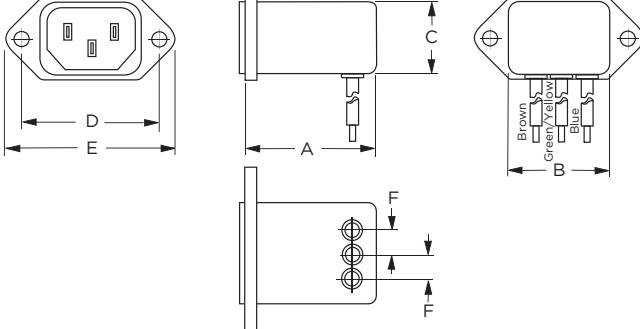
### ED2



#### 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

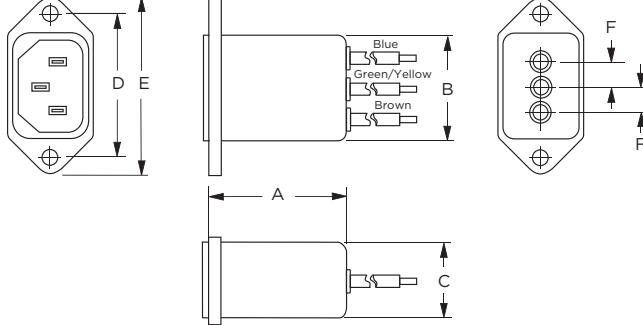
### ED4 & ED4C



#### 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

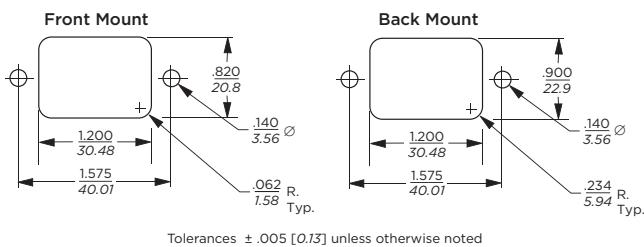
## Case Dimensions

Part No.	A (max.)	B (max.)	C (max.)	D $\pm .015$ $\pm .38$	E (max.)	F (ref.)
1ED1, 3ED1,	2.21	1.19	0.81	1.575	1.98	-
6ED1	56.0	30.2	20.6	40.01	50.3	
1ED2, 3ED2,	1.55	1.19	0.85	1.575	1.98	-
6ED2	39.4	30.2	21.6	40.01	50.3	
1ED4, 3ED4,	1.55	1.19	0.85	1.575	1.98	.295
6ED4	39.4	30.2	21.6	40.01	50.3	7.5
1ED8, 3ED8,	1.55	1.19	0.81	1.575	1.98	.295
6ED8	39.4	30.2	20.06	40.01	50.3	7.5
6ED1C	2.62	1.19	0.81	1.575	1.98	-
	66.5	30.2	20.6	40.01	50.3	
6ED4C	1.98	1.19	0.85	1.575	1.98	.295
	50.3	30.2	21.6	40.01	50.3	7.5
6ED8C	1.98	1.19	0.81	1.575	1.98	.295
	50.3	30.2	20.06	40.01	50.3	7.5
10ED1 /1C,	2.62	1.19	0.81	1.575	1.98	-
15ED1	66.5	30.2	20.6	40.01	50.3	
15ED8	1.98	1.19	0.81	1.575	1.98	-
	1.98	1.19	0.81	1.575	1.98	

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

# ED Series

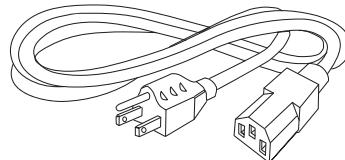
## Recommended Panel Cutouts



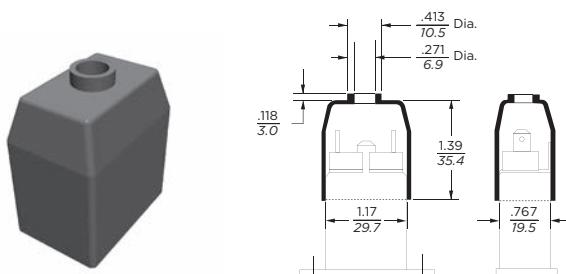
Note 1: ED1 and ED8 allow for front or back mounting  
Note 2: ED2 and ED4 allow for back mounting only

## Accessories

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



FA601: Insulating Shroud

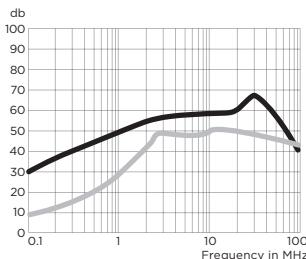


## Performance Data

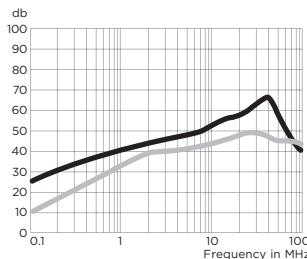
### Typical Insertion Loss

Measured in closed 50 Ohm system

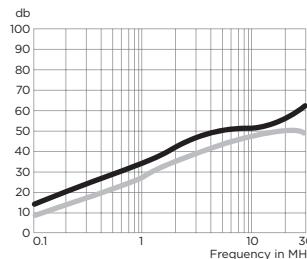
1ED



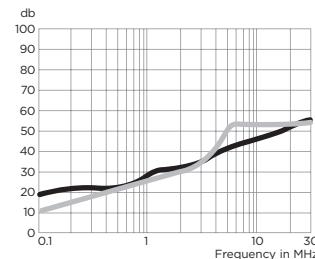
3ED



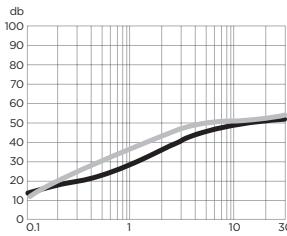
6ED



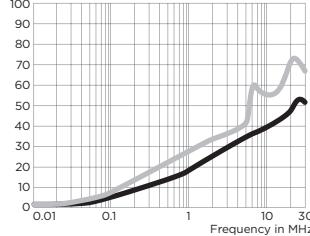
6ED1C



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	.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	.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

## Cost-effective EMI Power Inlet Filter

# EEA & EEB Series

Including the EAS/EBS and EAH/EBH Models



**UL Recognized**  
**CSA Certified**  
**VDE Approved**



## EEA Series

- Compact single stage EMI filter with IEC 60320-1 C14 inlet
- Two element circuit provides basic attenuation
- Same performance as the EF Series
- Available in three terminal configurations
- Supersedes EF Series

## EEB Series

- Compact EMI filter with IEC 60320-1 C14 inlet
- Two element circuit provides extended attenuation
- Extended differential mode performance
- Available in three terminal configurations

## EAS & EBS Models

- Same performance as EEA and EEB Series
- Snap-in mounting
- Spade terminals

## EAH & EBH Models

- Same size as EEA and EEB
- Minimal leakage current suitable for medical applications
- Flange mounted
- Spade terminals

## Specifications

### Maximum leakage current each Line to Ground:

	EEA/EEB	EAS/EBS	EAH/EBH
@ 120 VAC 60 Hz:	.22 mA	.22 µA	2 µA
@ 250 VAC 50 Hz:	.38 mA	.38 mA	5 µA

### Hipot rating (one minute):

Line to Ground:	2250 VDC
Line to Line:	1450 VDC

### Rated Voltage (max.):

250 VAC

### Operating Frequency:

50/60 Hz

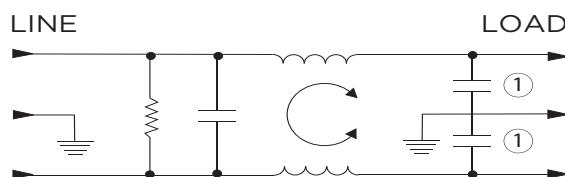
### Rated Current:

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



Note 1: Not present in EAH / EBH versions

## Cost-effective EMI Power Inlet Filter (continued)

# EEA & EEB Series

## Ordering Information

3 EEB 1

### Output Styles

- 1 - .250 [6.3] spade terminals  
(back)
- 2 - .250 [6.3] spade terminals  
(bottom)
- P - PC board pins

### Series

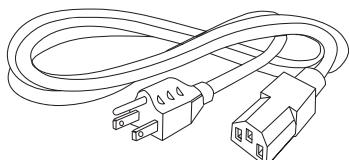
- EEA - Basic Inlet Filter
- EAS - Snap-in EEA Filter
- EAH - Medical EEA Filter
- EEB - Extended EMI Performance
- EBS - Snap-in EEB Filter
- EBH - Medical EEB Filter

### Current Rating

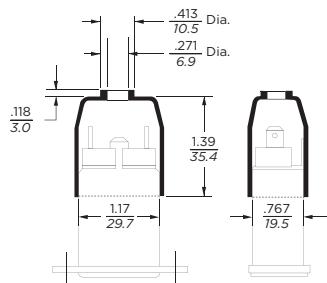
- 1, 3, 6, or 10A

## Accessories

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

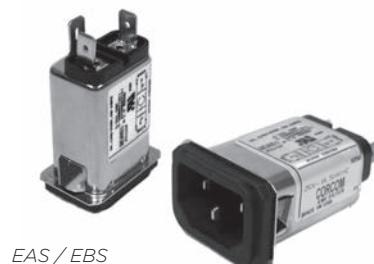


FA601: Insulating Shroud



## Available Part Numbers

EEA Models	EEB Models
1EEA1	1EEB1
1EEA2	1EEB2
1EEAP	1EEBP
3EEA1	3EEB1
3EEA2	3EEB2
3EEAP	3EEBP
6EEA1	6EEB1
6EEA2	6EEB2
6EEAP	6EEBP
10EEA1	10EEB1
10EEA2	10EEB2
10EEAP	10EEBP
EAS Models	EBS Models
1EAS1	1EBS1
3EAS1	3EBS1
6EAS1	6EBS1
10EAS1	10EBS1
EAH Models	EBH Models
1EAH1	1EBH1
3EAH1	3EBH1
6EAH1	6EBH1
10EAH1	10EBH1



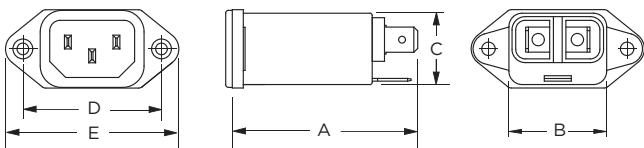
EAS / EBS

## Cost-effective EMI Power Inlet Filter (continued)

# EEA & EEB Series

## Case Styles

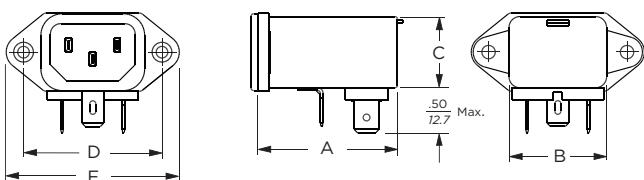
### EEA1, EEB1, EAH1 & EBH1



#### 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

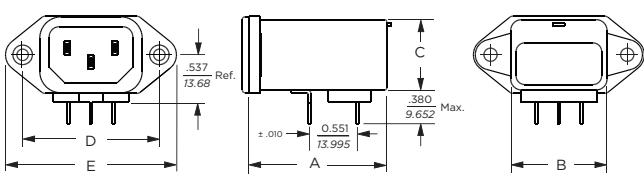
### EEA2 & EEB2



#### 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

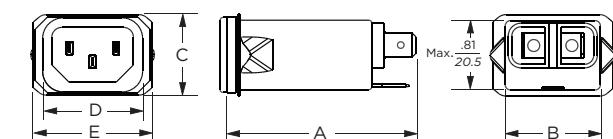
### EEAP & EEBP



#### 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  
PC board pins (3): .031 [.07] square, ± .003 [.07]

### EAS1 & EBS1



#### Typical Dimensions:

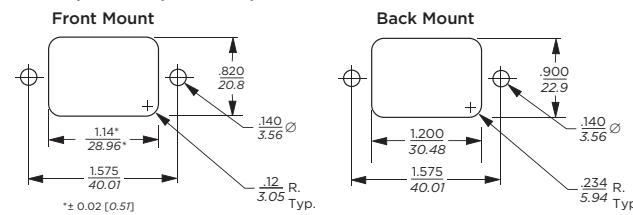
Line Inlet (1): IEC 60320-1 C14  
Load Terminals (2): .250 [6.3] with .07 [1.8] Dia. hole  
Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot

## Case Dimensions

Part No.	A (max.)	B (max.)	C (max.)	D $\pm .010$ $\pm .25$	E (max.)
EEA1, EEB1, EAH1, EBH1	2.15	1.12	0.81	1.575	1.98
	54.6	28.4	20.6	40.01	50.3
EEA2, EEB2	1.54	1.12	0.81	1.575	1.98
	39.1	28.4	20.6	40.01	50.3
EEAP, EEBP	1.54	1.12	0.81	1.575	1.98
	39.1	28.4	20.6	40.01	50.3
EAS1, EBS1	2.20	1.15	.96	1.185	1.41
	55.88	29.2	24.38	30.10	35.81

## Recommended Panel Cutouts

### EEA, EEB, EAH, EBH

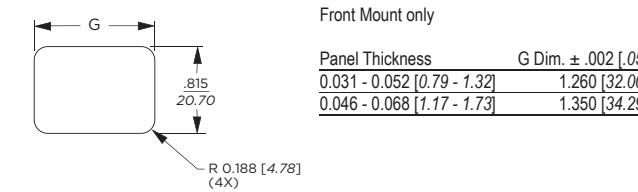


Tolerances ± .005 [0.13] unless otherwise noted

Note 1: EEA1, EEB1, EAH1, EBH1 can be front or back mounted

Note 2: EEA2, EEB2, EEAP and EEBP can be back mounted only

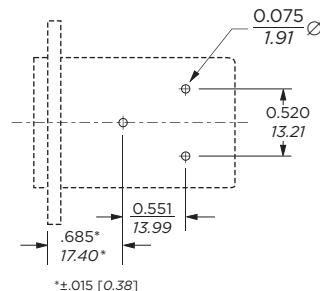
### EAS, EBS



Front Mount only

Panel Thickness	G Dim. ± .002 [.05]
0.031 - 0.052 [0.79 - 1.32]	1.260 [32.00]
0.046 - 0.068 [1.17 - 1.73]	1.350 [34.29]

## PC Board Layout



**Cost-effective EMI Power Inlet Filter (continued)**

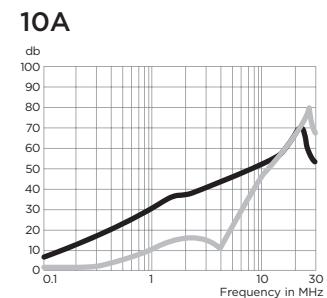
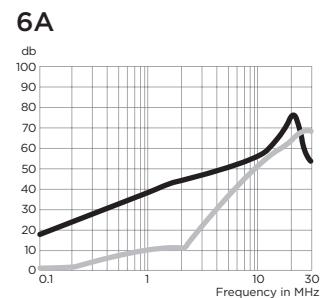
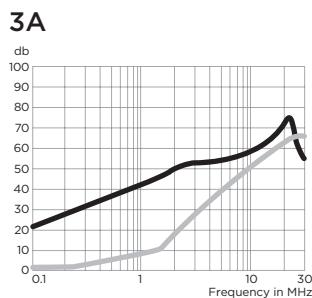
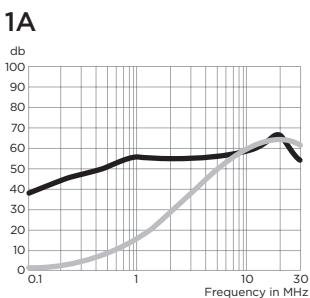
# EEA & EEB Series

## Performance Data

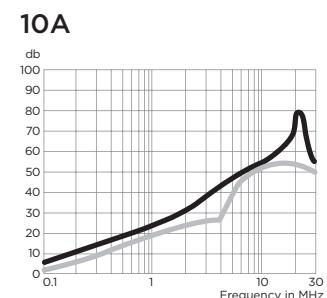
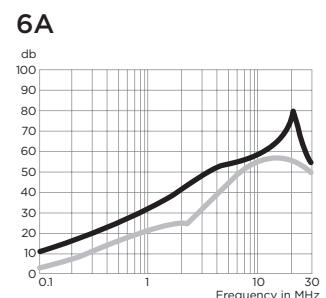
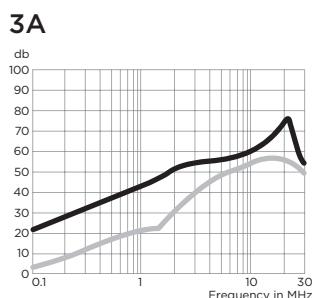
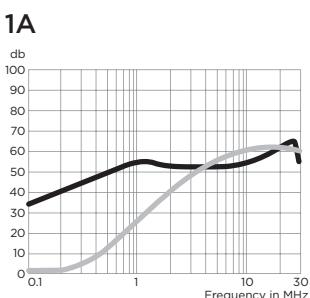
### Typical Insertion Loss

Measured in closed 50 Ohm system

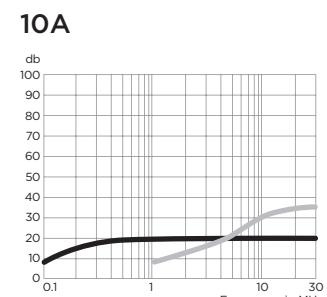
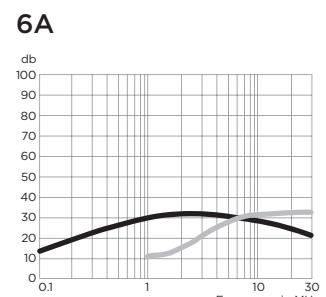
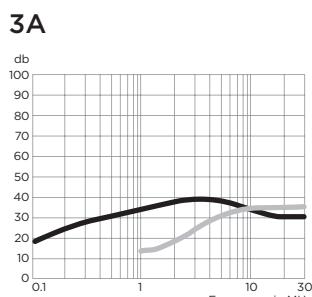
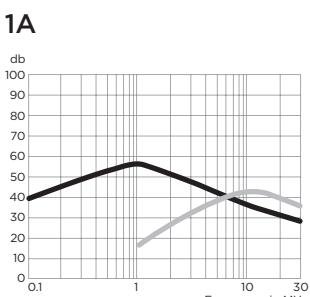
### EEA, EAS Models



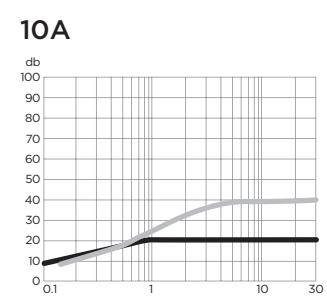
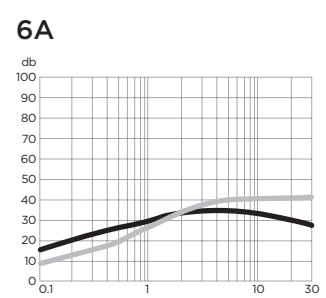
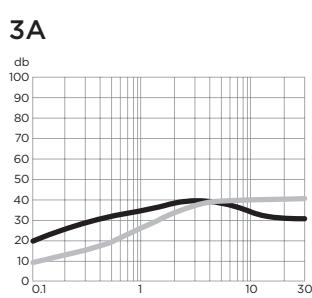
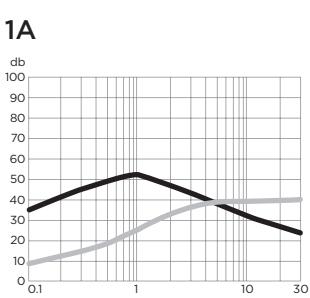
### EEB, EBS Models



### EAH Models



### EBH Models



## Cost-effective EMI Power Inlet Filter (continued)

## EEA & EEB Series

### Performance Data (continued)

#### Minimum Insertion Loss

Measured in closed 50 Ohm system

##### Common Mode / Asymmetrical (Line to Ground)

Current Rating	Frequency – MHz								
	.01	.05	.1	.15	.5	1	5	10	30
<b>EEA / EAS Models</b>									
1A	12	23	29	32	41	47	47	47	40
3A	-	10	15	19	30	36	48	50	47
6A	-	1	4	10	22	28	42	48	47
10A	-	1	3	5	14	20	32	38	47

##### Differential Mode / Symmetrical (Line to Line)

Current Rating	Frequency – MHz								
	.5	1	1.5	3	5	10	30		
<b>EEA / EAS Models</b>									
1A	1	9	19	32	42	45	40		
3A	2	4	6	20	35	45	40		
6A	2	4	6	6	24	40	40		
10A	1	4	5	5	5	30	40		
Frequency – MHz									
	.01	.15	.5	1	3	5	10	30	
<b>EEB / EBS Models</b>									
1A	1	3	14	23	41	47	50	44	
3A	1	2	11	14	25	38	44	40	
6A	1	2	10	14	20	33	42	40	
10A	1	2	10	16	19	19	39	40	
Frequency – MHz									
	1	1.5	5	10	10	30			
<b>EAH Models</b>									
1A	8	21	29	32	42	45	32	30	19
3A	-	5	10	15	25	27	30	27	22
6A	-	-	5	6	19	21	24	20	15
10A	-	-	1	5	9	12	12	12	12
Frequency – MHz									
	.15	.5	1	10	10	30			
<b>EBH Models</b>									
1A	8	21	29	32	42	45	32	25	19
3A	-	5	10	15	25	27	30	27	22
6A	-	-	5	8	17	20	24	23	18
10A	-	-	-	3	8	12	12	12	12
Frequency – MHz									
	.15	.5	1	10	10	30			
<b>EBH Models</b>									
1A	8	21	29	32	42	45	32	31	19
3A	-	5	10	15	25	27	30	31	22
6A	-	-	5	8	17	20	24	23	18
10A	-	-	-	3	8	12	12	31	12
Frequency – MHz									
	.15	.5	1	10	10	30			

## Cost-effective Medium Performance Power Inlet Filter

## EEJ Series

Including the EJH/EJHS, EJM/EJMS and EJS Models



**UL Recognized  
CSA Certified  
VDE Approved\***



### EEJ Series

- Compact EMI filter with IEC 60320-1 C14 Inlet
- Enhanced two element circuit provides medium attenuation to 30MHz
- Compact and cost-effective design
- Supersedes most ED Series versions
- Includes 20A version with standard IEC 60320-1 C20 inlet
- Several termination styles
- Flanged mounting

### EJS Models

- Same performance as the EEJ Series
- Snap-in mounting
- Several termination styles
- Includes 20A version with standard IEC 60320-1 C20 inlet

### EJH & EJHS Models

- Minimal leakage current suitable for patient-contact medical applications
- Flanged mounting the same as the EEJ Series
- Also available in snap-in versions (EJHS)
- Two element circuit provides modest EMI attenuation above 1MHz
- Capacitive input (refer to the H Series for capacitive output)
- EJHS models feature snap-in mounting

### EJM & EJMS Models

- Low leakage current, suitable for most medical applications
- Improved EMI attenuation up to 200MHz
- Mechanically the same as the EEJ Series with flange or snap-in mounting
- EJMS models feature snap-in mounting

### Specifications

#### Maximum leakage current each Line to Ground:

	EEJ/EJS	EJH	EJM
@ 120 VAC 60 Hz:	.22 mA	2 $\mu$ A	.01 mA
@ 250 VAC 50 Hz:	.38 mA	5 $\mu$ A	.017 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

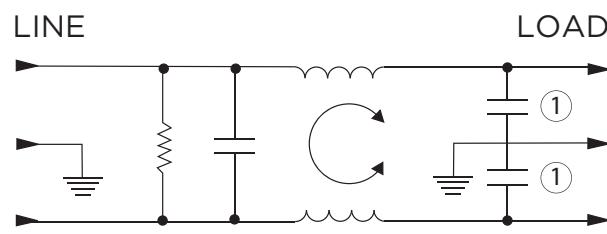
#### Rated Current:

1 to 20A\*

#### 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



Note 1: Not present in EJH versions

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

20A versions are tested by Underwriters Laboratories to US and Canadian requirements and are VDE approved at 16A, 250VAC

## Cost-effective Medium Performance Power Inlet Filter (continued)

## EEJ Series

Including the EJH/EJHS, EJM/EJMS and EJS Models

### Ordering Information

3 EEJ 1

#### Output Styles

- 1 - .250 [6.3] spade terminals  
(back)
- 2 - .250 [6.3] spade terminals  
(bottom)
- P - PC board pins
- 8 - Wire leads

#### Series

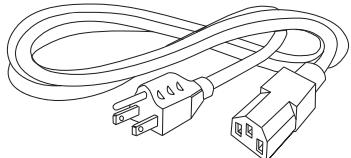
- EEJ - Enhanced EMI Inlet Filter
- EJS - EEJ in Snap-in Mounting
- EJH - Enhanced Medical Inlet Filter
- EJHS - EJH in Snap-in Mounting
- EJM - Extended Performance Medical Inlet Filter
- EJMS - EJM in Snap-in Mounting

#### Current Rating

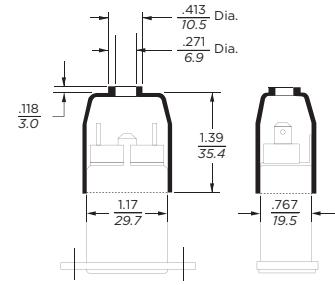
- 1, 3, 6, 10, 15 or 20A

### Accessories

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



FA601: Insulating Shroud



### Available Part Numbers

EEJ Models	EJH Models
1EEJ1	1EJH1
1EEJ2	1EJH2
1EEJP	1EJHP
1EEJ8	1EJH8
3EEJ1	3EJH1
3EEJ2	3EJH2
3EEJP	3EJHP
3EEJ8	3EJH8
6EEJ1	6EJH1
6EEJ2	6EJH2
6EEJP	6EJHP
6EEJ8	6EJH8
10EEJ1	10EJH1
10EEJ2	10EJH2
10EEJP	10EJHP
10EEJ8	10EJH8
15EEJ1	15EJH1
15EEJ2	15EJH2
15EEJP	15EJHP
15EEJ8	15EJH8
20EEJ1	20EJH1
20EEJ8	20EJH8
EJS Models	EJHS Models
1EJS1	1EJHS1
1EJS8	1EJHS8
3EJS1	3EJHS1
3EJS8	3EJHS8
6EJS1	6EJHS1
6EJS8	6EJHS8
10EJS1	10EJHS1
10EJS8	10EJHS8
15EJS1	15EJHS1
15EJS8	15EJHS8
20EJS1	
20EJS8	
EJM Models	EJMS Models
1EJM1	1EJMS1
1EJM8	1EJMS8
3EJM1	3EJMS1
3EJM8	3EJMS8
6EJM1	6EJMS1
6EJM8	6EJMS8
10EJM1	10EJMS1
10EJM8	10EJMS8
15EJM1	15EJMS1
15EJM8	15EJMS8

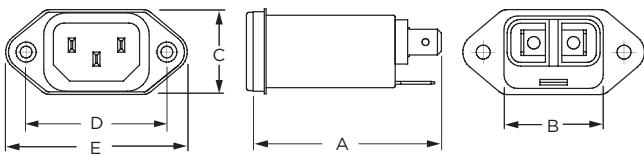
## Cost-effective Medium Performance Power Inlet Filter (continued)

## EEJ Series

Including the EJH/EJHS, EJM/EJMS and EJS Models

### Case Styles

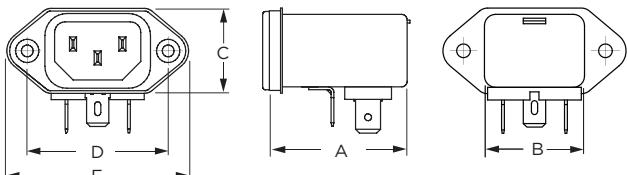
#### EEJ1, EJH1 & EJM1 (1-15A)



##### 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

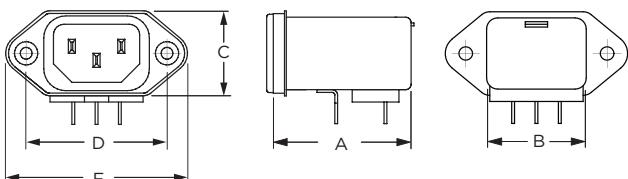
#### EEJ2 & EJH2 (1-15A)



##### 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

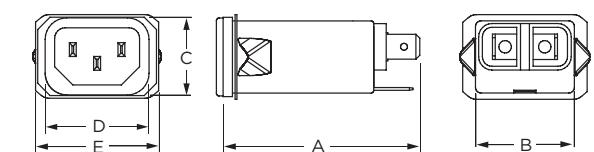
#### EEJP & EJHP (1-15A)



##### 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
- PC board pins (3): .031 [.07] square, ± .003 [.07]

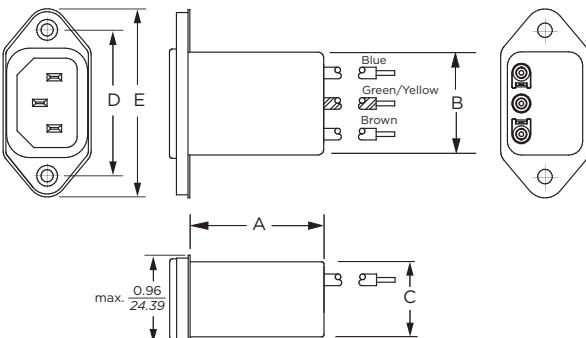
#### EJS1, EJHS1 & EJMS1 (1-15A)



##### 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

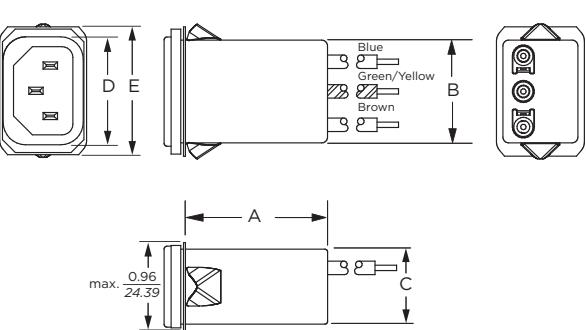
#### EEJ8, EJH8 & EJM8 (1-15A)



##### 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

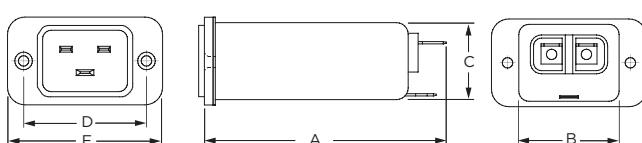
#### EJS8, EJHS8 & EJMS8 (1-15A)



##### Typical Dimensions:

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

#### 20EEJ1 & 20EJH1



##### 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 C20
- 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

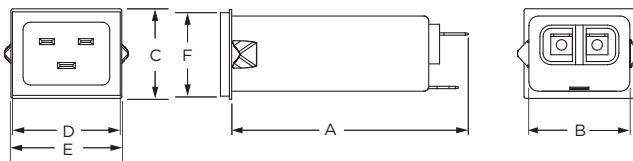
## Cost-effective Medium Performance Power Inlet Filter (continued)

## EEJ Series

Including the EJH/EJHS, EJM/EJMS and EJS Models

### Case Styles (continued)

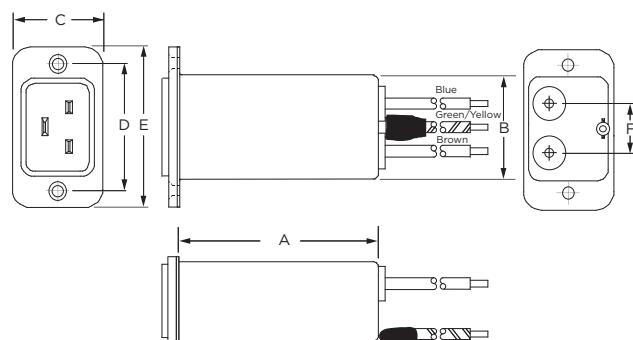
#### 20EJS1



##### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C20  
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

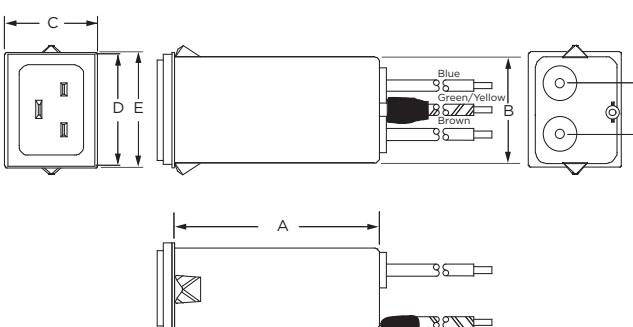
#### 20EEJ8 & 20EJH8



##### 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 C20  
Wire Leads: 4.0 [101.6] Min., 14AWG, UL1015

#### 20EJS8

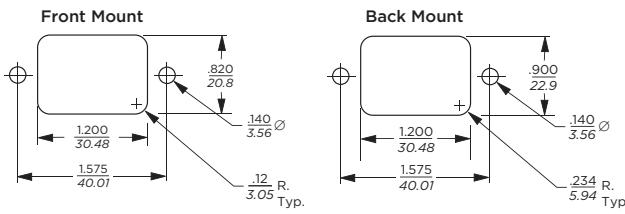


##### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C20  
Wire Leads: 4.0 [101.6] Min., 14AWG, UL1015

### Recommended Panel Cutouts

#### 1 to 15A EEJ, EJH & EJM

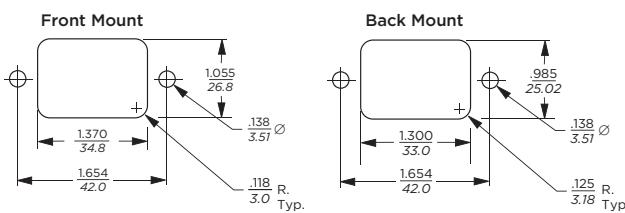


Tolerances  $\pm .005$  [0.13] unless otherwise noted

Note 1: EEJ/EJH/EJM1 and EEJ/EJH/EJM8 can be front or back mounted

Note 2: EEJ/EJH2 and EEJ/EJHP can be back mounted only

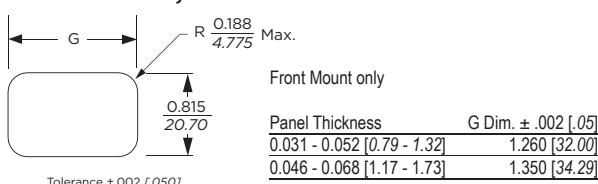
#### 20A EEJ & EJH



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

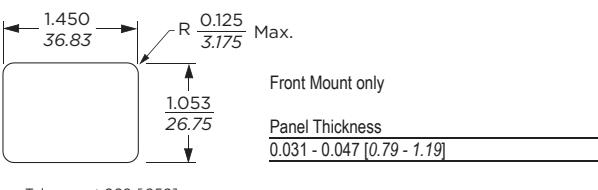
Note 1: 20EEJ/EJH1 and 20EEJ/EJH8 can be front or back mounted

#### 1 to 15A EJHS, EJMS & EJS

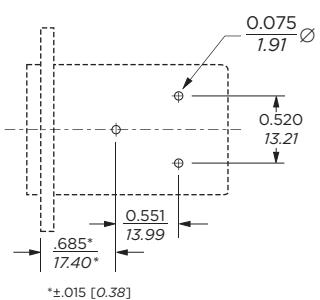


Alternate snap configurations to fit other cut-out sizes also available.  
Contact TE's Corcom product engineering group for more details.

#### 20A EJS



### PC Board Layout



## Cost-effective Medium Performance Power Inlet Filter (continued)

# EEJ Series

Including the EJH/EJHS, EJM/EJMS and EJS Models

## Case Dimensions

Part No.	A (max.)	B (max.)	C (max.)	D <sup>± .015</sup> <sub>.38</sub>	E (max.)	F (ref.)
EEJ1, EJH1	<b>2.15</b> 54.61	<b>1.13</b> 28.70	<b>0.96</b> 24.38	<b>1.580</b> 40.00	<b>2.04</b> 51.76	-
EJM1	<b>2.02</b> 51.3	<b>1.13</b> 28.7	<b>0.96</b> 24.4	<b>1.58</b> 40.00	<b>2.04</b> 51.8	-
1-10A	<b>1.54</b> 39.12	<b>1.13</b> 28.70	<b>0.96</b> 24.38	<b>1.580</b> 40.00	<b>2.04</b> 51.76	-
EEJ2, EJH2	<b>1.79</b> 45.47	<b>1.13</b> 28.70	<b>0.96</b> 24.38	<b>1.580</b> 40.00	<b>2.04</b> 51.76	-
15A	<b>1.79</b> 45.47	<b>1.13</b> 28.70	<b>0.96</b> 24.38	<b>1.580</b> 40.00	<b>2.04</b> 51.76	-
EEJP, EJHP	<b>1.54</b> 39.12	<b>1.13</b> 28.70	<b>0.96</b> 24.38	<b>1.580</b> 40.00	<b>2.04</b> 51.76	-
15A	<b>1.79</b> 45.47	<b>1.13</b> 28.70	<b>0.96</b> 24.38	<b>1.580</b> 40.00	<b>2.04</b> 51.76	-
EJS1, EJHS1	<b>2.20</b> 55.88	<b>1.13</b> 28.70	<b>0.96</b> 24.38	<b>1.19</b> 30.10	<b>1.41</b> 35.81	-
EJMS1	<b>2.02</b> 51.3	<b>1.13</b> 28.7	<b>0.96</b> 24.4	-	<b>1.41</b> 35.8	-
EEJ8, EJH8	<b>1.54</b> 39.12	<b>1.13</b> 28.70	<b>0.81</b> 20.70	<b>1.58</b> 40.00	<b>2.04</b> 51.76	-
EJM8	<b>1.50</b> 38.1	<b>1.13</b> 28.7	<b>0.81</b> 20.7	<b>1.58</b> 40.00	<b>2.04</b> 51.8	-
EJS8,	<b>1.54</b> 39.12	<b>1.13</b> 28.70	<b>0.81</b> 20.70	<b>1.19</b> 30.10	<b>1.41</b> 35.81	-
EJHS8	<b>1.50</b> 38.1	<b>1.13</b> 28.7	<b>0.96</b> 24.4	-	<b>1.41</b> 35.8	-
20EEJ1,	<b>3.13</b> 79.38	<b>1.37</b> 34.79	<b>1.18</b> 29.99	<b>1.65</b> 42.01	<b>2.09</b> 53.00	-
20EJH1	<b>3.13</b> 79.38	<b>1.35</b> 34.29	<b>1.18</b> 29.99	<b>1.42</b> 36.07	<b>1.46</b> 37.08	-
20EJS1	<b>3.13</b> 79.38	<b>1.35</b> 34.29	<b>1.18</b> 29.99	<b>1.65</b> 42.01	<b>2.09</b> 53.00	<b>.62</b> 15.75
20EEJ8,	<b>2.65</b> 67.31	<b>1.35</b> 34.29	<b>1.18</b> 29.99	<b>1.65</b> 42.01	<b>2.09</b> 53.00	<b>.62</b> 15.75
20EJH8	<b>2.63</b> 66.80	<b>1.35</b> 34.29	<b>1.18</b> 29.97	<b>1.46</b> 37.08	<b>1.42</b> 36.08	<b>.62</b> 15.75
20EJS8	<b>2.63</b> 66.80	<b>1.35</b> 34.29	<b>1.18</b> 29.97	<b>1.46</b> 37.08	<b>1.42</b> 36.08	<b>.62</b> 15.75



20EJS1

3EJS1

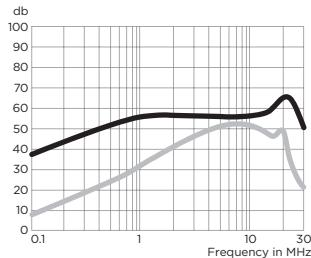
## Performance Data

### Typical Insertion Loss

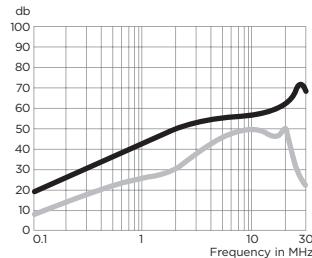
Measured in closed 50 Ohm system

### EEJ & EJS Models

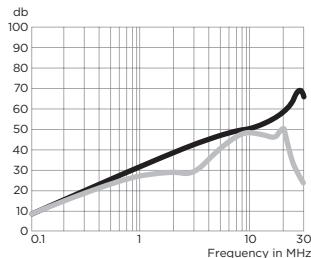
1A



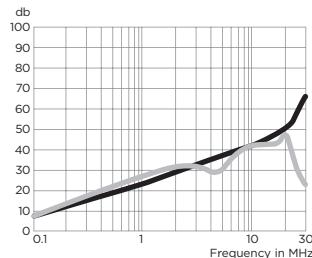
3A



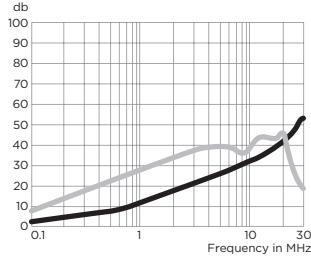
6A



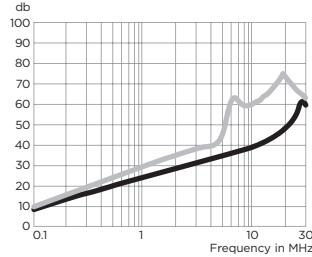
10A



15A



20A



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

3

**Cost-effective Medium Performance Power Inlet Filter (continued)**

# EEJ Series

Including the EJH/EJHS, EJM/EJMS and EJS Models

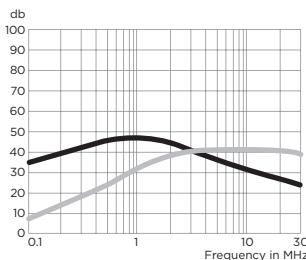
## Performance Data (continued)

### Typical Insertion Loss

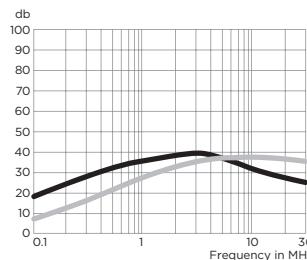
Measured in closed 50 Ohm system

#### EJH & EJHS Models

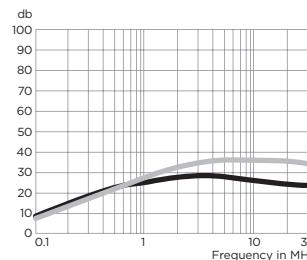
**1A**



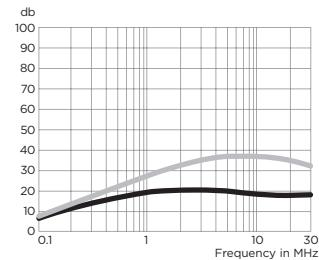
**3A**



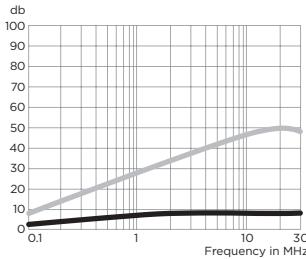
**6A**



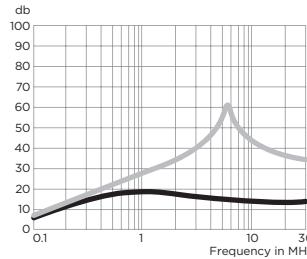
**10A**



**15A**

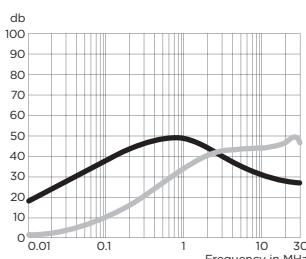


**20A**

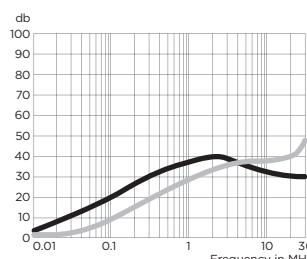


#### EJM & EJMS Models

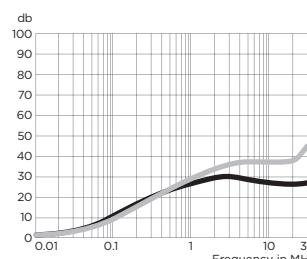
**1A**



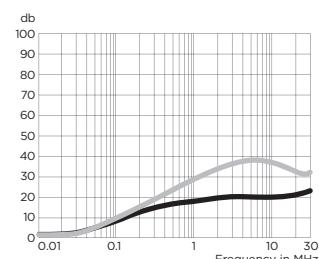
**3A**



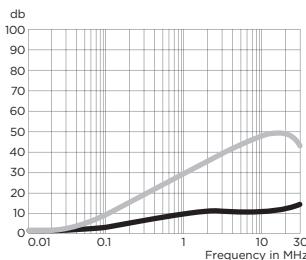
**6A**



**10A**



**15A**



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

## Cost-effective Medium Performance Power Inlet Filter (continued)

## EEJ Series

Including the EJH/EJHS, EJM/EJMS and EJS Models

### Minimum Insertion Loss

Measured in closed 50 Ohm system

#### Common Mode / Asymmetrical (Line to Ground)

Current Rating	Frequency – MHz								
	.01	.05	.1	.15	.5	1	5	10	30
<b>EEJ / EJS Models</b>									
1A	15	27	29	32	41	47	47	47	40
3A	-	10	15	20	30	39	48	50	60
6A	-	1	5	9	21	28	41	44	54
10A	-	1	4	7	14	18	31	36	51
15A	-	-	-	2	5	8	21	26	42
20A	-	-	3	5	14	21	30	33	42
<b>EJH Models</b>									
1A	13	26	33	36	41	41	31	26	18
3A	-	9	15	19	27	31	30	26	20
6A	-	2	6	9	20	22	31	20	18
10A	-	1	4	7	12	17	19	18	18
15A	-	-	1	2	3	3	4	2	2
20A	-	-	3	5	14	16	12	11	11

#### Differential Mode / Symmetrical (Line to Line)

Current Rating	Frequency – MHz								
	.01	.05	.1	.15	.5	1	5	10	30
<b>EEJ / EJS Models</b>									
1A	-	-	5	8	19	27	45	43	40
3A	-	-	5	8	17	20	39	42	40
6A	-	-	5	8	17	21	32	40	40
10A	-	-	5	8	17	21	23	36	38
15A	-	-	5	8	17	23	33	30	38
20A	-	-	5	2	17	25	38	48	48
<b>EJH Models</b>									
1A	13	26	33	36	41	41	31	26	18
3A	-	9	15	19	27	31	30	26	20
6A	-	2	6	9	20	22	31	20	18
10A	-	1	4	7	12	17	19	18	18
15A	-	-	1	2	3	3	4	2	2
20A	-	-	3	5	14	16	12	11	11

#### EJM & EJMS Models

Current Rating	Frequency – MHz								
	.05	.5	1	10	20	30	80	150	200
1A	25	41	37	18	15	13	15	14	7
3A	6	27	30	21	19	19	23	13	7
6A	2	17	20	17	17	14	23	13	7
10A	1.5	11	12	9	8	9	20	19	12
15A	0.5	2	3	4	2	10	12	17	11

Current Rating	Frequency – MHz								
	.05	.5	1	10	20	30	80	150	200
1A	1.5	21	28	34	36	29	27	34	28
3A	1.5	17	23	29	31	37	33	32	28
6A	1.5	16	22	28	29	34	37	37	32
10A	2	16	22	28	24	18	27	32	30
15A	1.5	17	23	35	34	29	27	29	25



**EMI Power Inlet Filter**

# EF Series



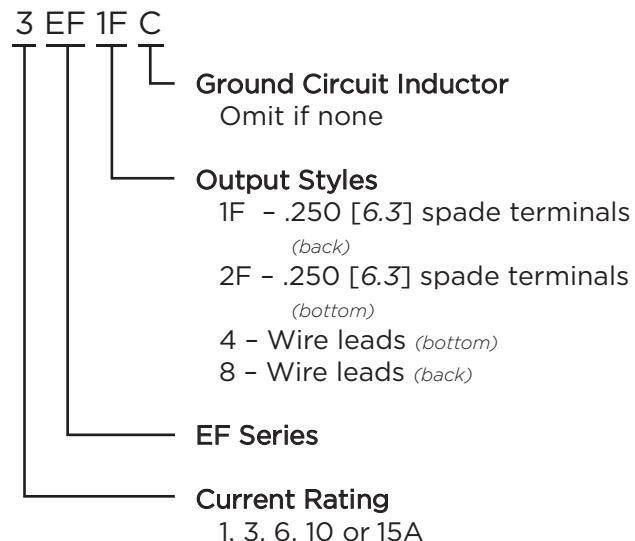
**UL Recognized**  
**CSA Certified**  
**VDE Approved\***



## 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			
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## 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:**

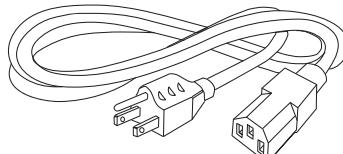
1 to 15A\*

**Operating Ambient Temperature Range**

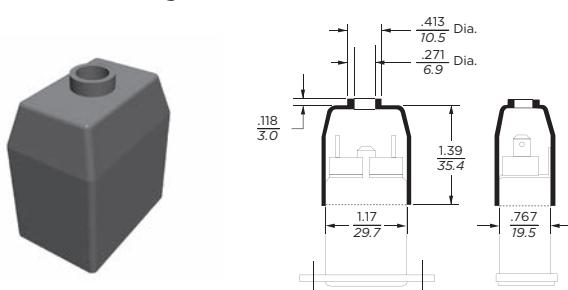
(at rated current  $I_r$ ): -10°C to +40°C  
In an ambient temperature ( $T_a$ ) higher than +40°C  
the maximum operating current ( $I_o$ ) is calculated as  
follows:  $I_o = I_r \sqrt{(85-T_a)/45}$

## Accessories

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



FA601: Insulating Shroud

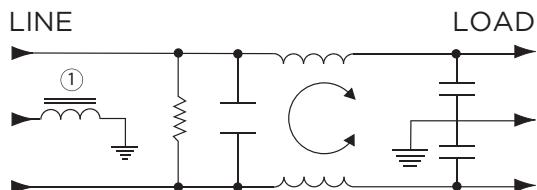


\*15A versions are tested by Underwriters Laboratories to US and Canadian requirements and are VDE approved at 10A, 250VAC

**EMI Power Inlet Filter (continued)**

# EF Series

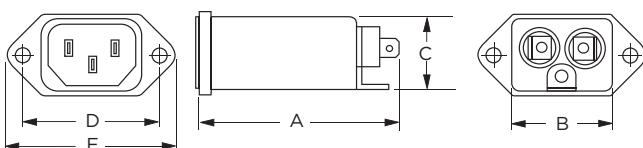
## Electrical Schematic



Note 1: C Suffix (ground choke) versions only

## Case Styles

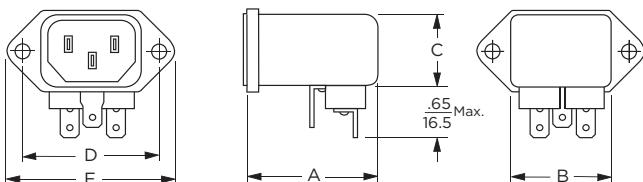
### EF1F & EF1FC



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

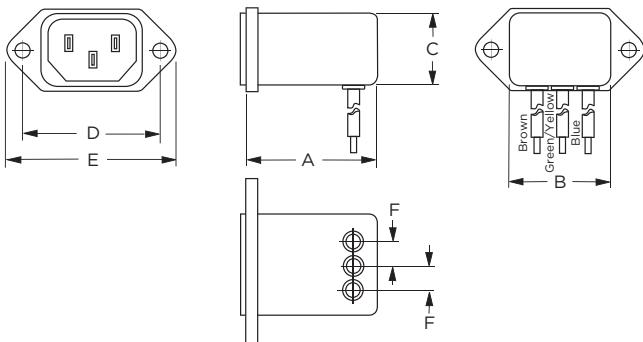
### EF2F



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

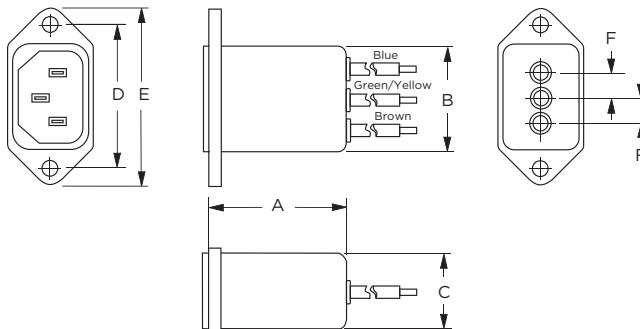
### EF4



Typical Dimensions:

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

### EF8



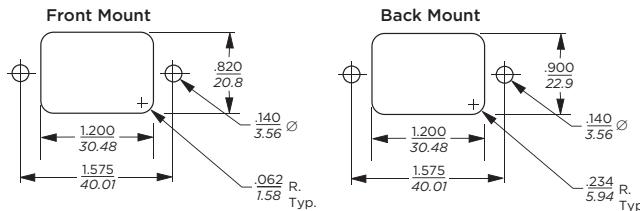
Typical Dimensions:

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 <i>±.015</i> <i>±.38</i>	E (max.)	F (ref.)
1EF1F, 3EF1F, 6EF1F	<b>2.21</b> 56.0	<b>1.19</b> 30.2	<b>0.81</b> 20.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	-
1EF2F, 3EF2F, 6EF2F	<b>1.55</b> 39.4	<b>1.19</b> 30.2	<b>0.85</b> 21.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	-
1EF4, 3EF4, 6EF4	<b>1.55</b> 39.4	<b>1.19</b> 30.2	<b>0.85</b> 21.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	7.5
1EF8, 3EF8, 6EF8	<b>1.55</b> 39.4	<b>1.19</b> 30.2	<b>0.81</b> 20.06	<b>1.575</b> 40.01	<b>1.98</b> 50.3	.295 7.5
10EF1F, 10EF1FC	<b>2.62</b> 66.5	<b>1.19</b> 30.2	<b>0.81</b> 20.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	-
15EF1F	<b>2.62</b> 66.5	<b>1.19</b> 30.2	<b>0.81</b> 20.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	-

## 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

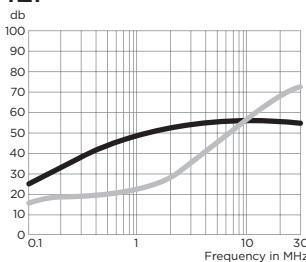
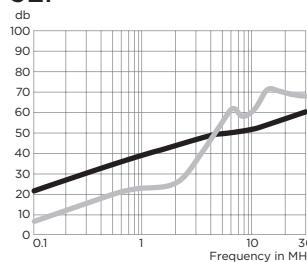
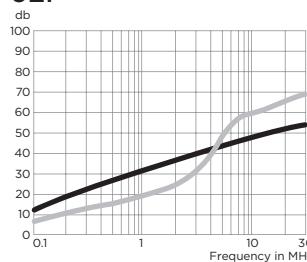
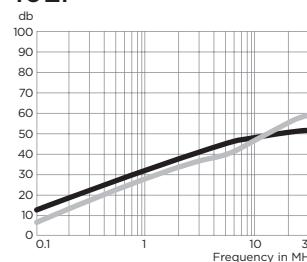
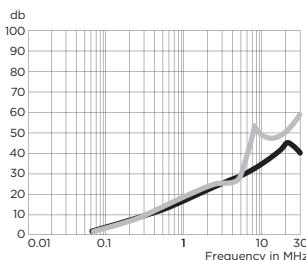
**EMI Power Inlet Filter (continued)**

# 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)

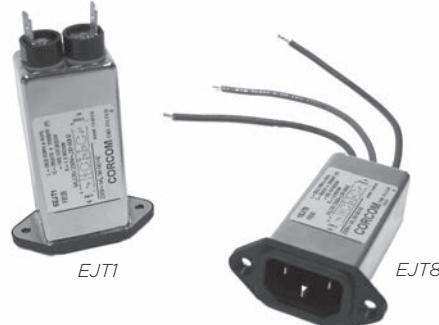
Current Rating	Frequency – MHz					
	.15	.5	1	5	10	30
<b>EF1F, EF2F</b>						
1A	22	35	40	46	50	49
3A	15	25	30	45	50	54
6A	9	20	25	41	45	50
10A	8	15	20	34	39	44
15A	-	6	12	20	25	25
<b>EF4, EF8</b>						
1A	22	35	40	46	50	49
3A	15	25	30	45	50	54
6A	9	20	25	41	45	47
<b>EF1FC</b>						
10A	8	15	20	34	39	44

## High Performance Power Inlet Filter

# EJT Series



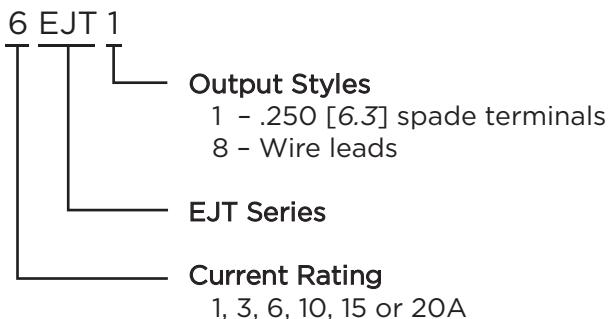
**UL Recognized**  
**CSA Certified**  
**VDE Approved\***



## EJT Series

- Superior EMI filter with IEC 60320-1 inlet
- Double three element differential mode circuit attenuates noise up to 1GHz
- Up to 15A with IEC 60320-1 C14 inlet
- 20A rating with IEC 60320-1 C20 inlet
- Spade terminals or wire leads

## Ordering Information



## Available Part Numbers

1EJT1	1EJT8
3EJT1	3EJT8
6EJT1	6EJT8
10EJT1	10EJT8
15EJT1	15EJT8
20EJT1	20EJT8

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

20A versions are tested by Underwriters Laboratories to US and Canadian requirements and are VDE approved at 16A, 250VAC.

## Specifications

### Maximum leakage current each Line to Ground:

	1-15A	20A
@ 120 VAC 60 Hz:	.25 mA	.22 mA
@ 250 VAC 50 Hz:	.43 mA	.40 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:

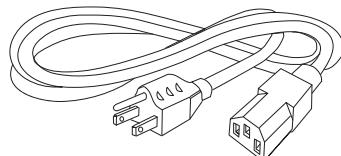
1 to 20A\*

### Operating Ambient Temperature Range

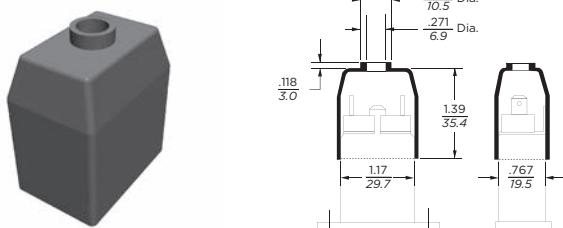
(at rated current  $I_r$ ):  $-10^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$   
In an ambient temperature ( $T_a$ ) higher than  $+40^{\circ}\text{C}$  the maximum operating current ( $I_o$ ) is calculated as follows:  $I_o = I_r \sqrt{(85-T_a)/45}$

## Accessories

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



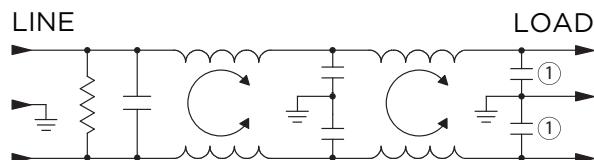
FA601: Insulating Shroud (fits 1-15A only)



## High Performance Power Inlet Filter (continued)

# EJT Series

## Electrical Schematics



Note 1: 20A versions only

## Case Styles

### EJT1



#### 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

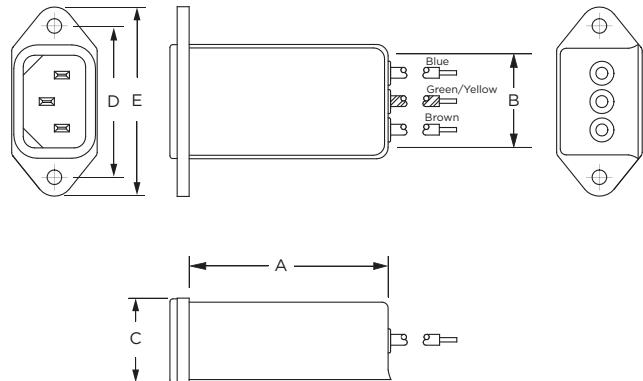
### 20EJT1



#### Typical Dimensions:

- Mounting holes (2): .126 [3.20] Dia. with .236 [5.99] Dia. x 90° countersink for #4 flathead screw  
Line Inlet (1): IEC 60320-1 C20  
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

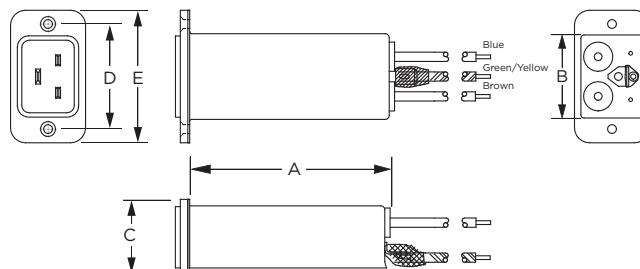
### EJT8



#### 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

### 20EJT8



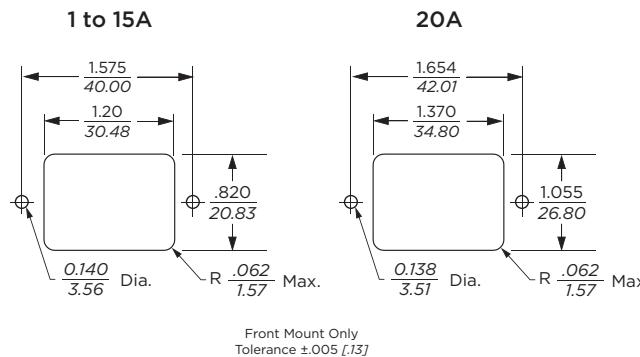
#### Typical Dimensions:

- Mounting holes (2): .126 [3.20] Dia. with .236 [5.99] Dia. x 90° countersink for #4 flathead screw  
Line Inlet (1): IEC 60320-1 C20  
Wire Leads: 4.0 [101.6] Min., 14AWG, UL1015

## Case Dimensions

Part No.	A (max.)	B (max.)	C (max.)	D (max.)	E (max.)
EJT1	<b>2.74</b> 69.6	<b>1.19</b> 30.2	<b>0.875</b> 22.2	<b>1.575</b> 40.0	<b>1.98</b> 50.3
EJT8	<b>2.1</b> 53.3	<b>1.19</b> 30.2	<b>0.875</b> 22.2	<b>1.575</b> 40.0	<b>1.98</b> 50.3
20EJT1	<b>3.8</b> 96.52	<b>1.350</b> 34.29	<b>1.18</b> 29.99	<b>1.654</b> 42.01	<b>2.087</b> 53.00
20EJT8	<b>3.2</b> 81.28	<b>1.350</b> 34.29	<b>1.18</b> 29.99	<b>1.654</b> 42.01	<b>2.087</b> 53.00

## Recommended Panel Cutouts



Front Mount Only  
Tolerance ±.005 / .13

## High Performance Power Inlet Filter (continued)

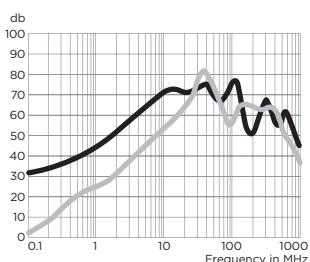
# EJT Series

## Performance Data

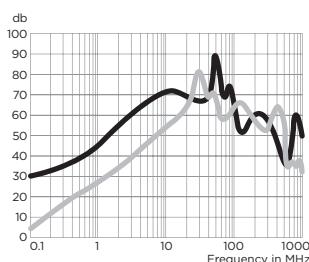
### Typical Insertion Loss

Measured in closed 50 Ohm system

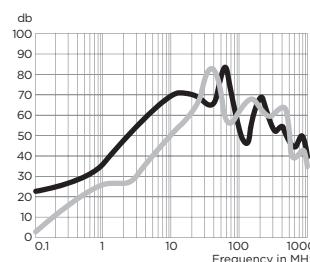
**1EJT**



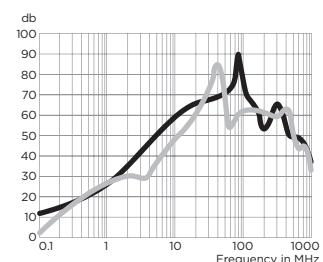
**3EJT**



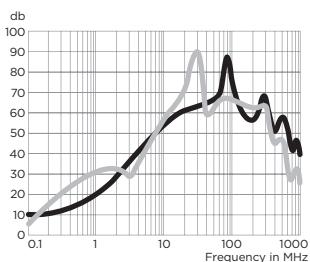
**6EJT**



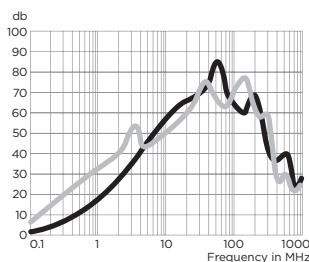
**10EJT**



**15EJT**



**20EJT**



— 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	.15	.5	1	5	10	30	100	1000
1A	27	33	40	59	65	65	61	14
3A	22	30	34	57	63	69	61	10
6A	13	21	27	51	60	65	59	14
10A	7	14	21	43	52	61	61	14
15A	4	10	15	38	48	63	63	14
20A	-	8	15	42	50	60	58	14

#### Differential Mode / Symmetrical (Line to Line)

Current Rating	.15	.5	1	5	10	30	100	1000
1A	10	20	23	43	52	65	45	14
3A	10	20	24	41	51	59	52	17
6A	10	21	24	37	48	65	55	20
10A	10	21	25	28	44	63	53	18
15A	10	20	26	25	36	56	45	23
20A	9	20	26	40	35	48	50	10

## Smallest Power Entry Module with Metric Fuse Holders

# GG & HG Series



**UL Recognized**  
**CSA Certified**  
**VDE Approved**



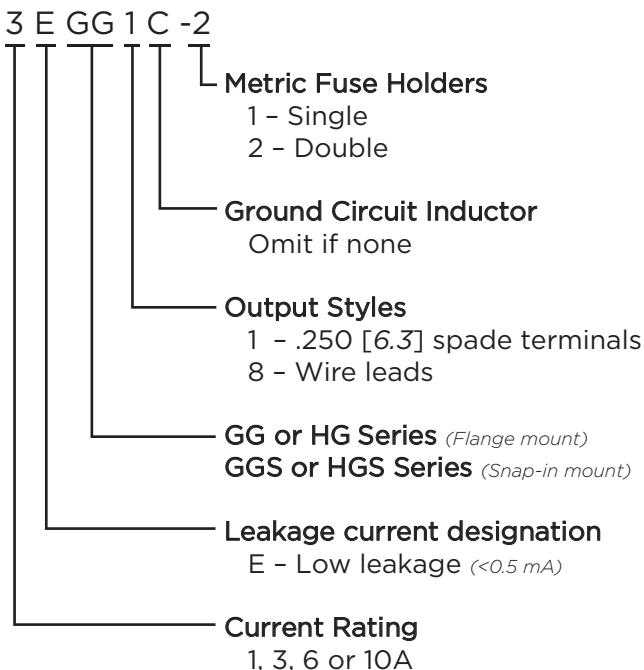
## GG Series

- Power entry module with enhanced EMI filter
- Single or dual fusing
- Two element circuit provides basic attenuation
- Available with an internal ground-circuit inductor (C versions) to isolate equipment chassis from power line ground at radio frequencies
- Multiple termination and mounting styles

## HG Series

- Medical version of our GG Series
- Mechanically identical to GG Series
- Available only with dual fusing

## Ordering Information



## Specifications

### Maximum leakage current each Line to Ground:

HG Models	GG Models
@ 120 VAC 60 Hz:	.25 mA
@ 250 VAC 50 Hz:	.42 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

### Required Fuse(s):

5 x 20mm  
(not included)

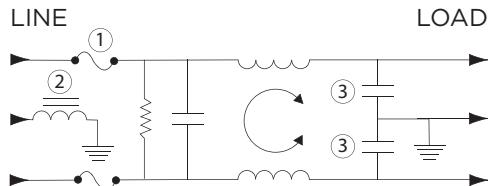
## Available Part Numbers

Filtered modules			
1EGG1-1	3EGG1-1	6EGG1-1	10EGG1-1
1EGG1-2	3EGG1-2	6EGG1-2	10EGG1-2
1EGG8-1	3EGG8-1	6EGG8-1	10EGG8-1
1EGG8-2	3EGG8-2	6EGG8-2	10EGG8-2
1EGS1-1	3EGS1-1	6EGS1-1	10EGS1-1
1EGS1-2	3EGS1-2	6EGS1-2	10EGS1-2
Filtered modules with ground circuit inductor			
1EGG1C-1	3EGG1C-1	6EGG1C-1	
1EGG1C-2	3EGG1C-2	6EGG1C-2	
1EGG8C-1	3EGG8C-1	6EGG8C-1	
1EGG8C-2	3EGG8C-2	6EGG8C-2	
Medical filter modules			
1EHG1-2	3EHG1-2	6EHG1-2	10EHG1-2
1EHG8-2	3EHG8-2	6EHG8-2	10EHG8-2
1EHGS1-2	3EHGS1-2	6EHGS1-2	10EHGS1-2

## Smallest Power Entry Module with Metric Fuse Holders (continued)

# GG & HG Series

## Electrical Schematic



Note 1: Second fuse only in -2 version

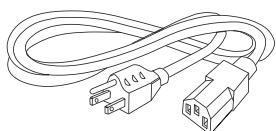
Note 2: C versions only

Note 3: Not present in HG versions

**Warning:** Do not attempt to operate a single-fused model without the fuse door in place.

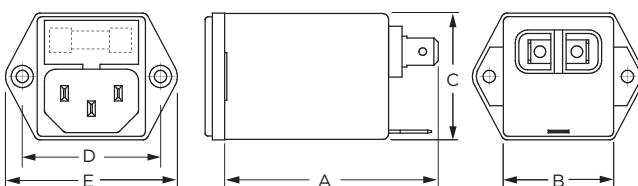
## Accessories

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



## Case Styles

### GG1, GG1C & HG1



Typical Dimensions:

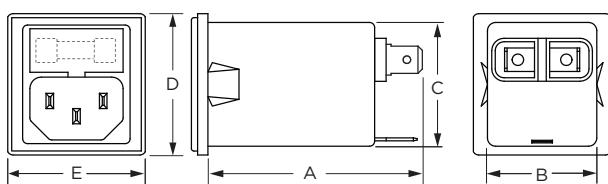
Mounting holes (2): .132 [3.35] Dia. with .236 [5.99] Dia. x 90° countersink for #4 flathead screw

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

### GS1 & HGS1



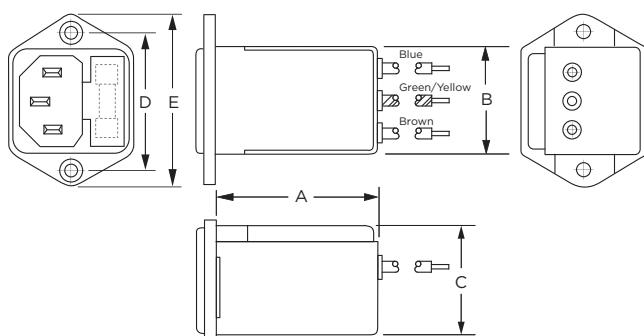
Typical Dimensions:

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

## GG8 & HG8



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: 5.0 [127.0] Min., 18AWG, UL1015

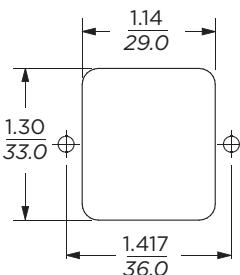
## Case Dimensions

Part No.	A (max.)	B (max.)	C (max.)	D <small>± .015 ± .38</small>	E (max.)
GG1 & HG1	<b>2.13</b> 54.5	<b>1.13</b> 28.7	<b>1.29</b> 32.8	<b>1.417</b> 36.0	<b>1.76</b> 44.7
GG1C	<b>2.45</b> 62.23	<b>1.13</b> 28.7	<b>1.28</b> 32.5	<b>1.417</b> 36.0	<b>1.76</b> 44.7
GS1, HGS1	<b>2.13</b> 54.0	<b>1.13</b> 28.7	<b>1.28</b> 32.5	<b>1.46*</b> 36.0*	<b>1.42</b> 36.1
GG8, HG8	<b>2.02</b> 51.1	<b>1.13</b> 28.7	<b>1.29</b> 32.8	<b>1.417</b> 36.0	<b>1.76</b> 44.7

\*max. dimension

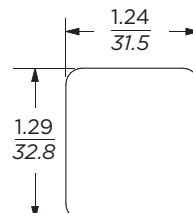
## Recommended Panel Cutouts

### GG / HG



Front or Back Mount

### GS / HGS



Front Mount Only

Typical Dimensions:

GS / HGS panel thickness: 0.032 – 0.080 [0.81 – 2.03]

Corner radius: 0.138 [0.35]

**Smallest Power Entry Module with Metric Fuse Holders (continued)**

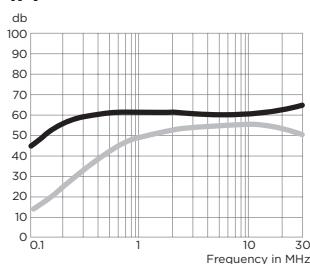
# GG & HG Series

## Performance Data

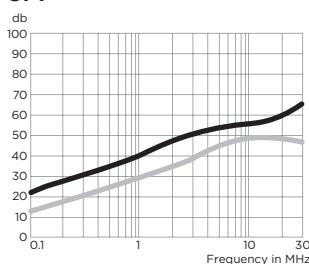
**Typical Insertion Loss** Measured in closed 50 Ohm system

### GG & GS Models

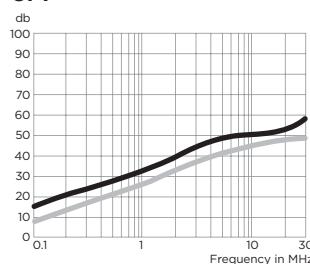
1A



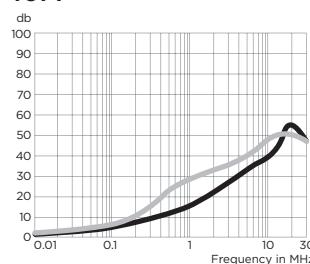
3A



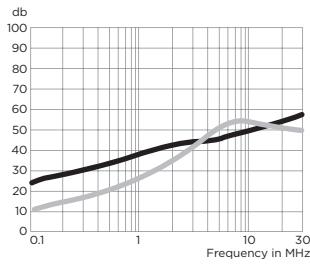
6A



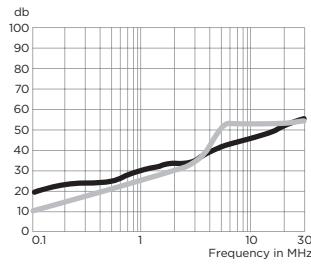
10A



3A GG1C



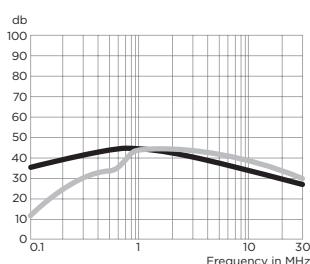
6A GG1C



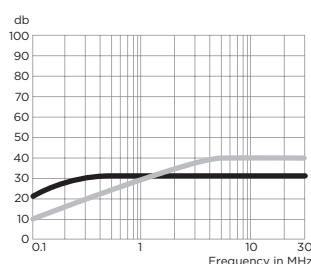
— Common Mode / Asymmetrical (L-G)  
 — Differential Mode / Symmetrical (L-L)

### HG Models

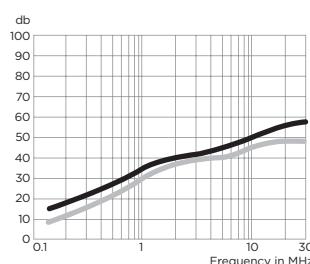
1A



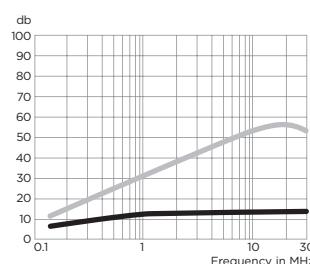
3A



6A



10A



**Minimum Insertion Loss** Measured in closed 50 Ohm system

Common Mode / Asymmetrical (Line to Ground)

Current Rating	Frequency – MHz								
	.01	.05	.10	.15	.5	1	5	10	30
<b>GG &amp; GS Models</b>									
1A	12	23	29	32	41	47	50	50	55
3A	-	10	15	19	30	36	48	50	53
6A	-	1	4	10	16	22	36	40	50
10A	-	1	2	4	6	8	26	33	28
<b>HG Models</b>									
1A	12	23	29	32	40	40	28	22	18
3A	-	10	15	19	25	26	22	21	21
6A	-	4	10	14	18	18	14	14	14
10A	1	-	-	3	5	6	8	9	10

Differential Mode / Symmetrical (Line to Line)

Current Rating	Frequency – MHz								
	.10	.15	.5	1	3	5	10	30	
<b>GG &amp; GS Models</b>									
1A	1	3	14	23	41	47	50	44	
3A	1	2	11	14	25	38	44	40	
6A	1	2	10	13	23	33	39	42	
10A	4	7	17	23	-	22	43	38	
<b>HG Models</b>									
1A	2	6	19	26	30	35	35	20	
3A	1	7	16	23	30	30	30	30	
6A	4	7	16	23	30	30	30	30	
10A	-	8	16	22	-	37	43	28	

## Power Inlet Line Filter for Medical Equipment

# H Series



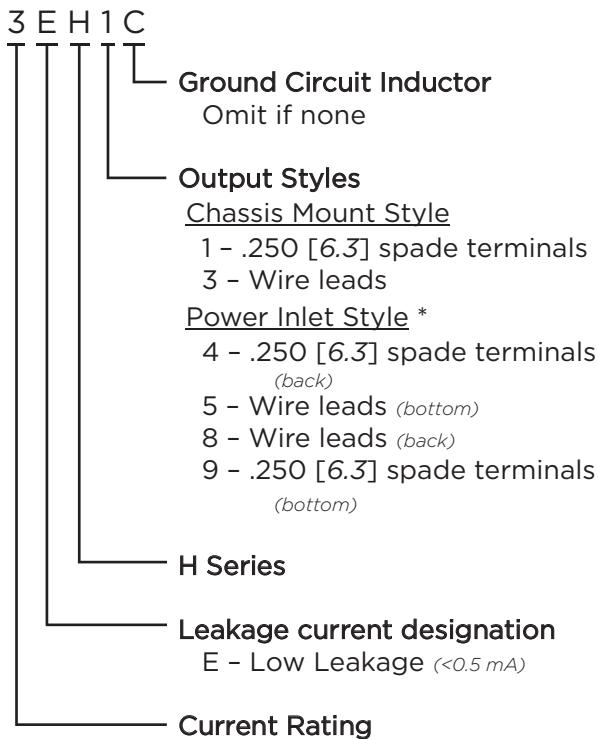
**UL Recognized**  
**CSA Certified**  
**VDE Approved\***



## H Series

- Minimal leakage current suitable for medical equipment
- Two element circuit provides basic EMI attenuation above 1 MHz
- Available with an internal ground circuit inductor (C suffix versions) to isolate equipment chassis from power line ground at radio frequencies
- Flanged mounting the same as the EC, ED and EF Series
- Capacitive output (see EAH, EBH and EJH Series for capacitive input)

## Ordering Information



## Specifications

### Maximum leakage current each Line to Ground:

@ 120 VAC 60 Hz: 2  $\mu$ A  
@ 250 VAC 50 Hz: 5  $\mu$ A

### 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:

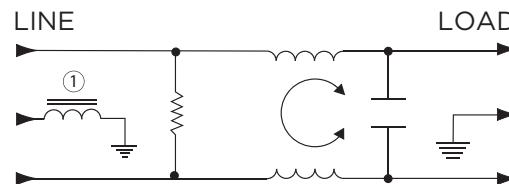
3 to 15A\*

### 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

3EH1	6EH8
3EH3	6EH9
6EH1	10EH1
6EH3	10EH3
6EH4	10EH4
6EH5	15EH4
Ground Circuit Inductor Versions	
10EH4C	

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

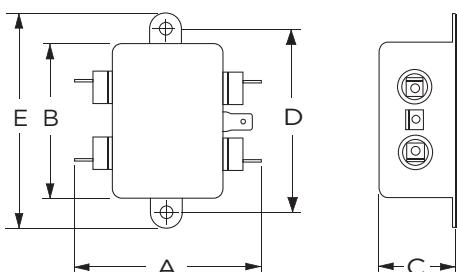
\*IEC 60320-1 C14 inlet mates with C13 connector

## Power Inlet Line Filter for Medical Equipment (continued)

# H Series

## Case Styles

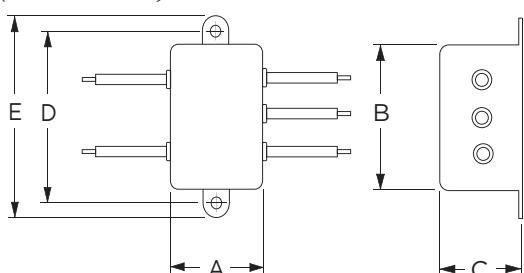
### H1 (Chassis Mount)



Typical Dimensions:

Mounting Holes: .188 [4.78] Dia.  
Line / Load Terminals (4): .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

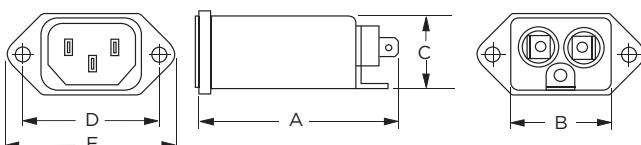
### H3 (Chassis Mount)



Typical Dimensions:

Mounting Holes: .188 [4.78] Dia.  
Wire Leads(5): 4.0 [101.6] Min., 18AWG, UL1015

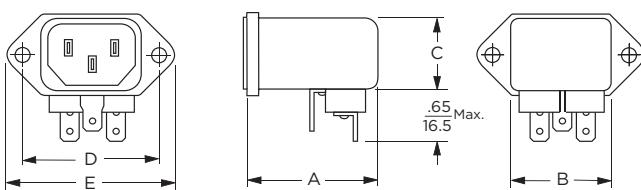
### H4 & H4C



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

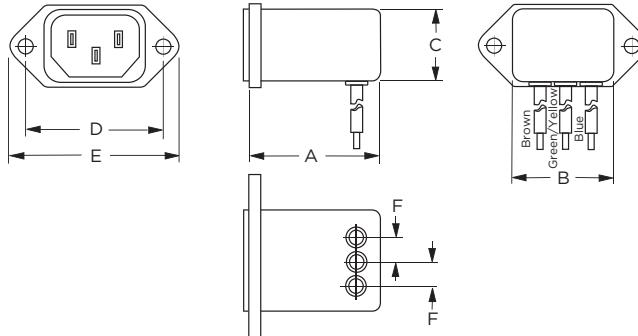
### H9



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

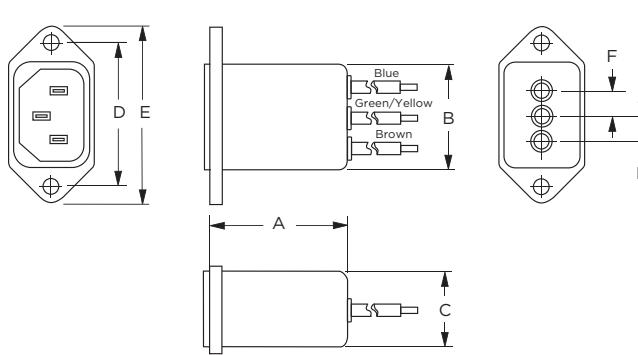
### H5



Typical Dimensions:

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

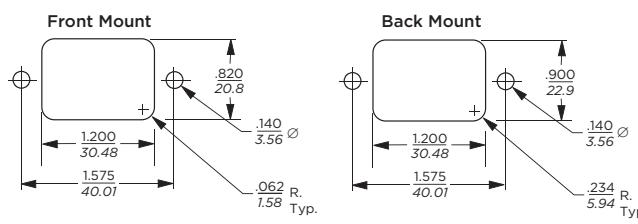
### H8



Typical Dimensions:

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

## Recommended Panel Cutouts


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

Note 1: H4, H4C and H8 allow for front or back mounting

Note 2: H5 and H9 allow for back mounting only

**Power Inlet Line Filter for Medical Equipment (continued)**

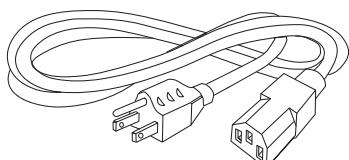
# H Series

## Case Dimensions

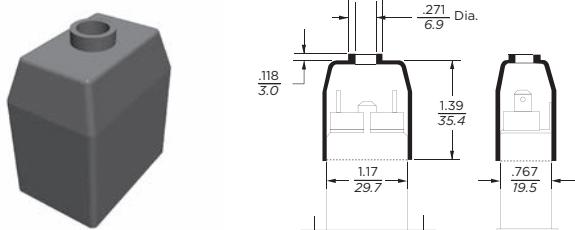
Part No.	A (max.)	B (max.)	C (max.)	D <small><math>\pm .015</math> <math>\pm .38</math></small>	E (max.)	F (ref.)
H1	<b>2.25</b> 57.2	<b>1.82</b> 46.1	<b>0.66</b> 16.7	<b>2.125</b> 53.98	<b>2.53</b> 64.2	-
H3	<b>.96</b> 24.40	<b>1.82</b> 46.1	<b>0.66</b> 16.7	<b>2.125</b> 53.98	<b>2.53</b> 64.2	-
6EH4	<b>2.20</b> 55.9	<b>1.19</b> 30.2	<b>0.81</b> 20.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	-
10EH4, 10EH4C	<b>2.62</b> 66.5	<b>1.19</b> 30.2	<b>0.81</b> 20.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	-
15EH4	<b>2.62</b> 66.5	<b>1.19</b> 30.2	<b>0.81</b> 20.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	-
H5	<b>1.55</b> 39.4	<b>1.19</b> 30.2	<b>0.85</b> 21.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	<b>.295</b> 7.5
H8	<b>1.56</b> 39.7	<b>1.19</b> 30.2	<b>0.81</b> 20.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	<b>.295</b> 7.5
H9	<b>1.55</b> 39.4	<b>1.19</b> 30.2	<b>0.85</b> 21.6	<b>1.575</b> 40.01	<b>1.98</b> 50.3	-

## Accessories

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



FA601: Insulating Shroud

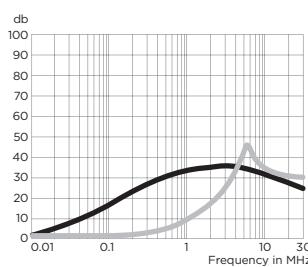


## Performance Data

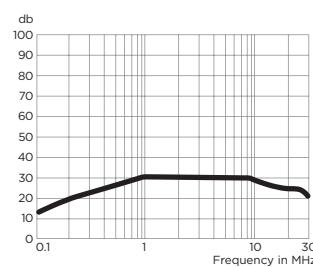
### Typical Insertion Loss

Measured in closed 50 Ohm system

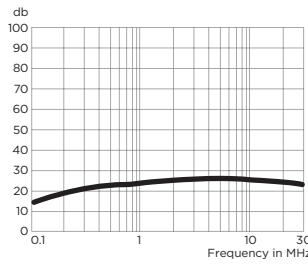
3EH



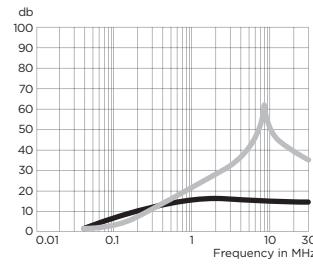
6EH



10EH



15EH



— 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
3A	18	27	30	30	27	18
6A	9	16	20	26	23	18
10A	7	13	15	17	16	14
15A	5	9	11	12	11	9

## Power Entry Module with Voltage Selection and Fusing

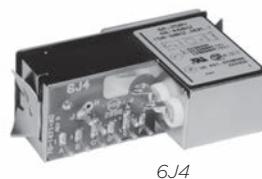
# J Series



**UL Recognized**  
**CSA Certified**



Front View, all models



6J4

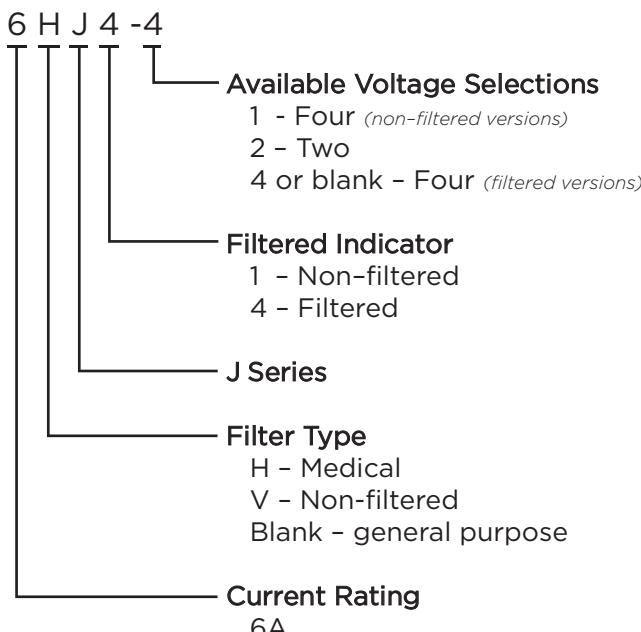


6HJ4

## J Series

- Power entry module with North American style 3AG fuse holder
- 2 or 4 voltage selection
- Compact snap-in design
- Two element circuit provides basic EMI attenuation
- Available with minimal leakage current suitable for medical applications (HJ models)
- Also available without filter (VJ models)

## Ordering Information



## Specifications

<b>Maximum leakage current each Line to Ground:</b>		
6J4 Models	6HJ4 or	
@250 VAC 50 Hz:	500 µA	<u>non-filtered</u>
		5 µA
<b>Hipot rating (one minute):</b>		
Line to Ground:	1550 VAC	
Line to Line:	1450 VDC	
<b>Operating Voltage:</b>		
suffix - 1 or - 4 models:	100, 120, 220 or 240VAC	
suffix - 2 models:	115 or 230 VAC	
<b>Operating Frequency:</b>	50/60 Hz	
<b>Rated Current:</b>	6A	
<b>Required Fuse:</b>	.25 x 1.25	(not included)

## Available Part Numbers

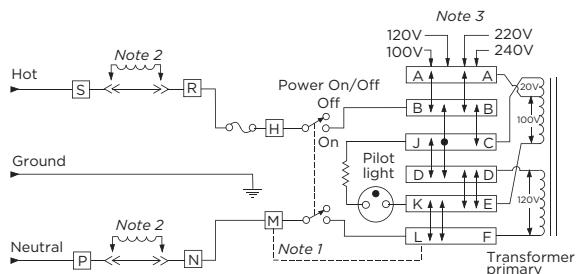
Non-filtered models	
6VJ1	6VJ1-2
General Purpose Filters	
6J4	6J4-2
Medical Filters	
6HJ4-4	6HJ4-2

## Power Entry Module with Voltage Selection and Fusing (continued)

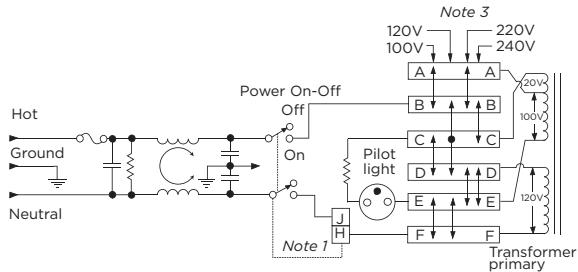
# J Series

## Electrical Schematics

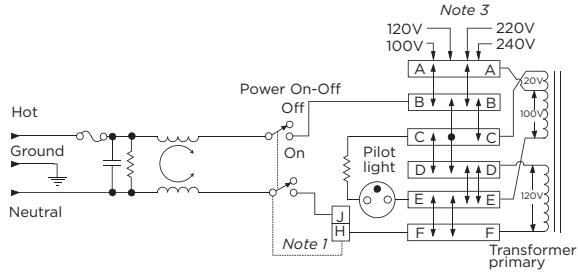
### 6VJ1 & 6VJ1-2



### 6J4 & 6J4-2



### 6HJ4-4 & 6J4-2

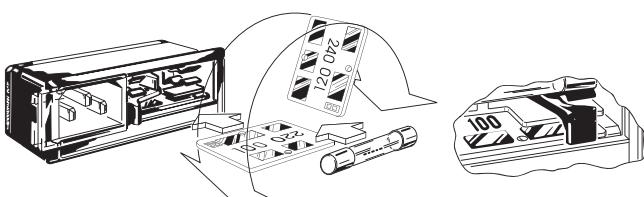


Note 1: Jumper required if only SPST power switch is used

Note 2: Jumpers required if no input filtering is used

Note 3: Use only 120V and 240V positions for 2 volt selection units

## Voltage Selection

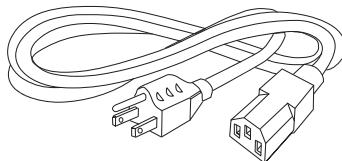


Open cover door and slide fuse-pull lever to left. Select operating voltage by orienting voltage selection card with the desired voltage on top left side. Push card firmly into module slot. Slide fuse-pull lever to right into normal position and re-insert fuse into holders.

**Use caution in selecting correct fuse value.**

## Accessories

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



JA302: 2 Voltage Select Card

Comes standard with 6VJ1-2, 6J4-2 and 6HJ4-2

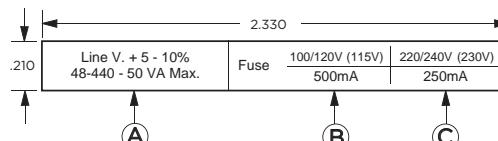
JA304: 4 Voltage Select Card

Comes standard with 6VJ1, 6J4 and 6HJ4-4

JA403: Mounting clips for .105 - .125" panels

JA410-419: Equipment Rating Labels

Self-adhesive, available in multiples of 40  
Specify part number

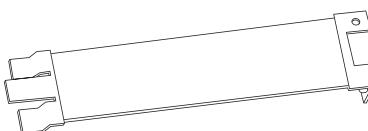


Part No.	A VA max.	B Fuse	C Fuse
JA410	25	250 mA	125 mA
JA411	50	500 mA	250 mA
JA412	100	1A	500 mA
JA413	200	2A	1A
JA414	250	2.5A	1.25A
JA415	300	3A	1.5A
JA416	400	4 A	2A
JA417	500	5A	2.5A
JA418	600	6A	3A
JA419	Assortment		

JA410-JA418: 40 labels of one part number

JA419: 5 each of JA410 - JA418 (45 labels)

JA500: Voltage Selector Card Extractor Tool

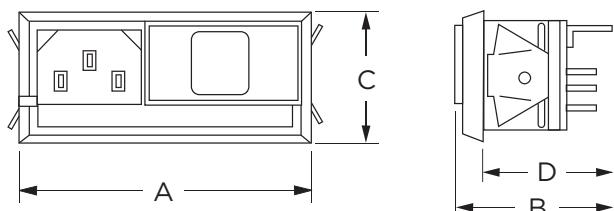


## Power Entry Module with Voltage Selection and Fusing (continued)

# J Series

## Case Styles

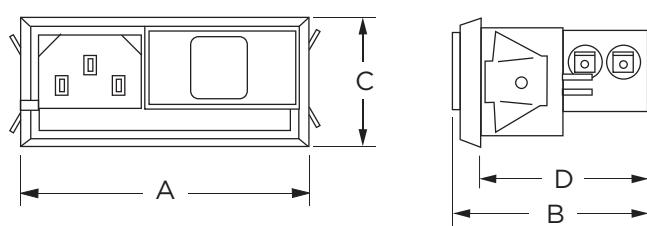
### Non-filtered Models



#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
Load Terminals (2): .110 [2.79]

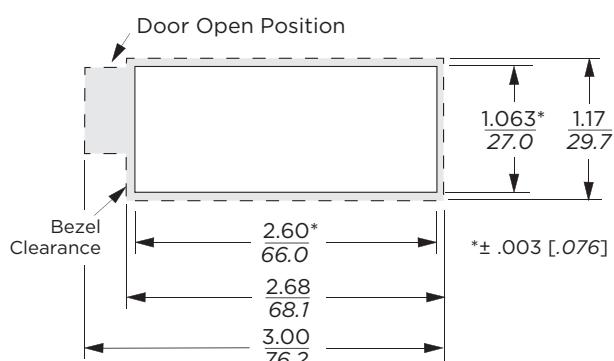
### Filtered Models



#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
Load Terminals (2): .110 [2.79]

## Recommended Panel Cutouts



Standard units mount in panel thickness of .060 - .090 [1.52-2.29]  
JA403 Mounting clips for .105 - .125" panels available separately  
Fuse cover door shown in open position

## Case Dimensions

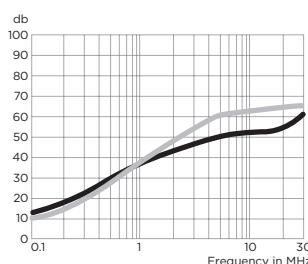
Part No.	A (max.)	B (max.)	C (max.)	D (max.)
6VJ1, 6VJ1-2	<b>2.68</b> 68.1	<b>1.52</b> 38.6	<b>1.17</b> 29.7	<b>1.23</b> 31.2
6J4, 6J4-2,	<b>2.75</b>	<b>1.87</b>	<b>1.17</b>	<b>1.58</b>
6HJ4-4, 6HJ4-2	69.9	47.5	29.7	40.1

## Performance Data

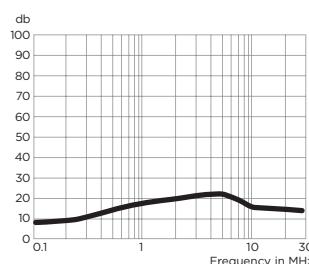
### Typical Insertion Loss

Measured in closed 50 Ohm system

#### 6J4



#### 6HJ4



— 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)

Model No.	Frequency - MHz						
	.15	.5	1	5	10	20	30
6J4	9	20	25	41	45	45	48
6HJ4	9	11	15	19	13	12	10

## Dual Configuration Power Entry Module

# L Series



**UL Recognized  
CSA Certified  
VDE Approved**



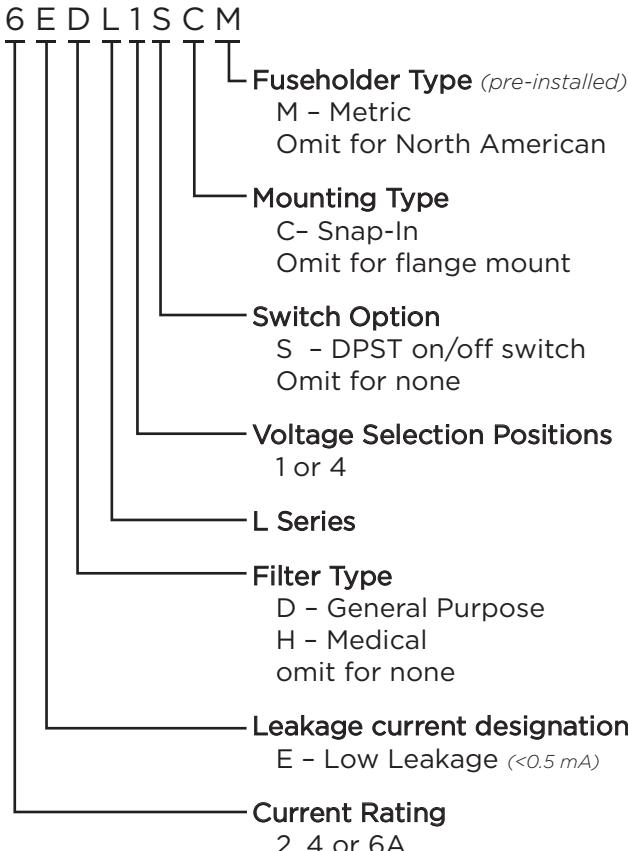
EDL4C / EHL4C

EDL1S / EHL1S

## L Series

- Power entry module with switch or fuse
- For 10A capability and high performance filtering see the P Series on page 192
- Two element circuit provides extended EMI attenuation similar to EAB inlet filter
- North American or metric fuse holders
- Available with minimal leakage current for medical applications (HL models)

## Ordering Information



## Specifications

### Maximum leakage current each Line to Ground:

DL Models	HL Models
.25 mA	2 $\mu$ A
.50 mA	5 $\mu$ A

### Hipot rating (one minute):

Line to Ground:	2250 VDC
Line to Line:	1450 VDC

### Operating Voltage:

1S & 1SC models (fixed):	250 VAC max.
4 & 4C Suffix:	100, 120, 220 or 240 VAC.

### Operating Frequency:

50/60 Hz

### Rated Current:

2 to 6A

### Required Fuse(s):

North American:	one .25 x 1.25" (not included)
Metric:	two 5 x 20mm (not included)

### Switch:

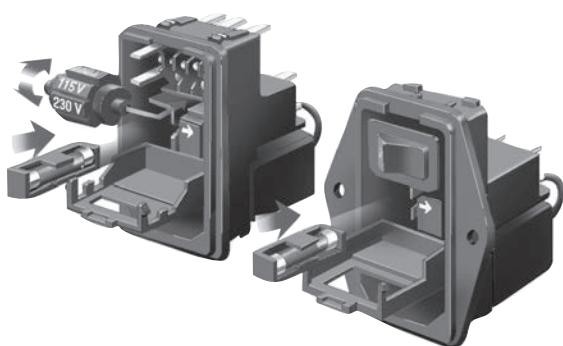
DPST  
10,000 operations at 51A max. inrush

## Dual Configuration Power Entry Module (continued)

# L Series

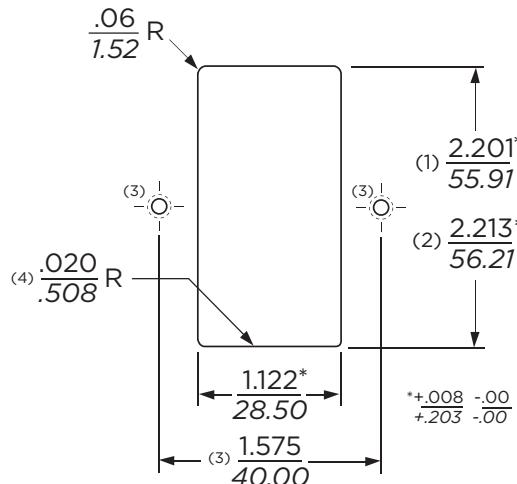
Available Part Numbers		North American Fusing		Metric Fusing	
		Flange Mount	Snap-In	Flange Mount	Snap-In
Non-Filtered	Single Voltage, Switched	6EL1S	6EL1SC	6EL1SM	6EL1SCM
	4 Voltage Select, No Switch	6EL4	6EL4C	6EL4M	6EL4CM
General Purpose Filter	Single Voltage, Switched	2EDL1S	2EDL1SC	2EDL1SM	2EDL1SCM
		4EDL1S	4EDL1SC	4EDL1SM	4EDL1SCM
		6EDL1S	6EDL1SC	6EDL1SM	6EDL1SCM
	4 Voltage Select, No Switch	2EDL4	2EDL4C	2EDL4M	2EDL4CM
		4EDL4	4EDL4C	4EDL4M	4EDL4CM
		6EDL4	6EDL4C	6EDL4M	6EDL4CM
Medical Filter	Single Voltage, Switched	6EHL1S	6EHL1SC	6EHL1SM	6EHL1SCM
	4 Voltage Select, No Switch	6EHL4	6EHL4C	6EHL4M	6EHL4CM

## Voltage Selection



To change selected voltage: disconnect the power cord; open cover using a small blade screwdriver or similar tool; insert the tool into the voltage selection slot and remove wheel from unit; select desired voltage; replace wheel into unit and close cover, making sure the selected voltage appears in connector window.

## Recommended Panel Cutouts



Notes:

- (1) For panel thickness of .031 – .079 [0.8 – 2.0]
- (2) For panel thickness of .083 – .126 [2.1 – 3.2]
- (3) Mounting Holes .126 [3.20] Dia. for flange mounted versions only
- (4) For Snap-In applications, the 1.12 [28.5] sides of the cutout must have a .02 [.508] radius on the installation side. Not required for flange mount versions.

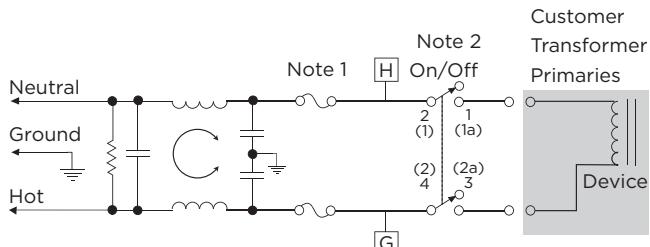
## Dual Configuration Power Entry Module (continued)

# L Series

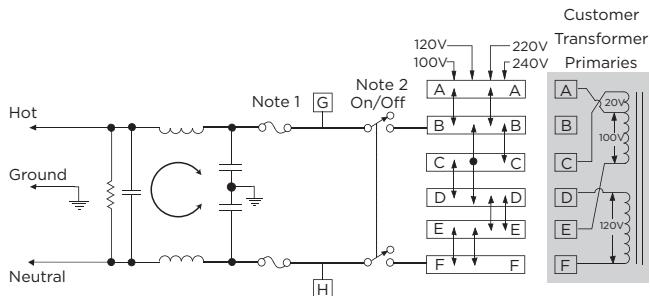
## Electrical Schematics

### DL Models

#### Single Voltage, Switched (DL1S)

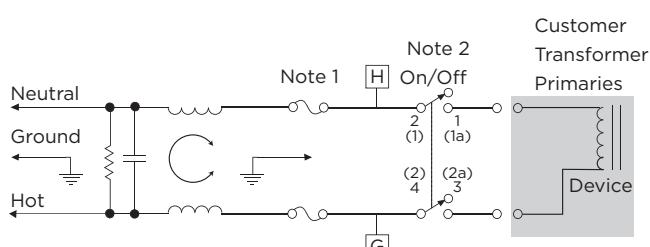


#### 4 Voltage Select, No-Switch (DL4)

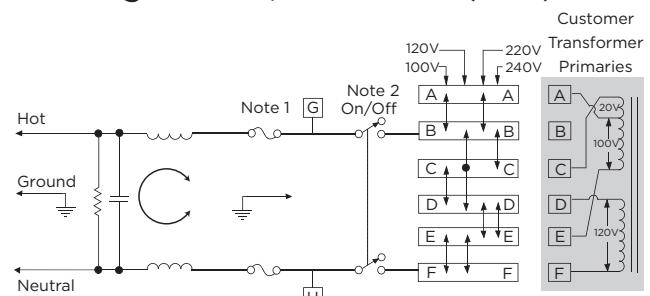


### HL Models

#### Single Voltage, Switched (HL1S)

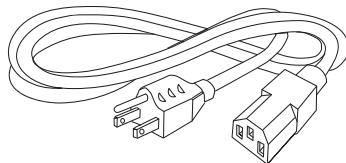


#### 4 Voltage Select, No-Switch (HL4)



## Accessories

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



**LA303:** Voltage Select Wheel, 3 position

Selection drum for use with L4 models.  
Marked with 110V, 220V and 240V

**LA304:** Voltage Select Wheel, 4 position

Selection drum for use with L4 models.  
Marked with 100V, 110V, 220V and 240V.  
One LA304 comes standard with each L4 model.



**LA400:** Blank insert

Blank to replace switch in single voltage models

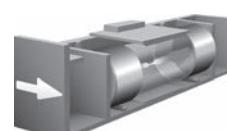
**LA601:** Insulating Boot

Plastic shroud to cover back of module to prevent inadvertent access

## Replacement Fuse Holders

**LA200:** North American Fuseholder

Accommodates one .25 x 1.25" fuse



**LA201:** Metric Fuseholder

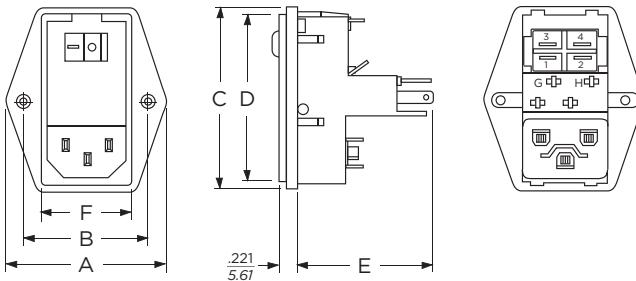
Accommodates one 5 x 20mm metric fuse

## Dual Configuration Power Entry Module (continued)

# L Series

## Case Styles

### Flange Models, Non-filtered

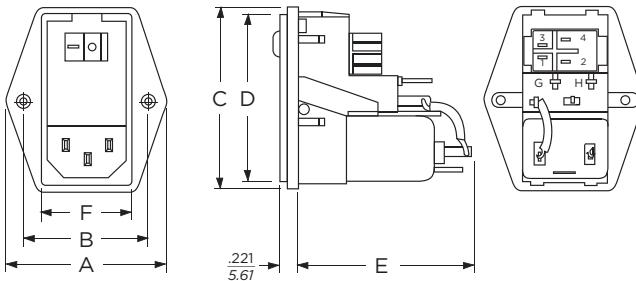


Switched model shown, for non-switched detail refer to snap-in models

#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
Backplate Terminals: .110 [2.79]  
Switch Terminals: .187 [4.765] with .07 x .16 [1.8 x 3.8] slot

### Flange Models, Filtered



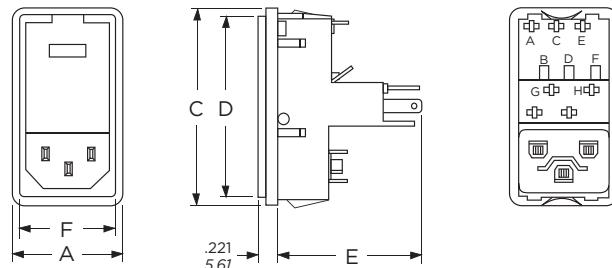
Switched model shown, for non-switched detail refer to snap-in models

Metric fuse models have an additional jumper from filter to module

#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
Backplate Terminals: .110 [2.79]  
Switch Terminals: .187 [4.765] with .07 x .16 [1.8 x 3.8] slot

### Snap-in Models, Non-filtered

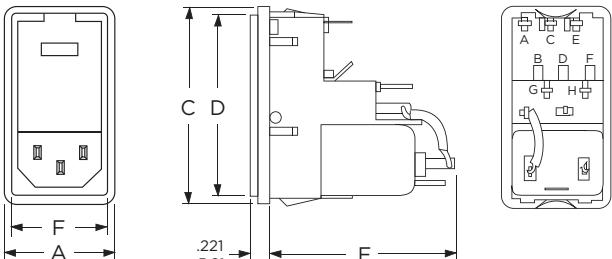


Non-switched model shown, for switched detail refer to flange models

#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
Backplate Terminals: .110 [2.79]  
Switch Terminals: .187 [4.765] with .07 x .16 [1.8 x 3.8] slot

### Snap-in Models, Filtered



Non-switched model shown, for switched detail refer to flange models

Metric fuse models have an additional jumper from filter to module

#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
Backplate Terminals: .110 [2.79]  
Switch Terminals: .187 [4.765] with .07 x .16 [1.8 x 3.8] slot

## Case Dimensions

Model No.	A (max.)	B <i><math>\pm .015</math></i> <i><math>\pm .38</math></i>	C (max.)	D (max.)	E (max.)	F (ref.)
Flange Unfiltered	<b>1.98</b> 50.29	<b>1.575</b> 40.0	<b>2.3</b> 58.42	<b>2.14</b> 54.36	<b>1.66</b> 42.16	<b>1.11</b> 28.19
Snap-in Unfiltered	<b>1.28</b> 32.51	-	<b>2.3</b> 58.42	<b>2.14</b> 54.36	<b>1.66</b> 42.16	<b>1.11</b> 28.19
Flange Filtered	<b>1.98</b> 50.29	<b>1.575</b> 40.0	<b>2.3</b> 58.42	<b>2.14</b> 54.36	<b>2.01</b> 51.05	<b>1.11</b> 28.19
Snap-in Filtered	<b>1.28</b> 32.51	-	<b>2.3</b> 58.42	<b>2.14</b> 54.36	<b>2.01</b> 51.05	<b>1.11</b> 28.19

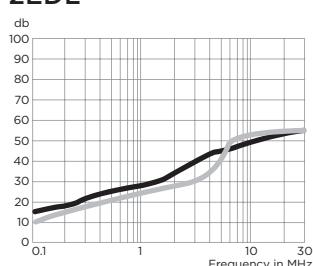
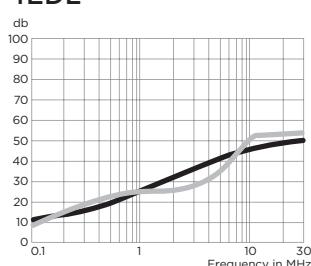
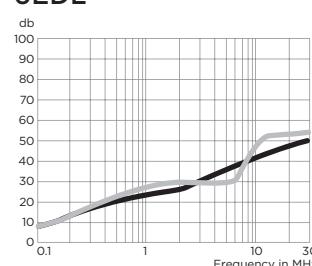
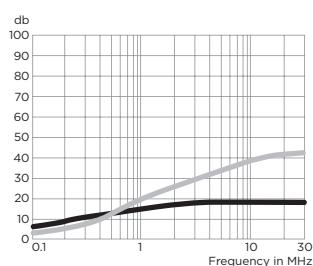
**Dual Configuration Power Entry Module (continued)**

# L Series

## Performance Data

### Typical Insertion Loss

Measured in closed 50 Ohm system

**2EDL**

**4EDL**

**6EDL**

**6EHL**


— 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	.05	.15	1	5	10	30
<b>EDL Models</b>						
1A	6	14	24	40	45	50
3A	2	8	18	32	38	45
6A	1	6	17	31	37	45
<b>EHL Models</b>						
6A	3	8	15	18	18	18

#### Differential Mode / Symmetrical (Line to Line)

Current Rating	.05	.15.5	1	3	5	10	30
<b>EDL Models</b>							
1A	7	16	21	23	37	47	50
3A	6	14	18	23	26	45	47
6A	6	15	20	25	24	45	50
<b>EHL Models</b>							
6A	4	14	20	28	32		

## Power Entry Module with Enhanced EMI Filtering

# LA Series



**UL Recognized**  
**CSA Certified**

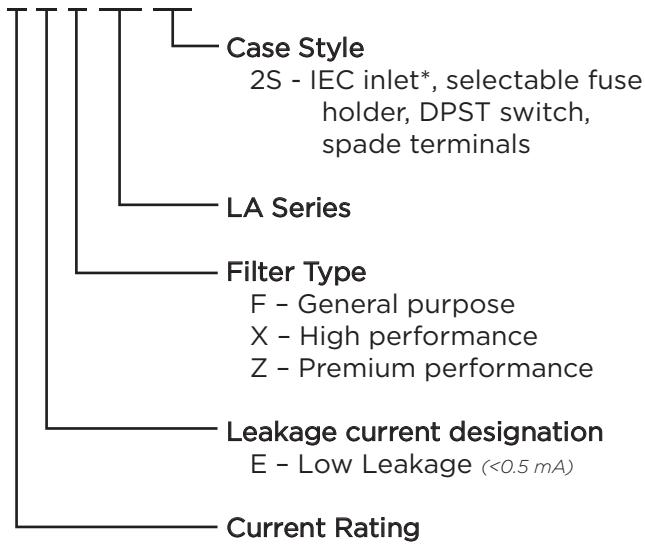


## LA Series

- Power entry module with extended and enhanced low frequency filters
- North American or dual metric fuse holder options
- DPST on/off switch
- 120/240V voltage selection
- The F version provides basic performance two element circuit filter
- The X version provides a three element differential mode circuit with extended EMI attenuation, suitable for meeting FCC Part 15J, Class B conducted emissions limits
- The Z version provides a three element differential mode circuit with enhanced EMI low frequency attenuation, suitable for meeting EN55022 Level B as well as FCC Part 15J limits

## Ordering Information

5 E F LA 2S



\*IEC 60320-1 C14 inlet mates with C13 connector

## Specifications

### Maximum leakage current each Line to Ground:

	XLA Model	ZLA Model
@120 VAC 60 Hz:	.25 mA	.30 mA
@250 VAC 50 Hz:	.50 mA	.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:

3 to 5A

**Required Fuse(s):** one .25 x 1.25" (*not included*)  
or two 5 x 20mm (*not included*)

**Switch:** DPST  
10,000 operations at 51A max. inrush

## Available Part Numbers

5EFLA2S
3EXLA2S
3EZLA2S

## Power Entry Module with Enhanced EMI Filtering (continued)

# LA Series

## Voltage Selection

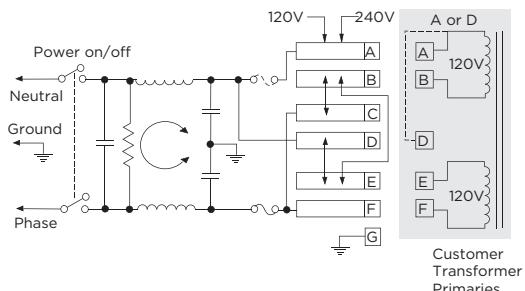
To change selected voltage: remove the fuse cartridge using a small blade screwdriver or similar tool; select the desired voltage by matching the arrow on the fuse cartridge to the arrow located on the front of the unit (lower right corner); replace the fuse cartridge making sure the voltage selection arrow aligns with the arrow located on the front of the unit.

## Changing Fuses

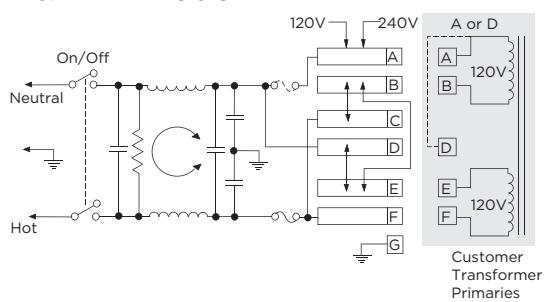
Remove the fuse cartridge using a small blade screwdriver or similar tool; for Metric fusing pull out the sliding fuse covers located at the top of each fuse compartment; insert desired fuses; push the sliding fuse covers back in place and insert the fuse cartridge back into the unit making sure the voltage selection arrow aligns with the arrow located on the front of the unit. (Note: Single North American or Metric fuse placement is always on the side of the desired voltage selection arrow behind the fuse symbol; the other compartment may be used as a spare or be left blank. Dual Metric fusing capability is available for 220/240 volts only.)

## Electrical Schematics

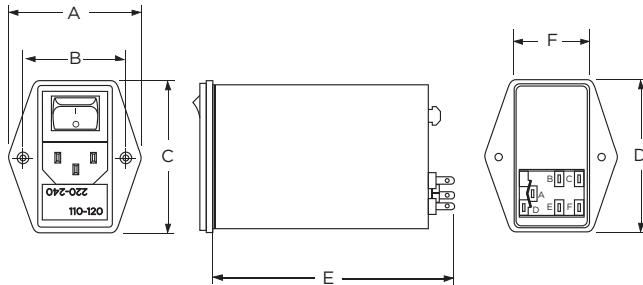
### FLA Model



### XLA & ZLA Model



## Case Styles



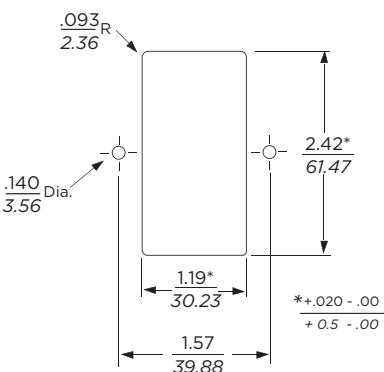
### Typical Dimensions:

Line Inlet (1):	IEC 60320-1 C14
Mounting Holes (2):	.142 [3.6] Dia.
Backplate Terminals(5):	.110 [2.79] with .059 [1.5] holes
Ground:	.solder lug tab with wire wrap

## Case Dimensions

Part No.	A (max.)	B $\pm .015$ $\pm .38$	C (max.)	D (max.)	E (max.)	F (ref.)
5EFLA2S	<b>1.99</b> 50.5	<b>1.57</b> 39.9	<b>2.59</b> 65.79	<b>2.41</b> 61.21	<b>3.16</b> 68.07	<b>1.18</b> 29.97
3EXLA2S	<b>1.99</b> 50.5	<b>1.57</b> 39.9	<b>2.59</b> 65.79	<b>2.41</b> 61.21	<b>4.16</b> 105.7	<b>1.18</b> 29.97
3EZLA2S	<b>1.99</b> 50.5	<b>1.57</b> 39.9	<b>2.59</b> 65.79	<b>2.41</b> 61.21	<b>4.16</b> 105.7	<b>1.18</b> 29.97

## Recommended Panel Cutout



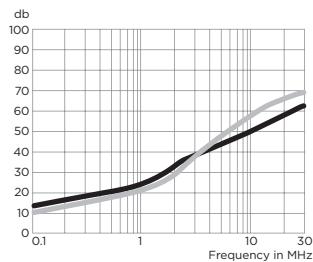
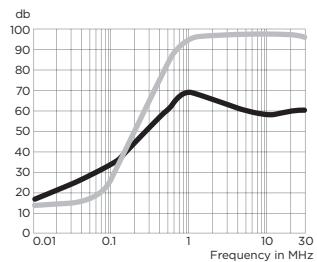
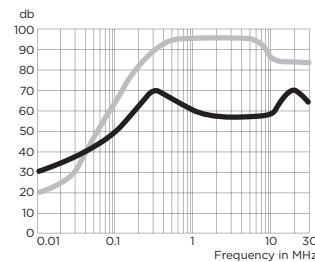
## Power Entry Module with Enhanced EMI Filtering (continued)

# LA Series

## Performance Data

### Typical Insertion Loss

Measured in closed 50 Ohm system

**5EFLA2S**

**3EXLA2S**

**3EZLA2S**


— 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)

Part No.	Frequency – MHz							
	.01	.05	.15	.5	1	5	10	30
5EFLA2S	-	-	14	21	26	40	46	50
3EXLA2S	2	12	21	35	46	44	44	40
3EZLA2S	14	28	38	42	40	40	40	40

#### Differential Mode / Symmetrical (Line to Line)

Part No.	Frequency – MHz							
	.02	.03	.05	.07	.15	.5	1	5
5EFLA2S	-	-	-	-	-	-	-	-
3EXLA2S	-	-	-	5	33	60	65	60
3EZLA2S	3	14	29	38	57	72	72	65
								50

## Slim Power Entry Module Family with Multiple Options

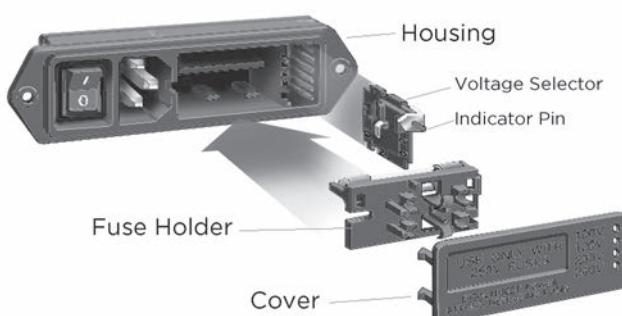
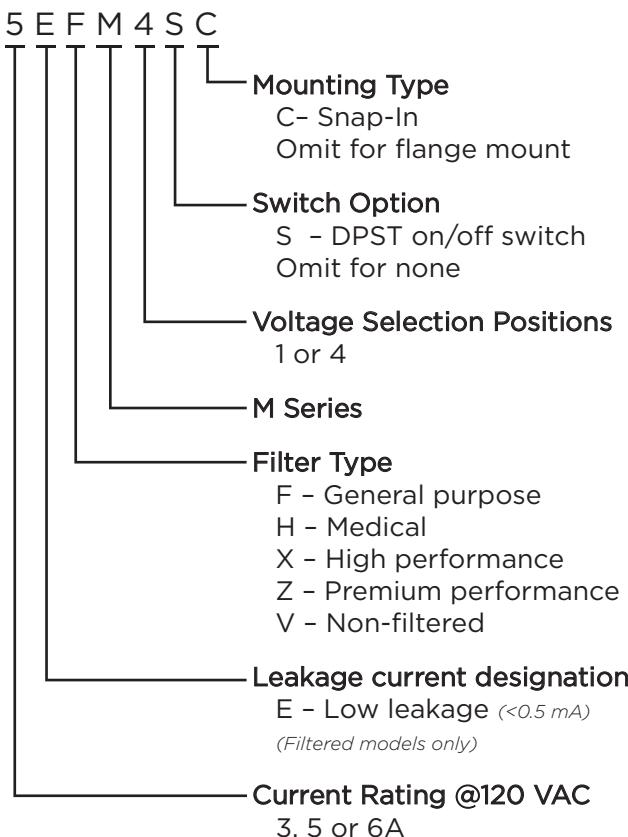
# M Series



**UL Recognized**  
**CSA Certified**  
**VDE Approved**



### Ordering Information



Dimensions are in inches and millimeters unless otherwise specified. Values in italics are metric equivalents. Dimensions are shown for reference purposes only. Specifications subject to change.

### M Series

- Family of slim power entry modules that consume minimal depth behind panel
- Four compact modules each provide a different option combination
- Available non-filtered or with one of four filter circuits designed to meet a wide variety of applications
- Optional voltage selector configured for either 2 or 4 voltage selection
- Optional DPST on/off switch
- Included fuseholder accepts either single 3AG fuse or dual metric fuses
- Snap-in or flange mounting styles

### Filter Types

**H Models** provide a basic performance dual element circuit EMI filter with minimal leakage current, suitable for medical applications, with attenuation similar to the EAH Series power inlet filter.

**F Models** provide a basic performance dual element circuit EMI filter, with attenuation similar to the EEA Series Power Inlet Filter.

**X Models** provide a high performance three element differential circuit filter, with extended EMI attenuation similar to the X Series chassis filter, suitable for bringing most digital equipment (including switching power supplies) into compliance with FCC Part 15J, Class B conducted emissions limits.

**Z Models** provide a premium performance three element differential circuit filter, with enhanced EMI low frequency attenuation similar to the P Series Z models, suitable for bringing most digital equipment (including switching power supplies) into compliance with EN55022 Level B as well as FCC Part 15J. For minimum panel footprint, see the P series on page 192.

### Slim Power Entry Module Family with Multiple Options (continued)

## M Series

### Specifications

#### Maximum leakage current each Line to Ground:

	<u>HM</u>	<u>FM</u>	<u>XM/ZM</u>
@ 120 VAC 60 Hz:	2 $\mu$ A	.25 mA	.30 mA
@ 250 VAC 50 Hz:	5 $\mu$ A	.50 mA	.50 mA

#### Hipot rating (one minute):

Line to Ground:	2250 VDC
Line to Line:	1450 VDC
Line to Load (switch off) non-filtered:	2500 VAC

#### Rated Voltage (max.):

250VAC

#### Operating Frequency:

50/60 Hz

#### Rated Current @ 120 VAC:

3 to 6A

#### Rated Current @ 250 VAC:

3A models:	2A
5A models:	4A
6A Switched models:	5A
6A non-switched models:	6A

#### Required Fuse(s):

Reversible fuseholder accepts  
one .25 x 1.25" (not included)  
or two 5 x 20mm (not included)

#### Switch:

DPST

100,000 operations at 70A max. inrush

### Available Part Numbers

#### Non-Filtered Models

Voltage Selections	Flange Mount		Snap-In	
1	6VM1	6VM1S	6VM1C	6VM1SC
2	6VM2	6VM2S		
4	6VM4	6VM4S	6VM4C	6VM4SC

#### General Purpose Filters

1	5EFM1	5EFM1S	5EFM1C	5EFM1SC
4	5EFM4	5EFM4S	5EFM4C	5EFM4SC

#### Medical Filters

1	5EHM1	5EHM1S		
4	5EHM4	5EHM4S		

#### High Performance - FCC-B

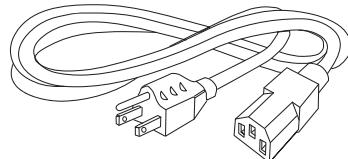
1	3EXM1	3EXM1S		
4	3EXM4	3EXM4S		

#### Premium Performance - EN55022-B

1		3EZM1S		
4	3EZM4	3EZM4S		

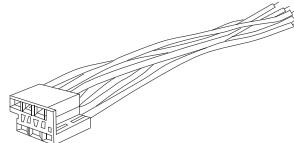
### Accessories

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



MA100: Power interconnect assembly

For voltage select models. 8.5" wire leads



MA101: Plug only

MA102: Strip of 100 pins for use with MA101

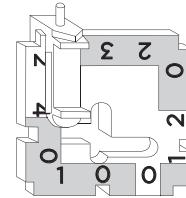
MA104: Individual pins for use with MA101

MA302: Two Voltage Selection Card

Marked 120V/240V. One card comes standard with every 2 voltage M series module

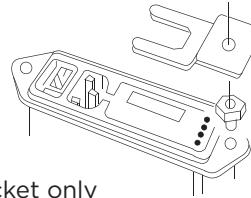
MA304: Four Voltage Selection Card

Marked 100V/120V/230V/240V. One card comes standard with every 4 voltage M series module



MA400: Medical safety bracket assembly

Prevents inadvertent removal of fuse(s)



MA401: Bracket only

MA402: Standoff only

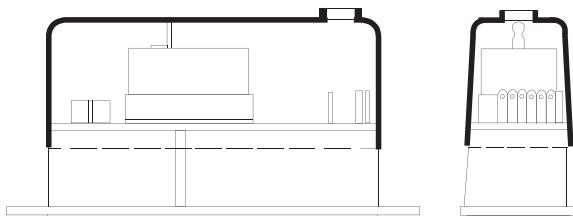
## Slim Power Entry Module Family with Multiple Options (continued)

# M Series

### Accessories (continued)

#### MA601 - 604: Insulating Boot

Plastic shroud for back of M series to prevent inadvertent access to connections



**MA601:** Fits M4S versions

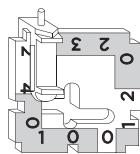
**MA602:** Fits M1S versions

**MA603:** Fits M4 versions

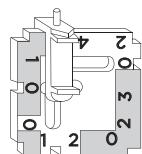
**MA604:** First M1 versions

### Voltage Selection

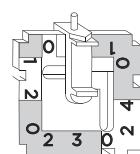
1. Open cover, using small blade screwdriver or similar tool (see illustration on right)
2. Set aside cover/fuse block assembly
3. Pull voltage selector card straight out of housing, using indicator pin
4. Orient selector card so that desired voltage is readable at the bottom
5. Orient indicator pin to point up when desired voltage is readable at bottom (note that when indicator pin is fixed, successive voltages are selected by rotating the card 90° clockwise)
6. Insert voltage selector card into housing, printed side of card facing forward toward IEC connector and edge containing the desired voltage first
7. Replace cover, and verify that indicator pin shows the desired voltage



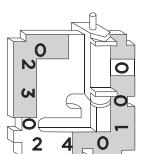
100V



120V



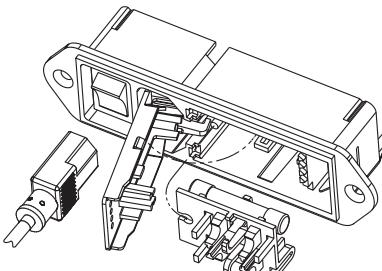
230V



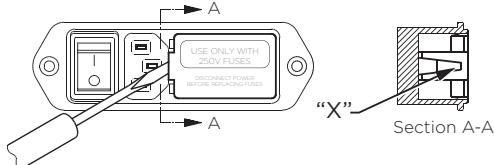
240V

### Fuse Installation Instructions

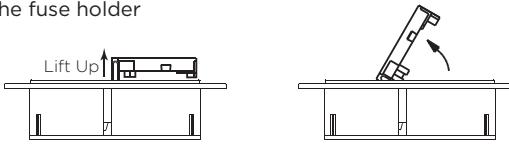
1. Remove power cord



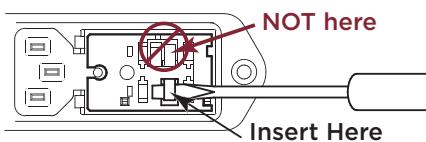
2. Insert a pocket screwdriver at point "X" as shown



3. Gently lift the entire door UP approximately 1/4" (minimum). Once lifted, the door will pivot on its hinges to expose the fuse holder



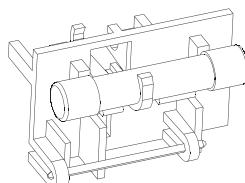
4. When the fuse holder is installed in the single fuse position, apply the screwdriver as shown and gently lift up. Use screwdriver as shown, do not use fingers



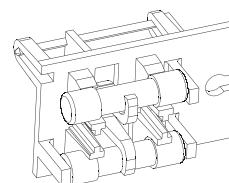
When the fuse holder is installed in the dual fuse position, it will normally release as soon as the door is opened

5. Install one (1) AG fuse or two (2) metric fuses (see below)
6. Replace fuse holder into housing
7. Swing and push to snap door back in place

### Fuse Options



North American  
single fuse installation



Metric  
dual fuse installation

**Install fuses on one side only, do not install both AG and metric fuses at the same time**

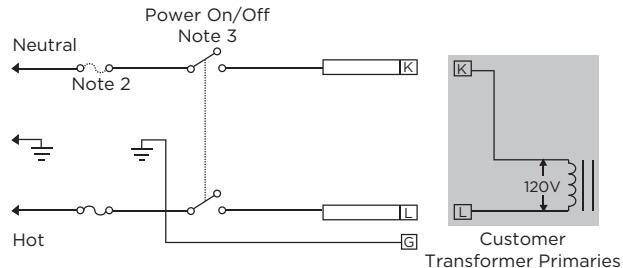
## Slim Power Entry Module Family with Multiple Options (continued)

# M Series

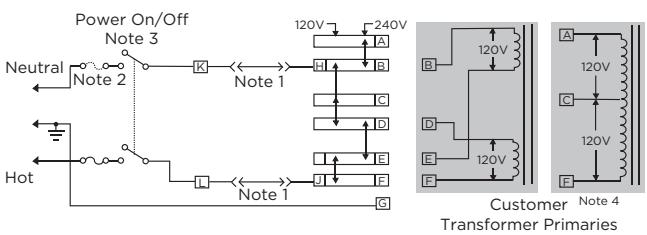
## Electrical Schematics

### Non-Filtered Models

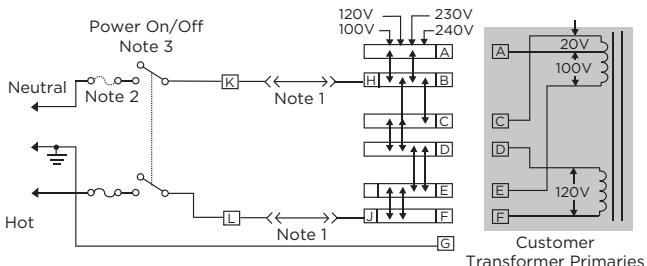
#### VM1



#### VM2



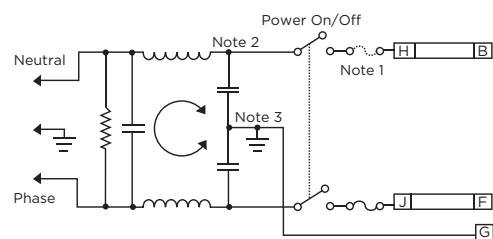
#### VM4



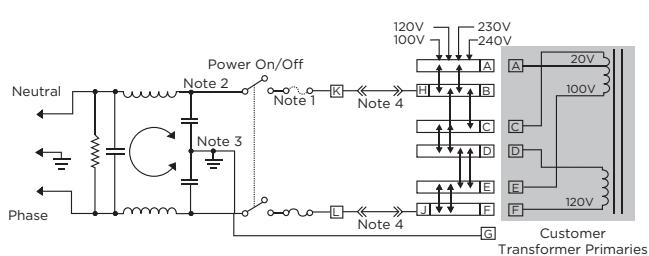
- Note 1: Jumper required if no input filter is used
- Note 2: Provision for dual Metric style fusing
- Note 3: On/off switch present only in "S" suffix models
- Note 4: When using a center-tapped transformer, the C-F winding should be the low voltage (high current) winding and must be capable of handling the full primary current in the 120V position

### Filtered Models

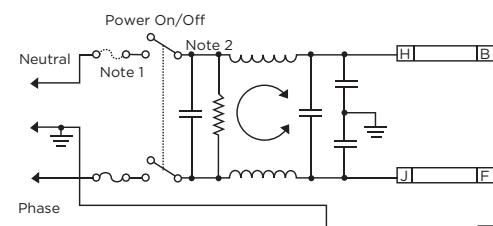
#### FM1 & HM1



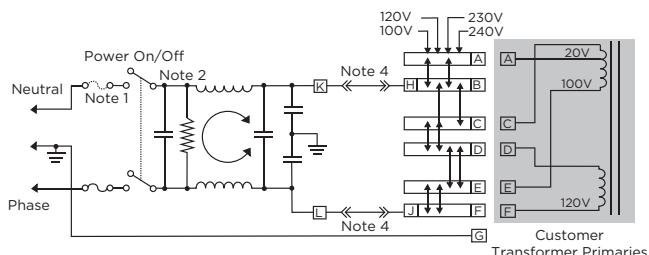
#### FM4 & HM4



#### XM1 & ZM1



#### XM4 & ZM4



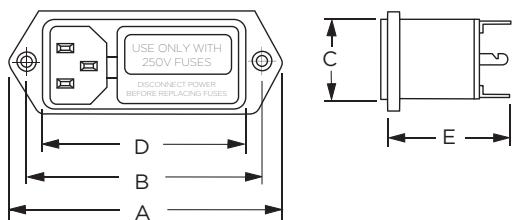
- Note 1: Provision for dual Metric style fusing
- Note 2: On/off switch present only in "S" suffix models
- Note 3: Line to ground capacitor not present on HM models
- Note 4: Models HM4, FM4, XM4 and ZM4 have added terminals K and L. External switch or jumper must be placed from K to H and L to J.

## Slim Power Entry Module Family with Multiple Options (continued)

# M Series

## Case Styles - Non-filtered Models

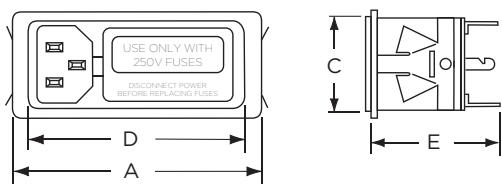
### 6VM1



#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
 Backplate Terminals: .110 [2.79]  
 Mounting holes (2): .155 [3.94] Dia. with .279 [7.08] Dia. x 82° countersink for #6 flathead screw

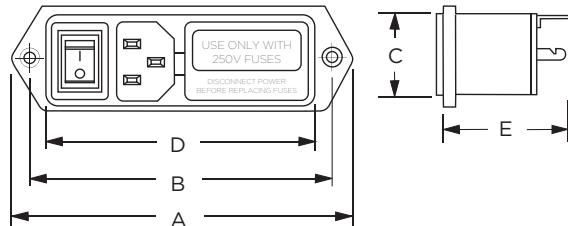
### 6VM1C



#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
 Backplate Terminals: .110 [2.79]

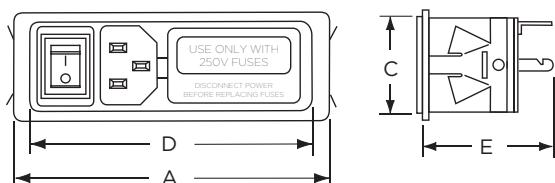
### 6VM1S



#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
 Backplate Terminals: .110 [2.79]  
 Mounting holes (2): .155 [3.94] Dia. with .279 [7.08] Dia. x 82° countersink for #6 flathead screw

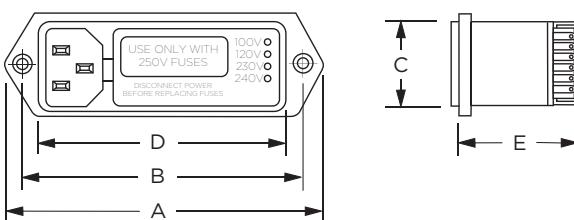
### 6VM1SC



#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
 Backplate Terminals: .110 [2.79]

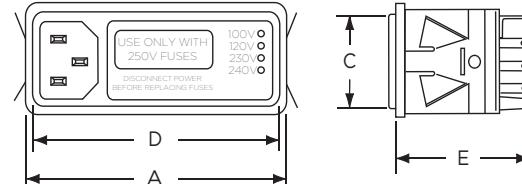
### 6VM2 & 6VM4



#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
 Backplate Terminals: .110 [2.79]  
 Mounting holes (2): .155 [3.94] Dia. with .279 [7.08] Dia. x 82° countersink for #6 flathead screw

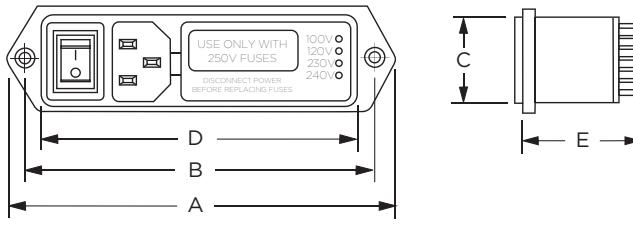
### 6VM4C



#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
 Backplate Terminals: .110 [2.79]

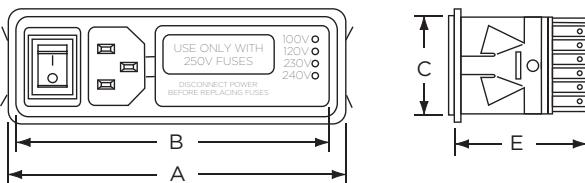
### 6VM2S & 6VM4S



#### Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
 Backplate Terminals: .110 [2.79]  
 Mounting holes (2): .155 [3.94] Dia. with .279 [7.08] Dia. x 82° countersink for #6 flathead screw

### 6VM4SC



#### Typical Dimensions:

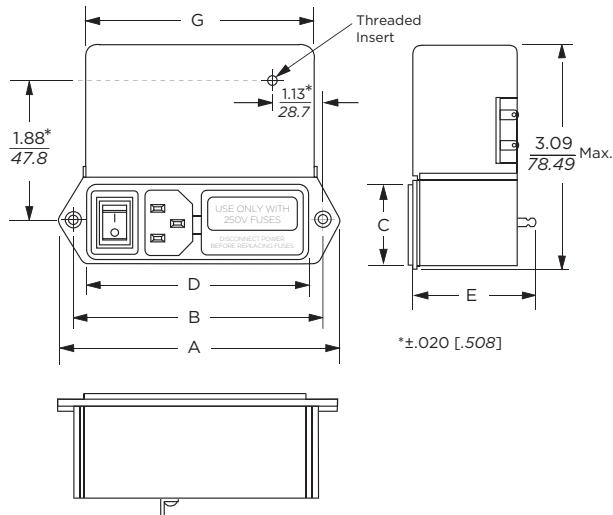
Line Inlet (1): IEC 60320-1 C14  
 Backplate Terminals: .110 [2.79]

## Slim Power Entry Module Family with Multiple Options (continued)

# M Series

### Case Styles - Filtered Models

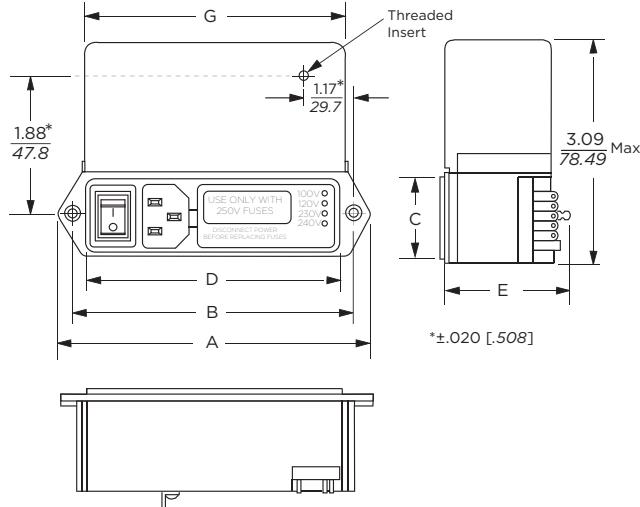
#### 3EXM1S & 3EZM1S



#### Typical Dimensions:

Line Inlet (1):	IEC 60320-1 C14
Backplate Terminals:	.110 [2.79]
Threaded insert:	6-32 x .25
Mounting holes (2):	.155 [3.94] Dia. with .279 [7.08] Dia. x 82° countersink for #6 flathead screw

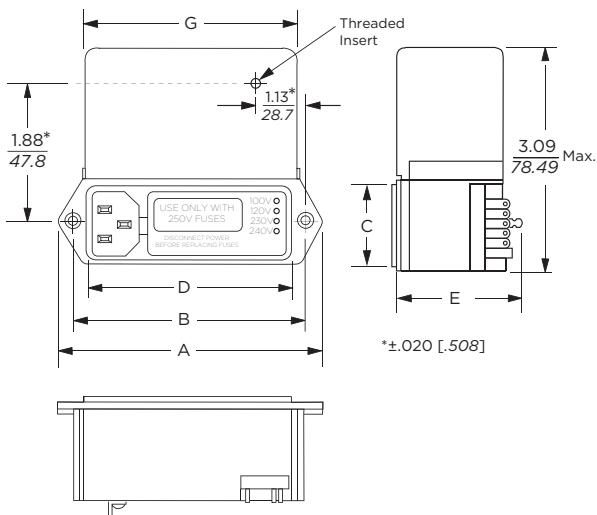
#### 3EXM4S & 3EZM4S



#### Typical Dimensions:

Line Inlet (1):	IEC 60320-1 C14
Backplate Terminals:	.110 [2.79]
Threaded insert:	6-32 x .25
Mounting holes (2):	.155 [3.94] Dia. with .279 [7.08] Dia. x 82° countersink for #6 flathead screw

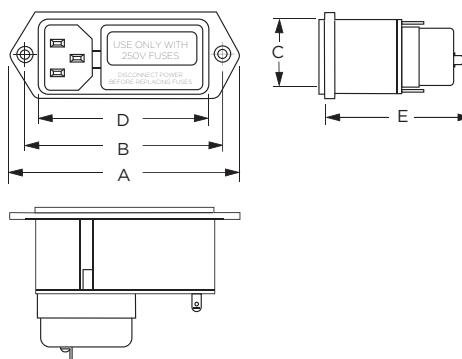
#### 3EXM4 & 3EZM4



#### Typical Dimensions:

Line Inlet (1):	IEC 60320-1 C14
Backplate Terminals:	.110 [2.79]
Threaded insert:	6-32 x .25
Mounting holes (2):	.155 [3.94] Dia. with .279 [7.08] Dia. x 82° countersink for #6 flathead screw

#### 5EHM1 & 5EFM1

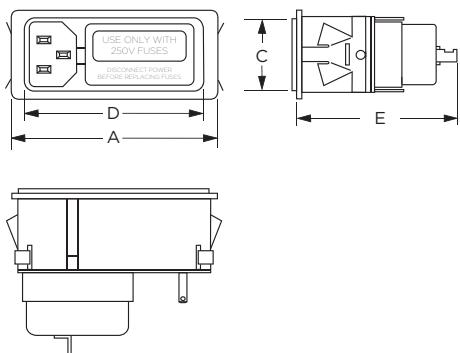


#### Typical Dimensions:

Line Inlet (1):	IEC 60320-1 C14
Backplate Terminals:	.110 [2.79]
Mounting holes (2):	.155 [3.94] Dia. with .279 [7.08] Dia. x 82° countersink for #6 flathead screw

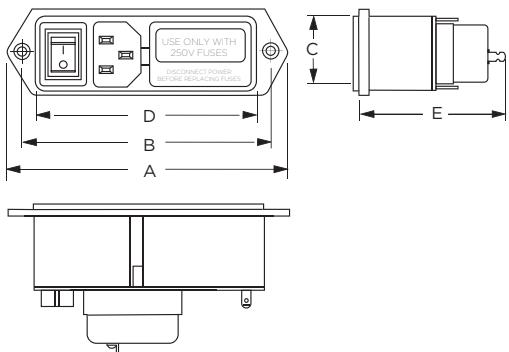
**Slim Power Entry Module Family with Multiple Options (continued)**

# M Series

**Case Styles - Filtered Models (continued)**
**5EFM1C**


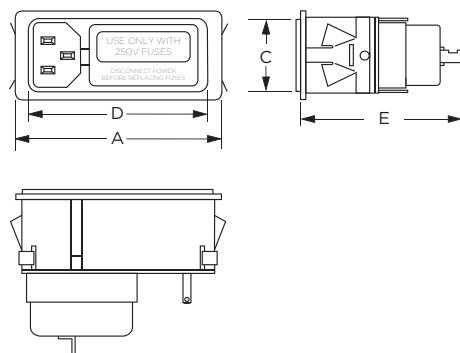
Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
Backplate Terminals: .110 [2.79]

**5EHM1S & 5EFM1S**


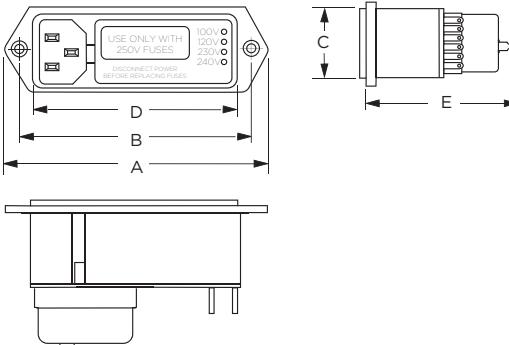
Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
Backplate Terminals: .110 [2.79]  
Mounting holes (2): .155 [3.94] Dia. with .279 [7.08] Dia. x 82° countersink for #6 flathead screw

**5EFM1SC**


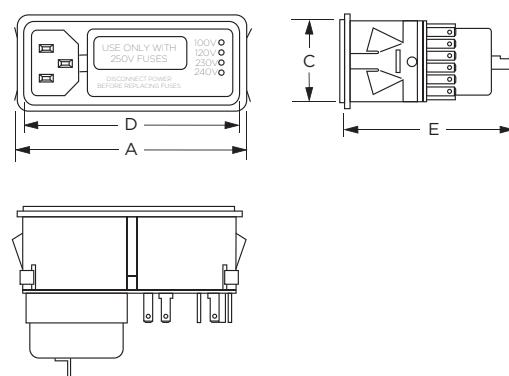
Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
Backplate Terminals: .110 [2.79]

**5EHM4 & 5EFM4**


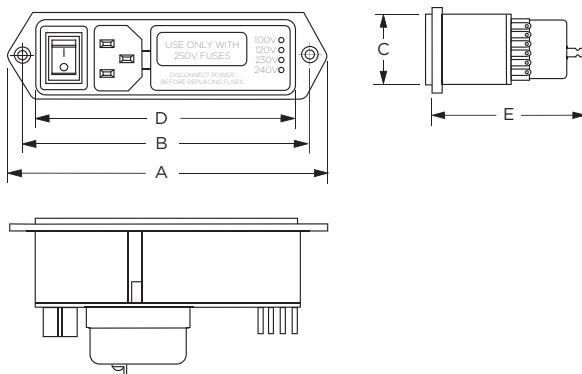
Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
Backplate Terminals: .110 [2.79]  
Mounting holes (2): .155 [3.94] Dia. with .279 [7.08] Dia. x 82° countersink for #6 flathead screw

**5EFM4C**


Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
Backplate Terminals: .110 [2.79]

**5EHM4S & 5EFM4S**


Typical Dimensions:

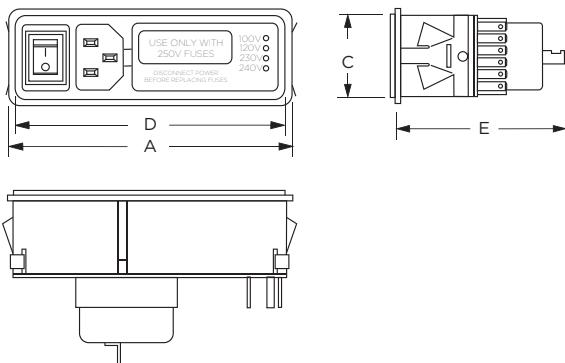
Line Inlet (1): IEC 60320-1 C14  
Backplate Terminals: .110 [2.79]  
Mounting holes (2): .155 [3.94] Dia. with .279 [7.08] Dia. x 82° countersink for #6 flathead screw

### Slim Power Entry Module Family with Multiple Options (continued)

## M Series

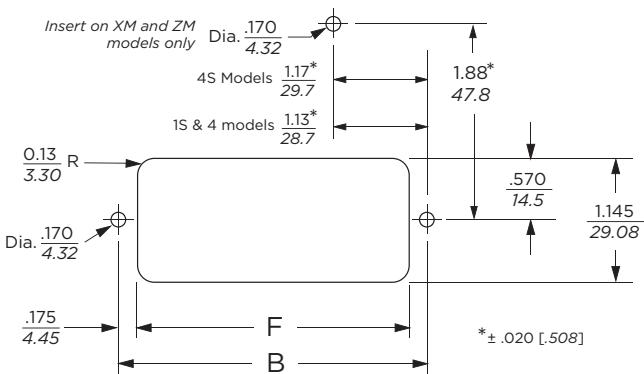
### Case Styles - Filtered Models (continued)

#### 5EFM4SC



Typical Dimensions:  
Line Inlet (1): IEC 60320-1 C14  
Backplate Terminals: .110 [2.79]

### Recommended Panel Cutouts



Note:  
XM and ZM models allow back mount only  
FM and HM models allow front or back mounting  
Mounting holes on flange mount models only  
Snap-In models allow front mounting only  
Snap-In models panel thickness: .06 - .09 [1.53 - 2.29]

### Case Dimensions

Part No.	A (max.)	B (max.)	C (max.)	D $\pm .015$ $\pm .38$	E (max.)	F (ref.)	G (ref.)
6VM1	<b>3.39</b>	<b>2.84</b>	<b>1.14</b>	<b>2.44</b>	<b>1.45</b>	<b>2.5</b>	-
	86.1	72.1	29.0	62.0	36.8	63.5	
6VM1C	<b>2.56</b>	-	<b>1.14</b>	<b>2.44</b>	<b>1.45</b>	<b>2.5</b>	-
	86.1	-	29.0	62.0	36.8	63.2	
6VM1S	<b>4.17</b>	<b>3.62</b>	<b>1.14</b>	<b>3.22</b>	<b>1.45</b>	<b>3.28</b>	-
	105.9	91.9	29.0	81.8	36.8	83.3	
6VM1SC	<b>3.34</b>	-	<b>1.14</b>	<b>3.27</b>	<b>1.45</b>	<b>3.27</b>	-
	84.8	-	29.0	83.1	36.8	83.1	
6VM2	<b>3.88</b>	<b>3.32</b>	<b>1.14</b>	<b>2.92</b>	<b>1.45</b>	<b>2.98</b>	-
6VM4	<b>98.6</b>	<b>84.3</b>	<b>29.0</b>	<b>74.2</b>	<b>36.8</b>	<b>75.7</b>	
6VM4C	<b>3.04</b>	-	<b>1.14</b>	<b>2.92</b>	<b>1.45</b>	<b>2.97</b>	-
	98.6	-	29.0	74.2	36.8	75.4	
6VM2S	<b>4.65</b>	<b>4.1</b>	<b>1.14</b>	<b>3.72</b>	<b>1.45</b>	<b>3.76</b>	-
6VM4S	<b>118.1</b>	<b>104.1</b>	<b>29.0</b>	<b>94.5</b>	<b>36.8</b>	<b>95.5</b>	
6VM4SC	<b>3.82</b>	-	<b>1.14</b>	<b>3.7</b>	<b>1.45</b>	<b>3.75</b>	-
	97.0	-	29.0	94.0	36.8	95.3	
3EXM1S	<b>4.17</b>	<b>3.62</b>	<b>1.14</b>	<b>3.22</b>	<b>1.72</b>	<b>3.28</b>	<b>3.3</b>
3EZM1S	<b>105.9</b>	<b>91.9</b>	<b>29.0</b>	<b>81.8</b>	<b>43.7</b>	<b>83.8</b>	<b>83.8</b>
3EXM4	<b>3.88</b>	<b>3.32</b>	<b>1.14</b>	<b>2.92</b>	<b>1.72</b>	<b>2.98</b>	<b>2.99</b>
3EZM4	<b>98.6</b>	<b>84.3</b>	<b>29.0</b>	<b>74.2</b>	<b>43.7</b>	<b>75.7</b>	<b>75.9</b>
3EXM4S	<b>4.65</b>	<b>4.1</b>	<b>1.14</b>	<b>3.72</b>	<b>1.72</b>	<b>3.76</b>	<b>3.8</b>
3EZM4S	<b>118.1</b>	<b>104.1</b>	<b>29.0</b>	<b>94.5</b>	<b>43.7</b>	<b>95.5</b>	<b>96.5</b>
5EHM1	<b>3.39</b>	<b>2.84</b>	<b>1.14</b>	<b>2.44</b>	<b>2.19</b>	<b>2.5</b>	-
5EFM1	<b>86.1</b>	<b>72.1</b>	<b>29.0</b>	<b>62.0</b>	<b>55.6</b>	<b>63.5</b>	
5EFM1C	<b>2.56</b>	-	<b>1.14</b>	<b>2.44</b>	<b>2.19</b>	<b>2.49</b>	-
	65.0	-	29.0	62.0	55.6	63.2	
5EHM1S	<b>4.17</b>	<b>3.62</b>	<b>1.14</b>	<b>3.22</b>	<b>2.19</b>	<b>3.28</b>	-
5EFM1S	<b>105.9</b>	<b>91.9</b>	<b>29.0</b>	<b>81.8</b>	<b>55.6</b>	<b>83.3</b>	
5EFM1SC	<b>3.34</b>	-	<b>1.14</b>	<b>3.27</b>	<b>2.19</b>	<b>3.27</b>	-
	84.8	-	29.0	83.1	55.6	83.1	
5EHM4	<b>3.88</b>	<b>3.32</b>	<b>1.14</b>	<b>2.92</b>	<b>2.19</b>	<b>2.98</b>	-
5EFM4	<b>98.6</b>	<b>84.3</b>	<b>29.0</b>	<b>74.2</b>	<b>55.6</b>	<b>75.7</b>	
5EFM4C	<b>3.04</b>	-	<b>1.14</b>	<b>2.92</b>	<b>2.19</b>	<b>2.97</b>	-
	77.2	-	29.0	74.2	55.6	74.4	
5EHM4S	<b>4.65</b>	<b>4.1</b>	<b>1.14</b>	<b>3.7</b>	<b>2.19</b>	<b>3.76</b>	-
5EFM4S	<b>118.1</b>	<b>104.1</b>	<b>29.0</b>	<b>94.0</b>	<b>55.6</b>	<b>95.5</b>	
5EFM4SC	<b>3.82</b>	-	<b>1.14</b>	<b>3.7</b>	<b>2.19</b>	<b>3.75</b>	-
	97.0	-	29.0	94.0	55.6	95.3	

**Slim Power Entry Module Family with Multiple Options (continued)**

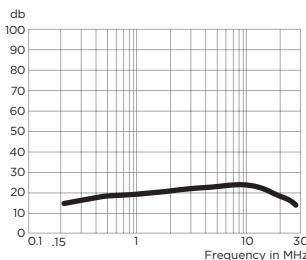
# M Series

## Performance Data

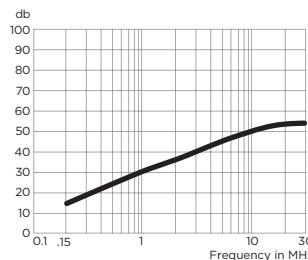
### Typical Insertion Loss

Measured in closed 50 Ohm system

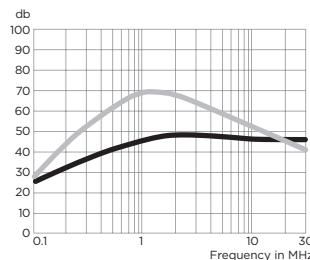
**5EHM**



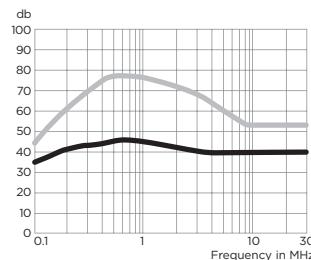
**5EFM**



**3EXM**



**3EZM**



— 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)

Part No.	Frequency – MHz								
	.01	.05	.15	.5	1	5	10	30	
5EHM Models	-	-	14	18	19	22	22	17	
5EFM Models	-	-	14	21	26	40	45	40	
3EXM Models	2	13	23	40	46	44	44	44	
3EZM Models	15	29	39	46	43	40	40	40	

#### Differential Mode / Symmetrical (Line to Line)

Part No.	Frequency – MHz										
	.02	.03	.05	.07	.15	.5	1	5	10	30	
3EXM Models	-	-	-	-	5	34	62	68	60	50	40
3EZM Models	5	13	28	37	55	75	75	62	54	44	

## Versatile Power Entry Module with Small Footprint

# P Series



**UL Recognized**  
**CSA Certified**  
**VDE Approved**



## P Series

The P series CHAMELEON power entry module offers the most popular features in a small footprint design

As the first 10A module to provide all five power entry functions in one compact design, the chameleon module readily adapts to its environment and the needs of international markets.

- Snap-in or flange mounting
- Standard IEC 60321-1 C14 power inlet
- Both North American and metric fusing capabilities
- Two voltage selection options (for 4-voltage selection, see the M, L or LA Series)
- Optional DPST on/off switch
- Filter options for general purpose, medical and high-performance EMI filtering

The CHAMELEON module's compact design and modular construction allows selection of the required power entry feature — without altering the panel cutout. And the CHAMELEON module, with its optional adapters, will fit several common panel cutouts.

## Filter Types

The CHAMELEON module has four filter and one non-filtered option:

**S models** provide an extended performance two element circuit EMI filter, with attenuation similar to the EEB Series power inlet filter. It offers protection for general purpose applications with stray Line to Ground and Line to Line noise that must be attenuated at the power inlet. These filters have limited leakage current and are available in current ratings of 3, 6 and 10A.

**H models** provide susceptibility protection with minimal leakage current, and are suitable for patient care and non-patient care medical equipment.

**L models** feature a high performance medical filter designed to help bring most digital equipment (including switching power supplies) into compliance with EN55022, Level B (as well as FCC part 15J, Class B) conducted emissions limits. They are available with current ratings of 6 and 10A. These high performance versions are only available with mounting ears, single voltage selection, in a complete RFI shield with options for switch, fuses and current ratings. Mounting extenders are not compatible with the L or Z models.

**Z models** provide a high performance three element differential mode circuit filter, with extended EMI attenuation similar to the M Series Z models, to help bring most digital equipment (including switching power supplies) into compliance with EN55022, Level B (as well as FCC Part 15J, Class B) conducted emissions limits. They are available with current ratings of 6 and 10A. These high performance versions are only available with mounting ears, single voltage selection, in a complete RFI shield with options for switch, fuses and current ratings. Mounting extenders are not compatible with the L or Z models. For minimum depth behind the panel, see the M Series

**B models** are non-filtered and incorporate an interconnection block. The block connects the voltage selection terminals of an unfiltered CHAMELEON module with an IEC connector and an optional switch to reduce external wiring. Compatible with the A or B RFI shield options.

## Versatile Power Entry Module with Small Footprint (continued)

# P Series

### Ordering Information

Part numbers are constructed by selecting the alphanumeric character which represents the desired feature.  
**Note:** For any option where shown as "O" use the digit ZERO (0) not the letter (O).

	Mounting Style	Extender Options <sup>1</sup>	Switch Options*	Voltage Select <sup>2</sup>	Fuse Options	Filter Type	Filter Current	Shield Options <sup>1</sup>
<b>P</b>	<b>S</b>	<b>J</b>	<b>O</b>	<b>X</b>	<b>S</b>	<b>S</b>	<b>6</b>	<b>0</b>

**Mounting Style**  
E = Mounting ears (Horizontal axis)  
S = Snap-in  
M = Mounting ears (Vertical axis)

**Switch Option**  
O = Blank  
S = Double pole single throw (DPST)

**Fuse Options**  
D = Dual fuse  
S = Single fuse

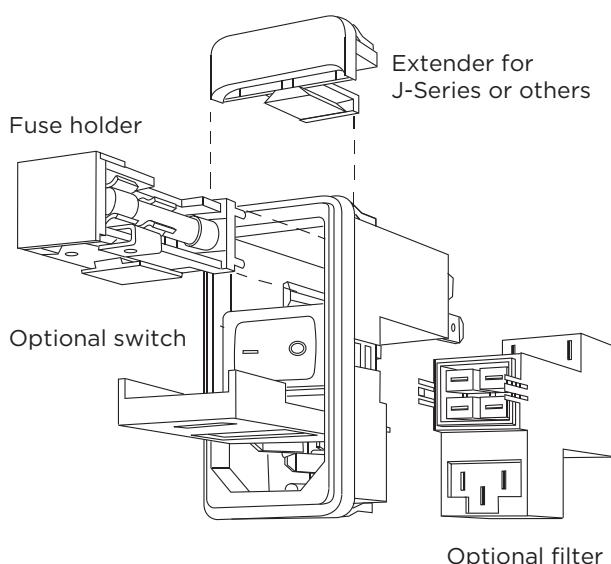
**Filter Current**  
0 = No filter  
3 = 3A  
6 = 6A  
X = 10A

**Extender Option**  
O = None  
C = FN260  
J = J Series  
L = L Series<sup>1</sup>

**Input Voltage Select**  
O = Single voltage  
S = Dual voltage<sup>2</sup> select (SMPS)  
X = Dual voltage<sup>2</sup> select (series/parallel)

**Filter Type**  
O = No filter  
B = Interconnection block<sup>3</sup>  
H = Medical Filter  
L = High Performance  
S = General purpose  
Z = High Performance

**Shield Options**  
O = No shield  
A = Filter shield  
B = Complete Shield  
C = Complete can Medical<sup>4</sup>  
(for L & Z models)



### Notes:

- 1 L Series extender cannot be added to units with a shield. No style of extender can be added to units with B or C shields.
  - 2 Dual voltage options are not available with L or Z Filter Types
  - 3 When using the interconnection block, the last 3 digits of the part number are BX (O, A, or B)
  - 4 High performance versions (L or Z filter types) are available with any switch or fuse option but only in 6 or 10A with horizontal (PE) or vertical (PM) mounting ears, single voltage (O), complete shield (C) and no extenders
- \* For alternative switch orientation options, please contact technical support or your Corcom product sales representative

The part number **PSOSXSS6B** would represent:

P Series (P) with a snap-in mount (S) with no extender (O) a switch (S) dual voltage select (X) single fusing (S) general purpose filter (S) for 6A (6) with a B shield (B)

## Versatile Power Entry Module with Small Footprint (continued)

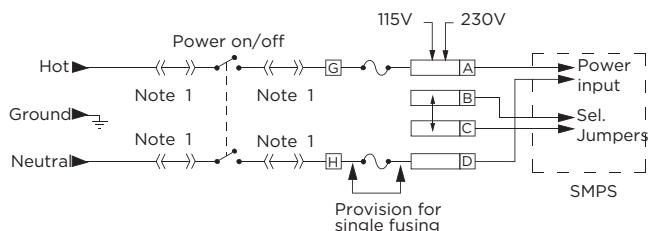
# P Series

### Voltage Selection

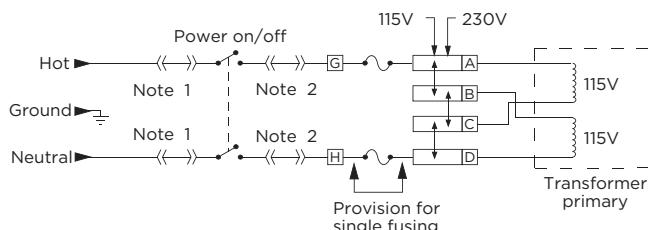
P series power entry modules include the voltage selector integral with the fuse holder. Three voltage selection options are each supported by one of three different fuse holders. The fifth digit of the part number specifies which of the three fuse holders is included to provide the desired voltage selection. The single voltage fuse holder (option "O") has no voltage indication markings. The dual voltage options select 115V or 230V by removing the fuse holder, flipping it over, and reinstalling it. Voltage selection is indicated through a window in the P Series door. The "SMPS" fuse holder (option "S") jumpers two independent P Series terminals to indicate 230V operation to a switching mode power supply. The "PRSR" parallel/serial fuse holder (option "X") connects the windings of the equipment's dual primary transformer (not included) to step down the voltage or double up the current. The markings on the voltage selection fuse holders also remind the user to install the appropriate fuse for the current at the selected voltage.

### Input Voltage Selection Schemes

#### S - "SPMS" Jumper Type



#### X - "PRSR" Parallel / Serial Type for Dual Primary Transformer



Note 1: Additional jumper wiring is required if a filter or interconnection module is not used.

Note 2: Location of optional filter. Additional jumper wiring is required if a filter or interconnection block is not used.

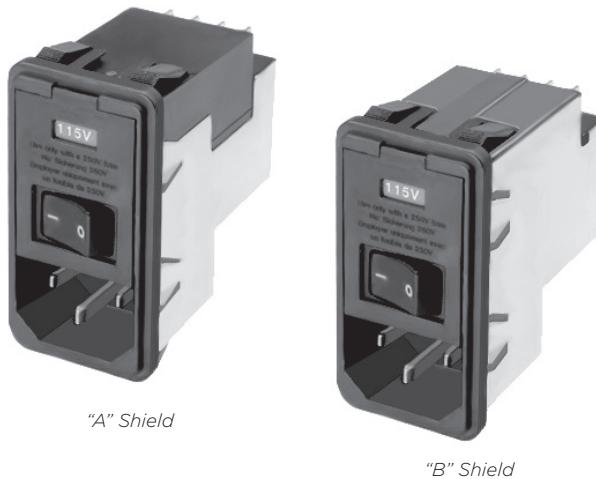
### Shield Options

The P series offers several RF shield options. The metal shield, optional on S, H and B filtered models, provides shielding from radiated emissions and provides an RF ground for the filter to the panel. This shield is available in two versions; a shield of the filter components (designated by an A as the final digit) and a complete shield (designated by B as the final digit).

The A shield covers the filter portion of the module and increases performance of the filter by protecting the components from RFI coupling. This shield allows the use of the C or J extender.

The B shield covers the entire power entry module with metal, protecting the filter from RFI coupling, and covering the mounting cut-out to block RFI entering or leaving the equipment. The B shield cannot be used with any extender.

A complete metal enclosure is integral to both the high performance L and Z models, and must be specified by a C in the part number's final digit. This option is only available with the L or Z models.

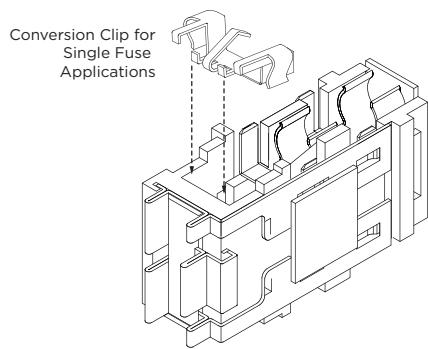


## Versatile Power Entry Module with Small Footprint (continued)

# P Series

### Fuseholder

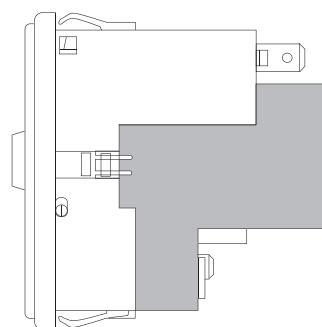
Another feature of the P series power entry module is the versatile fusing arrangement. The fuse holder can hold two 1/4" x 1-1/4" (3AG) or 5 x 20mm (metric) fuses. Single fusing is supported with a conversion clip that shorts one of the two fuse positions, and is designated by an S in the sixth part number digit. A module designated for a single fuse may be reconfigured by the manufacturer or the user to accept two fuses by simply removing the shorting clip. For applications intended for dual fusing, specify a D in the sixth part number digit.



### Interconnection Block

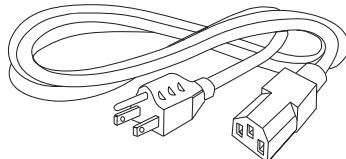
Installation of the unfiltered versions of the P series requires wiring of the IEC socket terminals to the optional switch and the switch to the fuse holder. Labor can be eliminated by ordering the module with an interconnection block. This feature, designated by "BX" in the seventh and eighth digits, pre wires the module so that only connection to the equipment must be done during installation. The interconnection block includes a plastic case to prevent access to the internal connections.

**The dimensions of this alternative are the same as the filtered versions.**



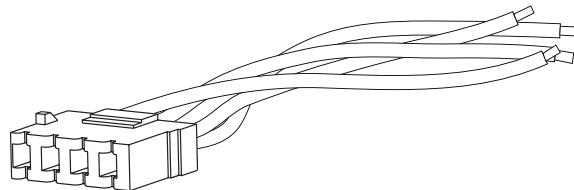
### Accessories

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



**PA100:** Power interconnect assembly

For voltage select models. Designed for use with either filtered or non-filtered units, 6" wire leads



**PA101:** Plug only

**PA102:** Pins only for use with PA101

**PA105:** Same as PA100 but with two wires for units with no voltage selection

**PA400:** J Extender

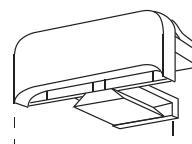
Extends P Series height to fit J panel cutout

**PA410:** L Extender

Extends P Series width to fit L panel cutout

**PA420:** C Extender

Extends P Series height to fit C panel cutout



PA400  
J Series Extender

*C & L Extenders can not be used with B Shields.*

*L Extender can not be used with shields*

## Versatile Power Entry Module with Small Footprint (continued)

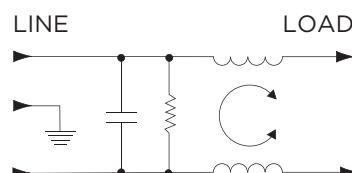
# P Series

### Specifications

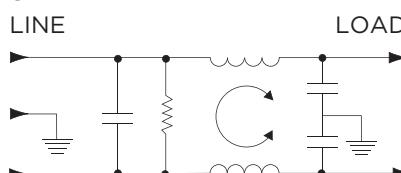
Maximum leakage current each Line to Ground:		
	H & L Models	S & Z Models
@ 120 VAC 60 Hz:	2 $\mu$ A	.25 mA
@ 250 VAC 50 Hz:	5 $\mu$ A	.50 mA
<b>Hipot rating (one minute):</b>		
Line to Ground:		2250 VDC
Line to Line:		1450 VDC
<b>Rated Voltage(max.):</b>		250VAC
<b>Operating Voltages:</b>		115/230 VAC
Selectable or Fixed		
<b>Operating Frequency:</b>		50/60 Hz
<b>Rated Current:</b>		Non-Filtered - 10A
		Filtered - 3, 6 or 10A
<b>Fuseholder:</b>	Accepts one or two fuses .25 x 1.25"(not included) or 5 x 20mm (not included)	
<b>Switch:</b>	DPST 10,000 operations at 51A max. inrush	

### Electrical Schematics

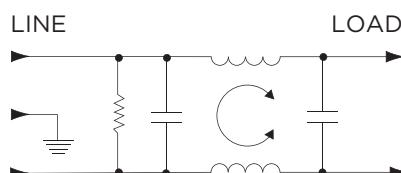
#### H Model



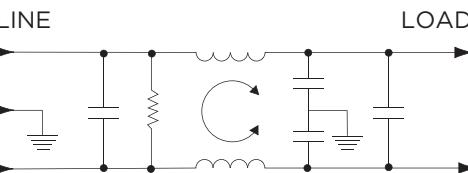
#### S Model



#### L Model

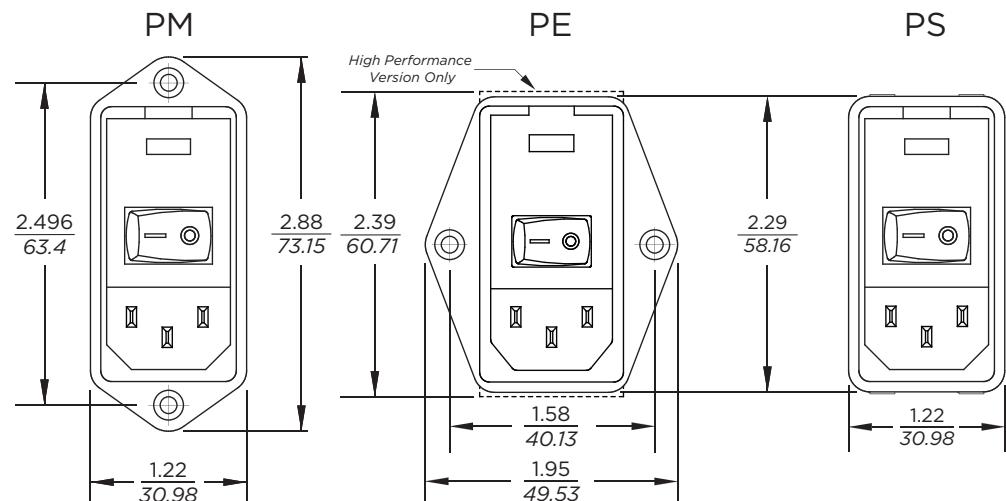


#### Z Model



### Case Styles

#### Front View



Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14  
Mounting holes (2): .135 [3.43] Dia. with .23 [5.9] Dia. x 82° countersink for #4 flathead screw (PM, PE only)

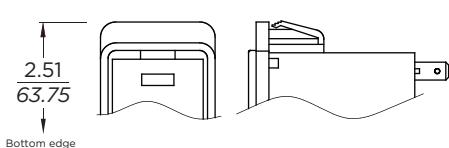
## Versatile Power Entry Module with Small Footprint (continued)

# P Series

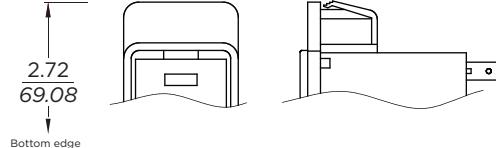
### Case Styles (continued)

#### Extender Options

C Extender - FN260

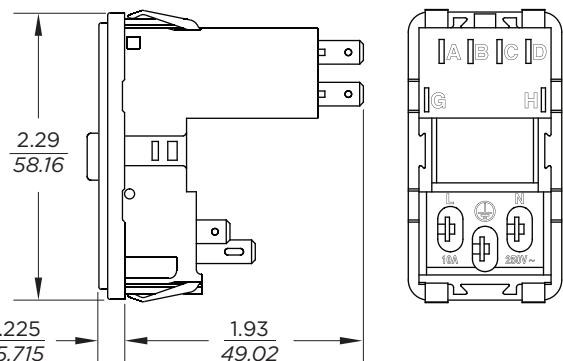


J Extender - J Series

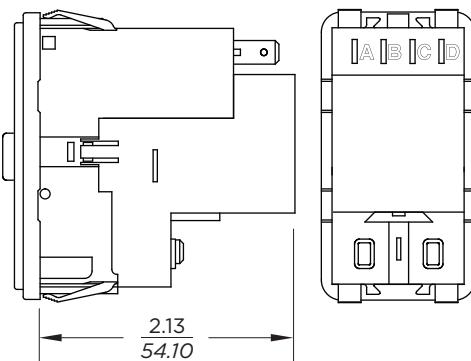


#### Standard Models - Side and Rear View

Non-Filtered



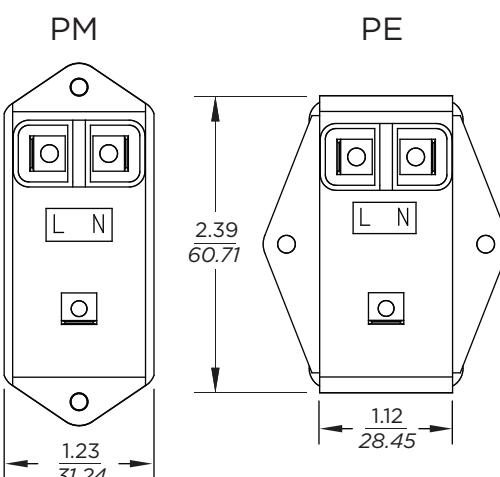
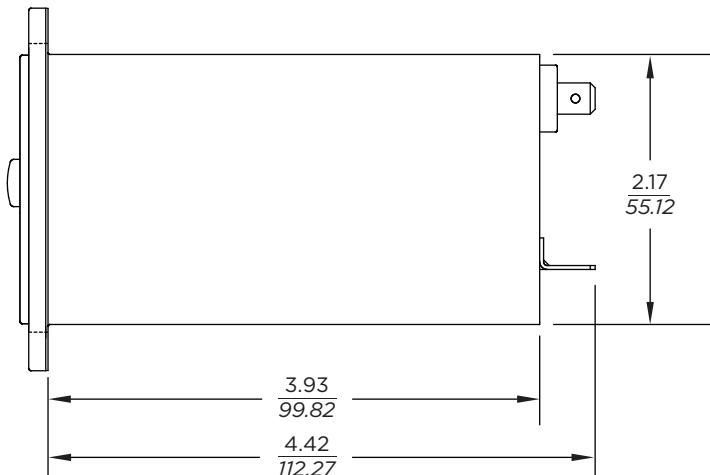
Filtered



#### Typical Dimensions:

Terminals: .187 [4.8] with .055 [1.4] Dia. hole. Recommended for use with mating connectors - no solder  
 Ground Terminal (1): .187 [4.8] with .112 x .06 [2.8 x 1.5] slot. Recommended for use with mating connectors - no solder

#### High Performance Models - Side and Rear View



#### Typical Dimensions:

Terminals: .250 [6.4] with .07 [1.8] Dia. hole. Recommended for use with mating connectors - no solder  
 Ground Terminal (1): .250 [6.4] with .16 x .07 [4.1 x 1.8] slot. Recommended for use with mating connectors - no solder

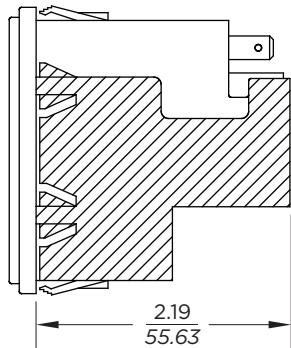
## Versatile Power Entry Module with Small Footprint (continued)

# P Series

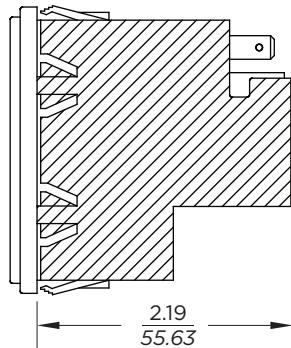
### Case Styles (continued)

#### Shield Options

"A" Shield

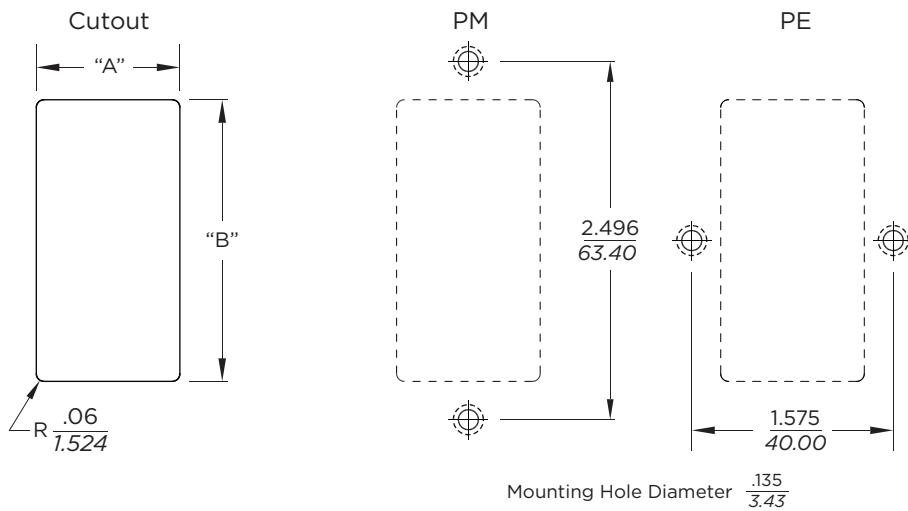


"B" Shield



Note: Shields can only be used with filtered models. B shield may not be used with J or C extender

#### Recommended Panel Cutout



Note: For snap-in applications, the "A" sides must have a .020 [.508] radius on the installation side.

Dimensions are for front mount applications. Rear mount dimensions should be determined based on customer's application parameters. Snap-in models allow for front mounting only. Not recommended for use in plastic panels.

Style	Dimension "A"			Dimension "B"	
	No Shield	Shielded	High Performance	Standard	High Performance
PM	1.06 [26.92]	1.12 [28.45]	1.12 [28.45]	2.13 [54.10]	2.201 [55.91]
PE	1.12 [28.45]	1.12 [28.45]	1.15 [29.21]	2.201 [55.91]*	2.201 [55.91]
PS	1.06 [26.92]	1.12 [28.45]	-	2.201 [55.91]*	-
PSC	1.06 [26.92]	1.12 [28.45]	-	2.52 [64.01]	-
PSJ	1.06 [26.92]	1.12 [28.45]	-	2.60 [66.04]	-
PSL	1.12 [28.45]	-	-	2.201 [55.91]*	-

\*For panel thickness of 0.031 - 0.079 [0.787 - 2.01] only. Use 2.213 [56.21] for panel thickness of 0.083 - 0.114 [2.0 - 2.90]

**Versatile Power Entry Module with Small Footprint (continued)**

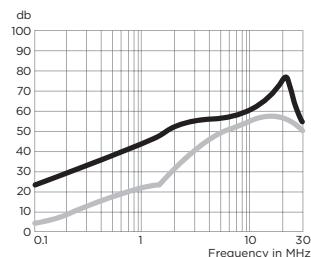
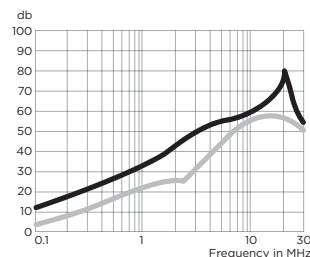
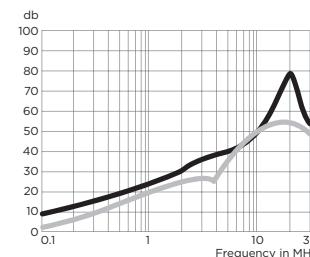
# P Series

## Performance Data

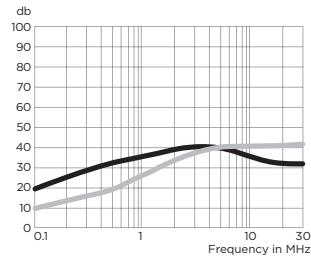
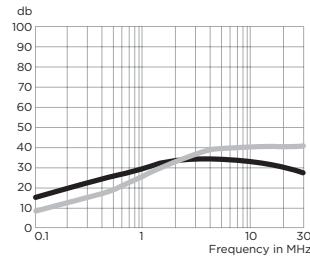
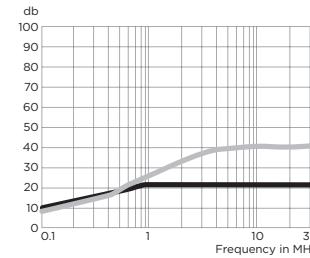
### Typical Insertion Loss

Measured in closed 50 Ohm system

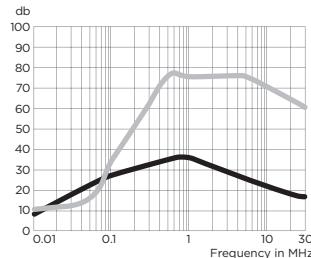
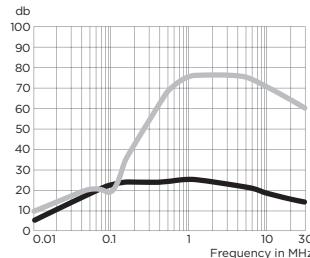
#### S Models

**3A**

**6A**

**10A**


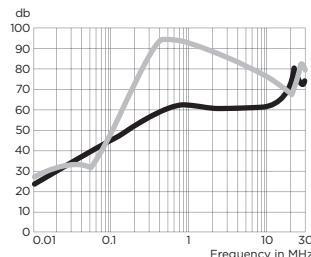
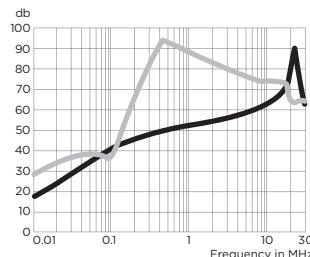
#### H Models

**3A**

**6A**

**10A**


#### L Models

**6A**

**10A**


#### Z Models

**6A**

**10A**


Dimensions are in inches and millimeters unless otherwise specified. Values in italics are metric equivalents. Dimensions are shown for reference purposes only. Specifications subject to change.

For email, phone or live chat, please go to  
[te.com/help](http://te.com/help)  
[corcom.com](http://corcom.com)



## Versatile Power Entry Module with Small Footprint (continued)

# P Series

### Minimum Insertion Loss

Measured in closed 50 Ohm system

#### Common Mode / Asymmetrical (Line to Ground)

Current Rating	Frequency – MHz								
	.03	.1	.15	.5	1	3	5	10	30
<b>S Models</b>									
3A	7	17	21	27	33	40	44	50	32
6A	-	8	12	17	23	32	36	44	30
10A	-	3	5	10	13	23	27	35	27
<b>H Models</b>									
3A	7	17	21	27	30	29	26	23	15
6A	-	8	11	15	17	19	18	16	13
10A	3	5	8	10	12	11	11	10	10

Current Rating	Frequency – MHz								
	.01	.05	.1	.15	.5	1	5	10	30
<b>L Models</b>									
6A	8	21	27	29	34	35	25	21	16
10A	5	17	22	23	24	25	21	18	14
<b>Z Models</b>									
6A	8	21	27	30	37	43	49	52	42
10A	5	17	22	24	27	32	52	47	40

#### Differential Mode / Symmetrical (Line to Line)

Current Rating	Frequency – MHz								
	.10	.15	.5	1	3	5	10	30	
<b>S Models</b>									
3A	2	4	12	15	30	48	50	45	
6A	2	4	12	15	22	42	55	45	
10A	2	4	12	15	22	42	55	45	
<b>H Models</b>									
3A	2	4	12	18	31	40	48	41	
6A	2	4	12	16	26	35	40	35	
10A	2	4	12	16	26	33	40	32	
<b>L Models</b>									
6A	10	15	34	44	75	75	75	70	60
10A	10	20	20	35	67	75	75	70	60
<b>Z Models</b>									
6A	10	15	34	44	75	75	75	70	60
10A	10	20	20	35	67	75	75	70	60

## Power Inlet Connectors

# SR Series



**UL Recognized**  
**CSA Certified**  
**VDE Approved\***



## SR Series

- Full Line of popular AC receptacles
- Male and female power line connectors
- Snap-in and flange mount versions
- IEC60320-1 C-13 & C14 inlets rated up to 15A
- IEC60320-1 C-19 & C-20 inlets rated up to 20A

## Ordering Information

6 E SR M - P

**Rear Connector Styles**  
2 - .187 [4.8] spade terminals  
3 - .250 [6.3] spade terminals  
P - PC board pins  
Fits .063 [1.6] hole

**Mounting Style**  
C - Snap-In  
- Flange

**Front Connector Styles**  
M - Male

15A = IEC 60320-1 C-14  
20A = IEC 60320-1 C-20

F - Female

15A = IEC 60320-1 C-13

**SR Series**

**Leakage current designation**

E - Low Leakage (<0.5 mA)

**Current Rating Indicator**

6 = 15A max.\*

20 = 20A max.\*

\*15A versions are VDE approved at 10A, 250VAC max.  
20A versions are VDE approved at 16A, 250VAC max.

## Specifications

**Rated Voltage (max.):** 250 VAC

**Materials:**

**Insulator:** Thermoplastic UL 94V-0 flame rating

**Prongs:** Solid brass, nickel plated

**Terminals:** Brass, tin plated

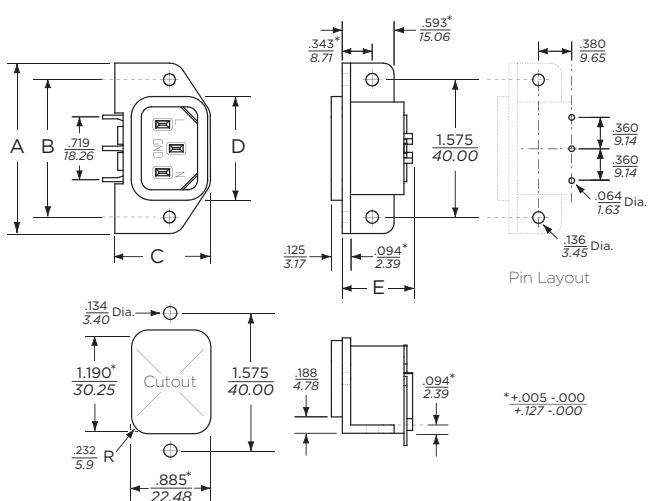
**Temperature Rating:** For "cold" connections, 65°C

## Available Part Numbers

Type	Male Connector	Female Connector
PC Pins	6ESRM-P	
Snap-In	6ESRMC2	6ESRFC3
Flange Mount	6ESRM-3	6ESRF-3
Snap-In	20ESRMC2	
Flange Mount	20ESRM-3	

## Case Styles

### 6ESRM-P

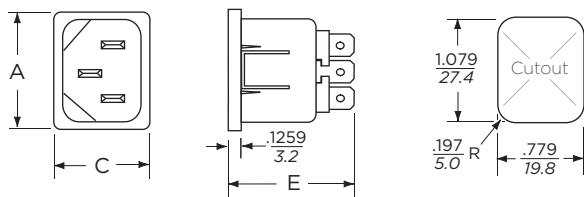


## Power Inlet Connectors (continued)

# SR Series

## Case Styles (continued)

### 6ESRMC2

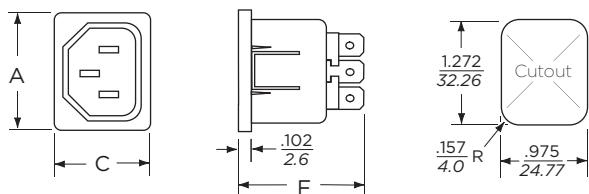


#### Typical Dimensions:

Front Connector:  
Rear Terminals:

IEC 60320-1 C14  
.187 [4.8] with .07 [1.8] Dia. hole

### 6ESRFC3

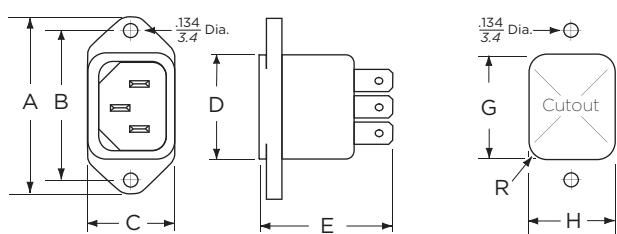


#### Typical Dimensions:

Front Connector:  
Rear Terminals:

IEC 60320-1 C13  
.25 [6.3] with .07 [1.8] Dia. hole

### 6ESRM-3



#### Cutout Dimensions:

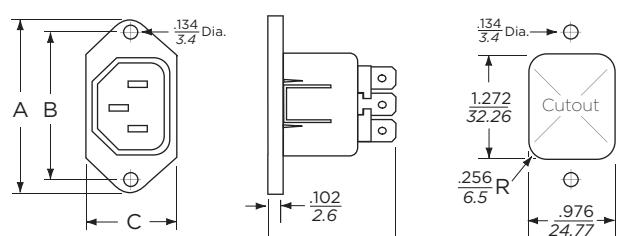
	Rear Mount	Front Mount
G:	1.19 [30.23]	1.079 [27.4]
H:	0.894 [22.7]	0.779 [19.8]
R:	0.232 [5.9]	0.197 [5.0]

#### Typical Dimensions:

Front Connector:  
Rear Terminals:

IEC 60320-1 C14  
.25 [6.3] with .07 [1.8] Dia. hole

### 6ESRF-3

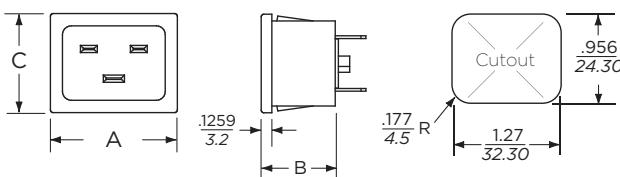


#### Typical Dimensions:

Front Connector:  
Rear Terminals:

IEC 60320-1 C13  
.25 [6.3] with .07 [1.8] Dia. hole

### 20ESRMC2

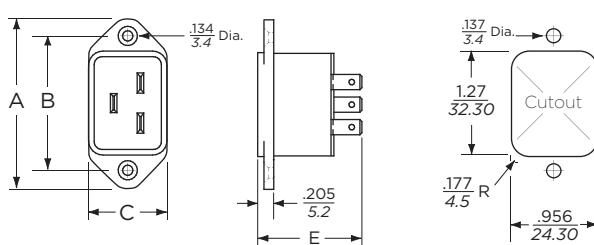


#### Typical Dimensions:

Front Connector:  
Rear Terminals:

IEC 60320-1 C20  
.25 [6.3] with .07 [1.8] Dia. hole

### 20ESRM-3



#### Typical Dimensions:

Front Connector:  
Rear Terminals:

IEC 60320-1 C20  
.25 [6.3] with .07 [1.8] Dia. hole

## Case Dimensions

Part No.	A (max.)	B <i>.017-.006</i> <i>.43 -.15</i>	C (max.)	D (max.)	E (max.)
6ESRM-P	<b>1.96</b> 49.8	<b>1.575</b> 40.0	<b>1.094</b> 27.8	<b>1.118</b> 28.39	<b>.807</b> 20.5
6ESRMC2	<b>1.182</b> 30.00		<b>.885</b> 22.5		<b>1.192</b> 30.3
6ESRFC3	<b>1.39</b> 35.5		<b>1.09</b> 27.8		<b>1.496</b> 38.0
6ESRM-3	<b>1.96</b> 49.8	<b>1.575</b> 40.0	<b>.885</b> 22.5	<b>1.19</b> 30.23	<b>1.275</b> 32.4
6ESRF-3	<b>1.953</b> 49.6	<b>1.575</b> 40.0	<b>1.133</b> 28.8		<b>1.496</b> 38.0
20ESRMC2	<b>1.377</b> 35.0	<b>.921</b> 23.4	<b>1.06</b> 27.0		
20ESRM-3	<b>2.087</b> 53.0	<b>1.653</b> 42.0	<b>.999</b> 25.4		<b>1.318</b> 33.5

## Minimum Depth, Cost-effective Shielded Power Inlet Filter

# SRB Series



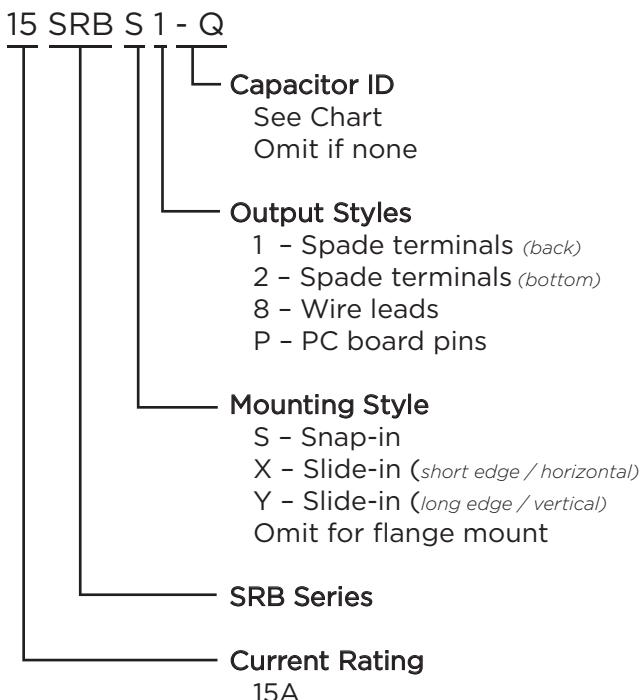
**UL Recognized**  
**CSA Certified**  
**VDE Approved\***



## SRB Series

- Smallest depth Corcom RFI filter available
- Complete shield
- Wide range of capacitor values
- Attenuates coupled EMI up to 300MHz
- Minimal to low leakage current versions are suitable for patient and non-patient contact medical equipment.
- Full range of mounting and termination options including unique vertical and horizontal orientation slide in mounts eliminate the need for mounting hardware

## 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	@250 VAC 50 Hz
Blank / None	2 µA	5 µA
Q / 33 pF	2.1 µA	3.65 µA
R / 100 pF	9.6 µA	16.6 µA
S / 220 pF	19.2 µA	33.2 µA
T / 330 pF	24.0 µA	41.5 µA
W / 470 pF	0.04 mA	0.07 mA
X / 1000 pF	0.07 mA	0.13 mA
Y / 2200 pF	0.16 mA	0.28 mA
Z / 3300 pF	0.24 mA	0.42 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:

15A\*

### Operating Ambient Temperature Range

(at rated current  $I_r$ ):  $-10^\circ\text{C}$  to  $+40^\circ\text{C}$   
In an ambient temperature ( $T_a$ ) higher than  $+40^\circ\text{C}$  the maximum operating current ( $I_o$ ) is calculated as follows:  $I_o = I_r \sqrt{(85-T_a)/45}$

## Capacitor Options

Capacitor ID	Capacitor Value
Q	33 pF
R	100 pF
S	220 pF
T	330 pF
W	470 pF
X	1000 pF
Y*	2200 pF
Z*	3300 pF

\*Not available in SRB8, SRBX or SRBY styles

## Minimum Depth, Cost-effective Shielded Power Inlet Filter (continued)

# SRB Series

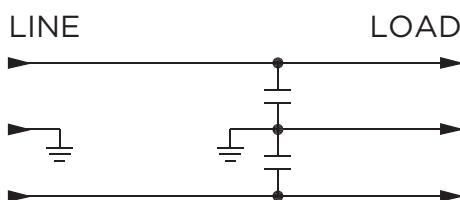
## Available Part Numbers

Flange Mount			
15SRB1	15SRB2	15SRBP	15SRB8
15SRB1-Q	15SRB2-Q	15SRBP-Q	15SRB8-Q
15SRB1-R	15SRB2-R	15SRBP-R	15SRB8-R
15SRB1-S	15SRB2-S	15SRBP-S	15SRB8-S
15SRB1-T	15SRB2-T	15SRBP-T	15SRB8-T
15SRB1-W	15SRB2-W	15SRBP-W	15SRB8-W
15SRB1-X	15SRB2-X	15SRBP-X	15SRB8-X
15SRB1-Y	15SRB2-Y	15SRBP-Y	
15SRB1-Z	15SRB2-Z	15SRBP-Z	

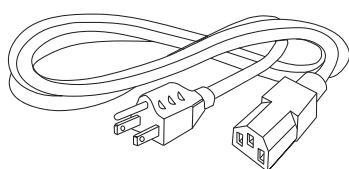
Snap-In	Slide-In
15SRBS1	15SRBS8
15SRBS1-Q	15SRBS8-Q
15SRBS1-R	15SRBS8-R
15SRBS1-S	15SRBS8-S
15SRBS1-T	15SRBS8-T
15SRBS1-W	15SRBS8-W
15SRBS1-X	15SRBS8-X
15SRBS1-Y	
15SRBS1-Z	

## Electrical Schematic



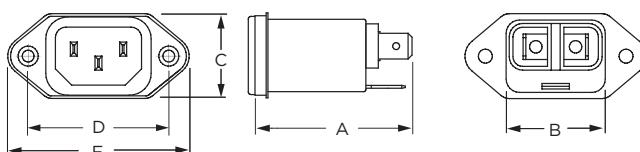
## Accessories

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



## Case Styles

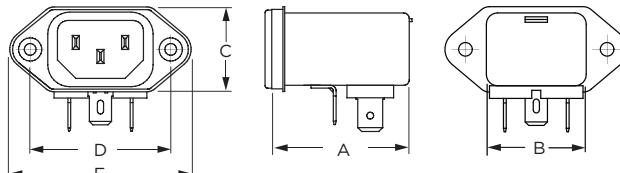
### SRB1



#### 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

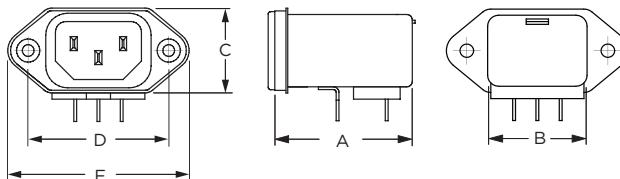
### SRB2



#### 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

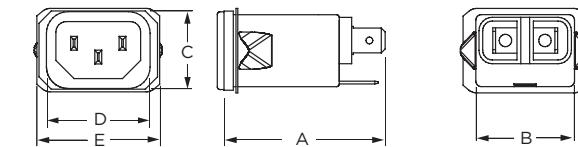
### SRBP



#### 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  
PC board pins (3): .031 [0.7] square, ± .003 [.007]

### SRBS1



#### Typical Dimensions:

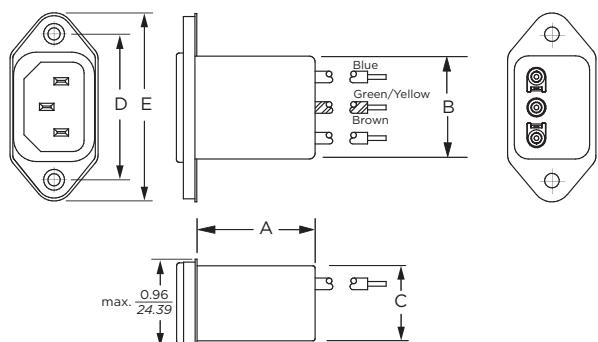
Line Inlet (1): IEC 60320-1 C14  
Load Terminals (2): .250 [6.3] with .07 [1.8] Dia. hole  
Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot

## Minimum Depth, Cost-effective Shielded Power Inlet Filter (continued)

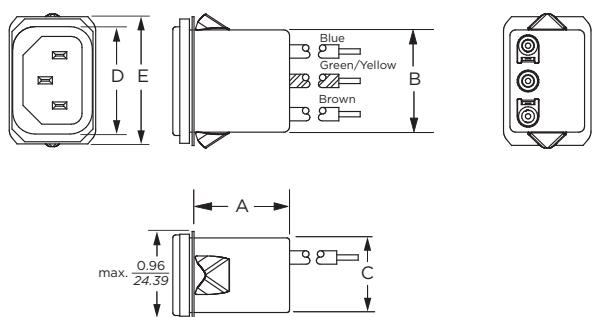
## SRB Series

### Case Styles (continued)

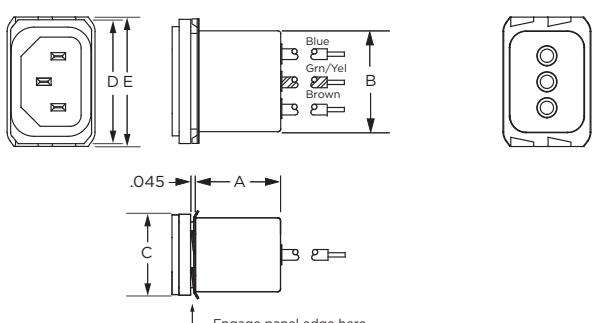
#### SRB8



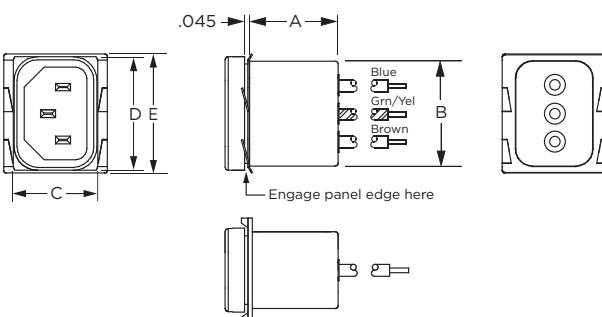
#### SRBS8



#### SRBX8



#### SRBY8



### Case Dimensions

Part No.	A (max.)	B (max.)	C (max.)	D $\pm .015$ [.38]	E (max.)
15SRB1	<b>1.75</b> 44.45	<b>1.13</b> 28.70	<b>0.96</b> 24.38	<b>1.58</b> 40.00	<b>2.04</b> 51.76
15SRB2	<b>1.54</b> 39.12	<b>1.13</b> 28.70	<b>0.96</b> 24.38	<b>1.58</b> 40.00	<b>2.04</b> 51.76
15SRBP	<b>1.54</b> 39.12	<b>1.13</b> 28.70	<b>0.96</b> 24.38	<b>1.58</b> 40.00	<b>2.04</b> 21.76
15SRBS1	<b>1.75</b> 44.45	<b>1.13</b> 28.70	<b>0.96</b> 24.38	<b>1.19</b> 30.10	<b>1.41</b> 35.81
15SRB8	<b>0.95</b> 24.13	<b>1.13</b> 28.70	<b>0.96</b> 24.38	<b>1.58</b> 40.00	<b>2.04</b> 51.76
15SRBS8	<b>.95</b> 24.13	<b>1.13</b> 28.70	<b>0.96</b> 24.38	<b>1.19</b> 30.10	<b>1.41</b> 35.81
15SRBX8	<b>0.95</b> 24.1	<b>1.11</b> 28.2	<b>0.89</b> 22.61	<b>1.35*</b> 34.29*	<b>1.41</b> 35.81
15SRBY8	<b>0.95</b> 24.1	<b>1.11</b> 28.2	<b>0.89</b> 22.61	<b>1.30*</b> 33.02*	<b>1.36</b> 34.54

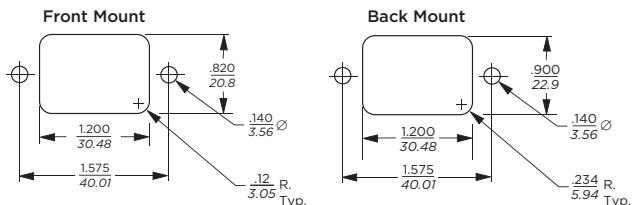
\*max.

## Minimum Depth, Cost-effective Shielded Power Inlet Filter (continued)

## SRB Series

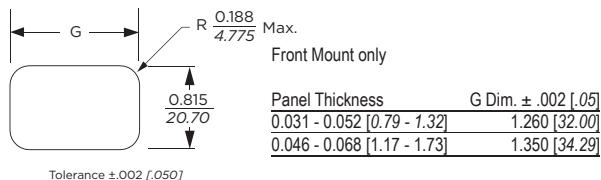
### Recommended Panel Cutouts

#### SRB1, SRB2, SRBP & SRB8

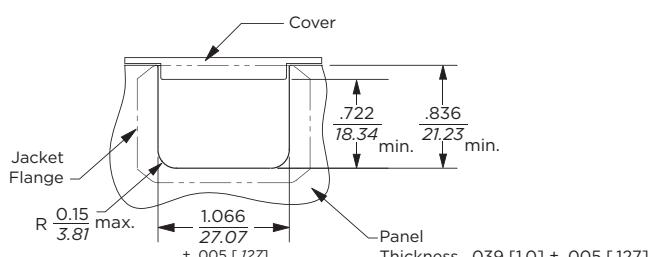


Tolerances  $\pm .005$  [0.13] unless otherwise noted  
 Note 1: SRB1 and SRB8 can be front or back mounted  
 Note 2: SRB2 and SRBP can be back mounted only

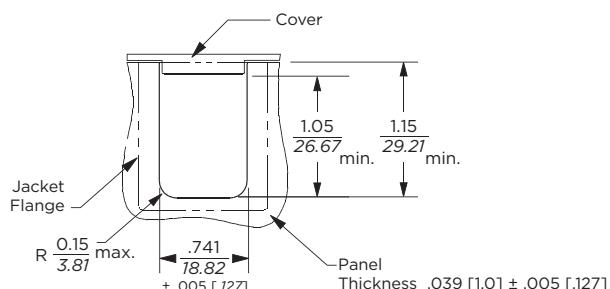
#### SRBS



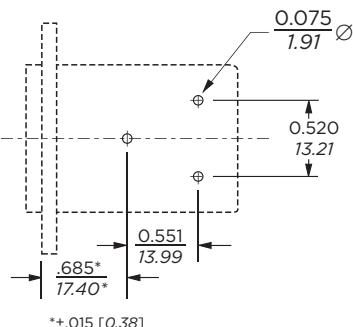
#### SRBX



#### SRBY



### PC Board Layout



SRBX8

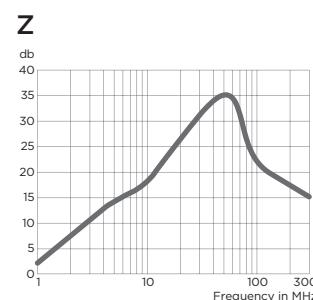
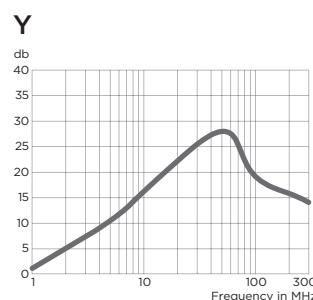
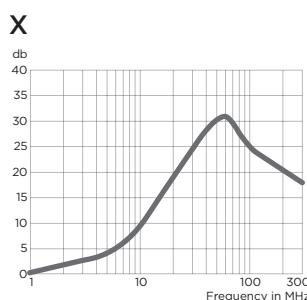
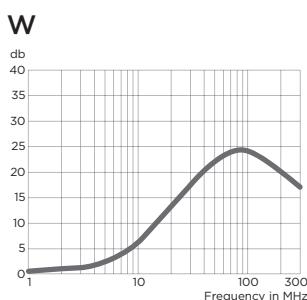
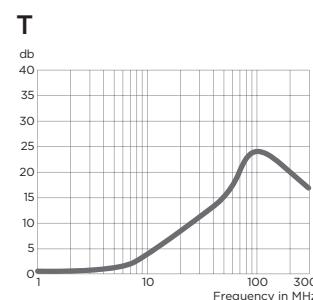
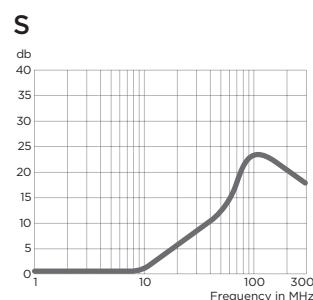
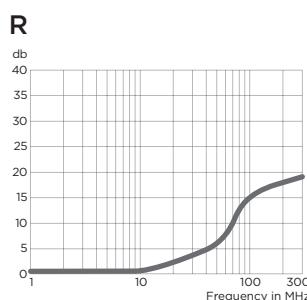
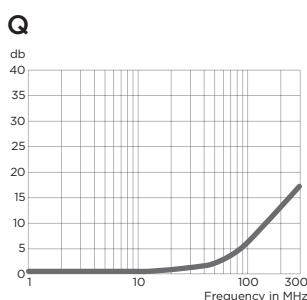
**Minimum Depth, Cost-effective Shielded Power Inlet Filter (continued)**

# SRB Series

## Performance Data

### Typical Insertion Loss

Measured in closed 50 Ohm system



— 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					
	1	5	10	50	100	300
Q	-	-	-	-	-	20
R	-	-	-	3	6	22
S	-	-	1	6	17	19
T	-	-	2	13	13	19
W	-	2	4	18	13	20
X	-	5	9	25	10	17
Y	1	10	15	20	8	22
Z	2	14	18	17	7	15

