1 to 10A



## **High Performance EMI Power Inlet Filter**

# **EC Series**

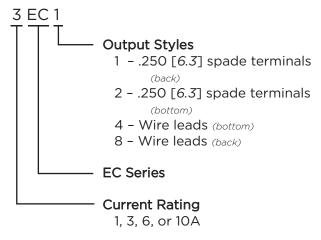


UL Recognized CSA Certified VDE Approved

# **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**





Catalog: 1654001

Issue Date: 06.2011

# **Specifications**

**Rated Current:** 

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

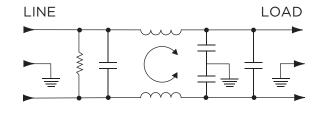
Rated Voltage (max.): 250 VAC

Operating Frequency: 50/60 Hz

**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			



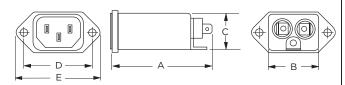
Catalog: 1654001 Issue Date: 06.2011

# **High Performance EMI Power Inlet Filter** (continued)

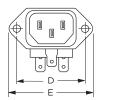
# **EC Series**

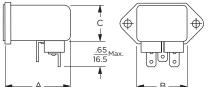
# **Case Styles**

# EC1



## EC2



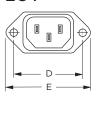


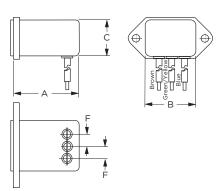
Typical Dimensions:

Line Inlet (1): IEC 60320-1 C14

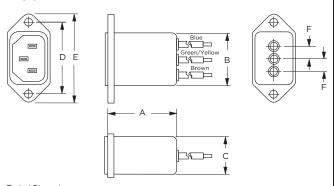
Load Terminals (2): .250 [6.3] with .07 [1.8] Dia. hole Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot

#### EC4





# EC8



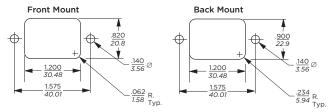
Typical Dimensions: Line Inlet (1):

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

# **Case Dimensions**

Part	Α	В	С	D	Е	F
No.	(max.)	(max.)	(max.)	± .015 ± .38	(max.)	(ref.)
EC1	2.62	1.19	0.81	1.575	1.98	_
	66.5	30.2	20.6	40.01	50.3	
EC2	1.97	1.19	0.85	1.575	1.98	_
	50.0	30.2	21.6	40.01	50.3	
FC4	1.97	1.19	0.85	1.575	1.98	.295
EC4	50.0	30.2	21.6	40.01	50.3	7.5
EC8	1.98	1.19	0.81	1.575	1.98	.298
	50.0	30.2	20.6	40.01	50.3	7.5

# **Recommended Panel Cutouts**

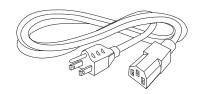


Tolerances ± .005 [0.13] unless otherwise noted

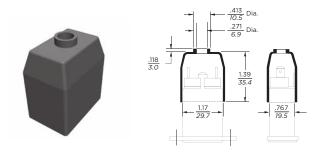
Note 1: EC1 and EC8 allow for front or back mounting Note 2: EC2 and EC4 allow for back mounting only

# **Accessories**

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



FA601: Insulating Shroud



**Power Inlet Filters & Power Entry Modules** 



# Catalog: 1654001 Issue Date: 06.2011

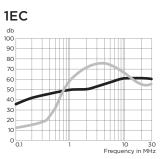
## **High Performance EMI Power Inlet Filter** (continued)

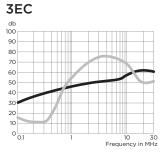
# **EC Series**

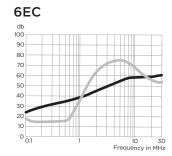
### **Performance Data**

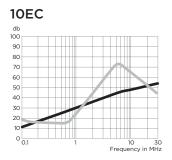
# **Typical Insertion Loss**

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	Frequency – MHz					
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		Frequency - MHz						
Rating	.15	.5	1	5	10	20	30	
EC1, EC2 & E	C8							
1A	5	35	50	60	60	40	40	
3A	5	25	45	60	55	34	34	
6A	10	10	40	65	60	40	40	
10A	10	10	27	65	56	38	38	
EC4								
1A	5	35	50	60	60	33	33	
3A	5	30	45	60	55	34	34	
6A	10	10	40	65	60	33	33	