

# High Performance RFI Power Filter for Switching Power Supplies



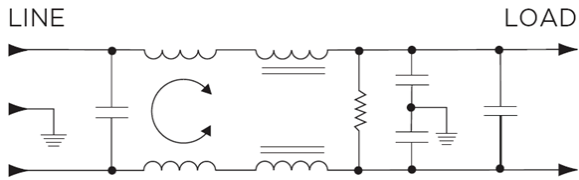
AMI-M12J/M12K/M12L/M12M/M12N Series  
Metal Enclosure Single Phase Two Stage

AMI Designation	Input/output Style			Current Rating	Inductance	Capacitance		Resistor	Leakage Current @ 120 VAC 60Hz/250 VAC 50 Hz	TIL Insertion Loss	Case Style
						Cx	Cy				
Available Part Numbers	6.3mm Spade Terminals	Wire Leads	IEC Socket/Wire Leads	A	mH	nF	pF	KΩ	mA		
						AMI-M12J-1-3-B	1				
AMI-M12J-3-3-B	-	3	-	3	32.18	940	3000	270	0.22/0.38	002	B
AMI-M12M-8-3-B	-	-	8	3	32.18	1010	3000	270	0.22/0.38	002	C
AMI-M12M-8M-3-B	-	-	8M	3	32.18	1010	3000	270	0.22/0.38	002	C
AMI-M12K-1-6-B	1	-	-	6	48.8	1970	4000	165	0.22/0.38	003	A
AMI-M12K-3-6-B	-	3	-	6	48.8	1970	4000	165	0.22/0.38	003	B
AMI-M12N-8-6-B	-	-	8	6	48.8	1970	4000	165	0.22/0.38	003	D
AMI-M12N-8M-6-B	-	-	8M	6	48.8	1970	4000	165	0.22/0.38	003	D
AMI-M12L-1-20-B	1	-	-	20	6.0	4400	2800	73.3	0.22/0.38	005	A
AMI-M12J-1-3-C	1	-	-	3	32.18	940	10000	270	0.73/1.27	001	A
AMI-M12J-3-3-C	-	3	-	3	32.18	940	10000	270	0.73/1.27	001	B
AMI-M12M-8-3-C	-	-	8	3	32.18	940	10000	270	0.73/1.27	001	C
AMI-M12M-8M-3-C	-	-	8M	3	32.18	940	10000	270	0.73/1.27	001	C
AMI-M12L-1-20-C	1	-	-	20	6.0	4400	10000	73.3	0.73/1.27	004	A

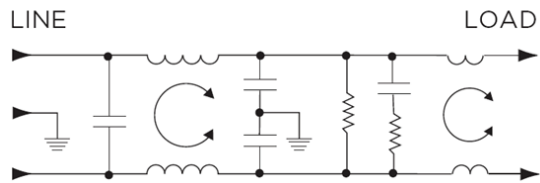
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## Electrical Schematic

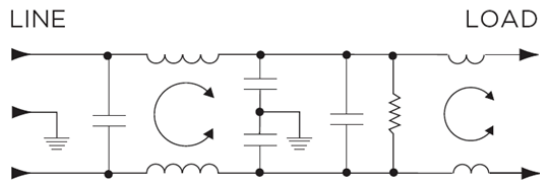
Type 1 AMI-M12J-1/3-3



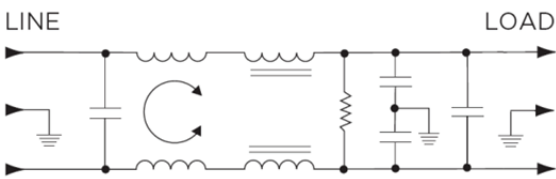
Type 2 AMI-M12K-1/3-6



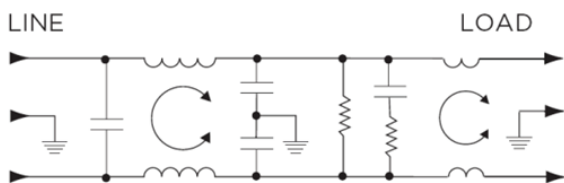
Type 3 AMI-M12L-1-20



Type 4 AMI-M12M-8/8M-3



Type 5 AMI-M12N-8/8M-6



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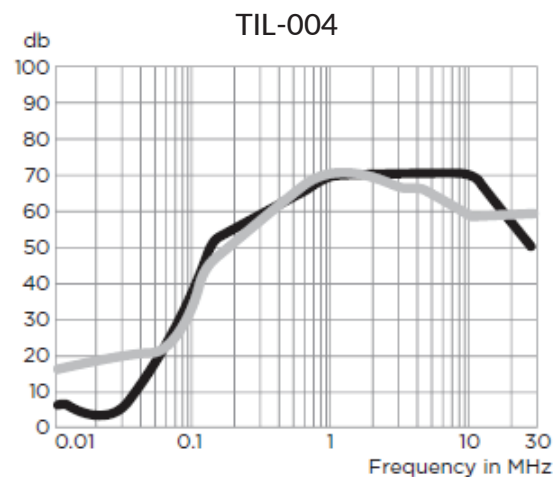
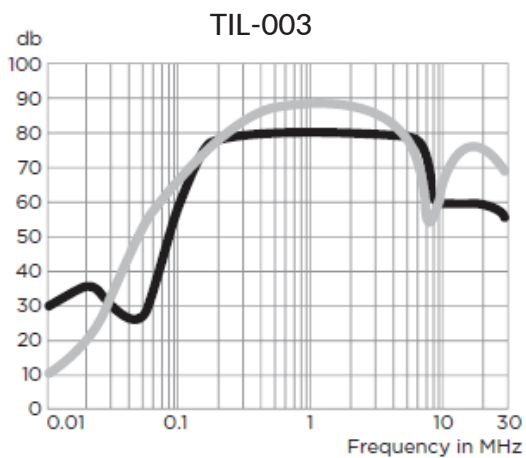
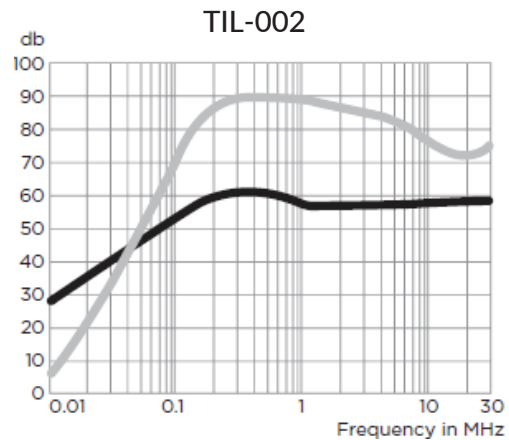
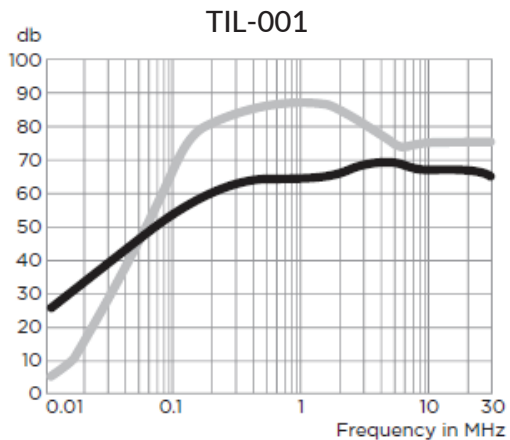
## Specifications:

- Rated Voltage (max): 250 VAC
- Operating Frequency: 50/60 Hz
- Operating Current: 3 to 20 A
- Hi-pot Rating (one minute): Line to Ground: 2250 VDC  
Line to Line: 1450 VDC
- 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:  $I_o = I_r \sqrt{[(85 - T_a)/45]}$

## Performance Data

### Typical Insertion Loss

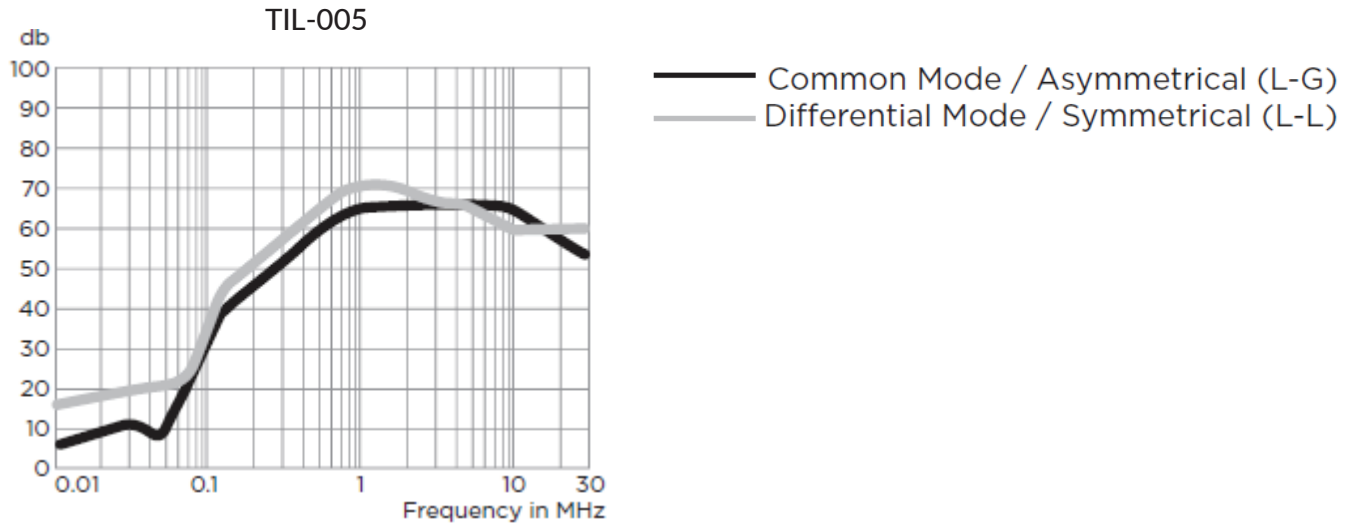
Measured in closed 50 Ohm system



# High Performance RFI Power Filter for Switching Power Supplies

## Performance Data Typical Insertion Loss

Measured in closed 50 Ohm system



## Minimum Insertion Loss

Measured in closed 50 Ohm system

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

Current Rating	Frequency-MHz								
	.01	.02	.05	.15	.5	1	5	10	30
<i>AMI-M12J/K/L/M/N-X-X-B</i>									
3A	22	27	36	47	47	43	45	45	45
6A	26	31	20	38	72	72	65	65	65
20A	6	10	8	39	60	65	65	65	65
<i>AMI-M12J/K/L/M/N-X-X-C</i>									
3A	22	27	37	50	55	55	55	50	55
20A	6	3	17	52	65	70	70	70	70

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## Minimum Insertion Loss

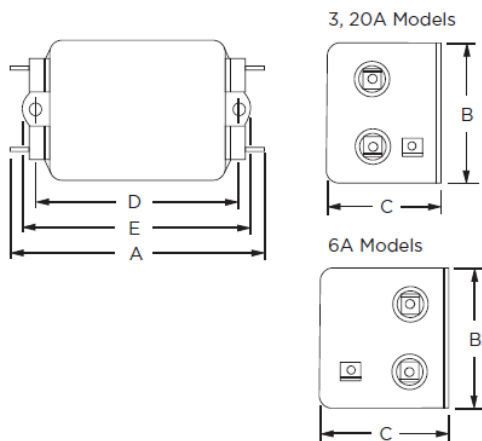
Measured in closed 50 Ohm system

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

Current Rating	Frequency-MHz								
	.01	.02	.05	.15	.5	1	5	10	30
<i>AMI-M12J/K/L/M/N-X-X-B</i>									
3A	1	17	42	65	75	75	65	65	60
6A	6	10	43	70	75	75	65	55	55
20A	15	20	20	46	65	70	65	60	60
<i>AMI-M12J/K/L/M/N-X-X-C</i>									
3A	1	17	42	65	75	75	60	65	65
20A	15	20	20	46	65	70	65	60	60

## Case Styles

### STYLE A



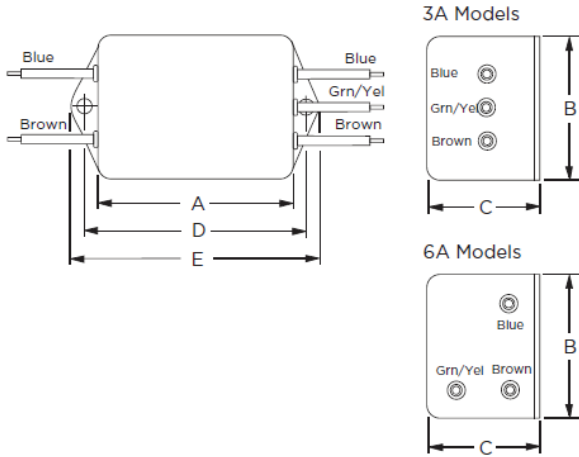
#### Typical Dimensions:

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
Mounting Holes (2):	.188 [4.78] Dia.

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## Case Styles

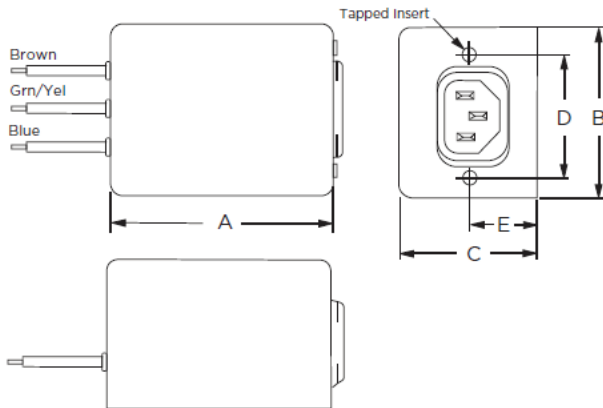
### STYLE B



Typical Dimensions:

Wire Leads (5): 4.0 [101.6] Min., 18AWG  
 Mounting Holes (2): .188 [4.78] Dia.

### STYLE.C



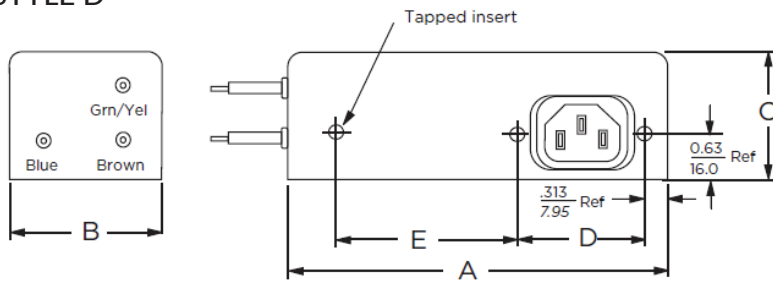
Typical Dimensions:

Wire Leads (3): 6.0 [152.4] Min., 18AWG  
 Line Inlet (1): IEC 60320-1 C14  
 Q8 Tapped Inserts (2): 6-32 x 1/4  
 Q8M Tapped Inserts (2): M3 x .5

# High Performance RFI Power Filter for Switching Power Supplies

## Case Styles

### STYLE D



#### Typical Dimensions:

Wire Leads (3):	6.0 [152.4] Min., 18AWG
Line Inlet (1):	IEC 60320-1 C14
Q8 Tapped Inserts (3):	6-32 x 1/4
Q8M Tapped Inserts (3):	M3 x .5

## Case Dimensions:

Model Number	A max	B max	C max	D $\frac{\pm .15}{\pm .38}$	E max
AMI-M12J-1-3	3.85"/97.8mm	2.07"/52.6mm	1.78"/45.2mm	2.938"/74.6mm	3.34"/84.8mm
AMI-M12J-3-3	2.56"/65.0mm	2.07"/52.6mm	1.78"/45.2mm	2.938"/74.6mm	3.34"/84.8mm
AMI-M12M-8/8M-3	3.07"/78.0mm	2.25"/57.2mm	1.78"/45.2mm	1.575"/40.01mm	0.63"/16.0mm
AMI-M12K-1-6	4.98"/126.5mm	2.27"/57.7mm	1.80"/45.7mm	4.063"/103.2mm	4.47"/113.5mm
AMI-M12K-3-6	3.69"/93.7mm	2.27"/57.7mm	1.80"/45.7mm	4.063"/103.2mm	4.47"/113.5mm
AMI-M12N-8/8M-6	5.47"/138.9mm	2.07"/52.6mm	1.78"/45.2mm	1.575"/40.01mm	2.70"/68.0mm
AMI-M12L-1-20	6.66"/168.1mm	2.07"/52.6mm	2.28"/57.9mm	5.625"/142.9mm	6.03"/153.2mm*