

Cost Effective EMI Power Inlet Filter

AMI-M11AE/AF Series

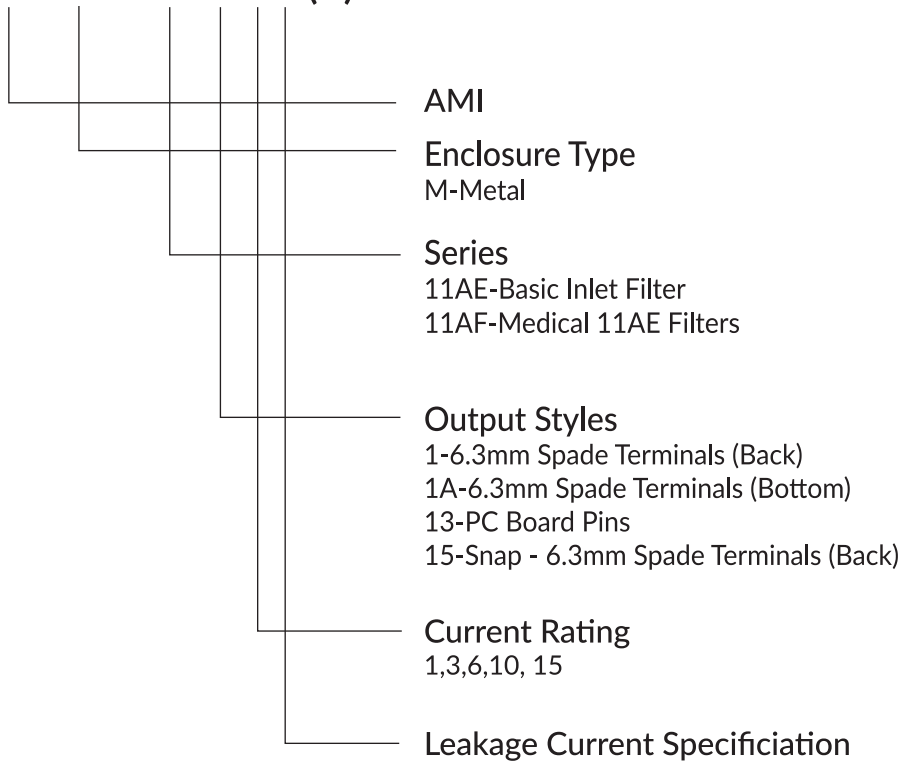
Metal Enclosure Single Phase Single Stage



Product Information

Nomenclature

AMI-M11AE-1-1-B (A)



Cost Effective EMI Power Inlet Filter

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	IEC Socket/ Spade Terminal		IEC Socket/ Pin	A	mH	nF	pF	KΩ	mA		
	Back	Bottom									
AMI-M11AE-1-1-B-1	1	-	-	1	10	9	3000	1500	0.22/0.38	001	A
AMI-M11AE-1-1-B-2	1	-	-	1	10	47	3000	1500	0.22/0.38	005	A
AMI-M11AE-1-3-B-1	1	-	-	3	1.45	9	3000	1500	0.22/0.38	002	A
AMI-M11AE-1-3-B-2	1	-	-	3	1.45	47	3000	1500	0.22/0.38	006	A
AMI-M11AE-1-6-B-1	1	-	-	6	0.465	9	3000	1500	0.22/0.38	003	A
AMI-M11AE-1-6-B-2	1	-	-	6	0.465	47	3000	1500	0.22/0.38	007	A
AMI-M11AE-1-10-B-1	1	-	-	10	0.35	9	3000	1500	0.22/0.38	004	A
AMI-M11AE-1-10-B-2	1	-	-	10	0.35	47	3000	1500	0.22/0.38	008	A
AMI-M11AE-1-15-B-1	1	-	-	15	0.13	9	3000	1500	0.22/0.38	-	A
AMI-M11AE-1-15-B-2	1	-	-	15	0.13	47	3000	1500	0.22/0.38	-	A
AMI-M11AE-1A-1-B-1	-	1A	-	1	10	9	3000	1500	0.22/0.38	001	B
AMI-M11AE-1A-1-B-2	-	1A	-	1	10	47	3000	1500	0.22/0.38	005	B
AMI-M11AE-1A-3-B-1	-	1A	-	3	1.45	9	3000	1500	0.22/0.38	002	B
AMI-M11AE-1A-3-B-2	-	1A	-	3	1.45	47	3000	1500	0.22/0.38	006	B
AMI-M11AE-1A-6-B-1	-	1A	-	6	0.465	9	3000	1500	0.22/0.38	003	B
AMI-M11AE-1A-6-B-2	-	1A	-	6	0.465	47	3000	1500	0.22/0.38	007	B

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Available Part Numbers	IEC Socket/ Spade Terminal		IEC Socket/ Pin	A	mH	nF	pF	KΩ	mA		
	Back	Bottom									
AMI-M11AE-1A-10-B-1	-	1A	-	10	0.35	9	3000	1500	0.22/0.38	004	B
AMI-M11AE-1A-10-B-2	-	1A	-	10	0.35	47	3000	1500	0.22/0.38	008	B
AMI-M11AE-13-1-B-1	-	-	-	1	10	9	3000	1500	0.22/0.38	001	C
AMI-M11AE-13-1-B-2	-	-	13	1	10	47	3000	3300	0.22/0.38	005	C
AMI-M11AE-13-3-B-1	-	-	13	3	1.45	9	3000	1500	0.22/0.38	002	C
AMI-M11AE-13-3-B-2	-	-	13	3	1.45	47	3000	3300	0.22/0.38	006	C
AMI-M11AE-13-6-B-1	-	-	13	6	0.465	9	3000	1500	0.22/0.38	003	C
AMI-M11AE-13-6-B-1	-	-	13	6	0.465	47	3000	3300	0.22/0.38	007	C
AMI-M11AE-13-10-B-1	-	-	13	10	0.35	9	3000	1500	0.22/0.38	004	C
AMI-M11AE-13-10-B-2	-	-	13	10	0.35	47	3000	3300	0.22/0.38	008	C

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AMI Designation	Input/output Style			Current Rating	Inductance mH	Capacitance		Resistor	Leakage Current @ 120 VAC 60Hz/250 VAC 50 Hz	TIL Insertion Loss	Case Style
						Cx	Cy				
Available Part Numbers	IEC Socket/ Spade Terminal		IEC Socket/ Pin	A	mH	nF	KΩ	mA			
	Back	Bottom									
AMI-M11AE-1S-1-B-1	1	-	-	1	10	9	3000	1500	0.22/0.38	001	D
AMI-M11AE-1S-1-B-2	1	-	-	1	10	47	3000	1500	0.22/0.38	005	D
AMI-M11AE-1S-3-B-1	1	-	-	3	1.45	9	3000	1500	0.22/0.38	002	D
AMI-M11AE-1S-3-B-2	1	-	-	3	1.45	47	3000	1500	0.22/0.38	006	D
AMI-M11AE-1S-6-B-1	1	-	-	6	0.465	9	3000	1500	0.22/0.38	003	D
AMI-M11AE-1S-6-B-2	1	-	-	6	0.465	47	3000	1500	0.22/0.38	007	D
AMI-M11AE-1S-10-B-1	1	-	-	10	0.35	9	3000	1500	0.22/0.38	004	D
AMI-M11AE-1S-10-B-2	1	-	-	10	0.35	47	3000	1500	0.22/0.38	008	D
AMI-M11AE-1S-15-B-1	1	-	-	15	0.13	9	3000	1500	0.22/0.38	-	D
AMI-M11AE-1S-15-B-2	1	-	-	15	0.13	47	3000	1500	0.22/0.38	-	D

*N-Snap-In Models

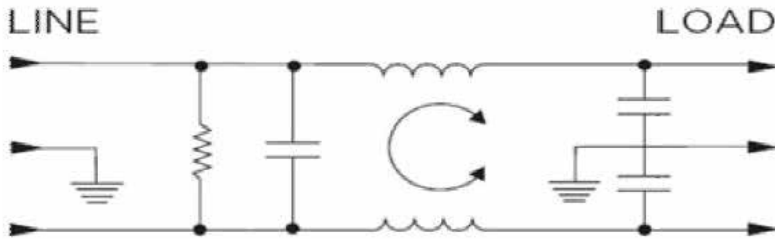
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AMI Designation	Input/output Style			Current Rating	Inductance mH	Capacitance		Resistor	Leakage Current @ 120 VAC 60Hz/250 VAC 50 Hz	TIL Insertion Loss	Case Style
						Cx	Cy				
Available Part Numbers	IEC Socket/ Spade Terminal		IEC Socket/ Pin	A	mH	nF	KΩ	μA			
	Back	Bottom									
AMI-M11AF-1-1-A-1	1	-	-	1	10	9	0	1500	2μA/5μA	001	A
AMI-M11AF-1-1-A-2	1	-	-	1	10	47	0	1500	2μA/5μA	005	A
AMI-M11AF-1-3-A-1	1	-	-	3	1.45	9	0	1500	2μA/5μA	002	A
AMI-M11AF-1-3-A-2	1	-	-	3	1.45	47	0	1500	2μA/5μA	006	A
AMI-M11AF-1-6-A-1	1	-	-	6	0.465	9	0	1500	2μA/5μA	003	A
AMI-M11AF-1-6-A-2	1	-	-	6	0.465	47	0	1500	2μA/5μA	007	A
AMI-M11AF-1-10-A-1	1	-	-	10	0.35	9	0	1500	2μA/5μA	004	A
AMI-M11AF-1-10-A-2	1	-	-	10	0.35	47	0	1500	2μA/5μA	008	A
AMI-M11AF-1-15-A-1	1	-	-	15	0.13	9	0	1500	2μA/5μA	-	A
AMI-M11AF-1-15-A-2	1	-	-	15	0.13	47	0	1500	2μA/5μA	-	A

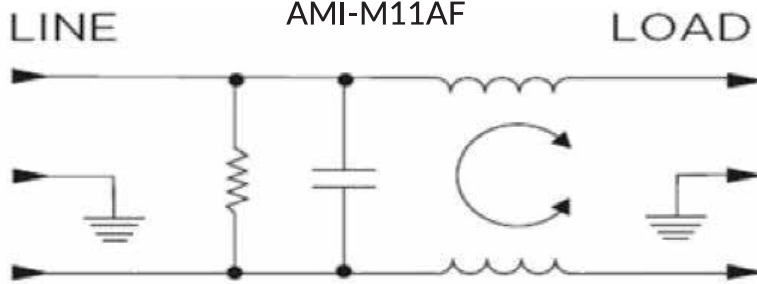
Cost Effective EMI Power Inlet Filter

Electrical Schematic

AMI-M11AE



AMI-M11AF



Specifications:

- Rated Voltage (max): 250 VAC
- Operating Frequency: 50/60 Hz
- Operating Current: 1 to 15A
- 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 $+40^{\circ}\text{C}$. In an ambient temperature (T_a) higher than $+40^{\circ}\text{C}$ the maximum operating current (I_o) is calculated as follows: $I_o = I_r \sqrt{[(85 - T_a)/45]}$

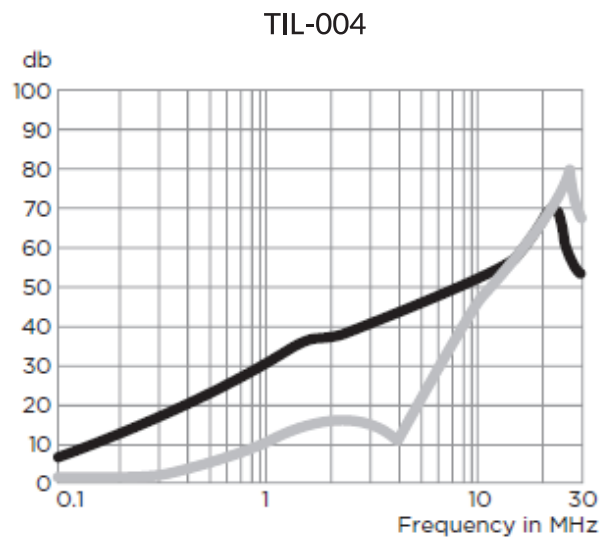
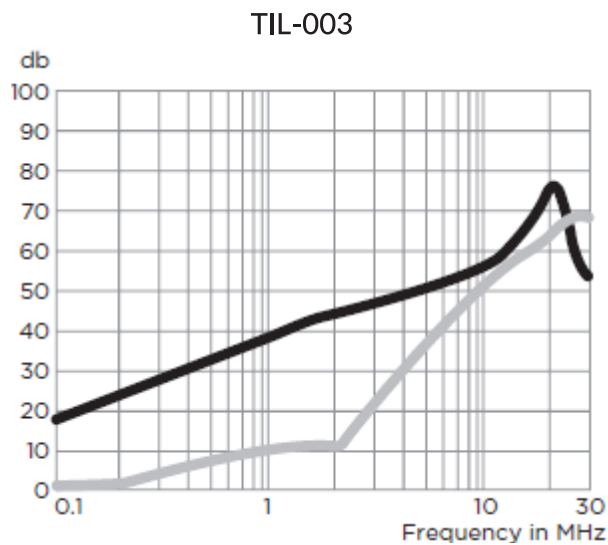
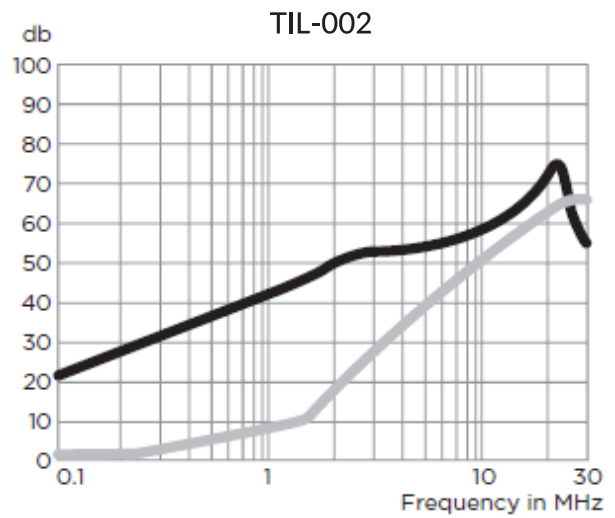
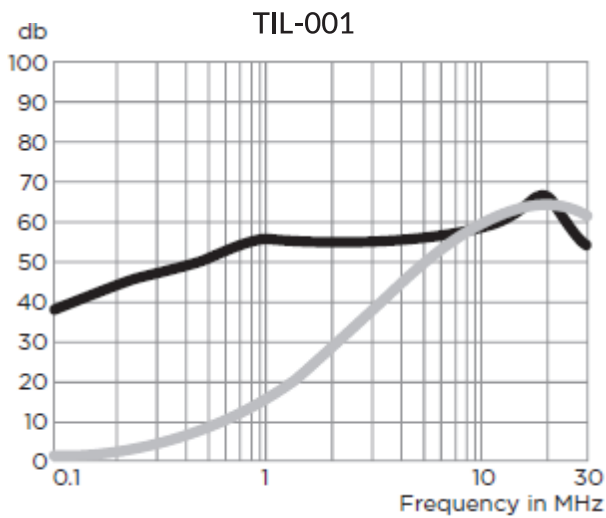
Cost Effective EMI Power Inlet Filter

Performance Data Typical Insertion Loss

Measured in closed 50 Ohm system

AMI-M11AE Models

AMI-M11AE-X-X-B-1
(1, 1A, 13, 15) J
(1, 3, 6, 10) A



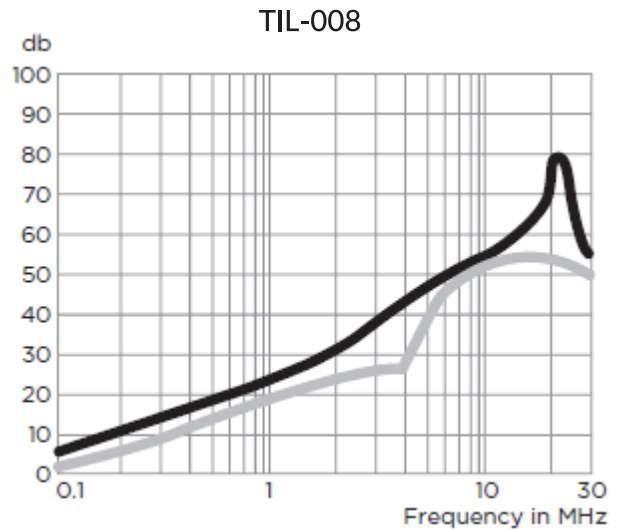
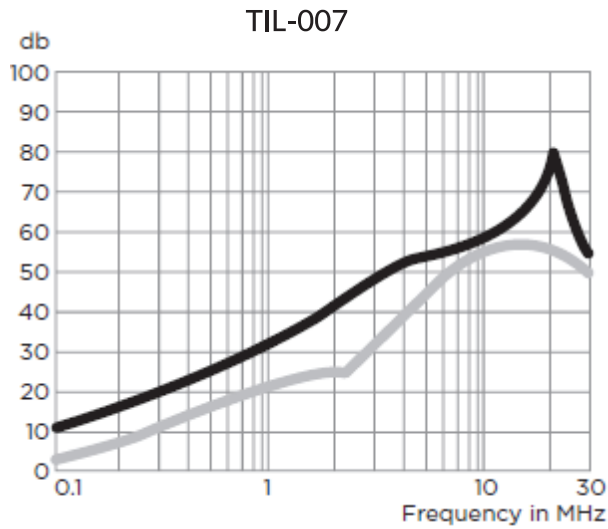
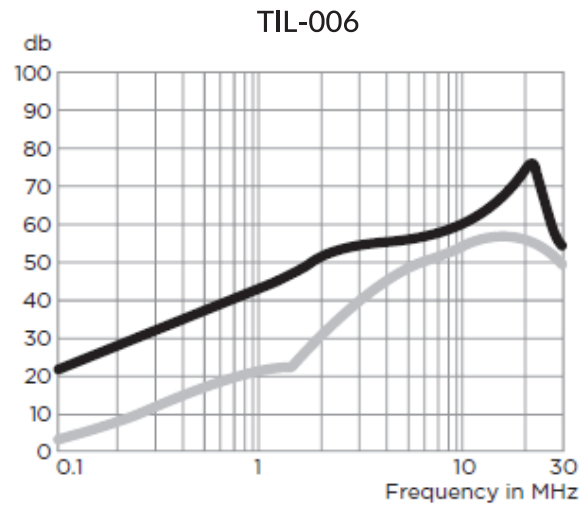
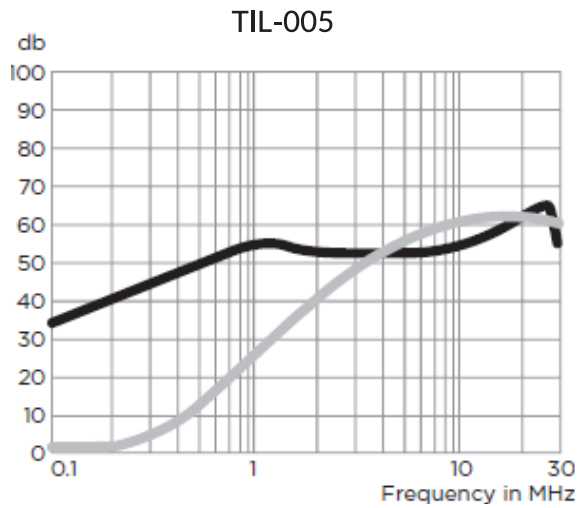
Cost Effective EMI Power Inlet Filter

Performance Data Typical Insertion Loss

Measured in closed 50 Ohm system

AMI-M11AE Models

AMI-M11AE-X-X-B-2
(1, 1A, 13, 15) J
(1, 3, 6, 10) A



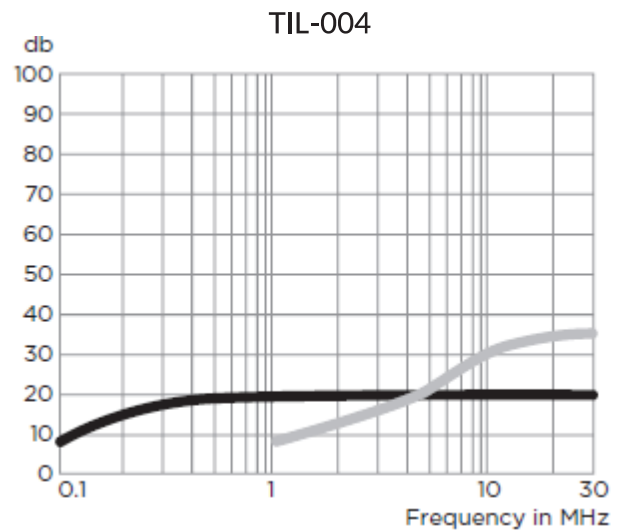
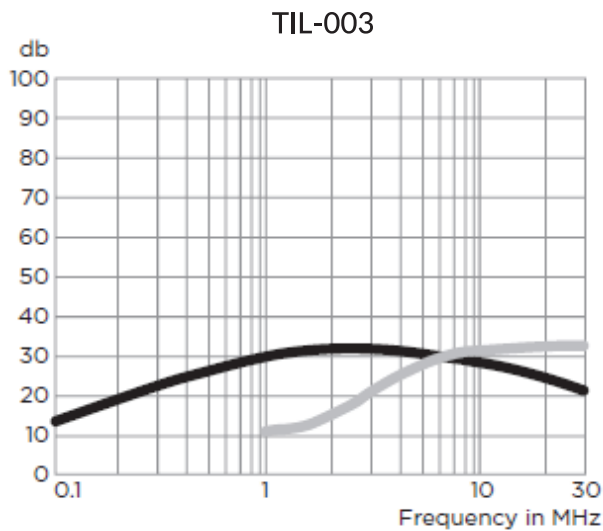
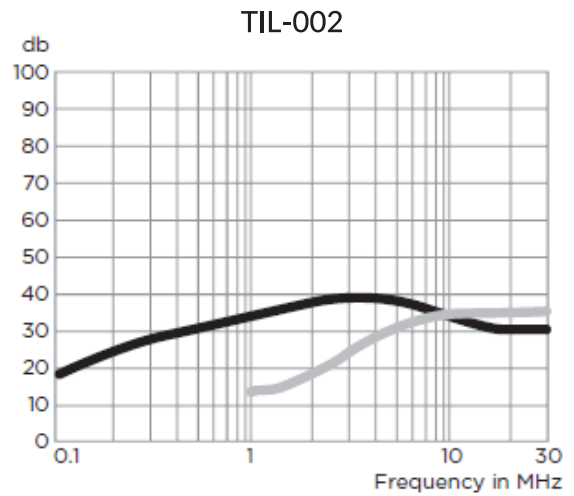
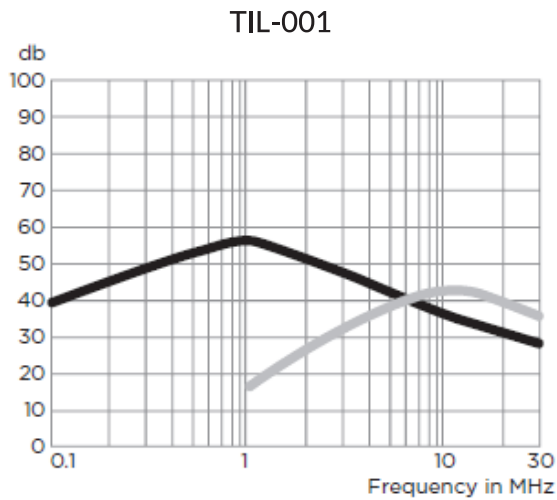
Cost Effective EMI Power Inlet Filter

Performance Data Typical Insertion Loss

Measured in closed 50 Ohm system

AMI-M11AF Models

AMI-M11AF-1-X-A-1
(1, 3, 6, 10) A



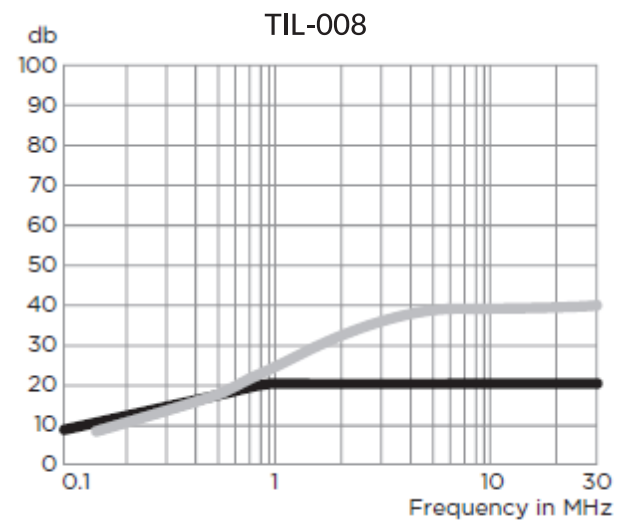
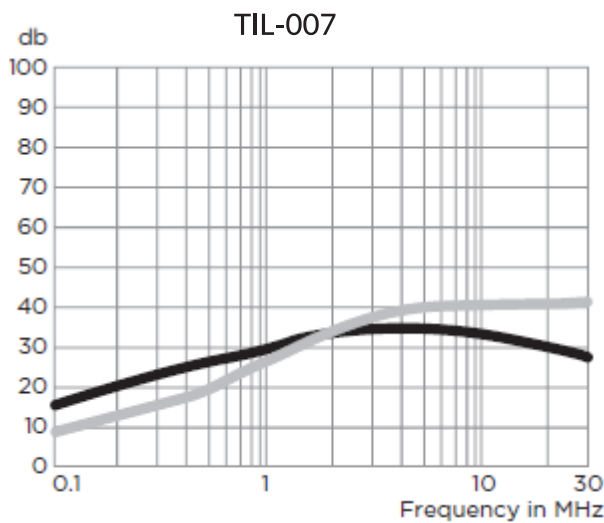
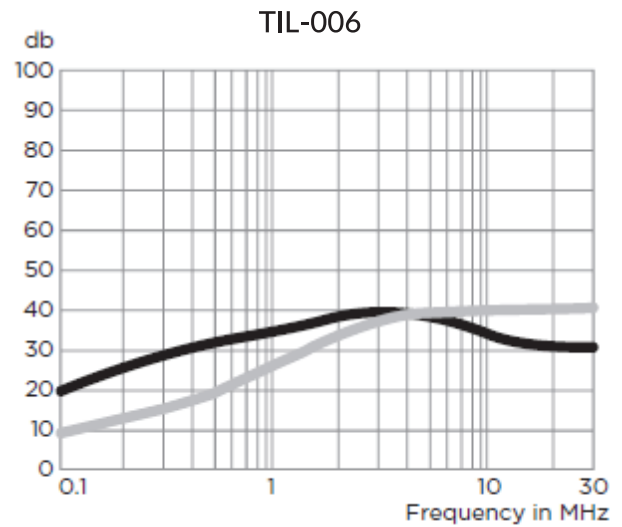
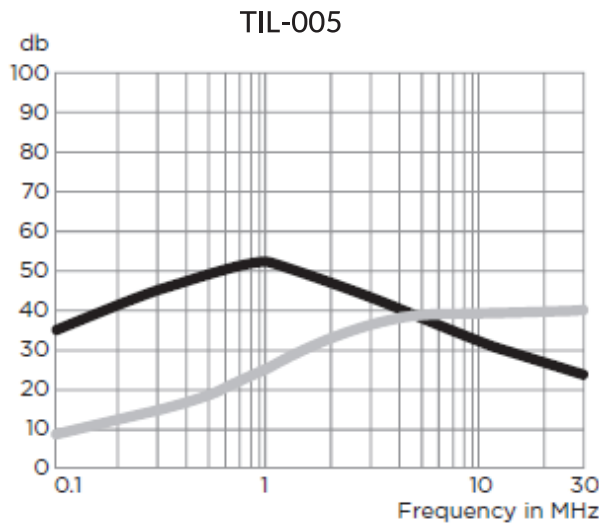
Cost Effective EMI Power Inlet Filter

Performance Data Typical Insertion Loss

Measured in closed 50 Ohm system

AMI-M11AF Models

AMI-M11AF-1-X-A-2
(1, 3, 6, 10) A



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

Cost Effective EMI Power Inlet Filter

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
<i>AMI-M11AE-X-X-B-1</i>									
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
<i>AMI-M11AE-X-X-B-2</i>									
1A	12	23	29	32	41	47	47	47	40
3A	-	10	14	18	30	36	48	50	47
6A	-	1	4	10	22	28	42	48	47
10A	-	1	3	5	14	20	32	38	47
<i>AMI-M11AF-1-X-A-1</i>									
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
<i>AMI-M11AF-1-X-A-2</i>									
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

Cost Effective EMI Power Inlet Filter

Minimum Insertion Loss

Measured in closed 50 Ohm system

Differential Mode/Symmetrical (Line to Line)

Current Rating	Frequency-MHz						
	.5	1	1.5	3	5	10	30
<i>AMI-M11AE-X-X-B-1</i>							
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

Current Rating	.01	.15	.5	1	3	5	10	30
<i>AMI-M11AE-X-X-B-2</i>								
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

Current Rating	1	1.5	5	10	30
<i>AMI-M11AF-1-X-A-1</i>					
1A	5	13	28	32	25
3A	4	6	20	27	28
6A	2	5	19	25	27
10A	1	5	15	22	27

Cost Effective EMI Power Inlet Filter

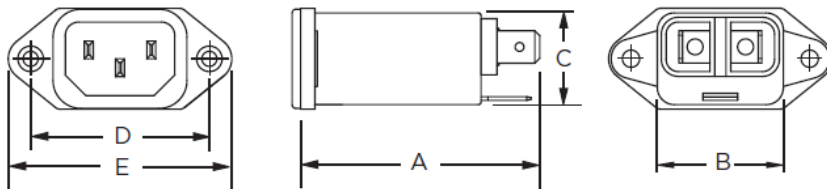
Minimum Insertion Loss

Differential Mode/Symmetrical (Line to Line)

Current Rating	Frequency-MHz					
	.15	.5	1	10	10	30
AMI-M11AF-1-X-A-2						
1A	1	10	18	30	31	31
3A	1	10	18	30	31	31
6A	1	10	18	30	31	31
10A	1	10	18	30	31	31

Case Styles

STYLE A



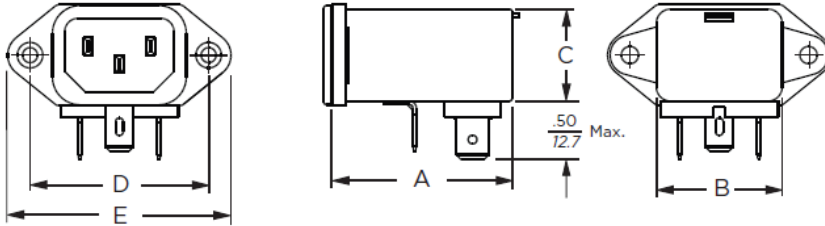
Typical Dimensions:

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

Cost Effective EMI Power Inlet Filter

Case Styles

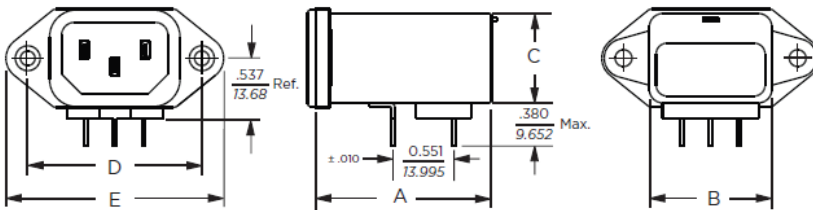
STYLE B



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

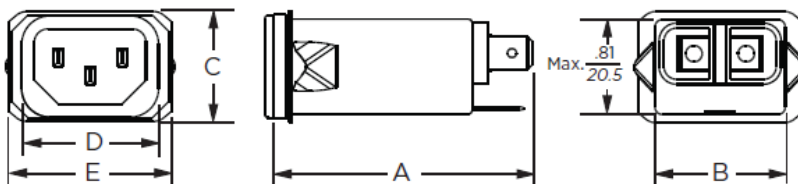
STYLE C



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]

STYLE D



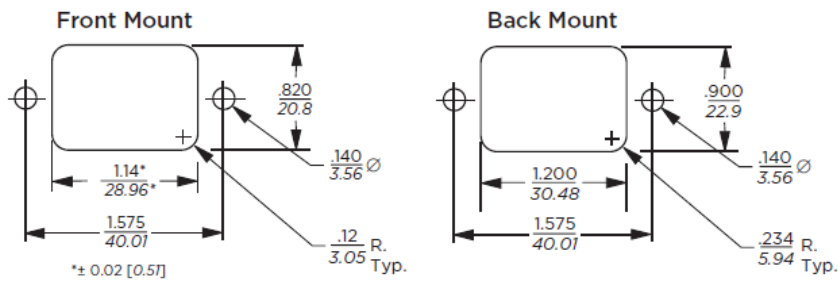
Typical Dimensions:

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

Cost Effective EMI Power Inlet Filter

Recommended Panel Cutouts

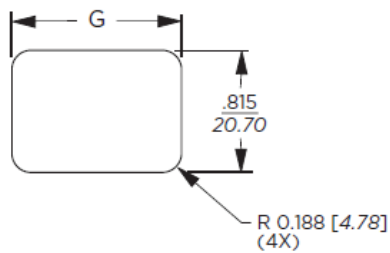
11AE/AEA/AF/AEF



Note 1: AMI-M11AE/AEA/AF/AEF-1-X-X can be front or back mounted

Note 2: AMI-M11AE/AEA/-1A/13-X-X can be back mounted only

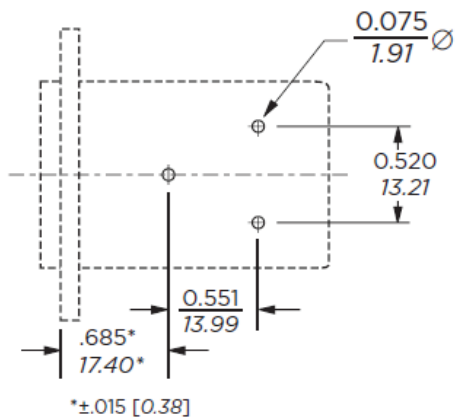
Snap-In Models



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

Case Dimensions:

Model Number	A max	B max	C max	D $\begin{smallmatrix} \pm .15 \\ \pm .38 \end{smallmatrix}$	E max
AMI-M11AE/AF-1-X-X	2.15"/54.6mm	1.12"/28.4mm	0.81"/20.6mm	1.575/40.01mm	1.98"/50.3mm
AMI-M11AE-1A-X-B	1.54"/39.1mm	1.12"/28.4mm	0.81"/20.6mm	1.575/40.01mm	1.98"/50.3mm
AMI-M11AE-13-X-B	1.54"/39.1mm	1.12"/28.4mm	0.81"/20.6mm	1.575/40.01mm	1.98"/50.3mm
AMI-M11AE-1S-X-B	2.20"/55.88mm	1.15"/29.2mm	0.96"/24.38mm	1.185"/30.10mm	1.41"/35.81mm