

High Performance RFI Power Line Filters for SMPS Emission Control



AMI-M11P/M11Q/M11R Series

Metal Enclosure Single Phase Single Stage Filters

AMI Designation	Input/output Style				Current Rating	Inductance	Capacitance		Resistor	Leakage Current @ 120 VAC 60Hz/250 VAC 50 Hz	TIL Insertion Loss	Case Style
	6.3mm Spade Terminals	Wire Leads	Threaded Bolts	IEC			mH	Cx				
Available Part Numbers							nF	pF		mA		
AMI-M11P-1-3-B-1	1	-	-	-	3	7.06	540	5500	330	0.4/0.7	001	A
AMI-M11P-3-3-B-1	-	3	-	-	3	7.06	540	5500	330	0.4/0.7	001	B
AMI-M11R-7-3-B-1	-	-	-	7	3	7.06	540	5500	330	0.4/0.7	001	H
AMI-M11R-7M-3-B-1	-	-	-	7	3	7.06	540	5500	330	0.4/0.7	001	H
AMI-M11P-1-6-B-1	1	-	-	-	6	8.73	540	5500	330	0.4/0.7	001	A
AMI-M11P-3-6-B-1	-	3	-	-	6	8.73	540	5500	330	0.4/0.7	001	C
AMI-M11R-7-6-B-1	-	-	-	7	6	7.8	540	5500	330	0.4/0.7	001	H
AMI-M11R-7M-6-B-1	-	-	-	7	6	7.8	540	5500	330	0.4/0.7	001	H
AMI-M11P-1-10-B-1	1	-	-	-	10	7.13	540	5500	330	0.4/0.7	003	A
AMI-M11P-3-10-B-1	-	3	-	-	10	7.13	540	5500	330	0.4/0.7	003	C
AMI-M11R-7-10-B-1	-	-	-	7	10	7.13	540	5500	330	0.4/0.7	003	H
AMI-M11R-7M-10-B-1	-	-	-	7	10	7.13	540	5500	330	0.4/0.7	003	H
AMI-M11P-1-3-B-2	1	-	-	-	3	7.06	540	2800	330	0.21/0.36	002	A
AMI-M11P-3-3-B-2	-	3	-	-	3	7.06	540	2800	330	0.21/0.36	002	B
AMI-M11R-7-3-B-2	-	-	-	7	3	7.06	540	2800	330	0.21/0.36	002	H
AMI-M11R-7M-3-B-2	-	-	-	7	3	7.06	540	2800	330	0.21/0.36	002	H
AMI-M11P-1-6-B-2	1	-	-	-	6	8.73	540	2800	330	0.21/0.36	002	C
AMI-M11P-3-6-B-2	-	3	-	-	6	8.73	540	2800	330	0.21/0.36	002	C

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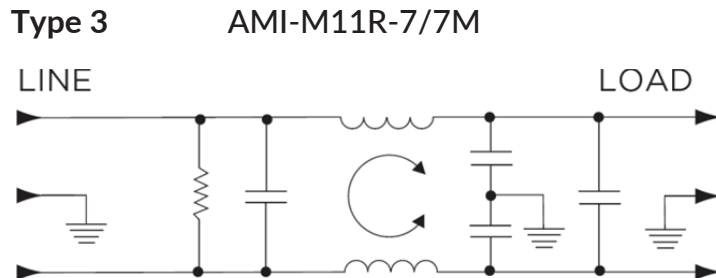
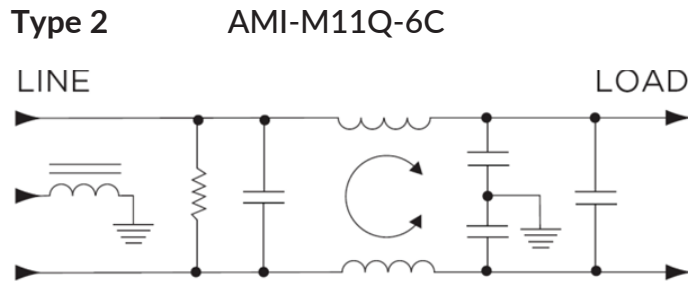
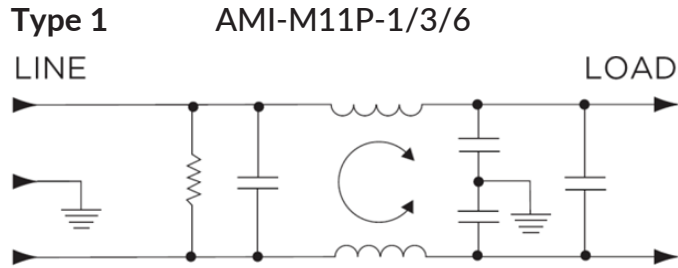
AMI Designation	Input/output Style				Current Rating	Inductance mH	Capacitance		Resistor K Ω	Leakage Current @ 120 VAC 60Hz/250 VAC 50 Hz mA	TIL Insertion Loss	Case Style
	6.3mm Spade Terminals	Wire Leads	Threaded Bolts	IEC			Cx nF	Cy pF				
AMI-M11R-7-6-B-2	-	-	-	7	6	7.8	540	2800	330	0.21/0.36	002	H
AMI-M11R-7M-6-B-2	-	-	-	7	6	7.8	540	2800	330	0.21/0.36	002	H
AMI-M11P-1-10-B-2	1	-	-	-	10	7.13	540	2800	330	0.21/0.36	004	A
AMI-M11P-3-10-B-2	-	3	-	-	10	7.13	540	2800	330	0.21/0.36	004	C
AMI-M11R-7-10-B-2	-	-	-	7	10	7.13	540	2800	330	0.21/0.36	004	H
AMI-M11R-7M-10-B/C-2	-	-	-	7	10	7.13	540	2800	330	0.21/0.36	004	H
AMI-M11P-6-20-B	-	-	6	-	20	6.06	540	4000	470	0.3/0.5	004	D
AMI-M11P-6-20-C	-	-	6	-	20	6.06	540	10000	470	0.75/1.25	003	D
AMI-M11P-6-30-B	-	-	6	-	30	1.73	940	4000	235	0.3/0.5	006	E
AMI-M11Q-6C-30-B	-	-	6	-	30	0.529	940	4000	235	0.3/0.5	006	F
AMI-M11P-6-30-C	-	-	6	-	30	1.73	940	10000	235	0.75/1.25	005	E
AMI-M11Q-6C-30-C	-	-	6	-	30	1.73	940	10000	235	0.75/1.25	005	F
AMI-M11P-6-40-C	-	-	6	-	40	2.3	2000	10000	165	0.75/1.25	007	G

*(M) = Metric Inserts

** (C) = Ground Choke

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Electrical Schematic



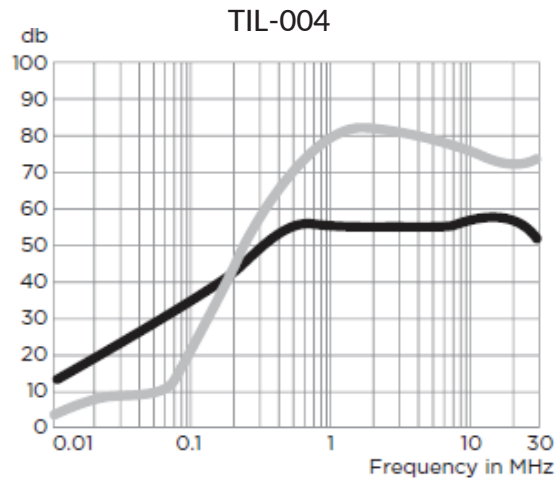
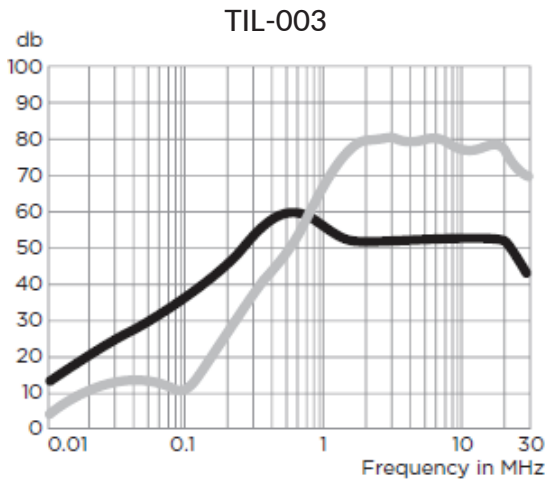
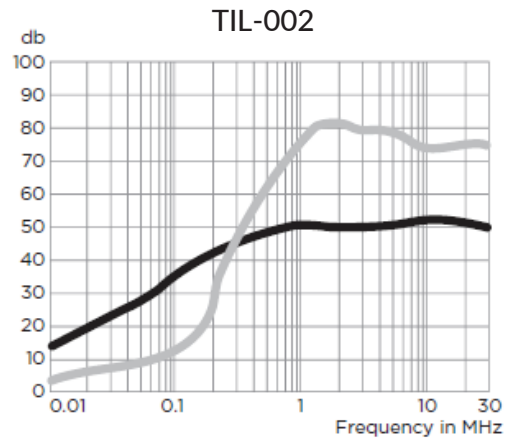
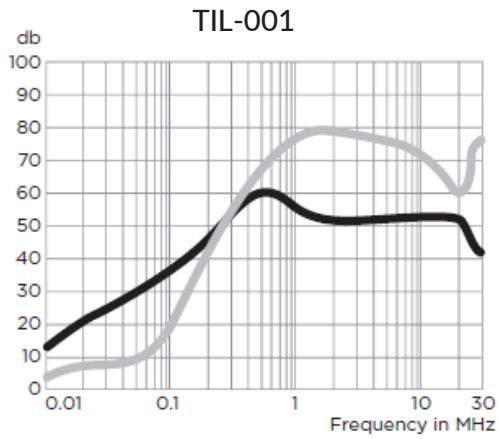
Specifications:

- Rated Voltage (max): 250 VAC
- Operating Frequency: 50/60 Hz
- Operating Current: 3 to 40 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 $+40^{\circ}\text{C}$. In an ambient temperature (T_a) higher than $+40^{\circ}\text{C}$ the maximum operating current (I_o) is calculated as follows: $I_o = I_r \sqrt{[(85 - T_a)/45]}$

High Performance RFI Power Line Filters for SMPS Emission Control

Performance Data Typical Insertion Loss

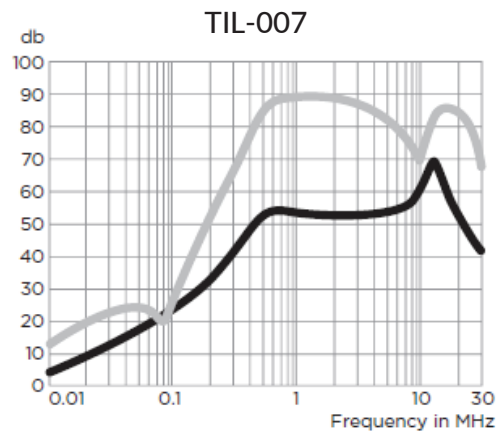
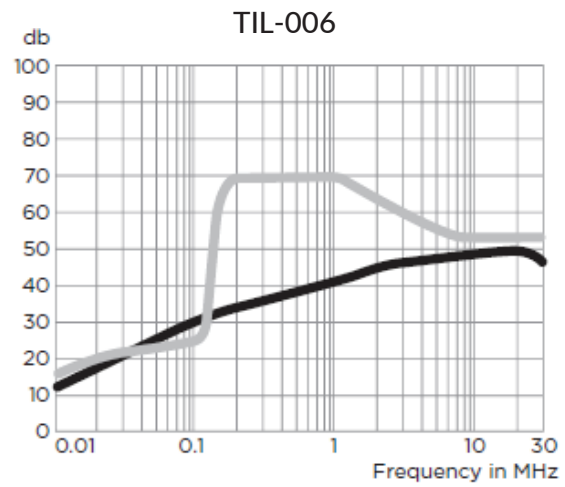
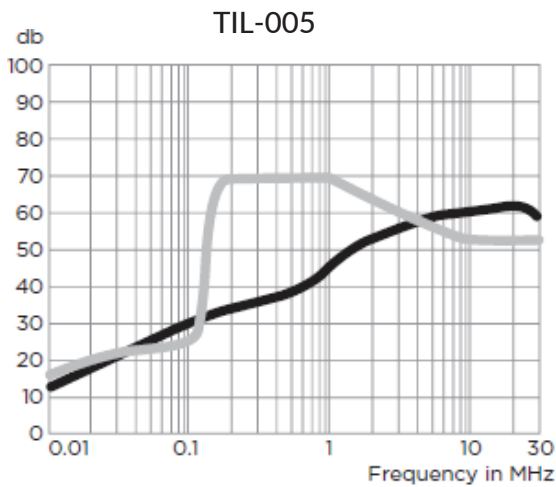
Measured in closed 50 Ohm system



High Performance RFI Power Line Filters for SMPS Emission Control

Performance Data Typical Insertion Loss

Measured in closed 50 Ohm system



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

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Minimum Insertion Loss

Measured in closed 50 Ohm system

Common Mode/Asymmetrical (Line to Ground)

Current Rating	Frequency-MHz								
	.01	.08	.1	.15	.5	1	5	10	30
<i>AMI-M11P/R-X-X-B-1</i>									
3A, 6A	4	23	25	29	43	44	42	42	30
10A	4	23	25	29	43	44	42	42	30
<i>AMI-M11P/Q-X-X-B</i>									
20A	7	23	25	29	43	44	48	48	48
30A	2	13	14	15	27	31	46	51	39
40A	2	15	18	22	40	43	45	50	30
<i>AMI-M11P/Q-X-X-B</i>									
3A, 6A	4	22	24	28	42	40	36	36	27
10A	4	22	24	28	42	40	36	36	27
<i>AMI-M11P/Q-X-X-C</i>									
20A	7	22	24	28	35	38	45	45	45
30A	2	13	15	15	27	31	40	41	36

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Minimum Insertion Loss

Measured in closed 50 Ohm system

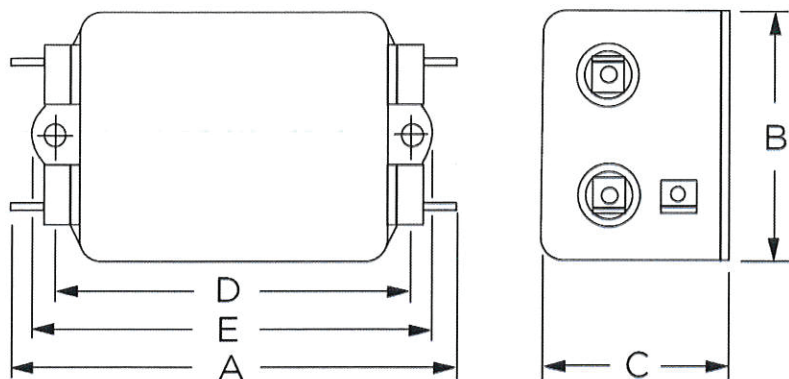
Differential Mode/Symmetrical (Line to Line)

Current Rating	Frequency-MHz								
	.01	.08	.1	.15	.5	1	5	10	30
<i>AMI-M11P/R-X-X-B-1</i>									
3A, 6A	1	3	10	25	59	65	62	40	40
10A	1	3	3	10	55	65	65	50	50
<i>AMI-M11P/Q-X-X-B</i>									
20A	1	10	8	8	45	60	65	60	60
30A	5	13	13	13	60	60	51	43	43
40A	7	14	16	30	65	65	65	57	50
<i>AMI-M11P/Q-X-X-B</i>									
3A, 6A	1	3	10	25	59	65	62	40	40
10A	1	3	3	10	55	65	65	65	45
<i>AMI-M11P/Q-X-X-C</i>									
20A	1	10	8	8	45	60	65	60	60
30A	5	12	12	13	60	60	51	43	43

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Case Styles

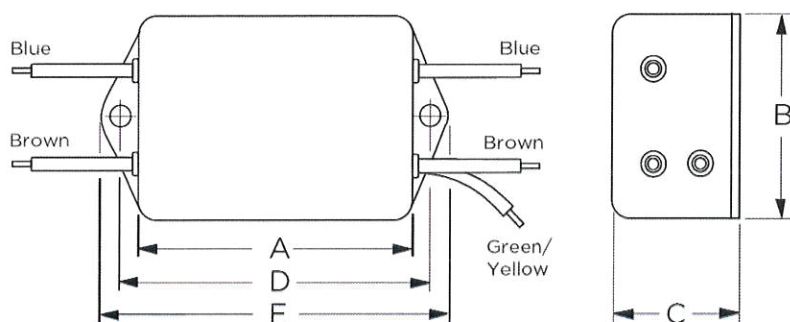
STYLE A



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.

STYLE B



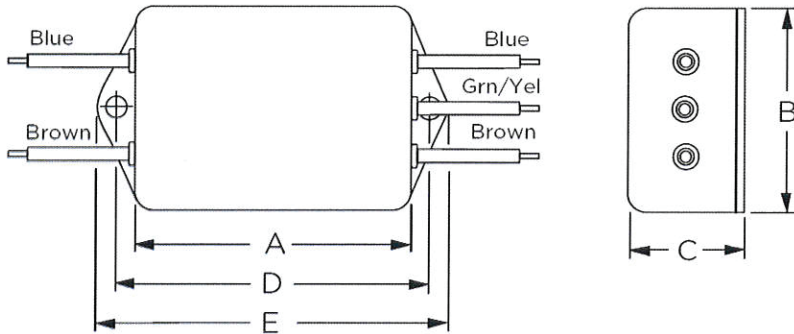
Typical Dimensions:

Wire Leads (5):	4.0 [101.6] Min., AWG18
Mounting Holes (2):	.188 [4.78] Dia.

High Performance RFI Power Line Filters for SMPS Emission Control

Case Styles

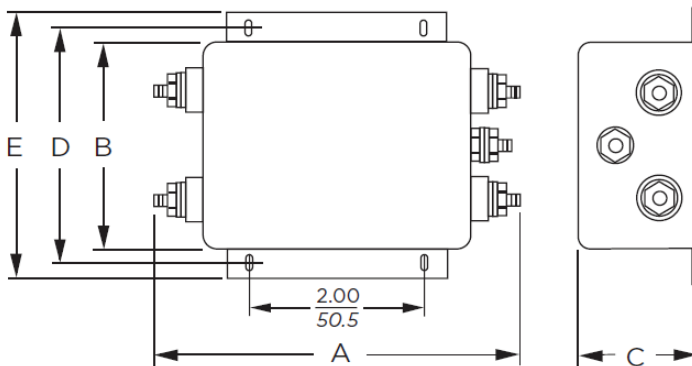
STYLE C



Typical Dimensions:

Wire Leads (5): 4.0 [101.6] Min., AWG18 (AWG16 for 10A)
Mounting Holes (2): .188 [4.78] Dia.

STYLE D



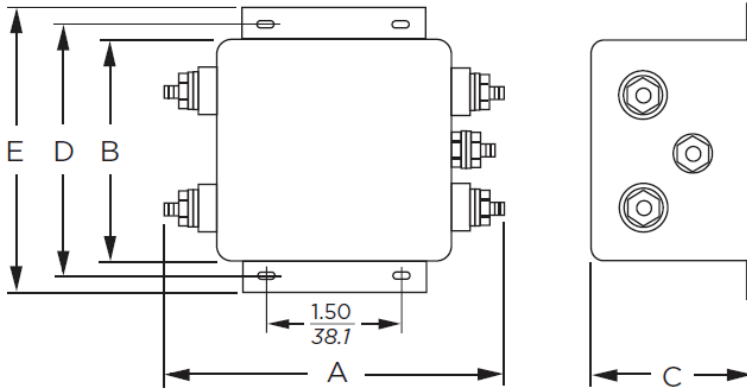
Typical Dimensions:

Terminals (5): 10-32, Torque 27 lbf-in. [3.05 N-m] max. ± 2 [.22]
Mounting Slots (4): .203 x .156 [5.15 x 3.96] Dia.

High Performance RFI Power Line Filters for SMPS Emission Control

Case Styles

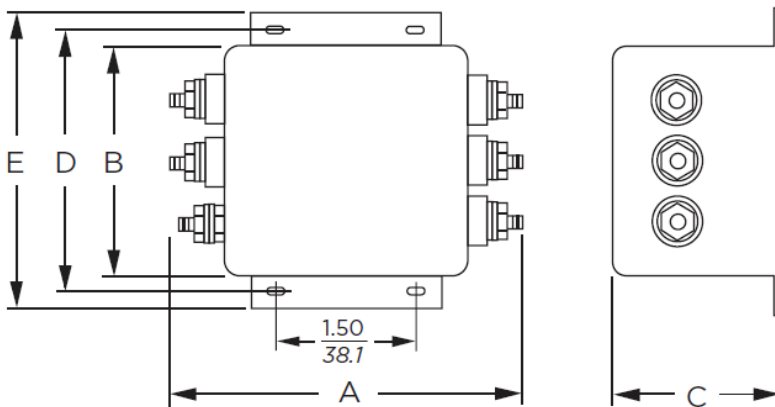
STYLE E



Typical Dimensions:

Terminals (5): 10-32, Torque 27 lbf-in. [3.05 N-m] max. ± 2 [.22]
Mounting Slots (4): .250 x .156 [6.35 x 3.96] Dia.

STYLE F



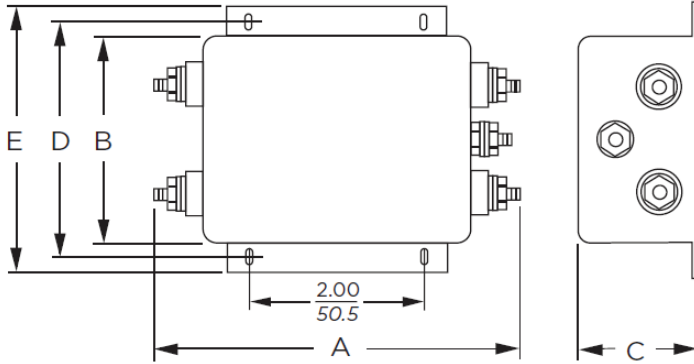
Typical Dimensions:

Terminals (5): 10-32, Torque 27 lbf-in. [3.05 N-m] max. ± 2 [.22]
Mounting Slots (4): .250 x .156 [6.35 x 3.96] Dia.

High Performance RFI Power Line Filters for SMPS Emission Control

Case Styles

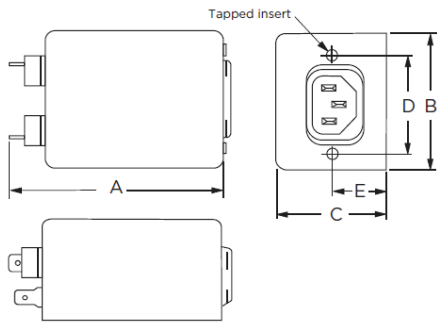
STYLE G



Typical Dimensions:

Terminals (5):	10-32, Torque 27 lbf-in. [3.05 N-m] max. ± 2 [22]
Mounting Slots (4):	.203 x .156 [5.15 x 3.96] Dia.

STYLE H

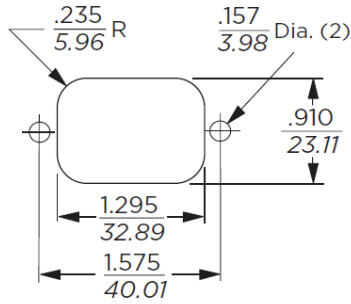


Typical Dimensions:

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
Line Inlet (1):	IEC 60320-1 C14
K7 Tapped Inserts (2):	6-32 x 1/4
K7M Tapped Inserts (2):	M3 x .5

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Recommended Panel Cutout



Tolerance $\pm .005$ [0.13]
Back Mount Only

Case Dimensions:

Model Number	A max	B max	C max	D $\pm \frac{.15}{.38}$	E max
AMI-M11P-1-3	3.85"/97.8mm	2.07"/52.6mm	1.16"/29.5mm	2.938"/74.63mm	3.35"/85.1mm
AMI-M11P-3-3	2.56"/65.0mm	2.07"/52.6mm	1.16"/29.5mm	2.938"/74.63mm	3.35"/85.1mm
AMI-M11R-7-3	3.21"/81.5mm	2.25"/57.2mm	1.53"/38.9mm	1.575"/40.01mm	0.63"*/16.0*mm
AMI-M11P-1-6	4.34"/110.2mm	2.25"/57.2mm	1.28"/32.5mm	3.427"/87.05mm	3.83"/97.3mm
AMI-M11P-3-6	3.05"/77.5mm	2.25"/57.2mm	1.78"/45.2mm	3.427"/87.05mm	3.83"/97.3mm
AMI-M11R-7-6	3.21"/81.5mm	2.25"/57.2mm	1.78"/45.2mm	1.575"/40.01mm	0.63"*/16.0*mm
AMI-M11P-1-10	4.97"/126.2mm	2.25"/57.2mm	1.78"/45.2mm	4.063"/103.2mm	4.46"/113.3mm
AMI-M11P-3-10	3.69"/93.7mm	2.25"/57.2mm	1.78"/45.2mm	4.063"/103.2mm	4.46"/113.3mm
AMI-M11R-7-10	4.34"/110.2mm	2.25"/57.2mm	1.78"/45.2mm	1.575"/40.01mm	0.63"*/16.0*mm
AMI-M11P-6-20	5.09"/127.3mm	2.25"/57.2mm	1.28"/32.5mm	4.063"/103.2mm	4.46"/113.3mm
AMI-M11P-6-30, AMI-MQ-6C-30	4.92"/125.0mm	3.12"/79.2mm	2.75"/69.85mm	3.437"/87.3mm	4.00"/101.6mm
AMI-M11P-6-40	6.45"/163.83mm	3.12"/79.25mm	2.18"/55.4mm	3.5"/88.9mm	3.96"/100.6mm

* ± 0.02 [0.5]