

**Chassis or PC Board Mountable Power Line Filters for Emission Control**

# X, Y, Z Series



UL Recognized  
CSA Certified  
VDE Approved



XP / YP / ZP



3EX1 / 3EZ1

## X, Y, Z Series

- Compact chassis or PC board mountable
- Three levels of performance
- Complete filtering solution in minimal size

## X Series

- Designed to bring most digital equipment (including those with switching power supplies) into compliance with FCC Part 15J, Class B conducted emission limits

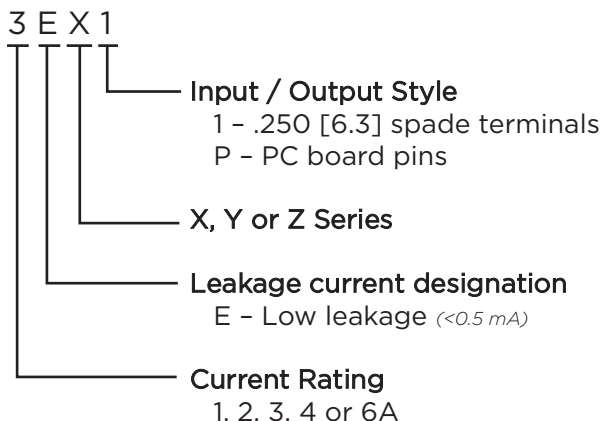
## Y Series

- Designed to bring most digital equipment (including those with switching power supplies) into compliance with EN55022, Level A and FCC Part 15J, Class B conducted emission limits

## Z Series

- Designed to bring most digital equipment (including those with switching power supplies) into compliance with EN55022, Level B and FCC Part 15J, Class B conducted emission limits

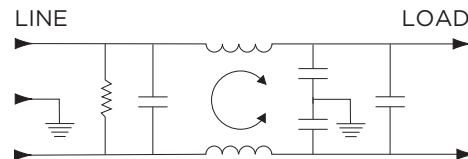
## Ordering Information



## Specifications

- Maximum leakage current each Line to Ground:**  
 @ 120 VAC 60 Hz: .30 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 6A
- 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

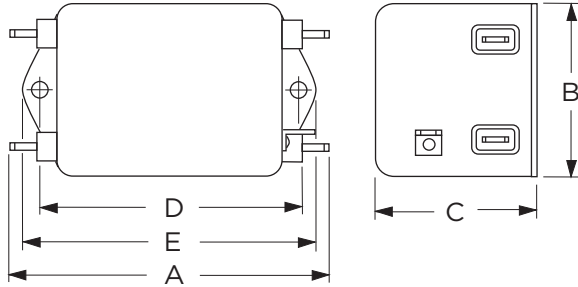
3EXP	4EYP
3EX1	1EZP
4EXP	2EZP
6EXP	3EZP
2EYP	3EZ1
3EYP	

**Chassis & PC Board Mountable RFI Filters for Emission Control** *(continued)*

# X, Y, Z Series

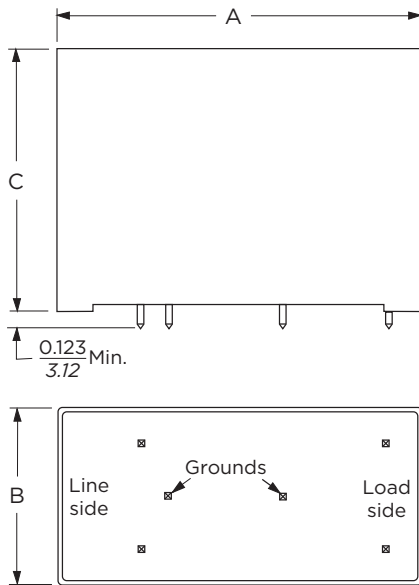
## Case Styles

### X1 & Z1



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.

### XP, YP & ZP

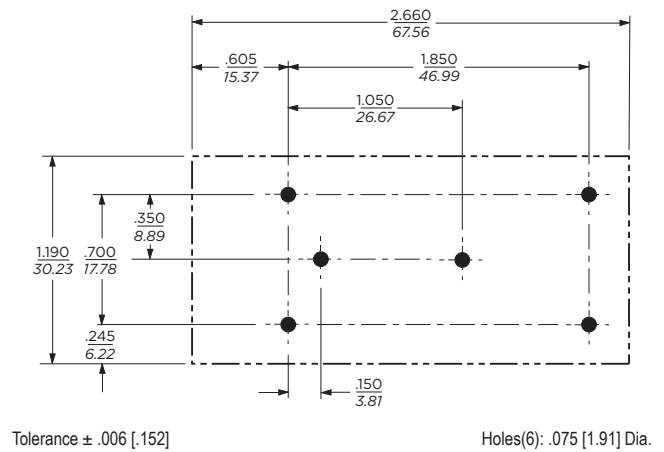


Typical Dimensions:  
 Pins (5): 0.065 [0.635] max. diagonal

## Case Dimensions

Part No.	A (max)	B (max)	C (max)	D $\pm .015$ $\pm .38$	E (max)
3EXP	2.61 66.3	1.13 28.7	1.62 41.1	—	—
3EX1	3.01 76.7	1.84 46.8	1.16 29.46	2.375 60.33	2.79 70.87
4EXP	2.61 66.6	1.13 28.7	1.62 41.1	—	—
6EXP	2.61 66.3	1.13 28.7	1.75 44.5	—	—
2EYP	2.61 66.3	1.13 28.7	1.62 41.1	—	—
3EYP, 4EYP	2.61 66.3	1.13 28.7	1.75 44.5	—	—
1EZP	2.61 66.3	1.13 28.7	1.62 41.1	—	—
2EZP, 3EZP	2.61 66.3	1.13 28.7	1.75 44.5	—	—
3EZ1	3.54 89.9	2.08 52.8	1.31 33.3	2.938 74.63	3.35 85.1

## Recommended PC Board Layout



**Chassis & PC Board Mountable RFI Filters for Emission Control** *(continued)*

# X, Y, Z Series

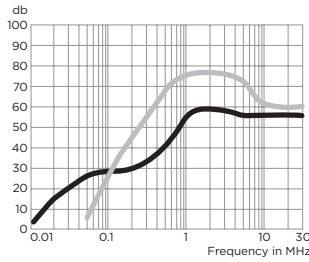
## Performance Data

### Typical Insertion Loss

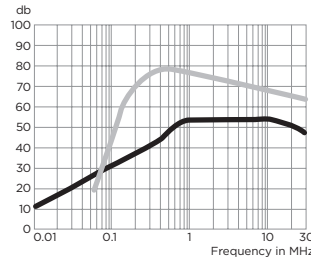
Measured in closed 50 Ohm system

**1**  
RFI Power Line Filters

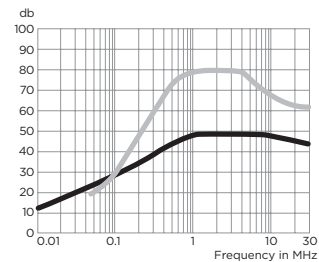
**3EX**



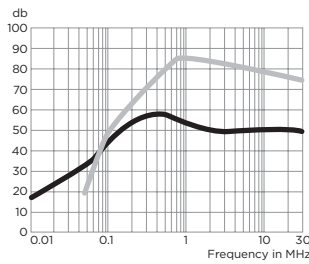
**4EX**



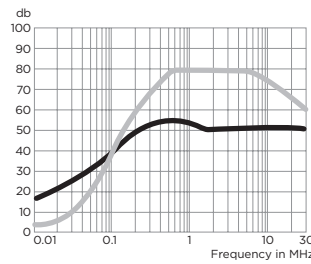
**6EX**



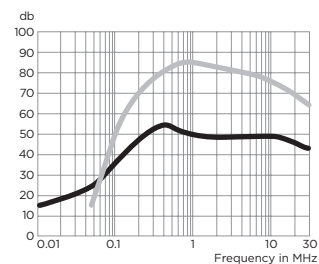
**2EY**



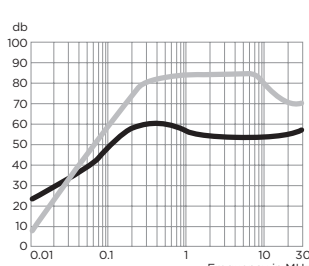
**3EY**



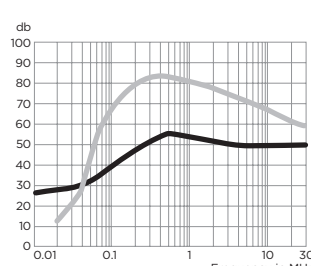
**4EY**



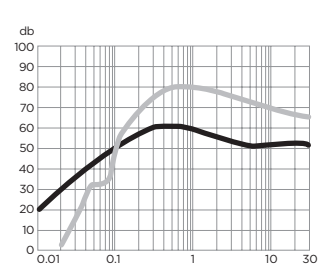
**1EZ**



**2EZ**



**3EZ**



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

**Chassis & PC Board Mountable RFI Filters for Emission Control** *(continued)*

**Performance Data** *(Continued)*

**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
<b>X Series</b>								
3A	2	13	21	35	46	44	44	44
4A	2	13	22	38	44	44	44	38
6A	2	11	20	35	40	40	40	36
<b>Y Series</b>								
2A	8	21	31	49	44	40	40	40
3A	11	24	36	43	40	40	40	40
4A	5	18	28	45	40	40	40	36
<b>Z Series</b>								
1A	18	32	43	47	44	43	43	45
2A	18	32	45	41	40	40	40	40
3A	15	29	39	43	42	40	40	40

Differential Mode / Symmetrical (Line to Line)

Part No.	Frequency – MHz									
	.02	.03	.05	.07	.15	.5	1	5	10	30
<b>X Series</b>										
3A	-	-	-	5	34	60	65	60	45	50
4A	-	-	-	10	37	70	70	70	65	55
6A	-	-	-	3	31	65	70	70	65	55
<b>Y Series</b>										
2A	-	-	10	19	40	70	75	70	60	55
3A	-	-	10	20	42	68	68	67	62	50
4A	-	-	6	18	41	67	75	70	65	55
<b>Z Series</b>										
1A	7	29	34	43	62	70	70	70	60	55
2A	2	15	31	40	57	75	70	65	55	50
3A	-	10	26	34	53	75	75	70	60	55