

3-phase WYE RFI Power Line Filters

# AYA Series



UL Recognized\*



25AYA6A

## AYA Series

- For 3-phase, four wire, WYE applications
- Cost-effective, universal 3-phase filters
- Good attenuation over the complete frequency range of 10kHz to 30MHz
- Two different mounting styles available

## Specifications

### Maximum leakage current each Line to Ground:

@ 120 VAC 60 Hz:	1.62 mA
@ 250 VAC 50 Hz:	2.82 mA

### Hipot rating (one minute):

Line to Ground:	1500 VAC
Line to Line:	1450 VDC

### Rated Voltage (max):

Phase to Phase:	440 VAC
Phase to Ground:	250 VAC

### Operating Frequency:

50/60 Hz

### Rated Current:

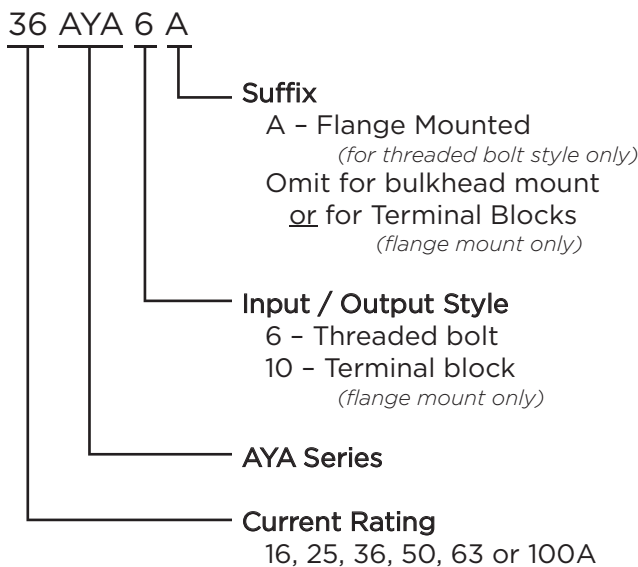
16 to 100A\*

### 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:  $I_o = I_r \sqrt{(85-T_a)/45}$

## Ordering Information



## Available Part Numbers

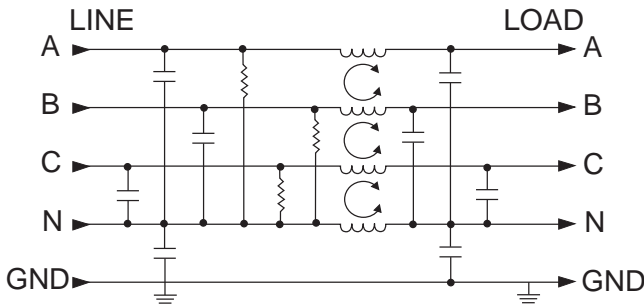
Flange Mount	Bulkhead Mount
16AYA6A	16AYA6
16AYA10	25AYA6
25AYA6A	36AYA6
36AYA6A	50AYA6
36AYA10	
50AYA6A	
63AYA6A	
63AYA10	
100AYA6A	

\*UL Approvals for all models except: 16AYA10, 36AYA10, 63AYA10, 63AYA6, 63AYA6A and 100AYA6A

3-phase WYE RFI Power Line Filters (continued)

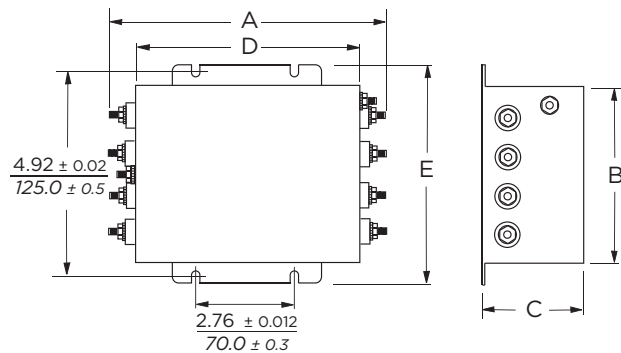
# AYA Series

## Electrical Schematic



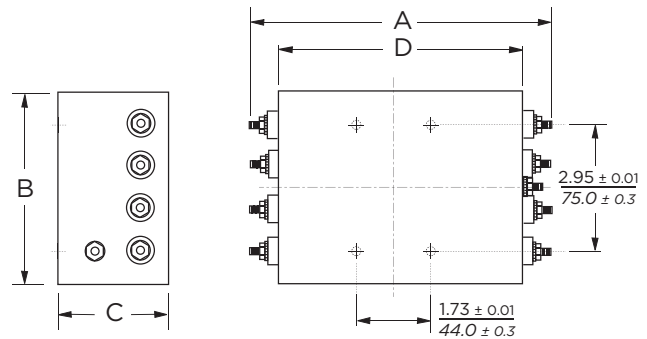
## Case Style

**AYA6A** (Flange mount with screw terminals)



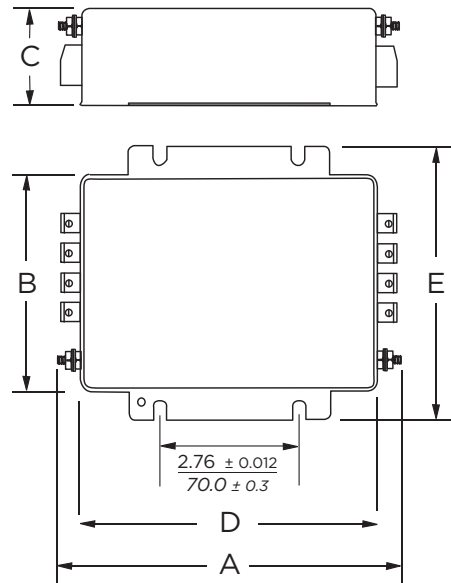
Typical Dimensions:  
 Mounting slots (4): .425 x .254 [10.8 x 6.6]  
 16 & 25A Terminals(8): 8-32, Torque (max.) 26 lbf-in [2.94 N-m]  
 36A Terminals(8): 10-32, Torque (max.) 27 lbf-in [3.05 N-m]  
 50, 63 & 100A Terminals(8): 1/4-20, Torque (max.) 56 lbf-in [6.33 N-m]

**AYA6** (Bulkhead mount with screw terminals)



Typical Dimensions:  
 Threaded mounting holes(4): M5 x 8  
 16 & 25A Terminals(8): 8-32, Torque (max.) 26 lbf-in [2.94 N-m]  
 36A Terminals(8): 10-32, Torque (max.) 27 lbf-in [3.05 N-m]  
 50A Terminals(8): 1/4-20, Torque (max.) 56 lbf-in [6.33 N-m]

**16AYA10**



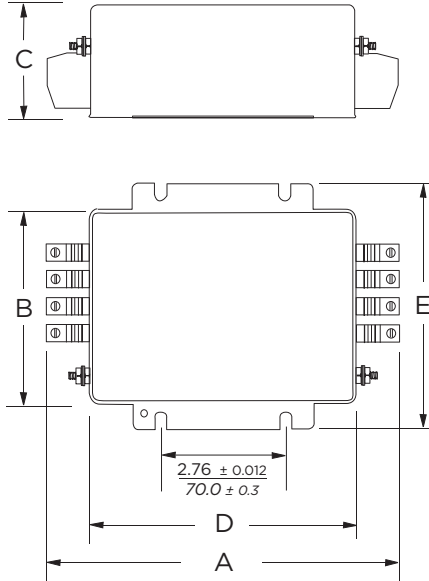
Typical Dimensions:  
 Mounting slots (4): .425 x .254 [10.8 x 6.6]  
 Terminal blocks(8): 4 mm<sup>2</sup> Torque (max.) 7.08 lbf-in [0.8 N-m]  
 Ground terminal(1): M5, Torque (max.) 26.58 lbf-in [3.0 N-m]

2  
 Three Phase Filters

**3-phase WYE RFI Power Line Filters** *(continued)*

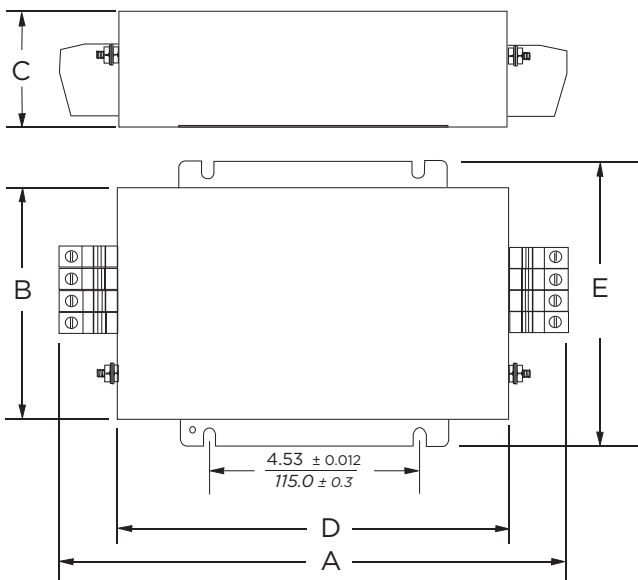
# AYA Series

## 36AYA10



Typical Dimensions:  
 Mounting slots (4): .425 x .254 [10.8 x 6.6]  
 Terminal blocks(8): 10 mm<sup>2</sup> Torque (max.) 15.93 lbf-in [1.8 N-m]  
 Ground terminal(1): M5, Torque (max.) 26.58 lbf-in [3.0 N-m]

## 63AYA10



Typical Dimensions:  
 Mounting slots (4): .425 x .254 [10.8 x 6.6]  
 Terminal blocks(8): 16 mm<sup>2</sup> Torque (max.) 20.35 lbf-in [2.3 N-m]  
 Ground terminal(1): M6, Torque (max.) 53.1 lbf-in [6.0 N-m]

### Case Dimensions

Part No.	A (max.)	B (max.)	C (max.)	D (max.)	E* (max.)
16AYA6 /A	<b>7.91</b>	<b>4.37</b>	<b>1.97</b>	<b>5.94</b>	<b>5.51</b>
25AYA6 /A	201.0	111.0	50.0	151.0	140.0
36AYA6 /A	<b>7.91</b>	<b>4.37</b>	<b>2.56</b>	<b>5.94</b>	<b>5.51</b>
50AYA6 /A	201.0	111.0	65.0	151.0	140.0
63AYA6 /A	<b>7.91</b>	<b>4.37</b>	<b>2.56</b>	<b>5.94</b>	<b>5.51</b>
100AYA6A	201.0	111.0	65.0	151.0	140.0
16AYA10	<b>6.97</b>	<b>4.37</b>	<b>1.97</b>	<b>5.94</b>	<b>5.51</b>
	177.0	111.0	50.0	151.0	140.0
36AYA10	<b>7.88</b>	<b>4.37</b>	<b>2.56</b>	<b>5.94</b>	<b>5.51</b>
	200.0	111.0	65.0	151.0	140.0
63AYA10	<b>10.98</b>	<b>5.08</b>	<b>2.95</b>	<b>8.43</b>	<b>6.26</b>
	279.0	129.0	75.0	214.0	159.0

\*Does not apply for bulkhead models

3-phase WYE RFI Power Line Filters (continued)

# AYA Series

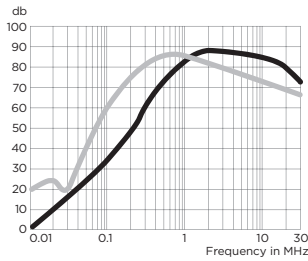
## Performance Data

### Typical Insertion Loss

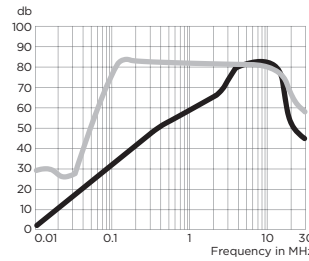
Measured in closed 50 Ohm system

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

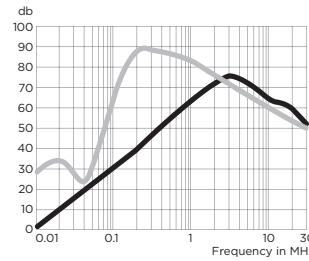
16AYA



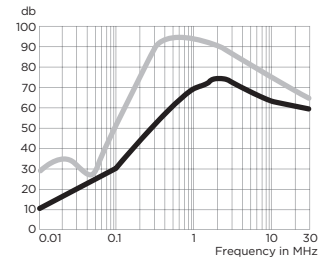
25AYA



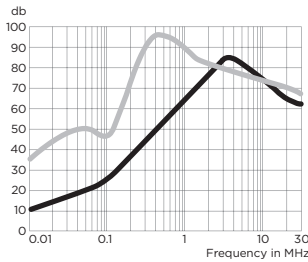
36AYA



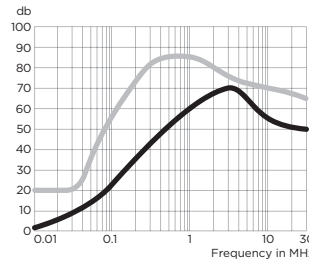
50AYA



63AYA



100AYA



### Minimum Insertion Loss

Measured in closed 50 Ohm system

Common Mode / Asymmetrical (Line to Ground)

Current Rating	Frequency –MHz							
	.01	.05	.1	.5	1	5	10	30
16A	2	11	19	52	53	70	61	30
25A	2	12	19	46	49	64	54	27
36A	1	10	18	49	54	63	57	32
50A	1	8	14	43	47	63	53	29
63A	2	10	22	50	60	75	70	55
100A	1	15	22	55	60	65	55	50

Differential Mode / Symmetrical (Line to Line)

Current Rating	Frequency –MHz							
	.01	.05	.1	.5	1	5	10	30
16A	14	31	30	82	87	76	77	47
25A	20	36	38	85	81	68	69	33
36A	20	39	36	86	78	65	62	35
50A	20	30	38	85	82	67	66	38
63A	30	40	45	90	85	70	70	60
100A	20	35	45	80	80	65	60	55

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Three Phase Filters