

# V and W Series

**Multipurpose Power Line RFI Filter for Emission Control and High-Noise Industrial Environments**



**UL Recognized  
CSA Certified  
VDE Approved**

## V and W Series

The V series and W series filters will protect equipment from malfunctions due to conducted interference coming into the equipment from the line, especially line-to-line noise and transients. They will also provide needed noise suppression to allow most equipment to meet FCC specifications for conducted emissions.

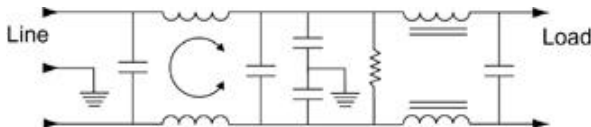
**V Series** – offers an N = 3 (“T”) line-to-ground impedance to common mode and an N = 5 (“Dbl. Pi”) impedance for line-to-line differential mode interference. The filters are designed for susceptibility use when equipment impedance at RF frequencies is low.

**W Series** – provides an N = 4 (“Dbl. L”) line-to-ground impedance for common mode and an N = 5 (“Dbl. Pi”) impedance for line-to-line differential mode interference. The filters are designed for use when equipment impedance at RF frequencies is high. The two-stage construction provides excellent suppression at high frequency.

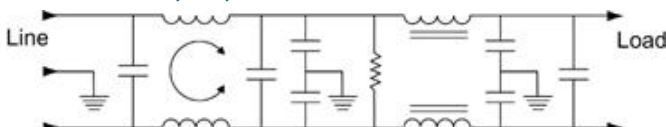
V series and W series filters are also effective to control emissions in equipment using SCR and T<sup>2</sup>L circuits, for compliance with FCC Part 15, Subpart J, and EN55022, Level A, down to 150kHz.

## Electrical Schematics

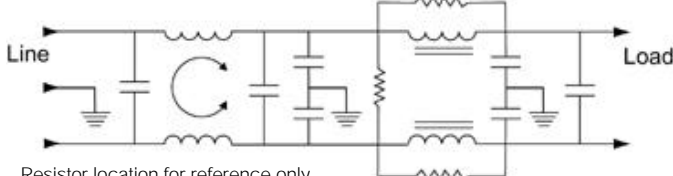
### V Series



### W Series 3A, 6A, 10A



### W Series 20A



Resistor location for reference only.



## Specifications

Maximum leakage current, each  
line-to-ground @ 120 VAC 60 Hz: 0.5 mA  
@ 250 VAC 50 Hz: .82 mA

Hipot rating (one minute):  
line-to-ground 2250 VDC  
line-to-line 1450 VDC

Operating frequency: 50/60 Hz

Rated voltage: 120/250 VAC

Rated current:	@120 VAC	@ 250 VAC
3VV/3VW	3A	2.5A
6VV/6VW	6A	5A
10VV/10VW	10A	8A
20VV/20VW	20A	16A

**Minimum insertion loss in dB:**

Line-to-ground in 50 ohm circuit

Current Rating	Frequency-MHz							
	.15	.5	1	2	5	10	20	30
<b>V Series</b>								
3A	15	27	38	47	55	55	50	48
6A	15	27	28	47	55	55	50	48
10A	15	27	38	47	55	55	50	48
20A	15	30	41	49	60	46	36	30

**W Series**

3A	13	25	20	45	65	65	65	63
6A	18	30	34	40	65	65	57	47
10A	18	30	34	40	65	65	57	47
20A	18	30	34	40	65	65	57	47

Line-to-line in 50 ohm circuit

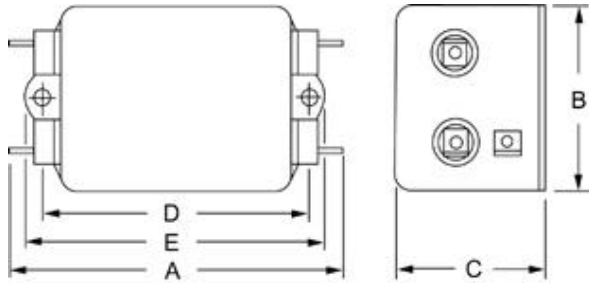
Current Rating	Frequency-MHz								
	.15	.3	.5	1	2	5	10	20	30
<b>V Series</b>									
3A	25	25	65	65	63	60	52	50	50
6A	40	54	65	65	65	65	60	57	55
10A	25	25	65	65	63	60	52	50	50
20A	25	25	65	65	63	60	52	50	50
<b>W Series</b>									
3A	25	40	65	65	65	62	55	35	35
6A	30	54	65	65	65	60	55	38	38
10A	25	25	65	65	65	65	50	45	45
20A	25	25	65	65	65	65	50	45	45

# Series V and W

## Case Styles

Metric shown in italics.

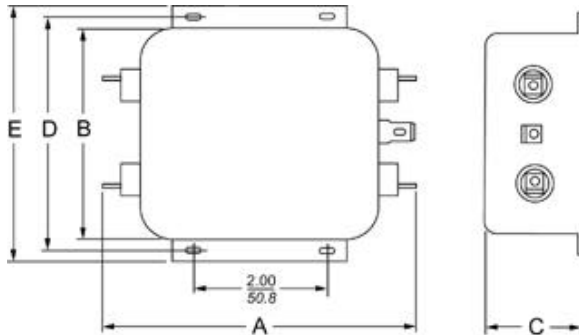
### 3A, 6A, 10A



Typical dimensions

Terminals:  $\frac{.250}{6.35}$  (5) Holes:  $\frac{.07}{1.8}$  Dia.(4) Slot:  $\frac{.07 \times .16}{1.8 \times 4.1}$  Mounting holes:  $\frac{.188}{4.78}$  Dia.(2)

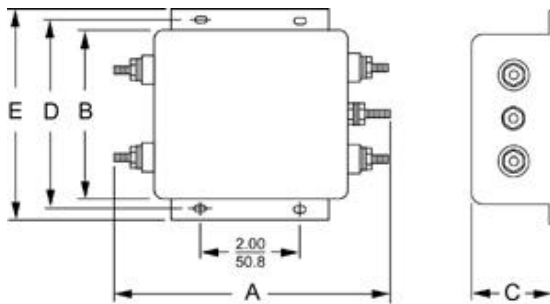
### 20VV1/20VW1



Typical dimensions

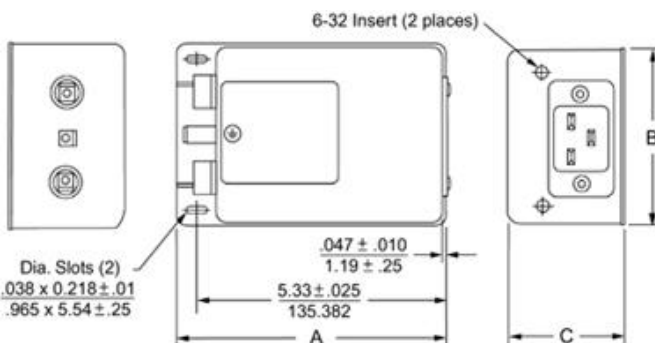
Terminals:  $\frac{.250}{6.35}$  (5) Holes:  $\frac{.07}{1.8}$  Dia.(4) Slot:  $\frac{.07 \times .16}{1.8 \times 4.1}$

### 20VV6/20VW6



Terminals: No. 8-32 (5) Mounting slots:  $\frac{.250}{6.35} \times \frac{.156}{3.96}$  (4)  
Torque:  $18 \pm 2$  in.lb.

### 20VW7



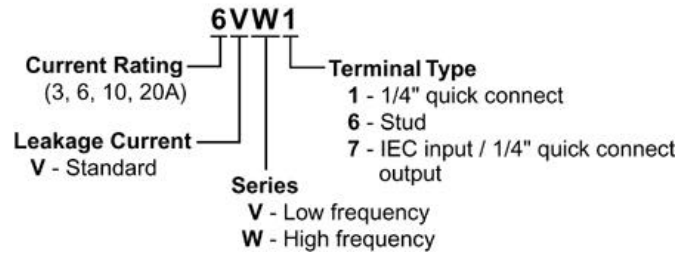
## Case Dimensions

Metric shown in italics.

Part No.	A (max)	B (max)	C (max)	D $\pm .015$ $\pm .38$	E (max)
3VV1, 3VW1	$\frac{3.36}{85.3}$	$\frac{1.82}{46.2}$	$\frac{1.28}{32.5}$	$\frac{2.375}{60.33}$	$\frac{2.78}{70.6}$
6VV1, 6VW1	$\frac{3.86}{98.0}$	$\frac{2.08}{52.8}$	$\frac{1.53}{38.9}$	$\frac{2.938}{74.63}$	$\frac{3.34}{84.8}$
10VV1, 10VW1	$\frac{3.86}{98.0}$	$\frac{2.08}{52.8}$	$\frac{1.53}{38.9}$	$\frac{2.938}{74.63}$	$\frac{3.34}{84.8}$
20VV1, 20VW1	$\frac{5.23}{132.8}$	$\frac{3.38}{85.9}$	$\frac{1.53}{38.9}$	$\frac{3.75}{95.25}$	$\frac{4.2}{106.7}$
20VV6, 20VW6	$\frac{5.34}{135.64}$	$\frac{3.38}{85.9}$	$\frac{1.53}{38.9}$	$\frac{3.76}{95.5}$	$\frac{4.2}{106.7}$
20VW7	$\frac{5.65}{143.51}$	$\frac{3.12}{79.25}$	$\frac{2.29}{58.17}$		

## Ordering Information

Consult your local Corcom sales representative for pricing.



## Available Part Numbers

3VV1	3VW1
6VV1	6VW1
10VV1	10VW1
20VV1	20VW1
20VV6	20VW6
	20VW7

## 20VW7 Panel Cutout

