

Multipurpose Power Line RFI Filter for Emission Control

V and W Series



UL Recognized
CSA Certified
VDE Approved¹



Both the V and W series are effective to control emissions in equipment using SCR and T²L circuits for compliance with FCC Part 15, Subpart J and EN55022, Level A, down to 150kHz

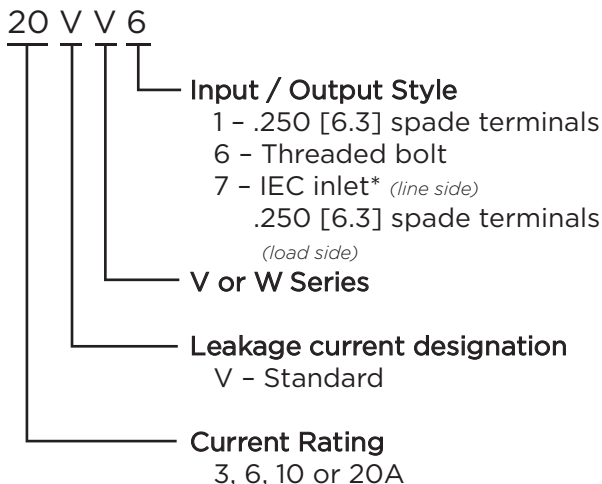
V Series

- 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
- Designed for susceptibility use when equipment impedance at RF frequencies is low

W Series

- Offers 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
- Designed for use when equipment impedance at RF frequencies is high
- Two stage construction provides excellent suppression at high frequencies

Ordering Information



*IEC 60320-1 C20 inlet mates with C19 connector

Specifications

Maximum leakage current each Line to Ground:

| | |
|------------------|--------|
| @ 120 VAC 60 Hz: | .5 mA |
| @250 VAC 50 Hz: | .82 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:

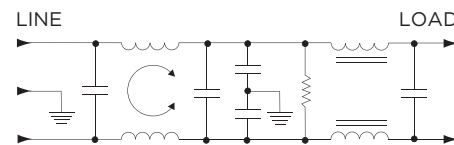
3 to 20A*

Operating Ambient Temperature Range

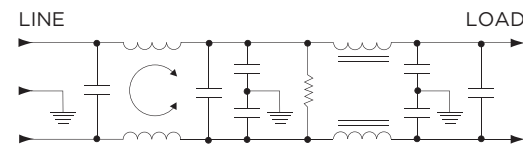
(at rated current I_r): -10°C to +40°C
In an ambient temperature (T_a) higher than +40°C the maximum operating current (I_o) is calculated as follows: $I_o = I_r \sqrt{(85-T_a)/45}$

Electrical Schematics

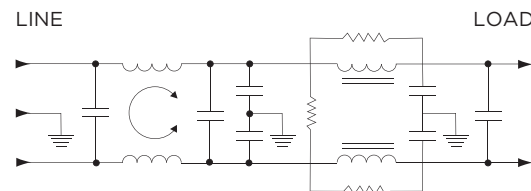
V Series



W Series (3, 6 & 10A)



W Series (20A)



¹20VW7, 20A model tested by Underwriters Laboratories to US and Canadian requirements and is VDE approved at 16A, 250VAC

Multipurpose Power Line RFI Filter for Emission Control *(continued)*

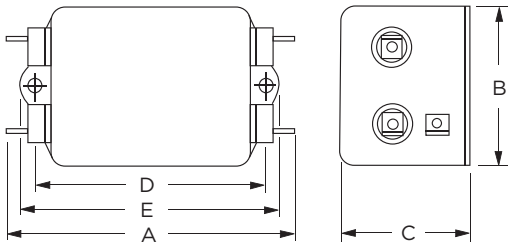
V and W Series

Available Part Numbers

| | |
|-------|--------|
| 3VV1 | 3VW1 |
| 6VV1 | 3VW1 |
| 10VV1 | 10VW1 |
| 20VV1 | 20VW1 |
| 20VV6 | 20VW6 |
| | 20VW7* |

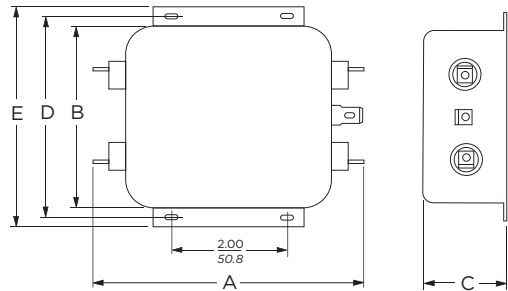
Case Styles

V1 / W1 (3, 6 & 10A)



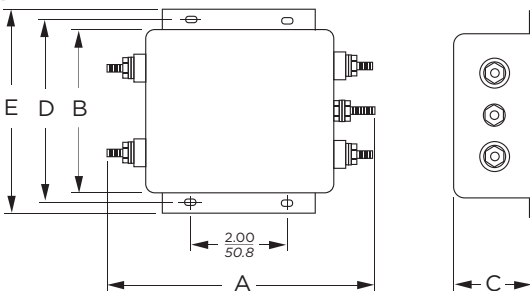
Typical Dimensions:
 Line/Load Terminals (4): .250 [6.3] with .07 [1.8] Dia. hole
 Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot
 Mounting Holes (2): .188 [4.78] Dia.

V1 / W1 (20A)



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 Slots (4): .250 x .156 [6.35 x 3.96] Dia.

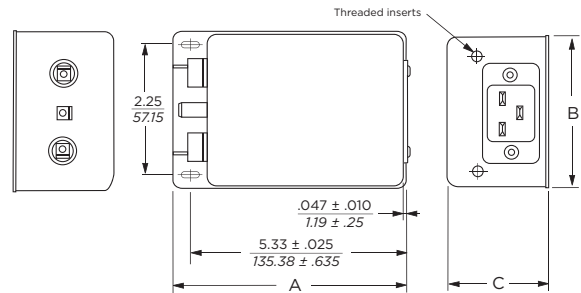
V6 / W6



Typical Dimensions:
 Terminals (5): 8-32, Torque 18 lbf-in. [2.03 N-m] max. ± 2 [22]
 Mounting Slots (4): .250 x .156 [6.35 x 3.96] Dia.

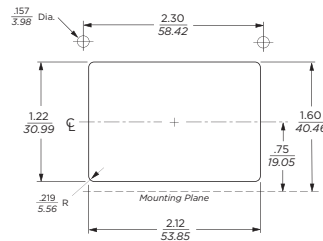
Case Styles *(continued)*

VW7



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 C20
 Tapped Inserts (2): 6-32 x 1/4

Recommended Panel Cutout



Case Dimensions

| Part No. | A (max) | B (max) | C (max) | D ±.015 ±.38 | E (max) |
|--------------|-----------------------|----------------------|----------------------|-----------------------|----------------------|
| 3VV1, 3VW1 | 3.36 85.3 | 1.82 46.2 | 1.28 32.5 | 2.375 60.33 | 2.78 70.6 |
| 6VV1, 6VW1 | 3.86 98.0 | 2.08 52.8 | 1.53 38.9 | 2.938 74.63 | 3.34 84.8 |
| 10VV1, 10VW1 | 3.86 98.0 | 2.08 52.8 | 1.53 38.9 | 2.938 74.63 | 3.34 84.8 |
| 20VV1, 20VW1 | 5.23 132.8 | 3.38 85.9 | 1.53 38.9 | 3.75 95.25 | 4.20 106.7 |
| 20VV6, 20VW6 | 5.34 135.64 | 3.38 85.9 | 1.53 38.9 | 3.76 95.5 | 4.20 106.7 |
| 20VW7 | 5.65 143.51 | 3.12 79.25 | 2.29 58.17 | — | — |

*20VW7, 20A model tested by Underwriters Laboratories to US and Canadian requirements and is VDE approved at 16A, 250VAC

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RFI Power Line Filters

Multipurpose Power Line RFI Filter for Emission Control *(continued)*

V and W Series

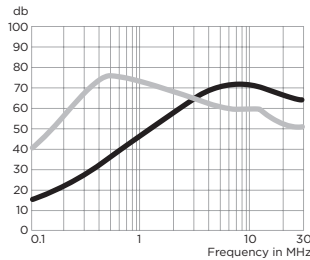
Performance Data

Typical Insertion Loss

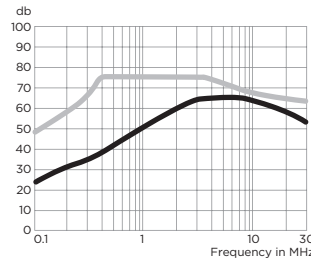
Measured in closed 50 Ohm system

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

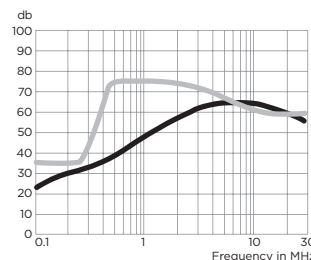
3VV



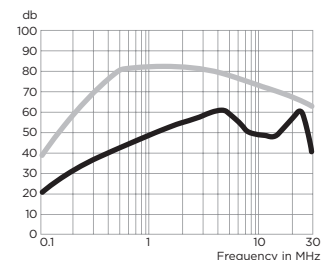
6VV



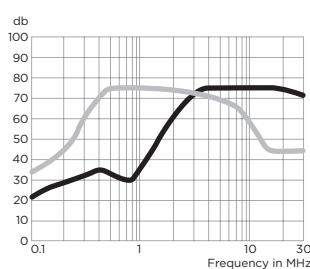
10VV



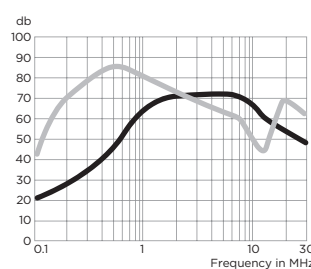
20VV



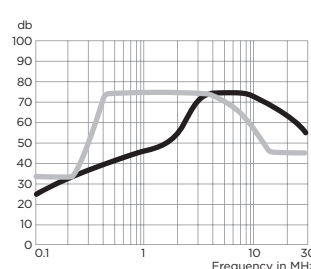
3VW



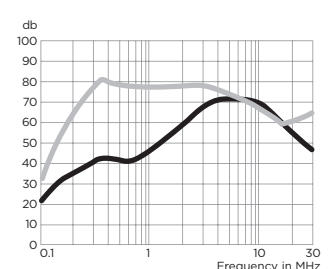
6VW



10VW



20VW



Minimum Insertion Loss

Measured in closed 50 Ohm system

Common Mode / Asymmetrical (Line to Ground)

| Current Rating | Frequency – MHz | | | | | | | |
|-----------------|-----------------|----|----|----|----|----|----|----|
| | .15 | .5 | 1 | 2 | 5 | 10 | 20 | 30 |
| V Series | | | | | | | | |
| 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 | 55 | 46 | 36 | 30 |
| W Series | | | | | | | | |
| 3A | 13 | 25 | 20 | 45 | 60 | 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 |

Differential Mode / Symmetrical (Line to Line)

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



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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