

RFI Power Line Filters for DC Applications

DC Series



UL Recognized
CSA Certified
TUV Certified



60DCF6B

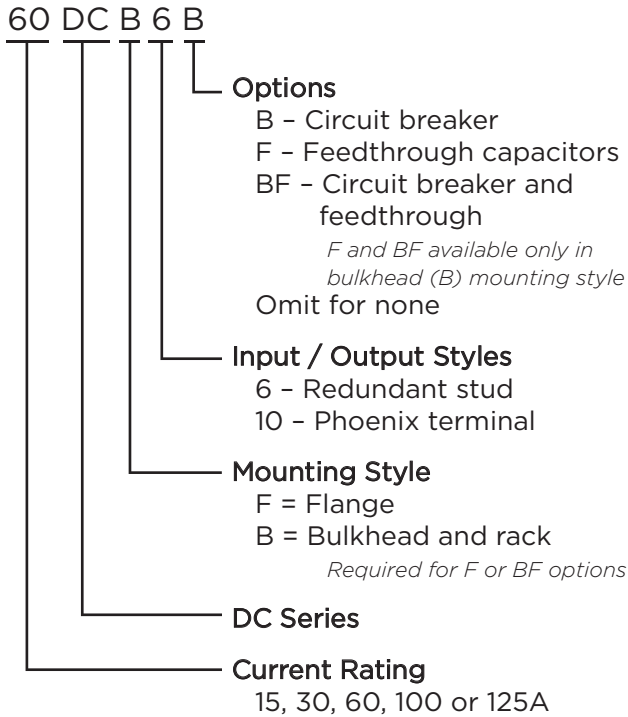


15DCF10

DC Series

- General purpose line filters for DC applications up to 125VDC
- Available with or without a circuit breaker
- Available with feedthrough capacitors for added high frequency performance
- Available in both flange mound (DCF) and bulkhead mount (DCB) configuration

Ordering Information

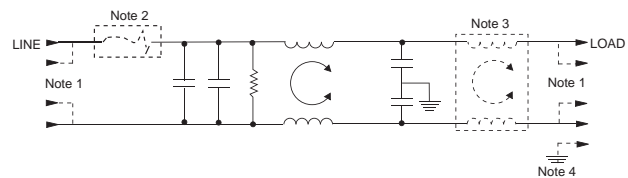


Specifications

- Hipot rating (one minute):**
 Line to Ground: 2250 VDC
 Line to Line: 1450 VDC
- Rated Voltage (max):** 80 VDC
- Rated Current:** 15 to 125A
- Operating Ambient Temperature Range (at rated current I_r):** -10°C to +55°C
 In an ambient temperature (T_a) higher than +55°C the maximum operating current (I_o) is calculated as follows: $I_o = I_r \sqrt{(85-T_a)/30}$

Electrical Schematics

Standard Performance



High Frequency Performance (F & BF Styles)



- Note 1: Depicts redundant style 6 terminals.
 Note 2: Depicts optional circuit breaker.
 Note 3: For 100 & 125A versions delete second coil.
 Note 4: Depicts style 10 terminal versions which have separate ground stud.

RFI Power Line Filters for DC Applications *(continued)*

DC Series

Available Part Numbers

| Standard Performance | | High Performance | |
|----------------------|-----------|------------------|----------|
| 15DCF6 | 15DCF10 | 15DCB10F | 15DCB6F |
| 30DCF6 | 30DCF10 | 30DCB10F | 30DCB6F |
| 60DCF6 | 60DCF10 | 60DCB10F | 60DCB6F |
| 100DCF6 | 100DCF10 | 100DCB10F | 100DCB6F |
| 125DCF6 | 125DCF10 | 125DCB10F | 125DCB6F |
| 15DCF6B | 15DCF10B | 15DCB6BF | |
| 30DCF6B | 30DCF10B | 30DCB6BF | |
| 60DCF6B | 60DCF10B | 60DCB6BF | |
| 100DCF6B | 100DCF10B | 100DCB6BF | |
| 125DCF6B | 125DCF10B | 125DCB6BF | |
| 15DCB6 | 15DCB10 | 15DCB10BF | |
| 30DCB6 | 30DCB10 | 30DCB10BF | |
| 60DCB6 | 60DCB10 | 60DCB10BF | |
| 100DCB6 | 100DCB10 | 100DCB10BF | |
| 125DCB6 | 125DCB10 | 125DCB10BF | |
| 15DCB6B | 15DCB10B | | |
| 30DCB6B | 30DCB10B | | |
| 60DCB6B | 60DCB10B | | |
| 100DCB6B | 100DCB10B | | |
| 125DCB6B | 125DCB10B | | |

Termination Options

Style 6 (15, 30 & 60A)

- Supplied with #10-32 redundant studs
- 0.625 [*15.88*] spacing like polarity
- 0.750 [*19.05*] spacing opposing polarity
- Torque specification: 27 ±3 in-lb.

Style 10 (15 & 30A)

- PHOENIX CONTACT* part number: VDFK4
- Accepts 12 AWG stranded wire
- Wire strip length: 0.315 [*8.0*]
- Torque specification: 5.5 – 7.0 in-lb.
- Ground stud: 8-32

Style 10 (100A)

- PHOENIX CONTACT* part number: HDFK 25-VP
- Accepts 4 AWG stranded wire
- Wire strip length: 0.748 [*19.0*]
- Torque specification: 35.4 – 39.9 in-lb.
- Ground stud: 1/4-20

Style 6 (100 & 125A)

- Supplied with 1/4-20 redundant studs
- 0.750 [*19.05*] spacing like polarity
- 1.00 [*25.4*] spacing opposing polarity
- Torque specification: 45 ±2 in-lb

Style 10 (60A)

- PHOENIX CONTACT* part number: HDFK 16-VP
- Accepts 6 AWG stranded wire
- Wire strip length: 0.630 [*16.0*]
- Torque specification: 17.7 – 21.2 in-lb.
- Ground stud: 10-32

Style 10 (125A)

- PHOENIX CONTACT* part number: HDFK 50-VP
- Accepts 1 AWG stranded wire
- Wire strip length: 0.945 [*24.0*]
- Torque specification: 35.4 – 39.9 in-lb.
- Ground stud: 1/4-20

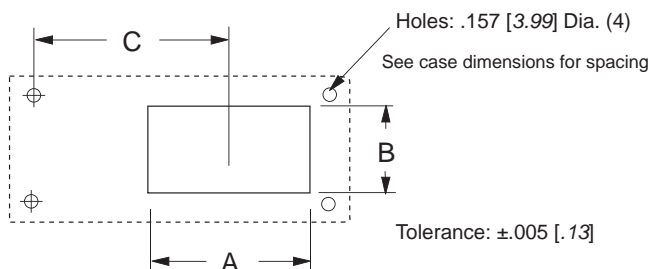
*PHOENIX CONTACT is a trademark of Phoenix Contact GmbH & Co. KG.

RFI Power Line Filters for DC Applications *(continued)*

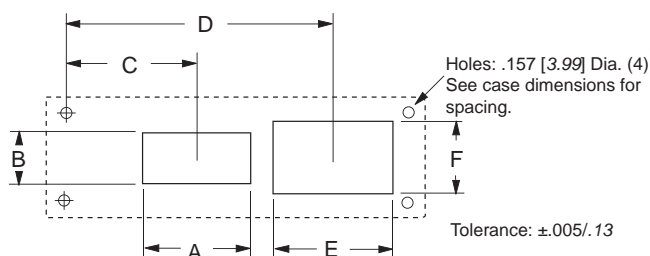
DC Series

Recommended Panel Cutouts

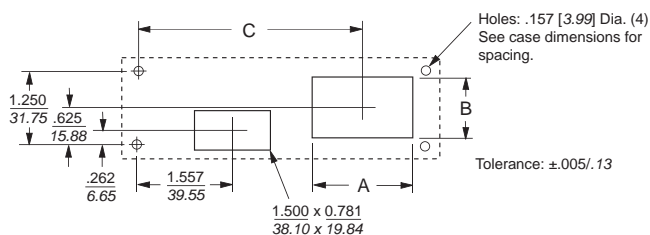
DCB6(F) & DCB10(F)



DCB6B(F) & DCB10B(F) 15 to 60A



DCB6B(F) & DCB10B(F) 100 to 125A



Cutout Dimensions

DCB6(F) & DCB10(F)

| Part No. | A | B | C |
|-------------|-------|-------|-------|
| 15DCB6(F) | 1.375 | 1.249 | 3.472 |
| 30DCB6(F) | 34.93 | 31.72 | 88.19 |
| 15DCB10(F) | 1.250 | 1.000 | 3.472 |
| 30DCB10(F) | 31.75 | 25.40 | 88.19 |
| 60DCB6(F) | 1.375 | 1.249 | 3.472 |
| 60DCB10(F) | 1.674 | 1.010 | 3.443 |
| 100DCB6(F) | 1.700 | 1.549 | 3.472 |
| 125DCB6(F) | 43.18 | 39.34 | 88.19 |
| 100DCB10(F) | 1.954 | 1.500 | 2.830 |
| 125DCB10(F) | 2.250 | 1.590 | 2.725 |
| | 57.15 | 40.39 | 69.22 |

DCB6B(F) & DCB10B(F) 15 to 60A

| Part No. | A | B | C | D | E | F |
|-------------|-------|-------|-------|-------|-------|-------|
| 15DCB6B(F) | 1.50 | 0.781 | 1.308 | 3.472 | 1.375 | 1.249 |
| 15DCF6B | 38.10 | 19.84 | 33.22 | 88.19 | 34.93 | 31.72 |
| 15DCB10B(F) | 1.50 | 0.781 | 1.308 | 3.472 | 1.250 | 1.00 |
| 15DCF10B | 38.10 | 19.84 | 33.22 | 88.19 | 31.75 | 25.40 |
| 30DCB6B(F) | 1.50 | 0.781 | 1.308 | 3.472 | 1.375 | 1.249 |
| 30DCF6B | 38.10 | 19.84 | 33.22 | 88.19 | 34.93 | 31.72 |
| 30DCB10B(F) | 1.50 | 0.781 | 1.308 | 3.472 | 1.250 | 1.00 |
| 30DCF10B | 38.10 | 19.84 | 33.22 | 88.19 | 31.75 | 25.40 |
| 60DCB10B(F) | 1.50 | 0.781 | 1.308 | 3.443 | 1.674 | 1.010 |
| 60DCF10B | 38.10 | 19.84 | 33.22 | 87.45 | 42.52 | 25.65 |
| 60DCF6B(F) | 1.50 | 0.781 | 1.308 | 3.472 | 1.375 | 1.249 |
| 60DCF6B | 38.10 | 19.84 | 33.22 | 88.19 | 34.93 | 31.72 |

DCB6B(F) & DCB10B(F) 100 to 125A

| Part No. | A | B | C |
|--------------|-------|-------|--------|
| 100DCB6B(F) | 1.70 | 1.549 | 4.222 |
| 100DCF6B | | | |
| 125DCB6B(F) | 43.18 | 39.34 | 107.23 |
| 125DCF6B | | | |
| 100DCB10B(F) | 1.954 | 1.50 | 4.295 |
| 100DCF10B | 49.63 | 38.10 | 109.09 |
| 125DCB10B(F) | 2.25 | 1.59 | 4.147 |
| | 57.15 | 40.39 | 105.33 |
| 125DCF10B | 2.25 | 1.59 | 2.725 |
| | 57.15 | 40.39 | 105.33 |

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DC Filters

RFI Power Line Filters for DC Applications *(continued)*

DC Series

Case Styles

DCB6 & DCB6B



DCB10 & DCB10B (60 to 125A)



DCF6



DCF10 (15 & 30A)



DCF6B



DCF10 (60 to 125A)



DCB10 & DCB10B (15 to 30A)



DCF10B (15 & 30A)

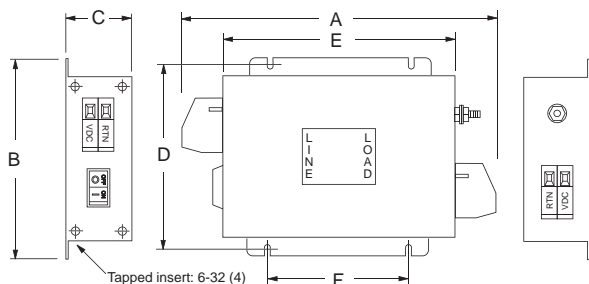


RFI Power Line Filters for DC Applications *(continued)*

DC Series

Case Styles *(continued)*

DCF10B (60 TO 125A)



Typical Dimensions:
Mounting Slots (4): .260 x .39 [6.6 x 9.9]

Case Dimensions

| Part No. | A (max) | B (max) | C (max) | D ± 0.20 $\pm .51$ | E (max) | F ± 0.20 $\pm .51$ |
|-------------|------------|------------|------------|------------------------------|------------|------------------------------|
| 15DCB6(F) | 5.69 | 5.06 | 1.48 | 4.50 | 4.06 | 0.950 |
| 15DCB6B(F) | 7.69 | 5.06 | 1.48 | 4.50 | 6.06 | 0.950 |
| 15DCB10(F) | 5.06 | 5.06 | 1.48 | 4.50 | 4.06 | 0.950 |
| 15DCB10B(F) | 7.06 | 5.06 | 1.48 | 4.50 | 6.06 | 0.950 |
| 15DCF6 | 5.33 | 3.10 | 1.78 | 2.677 | 3.70 | 2.00 |
| 15DCF6B(F) | 7.69 | 5.06 | 1.48 | 5.740 | 6.06 | 3.52 |
| 15DCF10 | 4.75 | 3.10 | 1.78 | 2.677 | 3.70 | 2.0 |
| 15DCF10B(F) | 7.06 | 5.06 | 1.48 | 5.740 | 6.06 | 3.520 |
| 30DCB6(F) | 7.69 | 5.06 | 1.48 | 4.50 | 6.06 | 0.95 |
| 30DCB6B(F) | 8.69 | 5.06 | 1.48 | 4.50 | 7.06 | 0.95 |
| 30DCB10(F) | 7.06 | 5.06 | 1.48 | 4.50 | 6.06 | 0.95 |
| 30DCB10B(F) | 8.06 | 5.06 | 1.48 | 4.50 | 7.06 | 0.95 |
| 30DCF6 | 6.19 | 3.96 | 2.18 | 3.50 | 4.56 | 2.00 |
| 30DCF6B | 8.69 | 5.0 | 1.48 | 5.74 | 7.06 | 4.52 |
| 30DCF10 | 5.56 | 3.96 | 2.18 | 3.5 | 4.56 | 2.0 |
| 30DCF10B | 8.06 | 5.06 | 1.48 | 5.74 | 7.06 | 4.52 |

Case Dimensions *(continued)*

| Part No. | A (max) | B (max) | C (max) | D ± 0.20 $\pm .51$ | E (max) | F ± 0.20 $\pm .51$ |
|--------------|------------|------------|------------|------------------------------|------------|------------------------------|
| 60DCB6(F) | 8.69 | 5.06 | 1.48 | 4.50 | 7.06 | 0.95 |
| 60DCB6B(F) | 10.69 | 5.06 | 1.48 | 4.50 | 9.06 | 0.95 |
| 60DCF6 | 7.56 | 5.48 | 2.55 | 4.92 | 5.94 | 2.756 |
| 60DCF6B | 10.69 | 5.06 | 1.48 | 5.74 | 9.06 | 6.52 |
| 60DCF10 | 8.56 | 5.48 | 2.55 | 4.92 | 5.94 | 2.576 |
| 60DCF10B | 11.75 | 5.06 | 1.48 | 5.74 | 9.06 | 6.52 |
| 100DCB6(F) | 10.31 | 5.06 | 1.78 | 4.50 | 8.06 | 1.25 |
| 100DCB6B(F) | 12.31 | 6.06 | 1.78 | 5.50 | 10.06 | 1.25 |
| 100DCB10(F) | 11.13 | 5.06 | 1.78 | 4.50 | 8.06 | 1.25 |
| 100DCB10B(F) | 13.13 | 6.06 | 1.78 | 5.50 | 10.06 | 1.25 |
| 100DCF6 | 10.60 | 6.30 | 2.52 | 5.70 | 8.46 | 4.52 |
| 100DCF6B | 12.31 | 6.06 | 1.78 | 6.74 | 10.06 | 7.52 |
| 100DCF10 | 11.50 | 6.30 | 2.52 | 5.70 | 8.46 | 4.52 |
| 100DCF10B | 13.13 | 6.06 | 1.78 | 6.74 | 10.06 | 7.52 |
| 125DCB6(F) | 10.31 | 5.06 | 1.78 | 4.50 | 8.06 | 1.25 |
| 125DCB6B(F) | 12.31 | 6.06 | 1.78 | 5.50 | 10.06 | 1.25 |
| 125DCB10(F) | 11.50 | 5.06 | 1.78 | 4.50 | 8.06 | 1.25 |
| 125DCB10B(F) | 13.50 | 6.06 | 1.78 | 5.50 | 10.06 | 1.25 |
| 125DCF6 | 10.60 | 6.30 | 2.52 | 5.70 | 8.46 | 4.52 |
| 125DCF6B | 12.31 | 6.06 | 1.78 | 6.74 | 10.06 | 7.52 |
| 125DCF10 | 11.86 | 6.30 | 2.52 | 5.70 | 8.46 | 4.52 |
| 125DCF10B | 13.50 | 6.06 | 1.78 | 6.74 | 10.06 | 7.52 |

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DC Filters

Dimensions are in inches and millimeters unless otherwise specified. Values in italics are metric equivalents. Dimensions are shown for reference purposes only. Specifications subject to change.

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RFI Power Line Filters for DC Applications *(continued)*

DC Series

Performance Data *(continued)*

Minimum Insertion Loss

Measured in closed 50 Ohm system

Standard Performance

Common Mode / Asymmetrical (Line to Ground)

| Current Rating | Frequency – MHz | | | | | | | | | |
|----------------|-----------------|-----|----|-----|----|----|----|----|----|----|
| | .01 | .05 | .1 | .15 | .5 | 1 | 3 | 5 | 10 | 30 |
| 15A | - | 1 | 12 | 20 | 41 | 45 | 61 | 63 | 47 | 39 |
| 30A | - | 4 | 15 | 23 | 47 | 59 | 64 | 56 | 44 | 36 |
| 60A | - | - | 9 | 17 | 38 | 40 | 59 | 50 | 39 | 34 |
| 100A | - | - | 10 | 18 | 38 | 39 | 53 | 50 | 35 | 21 |
| 125A | - | - | 12 | 18 | 30 | 32 | 44 | 49 | 29 | 18 |

Differential Mode / Symmetrical (Line to Line)

| Current Rating | Frequency – MHz | | | | | | | | | |
|----------------|-----------------|-----|----|-----|----|----|----|----|----|----|
| | .01 | .05 | .1 | .15 | .5 | 1 | 3 | 5 | 10 | 30 |
| 15A | 7 | 22 | 27 | 30 | 30 | 36 | 56 | 49 | 38 | 31 |
| 30A | 7 | 22 | 28 | 31 | 32 | 59 | 56 | 51 | 41 | 28 |
| 60A | 15 | 30 | 36 | 40 | 40 | 35 | 60 | 51 | 39 | 32 |
| 100A | 14 | 29 | 35 | 39 | 33 | 30 | 53 | 53 | 41 | 30 |
| 125A | 14 | 24 | 35 | 39 | 40 | 28 | 53 | 60 | 42 | 33 |

High Frequency Performance (F & BF Styles)

Common Mode / Asymmetrical (Line to Ground)

| Current Rating | Frequency – MHz | | | | | | | | | | | |
|----------------|-----------------|-----|----|-----|----|----|----|----|----|----|-----|------|
| | .01 | .05 | .1 | .15 | .5 | 1 | 3 | 5 | 10 | 20 | 300 | 3000 |
| 15A | - | 1 | 12 | 20 | 41 | 45 | 55 | 50 | 45 | 25 | 50 | 30 |
| 30A | - | 4 | 15 | 20 | 46 | 58 | 60 | 60 | 48 | 35 | 50 | 30 |
| 60A | - | - | 9 | 16 | 38 | 42 | 52 | 60 | 48 | 26 | 40 | 30 |
| 100A | - | - | 9 | 16 | 38 | 42 | 52 | 60 | 42 | 26 | 40 | 30 |
| 125A | - | - | 9 | 16 | 28 | 34 | 46 | 54 | 34 | 34 | 40 | 30 |

Differential Mode / Symmetrical (Line to Line)

| Current Rating | Frequency – MHz | | | | | | | | | |
|----------------|-----------------|-----|----|-----|----|----|----|----|----|----|
| | .01 | .05 | .1 | .15 | .5 | 1 | 3 | 5 | 10 | 20 |
| 15A | 7 | 22 | 27 | 30 | 30 | 50 | 60 | 60 | 60 | 36 |
| 30A | 7 | 22 | 27 | 30 | 33 | 56 | 60 | 60 | 60 | 40 |
| 60A | 15 | 30 | 36 | 40 | 37 | 26 | 46 | 54 | 48 | 30 |
| 100A | 14 | 29 | 35 | 39 | 33 | 30 | 56 | 53 | 41 | 30 |
| 125A | 14 | 29 | 35 | 39 | 40 | 28 | 53 | 60 | 42 | 33 |

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- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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JONHON

«JONHON» (основан в 1970 г.)

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Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А