

**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 mount (DCF) and bulkhead mount (DCB) configuration

## Ordering Information



## Specifications

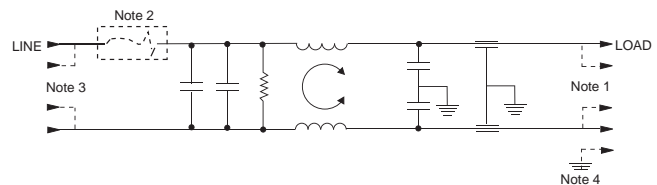
- Hipot rating (one minute):**  
 Line to Ground: 2250 VDC  
 Line to Line: 1450 VDC
- Rated Voltage (max):** 80 VDC
- Rated Current:** 15 to 125A
- Operating Ambient Temperature Range (at rated current  $I_r$ ):** -10°C to +55°C  
 In an ambient temperature ( $T_a$ ) higher than +55°C the maximum operating 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

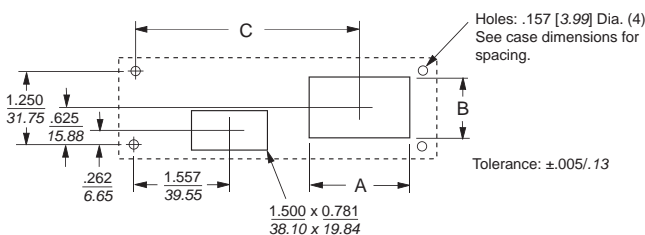
### DCB6(F) & DCB10(F)



### 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 |

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<br>(max) | B<br>(max) | C<br>(max) | D<br>$\pm 0.20$<br>$\pm .51$ | E<br>(max) | F<br>$\pm 0.20$<br>$\pm .51$ |
|-------------|------------|------------|------------|------------------------------|------------|------------------------------|
| 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<br>(max) | B<br>(max) | C<br>(max) | D<br>$\pm 0.20$<br>$\pm .51$ | E<br>(max) | F<br>$\pm 0.20$<br>$\pm .51$ |
|--------------|------------|------------|------------|------------------------------|------------|------------------------------|
| 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                         |

4  
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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[corcom.com](http://corcom.com)

**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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- 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);
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## JONHON

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ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

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