DFC Series

Component Recognized by
UL to US and Canadian Requirements

DFC Series

- DC feedthrough capacitors
- Current ratings from 10 to 300A
- Designed to meet the very stringent safety requirements of EN132400 class Y4 including the 2500V pulse test
- Custom versions available

Ordering Information

10 DFC6 – C

- Filter ID — See Table
- DFC Series Screw Terminals
- Current Rating *(in A)*

Filter Options / Specifications

Filter ID	Value (nF)
C	10
G	47
H	100
N	470
P	1000
Q	3300
R	4700
T	8000

Specifications

Rated Voltage (max): 130 VDC

Rated Current: 10 to 300A

Test Voltage (two seconds): 2500 VDC

Capacitor Class (EN132400): Designed to meet Y4

Pulse Test (EN132400): 2500V Peak

Insulation Resistance (within 1 minute):
For C < 0.33µF, R> 15000MΩ
For C > 0.33µF, RC(MΩ*µF)>5000s

Operating Ambient Temperature Range (at rated current I_r):
10 to 200A: -40°C to +60°C
250 & 300A: -40°C to +40°C

Category Temperature Range: -40°C to +85°C

Current Derating Above Ambient:
10-200A: For temperature, θ $I_\theta = IR\sqrt{(85-\theta)/25}$
250 & 300A: For temp., θ $I_\theta = IR\sqrt{(85-\theta)/45}$

Climatic Category: 40/85/21

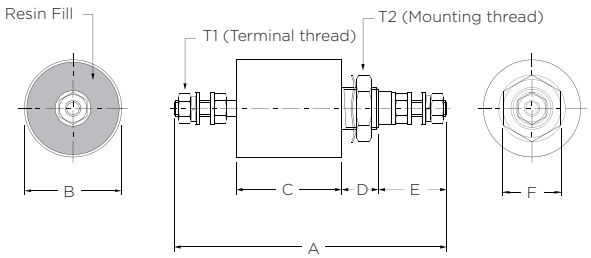
MTBF: > 10 million hours typical

Insulating Materials Flammability Rating: UL94V-0

Case & Terminal Material: Nickel Plated Brass

DFC Series

Case Style



T1 – Terminal Thread

Part No.	Thread	Torque max. in.lb.
10DFC6-C	M3	4
16DFC6-C/G/H/N 32DFC6-C/G/H/N	M4	11
63DFC6-C/G/H/N	M6	22
100FDC6-G/H/N/P	M8	44
200DFC6-H/N/P/R	M10	71
250DFC6-P/Q/T	M12	97
300DFC6-P/Q/T	M16	177

T2 – Mounting Thread

Part No.	Thread	Torque max. in.lb.
10DFC6-C	M10 x 1	27
16DFC6-C/G/H 32DFC6-C/G/H	M12 x 1	35
63DFC6-C/G/H	M16 x 1	62
16DFC6-N 32DFC6-N 63DFC6-N 100DFC6-G/H/N	M20 x 1	89
100DFC6-P 200DFC6-H/N/P	M24 x 1	124
200FFC6-R	M27 x 1.5	142

Case Dimensions

Part No.	A ± .04 *1*	B ± .02 *0.5*	C ± .08 *2*	D ± .04 *1*	E ± .08 *2*	F (max)
10DFC6-C	**2.24** *57*	**0.59** *15*	**0.71** *18*	**0.39** *10*	**0.63** *16*	**0.51** *13*
16DFC6-C	**2.48** *63*	**0.79** *20*	**0.71** *18*	**0.47** *12*	**0.71** *18*	**0.67** *17*
16DFC6-G 16DFC6-H	**2.95** *75*	**0.79** *20*	**1.18** *30*	**0.47** *12*	**0.71** *18*	**0.67** *17*
16DFC6-N	**3.23** *82*	**1.26** *32*	**1.30** *33*	**0.63** *16*	**0.71** *18*	**1.06** *27*
32DFC6-C	**2.48** *63*	**0.79** *20*	**0.71** *18*	**0.47** *12*	**0.71** *18*	**0.67** *17*
32DFC6-G 32DFC6-H	**2.95** *75*	**0.79** *20*	**1.18** *30*	**0.47** *12*	**0.71** *18*	**0.67** *17*
32DFC6-N	**3.23** *82*	**1.26** *32*	**1.30** *33*	**0.63** *16*	**0.71** *18*	**1.06** *27*
63DFC6-C 63DFC6-G 63DFC6-H	**3.78** *96*	**0.98** *25*	**1.18** *30*	**0.55** *14*	**1.02** *26*	**0.87** *22*
63DFC6-N	**3.98** *101*	**1.26** *32*	**1.30** *33*	**0.63** *16*	**1.02** *26*	**1.06** *27*
100DFC6-G 100DFC6-H 100DFC6-N	**4.45** *113*	**1.26** *32*	**1.30** *33*	**0.63** *16*	**1.26** *32*	**1.06** *27*
100DFC6-P	**5.24** *133*	**1.50** *38*	**1.97** *50*	**0.75** *19*	**1.26** *32*	**1.06** *27*
200DFC6-H 200DFC6-N	**5.12** *130*	**1.26** *32*	**1.30** *33*	**0.75** *19*	**1.57** *40*	**1.06** *27*
200DFC6-P	**5.79** *147*	**1.50** *38*	**1.97** *50*	**0.75** *19*	**1.57** *40*	**1.06** *27*
200DFC6-R	**6.50** *165*	**2.13** *54*	**2.68** *68*	**0.75** *19*	**1.57** *40*	**1.57** *40*
250DFC6-P 300DFC6-P	**5.83** *148*	**2.13** *54*	**1.65** *42*	**0.75** *19*	**1.81** *46*	**1.57** *40*
250DFC6-Q 300DFC6-Q	**6.30** *160*	**2.13** *54*	**2.13** *54*	**0.75** *19*	**1.81** *46*	**1.57** *40*
250DFC6-T 300DFC6-T	**7.01** *178*	**2.13** *54*	**2.83** *72*	**0.75** *19*	**1.81** *46*	**1.57** *40*

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Available Part Numbers

10DFC6-C	32DFC6-H	100DFC6-H	250DFC6-P
16DFC6-C	32DFC6-N	100DFC6-N	250DFC6-Q
16DFC6-G	63DFC6-C	100DFC6-P	250DFC6-T
16DFC6-H	63DFC6-G	200DFC6-H	300DFC6-P
16DFC6-N	63DFC6-H	200DFC6-N	300DFC6-Q
32DFC6-C	63DFC6-N	200DFC6-P	300DFC6-T
32DFC6-G	100DFC6-G	200DFC6-R	

Performance Data

Typical Insertion Loss — Line to Ground in 50 Ohm circuit

Filter ID	Frequency – MHz							
	0.01	0.03	0.1	0.3	1	10	100	1000
C	-	-	-	-	3	21	45	70
G	-	-	2	6	15	34	50	90
H	-	2	5	11	20	40	65	90
N	6	9	15	22	33	33	90	90
P	10	15	24	32	42	50	90	90
Q	13	21	31	42	50	58	90	90
R	18	26	36	45	42	70	90	90
T	22	31	41	52	62	82	90	90