

DC Feedthrough Capacitors – Class Y4

DFC Series



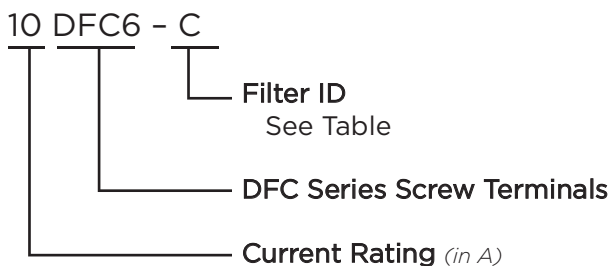
Component Recognized by
UL to US and Canadian Requirements



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



Filter Options / Specifications

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

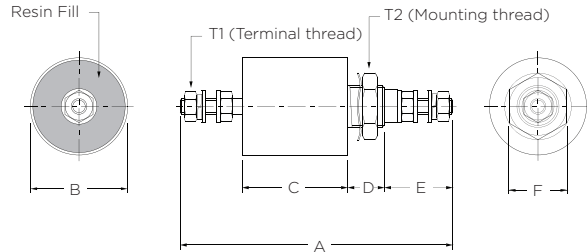
Specifications

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 $C < 0.33\mu\text{F}$, $R > 15000\text{M}\Omega$
	For $C > 0.33\mu\text{F}$, $RC(\text{M}\Omega \cdot \mu\text{F}) > 5000\text{s}$
Operating Ambient Temperature Range (at rated current I_r):	
	10 to 200A: -40°C to $+60^\circ\text{C}$
	250 & 300A: -40°C to $+40^\circ\text{C}$
Category Temperature Range:	-40°C to $+85^\circ\text{C}$
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

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Case Style



T1 – Terminal Thread

Part No.	Thread	Torque max. in.lb.
10DFC6-C	M3	4
16DFC6-C/G/H/N	M4	11
32DFC6-C/G/H/N	M6	22
63DFC6-C/G/H/N	M8	44
100DFC6-G/H/N/P	M10	71
200DFC6-H/N/P/R	M12	97
250DFC6-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	M12 x 1	35
32DFC6-C/G/H	M16 x 1	62
16DFC6-N	M20 x 1	89
32DFC6-N	M24 x 1	124
63DFC6-N	M27 x 1.5	142
100DFC6-G/H/N		
100DFC6-P		
200DFC6-H/N/P		
200FFC6-R		

Case Dimensions

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

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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