

AC Feedthrough Capacitors - Class Y2

# AFC Series



Component Recognized by  
UL to US and Canadian Requirements

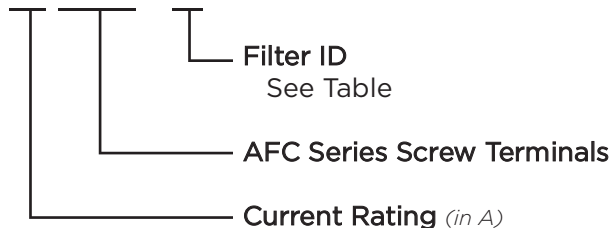


## AFC Series

- AC feedthrough capacitors
- Current ratings from 10 to 300A
- Designed to meet the very stringent safety requirements of EN132400 class Y2 including the 5000V pulse test
- Custom versions available

## Ordering Information

10 AFC6 - A



## Filter Options / Specifications

Filter ID	Value (nF)	Max. Leakage Current (mA)*
A	2.2	0.21
B	4.7	0.44
C	10	0.94
F	33	3.1
G	47	4.4
H	100	9.4
K	220	21
N	470	44
P	1000	94

\*@250VAC 60 Hz

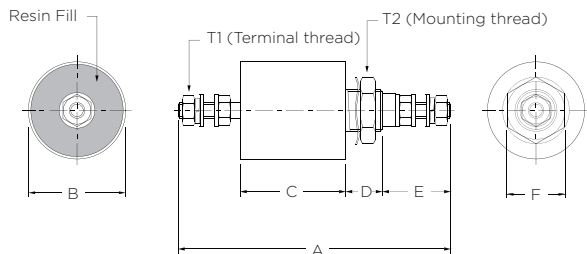
## Specifications

Rated Voltage (max):	250 VAC
Operating Frequency:	50/60 Hz
Rated Current:	10 to 300A
Test Voltage (two seconds):	5000 VDC
Capacitor Class (EN132400):	Designed to meet Y2
Pulse Test (EN132400):	5000V 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 <sub>r</sub> ):	
	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, $\theta$ $I_{\theta} = IR \sqrt{(85-\theta)/25}$
	250 & 300A: For temp., $\theta$ $I_{\theta} = IR \sqrt{(85-\theta)/45}$
Climatic Category:	40/85/21
MTBF:	> 10 million hours typical
Insulating Materials Flammability Rating:	UL94V-0
Case & Terminal Material:	Nickel Plated Brass

AC Feedthrough Capacitors - Class Y2 (continued)

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## Case Style



### T1 - Terminal Thread

Part No.	Thread	Torque max. in.lb.
10AFC6-A/B	M3	4
16AFC6-B/C/G/H	M4	11
20AFC6-B		
32AFC6-B/C/F/G/H		
63AFC6-C/G/H	M6	22
100AFC6-G/H/K/N	M8	44
200AFC6-H/K/N/P	M10	71
250AFC6-H/K/N/P	M12	97
300AFC6-H/K/N/P	M16	177

### T2 - Mounting Thread

Part No.	Thread	Torque max. in.lb.
10AFC6-A/B	M10 x 1	27
16AFC6-B/C/G	M12 x 1	35
20AFC6-B		
32AFC6-B/C/G/F		
16AFC6-H	M16 x 1	62
32AFC6-H		
63AFC6-C/G/H		
100AFC6-G/H	M20 x 1	89
100AFC6-K/N	M24 x 1	124
200AFC6-H/K		
200AFC6-N/P	M27 x 1.5	142

## Case Dimensions

Part No.	A	B	C	D	E	F
	$\frac{\pm .04}{1}$	$\frac{\pm .02}{0.5}$	$\frac{\pm .08}{2}$	$\frac{\pm .04}{1}$	$\frac{\pm .08}{2}$	(max)
10AFC6-A	2.24	0.59	0.71	0.39	0.63	0.51
10AFC6-B	57	15	18	10	16	13
16AFC6-B	2.48	0.79	0.71	0.47	0.71	0.67
16AFC6-C	63	20	18	12	18	17
16AFC6-G	2.95	0.79	1.18	0.47	0.71	0.67
	75	20	30	12	18	17
16AFC6-H	3.03	0.98	1.18	0.55	0.71	0.87
	77	25	30	14	18	22
20AFC6-B	2.48	0.79	0.71	0.47	0.71	0.67
	63	20	18	12	18	17
32AFC6-B	2.48	0.79	0.71	0.47	0.71	0.67
32AFC6-C	63	20	18	12	18	17
32AFC6-F	2.95	0.79	1.18	0.47	0.71	0.67
32AFC6-G	75	20	30	12	18	17
32AFC6-H	3.03	0.98	1.18	0.55	0.71	0.87
	77	25	30	14	18	22
63AFC6-C	3.78	0.98	1.18	0.55	1.02	0.87
63AFC6-G	96	25	30	14	26	22
63AFC6-H	3.78	0.98	1.18	0.55	1.02	0.87
	96	25	30	14	26	22
100AFC6-G	4.45	1.26	1.30	0.63	1.26	1.06
100AFC6-H	113	32	33	16	32	27
100AFC6-K	4.57	1.50	1.30	0.75	1.26	1.06
	116	38	33	19	32	27
200AFC6-H	5.24	1.50	1.97	0.75	1.26	1.06
200AFC6-K	133	38	50	19	32	27
200AFC6-N	5.12	1.50	1.30	0.75	1.57	1.06
200AFC6-P	130	38	33	19	40	27
250AFC6-H	5.79	2.13	1.97	0.75	1.57	1.57
250AFC6-K	147	54	50	19	40	40
250AFC6-N	5.83	2.13	1.65	0.75	1.81	1.57
250AFC6-P	148	54	42	19	46	40
300AFC6-H	6.30	2.13	2.13	0.75	1.81	1.57
300AFC6-K	160	54	54	19	46	40
300AFC6-N	5.83	2.13	1.65	0.75	1.81	1.57
300AFC6-P	148	54	42	19	46	40

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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**AC Feedthrough Capacitors - Class Y2** *(continued)*

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## Available Part Numbers

10AFC6-A	32AFC6-H	200AFC6-P
10AFC6-B	63AFC6-C	250AFC6-H
16AFC6-B	63AFC6-G	250AFC6-K
16AFC6-C	63AFC6-H	250AFC6-N
16AFC6-G	100AFC6-H	250AFC6-P
16AFC6-H	100AFC6-H	300AFC6-H
20AFC6-B	100AFC6-K	300AFC6-K
32AFC6-B	100AFC6-N	300AFC6-N
32AFC6-C	200AFC6-H	300AFC6-P
32AFC6-F	200AFC6-K	
32AFC6-G	200AFC6-N	

## 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
A	-	-	-	-	-	8	38	45
B	-	-	-	-	-	14	43	60
C	-	-	-	-	3	21	45	70
F	-	-	-	4	12	30	48	90
G	-	-	2	6	15	34	50	90
H	-	2	5	11	20	40	65	90
K	-	4	11	18	27	45	85	90
N	6	9	16	22	33	33	90	90
P	10	15	22	30	40	42	90	90