

AC Feedthrough Capacitors - Class Y2

# AFC Series



UL Pending  
CSA Pending

## AFC Series

The new AFC series features a range of AC feedthrough capacitors in current ratings from 10 to 300 amps. The AFC series is designed to meet the very stringent safety requirements of EN132400 class Y2 including the 5000V pulse test.

## Capacitor Options / Specifications

Filter ID	Value (nF)	Maximum 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



## Specifications

**Rated Voltage (max):** 250 VAC 50/60 Hz  
**Rated Current:** 10 to 300 amps  
**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 (@ rated current I<sub>R</sub>):**  
 10 to 200 Amps: -40°C to +60°C  
 250 & 300 Amps: -40°C to +40°C

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

**Climatic Category:** 40/85/21

**MTBF:** Typically >10 million hours

**Insulating Materials Flammability Rating:** UL 94V-0

**Typical insertion loss in dB:**  
 Line-to-ground in 50 ohm circuit

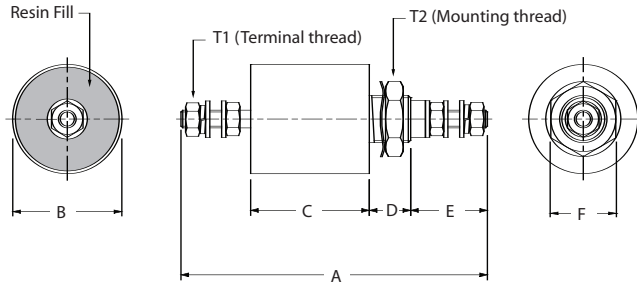
Cap ID	Frequency - MHz							
	0.01	0.03	0.1	0.3	1	10	100	1000
A	-	-	-	-	-	8	38	45
B	-	-	-	-	-	14	43	60
C	-	-	-	-	3	21	45	70
F	-	-	-	4	12	30	48	90
G	-	-	2	6	15	34	50	90
H	-	2	5	11	20	40	65	90
K	-	4	11	18	27	45	85	90
N	6	9	16	22	33	33	90	90
P	10	15	22	30	40	42	90	90

*Current derating above ambient:*  
 10-100 Amp: For temperature,  $\theta I_{\theta} = I_R \frac{(85-\theta)}{25}$   
 250 & 300 Amp: For temperature,  $\theta I_{\theta} = I_R \frac{(85-\theta)}{45}$

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## Case Style



### T1 - Terminal Thread

Part Number(s)	Thread	Torque (in.-lb.)
10AFC6-A, 10AFC6-B	M3	4
16AFC6-B, 16AFC6-C	M4	11
16AFC6-G, 16AFC6-H		
20AFC6-B, 32AFC6-B		
32AFC6-C, 32AFC6-F		
32AFC6-G, 32AFC6-H		
63AFC6-C, 63AFC6-G	M6	22
63AFC6-H		
100AFC6-G, 100AFC6-H	M8	44
100AFC6-K, 100AFC6-N		
200AFC6-H, 200AFC6-K	M10	71
200AFC6-N, 200AFC6-P		
250AFC6-H, 250AFC6-K	M12	97
250AFC6-N, 250AFC6-P		
300AFC6-H, 300AFC6-K	M16	177
300AFC6-N, 300AFC6-P		

### T2 - Mounting Thread

Part Number(s)	Thread	Torque (in.-lb.)
10AFC6-A, 10AFC6-B	M10 x 1	27
16AFC6-B, 16AFC6-C	M12 x 1	35
16AFC6-G, 20AFC6-B		
32AFC6-B, 32AFC6-C		
32AFC6-G, 32AFC6-F		
16AFC6-H, 32AFC6-H	M16 x 1	62
63AFC6-C, 63AFC6-G		
63AFC6-H		
100AFC6-G, 100AFC6-H	M20 x 1	89
100AFC6-K, 100AFC6-N	M24 x 1	124
200AFC6-H, 200AFC6-K		
200AFC6-N, 200AFC6-P	M27 x 1.5	142
250AFC6-H, 250AFC6-K	M32 x 1.5	212
250AFC6-N, 250AFC6-P		
300AFC6-H, 300AFC6-K		
300AFC6-N, 300AFC6-P		

## Case Dimensions

Part No.	A	B	C	D	E	F
	±.04	±.02	±.04	±.04	±.08	
10AFC6-A	1	0.5	1	1	2	
10AFC6-B	2.24	0.59	0.71	0.39	0.63	0.51
16AFC6-B	57	15	18	10	16	13
16AFC6-B	2.48	.79	0.71	0.47	0.71	0.67
16AFC6-C	63	20	18	12	18	17
16AFC6-C	2.95	0.79	1.18	0.47	0.71	0.67
16AFC6-G	75	20	30	12	18	17
16AFC6-G	3.03	0.98	1.18	0.55	0.71	0.87
16AFC6-H	77	25	30	14	18	22
20AFC6-B	2.48	0.79	0.71	0.47	0.71	0.67
20AFC6-B	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
32AFC6-H	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
63AFC6-H	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
100AFC6-K	116	38	33	19	32	27
100AFC6-N	5.24	1.50	1.97	0.75	1.26	1.06
100AFC6-N	133	38	50	19	32	27
200AFC6-H	5.12	1.50	1.30	0.75	1.57	1.06
200AFC6-K	130	38	33	19	40	27
200AFC6-N	5.79	2.13	1.97	0.75	1.57	1.57
200AFC6-P	147	54	50	19	40	40
250AFC6-H	5.83	2.13	1.65	0.75	1.81	1.57
250AFC6-K	148	54	42	19	46	40
250AFC6-N	6.30	2.13	2.13	0.75	1.81	1.57
250AFC6-P	160	54	54	19	46	40
300AFC6-H	5.83	2.13	1.65	0.75	1.81	1.57
300AFC6-K	148	54	42	19	46	40
300AFC6-N	6.30	2.13	2.13	0.75	1.81	1.57
300AFC6-P	160	54	54	19	46	40

## 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-G	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	