

## 1.2.1 AC Filter Capacitors – ACF series

### Applications :

- Handling high RMS Current for high energy AC Filtering application, Transient, Harmonic Damping application, high Power UPS, input/out filter

### Characteristics :

- Temperature up to 105C
- Dry Construction, no leaking fluids and Flame Retardant
- Large capacitance in small package
- High RMS Current handling capacity and Low ESR and Low Inductance



### Electrical Characteristics :

**Capacitance range :** 3uF – 300uF

**Tolerance :** +/-10% +/-5% at 25C

**rated Voltage :** 300Vac – 900Vac / 450Vdc – 1350Vdc

**rated Temperature :** -25C to +85C / -40C to +105C

**Insulation Resistance :** > 50,000Mohm at 500V 105C

**Testing Voltage Terminal to Terminal :** 300Vac – 700Vac

2.15 x rated Vac or Vdc 60 seconds at 25C

2.15 x rated Vac or Vdc 30 seconds at 85C

2.15 x rated Vac or Vdc 10 seconds at 105C

**900Vac :** 1.75 x rated Vac or Vdc 60 seconds at 105C

**Testing Voltage Terminal to Case :** 4500Vac at 50/60Hz for 60 seconds at 105C

**Life Expectancy at rated Voltage :** 150,000 hours at 70C

100,000 hours at 85C

50,000 hours at 105C

**Accelerated Life :** 1.25 x Vac at 70C for 30,000 hours

1.25 x Vac at 85C for 10,000 hours

1.25 x Vac at 105C for 2,000 hours

**Options :** Thermocouple and can be build-in

Support both Axial Screw and Radial Screw terminals

### ACF AC Filter Capacitor : Specifications and Size : 300Vac / 450Vdc

Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>peak</sub> A	ESL nH	ESR (mohm) 100KHz	Irms 55C	Irms 85C	Irms 105C
60	65	90	34	2040	45	1.7	44	33	26
68	65	90	34	2312	45	1.2	47	35	28
75	65	95	31	2325	50	1.2	47	35	28
100	90	90	34	3400	45	1.4	60	45	36
110	90	90	34	3740	45	1.4	62	47	37
120	90	95	31	3720	50	1.5	62	47	37
150	90	110	25	3750	63	1.5	62	47	37
200	90	135	18	3600	86	1.3	65	49	39
250	90	190	12	3000	125	1.2	70	50	40
300	90	195	12	3600	125	1.2	75	50	40

### ACF AC Filter Capacitor : Specifications and Size : 440Vac / 700Vdc

Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>peak</sub> A	ESL nH	ESR (mohm) 100KHz	Irms 55C	Irms 85C	Irms 105C
12	65	75	115	1380	40	1.5	40	30	24
15	65	75	115	1725	40	1.4	48	36	29
20	65	85	90	1800	50	1.6	45	34	27
25	65	95	72	1800	60	1.7	50	38	30
30	65	110	55	1650	75	1.7	46	34	27
35	65	135	40	1400	100	1.9	39	31	25
40	65	135	40	1600	100	1.9	45	34	27
50	65	155	33	1650	120	1.9	50	38	30
60	90	135	40	2400	100	1.8	68	50	40
70	90	135	40	2800	100	1.7	72	55	43
80	90	155	33	2640	120	1.9	72	55	43
90	90	155	33	2970	120	1.8	72	55	43
100	90	190	55	5500	132	1.3	72	55	43
120	90	240	40	4800	132	1.3	68	50	40
150	90	280	33	4950	132	1.4	70	53	42

**ACF AC Filter Capacitor : Specifications and Size : 550Vac / 750Vdc**

Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>peak</sub> A	ESL nH	ESR (mohm) 100KHz	Irms 55C	Irms 85C	Irms 105C
10	65	75	150	1500	40	1.8	38	29	23
12	65	85	140	1680	50	1.8	41	31	25
15	65	95	120	1800	65	1.9	42	32	26
20	65	110	100	2000	80	1.9	43	33	26
25	65	135	80	2000	100	1.8	44	33	27
30	65	135	80	2400	100	1.7	48	36	29
35	65	155	65	2275	120	1.9	51	39	31
40	90	135	80	3200	100	1.8	54	41	33
50	90	155	65	3250	120	1.6	55	42	33
60	90	155	65	3900	120	1.5	66	50	40
68	90	190	107	7276	132	1.4	62	47	37
100	90	280	65	6500	132	1.3	65	49	39

**ACF AC Filter Capacitor : Specifications and Size : 640Vac / 900Vdc**

Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>peak</sub> A	ESL nH	ESR (mohm) 100KHz	Irms 55C	Irms 85C	Irms 105C
6	65	75	170	1020	40	3.4	27	20	16
7	65	75	170	1190	40	3.3	31	24	19
8	65	75	170	1360	40	2.4	36	27	22
10	65	85	160	1600	50	1.9	41	31	25
12	65	95	150	1800	60	1.7	44	34	27
15	65	110	140	2100	80	1.8	45	34	28
20	65	135	110	2200	100	1.9	44	34	27
25	65	155	90	2250	120	1.9	42	32	26
25	90	110	150	3750	80	1.4	54	41	33
30	90	135	110	3300	110	1.6	56	43	34
35	90	155	90	3150	120	1.5	59	45	36
40	90	155	90	3600	120	1.3	61	47	37
50	90	190	90	4500	132	1.3	69	53	42
60	90	240	90	5400	132	1.2	72	55	44
70	90	280	90	6300	132	1.1	72	55	44

**ACF AC Filter Capacitor : Specifications and Size : 700Vac / 1000Vdc**

Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>peak</sub> A	ESL nH	ESR (mohm) 100KHz	Irms 55C	Irms 85C	Irms 105C
5	65	75	190	950	40	3.5	30	23	18
6	65	75	190	1140	40	3.4	36	28	22
7	65	85	170	1190	50	3.6	33	25	20
8	65	85	170	1360	50	3.4	37	28	23
10	65	95	160	1600	60	3.2	37	28	23
12	65	110	145	1740	80	3.3	38	29	23
15	65	135	130	1950	100	3.4	36	28	22
20	65	155	110	2200	120	3.1	39	30	24
20	90	135	130	2600	100	2.2	43	33	26
25	90	135	130	3250	100	1.9	53	41	32
30	90	155	110	3300	120	2.1	52	40	32
35	90	155	110	3850	120	1.8	51	39	31
40	90	190	100	4000	132	1.3	59	45	36
50	90	240	100	5000	132	1.3	54	42	33
60	90	280	100	6000	132	1.4	62	47	38

**ACF AC Filter Capacitor : Specifications and Size : 900Vac / 1350Vdc**

Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>peak</sub> A	ESL nH	ESR (mohm) 100KHz	Irms 55C	Irms 85C	Irms 105C
5	65	85	190	950	50	3.5	38	29	23
6	65	95	185	1110	60	3.6	38	29	23
8	65	110	175	1400	80	3.6	38	29	23
10	65	135	175	1750	100	4.1	38	29	23
12	65	155	148	1776	120	4.4	38	29	23
12	90	110	175	2100	80	1.6	56	43	34
15	90	135	165	2475	100	1.8	52	40	32
20	90	155	148	2960	120	1.9	57	44	35
25	90	190	140	3500	132	1.3	59	45	36
30	90	240	140	4200	132	1.4	62	47	38
40	90	280	140	5600	132	1.3	63	48	39