

## 1.4. AC/DC Power Capacitors :

### ACF series

#### Applications :

Handling high RMS Current for high energy AC / DC Filtering, Inverter, Switching, high Power UPS, Input/Out filter, High Power Lighting, Transient, Harmonic Damping application

#### 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
- Support DC Blocking / Ultra-Low Leakage requirement

#### Electrical Characteristics :

**Capacitance range :** 0.68uF – 300uF

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

#### rated Voltage :

250Vac – 900Vac / 400Vdc – 1,350Vdc

#### rated Temperature :

+85C / +105C

#### Insulation Resistance :

> 50,000Mohm at 500V 105C

#### Testing Voltage Terminal to Terminal :

300Vac – 900Vac :

1.7 x rated Vac or Vdc 60 seconds at 25C

1.7 x rated Vac or Vdc 30 seconds at 85C

1.7 x rated Vac or Vdc 10 seconds at 105C

#### Testing Voltage Terminal to Case :

5000Vac at 50/60Hz for 60 seconds at 105C

**Thermal Resistance** data is available on require

#### 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

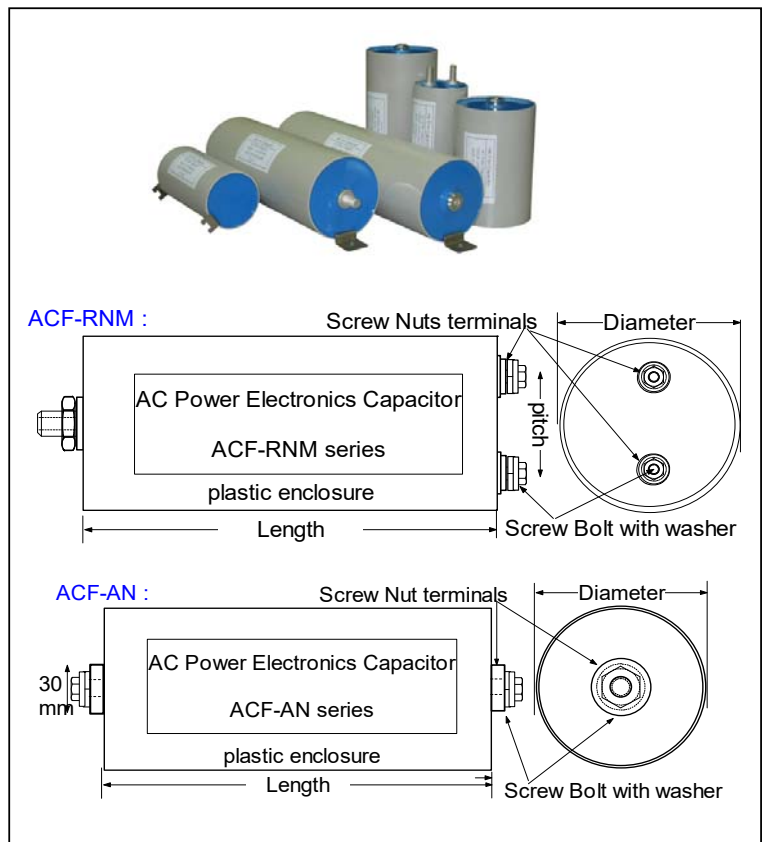
1.25 x Vac at 85C for 10,000 hours

1.25 x Vac at 105C for 2,000 hours

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

#### ACF1-RNM : 250Vac / 400Vdc

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 55C	Amp 85C	Amp 105C
ACF1-RNM406K250A	40	65	75	50	2100	29	3	49	37	30
ACF1-RNM506K250A	50	65	90	32	1600	45	2	42	32	26
ACF1-RNM606K250A	60	65	90	32	1900	45	1.7	44	33	26
ACF1-RNM686K250A	68	65	90	32	2200	45	1.2	47	35	28
ACF1-RNM756K250A	75	65	95	29	2200	50	1.2	47	35	28
ACF1-RNM107K250A	100	90	90	32	3200	45	1.4	60	45	36
ACF1-RNM117K250A	110	90	90	32	3500	45	1.4	62	47	37
ACF1-RNM127K250A	120	90	95	29	3500	50	1.5	62	47	37
ACF1-RNM157K250A	150	90	110	23	3400	63	1.5	62	47	37
ACF1-RNM257K250A	250	90	190	23	5700	125	1.2	85	65	50
ACF1-RNM307K250A	300	90	195	23	7000	125	1.2	95	73	58



Other Capacitance, Voltage, dv/dt, Current and Terminals is available. Please contact us for a design suited to your particular needs.

**ACF2-RNM : 300Vac / 450Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 55C	Amp 85C	Amp 105C
ACF2-RNM406K300A	40	65	75	63	2500	29	6	17	12	8
ACF2-RNM506K300A	50	65	90	40	2000	45	3.6	14	10	7
ACF2-RNM606K300A	60	65	90	40	2400	45	1.7	21	14	10
ACF2-RNM686K300A	68	65	90	40	2700	45	3.1	23	16	11
ACF2-RNM756K300A	75	65	95	37	2700	50	1.2	23	16	11
ACF2-RNM107K300A	100	90	90	40	4000	45	2.2	34	24	17
ACF2-RNM117K300A	110	90	90	40	4400	45	2.5	38	26	18
ACF2-RNM127K300A	120	90	95	37	4400	50	2.7	37	26	18
ACF2-RNM157K300A	150	90	110	29	4300	63	2.7	37	26	18
ACF2-RNM257K300A	250	90	190	21	7200	125	2.2	42	29	21
ACF2-RNM307K300A	300	90	195	29	8500	125	2.2	47	33	23

**ACF1-RNM : 400Vac / 640Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 70C	Amp 85C	Amp 105C
ACF1-RNM155K400A	1.5	65	57	352	527	8.5	2.20	29	25	15
ACF1-RNM205K400A	2	65	57	390	781	8.5	2.00	25	22	13
ACF1-RNM255K400A	2.5	65	57	247	618	8.5	1.80	25	22	13
ACF1-RNM335K400A	3.3	65	57	247	816	8.5	1.65	32	29	17
ACF1-RNM405K400A	4	65	57	247	989	8.5	1.56	46	41	24
ACF1-RNM505K400A	5	90	57	247	1237	8.5	1.45	49	43	26
ACF1-RNM605K400A	6	90	57	247	1484	8.5	1.40	59	52	31

**ACF1-RNM : 440Vac / 700Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>peak</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 55C	Amp 85C	Amp 105C
ACF1-RNM306K440A	30	65	110	55	1650	75	1.7	46	34	27
ACF1-RNM107K440A	100	90	190	55	5500	132	1.3	72	55	43

**ACF1-RNM : 500Vac / 800Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 70C	Amp 85C	Amp 105C
ACF1-RNM405K500A	4	65	280	833	3333	35	2.30	24	20	16
ACF1-RNM505K500A	5	65	280	488	2440	35	2.40	25	21	17
ACF1-RNM605K500A	6	65	280	488	2928	35	2.30	30	25	20
ACF1-RNM705K500A	7	65	280	400	2808	35	2.30	33	27	22
ACF1-RNM805K500A	8	65	280	292	2335	35	1.40	32	27	21
ACF1-RNM905K500A	9	90	280	488	4392	35	1.40	75	63	50
ACF1-RNM106K500A	10	90	280	400	4012	35	1.40	80	66	53
ACF1-RNM126K500A	12	90	280	292	3502	20	1.30	80	67	53
ACF1-RNM156K500A	15	90	280	292	4378	35	1.30	100	84	67

**ACF1-RNM : 550Vac / 750Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>peak</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 55C	Amp 85C	Amp 105C
ACF1-RNM206K550A	20	65	110	100	2000	80	1.9	43	33	26
ACF1-RNM686K550A	68	90	190	107	7276	132	1.4	62	47	37

**ACF1-RNM : 550Vac / 880Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 70C	Amp 85C	Amp 105C
ACF1-RNM105K550A	1	65	57	647	647	8.5	2.70	24	21	13
ACF1-RNM125K550A	1.2	65	57	647	776	8.5	2.40	29	25	15
ACF1-RNM155K550A	1.5	65	57	647	970	8.5	2.20	36	31	19
ACF1-RNM205K550A	2	65	57	647	1294	8.5	2.00	48	42	25
ACF1-RNM335K550A	3.3	90	57	429	1417	8.5	1.80	41	36	21
ACF1-RNM355K550A	3.5	90	57	429	1503	8.5	1.60	43	38	23
ACF1-RNM405K550A	4	90	57	429	1718	8.5	1.45	49	43	26

Other Capacitance, Voltage, dv/dt, Current and Terminals is available. Please contact us for a design suited to your particular needs.

**ACF2-RNM: 560Vac / 890Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 70C	Amp 85C	Amp 105C
ACF2-RNM155K560A	1.5	65	57	527	791	8.5	5.06	10	8	5
ACF2-RNM205K560A	2	65	57	586	1171	8.5	4.60	9	7	4
ACF2-RNM255K560A	2.5	65	57	371	927	8.5	4.14	9	7	4
ACF2-RNM335K560A	3.3	65	57	371	1224	8.5	3.80	11	9	6
ACF2-RNM405K560A	4	65	57	371	1484	8.5	3.59	16	13	8
ACF2-RNM505K560A	5	90	57	371	1855	8.5	3.34	17	14	9
ACF2-RNM605K560A	6	90	57	371	2226	8.5	3.22	21	17	10

**ACF1-RNM : 560Vac / 890Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 70C	Amp 85C	Amp 105C
ACF1-RNM305K560A	3	65	280	903	2711	35	2.40	20	17	13
ACF1-RNM405K560A	4	65	280	728	2914	35	2.40	24	20	16
ACF1-RNM505K560A	5	65	280	530	2646	35	2.30	25	21	17
ACF1-RNM605K560A	6	65	280	530	3175	35	2.30	31	26	21
ACF1-RNM705K560A	7	65	280	435	3045	35	2.20	33	27	22
ACF1-RNM805K560A	8	90	280	530	4233	20	1.60	67	56	45
ACF1-RNM905K560A	9	90	280	435	3915	20	1.52	75	63	50
ACF1-RNM106K560A	10	90	280	435	4350	20	1.45	80	66	53
ACF1-RNM126K560A	12	90	280	435	5220	20	1.45	91	76	61

**ACF2-RNM : 600Vac / 960Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 70C	Amp 85C	Amp 105C
ACF2-RNM405K600A	4	65	280	1500	6023	35	5.29	8	6	4
ACF2-RNM505K600A	5	65	280	882	4410	35	5.52	8	7	4
ACF2-RNM605K600A	6	65	280	882	5292	35	5.29	10	8	5
ACF2-RNM705K600A	7	65	280	725	5075	35	5.29	11	9	5
ACF2-RNM805K600A	8	65	280	527	4220	35	3.22	11	8	5
ACF2-RNM905K600A	9	90	280	882	7938	35	3.22	25	20	13
ACF2-RNM106K600A	10	90	280	725	7250	35	3.22	27	21	13
ACF2-RNM126K600A	12	90	280	527	6329	20	2.99	27	21	13
ACF2-RNM156K600A	15	90	280	527	7912	35	2.99	33	27	17

**ACF1-RNM: 600Vac / 960Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 70C	Amp 85C	Amp 105C
ACF1-RNM255K600A	2.5	235	65	280	1004	35	2.57	17	14	11
ACF1-RNM305K600A	3	235	65	280	1004	35	2.40	20	17	13
ACF1-RNM355K600A	3.5	235	65	280	1004	35	2.40	23	20	16
ACF1-RNM405K600A	4	235	65	280	809	35	2.30	24	20	16
ACF1-RNM505K600A	5	235	65	280	588	35	2.40	25	21	17
ACF1-RNM605K600A	6	235	65	280	588	35	2.30	31	26	21
ACF1-RNM705K600A	7	230	90	280	588	20	1.60	59	49	39
ACF1-RNM805K600A	8	230	90	280	588	20	1.50	70	58	47
ACF1-RNM905K600A	9	230	90	280	588	20	1.40	75	63	50
ACF1-RNM106K600A	10	230	90	280	588	20	1.30	85	71	57

**ACF1-RNM : 640Vac / 900Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 55C	Amp 85C	Amp 105C
ACF1-RNM155K640A	15	65	110	140	2100	80	1.8	45	34	28
ACF1-RNM255K640A	25	90	110	150	3750	80	1.4	54	41	33
ACF1-RNM506K640A	50	90	190	90	4500	132	1.3	69	53	42

Other Capacitance, Voltage, dv/dt, Current and Terminals is available. Please contact us for a design suited to your particular needs.

**ACF1-RNM : 680Vac / 1080Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 70C	Amp 85C	Amp 105C
ACF1-RNM684K680A	0.68	65	57	890	605	7.5	2.70	19	17	10
ACF1-RNM105K680A	1	65	57	890	890	7.5	2.40	29	25	15
ACF1-RNM125K680A	1.2	65	57	890	1069	7.5	2.20	34	30	18
ACF1-RNM155K680A	1.5	90	57	890	1336	7.5	1.90	43	38	23
ACF1-RNM205K680A	2	90	57	890	1781	7.5	1.70	57	50	30
ACF1-RNM225K680A	2.2	90	57	890	1959	7.5	1.50	57	50	30

**ACF1-RNM : 700Vac / 1000Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 55C	Amp 85C	Amp 105C
ACF1-RNM126K700A	12	65	110	145	1740	80	3.3	38	29	23
ACF1-RNM406K700A	40	90	190	100	4000	132	1.3	59	45	36

**ACF2-RNM : 700Vac / 1120Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 70C	Amp 85C	Amp 105C
ACF2-RNM105K700A	1	65	57	882	882	8.5	6.21	8	7	4
ACF2-RNM125K700A	1.2	65	57	882	1058	8.5	5.52	10	8	5
ACF2-RNM155K700A	1.5	65	57	882	1323	8.5	5.06	13	10	6
ACF2-RNM205K700A	2	65	57	882	1764	8.5	4.60	17	13	8
ACF2-RNM305K700A	3	65	280	1500	4518	35	5.52	7	5	3
ACF2-RNM335K700A	3.3	90	57	586	1933	8.5	4.14	14	11	7
ACF2-RNM355K700A	3.5	90	57	586	2050	8.5	3.68	15	12	8
ACF2-RNM405K700A-V1	4	90	57	586	2342	8.5	3.34	17	14	9
ACF2-RNM405K700A-V2	4	65	280	1214	4857	35	5.52	8	6	4
ACF2-RNM505K700A	5	65	280	882	4410	35	5.29	8	7	4
ACF2-RNM605K700A	6	65	280	882	5292	35	5.29	10	8	5
ACF2-RNM705K700A	7	65	280	725	5075	35	5.06	11	9	5
ACF2-RNM805K700A	8	90	280	882	7056	20	3.68	22	18	11
ACF2-RNM905K700A	9	90	280	725	6525	20	3.50	25	20	13
ACF2-RNM106K700A	10	90	280	725	7250	20	3.34	27	21	13
ACF2-RNM126K700A	12	90	280	725	8700	20	3.34	30	24	15

**ACF1-RNM : 750Vac / 1200Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 70C	Amp 85C	Amp 105C
ACF1-RNM255K750A	2.5	65	280	1000	2510	35	2.60	17	14	11
ACF1-RNM305K750A	3	65	280	1000	3012	35	2.40	20	17	13
ACF1-RNM355K750A	3.5	65	280	1000	3514	35	2.40	23	20	16
ACF1-RNM405K750A	4	65	280	810	3238	35	2.30	24	20	16
ACF1-RNM505K750A	5	90	280	1000	5020	20	1.50	56	47	37
ACF1-RNM605K750A	6	90	280	810	4857	20	1.40	60	50	40

**ACF2-RNM : 780Vac / 1240Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 70C	Amp 85C	Amp 105C
ACF2-RNM255K780A	2.5	65	280	1500	3765	35	5.91	6	4	3
ACF2-RNM305K780A	3	65	280	1500	4518	35	5.52	7	5	3
ACF2-RNM355K780A	3.5	65	280	1500	5270	35	5.52	8	6	4
ACF2-RNM405K780A	4	65	280	1214	4857	35	5.29	8	6	4
ACF2-RNM505K780A	5	65	280	882	4410	35	5.52	8	7	4
ACF2-RNM605K780A	6	65	280	882	5292	20	5.29	10	8	5
ACF2-RNM705K780A	7	90	280	882	6174	20	3.68	20	16	10
ACF2-RNM805K780A	8	90	280	882	7056	20	3.45	23	19	14
ACF2-RNM905K780A	9	90	280	882	7938	20	3.22	25	20	13
ACF2-RNM106K780A	10	90	280	882	8820	20	2.99	28	23	14

Other Capacitance, Voltage, dv/dt, Current and Terminals is available. Please contact us for a design suited to your particular needs.

**ACF1-RNM : 900Vac / 1350Vdc**

P/N	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I <sub>p-p</sub> A	ESL nH	ESR (mohm) 100KHz	Amp 55C	Amp 85C	Amp 105C
ACF1-RNM805K900A	8	65	110	175	1400	80	3.6	38	29	23
ACF1-RNM126K900A	12	90	110	175	2100	80	1.6	56	43	34

Other Capacitance, Voltage, dv/dt, Current and Terminals is available. Please contact us for a design suited to your particular needs.