

ALUMINIUM ELECTROLYTIC CAPACITORS

Professional Grade

● PG - 6DI with Screw Terminals

PG-6D I range is designed for high reliability, high frequency and high ripple current application like high frequency PWM inverters, high KVA on-line UPS systems, telecom SMPS.

- Small can size
- Low ESR
- Low leakage current
- High ripple current.

Specifications

Voltage range : 40VDC to 450VDC

Can sizes : 35 x 62mm to 76 x 175mm

Operating temperature range : -40°C to + 85°C

Capacitance : 330 MFD to 250000 MFD

The value of capacitance is given in microfarads, and with a tolerance of $\pm 20\%$.

Leakage current : The maximum leakage current (Ir) is given by the formula :

$$I_r = 0.003 CV \text{ (microamps)}$$

C = capacitance in microfarads

V = DC rated voltage

Pre-conditioning of the capacitors, prior to testing for leakage current, is essential (refer to page)

Ripple current : All capacitors withstand (rms) ripple current at 100Hz at 85°C. When capacitors operate at temperatures other than 85°C should be multiplied by the factors given below

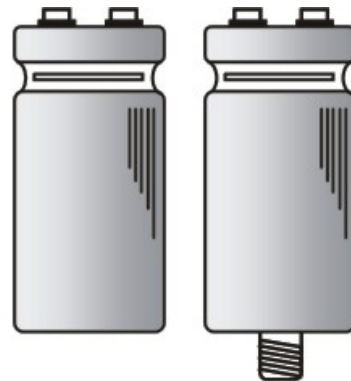
+35°C	+40°C	+45°C	+50°C	+65°C
2.20	2.10	2.00	1.90	1.60

Where capacitors are required to operate at frequencies other than 100Hz the multiplying factors given below, may be used to determine the ripple current capacity, at that frequency.

Frequency Hz	100	250	500	1K to 10 K	>10K
Multiplying Factor	1.0	1.05	1.20	1.32	1.35

Note : Ripple current capacity of capacitors with AEst - D terminal will increase by 10% to 20% when mounted on a metal plate. Write-in for details.

Can is negative, However, it is isolated with a PVC insulating sleeve and polypropylene end-disc.



Custom - designed capacitors are available


Terminal style

- AEST** - Screw terminals with plain insulated base
AEST-D - Screw terminals with stud mounting

Note : For details of dimensions see page

Marking on capacitors

Each capacitors will have the following information printed on it, sequentially :

1. The Company's symbol  followed by the words ALCON ELECTROLYTIC
2. The capacitors grade viz. PG-6D I
3. The capacitance value MFD
4. The rated voltage
5. The surge voltage
6. The Company's manufacturing code is marked at the bottom of each capacitor.

ALUMINIUM ELECTROLYTIC CAPACITORS

Professional Grade

- PG - 6DI with Screw Terminals

Standard Capacitors Values

Rated Voltage (VDC)	Surge Voltage (VDC)	Capacitance Nominal (MFD)	ESR at 100Hz, 25°C (Ohms)	Impedance at 100Hz, 25°C (Ohms)	Ripple at 100Hz, 85°C (Amps)	Can Size Nominal D X L mm
40	50	10000	0.037	0.159	6.30	35x62
		15000	0.029	0.106	7.72	35x80
		22000	0.022	0.072	10.12	35x105
		33000	0.019	0.048	11.92	50x80
		47000	0.019	0.034	15.35	63x105
		68000	0.018	0.024	15.77	63x105
		80000	0.017	0.019	16.06	76x80
		100000	0.015	0.016	18.27	63x120
		150000	0.013	0.011	21.00	63x146
		200000	0.012	0.008	24.64	76x146
		250000	0.011	0.007	27.97	76x175
50	60	10000	0.036	0.159	6.93	35x80
		15000	0.029	0.106	8.82	35x105
		22000	0.022	0.072	10.60	50x80
		25000	0.019	0.064	11.92	50x80
		33000	0.016	0.048	14.76	50x105
		47000	0.014	0.034	17.88	63x105
		68000	0.014	0.024	17.70	76x80
		100000	0.013	0.016	21.78	76x120
		150000	0.012	0.011	24.65	76x146
		200000	0.011	0.008	27.97	76x175
63	75	6800	0.037	0.234	6.83	35x80
		10000	0.033	0.159	8.26	35x105
		10000	0.033	0.159	9.04	50x80
		15000	0.029	0.106	9.64	50x80
		22000	0.024	0.072	12.05	50x105
		33000	0.021	0.048	14.60	63x105
		47000	0.017	0.034	18.01	76x105
		68000	0.015	0.024	20.28	76x120
		100000	0.013	0.016	23.68	76x146
		75	90	4700	0.052	0.338
5000	0.049			0.318	5.94	35x80
6800	0.033			0.234	8.26	35x105
10000	0.028			0.159	9.81	50x80
15000	0.024			0.106	12.05	50x105
22000	0.020			0.072	14.96	63x105
33000	0.019			0.048	15.20	76x80
47000	0.017			0.034	19.05	76x120
68000	0.015			0.024	22.04	76x146
100000	0.013			0.016	25.73	76x175

Other capacitor values and sizes available on request

ALUMINIUM ELECTROLYTIC CAPACITORS

Professional Grade

- PG - 6DI with Screw Terminals

Standard Capacitors Values

Rated Voltage (VDC)	Surge Voltage (VDC)	Capacitance Nominal (MFD)	ESR at 100Hz, 25°C (Ohms)	Impedance at 100Hz, 25°C (Ohms)	Ripple at 100Hz, 85°C (Amps)	Can Size Nominal D X L mm
100	125	4700	0.051	0.338	6.65	35x105
		5000	0.047	0.318	6.92	35x105
		6800	0.033	0.234	9.04	50x80
		10000	0.024	0.159	12.05	50x105
		15000	0.020	0.106	14.96	63x105
		20000	0.019	0.080	16.23	63x120
		22000	0.015	0.072	19.18	76x105
		33000	0.012	0.048	22.67	76x120
		47000	0.011	0.034	25.74	76x146
150	175	2000	0.089	0.796	5.50	50x80
		2200	0.085	0.720	5.63	50x80
		2500	0.081	0.636	6.56	50x105
		3300	0.067	0.482	8.17	63x105
		4700	0.049	0.338	9.56	63x105
		5000	0.048	0.318	9.66	63x105
		6800	0.035	0.234	12.61	76x105
		10000	0.023	0.159	16.37	76x120
		12000	0.021	0.132	18.49	76x146
		15000	0.019	0.106	19.58	76x146
		20000	0.017	0.079	20.70	76x146
22000	0.016	0.073	23.19	76x175		
160	185	1000	0.088	1.590	5.06	35x105
		2200	0.080	0.720	5.80	50x80
		3300	0.066	0.482	8.23	63x105
		4700	0.048	0.338	9.66	63x105
		5000	0.047	0.318	9.76	63x105
		10000	0.022	0.159	16.74	76x120
		12000	0.020	0.132	19.09	76x146
		15000	0.018	0.106	20.12	76x146
		22000	0.015	0.073	23.95	76x175
200	240	1000	0.167	1.590	3.67	35x105
		2000	0.089	0.796	5.50	50x80
		2200	0.077	0.720	6.73	50x105
		2500	0.064	0.636	7.38	50x105
		3300	0.060	0.482	8.64	63x105
		4700	0.048	0.338	10.21	63x120
		5000	0.041	0.318	11.05	63x120
		6800	0.031	0.234	14.10	76x120
		7200	0.029	0.221	14.58	76x120
		10000	0.021	0.159	18.63	76x146
		12000	0.018	0.132	20.12	76x146
		15000	0.016	0.106	23.19	76x175

Other capacitor values and sizes available on request

ALUMINIUM ELECTROLYTIC CAPACITORS

Professional Grade

- PG - 6DI with Screw Terminals

Standard Capacitors Values

Rated Voltage (VDC)	Surge Voltage (VDC)	Capacitance Nominal (MFD)	ESR at 100Hz, 25°C (Ohms)	Impedance at 100Hz, 25°C (Ohms)	Ripple at 100Hz, 85°C (Amps)	Can Size Nominal D X L mm
250	300	470	0.380	3.385	1.96	35x62
		680	0.240	2.340	3.06	35x105
		1000	0.160	1.590	4.10	50x80
		2000	0.085	0.796	6.40	50x105
		2200	0.076	0.720	6.77	50x105
		2500	0.061	0.636	8.56	63x105
		3300	0.059	0.482	8.71	63x105
		4700	0.046	0.338	10.95	76x105
		5000	0.042	0.318	12.12	76x120
		6800	0.024	0.234	17.42	76x146
		10000	0.019	0.159	19.58	76x146
350	400	330	0.490	4.820	1.87	35x80
		470	0.370	3.385	2.46	35x105
		680	0.235	2.340	3.38	50x80
		1000	0.159	1.590	4.68	50x105
		1500	0.128	1.060	5.91	63x105
		2200	0.069	0.720	8.52	63x120
		3300	0.057	0.482	10.40	76x120
		4700	0.045	0.338	12.68	76x146
		5000	0.037	0.318	14.03	76x146
		6800	0.032	0.234	15.09	76x146
		7700	0.029	0.207	17.23	76x175
400	460	330	0.493	4.820	1.87	35x80
		470	0.365	3.385	2.48	35x105
		680	0.221	2.340	3.49	50x80
		1000	0.119	1.590	5.41	50x105
		1500	0.110	1.060	6.38	63x105
		2200	0.068	0.720	8.58	63x120
		3300	0.056	0.482	10.49	76x120
		4700	0.044	0.338	12.87	76x146
		6000	0.035	0.266	15.68	76x175
450	500	470	0.453	3.385	2.44	50x80
		680	0.201	2.340	4.16	50x105
		1000	0.176	1.590	5.04	63x105
		1500	0.157	1.060	5.64	63x120
		2200	0.088	0.720	8.19	63x146
		3300	0.085	0.482	9.26	76x146
		4700	0.050	0.338	13.12	76x175

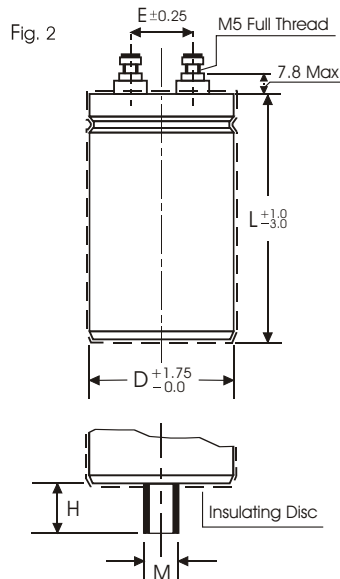
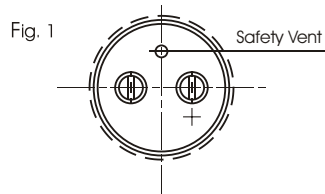
Other capacitor values and sizes available on request

ALUMINIUM ELECTROLYTIC CAPACITORS

Dimensional Drawings

Screw terminals type AEST/AEST-D

AEST/AEST-D



D	E	L
35	12.6	62
35	12.6	80
35	12.6	105
50	22.1	80
50	22.1	105
50	22.1	120
63	28.5	80
63	28.5	105
63	28.5	120
63	28.5	146
76	31.6	80
76	31.6	105
76	31.6	120
76	31.6	146
76	31.6	175

Stud Details

Can Diameter	Threads	Heights (H±1)
35	M8	12
50	M12	16
63	M12	16
76	M12	16

AEST : Screw terminals with plain insulated base

AEST-D : Screw terminals and stud mounting type

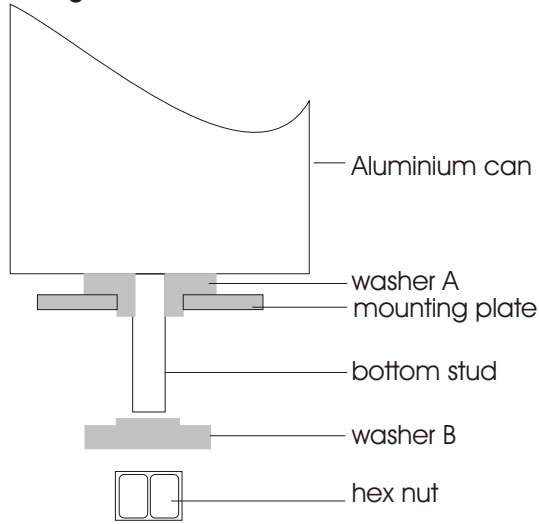
All dimensions in mm

12mm 76 f terminal - Hi-current std.

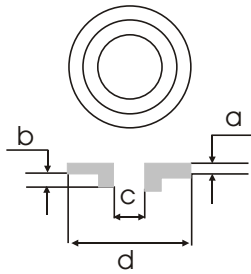
ALUMINIUM ELECTROLYTIC CAPACITORS

Mounting accessories

Mounting nut and washers for cans with bottom stud

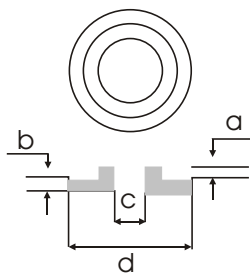


Washer A



Base stud threads	a	b	c	d
M8	1.0	1.5	8.6	25
M12	1.0	1.5	12.6	40

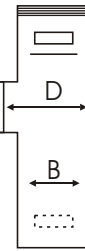
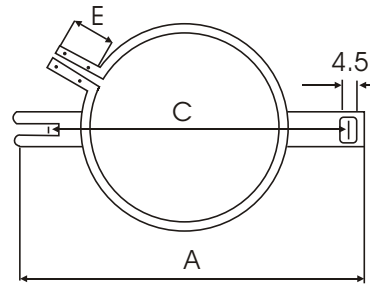
Washer B



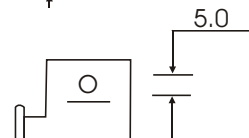
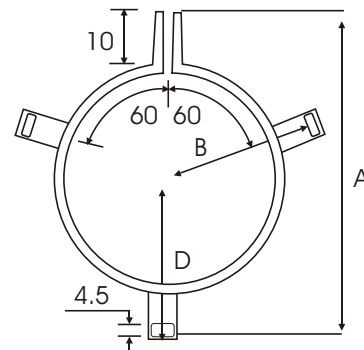
Base stud threads	a	b	C	D
M8	1.5	1.0	8.6	25
M12	1.5	1.0	12.6	40

All dimensions in mm

Vertical mounting clamps



CAN DIA	A	B	C	D	E
35	63	15	54	20	10



CAN DIA	A	B	C	D
50	76	33	30	40
63	89	39.5	30	46.5
76	102	46	30	53

All dimensions in mm



Custom designed capacitors are available on request

A6765 ISO9001



Head office & Factory: 34-B M.I.D.C Industrial Estate
Satpur, Nashik - 422007, India.
Phone: +91- 253- 2350533, 2350237
Fax: +91- 253- 2351682
Email: mail@alconelectronics.com
Website: www.alconelectronics.com

The specifications shown in this catalogue pertain to the current manufacturing range of the company. The Company reserves the right to change and/or modify any part of or the specifications as a result of research and development and as may be deemed necessary, without prior notice.