

Professional Grade
PG – 6D I with Screw Terminals

PG - 6D I range is designed for high reliability, high frequency and high ripple current applications 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 : 40 VDC to 500 VDC
- 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 ± 20%.
- Leakage current : The maximum leakage current (Ir) is given by the formula :
Ir = 0.003 CV (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 4)
- Ripple current : All capacitors withstand rms ripple current at 100 Hz at 85°C. When capacitors operate at temperatures other than 85°C, the permissible rms ripple current at 85°C should be multiplied by the factors given below

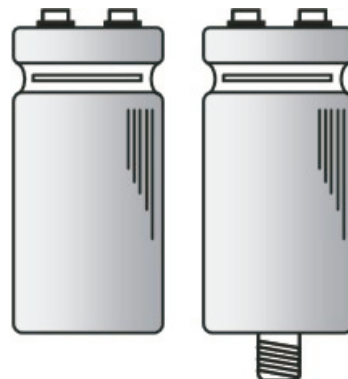
+35°C	+40°C	+45°C	+50°C	+65°C
2.20	2.10	2.00	1.90	1.60

Where capacitors are required to operate at frequencies other than 100 Hz 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 styles


Capacitors are available in screw terminals in two can styles

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

Note : For details of dimensions see page 25

Marking on capacitors

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

1. The Company's symbol  followed by the words ALCON ELECTROLYTIC
2. The capacitor grade viz. PG-6D I
3. The capacitance value MFD
4. The rated voltage
5. The surge voltage
6. Capacity tolerance and manufacturing code
7. Part number on non-standard capacitors

ALUMINIUM ELECTROLYTIC CAPACITORS

Professional Grade

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Standard Capacitor Values

Rated Voltage (VDC)	Surge Voltage (VDC)	Capacitance Nominal (MFD)	ESR at 100 Hz, 25°C (Ohms)	Impedance at 100 Hz, 25°C (Ohms)	Ripple at 100 Hz, 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
50	60	250000	0.011	0.007	27.97	76x175
		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
63	75	100000	0.013	0.016	21.78	76x120
		150000	0.012	0.011	24.65	76x146
		200000	0.011	0.008	27.97	76x175
		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
75	90	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
		4700	0.052	0.338	5.76	35x80
		5000	0.049	0.318	5.94	35x80
		6800	0.033	0.234	8.26	35x105
		10000	0.028	0.159	9.81	50x80
75	90	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



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Rated Voltage (VDC)	Surge Voltage (VDC)	Capacitance Nominal (MFD)	ESR at 100 Hz, 25°C (Ohms)	Impedance at 100 Hz, 25°C (Ohms)	Ripple at 100 Hz, 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
150	175	47000	0.011	0.034	25.74	76x146
		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
160	185	15000	0.019	0.106	19.58	76x146
		20000	0.017	0.079	20.70	76x146
		22000	0.016	0.073	23.19	76x175
		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
200	240	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
		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	63x 120
		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

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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
500	550	1500	0.110	1.060	6.38	63x105
		2200	0.075	0.720	8.58	76x105
		3300	0.060	0.482	11.00	76x146
		4700	0.047	0.338	13.53	76x175

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