HCV Electrolytics

HCV 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** : 150 VDC to 500 VDC
- **Can sizes** : 63 x 105 mm to 90 x 220 mm
- **Operating temperature range** : – 40°C to +85°C
- **Capacitance** : 1500 MFD to 40000 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 = 0.006 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

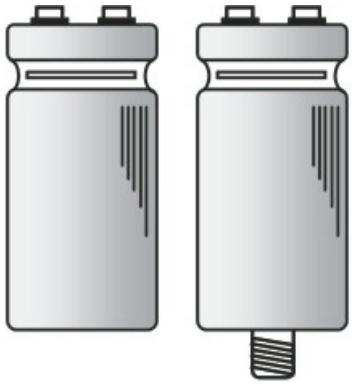
+35°C	+40°C	+45°C	+50°C	+65°C
2.20	2.10	2.00	1.90	1.60

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

ALCON ELECTRONICS PRIVATE LIMITED
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email: mail@alconelectronics.com Website: www.alconelectronics.com

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Standard Capacitor Values

Rated Voltage (VDC)	Surge Voltage (VDC)	Capacitance Nominal (MFD)	Can Size Nominal D X L mm	ESR at 100 Hz 25°C (Ohms)	Ripple at 100 Hz, 85°C (Amps)
150	175	27,000	76x175	0.007	28
		33,000	76x220	0.006	34
		40,000	90x175	0.005	36
200	240	22,000	76x175	0.007	28
		33,000	90x175	0.005	36
250	300	20,000	76x220	0.008	29
		22,000	90x175	0.006	33
		33,000	90x220	0.004	45
315	345	3,300	76x120	0.048	8
		4,700	76x120	0.060	10
		6,800	76x145	0.023	14
		10,000	76x220	0.017	20
		15,000	90x220	0.011	27
		20,000	90x220	0.009	30
350	400	6,800	76x145	0.014	18
		10,000	76x220	0.010	26
		15,000	90x220	0.006	37
450	500	5,000	76x145	0.030	13
		6,800	76x175	0.028	14
		8,200	76x220	0.025	16
		10,000	76x220	0.019	19
		15,000	90x220	0.012	26
500	550	1,500	63x105	0.15	4
		2,200	63x105	0.13	5
		3,300	63x145	0.08	7
		4,700	76x145	0.04	11
		5,000	76x220	0.03	13
		6,800	76x220	0.02	18
		10,000	90x220	0.01	24

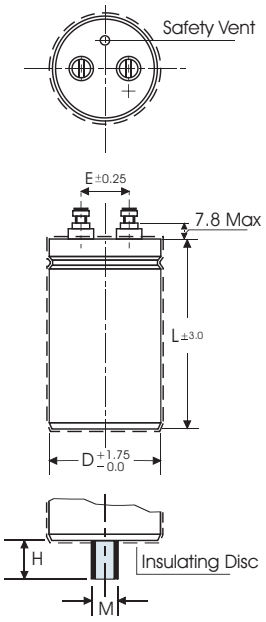
Custom-designed capacitors can be manufactured to suit specific circuit designs

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HCV Electrolytics

Screw Terminals type AEST/AEST-D



Terminal Details

D	E	L	THREAD
63	28.5	105	M5
63	28.5	120	M5
63	28.5	146	M5
76	31.6	80	M5
76	31.6	105	M5
76	31.6	120	M5
76	31.6	146	M5
76	31.6	175	M5
76	31.6	220	M5
90	32.0	146	M6
90	32.0	175	M6
90	32.0	220	M6

Stud Details

Can Diameter	Thread	Height (H±1)
35	M8	12
50	M12	16
63	M12	16
76	M12	16
90	M12	16

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

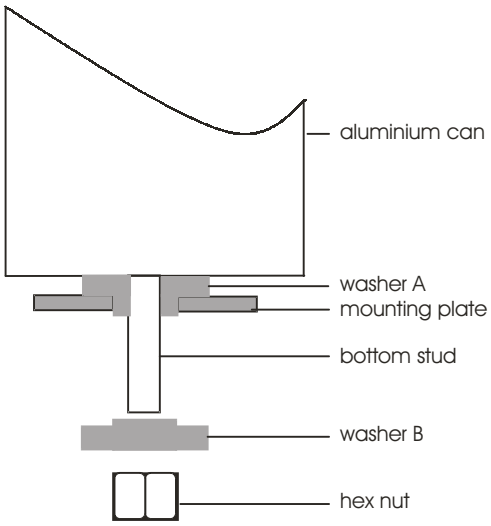
dimensions in mm

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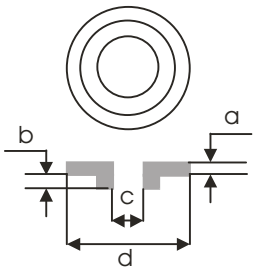
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Mounting Accessories

- **Mounting nut and washers for cans with bottom stud**

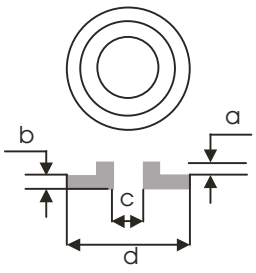


Washer A



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

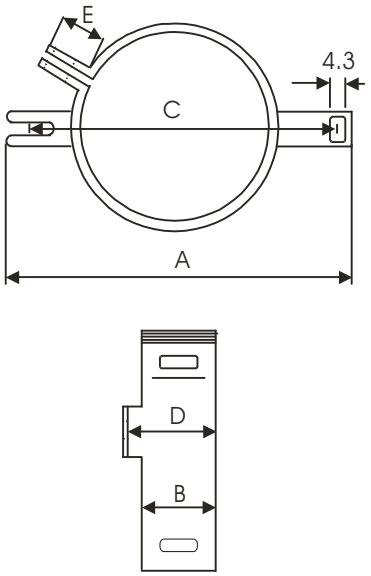
Washer B



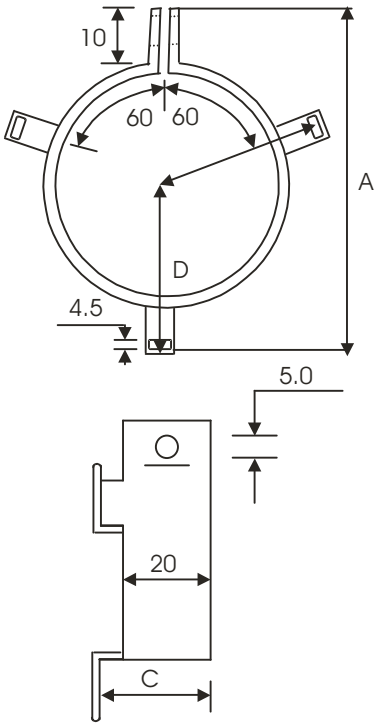
Base stud threads	a	b	c	d
M8	1.5	1.0	8.6	25
M12	1.5	1.0	12.6	40

All dimensions in mm

- **Vertical mounting clamps**



CAN DIA	A	B	C	D	E
35	63	35	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

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