

LARGE ALUMINUM ELECTROLYTIC CAPACITORS

HC Snap-in Terminal Type, Standard Series

S
Solvent Proof
WV ≤ 200V

- Standard snap-in terminal type
- Extended Voltage range of 6.3~500V
(For 500WV products, apply only FL series, high ripple use)
- Including height 20mm products, low profile sized
(Voltage range of 160~450V)

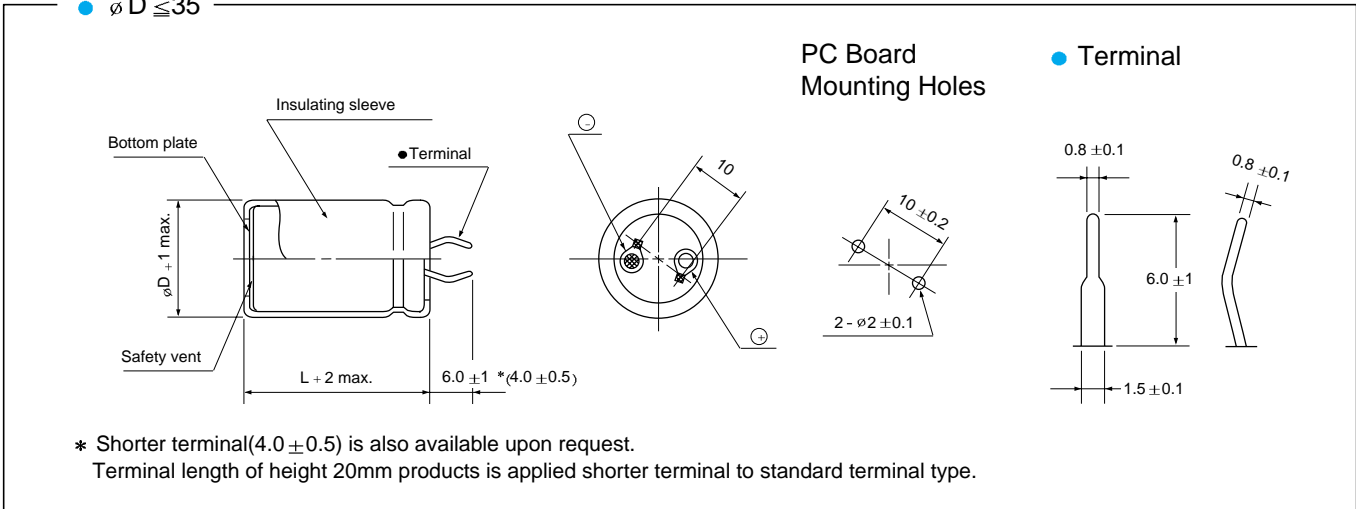


Item	Characteristics																	
Operating temperature range	WV ≤ 350 : -40 ~ +85°C, WV > 350 : -25 ~ +85°C																	
Capacitance tolerance	±20% at 120Hz, 20°C																	
Leakage current max.	$I = 3\sqrt{CV}$ (μA) (after 5 minutes)																	
Dissipation factor max. (at 120Hz, 20°C)	Capacitance > 1000 μF : tan δ increases by 0.01 for each 1000 μF from below value.																	
	<table border="1"> <thead> <tr> <th>WV</th> <th>6.3</th> <th>10</th> <th>16, 25</th> <th>35</th> <th>50, 63</th> <th>80, 100</th> <th>160~400</th> <th>450, 500</th> </tr> </thead> <tbody> <tr> <td>tan δ</td> <td>0.45</td> <td>0.40</td> <td>0.35</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> <td>0.15</td> <td>0.20</td> </tr> </tbody> </table>	WV	6.3	10	16, 25	35	50, 63	80, 100	160~400	450, 500	tan δ	0.45	0.40	0.35	0.30	0.25	0.20	0.15
WV	6.3	10	16, 25	35	50, 63	80, 100	160~400	450, 500										
tan δ	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.20										
Load life (after application of the rated voltage for 2000 hours at 85°C)	Leakage current	Less than specified value																
	Capacitance change	Within ±20% of initial value																
	tan δ	Less than 200% of specified value																
Shelf life (after leaving capacitors under no load at 85°C for 1000 hours)	Leakage current	Less than specified value																
	Capacitance change	Within ±15% of initial value																
	tan δ	Less than 150% of specified value																

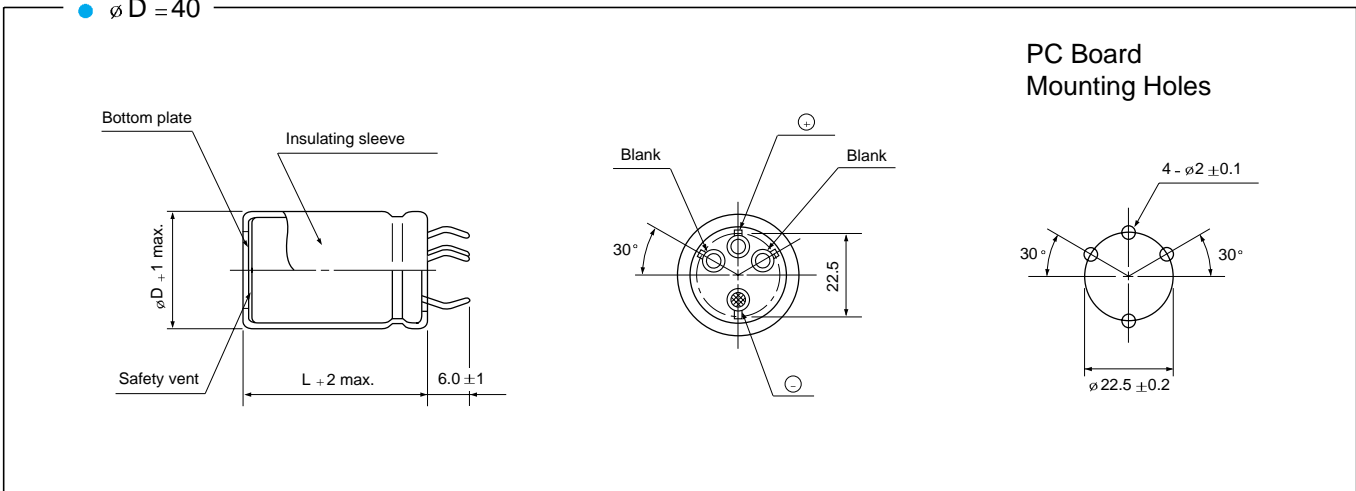
● DRAWING

Unit : mm

● φ D ≤ 35



● φ D = 40



LARGE ALUMINUM ELECTROLYTIC CAPACITORS



HC series

• DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV μF	φ D	6.3					10					16				
		22	25.4	30	35	40	22	25.4	30	35	40	22	25.4	30	35	40
10000												22 × 25 3.32				
12000												22 × 30 3.55	25.4 × 25 3.89			
15000		22 × 25 3.39										22 × 35 4.29	25.4 × 30 4.45	30 × 25 4.56		
18000		22 × 30 3.85	25.4 × 25 3.96									22 × 40 4.77	25.4 × 35 4.96	30 × 30 5.10		
22000		22 × 35 4.34	25.4 × 25 4.22									22 × 50 5.51	25.4 × 40 5.51	30 × 30 5.39		
27000		22 × 40 4.85	25.4 × 30 4.77	30 × 25 4.89									25.4 × 45 6.06	30 × 35 5.98	35 × 25 5.80	
33000		22 × 45 5.36	25.4 × 35 5.32	30 × 30 5.47										30 × 40 6.56	35 × 30 6.41	
39000		22 × 50 5.83	25.4 × 40 5.82	30 × 30 5.70	35 × 25 5.82									30 × 45 7.08	35 × 35 6.96	
47000			25.4 × 45 6.35	30 × 35 6.26	35 × 30 6.41									30 × 50 7.62	35 × 40 7.54	
56000			25.4 × 50 6.85	30 × 40 6.80	35 × 30 6.64										35 × 45 8.08	40 × 40 8.23
68000				30 × 45 7.35	35 × 35 7.23										35 × 50 8.63	40 × 50 9.13
100000					35 × 45 8.34	40 × 40 8.49										40 × 60 10.2

WV μF	φ D	25					35					50				
		22	25.4	30	35	40	22	25.4	30	35	40	22	25.4	30	35	40
3300												22 × 30 2.97	25.4 × 25 3.06			
4700												22 × 40 3.83	25.4 × 35 3.98	30 × 25 3.86	35 × 25 4.19	
5600		22 × 25 2.65										22 × 45 4.26	25.4 × 40 4.44	30 × 30 4.35	35 × 25 4.44	
6800		22 × 30 3.06	25.4 × 25 3.15									22 × 50 4.77	25.4 × 40 4.76	30 × 35 4.92	35 × 30 5.04	
8200		22 × 35 3.45	25.4 × 30 3.57										25.4 × 50 5.43	30 × 40 5.38	35 × 30 5.26	
10000		22 × 40 3.95	25.4 × 30 3.89	30 × 25 3.99										30 × 45 6.07	35 × 35 5.97	
12000		22 × 45 4.41	25.4 × 35 4.37	30 × 30 4.50										30 × 50 6.62	35 × 40 6.55	
15000		22 × 50 4.94	25.4 × 40 4.94	30 × 35 5.10											35 × 45 7.20	
18000			25.4 × 45 5.45	30 × 35 5.38	35 × 30 5.51										35 × 50 7.74	40 × 40 7.62
22000				30 × 45 6.22	35 × 35 6.12											40 × 50 8.54
27000				30 × 50 6.82	35 × 40 6.74											40 × 60 9.45
33000					35 × 45 7.35	40 × 40 7.48										

WV μF	φ D	63					80					100				
		22	25.4	30	35	40	22	25.4	30	35	40	22	25.4	30	35	40
1200												22 × 30 2.39	25.4 × 25 2.46			
1500												22 × 35 2.83	25.4 × 30 2.93	30 × 25 3.00		
1800		22 × 25 2.20										22 × 40 3.26	25.4 × 35 3.39	30 × 30 3.49		
2200		22 × 30 2.50	25.4 × 25 2.58									22 × 45 3.58	25.4 × 40 3.74	30 × 30 3.66		
2700		22 × 35 2.94	25.4 × 30 3.04										25.4 × 45 4.33	30 × 35 4.27	35 × 30 4.37	
3300		22 × 35 3.14	25.4 × 30 3.26	30 × 25 3.34									25.4 × 50 4.76	30 × 40 4.72	35 × 35 4.85	
3900		22 × 40 3.60	25.4 × 35 3.74	30 × 30 3.85										30 × 45 5.36	35 × 35 5.27	
4700		22 × 50 4.19	25.4 × 40 4.19	30 × 35 4.10	35 × 30 4.19									30 × 50 5.86	35 × 40 5.80	
5600			25.4 × 45 4.65	30 × 35 4.58	35 × 30 4.70										35 × 45 6.34	40 × 40 6.45
6800			25.4 × 50 5.20	30 × 40 5.16	35 × 30 5.04											40 × 50 7.40
8200				30 × 45 5.62	35 × 35 5.53											40 × 50 7.60
10000				30 × 50 6.32	35 × 40 6.25											
12000					35 × 45 6.83	40 × 40 6.95										

← Case size φ D × L (mm)
← Ripple current (Arms) at 85°C, 120Hz

• Note : Case diameter (φ20) is available upon request.

LARGE ALUMINUM ELECTROLYTIC CAPACITORS

HC series

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV μF / ∅ D	160					200					250				
	22	25.4	30	35	40	22	25.4	30	35	40	22	25.4	30	35	40
150											22 × 25 0.90	25.4 × 20 0.92			
180						22 × 20 0.91					22 × 25 0.90	25.4 × 20 1.01			
220	22 × 20 1.01					22 × 25 1.09	25.4 × 20 1.11				22 × 25 1.09	25.4 × 25 1.19	30 × 20 1.22		
270	22 × 25 1.20	25.4 × 20 1.32				22 × 25 1.20	25.4 × 25 1.32	30 × 20 1.35			22 × 30 1.28	25.4 × 25 1.32	30 × 20 1.35		
330	22 × 25 1.33	25.4 × 20 1.36				22 × 30 1.42	25.4 × 25 1.46	30 × 20 1.49			22 × 35 1.50	25.4 × 30 1.56	30 × 25 1.60	35 × 20 1.62	
390	22 × 25 1.45	25.4 × 25 1.59	30 × 20 1.62			22 × 30 1.54	25.4 × 25 1.59	30 × 25 1.74	35 × 20 1.77		22 × 40 1.72	25.4 × 30 1.69	30 × 25 1.73	35 × 20 1.77	
470	22 × 30 1.69	25.4 × 25 1.75	30 × 20 1.78			22 × 35 1.79	25.4 × 30 1.86	30 × 25 1.90	35 × 20 1.94		22 × 45 1.96	25.4 × 35 1.96	30 × 30 2.02	35 × 25 2.06	
560	22 × 35 1.96	25.4 × 30 2.03	30 × 25 2.08	35 × 20 2.12		22 × 40 2.06	25.4 × 35 2.14	30 × 25 2.08	35 × 25 2.25		22 × 50 2.26	25.4 × 40 2.25	30 × 30 2.20	35 × 25 2.25	
680	22 × 40 2.27	25.4 × 30 2.23	30 × 25 2.29	35 × 20 2.33		22 × 45 2.38	25.4 × 40 2.48	30 × 30 2.43	35 × 25 2.48			25.4 × 45 2.60	30 × 35 2.56	35 × 30 2.62	
820	22 × 45 2.61	25.4 × 35 2.59	30 × 30 2.67	35 × 25 2.73		22 × 50 2.73	25.4 × 45 2.85	30 × 35 2.81	35 × 30 2.88				30 × 40 2.95	35 × 35 3.03	
1000	22 × 50 3.01	25.4 × 40 3.01	30 × 30 2.95	35 × 25 3.01				30 × 40 3.26	35 × 30 3.18				30 × 45 3.40	35 × 40 3.50	
1200		25.4 × 45 3.23	30 × 35 3.18	35 × 30 3.26				30 × 45 3.49	35 × 35 3.43					35 × 45 3.74	40 × 40 3.81
1500			30 × 40 3.73	35 × 35 3.83				30 × 50 4.06	35 × 40 4.01					35 × 50 4.35	40 × 50 4.60
1800				35 × 40 4.39	40 × 40 4.66				35 × 45 4.58	40 × 40 4.66					40 × 60 5.39

WV μF / ∅ D	315					350					400				
	22	25.4	30	35	40	22	25.4	30	35	40	22	25.4	30	35	40
68											22 × 20 0.56				
82						22 × 20 0.62					22 × 25 0.66	25.4 × 20 0.68			
100	22 × 20 0.68					22 × 25 0.73	25.4 × 20 0.75				22 × 30 0.78	25.4 × 25 0.81	30 × 20 0.82		
120	22 × 25 0.80	25.4 × 20 0.82				22 × 30 0.86	25.4 × 25 0.88	30 × 20 0.90			22 × 30 0.86	25.4 × 25 0.88	30 × 20 0.90		
150	22 × 30 0.96	25.4 × 25 0.99	30 × 20 1.01			22 × 35 1.01	25.4 × 30 1.05	30 × 20 1.01			22 × 35 1.01	25.4 × 30 1.05	30 × 25 1.08	35 × 20 1.09	
180	22 × 35 1.11	25.4 × 30 1.15	30 × 25 1.18	35 × 20 1.20		22 × 40 1.17	25.4 × 35 1.21	30 × 25 1.18	35 × 20 1.20		22 × 40 1.17	25.4 × 35 1.21	30 × 25 1.18	35 × 25 1.28	
220	22 × 40 1.29	25.4 × 30 1.27	30 × 25 1.30	35 × 20 1.33		22 × 45 1.35	25.4 × 35 1.34	30 × 30 1.38	35 × 25 1.41		22 × 45 1.35	25.4 × 40 1.41	30 × 30 1.38	35 × 25 1.41	
270	22 × 45 1.50	25.4 × 35 1.49	30 × 30 1.53	35 × 25 1.56			25.4 × 45 1.64	30 × 35 1.61	35 × 25 1.65			25.4 × 45 1.64	30 × 35 1.61	35 × 30 1.65	
330	22 × 50 1.73	25.4 × 40 1.73	30 × 35 1.78	35 × 30 1.83			25.4 × 50 1.89	30 × 40 1.87	35 × 30 1.83			25.4 × 50 1.89	30 × 40 1.87	35 × 30 1.83	
390		25.4 × 45 1.97	30 × 35 1.94	35 × 30 1.99				30 × 45 2.12	35 × 35 2.09				30 × 45 2.12	35 × 35 2.09	
470			30 × 40 2.23	35 × 35 2.29				30 × 50 2.43	35 × 40 2.40				30 × 50 2.43	35 × 40 2.40	
560				35 × 40 2.62					35 × 45 2.73					35 × 45 2.73	40 × 40 2.78
680				35 × 45 3.01					35 × 50 3.13	40 × 40 3.06					40 × 50 3.31
820				35 × 50 3.44	40 × 40 3.37					40 × 50 3.63					40 × 60 3.89

WV μF / ∅ D	450					500				
	22	25.4	30	35	40	22	25.4	30	35	40
56	22 × 20 0.39									
68	22 × 25 0.46	25.4 × 20 0.47				22 × 30 0.44				
82	22 × 30 0.54	25.4 × 25 0.56	30 × 20 0.57			22 × 35 0.51	25.4 × 30 0.53			
100	22 × 35 0.63	25.4 × 30 0.65	30 × 25 0.67	35 × 20 0.68		22 × 40 0.60	25.4 × 35 0.62			
120	22 × 40 0.73	25.4 × 35 0.76	30 × 25 0.73	35 × 20 0.75			25.4 × 40 0.71			
150	22 × 50 0.89	25.4 × 40 0.89	30 × 30 0.87	35 × 25 0.89				30 × 35 0.82		
180		25.4 × 45 1.02	30 × 35 1.01	35 × 25 0.98				30 × 40 0.94		
220		25.4 × 50 1.18	30 × 40 1.17	35 × 30 1.14				30 × 45 1.09		
270			30 × 45 1.35	35 × 35 1.33					35 × 45 1.30	
330			30 × 50 1.55	35 × 40 1.54					35 × 50 1.50	
390				35 × 45 1.74						
470				35 × 50 1.99	40 × 40 1.95					40 × 50 1.88
560				40 × 50 2.30						40 × 60 2.19
680				40 × 60 2.70						40 × 60 2.42

← Case size ∅ D × L (mm)
← Ripple current (Arms) at 85°C, 120Hz