

LARGE ALUMINUM ELECTROLYTIC CAPACITORS



Upgrade

HJ

Snap-in Terminal Type,
Series

- High voltage, high capacitance series
- Load life of 3000 hours at 85°C
- Complied to the RoHS directive

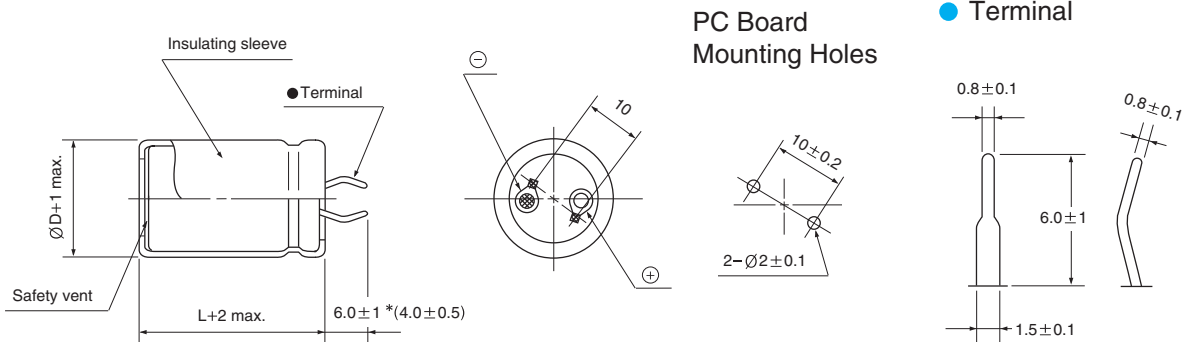

Solvent Proof
WV ≤ 100V



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 > 1000µF : tanδ increases by 0.01 for each 1000µF from below value.															
	<table border="1"> <thead> <tr> <th>WV</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>tanδ</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	10	16, 25	35	50, 63	80, 100	160 ~ 400	450, 500	tanδ	0.40	0.35	0.30	0.25	0.20	0.15
WV	10	16, 25	35	50, 63	80, 100	160 ~ 400	450, 500									
tanδ	0.40	0.35	0.30	0.25	0.20	0.15	0.20									
Load life (after application of the rated voltage for 3000 hours at 85°C)	Leakage current	Less than specified value														
	Capacitance change	Within ±20% of initial value														
	tanδ	Less than 200% of specified value														
Shelf life (at 85°C)	After 1000 hours no load test, leakage current, capacitance and tanδ are same as load life value. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4															

● DRAWING

Unit : mm



* Shorter terminal(4.0±0.5) is also available upon request.
Terminal length of height 20mm products is applied shorter terminal to standard terminal type.

● FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

WV \ Frequency	50Hz	120Hz	300Hz	1kHz	10kHz ≤
~ 100	0.85	1.00	1.06	1.15	1.20
160 ~ 250	0.85	1.00	1.20	1.25	1.45
350 ~	0.85	1.00	1.15	1.20	1.40

LARGE TYPES

LARGE ALUMINUM ELECTROLYTIC CAPACITORS

HJ series

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV μF / ØD	10				16				25			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
6800									22 × 25 2.24			
8200									22 × 30 2.61			
10000					22 × 30 2.68				22 × 35 3.24	25.4 × 30 3.14	30 × 25 3.25	
12000	22 × 25 2.39				22 × 35 3.12	25.4 × 25 3.00			22 × 40 3.70	25.4 × 35 3.63	30 × 25 3.56	
15000	22 × 30 2.86				22 × 40 3.67	25.4 × 30 3.58	30 × 25 3.70			25.4 × 40 4.09	30 × 30 4.00	35 × 25 4.07
18000	22 × 35 3.21	25.4 × 25 3.05			22 × 45 4.15	25.4 × 35 4.13	30 × 25 3.93			25.4 × 45 4.62	30 × 35 4.60	35 × 30 4.64
22000	22 × 40 3.74	25.4 × 30 3.64				25.4 × 40 4.44	30 × 30 4.98			25.4 × 50 5.14	30 × 40 5.17	35 × 30 5.05
27000	22 × 45 4.06	25.4 × 35 3.98	30 × 25 3.57			25.4 × 45 4.89	30 × 35 4.84	35 × 25 4.71			30 × 45 5.98	35 × 35 5.88
33000		25.4 × 40 4.50	30 × 30 3.99	35 × 25 4.57			30 × 40 5.50	35 × 30 5.41				35 × 40 6.59
39000		25.4 × 45 5.17	30 × 30 4.55	35 × 30 5.18			30 × 45 6.19	35 × 35 6.09				
47000			30 × 35 5.15	35 × 35 5.76			30 × 50 6.80	35 × 40 6.75				
56000			30 × 40 5.61	35 × 40 6.45								

WV μF / ØD	35				50				63			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
2200									22 × 30 2.15			
2700					22 × 25 1.95				22 × 30 2.38	25.4 × 25 2.42		
3300					22 × 30 2.40	25.4 × 25 2.35			22 × 35 2.72	25.4 × 30 2.74		
3900	22 × 25 1.89				22 × 30 2.50	25.4 × 25 2.50			22 × 40 3.07	25.4 × 35 3.16	30 × 25 3.00	
4700	22 × 30 2.29	25.4 × 25 2.26			22 × 35 2.91	25.4 × 30 2.98	30 × 25 3.01		22 × 45 3.44	25.4 × 40 3.55	30 × 30 3.51	
5600	22 × 30 2.42	25.4 × 25 2.42			22 × 40 3.31	25.4 × 35 3.44	30 × 30 3.42		22 × 50 3.92	25.4 × 45 4.01	30 × 35 3.98	35 × 30 3.93
6800	22 × 35 2.82	25.4 × 30 2.89	30 × 25 2.89		22 × 45 3.70	25.4 × 40 3.81	30 × 35 3.93	35 × 25 3.80		25.4 × 50 4.47	30 × 40 4.48	35 × 30 4.38
8200	22 × 40 3.26	25.4 × 35 3.30	30 × 25 3.19			25.4 × 45 4.32	30 × 40 4.51	35 × 30 4.41			30 × 45 5.07	35 × 35 4.99
10000	22 × 45 3.57	25.4 × 40 3.65	30 × 30 3.60	35 × 25 3.60		25.4 × 50 4.83	30 × 45 5.04	35 × 35 4.88			30 × 50 5.75	35 × 40 5.68
12000		25.4 × 45 4.15	30 × 35 4.13	35 × 30 4.23			30 × 45 5.44	35 × 40 5.60				35 × 45 6.47
15000		25.4 × 50 4.76	30 × 40 4.76	35 × 35 4.90				35 × 45 6.53				
18000			30 × 45 5.22	35 × 40 5.44				35 × 45 7.04				
22000				35 × 45 6.28								
27000				35 × 50 6.90								

WV μF / ØD	80				100			
	22	25.4	30	35	22	25.4	30	35
1200	22 × 25 1.77				22 × 30 2.02	25.4 × 25 2.06		
1500	22 × 30 2.00	25.4 × 25 2.02			22 × 35 2.40	25.4 × 30 2.45		
1800	22 × 35 2.35	25.4 × 30 2.35			22 × 40 2.76	25.4 × 35 2.81	30 × 30 2.84	
2200	22 × 40 2.86	25.4 × 30 2.79	30 × 25 2.85		22 × 45 3.00	25.4 × 40 3.10	30 × 30 3.06	35 × 25 3.13
2700	22 × 45 3.23	25.4 × 35 3.05	30 × 30 3.17			25.4 × 45 3.59	30 × 35 3.57	35 × 30 3.66
3300	22 × 50 3.18	25.4 × 40 3.28	30 × 30 3.24				30 × 40 4.15	35 × 35 4.18
3900		25.4 × 45 3.62	30 × 35 3.60				30 × 45 4.58	35 × 35 4.51
4700		25.4 × 50 4.22	30 × 40 4.23	35 × 30 4.12				35 × 40 5.18
5600			30 × 45 4.66	35 × 35 4.59				35 × 50 5.91
6800				35 × 40 5.20				
8200				35 × 45 5.86				
10000				35 × 50 6.61				

Case size ØD × L (mm)
Ripple current (A rms) at 85°C, 120Hz

LARGE ALUMINUM ELECTROLYTIC CAPACITORS



HJ series

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV μF / ØD	160				200				250				
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35	
220					22 × 20 1.18					22 × 25 1.24	25.4 × 20 1.22		
270	22 × 20 1.30				22 × 25 1.37	25.4 × 20 1.35				22 × 25 1.50	25.4 × 25 1.32		
330	22 × 25 1.50				22 × 25 1.51	25.4 × 20 1.49				22 × 30 1.66	25.4 × 25 1.61	30 × 20 1.58	
390	22 × 25 1.63	25.4 × 20 1.62			22 × 25 1.73	25.4 × 25 1.71	30 × 20 1.71			22 × 35 1.88	25.4 × 30 1.88	30 × 25 1.86	
470	22 × 30 1.86	25.4 × 20 1.86			22 × 30 1.97	25.4 × 25 1.95	30 × 20 1.88			22 × 35 2.15	25.4 × 35 2.15	30 × 25 2.04	
560	22 × 30 2.15	25.4 × 25 2.15	30 × 20 2.05		22 × 35 2.18	25.4 × 30 2.15	30 × 25 2.15			22 × 40 2.48	25.4 × 35 2.35	30 × 25 2.35	35 × 25 2.35
680	22 × 35 2.35	25.4 × 30 2.33	30 × 25 2.33		22 × 40 2.48	25.4 × 30 2.48	30 × 25 2.48	35 × 25 2.33		22 × 50 2.61	25.4 × 40 2.67	30 × 30 2.71	35 × 25 2.58
820	22 × 40 2.68	25.4 × 30 2.65	30 × 25 2.64		22 × 45 2.81	25.4 × 35 2.79	30 × 30 2.80	35 × 25 2.83			25.4 × 45 3.01	30 × 35 2.98	35 × 30 2.96
1000	22 × 45 3.02	25.4 × 35 3.00	30 × 30 2.96	35 × 25 3.13	22 × 50 3.28	25.4 × 40 3.28	30 × 35 3.15	35 × 30 3.26				30 × 40 3.56	35 × 35 3.48
1200	22 × 50 3.47	25.4 × 40 3.43	30 × 30 3.41	35 × 25 3.40		25.4 × 45 3.61	30 × 35 3.61	35 × 30 3.57				30 × 45 3.99	35 × 35 3.84
1500		25.4 × 45 3.96	30 × 35 3.96	35 × 30 3.94			30 × 45 4.13	35 × 35 4.06				30 × 50 4.33	35 × 40 4.33
1800			30 × 40 4.31	35 × 35 4.28			30 × 50 4.60	35 × 40 4.59					35 × 50 4.76
2200			30 × 50 4.96	35 × 40 4.96				35 × 45 5.25					

WV μF / ØD	350				400				450				
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35	
68					22 × 20 0.65					22 × 20 0.71			
82					22 × 20 0.85					22 × 25 0.86	25.4 × 20 0.84		
100	22 × 20 0.80				22 × 25 0.99	25.4 × 20 0.82				22 × 25 0.95	25.4 × 25 0.97		
120	22 × 25 1.04	25.4 × 20 1.05			22 × 25 1.09	25.4 × 20 1.13				22 × 30 1.07	25.4 × 25 1.09	30 × 20 1.12	
150	22 × 25 1.20	25.4 × 25 1.22			22 × 30 1.24	25.4 × 25 1.27	30 × 20 1.20			22 × 35 1.18	25.4 × 30 1.25	30 × 25 1.29	
180	22 × 30 1.34	25.4 × 25 1.37			22 × 30 1.41	25.4 × 25 1.44	30 × 25 1.52			22 × 35 1.32	25.4 × 35 1.40	30 × 25 1.45	
220	22 × 30 1.47	25.4 × 30 1.53	30 × 25 1.54		22 × 35 1.58	25.4 × 30 1.64	30 × 25 1.66			22 × 40 1.48	25.4 × 35 1.59	30 × 25 1.64	35 × 25 1.59
270	22 × 35 1.70	25.4 × 30 1.73	30 × 25 1.80		22 × 40 1.65	25.4 × 35 1.79	30 × 30 1.82	35 × 25 1.63		22 × 50 1.88	25.4 × 40 1.87	30 × 30 1.89	35 × 25 1.90
330	22 × 45 1.87	25.4 × 35 1.97	30 × 30 2.03	35 × 25 1.80	22 × 50 1.95	25.4 × 40 2.00	30 × 30 2.05	35 × 25 2.05			25.4 × 45 2.12	30 × 35 2.12	35 × 30 2.15
390	22 × 50 2.08	25.4 × 40 2.14	30 × 30 2.23	35 × 25 2.30		25.4 × 45 2.12	30 × 35 2.26	35 × 30 2.28				30 × 40 2.30	35 × 35 2.35
470		25.4 × 45 2.55	30 × 35 2.53	35 × 30 2.55		25.4 × 50 2.46	30 × 40 2.51	35 × 30 2.51				30 × 45 2.68	35 × 35 2.68
560		25.4 × 50 2.70	30 × 40 2.73	35 × 35 2.75			30 × 45 2.85	35 × 35 2.85					35 × 40 2.88
680			30 × 45 3.15	35 × 35 3.15			30 × 50 3.01	35 × 40 3.01					35 × 50 3.44
820				35 × 40 3.47	← Case size ØD × L (mm) ← Ripple current (Arms) at 85°C, 120Hz								

WV μF / ØD	500			
	22	25.4	30	35
56	22 × 20 0.50			
68	22 × 25 0.59	25.4 × 20 0.59		
82	22 × 30 0.68	25.4 × 25 0.65		
100	22 × 35 0.79	25.4 × 30 0.82	30 × 25 0.82	
120	22 × 40 0.94	25.4 × 35 0.94	30 × 25 0.95	
150	22 × 45 1.09	25.4 × 35 1.10	30 × 30 1.13	
180	22 × 50 1.27	25.4 × 40 1.30	30 × 35 1.30	35 × 25 1.27
220		25.4 × 45 1.50	30 × 40 1.50	35 × 30 1.48
270			30 × 45 1.81	35 × 35 1.72
330				35 × 40 1.99
390				35 × 45 2.34
470				35 × 50 2.81

LARGE TYPES