

LARGE ALUMINUM ELECTROLYTIC CAPACITORS

HJ Snap-in Terminal Type, Series

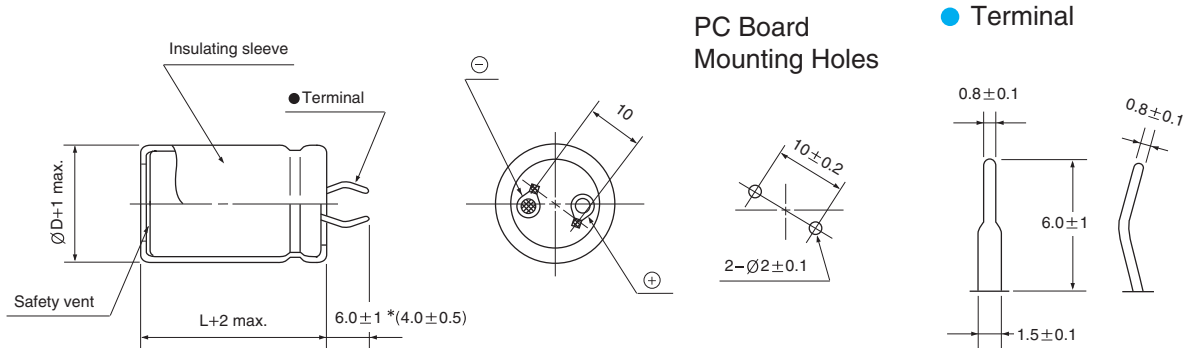
- High voltage, high capacitance series
- Load life of 3000 hours at 85°C
- Complied to the RoHS directive



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	~ 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 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

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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