

# LARGE ALUMINUM ELECTROLYTIC CAPACITORS



Upgrade

# GT

Screw Terminal Type, Standard Series

- Ideally suited for use as input and output filter capacitors in power supplies
- Suited for smoothing circuits for general purpose inverters and control circuits for F.A. machines
- Designed for use as input filter capacitor for current U.P.S.
- Complied to the RoHS directive

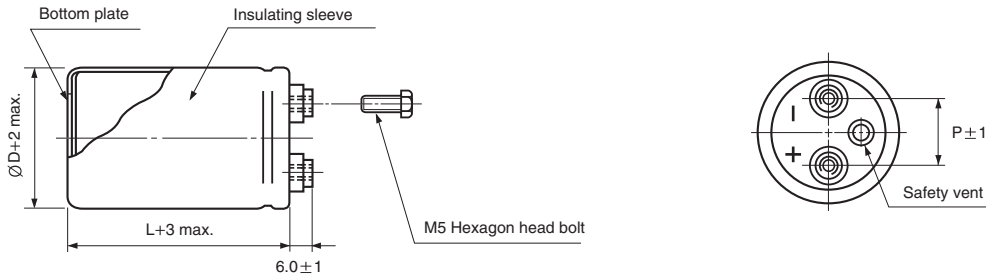
**GT**  $\rightarrow$  **CU**  
Wide Temp.



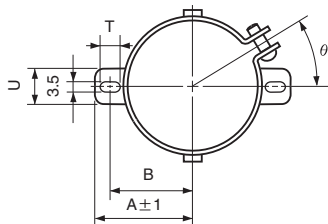
Item	Characteristics																																																												
Operating temperature range	WV < 350 : -40 ~ +85°C, WV ≥ 350 : -25 ~ +85°C																																																												
Capacitance tolerance	±20% at 120Hz, 20°C																																																												
Leakage current max.	$I = 3\sqrt{CV}$ (μA) (after 5 minutes)																																																												
Dissipation factor max. (at 120Hz, 20°C)	<table border="1"> <thead> <tr> <th>∅D \ WV</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> <th>160 ~ 250</th> <th>350 ~ 500</th> </tr> </thead> <tbody> <tr> <td>35</td> <td>0.70</td> <td>0.45</td> <td>0.45</td> <td>0.30</td> <td>0.25</td> <td>0.25</td> <td>0.20</td> <td>0.15</td> <td>0.25</td> </tr> <tr> <td>51</td> <td>1.00</td> <td>0.60</td> <td>0.60</td> <td>0.45</td> <td>0.35</td> <td>0.30</td> <td>0.20</td> <td>0.15</td> <td>0.25</td> </tr> <tr> <td>63.5</td> <td>1.30</td> <td>0.80</td> <td>0.70</td> <td>0.50</td> <td>0.40</td> <td>0.35</td> <td>0.25</td> <td>0.20</td> <td>0.25</td> </tr> <tr> <td>76.2</td> <td>2.00</td> <td>1.60</td> <td>0.90</td> <td>0.70</td> <td>0.50</td> <td>0.45</td> <td>0.35</td> <td>0.25</td> <td>0.25</td> </tr> <tr> <td>89</td> <td>2.50</td> <td>2.40</td> <td>1.00</td> <td>0.80</td> <td>0.60</td> <td>0.50</td> <td>0.40</td> <td>0.30</td> <td>0.25</td> </tr> </tbody> </table>	∅D \ WV	16	25	35	50	63	80	100	160 ~ 250	350 ~ 500	35	0.70	0.45	0.45	0.30	0.25	0.25	0.20	0.15	0.25	51	1.00	0.60	0.60	0.45	0.35	0.30	0.20	0.15	0.25	63.5	1.30	0.80	0.70	0.50	0.40	0.35	0.25	0.20	0.25	76.2	2.00	1.60	0.90	0.70	0.50	0.45	0.35	0.25	0.25	89	2.50	2.40	1.00	0.80	0.60	0.50	0.40	0.30	0.25
	∅D \ WV	16	25	35	50	63	80	100	160 ~ 250	350 ~ 500																																																			
	35	0.70	0.45	0.45	0.30	0.25	0.25	0.20	0.15	0.25																																																			
	51	1.00	0.60	0.60	0.45	0.35	0.30	0.20	0.15	0.25																																																			
	63.5	1.30	0.80	0.70	0.50	0.40	0.35	0.25	0.20	0.25																																																			
	76.2	2.00	1.60	0.90	0.70	0.50	0.45	0.35	0.25	0.25																																																			
89	2.50	2.40	1.00	0.80	0.60	0.50	0.40	0.30	0.25																																																				
Load life (after application of the rated voltage for 2000 hours at 85°C)	Leakage current	Less than specified value																																																											
	Capacitance change	WV ≤ 250 : Within ±15% of the initial value WV ≥ 350 : Within ±20% of the initial value																																																											
	tanδ	WV ≤ 250 : Less than 175% of the specified value WV ≥ 350 : Less than 300% of the 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

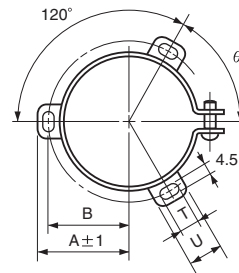
Unit : mm



## ● TWO LEGS ANGLE



## ● THREE LEGS ANGLE



## ● TWO LEGS ANGLE SIZE TABLE

∅D	B	A	T	U	θ°	P
35	24	29	7	10	30	12.7
51	33.6	39.9	6	14	30	22
63.5	40.8	46.8	6	14	30	28.6

## ● THREE LEGS ANGLE SIZE TABLE

∅D	B	A	T	U	θ°	P
51	32.9	38.9	7	12	60	22
63.5	38.4	45.3	7	14	60	28.6
76.2	44.5	51.5	8	16	60	31.8
89	50.8	61	8	16	60	31.8

# LARGE ALUMINUM ELECTROLYTIC CAPACITORS

**GT** series

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu\text{F}$ \diagdown WV	16		25		35		50	
10000							35×60	6.2
15000					35×50	5.8	35×80	8.5
22000			35×60	7.5	35×70	7.9	35×100	11.3
33000	35×60	7.4	35×80	10.3	35×100	11.3	35×120	15.0
47000	35×80	9.9	35×100	13.5	35×120	14.6	51×100	15.2
68000	35×100	13.1	51×80	14.5	51×100	15.9	51×120	19.7
100000	51×80	13.7	51×100	19.2	51×120	20.7	63.5×120	24.2
150000	51×100	18.3	51×140	27.1	63.5×120	25.1	76.2×120	25.9
220000	51×140	25.4	63.5×120	28.4	76.2×120	27.7	76.2×160	35.1
330000	63.5×120	27.3	76.2×120	29.3	76.2×160	37.9		
470000	76.2×120	27.1	76.2×160	39.2				
680000	76.2×160	36.5						

$\mu\text{F}$ \diagdown WV	63		80		100		160	
1500							35×60	3.4
2200							35×80	4.6
3300							35×100	6.2
4700					35×60	5.2	51×80	7.7
6800	35×50	5.2	35×60	5.6	35×80	7.0	51×100	10.0
10000	35×60	6.8	35×80	7.6	35×100	9.4	51×140	14.1
15000	35×80	9.3	35×120	11.1	51×80	11.8	63.5×140	16.5
22000	35×120	13.4	51×80	11.7	51×100	15.6	76.2×140	17.6
33000	51×100	14.5	51×120	16.8	51×140	22.0		
47000	51×120	18.6	63.5×100	18.5	63.5×140	25.0		
68000	63.5×100	20.8	63.5×140	25.4	76.2×140	26.2		
100000	76.2×120	25.0	76.2×140	29.7				
150000	76.2×140	32.5						

$\mu\text{F}$ \diagdown WV	200		250	
330				
470				
680			35×50	2.1
1000	35×60	2.8	35×70	2.9
1500	35×70	3.6	35×80	3.8
2200	35×100	5.1	35×120	5.5
3300	35×120	6.7	51×100	7.0
4700	51×100	8.3	51×140	9.6
6800	51×140	11.5	63.5×120	10.0
10000	63.5×120	12.1	76.2×120	11.2
15000	76.2×120	13.7	76.2×160	15.3
22000	76.2×160	18.6		

← Ripple current (A rms) at 85°C, 120Hz  
 ← Case size  $\varnothing D \times L$  (mm)

## GT series

### ● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV Item μF	350			400			450		
	∅D×L (mm)	Ripple current (A rms)		∅D×L (mm)	Ripple current (A rms)		∅D×L (mm)	Ripple current (A rms)	
		40°C 120Hz	85°C 120Hz		40°C 120Hz	85°C 120Hz		40°C 120Hz	85°C 120Hz
180							35×60	2.9	1.0
220				35×50	3.0	1.1	35×60	3.2	1.1
270	35×50	3.3	1.2	35×50	3.3	1.2	35×60	3.6	1.7
330	35×50	3.7	1.3	35×50	3.9	1.8	35×80	4.4	2.0
390	35×60	4.3	2.1	35×60	4.3	2.0	35×80	4.8	2.2
470	35×60	4.7	2.3	35×80	5.3	2.6	35×80	5.8	2.6
560	35×80	5.8	2.5	35×80	6.3	2.9	35×100	6.3	3.0
680	35×80	6.4	3.1	35×100	7.0	3.3	35×100	7.5	3.3
820	35×100	7.7	3.5	35×100	8.3	3.7	35×120	8.0	4.6
1000	35×100	9.2	4.1	35×120	8.8	4.8	51×80	9.6	5.0
1200	35×120	9.7	5.2	51×80	9.7	5.2	51×100	10.6	6.1
1500	51×80	10.8	5.9	51×100	11.8	5.9	51×100	12.7	6.7
1800	51×100	12.9	6.2	51×100	13.9	6.9	51×110	13.8	7.9
2200	51×100	15.4	7.8	51×120	16.4	8.5	51×120	16.3	8.5
2700	51×140	18.2	8.3	63.5×100	18.1	9.5	51×140	19.2	9.8
3300	51×130	20.4	10.9	51×140	22.8	10.6	51×140	20.3	11.6
	63.5×100	20.0	10.9	63.5×120	21.3	11.3	63.5×120	20.6	11.2
3900	63.5×120	23.1	12.8	63.5×130	24.4	13.1	63.5×130	23.7	11.9
				76.2×100	24.4	13.0	76.2×100	23.5	12.8
4700	63.5×130	26.8	14.3	63.5×160	26.9	13.2	63.5×160	27.8	14.0
	76.2×100	27.8	13.9	76.2×120	26.0	14.1	76.2×120	27.5	15.0
5600	76.2×120	28.4	15.0	76.2×130	30.0	16.2	76.2×130	31.3	16.8
6800	76.2×130	33.0	17.2	76.2×140	34.5	18.5	76.2×140	33.8	18.1
	89×120	32.5	17.0	89×120	34.5	19.1	89×130	33.5	18.9
8200	76×160	38.4	20.5	76.2×160	39.8	20.1	76.2×160	42.8	19.4
	89×140	37.8	20.3	89×130	39.8	20.9	89×140	42.8	19.7
10000	89×160	44.0	22.8	89×140	44.0	21.8	89×160	49.8	20.6
12000	89×160	47.3	24.3	89×160	47.6	22.8	89×190	58.5	21.9
15000	89×190	56.6	25.6	89×190	57.4	23.3			

WV Item μF	500		
	∅D×L (mm)	Ripple current (A rms)	
		40°C 120Hz	85°C 120Hz
1000	51×120	12.2	4.2
1200	63.5×100	13.1	4.5
1500	63.5×100	14.8	5.1
1800	63.5×120	17.4	6.0
2200	63.5×140	20.3	7.0
2700	76.2×120	22.3	7.9
3300	76.2×140	26.1	8.8
3900	76.2×160	27.2	10.4
4700	89×140	31.1	11.1
6800	89×160	37.8	13.5
8200	89×190	44.5	15.9

### ● FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

WV	Frequency	50Hz	120Hz	300Hz	1kHz	10kHz ≤
~ 100		0.8	1.0	1.1	1.15	1.2
160 ~ 250		0.8	1.0	1.1	1.15	1.3
350 ~		0.8	1.0	1.2	1.35	1.4