

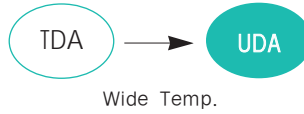


# LARGE SIZED ALUMINUM ELECTROLYTIC CAPACITORS

## UDA Series

• 125°C 1,000Hrs assured.

- Non-solvent proof.
- Wide Temperature range.
- For automotive and industrial machine.
- RoHS compliant.
- Halogen-free capacitors are also available.



### SPECIFICATIONS

Item	Characteristics																			
Rated Voltage Range	16 ~ 80 V <sub>DC</sub>	160 ~ 250 V <sub>DC</sub>																		
Operating Temperature Range	-40 ~ +125°C	-25 ~ +125°C																		
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)																			
Leakage Current	I = 0.02CV or 3mA, whichever is smaller Where, I: Leakage current(µA) C: Nominal capacitance(µF) V: Rated voltage(V <sub>DC</sub> ) (at 20°C, 5 minutes)																			
※ Dissipation Factor (Tanδ)	<table border="1"> <tr> <td>Rated Voltage(V<sub>DC</sub>)</td> <td>16</td> <td>25</td> <td>35</td> <td>50~80</td> <td>160~250</td> </tr> <tr> <td>Tanδ(Max.)</td> <td>0.45</td> <td>0.40</td> <td>0.35</td> <td>0.30</td> <td>0.20</td> </tr> </table> (at 20°C, 120Hz)		Rated Voltage(V <sub>DC</sub> )	16	25	35	50~80	160~250	Tanδ(Max.)	0.45	0.40	0.35	0.30	0.20						
Rated Voltage(V <sub>DC</sub> )	16	25	35	50~80	160~250															
Tanδ(Max.)	0.45	0.40	0.35	0.30	0.20															
Temperature Characteristics (Max.Impedance ratio)	<table border="1"> <tr> <td>Rated Voltage(V<sub>DC</sub>)</td> <td>16</td> <td>25</td> <td>35</td> <td>50~80</td> <td>160~250</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> <td>3</td> <td>3</td> <td>2</td> <td>4</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>15</td> <td>10</td> <td>8</td> <td>6</td> <td>-</td> </tr> </table> (120Hz)		Rated Voltage(V <sub>DC</sub> )	16	25	35	50~80	160~250	Z(-25°C)/Z(20°C)	4	3	3	2	4	Z(-40°C)/Z(20°C)	15	10	8	6	-
Rated Voltage(V <sub>DC</sub> )	16	25	35	50~80	160~250															
Z(-25°C)/Z(20°C)	4	3	3	2	4															
Z(-40°C)/Z(20°C)	15	10	8	6	-															
Load Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated working voltage is applied for 1,000 hours at 125°C</p> <p>Capacitance change ≤ ±20% of the initial value Tanδ ≤ 200% of the initial specified value Leakage Current ≤ The initial specified value</p>																			
Shelf Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after the exposing them at max. operating temperature for 500 hours without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than measurements.</p> <p>Capacitance change ≤ ±20% of the initial value Tanδ ≤ 200% of the initial specified value Leakage Current ≤ The initial specified value</p>																			
Others	Satisfied characteristics KS C IEC 60384-4																			

※ For capacitors with CV products > 100,000 Higher Tanδ value may apply.  
When the capacitance exceeds 1,000µF, 0.01 shall be added every 1,000µF increase.

### RATED RIPPLE CURRENT

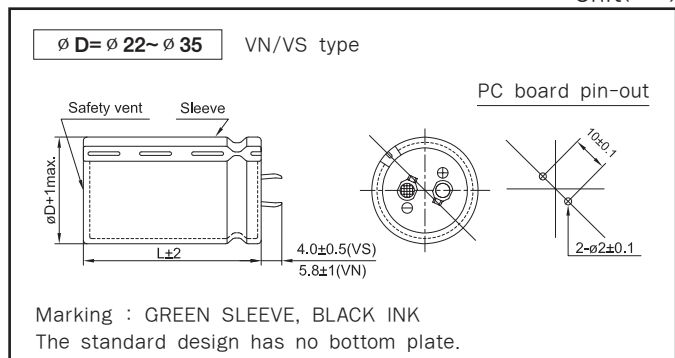
When capacitors are operated in any other condition at 120Hz, the maximum ripple current must be multiplied by the figure shown in the table.

Frequency multiplying factor

Frequency(Hz)	60	120	300	1k	10k~
16~50V <sub>DC</sub>	0.95	1.00	1.03	1.05	1.08
63~100V <sub>DC</sub>	0.92	1.00	1.07	1.13	1.19
160~250V <sub>DC</sub>	0.81	1.00	1.17	1.32	1.45

### DIMENSIONS OF UDA Series

Unit(mm)



## RATINGS OF UDA Series

$\mu\text{F}$	V <sub>DC</sub> ∅ D	16				25				35			
		22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
1,000										22 × 30 0.85			
1,500					22 × 30 0.95					22 × 40 1.16	25.4 × 30 1.14		
2,200		22 × 30 1.00			22 × 40 1.28	25.4 × 30 1.41				22 × 50 1.54	25.4 × 40 1.54	30 × 30 1.50	
3,300		22 × 40 1.36	25.4 × 35 1.41		22 × 50 1.72	25.4 × 40 1.72	30 × 30 1.68					30 × 40 2.04	35 × 30 2.09
4,700		22 × 50 1.78	25.4 × 40 1.77	30 × 30 1.74		25.4 × 50 2.23	30 × 40 2.22	35 × 30 2.17					35 × 40 2.61
6,800				30 × 40 2.31	35 × 30 2.26		30 × 50 2.90	35 × 40 2.87					
10,000					35 × 45 3.14								

$\mu\text{F}$	V <sub>DC</sub> ∅ D	50				63				80			
		22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
330						22 × 35 0.69	25.4 × 30 0.71			22 × 30 0.59			
470					22 × 40 0.87	25.4 × 35 0.91	30 × 30 0.93			22 × 40 0.79	25.4 × 35 0.82		
680		22 × 30 0.78				25.4 × 45 1.21	30 × 35 1.19	35 × 30 1.22		25.4 × 40 1.04	30 × 35 1.07		
1,000		22 × 40 1.06	25.4 × 30 1.04				30 × 45 1.60	35 × 40 1.65			30 × 45 1.42	35 × 35 1.40	
1,500		22 × 50 1.42	25.4 × 40 1.42	30 × 30 1.39				35 × 50 2.16					35 × 45 1.86
2,200				30 × 40 1.86	35 × 35 1.91								
3,300					35 × 40 2.45	← Case Size ∅ D × L (mm) ← Rated Ripple Current (Arms/125°C, 120Hz)							



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## RATINGS OF UDA Series

$\mu F$	V <sub>DC</sub> ∅ D	160				200				250			
		22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
100										22 × 30 0.32			
150		22 × 30 0.37				22 × 35 0.42				22 × 40 0.44	25.4 × 30 0.43		
220		22 × 40 0.50	25.4 × 30 0.49			22 × 45 0.56	25.4 × 40 0.58	30 × 30 0.57		22 × 50 0.58	25.4 × 40 0.58	30 × 35 0.60	35 × 30 0.61
330		22 × 50 0.67	25.4 × 40 0.67	30 × 30 0.65			25.4 × 50 0.77	30 × 40 0.77	35 × 30 0.75			30 × 45 0.80	35 × 35 0.79
470			25.4 × 50 0.87	30 × 40 0.86	35 × 30 0.84				35 × 40 0.98				35 × 45 1.03
680				30 × 50 1.12	35 × 40 1.11				35 × 50 1.28				35 × 50 1.28
1,000				35 × 50 1.46	← Case Size ∅ D × L (mm) ← Rated Ripple Current (Arms/125°C, 120Hz)								