

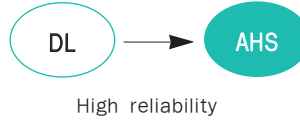


# LARGE SIZED ALUMINUM ELECTROLYTIC CAPACITORS

## AHS Series

• 85°C 2,000Hrs assured.

- Non-solvent proof.
- Hi-Fi Audio grade.
- For Audio, AMP, AVR
- RoHS compliant.
- Halogen-free capacitors are also available.

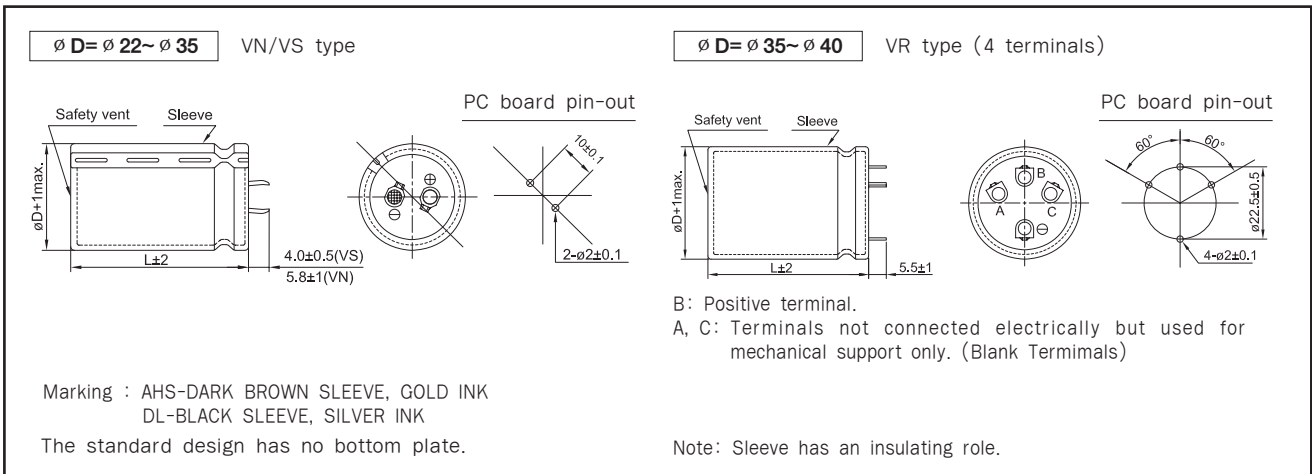


### SPECIFICATIONS

| Item  | Characteristics   |                  |   |                  |    |
|---|---|------------------|---|------------------|----|
| Rated Voltage Range                               | 50 ~ 100 V <sub>DC</sub>  |                  |   |                  |    |
| Operating Temperature Range                       | -40 ~ +85°C   |                  |   |                  |    |
| Capacitance Tolerance                             | ±20%(M) (at 20°C, 120Hz)  |                  |   |                  |    |
| Leakage Current                                   | I=0.01CV or 2mA, whichever is smaller.<br>Where, I: Leakage current (μA) C: Nominal capacitance (μF)<br>V: Rated voltage (V <sub>DC</sub> ) (at 20°C, 5 minutes)  |                  |   |                  |    |
| Dissipation Factor (Tanδ)                         | Tanδ shall not exceed the value shown in the table of RATINGS. (at 20°C, 120Hz)   |                  |   |                  |    |
| Temperature Characteristics (Max.Impedance ratio) | <table border="1"> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>15</td> </tr> </table> (at 120Hz)   | Z(-25°C)/Z(20°C) | 4 | Z(-40°C)/Z(20°C) | 15 |
| Z(-25°C)/Z(20°C)                                  | 4   |                  |   |                  |    |
| Z(-40°C)/Z(20°C)                                  | 15  |                  |   |                  |    |
| Load Life   | The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 2,000 hours at 85°C<br>Capacitance change ≤ ±20% of the initial value.<br>Tanδ ≤ 200% of the initial specified value.<br>Leakage current ≤ The initial specified value   |                  |   |                  |    |
| Shelf Life  | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them at max. operating temperature for ½ assurance load life time 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 48 hours before the measurements.<br>Capacitance change ≤ ±20% of the initial value.<br>Tanδ ≤ 200% of the initial specified value.<br>Leakage current ≤ The initial specified value |                  |   |                  |    |
| Charge & Discharge                                | 5,000 times (at 70°C)<br>After this test is completed, the capacitors shall be satisfied the following specifications.<br>Capacitance change ≤ ±20% of the initial value. Tan δ ≤ 150% of the initial specified value.<br>Leakage current ≤ The initial specified value No visible damage and no leakage electrolyte<br>where, Charge resistance: 2.2 Ω Charge conditions: rated volt. 1(A)<br>Discharge resistance: 100 Ω Charge and discharge time: 30 sec(each)  |                  |   |                  |    |
| Others  | Satisfied characteristics KS C IEC 60384-4  |                  |   |                  |    |

### DIMENSIONS OF AHS/DL Series

Unit (mm)



**CAUTION:** Please use the blank terminals for mechanical support only. The blank terminals must not be connected to a solder trace on the PC board, but be electrically isolated from negative or positive terminal.

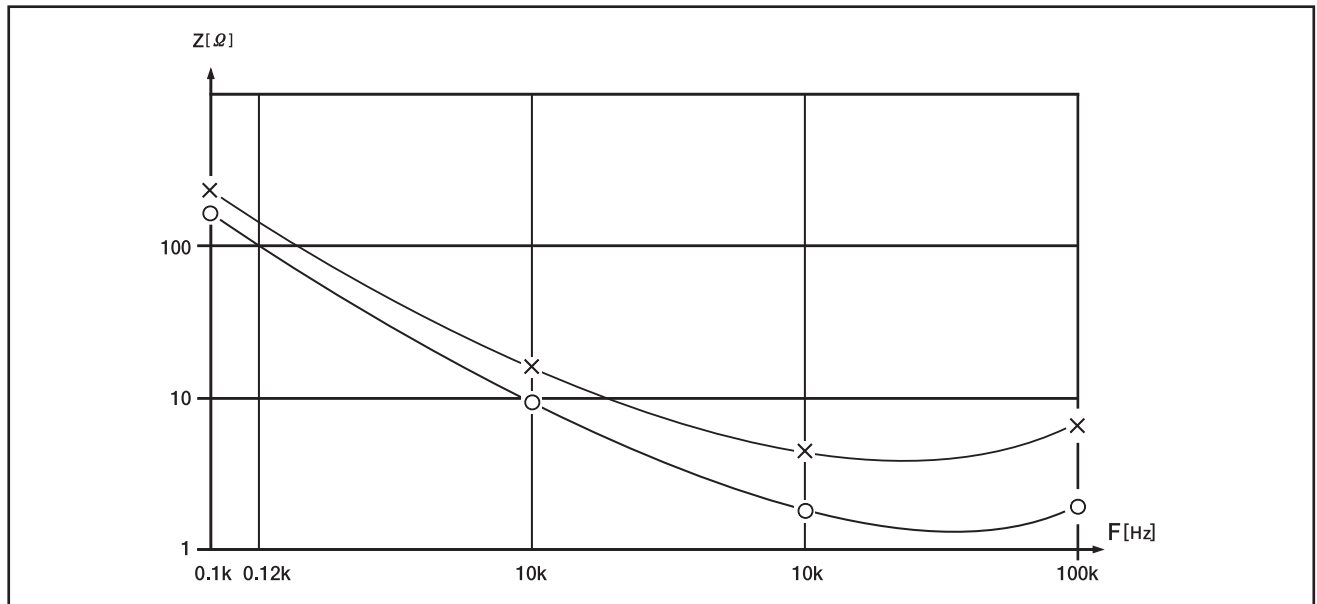


## RATINGS OF AHS Series

| $\mu F$ \ Vdc | 50        |      |      | 63        |      |      | 80        |      |      | 100     |      |      |
|---------------|-----------|------|------|-----------|------|------|-----------|------|------|---------|------|------|
| 3,300         | 25.4 × 30 | 0.20 | 1.84 | 25.4 × 40 | 0.20 | 1.96 | 25.4 × 50 | 0.15 | 2.39 | 30 × 60 | 0.15 | 2.68 |
|               | 30 × 25   | 0.20 | 1.86 | 30 × 30   | 0.20 | 1.96 | 30 × 40   | 0.15 | 2.40 | 35 × 50 | 0.15 | 2.69 |
|               |           |      |      |           |      |      | 35 × 35   | 0.15 | 2.40 | 40 × 40 | 0.15 | 2.68 |
| 4,700         | 25.4 × 40 | 0.20 | 2.34 | 25.4 × 50 | 0.20 | 2.47 | 25.4 × 60 | 0.15 | 3.01 | 35 × 60 | 0.15 | 2.98 |
|               | 30 × 30   | 0.20 | 2.36 | 30 × 40   | 0.20 | 2.48 | 30 × 50   | 0.15 | 3.04 | 40 × 50 | 0.20 | 2.92 |
|               |           |      |      | 35 × 30   | 0.20 | 2.48 | 35 × 40   | 0.15 | 3.02 |         |      |      |
| 6,800         | 25.4 × 50 | 0.22 | 2.83 | 30 × 50   | 0.22 | 3.02 | 30 × 60   | 0.15 | 3.35 | 40 × 60 | 0.20 | 3.68 |
|               | 30 × 40   | 0.22 | 2.85 | 35 × 40   | 0.22 | 3.00 | 35 × 50   | 0.15 | 3.35 |         |      |      |
|               | 35 × 35   | 0.25 | 2.67 |           |      |      | 40 × 40   | 0.20 | 3.34 |         |      |      |
| 8,200         | 30 × 50   | 0.25 | 3.11 | 30 × 60   | 0.25 | 3.27 | 35 × 60   | 0.20 | 3.87 |         |      |      |
|               | 35 × 40   | 0.25 | 3.09 | 35 × 50   | 0.25 | 3.28 | 40 × 50   | 0.20 | 3.86 |         |      |      |
|               |           |      |      | 40 × 40   | 0.25 | 3.28 |           |      |      |         |      |      |
| 10,000        | 30 × 50   | 0.25 | 3.43 | 35 × 60   | 0.25 | 3.82 | 40 × 60   | 0.20 | 4.46 |         |      |      |
|               | 35 × 40   | 0.25 | 3.41 | 40 × 50   | 0.25 | 3.81 |           |      |      |         |      |      |
| 12,000        | 30 × 60   | 0.25 | 3.66 | 35 × 60   | 0.25 | 4.19 |           |      |      |         |      |      |
|               | 35 × 50   | 0.30 | 3.62 | 40 × 50   | 0.25 | 4.18 |           |      |      |         |      |      |
|               | 40 × 40   | 0.30 | 3.62 |           |      |      |           |      |      |         |      |      |
| 15,000        | 35 × 60   | 0.30 | 4.27 | 40 × 60   | 0.30 | 4.46 |           |      |      |         |      |      |
|               | 40 × 50   | 0.30 | 4.26 |           |      |      |           |      |      |         |      |      |
| 22,000        | 40 × 60   | 0.30 | 5.40 |           |      |      |           |      |      |         |      |      |

↑ Rated Ripple Current (Arms/85°C, 120Hz)  
 ↑ Tan $\delta$ (Max.)  
 ↑ Case Size  $\phi D \times L$ (mm)

## Frequency vs Impedance Graph



o - o AHS 80 VR 8200  
 x - x DL 80 VR 8200