

# SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

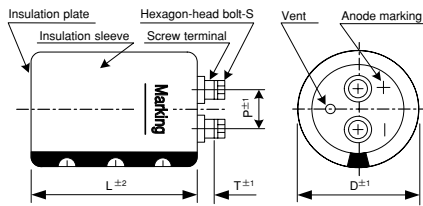
## FXW Series

Useful of 8,000 hours at 85°C (Warranty of 5,000 hours at 85°C)

- Conform RoHS

### Features

- Capacitance has been increased by 35% compared with FX2 model by special etched foil technology and new structure of element.
- High reliability series with the warranty of 5,000 hours realized through improvement of the HCGWA type into a longer-life type.



(unit : mm)

| φ D | P    | S     | T   | Cap material |
|-----|------|-------|-----|--------------|
| 77  | 32.0 | M5×10 | 5.0 | Phenol       |
| 90  | 32.0 | M5×10 | 5.0 | Phenol       |
| 101 | 32.0 | M6×12 | 3.0 | PPS          |

### Product Specifications

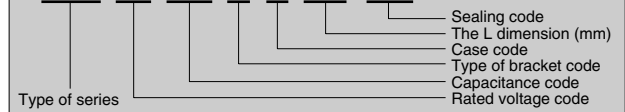
| Items                      | Specifications  |
|----------------------------|---|
| Temperature range          | -10°C ~ +85°C   |
| Rated voltage              | 350 ~ 450V.DC   |
| Capacitance tolerance      | ±20% (20°C, 120Hz)  |
| Leakage current            | 0.01CV (µA) or 7 mA, whichever is smaller or less(20°C, after 5 minutes)<br>[ C=nominal capacitance (µF), V= rated voltage (V) ]  |
| Dissipation factor         | Less than the value specified in the standard products table. (20°C,120Hz)  |
| Permissible ripple current | As specified in the standard products table. (40°C,120Hz)   |
| High-temperature load      | After the rated voltage with specified ripple current is applied at 85°C for 5000 hours:<br>Capacitance tolerance: ±15% or less of the initial value<br>Dissipation factor: 175% or less of the specified initial value<br>Leakage current: Specified initial value or less |
| Others                     | JIS C 5101-4.   |

### Ripple current correction coefficient

| Temperature (°C)       | 40    | 60   | 70   | 85   |      |
|------------------------|-------|------|------|------|------|
| Correction coefficient | 1.0   | 0.75 | 0.62 | 0.37 |      |
| Frequency (Hz)         | 50/60 | 120  | 300  | 1k   | ≥10K |
| Correction coefficient | 0.7   | 1.0  | 1.1  | 1.3  | 1.4  |

Product code : (Example) FXW type 400 V 24,000µF±20%

**FXW 2G 243 Y F 236 (PH)** F case (φD:90 mm)product



### Bracket

- See page 21, 22 for shapes and dimensions.
- Product names in the Standard Products Table correspond to the bracket for Type Y, but Type I bracket may be used (Type of bracket code = I ).
- If bracket are not necessary, enter "N" for the type of bracket code.
- Bracket will be delivered separately.

### Standard Products Table

| Rated Voltage (V. DC) | Capacitance (µF) | Case size φDXL(mm) | tanδ 20°C,120Hz | Ripple current 40°C,120Hz (Arms) | ESR(typ.) 20°C,100Hz (mΩ) | Z max 20°C,10kHz (mΩ) | ESL(typ.) (nH) | Product name    |
|-----------------------|------------------|--------------------|-----------------|----------------------------------|---------------------------|-----------------------|----------------|-----------------|
| 350                   | 13000            | 77×155             | 0.70            | 20.7                             | 25                        | 26                    | 26             | FXW2V133YE155PH |
|                       | 17000            | 77×195             | 0.70            | 25.4                             | 19                        | 20                    | 26             | FXW2V173YE195PH |
|                       |                  | 90×157             | 0.70            | 25.4                             | 19                        | 20                    | 26             | FXW2V173YF157PH |
|                       | 22000            | 77×235             | 0.70            | 32.1                             | 17                        | 18                    | 26             | FXW2V223YE235PH |
|                       | 24000            | 90×196             | 0.70            | 33.8                             | 16                        | 18                    | 26             | FXW2V243YF196PH |
|                       |                  | 101×175            | 0.70            | 33.8                             | 16                        | 18                    | 36             | FXW2V243YG175   |
|                       | 30000            | 90×236             | 0.70            | 39.7                             | 12                        | 13                    | 26             | FXW2V303YF236PH |
| 101×195               |                  | 0.70               | 39.7            | 12                               | 13                        | 36                    | FXW2V303YG195  |                 |
|                       | 38000            | 101×237            | 0.70            | 45.6                             | 10                        | 12                    | 36             | FXW2V383YG237   |
| 400                   | 11000            | 77×155             | 0.70            | 19.2                             | 31                        | 32                    | 26             | FXW2G113YE155PH |
|                       | 13000            | 77×195             | 0.70            | 23.0                             | 26                        | 27                    | 26             | FXW2G133YE195PH |
|                       | 15000            | 90×157             | 0.70            | 24.0                             | 23                        | 24                    | 26             | FXW2G153YF157PH |
|                       | 16000            | 77×235             | 0.70            | 28.0                             | 21                        | 22                    | 26             | FXW2G163YE235PH |
|                       | 19000            | 90×196             | 0.70            | 30.0                             | 21                        | 22                    | 26             | FXW2G193YF196PH |
|                       | 20000            | 101×175            | 0.70            | 29.4                             | 20                        | 21                    | 36             | FXW2G203YG175   |
|                       |                  | 90×236             | 0.70            | 35.9                             | 17                        | 18                    | 26             | FXW2G243YF236PH |
|                       | 24000            | 101×195            | 0.70            | 33.8                             | 17                        | 18                    | 36             | FXW2G243YG195   |
| 30000                 | 101×237          | 0.70               | 40.5            | 13                               | 14                        | 36                    | FXW2G303YG237  |                 |

# SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

ALUMINUM ELECTROLYTIC CAPACITORS

| Rated Voltage (V. DC) | Capacitance (μF) | Case size øDXL(mm) | tanδ 20°C, 120Hz | Ripple current 40°C, 120Hz (Arms) | ESR(typ.) 20°C, 100Hz (mΩ) | Z max 20°C, 10kHz (mΩ) | ESL(typ.) (nH) | Product name    |
|-----------------------|------------------|--------------------|------------------|-----------------------------------|----------------------------|------------------------|----------------|-----------------|
| 450                   | 9000             | 77×155             | 0.70             | 17.4                              | 38                         | 39                     | 26             | FXW2W902YE155PH |
|                       | 11000            | 77×195             | 0.70             | 21.2                              | 31                         | 32                     | 26             | FXW2W113YE195PH |
|                       | 12000            | 90×157             | 0.70             | 20.2                              | 28                         | 29                     | 26             | FXW2W123YF157PH |
|                       | 14000            | 77×235             | 0.70             | 26.4                              | 25                         | 27                     | 26             | FXW2W143YE235PH |
|                       | 16000            | 90×196             | 0.70             | 27.1                              | 23                         | 25                     | 26             | FXW2W163YF196PH |
|                       | 17000            | 101×175            | 0.70             | 27.1                              | 21                         | 22                     | 36             | FXW2W173YG175   |
|                       | 20000            | 90×236             | 0.70             | 32.7                              | 19                         | 20                     | 26             | FXW2W203YF236PH |
|                       |                  | 101×195            | 0.70             | 30.7                              | 19                         | 20                     | 36             | FXW2W203YG195   |
| 25000                 | 101×237          | 0.70               | 37.0             | 17                                | 18                         | 36                     | FXW2W253YG237  |                 |

## Life time graph

Useful life depending on ambient temperature  $T_a$  and ripple current operating conditions  $I_r$  versus rated ripple current at 40°C, 120Hz

