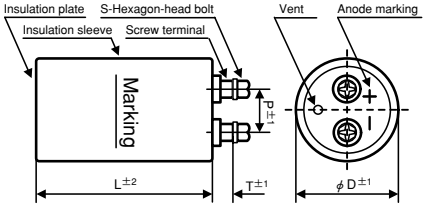
## FXA Series

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

- Conform RoHS

**Features**

- Long-life and high-ripple series for inverter realized through adoption of high-reliability organic acid type electrolyte liquid and improvement of etched foil technology for high voltage and manufacturing process.


(unit : mm)

| φD | P | S | T | Cap material |
|---|---|---|---|---|
| 51 | 22.0 | M5×10 | 4.5 | PPS |
| 64 | 28.6 | M5×10 | 4.5 | PPS |
| 77 | 32.0 | M5×10 | 4.5 | PPS |
| 90 | 32.0 | M5×10 | 4.0 | PPS |

Product Specifications

| Items | Specifications |
|---|---|
| Temperature range | –40°C ~ +85°C |
| Rated voltage | 350 ~ 450V.DC |
| Capacitance tolerance | ±20% (20°C,120Hz) |
| Leakage current | 0.01CV (μA) or 5mA, whichever is smaller or less<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. (85˚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 | 85 | | |
|---|---|---|---|---|---|
| Correction coefficient | 1.89 | 1.67 | 1.00 | | |
| Frequency (Hz) | 50/60 | 120 | 300 | 1K | ≧10K |
| Correction coefficient | 0.7 | 1.0 | 1.1 | 1.3 | 1.4 |

Ripple current should be under 60 Arms at M5 terminal in accordance with from the permissible current.

Product code : (Example) FXA Series 400V 4,700μF±20%

**FXA 2G 472 Y (D)** D case (øD : 64mm) product

- Case code(*)
- Type of bracket code
- Capacitance code
- Rated voltage code
- Type of series

*( ) Case code in parentheses : If two types of shape exist for the same rating, enter the case code.

Bracket

- See page 51 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 Code (Surge Voltage) (V. DC) | Capacitance (μF) | Case size øDXL(mm) | tanδ 20°C,120Hz | Ripple current 85°C,120Hz (Arms) | ESR(typ.) 20°C,100Hz (mΩ) | Z max 20°C,10kHz (mΩ) | ESL(typ.) (nH) | Product name |
|---|---|---|---|---|---|---|---|---|
| 350 2V (400) | 1200 | 51×75 | 0.15 | 5.5 | 85 | 88 | 21 | FXA2V122Y |
| | 1500 | 51×75 | 0.15 | 6.1 | 68 | 70 | 21 | FXA2V152Y |
| | 1800 | 51×96 | 0.15 | 7.4 | 57 | 59 | 21 | FXA2V182Y |
| | 2200 | 51×96 | 0.15 | 8.2 | 46 | 48 | 21 | FXA2V222Y |
| | 2700 | 51×130 | 0.15 | 10.2 | 38 | 40 | 21 | FXA2V272Y |
| | 3300 | 51×130 | 0.15 | 11.3 | 30 | 32 | 21 | FXA2V332Y |
| | 3900 | 64×115 | 0.15 | 12.8 | 26 | 28 | 22 | FXA2V392Y |
| | 4700 | 64×130 | 0.15 | 14.8 | 21 | 22 | 22 | FXA2V472Y |
| | 5600 | 64×155 | 0.15 | 17.3 | 18 | 19 | 22 | FXA2V562YD |
| | | 77×115 | 0.15 | 16.3 | 18 | 19 | 24 | FXA2V562YE |
| | 6800 | 64×195 | 0.15 | 21.1 | 15 | 15 | 22 | FXA2V682YD |
| | | 77×130 | 0.15 | 18.8 | 15 | 15 | 24 | FXA2V682YE |
| | 8200 | 77×155 | 0.15 | 22.1 | 12 | 15 | 24 | FXA2V822Y |
| | 10000 | 90×157 | 0.15 | 25.9 | 10 | 15 | 24 | FXA2V103Y |
| | 12000 | 90×157 | 0.15 | 28.4 | 8 | 13 | 24 | FXA2V123Y |
| | 15000 | 90×196 | 0.15 | 34.6 | 7 | 10 | 24 | FXA2V153Y |
| | 18000 | 90×236 | 0.15 | 41.1 | 7 | 10 | 24 | FXA2V183Y |

| Rated Voltage Code (Surge Voltage) (V. DC) | Capacitance (μF) | Case size øDXL(mm) | tanδ 20°C,120Hz | Ripple current 85°C,120Hz (Arms) | ESR(typ.) 20°C,100Hz (mΩ) | Z max 20°C,10kHz (mΩ) | ESL(typ.) (nH) | Product name |
|---|---|---|---|---|---|---|---|---|
| 400 2G (450) | 1000 | 51×75 | 0.15 | 5.0 | 102 | 105 | 21 | FXA2G102Y |
| | 1200 | 51×75 | 0.15 | 5.5 | 85 | 88 | 21 | FXA2G122Y |
| | 1500 | 51×96 | 0.15 | 6.7 | 68 | 70 | 21 | FXA2G152Y |
| | 1800 | 51×96 | 0.15 | 7.4 | 57 | 58 | 21 | FXA2G182Y |
| | 2200 | 51×130 | 0.15 | 9.2 | 46 | 48 | 21 | FXA2G222Y |
| | 2700 | 64×96 | 0.15 | 9.9 | 38 | 40 | 22 | FXA2G272Y |
| | 3300 | 64×115 | 0.15 | 11.8 | 30 | 32 | 22 | FXA2G332Y |
| | 3900 | 64×130 | 0.15 | 13.5 | 26 | 28 | 22 | FXA2G392Y |
| | 4700 | 64×155 | 0.15 | 15.9 | 21 | 22 | 22 | FXA2G472YD |
| | | 77×115 | 0.15 | 14.9 | 21 | 22 | 24 | FXA2G472YE |
| | 5600 | 64×195 | 0.15 | 19.1 | 18 | 19 | 22 | FXA2G562YD |
| | | 77×130 | 0.15 | 17.0 | 18 | 19 | 24 | FXA2G562YE |
| | 6800 | 77×155 | 0.15 | 20.2 | 15 | 15 | 24 | FXA2G682Y |
| | 8200 | 90×157 | 0.15 | 23.5 | 12 | 15 | 24 | FXA2G822Y |
| | 10000 | 90×157 | 0.15 | 25.9 | 10 | 15 | 24 | FXA2G103Y |
| | 12000 | 90×196 | 0.15 | 31.0 | 8 | 13 | 24 | FXA2G123Y |
| | 15000 | 90×236 | 0.15 | 37.5 | 8 | 10 | 24 | FXA2G153Y |
| 450 2W (500) | 1000 | 51×75 | 0.15 | 5.0 | 102 | 105 | 21 | FXA2W102Y |
| | 1200 | 51×96 | 0.15 | 6.0 | 85 | 88 | 21 | FXA2W122Y |
| | 1500 | 51×115 | 0.15 | 7.2 | 68 | 70 | 21 | FXA2W152Y |
| | 1800 | 51×130 | 0.15 | 8.3 | 56 | 58 | 21 | FXA2W182Y |
| | 2200 | 64×96 | 0.15 | 9.0 | 46 | 48 | 22 | FXA2W222Y |
| | 2700 | 64×115 | 0.15 | 10.7 | 38 | 40 | 22 | FXA2W272Y |
| | 3300 | 64×130 | 0.15 | 12.4 | 30 | 35 | 22 | FXA2W332Y |
| | 3900 | 64×155 | 0.15 | 14.5 | 27 | 32 | 22 | FXA2W392YD |
| | | 77×115 | 0.15 | 13.6 | 27 | 32 | 24 | FXA2W392YE |
| | 4700 | 64×195 | 0.15 | 17.5 | 21 | 21 | 22 | FXA2W472YD |
| | | 77×130 | 0.15 | 15.6 | 21 | 21 | 24 | FXA2W472YE |
| | 5600 | 77×155 | 0.15 | 18.3 | 20 | 20 | 24 | FXA2W562Y |
| | 6800 | 90×157 | 0.15 | 21.4 | 18 | 18 | 24 | FXA2W682Y |
| | 8200 | 90×157 | 0.15 | 23.5 | 15 | 15 | 24 | FXA2W822Y |
| | 10000 | 90×196 | 0.15 | 28.3 | 12 | 15 | 24 | FXA2W103Y |
| | 12000 | 90×236 | 0.15 | 33.6 | 9 | 12 | 24 | FXA2W123Y |



**Life time graph**

Useful life depending on ambient temperature Ta and ripple current operating conditions Ir versus rated ripple current at 85℃,120Hz