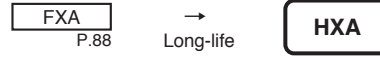


HXA Series Useful of 20,000 hours at 85°C

- Conform RoHS

Features

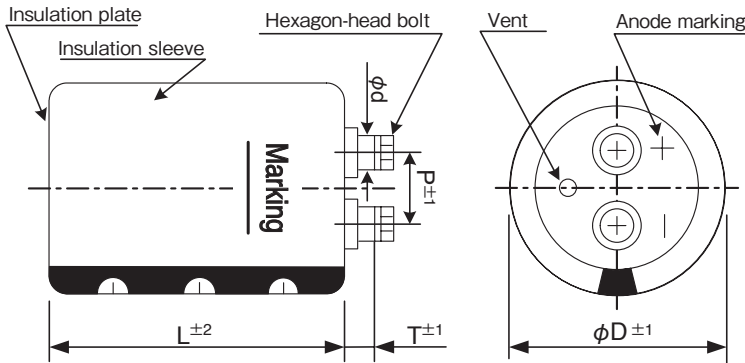
- High-reliability series with the warranty of 20,000 hours realized through improvement of the FXA series into a longer-life series



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 (20°C, after 5 minutes) [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) |
| Endurance | After the rated voltage with specified ripple current is applied at 85°C for 20,000 hours : Capacitance change : Within ±15% of the initial value measured Dissipation factor : 175% or less than the initial value specified Leakage current : Less than or equal to the initial value specified |
| Shelf life | The following specification shall be meet when the capacitor are restored to 20°C after storage of 500 hours at 85°C with no voltage applied. Before the measurement, the capacitor shall be preconditioned by applying the voltage treatment according to Item 4.1 of JIS C 5101-4. Capacitance change : Within ±15% of the initial value measured Dissipation factor : 175% or less than the initial value specified Leakage current : Less than or equal to the initial value specified |
| Others | JIS C 5101-4 |

Dimensions



(unit : mm)

| φD | P | T | φd | Hexagon-head bolt | Cap material |
|----|------|-----|------|-------------------|--------------|
| 51 | 22.0 | 5.5 | 10.0 | M5×10 | Phenol resin |
| 64 | 28.6 | 5.5 | 10.0 | M5×10 | Phenol resin |
| 77 | 31.5 | 5.0 | 10.0 | M5×10 | Phenol resin |
| 90 | 31.5 | 5.0 | 10.0 | M5×10 | Phenol resin |

Ripple current correction coefficient

| | | | | | |
|------------------------|-------|------|------|-----|------|
| Temperature (°C) | 40 | 60 | 85 | | |
| Correction coefficient | 2.44 | 2.16 | 1.00 | | |
| Frequency (Hz) | 50/60 | 120 | 300 | 1K | ≥10K |
| Correction coefficient | 0.7 | 1.0 | 1.1 | 1.3 | 1.4 |

Terminal permissible currents: 60Arms for M5.
Please use this type of capacitor at a terminal current below the permissible.

Product code

(Example) HXA Series 400V 5,600μF±20%

HXA 2G 562 Y E 155 PH

- HXA: Type of series
- 2G: Sealing code
- 562: Case height code
- Y: Case dia code
- E: Type of bracket code
- 155: Capacitance code
- PH: Rated voltage code

Refer to page 19 for product code.

Bracket

- Refer to page 20-21 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 φD×L(mm) | tanδ 20°C, 120Hz | Ripple current (Arms) 85°C, 120Hz | ESR(typ.) (mΩ) 20°C, 100Hz | Z max (mΩ) 20°C, 10kHz | ESL(typ.) (nH) | Product name | |
|-----------------------|------------------|--------------------|------------------|-----------------------------------|----------------------------|------------------------|-----------------|-----------------|-----------------|
| 350 | 1,000 | 51×75 | 0.15 | 3.8 | 100 | 103 | 21 | HXA2V102YC075PH | |
| | 1,200 | 51×75 | 0.15 | 4.2 | 84 | 87 | 21 | HXA2V122YC075PH | |
| | 1,500 | 51×96 | 0.15 | 5.2 | 67 | 69 | 21 | HXA2V152YC096PH | |
| | 1,800 | 51×96 | 0.15 | 5.6 | 55 | 57 | 21 | HXA2V182YC096PH | |
| | 2,200 | 51×130 | 0.15 | 7.1 | 45 | 47 | 21 | HXA2V222YC130PH | |
| | 2,700 | 64×96 | 0.15 | 7.6 | 37 | 39 | 22 | HXA2V272YD096PH | |
| | 3,300 | 64×115 | 0.15 | 9.0 | 29 | 31 | 22 | HXA2V332YD115PH | |
| | 3,900 | 64×130 | 0.15 | 10.3 | 25 | 27 | 22 | HXA2V392YD130PH | |
| | 4,700 | 4,700 | 64×155 | 0.15 | 12.2 | 20 | 21 | 22 | HXA2V472YD155PH |
| | | | 77×115 | 0.15 | 11.5 | 20 | 21 | 24 | HXA2V472YE115PH |
| | 5,600 | 5,600 | 64×195 | 0.15 | 14.6 | 17 | 20 | 22 | HXA2V562YD195PH |
| | | | 77×130 | 0.15 | 13.1 | 17 | 20 | 24 | HXA2V562YE130PH |
| | 6,800 | 77×155 | 0.15 | 15.5 | 14 | 18 | 24 | HXA2V682YE155PH | |
| | 8,200 | 90×157 | 0.15 | 18.1 | 12 | 15 | 24 | HXA2V822YF157PH | |
| | 10,000 | 90×157 | 0.15 | 19.9 | 10 | 15 | 24 | HXA2V103YF157PH | |
| 12,000 | 90×196 | 0.15 | 23.8 | 8 | 13 | 24 | HXA2V123YF196PH | | |
| 15,000 | 90×236 | 0.15 | 28.8 | 7 | 10 | 24 | HXA2V153YF236PH | | |
| 400 | 1,000 | 51×75 | 0.15 | 3.8 | 102 | 105 | 21 | HXA2G102YC075PH | |
| | 1,200 | 51×96 | 0.15 | 4.6 | 85 | 88 | 21 | HXA2G122YC096PH | |
| | 1,500 | 51×115 | 0.15 | 5.5 | 68 | 70 | 21 | HXA2G152YC115PH | |
| | 1,800 | 51×130 | 0.15 | 6.4 | 57 | 58 | 21 | HXA2G182YC130PH | |
| | 2,200 | 64×96 | 0.15 | 6.9 | 46 | 48 | 22 | HXA2G222YD096PH | |
| | 2,700 | 64×115 | 0.15 | 8.2 | 38 | 40 | 22 | HXA2G272YD115PH | |
| | 3,300 | 64×130 | 0.15 | 9.5 | 30 | 32 | 22 | HXA2G332YD130PH | |
| | 3,900 | 3,900 | 64×155 | 0.15 | 11.1 | 27 | 28 | 22 | HXA2G392YD155PH |
| | | | 77×115 | 0.15 | 10.4 | 27 | 28 | 24 | HXA2G392YE115PH |
| | 4,700 | 4,700 | 64×195 | 0.15 | 13.4 | 21 | 22 | 22 | HXA2G472YD195PH |
| | | | 77×130 | 0.15 | 12.0 | 21 | 22 | 24 | HXA2G472YE130PH |
| | 5,600 | 5,600 | 64×195 | 0.15 | 14.6 | 20 | 20 | 22 | HXA2G562YD195PH |
| | | | 77×155 | 0.15 | 14.4 | 20 | 20 | 24 | HXA2G562YE155PH |
| | 6,800 | 90×157 | 0.15 | 16.5 | 18 | 18 | 24 | HXA2G682YF157PH | |
| | 8,200 | 90×157 | 0.15 | 18.1 | 15 | 17 | 24 | HXA2G822YF157PH | |
| 10,000 | 90×196 | 0.15 | 21.7 | 12 | 15 | 24 | HXA2G103YF196PH | | |
| 12,000 | 90×236 | 0.15 | 25.8 | 10 | 12 | 24 | HXA2G123YF236PH | | |
| 450 | 1,000 | 51×96 | 0.15 | 4.2 | 102 | 105 | 21 | HXA2W102YC096PH | |
| | 1,200 | 51×115 | 0.15 | 5.0 | 85 | 88 | 21 | HXA2W122YC115PH | |
| | 1,500 | 51×130 | 0.15 | 5.8 | 68 | 70 | 21 | HXA2W152YC130PH | |
| | 1,800 | 64×96 | 0.15 | 6.2 | 57 | 58 | 22 | HXA2W182YD096PH | |
| | 2,200 | 64×115 | 0.15 | 7.4 | 46 | 48 | 22 | HXA2W222YD115PH | |
| | 2,700 | 2,700 | 64×130 | 0.15 | 8.6 | 40 | 42 | 22 | HXA2W272YD130PH |
| | | | 77×115 | 0.15 | 8.7 | 40 | 42 | 24 | HXA2W272YE115PH |
| | 3,300 | 3,300 | 64×155 | 0.15 | 10.2 | 30 | 35 | 22 | HXA2W332YD155PH |
| | | | 77×130 | 0.15 | 10.0 | 30 | 35 | 24 | HXA2W332YE130PH |
| | 3,900 | 64×195 | 0.15 | 12.2 | 27 | 32 | 22 | HXA2W392YD195PH | |
| | 4,700 | 77×155 | 0.15 | 12.9 | 24 | 27 | 24 | HXA2W472YE155PH | |
| | 5,600 | 5,600 | 77×195 | 0.15 | 15.4 | 22 | 23 | 24 | HXA2W562YE195PH |
| | | | 90×157 | 0.15 | 14.9 | 22 | 23 | 24 | HXA2W562YF157PH |
| | 6,800 | 90×196 | 0.15 | 18.0 | 20 | 20 | 24 | HXA2W682YF196PH | |
| | 8,200 | 90×196 | 0.15 | 19.8 | 18 | 18 | 24 | HXA2W822YF196PH | |
| 10,000 | 90×236 | 0.15 | 23.5 | 15 | 15 | 24 | HXA2W103YF236PH | | |

ALUMINUM ELECTROLYTIC CAPACITORS

Life time graph

Useful life depending on ambient temperature T_a and ripple current operating conditions I versus rated ripple current at 85°C, 120Hz

