

TFA Series

• 105°C 5,000Hrs assured,
(2,000Hrs for 500~550V_{DC})

- Non-solvent proof.
- High Ripple Capability.
- Long Life.
- For Elevator, Industrial Inverter.
- RoHS compliant.



SPECIFICATIONS

| Item | Characteristics |
|--|--|
| Rated Voltage Range | 350 ~ 550 V _{DC} |
| Operating Temperature Range | -25 ~ +105°C |
| Capacitance Tolerance | ±20% (M) (at 20°C, 120Hz) |
| Leakage Current | I = 0.02CV or 5mA, whichever is smaller. Where, I: Max. Leakage current (µA) C: Nominal capacitance (µF) V: Rated voltage (V _{DC}) (at 20°C, 5 minutes) |
| Dissipation Factor(Tanδ) | 0.15max. (at 20°C, 120Hz) |
| Temperature Characteristics (Capacitance change ratio) | C(-25°C)/C(20°C) ≥ 0.7 (at 120Hz) |
| Insulation Withstanding Voltage | When a voltage of 2,000V _{AC} is applied for one minute between the terminals shorted each other and the mounting clamp on the insulating sleeve covering the case, there shall not be electrical damage. |
| Load Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after their rated voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 5,000 hours at 105°C. (2,000Hrs for 500~550V _{DC}) Capacitance change ≤ ±20% of the initial value Tanδ ≤ 200% of the initial specified value Leakage current ≤ The initial specified value |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after the exposing them at 105°C for 1,000 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 48 hours before the measurements. Capacitance change ≤ ±20% of the initial value Tanδ ≤ 200% of the initial specified value Leakage current ≤ The initial specified value |
| Others | Satisfied characteristics KS C IEC 60384-4 |

RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multiplying Factor

| Frequency(Hz) | 120 | 300 | 1k | 3k |
|---------------|-----|-----|-----|-----|
| Factor | 1.0 | 1.1 | 1.3 | 1.4 |

DIMENSIONS OF TFA Series

Unit(mm)

Marking : BROWN SLEEVE, SILVER INK

B type mounting clamp

| ∅D | A | B | W | H | F |
|------|-------|----|------|-----|------|
| 63.5 | 90 | 75 | 80 | 4.5 | 28.0 |
| 76.5 | 104.5 | 90 | 93.5 | 4.5 | 31.5 |

C type mounting clamp

| ∅D | E | K | J | F |
|------|------|------|----|------|
| 63.5 | 38.1 | 43.5 | 14 | 28.0 |
| 76.5 | 44.5 | 50.0 | 14 | 31.5 |
| 89 | 50.8 | 56.5 | 16 | 31.5 |
| 100 | 56.5 | 63.4 | 18 | 41.5 |

(Screw specifications)
 ∅D = ∅63 ~ ∅89 ∅D = ∅100
 • Plus hexagon-headed screw: M5×0.8×12 • Cross-recessed head (Phillips) screw: M8×1.25×16
 • Maximum screw tightening torque: 3.23N·m (33kg·cm) • Spring washer, Washer
 • Maximum screw tightening torque: 6.31N·m (64kg·cm)

RATINGS OF TFA Series

| VDC | Capacitance (μF) | ∅D×L(mm) | Tanδ | Rated Ripple Current (Arms/105°C, 120Hz) | VDC | Capacitance (μF) | ∅D×L(mm) | Tanδ | Rated Ripple Current (Arms/105°C, 120Hz) |
|--------|------------------|----------|----------|--|-------|------------------|----------|-------|--|
| 350 | 3,300 | 63.5×120 | 0.15 | 14.4 | 500 | 1,200 | 63.5×90 | 0.15 | 6.7 |
| | 3,900 | 63.5×130 | 0.15 | 16.6 | | 1,500 | 63.5×100 | 0.15 | 7.8 |
| | 4,700 | 63.5×160 | 0.15 | 19.8 | | 1,800 | 63.5×120 | 0.15 | 8.7 |
| | 4,700 | 76.5×120 | 0.15 | 19.1 | | 2,200 | 76.5×110 | 0.15 | 9.9 |
| | 5,600 | 63.5×170 | 0.15 | 22.5 | | 2,700 | 76.5×130 | 0.15 | 12.4 |
| | 5,600 | 76.5×130 | 0.15 | 21.9 | | 3,300 | 76.5×140 | 0.15 | 13.9 |
| | 6,800 | 76.5×160 | 0.15 | 26.2 | | 3,900 | 76.5×150 | 0.15 | 14.5 |
| | 8,200 | 76.5×170 | 0.15 | 30.0 | | 4,700 | 89×150 | 0.15 | 15.8 |
| | 8,200 | 89×160 | 0.15 | 29.2 | | 5,600 | 89×170 | 0.15 | 16.5 |
| | 10,000 | 89×170 | 0.15 | 33.7 | | 6,800 | 89×190 | 0.15 | 18.8 |
| | 18,000 | 100×220 | 0.15 | 53.1 | | 10,000 | 100×220 | 0.15 | 25.7 |
| | 22,000 | 100×250 | 0.15 | 62.2 | | 12,000 | 100×250 | 0.15 | 29.9 |
| | 400 | 2,700 | 63.5×120 | 0.15 | | 13.1 | 550 | 1,000 | 63.5×120 |
| 3,300 | | 63.5×130 | 0.15 | 15.2 | 1,200 | 63.5×130 | | 0.15 | 6.9 |
| 3,900 | | 63.5×160 | 0.15 | 17.9 | 1,500 | 76.5×130 | | 0.15 | 8.5 |
| 3,900 | | 76.5×120 | 0.15 | 18.2 | 2,200 | 89×130 | | 0.15 | 11.7 |
| 4,700 | | 63.5×170 | 0.15 | 20.5 | 2,700 | 89×150 | | 0.15 | 13.4 |
| 4,700 | | 76.5×130 | 0.15 | 20.1 | 3,300 | 89×170 | | 0.15 | 15.6 |
| 5,600 | | 76.5×160 | 0.15 | 23.8 | 3,900 | 89×190 | | 0.15 | 17.0 |
| 6,800 | | 76.5×170 | 0.15 | 27.3 | 4,700 | 89×220 | | 0.15 | 18.6 |
| 6,800 | | 89×160 | 0.15 | 26.6 | 6,800 | 100×220 | | 0.15 | 21.2 |
| 8,200 | | 89×170 | 0.15 | 30.5 | 8,200 | 100×250 | | 0.15 | 24.7 |
| 15,000 | | 100×220 | 0.15 | 48.5 | | | | | |
| 18,000 | 100×250 | 0.15 | 56.2 | | | | | | |
| 450 | 2,200 | 63.5×120 | 0.15 | 11.8 | | | | | |
| | 2,700 | 63.5×130 | 0.15 | 13.7 | | | | | |
| | 2,700 | 76.5×120 | 0.15 | 14.5 | | | | | |
| | 3,300 | 63.5×160 | 0.15 | 16.5 | | | | | |
| | 3,300 | 76.5×130 | 0.15 | 16.9 | | | | | |
| | 3,900 | 63.5×170 | 0.15 | 18.7 | | | | | |
| | 4,700 | 76.5×160 | 0.15 | 21.7 | | | | | |
| | 5,600 | 76.5×170 | 0.15 | 24.0 | | | | | |
| | 5,600 | 89×160 | 0.15 | 24.1 | | | | | |
| | 6,800 | 89×170 | 0.15 | 27.8 | | | | | |
| | 8,200 | 89×190 | 0.15 | 32.0 | | | | | |
| | 12,000 | 100×220 | 0.15 | 43.3 | | | | | |
| | 15,000 | 100×250 | 0.15 | 51.3 | | | | | |

Note : When long life performance is required in actual use, the rms ripple current has to be reduced.