



LARGE SIZED ALUMINUM ELECTROLYTIC CAPACITORS

TFA Series

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

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



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

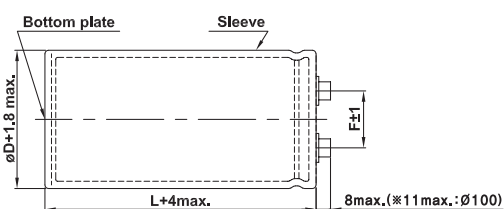
Frequency Multiplying Factor

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



<Screw specifications>

øD = ø63 ~ ø89

• Plus hexagon-headed screw:
M5×0.8×12

• Maximum screw tightening
torque: 3.23N·m (33kg·cm)

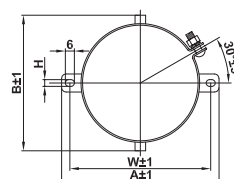
øD = ø100

• Cross-recessed head (Phillips) screw:
M8×1.25×16

Spring washer, Washer

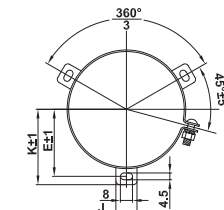
• Maximum screw tightening torque:
6.31N·m (64kg·cm)

B type mounting clamp



øD	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



øD	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

RATINGS OF TFA Series

V _{DC}	Capacitance (μF)	øD×L(mm)	Tanδ	Rated Ripple Current (Arms/105°C, 120Hz)	V _{DC}	Capacitance (μF)	øD×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	0.15	6.6
	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.