

TGA(KMH) Series

• 105°C 2,000Hrs assured.

- Non-solvent proof.
- Wide Temperature range.
- For UPS.
- RoHS compliant.



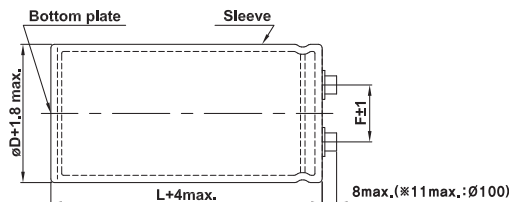
SPECIFICATIONS

Item	Characteristics										
Rated Voltage Range	10 ~ 100 V _{DC}	160 ~ 450 V _{DC}									
Operating Temperature Range	-40 ~ +105°C	-25 ~ +105°C									
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)										
Leakage Current	I=0.02CV or 5mA, whichever is smaller. Where, I: Leakage current (μA) C: Nominal capacitance (μF) V: Rated voltage (V _{DC}) (at 20°C, 5 minutes)										
Dissipation Factor(Tanδ)	Tanδ shall not exceed the values shown in the RATINGS. (at 20°C, 120Hz)										
Temperature Characteristics (Capacitance change ratio)	<table border="1"> <tr> <td>Rated Voltage(V_{DC})</td><td>10~100</td><td>160~450</td></tr> <tr> <td>C(-25°C)/C(20°C)</td><td>-</td><td>≥0.7</td></tr> <tr> <td>C(-40°C)/C(20°C)</td><td>≥0.6</td><td>-</td></tr> </table> (at 120Hz)		Rated Voltage(V _{DC})	10~100	160~450	C(-25°C)/C(20°C)	-	≥0.7	C(-40°C)/C(20°C)	≥0.6	-
Rated Voltage(V _{DC})	10~100	160~450									
C(-25°C)/C(20°C)	-	≥0.7									
C(-40°C)/C(20°C)	≥0.6	-									
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 2,000 hours at 105°C. 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 500 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										

DIMENSIONS OF TGA(KMH) 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)

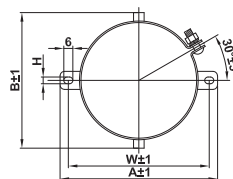
ØD= Ø100

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

Spring washer, Washer

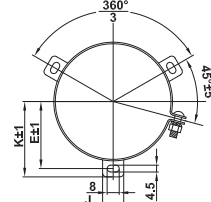
- Maximum screw tightening torque: 6.31N·m(64kg·cm)

B type mounting clamp



ØD	A	B	W	H	F
35	58	44	48	3.5	12.7
50	78	64	68	4.5	22.4
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
50	32.5	37.0	14	22.4
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 TGA(KMH) Series

VDC	Capacitance (μF)	ØD×L(mm)	Tanδ	Rated Ripple Current (Arms/105°C, 120Hz)	VDC	Capacitance (μF)	ØD×L(mm)	Tanδ	Rated Ripple Current (Arms/105°C, 120Hz)
10	22,000	35 × 50	0.70	4.9	35	39,000	50 × 80	0.35	9.2
	27,000	35 × 50	0.70	5.1		47,000	50 × 100	0.35	11.2
	33,000	35 × 60	0.70	5.9		56,000	50 × 100	0.40	11.4
	39,000	35 × 80	0.70	6.3		68,000	50 × 120	0.40	13.6
	47,000	35 × 80	0.70	6.9		82,000	63.5 × 100	0.45	14.8
	56,000	35 × 80	0.70	7.4		100,000	63.5 × 120	0.45	16.5
	68,000	35 × 100	0.70	8.5		120,000	63.5 × 120	0.55	17.6
	82,000	35 × 100	0.70	8.9		150,000	76.5 × 120	0.65	18.5
	100,000	35 × 120	0.70	10.7		180,000	76.5 × 120	0.80	19.8
	120,000	50 × 80	0.75	11.0		220,000	76.5 × 140	0.80	23.4
	150,000	50 × 100	0.80	13.2		270,000	89 × 140	1.00	25.5
	180,000	50 × 120	0.80	15.7	50	3,900	35 × 50	0.20	2.8
	220,000	50 × 120	0.85	16.8		4,700	35 × 50	0.20	3.1
	270,000	63.5 × 120	1.00	19.6		5,600	35 × 50	0.20	3.3
	330,000	63.5 × 120	1.20	19.7		6,800	35 × 50	0.25	3.5
	390,000	76.5 × 120	1.50	21.3		8,200	35 × 60	0.25	3.8
	470,000	76.5 × 120	1.80	21.4		10,000	35 × 80	0.25	4.6
	560,000	76.5 × 140	2.00	23.6		12,000	35 × 80	0.25	5.1
	680,000	89 × 140	2.40	26.0		15,000	35 × 80	0.25	5.7
16	18,000	35 × 50	0.45	4.2		18,000	35 × 80	0.25	6.0
	22,000	35 × 50	0.45	4.7		22,000	35 × 100	0.25	6.7
	27,000	35 × 60	0.45	5.5		27,000	50 × 80	0.25	9.1
	33,000	35 × 60	0.45	5.7		33,000	50 × 100	0.25	11.1
	39,000	35 × 80	0.45	6.8		39,000	50 × 120	0.25	13.1
	47,000	35 × 80	0.50	7.1		47,000	50 × 120	0.30	13.9
	56,000	35 × 100	0.50	8.4		56,000	63.5 × 100	0.35	14.9
	68,000	35 × 100	0.55	8.8		68,000	63.5 × 120	0.35	16.6
	82,000	50 × 80	0.55	10.7		82,000	76.5 × 120	0.40	18.9
	100,000	50 × 80	0.65	10.8		100,000	76.5 × 120	0.45	19.5
	120,000	50 × 100	0.65	13.1		120,000	76.5 × 120	0.55	21.0
	150,000	50 × 120	0.70	15.3		150,000	89 × 140	0.60	23.9
	180,000	50 × 120	0.80	15.7		180,000	89 × 140	0.75	24.0
	220,000	63.5 × 120	0.85	19.2	63	2,700	35 × 50	0.20	2.3
	270,000	63.5 × 120	1.00	19.6		3,300	35 × 50	0.20	2.5
	330,000	76.5 × 120	1.30	21.1		3,900	35 × 50	0.20	2.8
	390,000	76.5 × 120	1.50	21.3		4,700	35 × 50	0.20	3.1
	470,000	76.5 × 140	1.60	24.2		5,600	35 × 60	0.20	3.5
	560,000	89 × 140	2.00	28.1		6,800	35 × 60	0.20	3.9
	680,000	89 × 140	2.40	28.5		8,200	35 × 80	0.20	4.7
25	12,000	35 × 50	0.35	3.7		10,000	35 × 80	0.25	4.9
	15,000	35 × 50	0.35	4.1		12,000	35 × 100	0.25	5.5
	18,000	35 × 60	0.35	4.8		15,000	35 × 120	0.25	6.6
	22,000	35 × 60	0.35	5.3		18,000	35 × 120	0.25	6.9
	27,000	35 × 80	0.35	6.4		22,000	50 × 80	0.25	7.4
	33,000	35 × 80	0.40	6.7		27,000	50 × 120	0.25	10.9
	39,000	35 × 100	0.40	7.8		33,000	50 × 120	0.25	12.0
	47,000	35 × 120	0.40	9.3		39,000	63.5 × 100	0.30	12.5
	56,000	50 × 80	0.45	9.7		47,000	63.5 × 120	0.30	14.9
	68,000	50 × 100	0.45	10.7		56,000	63.5 × 120	0.30	16.3
	82,000	50 × 100	0.50	11.2		68,000	76.5 × 120	0.35	18.4
	100,000	50 × 120	0.50	14.8		82,000	76.5 × 140	0.40	20.0
	120,000	63.5 × 100	0.65	14.9		100,000	76.5 × 140	0.50	20.5
	150,000	63.5 × 120	0.65	17.9		120,000	89 × 140	0.60	21.8
	180,000	63.5 × 120	0.80	18.9	80	2,200	35 × 50	0.15	2.4
	220,000	76.5 × 120	0.85	21.3		2,700	35 × 50	0.15	2.7
	270,000	76.5 × 120	1.00	21.7		3,300	35 × 50	0.15	3.0
	330,000	76.5 × 140	1.20	23.1		3,900	35 × 60	0.15	3.4
	390,000	89 × 140	1.50	24.9		4,700	35 × 60	0.15	3.7
35	8,200	35 × 50	0.30	3.3		5,600	35 × 80	0.15	4.5
	10,000	35 × 50	0.30	3.6		6,800	35 × 80	0.15	4.9
	12,000	35 × 60	0.30	4.2		8,200	35 × 100	0.20	5.1
	15,000	35 × 60	0.30	4.7		10,000	35 × 120	0.20	6.1
	18,000	35 × 80	0.30	5.7		12,000	50 × 80	0.20	6.7
	22,000	35 × 80	0.30	6.8		15,000	50 × 100	0.20	8.3
	27,000	35 × 100	0.30	7.5		18,000	50 × 120	0.20	9.9
	33,000	35 × 120	0.30	9.0		22,000	50 × 120	0.20	11.0

RATINGS OF TGA(KMH) Series

VDC	Capacitance (μF)	ØD×L(mm)	Tanδ	Rated Ripple Current (Arms/105°C, 120Hz)	VDC	Capacitance (μF)	ØD×L(mm)	Tanδ	Rated Ripple Current (Arms/105°C, 120Hz)
80	27,000	63.5 × 100	0.25	11.4	200	12,000	76.5 × 120	0.20	10.2
	33,000	76.5 × 100	0.25	13.9		15,000	76.5 × 120	0.20	11.2
	39,000	76.5 × 100	0.30	14.5		18,000	89 × 140	0.25	13.1
	47,000	76.5 × 120	0.30	16.5	250	270	35 × 50	0.15	0.8
	56,000	76.5 × 120	0.30	18.1		330	35 × 50	0.15	0.9
	68,000	76.5 × 140	0.35	19.7		390	35 × 50	0.15	1.0
	82,000	89 × 140	0.40	22.1		470	35 × 50	0.15	1.1
100	1,800	35 × 50	0.10	2.7		560	35 × 50	0.15	1.2
	2,200	35 × 50	0.10	3.0		680	35 × 60	0.15	1.4
	2,700	35 × 60	0.10	3.5		820	35 × 80	0.15	1.6
	3,300	35 × 80	0.10	4.2		1,000	35 × 80	0.20	1.7
	3,900	35 × 80	0.12	4.5		1,200	35 × 80	0.20	1.8
	4,700	35 × 100	0.12	5.0		1,500	35 × 100	0.20	2.1
	5,600	35 × 100	0.12	5.4		1,800	35 × 120	0.20	2.5
	6,800	35 × 120	0.15	5.8		2,200	35 × 120	0.20	2.8
	8,200	50 × 80	0.15	6.4		2,700	50 × 100	0.20	3.5
	10,000	50 × 100	0.15	7.8		3,300	50 × 120	0.20	4.2
	12,000	50 × 120	0.15	9.3		3,900	50 × 120	0.20	4.6
	15,000	50 × 120	0.15	10.4		4,700	63.5 × 120	0.20	5.7
	18,000	63.5 × 100	0.20	11.0		5,600	63.5 × 120	0.20	6.3
	22,000	63.5 × 120	0.20	12.5		6,800	76.5 × 120	0.20	7.7
	27,000	76.5 × 120	0.25	13.7		8,200	76.5 × 120	0.20	8.4
	33,000	76.5 × 120	0.25	15.2		10,000	76.5 × 140	0.20	10.0
	39,000	76.5 × 140	0.30	16.1	315	12,000	89 × 140	0.20	11.9
	47,000	89 × 140	0.30	19.3		15,000	89 × 140	0.20	12.2
	56,000	89 × 140	0.30	21.1		180	35 × 50	0.10	0.8
160	560	35 × 50	0.15	1.2		220	35 × 50	0.10	0.9
	680	35 × 50	0.15	1.3		270	35 × 50	0.10	1.0
	820	35 × 50	0.15	1.4		330	35 × 50	0.10	1.1
	1,000	35 × 50	0.15	1.6		390	35 × 50	0.10	1.2
	1,200	35 × 60	0.15	1.9		470	35 × 60	0.10	1.4
	1,500	35 × 60	0.15	2.1		560	35 × 60	0.10	1.5
	1,800	35 × 80	0.15	2.5		680	35 × 80	0.10	1.6
	2,200	35 × 80	0.15	2.8		820	35 × 80	0.15	1.7
	2,700	35 × 100	0.15	3.3		1,000	35 × 100	0.15	2.0
	3,300	35 × 120	0.15	3.8		1,200	35 × 120	0.15	2.4
	3,900	50 × 80	0.20	3.9		1,500	50 × 80	0.15	2.7
	4,700	50 × 100	0.20	4.6		1,800	50 × 100	0.15	3.3
	5,600	50 × 100	0.20	5.1		2,200	50 × 100	0.15	4.0
	6,800	50 × 120	0.20	6.1		2,700	50 × 120	0.15	4.4
	8,200	63.5 × 100	0.20	7.0		3,300	63.5 × 100	0.15	5.1
	10,000	63.5 × 120	0.20	8.4		3,900	63.5 × 120	0.15	6.0
	12,000	76.5 × 100	0.20	9.4		4,700	76.5 × 100	0.15	6.8
	15,000	76.5 × 120	0.20	11.4	350	5,600	76.5 × 120	0.15	8.0
	18,000	76.5 × 140	0.20	13.4		6,800	89 × 130	0.15	9.2
	22,000	89 × 140	0.25	14.5		8,200	89 × 140	0.15	11.4
	27,000	89 × 140	0.25	16.0		10,000	89 × 140	0.15	12.6
200	330	35 × 50	0.15	0.9		180	35 × 50	0.10	0.8
	390	35 × 50	0.15	1.0		220	35 × 50	0.10	0.9
	470	35 × 50	0.15	1.1		270	35 × 50	0.10	1.0
	560	35 × 50	0.15	1.2		330	35 × 50	0.10	1.1
	680	35 × 50	0.15	1.3		390	35 × 50	0.10	1.1
	820	35 × 50	0.15	1.4		470	35 × 60	0.10	1.4
	1,000	35 × 60	0.15	1.7		560	35 × 80	0.10	1.6
	1,200	35 × 60	0.15	1.9		680	35 × 80	0.15	1.6
	1,500	35 × 80	0.15	2.3		820	35 × 100	0.15	1.8
	1,800	35 × 80	0.15	2.5		1,000	35 × 120	0.15	2.2
	2,200	35 × 100	0.15	2.7		1,200	50 × 80	0.15	2.4
	2,700	35 × 120	0.15	3.6		1,500	50 × 100	0.15	3.0
	3,300	50 × 80	0.15	4.1		1,800	50 × 120	0.15	3.6
	3,900	50 × 100	0.15	4.9		2,200	50 × 120	0.15	4.0
	4,700	63.5 × 100	0.20	5.3		2,700	63.5 × 100	0.15	4.6
	5,600	63.5 × 100	0.20	5.8		3,900	76.5 × 120	0.15	6.7
	6,800	63.5 × 120	0.20	6.9		5,600	76.5 × 130	0.15	8.3
	8,200	63.5 × 120	0.20	7.6		6,800	76.5 × 140	0.15	9.5
	10,000	76.5 × 120	0.20	9.3		8,200	89 × 140	0.15	11.4

RATINGS OF TGA(KMH) 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)
400	180	35 × 50	0.10	0.8	450	1,000	50 × 80	0.15	2.0
	220	35 × 50	0.10	0.9		1,200	50 × 100	0.15	2.5
	270	35 × 50	0.10	1.0		1,500	50 × 120	0.15	3.1
	330	35 × 60	0.10	1.2		1,800	50 × 120	0.15	3.4
	390	35 × 60	0.10	1.2		2,200	63.5 × 100	0.15	3.9
	470	35 × 80	0.10	1.4		3,300	63.5 × 120	0.15	5.2
	560	35 × 80	0.15	1.4		3,900	76.5 × 120	0.15	5.9
	680	35 × 100	0.15	1.7		4,700	76.5 × 130	0.15	7.2
	820	35 × 120	0.15	2.0		5,600	89 × 140	0.15	8.9
	1,000	50 × 80	0.15	2.2		15,000	100 × 220	0.15	18.9
	1,200	50 × 100	0.15	2.7		18,000	100 × 250	0.15	22.0
	1,500	50 × 120	0.15	3.3					
	2,200	63.5 × 100	0.15	4.2					
	3,300	63.5 × 120	0.15	5.5					
	4,700	76.5 × 130	0.15	7.6					
	5,600	89 × 140	0.15	9.4					
	6,800	89 × 140	0.15	10.4					
	18,000	100 × 220	0.15	21.9					
	22,000	100 × 250	0.15	25.6					

RATED RIPPLE CURRENT

Frequency Multiplying Factor

Capacitance (VDC)	∅D(mm)	Frequency(Hz)				
		60	120	300	1k	10k~
10 ~ 50	∅ 35 ~ ∅ 100	0.95	1.00	1.03	1.05	1.09
63 ~ 80	∅ 35	0.90	1.00	1.06	1.10	1.08
	∅ 50 ~ ∅ 100	0.95	1.00	1.03	1.05	1.09
100	∅ 35	0.82	1.00	1.12	1.22	1.30
	∅ 50	0.90	1.00	1.06	1.10	1.18
	∅ 63.5 ~ ∅ 100	0.95	1.00	1.03	1.05	1.09
160 ~ 250	∅ 35	0.80	1.00	1.19	1.34	1.46
	∅ 50 ~ ∅ 63.5	0.81	1.00	1.14	1.26	1.36
	∅ 76.5 ~ ∅ 100	0.82	1.00	1.12	1.22	1.30
315 ~ 450	∅ 35 ~ ∅ 100	0.80	1.00	1.19	1.34	1.46