

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"> <thead> <tr> <th>Rated Voltage(V_{DC})</th> <th>10~100</th> <th>160~450</th> </tr> </thead> <tbody> <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> </tbody> </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

B type mounting clamp

C type mounting clamp

<Screw specifications>

øD = ø35 ~ 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)

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

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)	∅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)	
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)	∅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)
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	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	315	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	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	350	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