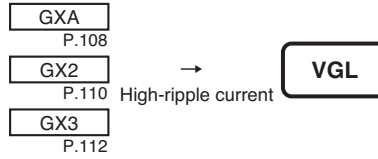


VGL Series Useful of 8,000 hours at 105°C

• Conform RoHS

Features

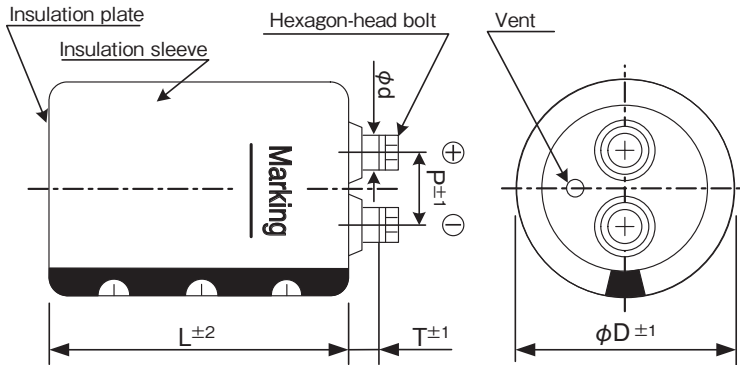
• About 10% ripple current has improved to GX2 series by radiation structure.



Product Specifications

Items	Specifications
Temperature range	-40°C ~ +105°C
Rated voltage	350 ~ 500V.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 product table. (105°C, 120Hz)
Endurance	After the rated voltage with specified ripple current is applied at 105°C for 5,000 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 105°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
64	28.6	8.0	11.0	M5×10	Phenol resin
77	31.5	8.0	11.0	M5×10	Phenol resin
90	31.5	7.0	11.0	M5×10	Phenol resin

Ripple current correction coefficient

Temperature (°C)	60	85	105	
Correction coefficient	2.16	2.00	1.00	
Frequency (Hz)	120	300	1K	≥10K
Correction coefficient	1.0	1.1	1.3	1.4
Forced wind (m/s)	<0.5	0.5≤		
Correction coefficient	1.0	1.1		

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

Product code

(Example) VGL Series 400V 8,200 µF±20%

VGL 2G 822 Y F 126

- VGL: Type of series
- 2G: Case height code
- 822: Case dia code
- Y: Type of bracket code
- F: Capacitance code
- 126: Rated voltage code

Refer to page 21 for product code.

Bracket

- Refer to page 22-23 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.

SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

Standard Products Table

Rated Voltage (V. DC)	Capacitance (μ F)	Case size ϕ D \times L(mm)	$\tan\delta$ 20°C, 120Hz	Ripple current (Arms) 105°C, 120Hz	ESR(typ.) (m Ω) 20°C, 100Hz	Z max (m Ω) 20°C, 10kHz	ESL(typ.) (nH)	Product name
350	3,900	64 \times 94	0.20	10.5	27	32	22	VGL2V392YD094
	4,700	64 \times 107	0.20	11.9	22	23	22	VGL2V472YD107
	5,600	64 \times 123	0.20	13.0	20	21	22	VGL2V562YD123
		77 \times 95	0.20	14.6	20	21	24	VGL2V562YE095
	6,800	64 \times 147	0.20	14.1	18	18	22	VGL2V682YD147
		77 \times 108	0.20	16.0	18	18	24	VGL2V682YE108
		90 \times 97	0.20	18.5	18	18	24	VGL2V682YF097
	8,200	64 \times 187	0.20	15.9	15	17	22	VGL2V822YD187
		77 \times 124	0.20	18.0	15	17	24	VGL2V822YE124
		90 \times 110	0.20	20.2	15	17	24	VGL2V822YF110
	10,000	77 \times 148	0.20	19.5	12	15	24	VGL2V103YE148
		90 \times 126	0.20	22.1	12	15	24	VGL2V103YF126
	12,000	77 \times 188	0.20	21.8	10	13	24	VGL2V123YE188
		90 \times 150	0.20	24.1	10	13	24	VGL2V123YF150
15,000	77 \times 228	0.20	25.2	8	11	24	VGL2V153YE228	
	90 \times 167	0.20	26.5	8	11	24	VGL2V153YF167	
18,000	90 \times 190	0.20	29.3	6	9	24	VGL2V183YF190	
22,000	90 \times 230	0.20	31.5	5	7	24	VGL2V223YF230	
400	3,300	64 \times 94	0.20	9.7	30	35	22	VGL2G332YD094
	3,900	64 \times 107	0.20	10.8	27	32	22	VGL2G392YD107
	4,700	64 \times 123	0.20	11.9	22	23	22	VGL2G472YD123
		77 \times 95	0.20	13.3	22	23	24	VGL2G472YE095
	5,600	64 \times 147	0.20	12.8	20	21	22	VGL2G562YD147
		77 \times 108	0.20	14.5	20	21	24	VGL2G562YE108
		90 \times 97	0.20	16.8	20	21	24	VGL2G562YF097
	6,800	64 \times 187	0.20	14.5	18	18	22	VGL2G682YD187
		77 \times 124	0.20	16.4	18	18	24	VGL2G682YE124
		90 \times 110	0.20	18.4	18	18	24	VGL2G682YF110
	8,200	77 \times 165	0.20	18.0	15	17	24	VGL2G822YE165
		90 \times 126	0.20	20.0	15	17	24	VGL2G822YF126
	10,000	77 \times 188	0.20	19.9	12	15	24	VGL2G103YE188
		90 \times 150	0.20	22.0	12	15	24	VGL2G103YF150
12,000	90 \times 167	0.20	23.7	10	13	24	VGL2G123YF167	
15,000	90 \times 190	0.20	26.7	8	11	24	VGL2G153YF190	
18,000	90 \times 230	0.20	28.5	7	9	24	VGL2G183YF230	
450	2,200	64 \times 94	0.20	8.1	42	42	22	VGL2W222YD094
	2,700	64 \times 107	0.20	9.2	42	42	22	VGL2W272YD107
	3,300	64 \times 123	0.20	10.2	35	40	22	VGL2W332YD123
		77 \times 95	0.20	11.4	35	40	24	VGL2W332YE095
	3,900	64 \times 147	0.20	10.9	27	32	22	VGL2W392YD147
		77 \times 108	0.20	12.4	27	32	24	VGL2W392YE108
	4,700	64 \times 164	0.20	12.2	24	27	22	VGL2W472YD164
		77 \times 124	0.20	13.9	24	27	24	VGL2W472YE124
		90 \times 97	0.20	15.8	24	27	24	VGL2W472YF097
	5,600	64 \times 187	0.20	13.5	24	23	22	VGL2W562YD187
		77 \times 148	0.20	14.9	24	23	24	VGL2W562YE148
		90 \times 110	0.20	17.1	24	23	24	VGL2W562YF110
	6,800	77 \times 165	0.20	16.8	20	20	24	VGL2W682YE165
		90 \times 126	0.20	18.7	20	20	24	VGL2W682YF126
	8,200	77 \times 188	0.20	18.5	18	18	24	VGL2W822YE188
		90 \times 150	0.20	20.4	18	18	24	VGL2W822YF150
10,000	90 \times 167	0.20	22.2	15	15	24	VGL2W103YF167	
12,000	90 \times 190	0.20	24.5	13	12	24	VGL2W123YF190	
15,000	90 \times 230	0.20	26.6	11	10	24	VGL2W153YF230	

ALUMINUM ELECTROLYTIC CAPACITORS

SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

Standard Products Table

Rated Voltage (V. DC)	Capacitance (μ F)	Case size ϕ D \times L(mm)	$\tan\delta$ 20°C, 120Hz	Ripple current (Arms) 105°C, 120Hz	ESR(typ.) (m Ω) 20°C, 100Hz	Z max (m Ω) 20°C, 10kHz	ESL(typ.) (nH)	Product name
500	1,500	64 \times 107	0.20	6.5	74	80	22	VGL2H152YD107
	1,800	64 \times 123	0.20	7.2	62	50	22	VGL2H182YD123
		77 \times 95	0.20	8.0	62	50	24	VGL2H182YE095
	2,200	64 \times 147	0.20	7.8	53	50	22	VGL2H222YD147
		77 \times 108	0.20	8.9	53	50	24	VGL2H222YE108
	2,700	64 \times 164	0.20	8.8	40	35	22	VGL2H272YD164
		90 \times 97	0.20	11.4	40	35	24	VGL2H272YF097
	3,300	64 \times 187	0.20	9.8	38	32	22	VGL2H332YD187
		77 \times 124	0.20	11.1	38	32	24	VGL2H332YE124
		90 \times 110	0.20	12.5	38	32	24	VGL2H332YF110
	3,900	77 \times 148	0.20	11.9	30	27	24	VGL2H392YE148
		90 \times 126	0.20	13.5	30	27	24	VGL2H392YF126
	4,700	77 \times 165	0.20	13.3	25	20	24	VGL2H472YE165
		90 \times 150	0.20	14.7	25	20	24	VGL2H472YF150
	5,600	77 \times 188	0.20	14.6	20	17	24	VGL2H562YE188
		90 \times 167	0.20	15.8	20	17	24	VGL2H562YF167
6,800	90 \times 190	0.20	17.5	17	17	24	VGL2H682YF190	
8,200	90 \times 230	0.20	18.8	14	14	24	VGL2H822YF230	

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 105°C, 120Hz

