

HCGW2 Series Useful of 4,000 hours at 85°C

• Conform RoHS

Features

• Capacitance is increased by around 20%, of conventional HCGWA series through development of etched foil technology.

HCGWA
P.76

→
Small-size

HCGW2

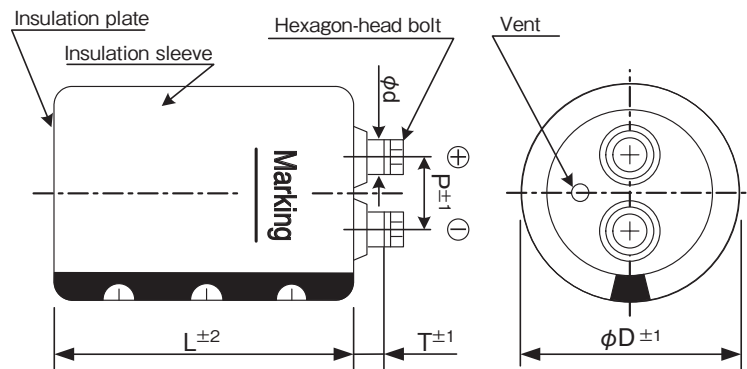


ALUMINUM ELECTROLYTIC CAPACITORS

Product Specifications

Items	Specifications
Temperature range	-10°C ~ +85°C
Rated voltage	400 ~ 500V.DC
Capacitance tolerance	±20% (20°C, 120Hz)
Leakage current	0.01CV (µA) or 7 mA, 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 products table. (85°C, 120Hz)
Endurance	After the rated voltage with specified ripple current is applied at 85°C for 2,000 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 85°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
77	31.5	9.0	12.0	M6×12	Phenol resin
90	31.5	8.0	12.0	M6×12	Phenol resin

Ripple current correction coefficient

Temperature (°C)	40	60	70	85
Correction coefficient	2.2	1.9	1.6	1.0
Frequency (Hz)	120	300	1k	≥10k
Correction coefficient	1.0	1.1	1.3	1.4

Terminal allowance current : 100Arms for M6
Please use this type of capacitor at a terminal current below the permissible.

Product code

(Example) HCGW2 Series 400V 18,000 µF ±20%

HCGW2 2G 183 Y F 150 PH



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 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) 85°C, 120Hz	ESR(typ.) (m Ω) 20°C, 100Hz	Z max (m Ω) 20°C, 10kHz	ESL(typ.) (nH)	Product name
400	13,000	77 \times 148	0.70	13.0	26	27	24	HCGW22G133YE148PH
	16,000	77 \times 188	0.70	15.5	21	22	24	HCGW22G163YE188PH
	18,000	90 \times 150	0.70	16.4	19	20	24	HCGW22G183YF150PH
	20,000	77 \times 228	0.70	18.8	17	18	24	HCGW22G203YE228PH
	23,000	90 \times 190	0.70	19.8	15	16	24	HCGW22G233YF190PH
29,000	90 \times 230	0.70	23.9	12	13	24	HCGW22G293YF230PH	
450	10,000	77 \times 148	0.70	10.9	40	42	24	HCGW22W103YE148PH
	14,000	77 \times 188	0.70	13.8	29	30	24	HCGW22W143YE188PH
	15,000	90 \times 150	0.70	14.3	27	29	24	HCGW22W153YF150PH
	18,000	77 \times 228	0.70	17.0	22	23	24	HCGW22W183YE228PH
	20,000	90 \times 190	0.70	17.6	20	21	24	HCGW22W203YF190PH
25,000	90 \times 230	0.70	21.2	16	17	24	HCGW22W253YF230PH	
500	7,500	77 \times 148	0.70	9.5	47	48	24	HCGW22H752YE148PH
	10,000	77 \times 188	0.70	11.7	36	38	24	HCGW22H103YE188PH
	11,000	90 \times 150	0.70	12.2	33	34	24	HCGW22H113YF150PH
	13,000	77 \times 228	0.70	14.5	28	29	24	HCGW22H133YE228PH
	15,000	90 \times 190	0.70	15.3	24	25	24	HCGW22H153YF190PH
	18,000	90 \times 230	0.70	18.1	20	21	24	HCGW22H183YF230PH

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Life time graph

Useful life depending on ambient temperature T_a and ripple current operating conditions I versus rated ripple current at 85°C, 120Hz

