

HCGWA Series

Useful of 4,000 hours at 85°C



- Conform RoHS

Features

- Product primarily designed for circuits requiring large energy momentarily like those for the uninterruptible power supply (UPS) and X-ray power supply.
- Capacitance improved by 40%, comparison with the HCGF6A series (smallest series)
- The correspondence size has been expanded to $\phi 121 \times 283L$.

HCGWA

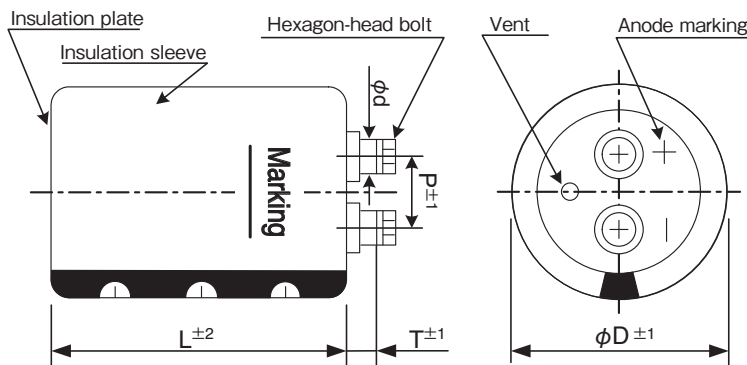
- Small-size
- Long-life

HCGW2 P.72
FXW P.76

Product Specifications

Items	Specifications
Temperature range	-10°C ~ +85°C
Rated voltage	350 ~ 500V.DC
Capacitance tolerance	±20% (20°C, 120Hz)
Leakage current	0.01CV (μ A) or 7mA, whichever is smaller or less (20°C, after 5 minutes) [C = nominal capacitance (μ F), 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	5.0	10.0	M5×10	Phenol resin
90	31.5	5.0	10.0	M5×10	Phenol resin
101	31.5	3.0	14.0	M6×12	Phenol resin
121	41.5	3.0	14.0	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 permissible current is limited to 60Arms for M5, 100Arms for M6. (Even if calculated the permissible ripple current with the correction coefficient exceeds 60Arms for M5, 100Arms for M6)
Please consult us when the ripple voltage exceeds 50 Vp-p.

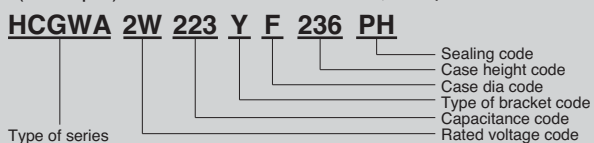
Refer to page 21 for product code.

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).
- $\phi 121$ products become correspondence only of Type X.
- If bracket are not necessary, enter "N" for the type of bracket code.
- Bracket will be delivered separately.

Product code

(Example) HCGWA Series 450V 22,000 μ F ±20%



SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

HCGWA Series

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
350	13,000	77 \times 155	0.70	12.8	25	26	26	HCGWA2V133YE155PH
	17,000	90 \times 157	0.70	15.6	19	20	26	HCGWA2V173YF157PH
	18,000	77 \times 195	0.70	16.6	18	20	26	HCGWA2V183YE195PH
	25,000	90 \times 196	0.70	20.7	15	16	26	HCGWA2V253YF196PH
	31,000	101 \times 195	0.70	23.9	12	13	36	HCGWA2V313YG195PH
	36,000	90 \times 283	0.70	29.0	11	13	26	HCGWA2V363YF283PH
	44,000	101 \times 283	0.70	33.2	9	11	36	HCGWA2V443YG283PH
	57,000	121 \times 283	0.70	40.7	7	8	36	HCGWA2V573XK283PH
400	11,000	77 \times 155	0.70	11.8	31	32	26	HCGWA2G113YE155PH
	14,000	77 \times 195	0.70	14.6	24	25	26	HCGWA2G143YE195PH
	16,000	90 \times 157	0.70	15.2	21	22	26	HCGWA2G163YF157PH
	20,000	90 \times 196	0.70	18.5	20	21	26	HCGWA2G203YF196PH
	25,000	101 \times 195	0.70	21.4	16	18	36	HCGWA2G253YG195PH
	32,000	90 \times 283	0.70	27.3	12	13	26	HCGWA2G323YF283PH
	38,000	101 \times 283	0.70	30.8	10	11	36	HCGWA2G383YG283PH
	50,000	121 \times 283	0.70	38.1	9	11	36	HCGWA2G503XK283PH
450	9,500	77 \times 155	0.70	10.9	36	37	26	HCGWA2W952YE155PH
	12,000	77 \times 195	0.70	13.5	28	29	26	HCGWA2W123YE195PH
	13,000	90 \times 157	0.70	13.7	26	27	26	HCGWA2W133YF157PH
	17,000	90 \times 196	0.70	17.1	21	22	26	HCGWA2W173YF196PH
	22,000	101 \times 195	0.70	20.1	18	19	36	HCGWA2W223YG195PH
	27,000	90 \times 283	0.70	25.1	15	17	26	HCGWA2W273YF283PH
	33,000	101 \times 283	0.70	28.7	13	15	36	HCGWA2W333YG283PH
	42,000	121 \times 283	0.70	34.9	10	12	36	HCGWA2W423XK283PH
500	5,600	77 \times 155	0.70	8.4	60	62	26	HCGWA2H562YE155PH
	8,200	77 \times 195	0.70	11.2	41	43	26	HCGWA2H822YE195PH
		90 \times 157	0.70	10.8	41	43	26	HCGWA2H822YF157PH
	11,000	90 \times 196	0.70	13.7	32	33	26	HCGWA2H113YF196PH
	14,000	101 \times 195	0.70	16.0	29	30	36	HCGWA2H143YG195PH
	16,000	90 \times 283	0.70	19.3	25	27	26	HCGWA2H163YF283PH

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 85°C, 120Hz

