

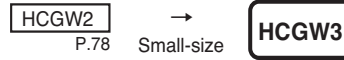
NEW!

HCGW3 Series Useful of 4,000 hours at 70°C

- Conform RoHS

Features

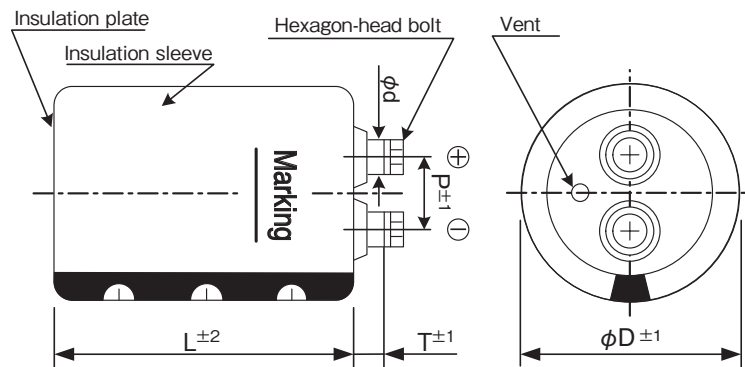
- Product primarily designed for circuits requiring large energy momentarily like those for the uninterruptible power supply (UPS) and X-ray power supply.
- Capacitance improved by 30%, comparison with the HCGW2 series (smallest series).



Product Specifications

Items	Specifications
Temperature range	-10°C ~ +70°C
Rated voltage	350 ~ 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. (70°C, 120Hz)
Endurance	After the rated voltage with specified ripple current is applied at 70°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 70°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	
Correction coefficient	2.2	1.7	1.0	
Frequency (Hz)	120	300	1k	≥10k
Correction coefficient	1.00	1.05	1.10	1.35

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

Product code

(Example) HCGW3 Series 400V 16,000 μF ±20%

HCGW3 2G 163 Y E 148



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) 70°C, 120Hz	ESR(typ.) (m Ω) 20°C, 100Hz	Z max (m Ω) 20°C, 10kHz	ESL(typ.) (nH)	Product name
350	19,000	77 \times 148	0.70	15.8	18	19	24	HCGW32V193YE148
	21,000	77 \times 165	0.70	17.3	16	17	24	HCGW32V213YE165
	25,000	77 \times 188	0.70	19.4	14	15	24	HCGW32V253YE188
	28,000	90 \times 150	0.70	20.4	12	13	24	HCGW32V283YF150
	30,000	90 \times 167	0.70	22.0	12	13	24	HCGW32V303YF167
	31,000	77 \times 228	0.70	23.4	11	12	24	HCGW32V313YE228
	35,000	90 \times 190	0.70	24.3	10	11	24	HCGW32V353YF190
44,000	90 \times 230	0.70	29.5	8	9	24	HCGW32V443YF230	
400	16,000	77 \times 148	0.70	14.5	21	22	24	HCGW32G163YE148
	17,000	77 \times 165	0.70	15.6	20	21	24	HCGW32G173YE165
	20,000	77 \times 188	0.70	17.4	17	18	24	HCGW32G203YE188
	22,000	90 \times 150	0.70	18.2	16	17	24	HCGW32G223YF150
	24,000	90 \times 167	0.70	19.7	14	15	24	HCGW32G243YF167
	25,000	77 \times 228	0.70	21.0	14	15	24	HCGW32G253YE228
	29,000	90 \times 190	0.70	22.1	12	13	24	HCGW32G293YF190
36,000	90 \times 230	0.70	26.8	10	11	24	HCGW32G363YF230	
450	13,000	77 \times 148	0.70	12.5	31	32	24	HCGW32W133YE148
	15,000	77 \times 165	0.70	14.0	27	28	24	HCGW32W153YE165
	17,000	77 \times 188	0.70	15.3	23	25	24	HCGW32W173YE188
	18,000	90 \times 150	0.70	15.7	22	23	24	HCGW32W183YF150
	21,000	90 \times 167	0.70	17.6	19	20	24	HCGW32W213YF167
	22,000	77 \times 228	0.70	18.8	18	19	24	HCGW32W223YE228
	25,000	90 \times 190	0.70	19.6	16	17	24	HCGW32W253YF190
	32,000	90 \times 230	0.70	24.1	12	13	24	HCGW32W323YF230
500	10,000	77 \times 148	0.70	11.0	36	37	24	HCGW32H103YE148
	12,000	77 \times 165	0.70	12.5	30	31	24	HCGW32H123YE165
	14,000	77 \times 188	0.70	13.9	26	27	24	HCGW32H143YE188
	15,000	90 \times 150	0.70	14.3	24	25	24	HCGW32H153YF150
	17,000	77 \times 228	0.70	16.5	21	22	24	HCGW32H173YE228
		90 \times 167	0.70	15.9	21	22	24	HCGW32H173YF167
	20,000	90 \times 190	0.70	17.6	18	19	24	HCGW32H203YF190
25,000	90 \times 230	0.70	21.4	15	15	24	HCGW32H253YF230	

ALUMINUM ELECTROLYTIC CAPACITORS

Life time graph

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

