

# SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

**UPGRADE!**

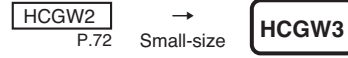
## HCGW3 Series Useful of 4,000 hours at 70°C



• 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).
- The correspondence size has been expanded to  $\phi 90 \times 268L$ .

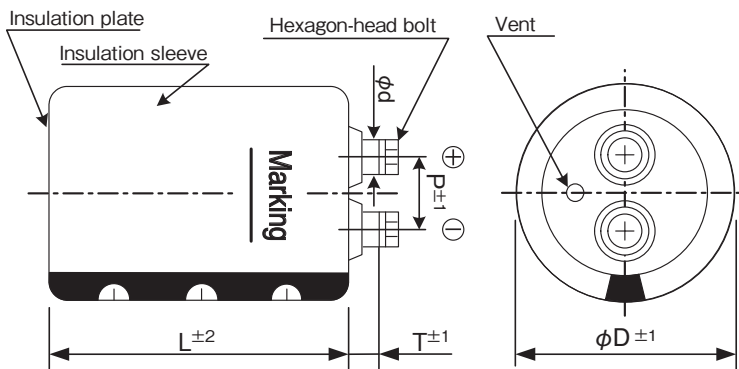


ALUMINUM ELECTROLYTIC CAPACITORS

### 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 ( $\mu$ A) or 7mA, whichever is smaller or less (20°C, after 5 minutes) [C = nominal capacitance ( $\mu$ 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. (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)

$\phi D$	P	T	$\phi d$	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 current is limited to 100Arms. (Even if calculated the permissible ripple current with the correction coefficient exceeds 100Arms)

Please consult us when the ripple voltage exceeds 50 Vp-p.

### Product code

(Example) HCGW3 Series 400V 16,000  $\mu$ F ±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.

Standard Products Table

Rated Voltage (V. DC)	Capacitance ( $\mu$ F)	Case size $\phi$ D×L(mm)	$\tan\delta$ 20°C, 120Hz	Ripple current (Arms) 70°C, 120Hz	ESR(typ.) (m $\Omega$ ) 20°C, 100Hz	Z max (m $\Omega$ ) 20°C, 10kHz	ESL(typ.) (nH)	Product name
350	19,000	77×148	0.70	15.8	18	19	24	HCGW32V193YE148
	25,000	77×188	0.70	19.4	14	15	24	HCGW32V253YE188
	28,000	90×150	0.70	20.4	12	13	24	HCGW32V283YF150
	35,000	90×190	0.70	24.3	10	11	24	HCGW32V353YF190
	51,000	90×268	0.70	34.2	7	8	24	HCGW32V513YF268
400	16,000	77×148	0.70	14.5	21	22	24	HCGW32G163YE148
	20,000	77×188	0.70	17.4	17	18	24	HCGW32G203YE188
	22,000	90×150	0.70	18.2	16	17	24	HCGW32G223YF150
	29,000	90×190	0.70	22.1	12	13	24	HCGW32G293YF190
	42,000	90×268	0.70	31.0	8	9	24	HCGW32G423YF268
450	13,000	77×148	0.70	12.5	31	32	24	HCGW32W133YE148
	17,000	77×188	0.70	15.3	23	25	24	HCGW32W173YE188
	18,000	90×150	0.70	15.7	22	23	24	HCGW32W183YF150
	25,000	90×190	0.70	19.6	16	17	24	HCGW32W253YF190
	35,000	90×268	0.70	26.8	11	12	24	HCGW32W353YF268
500	10,000	77×148	0.70	11.0	36	37	24	HCGW32H103YE148
	14,000	77×188	0.70	13.9	26	27	24	HCGW32H143YE188
	15,000	90×150	0.70	14.3	24	25	24	HCGW32H153YF150
	20,000	90×190	0.70	17.6	18	19	24	HCGW32H203YF190
	28,000	90×268	0.70	24.1	13	13	24	HCGW32H283YF268

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### Life time graph

Useful life depending on ambient temperature  $T_a$  and ripple current operating conditions  $I_r$  versus rated ripple current at 70°C, 120Hz

