

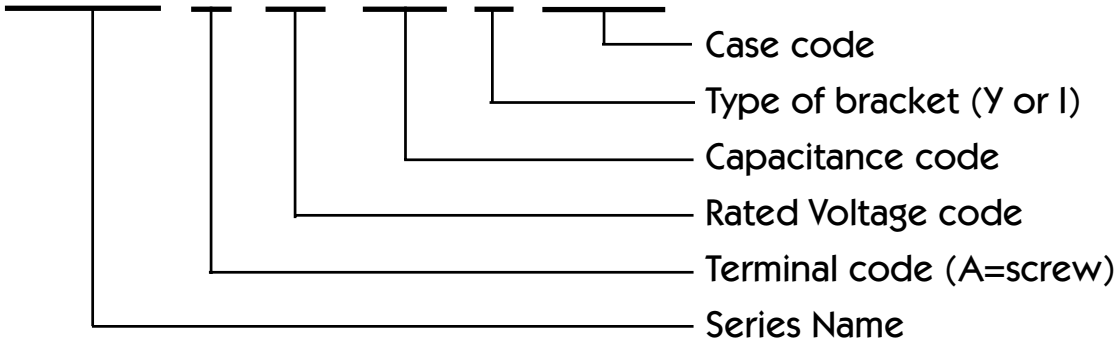
ALUMINUM ELECTROLYTIC CAPACITORS

HCGW Series • Life rating to 2000 hours at 85°C • Temperature range -10°C to +85°C

Product Numbering System for HCGW Series

Example: HCGW Series, A terminals, 400V, 10,000µF ±20%, Y bracket, 77 x 195mm

HCGW A 2W 223 Y F24R



Capacitance Code: To determine Capacitance code use the first 2 digits of the Capacitance followed by the number of zeros. Using the above example of 22,000: 22 + 3 zeros = 103.

Items	Specifications
Temperature range	-10°C to +85°C
Rated voltage	350 to 500 V.DC
Capacitance Tolerance	±20% (20°C, 120Hz)
Leakage Current	0.01 CV (µA) or 7mA (whichever is smaller)
Dissipation factor	Less than 0.7 (20°C, 1KHz)
Withstanding voltage	No abnormality must be found when 2000 V.DC is applied between the terminal block and the mount fixture (to be attached to the case which has been doubly coated with an armored sleeve).
Other	Subject to JIS C 5101-4

Items	Specifications		
Load at high temperature	Allowable ripple currents are superposed at 85°C within a range not exceeding a rated voltage, voltage is applied for 2000 hours, then the temperature is lowered again to 20°C.		
		Characteristic	Requirements
		Rate of change	Within ±15% of initial value
		Dissipation factor value	Within 175% of initial value
No load at high temperature	The requirements of the above table must be met under conditions that the capacitor is left at 85°C for 500 hours with no voltage applied, the temperature is lowered again to 20°C and preprocessing for tests is performed.		
		Leakage current	Within the initial standard value

Ripple Current Correction Coefficient

Temperature (°C)	40	60	70	85
Correction Coefficient	1.0	0.75	0.62	0.37

Frequency (Hz)	120	300	1K	≥10K
Correction Coefficient	1.0	1.1	1.3	1.4

Rated Voltage (WVDC)	Part Number	Capacitance	Case Size ØD x L (mm)	Maximum Ripple Current (A rms) @40° C, 120Hz	Typical ESR (mΩ) @20° C, 120Hz	Typical ESL (nH)
350 Volts (Code: 2V)	HCGWA2V133E16R	13,000	77 X 155	20.7	24	23
	HCGWA2V173F16R	17,000	90 X 157	25.4	18	23
	HCGWA2V183E20R	18,000	77 X 195	18.7	17	23
	HCGWA2V223E24R	22,000	77 X 235	32.1	14	23
	HCGWA2V243G18R	24,000	101 X 175	33.8	13	30
	HCGWA2V253F20R	25,000	90 X 196	33.6	12	23
	HCGWA2V313F24R	31,000	90 X 236	40.4	10	23
	HCGWA2V313G20R	31,000	101 X 195	38.1	10	30
	HCGWA2V393G24R	39,000	101 X 237	46.2	8	30

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Rated Voltage (WVDC)	Part Number	Capacitance	Case Size ØD x L (mm)	Maximum Ripple Current (A rms) @40° C, 120Hz	Typical ESR (mΩ) @20° C, 120Hz	Typical ESL (nH)
400 Volts (Code: 2G)	HCGWA2G113YE16R	11,000	77 X 155	19.2	29	23
	HCGWA2G143YE20R	14,000	77 X 195	23.0	22	23
	HCGWA2G163YE24R	16,000	77 X 235	28.0	20	23
	HCGWA2G163YF16R	16,000	90 X 157	24.8	20	23
	HCGWA2G203YF20R	20,000	90 X 196	30.3	16	23
	HCGWA2G223YG18R	22,000	101 X 175	30.8	14	30
	HCGWA2G253YF24R	25,000	90 X 236	36.6	12	23
	HCGWA2G253YG20R	25,000	101 X 195	34.5	12	30
	HCGWA2G323YG24R	32,000	101 X 237	41.8	10	30
450 Volts (Code: 2W)	HCGWA2W952YE16R	9,500	77 X 155	17.9	35	23
	HCGWA2W123YE20R	12,000	77 X 195	22.1	27	23
	HCGWA2W133YF16R	13,000	90 X 157	21.0	25	23
	HCGWA2W153YE24R	15,000	77 X 235	27.3	22	23
	HCGWA2W173YF20R	17,000	90 X 196	27.9	19	23
	HCGWA2W183YG18R	18,000	101 X 175	27.9	18	30
	HCGWA2W223YF24R	22,000	90 X 236	34.3	15	23
	HCGWA2W223YG20R	22,000	101 X 195	32.2	15	30
	HCGWA2W273YG24R	27,000	101 X 237	38.4	12	30
500 Volts (Code: 2H)	HCGWA2H562YE16R	5,600	77 X 155	13.7	62	23
	HCGWA2H822YE20R	8,200	77 X 195	18.2	42	23
	HCGWA2H822YF16R	8,200	90 X 157	17.7	42	23
	HCGWA2H952YE24R	9,500	77 X 235	21.7	36	23
	HCGWA2H113YF20R	11,000	90 X 196	22.4	32	23
	HCGWA2H123YG18R	12,000	101 X 175	22.7	29	30
	HCGWA2H143YF24R	14,000	90 X 236	27.4	25	23
	HCGWA2H143YG20R	14,000	101 X 195	25.6	25	30
	HCGWA2H163YG24R	16,000	101 X 237	29.6	22	30

Note: Y bracket is standard character in Part Number (except for 36mm Ø D). If I bracket is required, replace Y with I.