HCGF6A Series **Useful of 4,000 hours at 85°C**

• Conform RoHS

Features

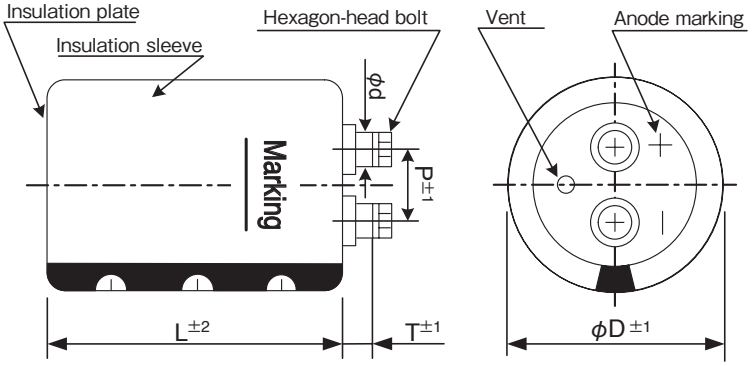
• The size is reduced by about 14% of the HCGF5A series and the rating 500 V is added in the series.

HCGF6A → High-ripple current VF P.24

Product Specifications

Items	Specifications
Temperature range	−25℃ ～ +85℃
Rated voltage	400 ～ 500V.DC
Capacitance tolerance	±20% (20℃, 120Hz)
Leakage current	0.01CV (μA) or 5mA, whichever is smaller or less (20℃, after 5 minutes) [C = nominal capacitance (μF), V = rated voltage (V)]
Dissipation factor	Less than the value specified in the standard products table. (20℃, 120Hz)
Permissible ripple current	As specified in the standard products table. (40℃, 120Hz)
Endurance	After the rated voltage with specified ripple current is applied at 85℃ 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℃ after storage of 500 hours at 85℃ 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
51	22.0	5.5	10.0	M5×10	Phenol resin
64	28.6	5.5	10.0	M5×10	Phenol resin
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

Ripple current correction coefficient

Temperature (℃)	40	60	70	85	
Correction coefficient	1.0	0.75	0.62	0.37	
Frequency (Hz)	50/60	120	300	1K	≧10K
Correction coefficient	0.7	1.0	1.1	1.3	1.4

Terminal permissible currents: 60Arms for M5 ; 100Arms for M6. Please use this type of capacitor at a terminal current below the permissible.

Product code

(Example) HCGF6A series 400V 12,000μF±20%

HCGF6A 2G 123 Y F 157 PH

- HCGF6A: Type of series
- 2G: Rated voltage code
- 123: Capacitance code
- Y: Type of brcket code
- F: Case dia code
- 157: Case height code
- PH: Sealing code

Refer to page 19 for product code.

Bracket

• Refer to page 20-21 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 the type of bracket code.

• Bracket will be delivered separately.

HCGF6A Series

Standard Products Table

Rated Voltage (V. DC)	Capacitance (μF)	Case size φD×L(mm)	tanδ 20℃, 120Hz	Ripple current (Arms) 40℃, 120Hz	ESR(typ.) (mΩ) 20℃, 100Hz	Z max (mΩ) 20℃, 10kHz	ESL(typ.) (nH)	Product name
400	2,200	51×115	0.20	16.5	61	63	21	HCGF6A2G222YC115PH
	2,700	51×130	0.20	19.2	50	52	21	HCGF6A2G272YC130PH
		64×96	0.20	18.7	50	52	22	HCGF6A2G272YD096PH
	3,300	64×96	0.20	20.7	41	42	22	HCGF6A2G332YD096PH
	3,900	64×115	0.20	24.1	35	37	22	HCGF6A2G392YD115PH
	4,700	64×130	0.20	27.8	29	32	22	HCGF6A2G472YD130PH
	5,600	77×115	0.20	30.6	25	28	24	HCGF6A2G562YE115PH
	6,800	77×130	0.20	35.4	22	25	24	HCGF6A2G682YE130PH
	8,200	77×155	0.20	41.6	18	21	24	HCGF6A2G822YE155PH
	10,000	77×195	0.20	50.5	17	20	24	HCGF6A2G103YE195PH
		90×131	0.20	45.8	17	19	24	HCGF6A2G103YF131PH
	12,000	90×157	0.20	53.8	12	15	24	HCGF6A2G123YF157PH
	15,000	90×196	0.20	65.7	10	13	24	HCGF6A2G153YF196PH
	18,000	90×236	0.20	77.7	9	12	24	HCGF6A2G183YF236PH
		101×175	0.20	69.8	9	12	33	HCGF6A2G183YG175PH
	22,000	101×237	0.20	86.8	8	11	33	HCGF6A2G223YG237PH
450	1,800	51×115	0.20	14.9	77	80	21	HCGF6A2W182YC115PH
	2,200	51×130	0.20	17.3	63	65	21	HCGF6A2W222YC130PH
		64×96	0.20	16.9	63	65	22	HCGF6A2W222YD096PH
	2,700	64×96	0.20	18.7	52	54	22	HCGF6A2W272YD096PH
	3,300	64×115	0.20	22.2	42	44	22	HCGF6A2W332YD115PH
	3,900	64×130	0.20	25.3	38	40	22	HCGF6A2W392YD130PH
	4,700	77×115	0.20	28.1	34	36	24	HCGF6A2W472YE115PH
	5,600	77×130	0.20	32.1	31	33	24	HCGF6A2W562YE130PH
	6,800	77×155	0.20	37.9	25	27	24	HCGF6A2W682YE155PH
	8,200	77×195	0.20	45.8	21	23	24	HCGF6A2W822YE195PH
		90×131	0.20	41.5	21	23	24	HCGF6A2W822YF131PH
	10,000	90×171	0.20	50.6	17	19	24	HCGF6A2W103YF171PH
	12,000	90×196	0.20	58.7	16	18	24	HCGF6A2W123YF196PH
		101×175	0.20	57.0	16	18	33	HCGF6A2W123YG175PH
	15,000	90×236	0.20	70.9	15	17	24	HCGF6A2W153YF236PH
		101×195	0.20	66.5	15	17	33	HCGF6A2W153YG195PH
	18,000	101×237	0.20	78.5	14	16	33	HCGF6A2W183YG237PH
500	1,200	51×115	0.20	12.2	112	120	21	HCGF6A2H122YC115PH
		64×96	0.20	12.5	112	120	22	HCGF6A2H122YD096PH
	1,500	51×130	0.20	14.3	90	96	21	HCGF6A2H152YC130PH
		64×96	0.20	13.9	90	96	22	HCGF6A2H152YD096PH
	1,800	64×115	0.20	16.4	75	80	22	HCGF6A2H182YD115PH
	2,200	64×130	0.20	19.0	61	65	22	HCGF6A2H222YD130PH
	2,700	77×115	0.20	21.3	50	53	24	HCGF6A2H272YE115PH
	3,300	77×130	0.20	24.6	45	48	24	HCGF6A2H332YE130PH
	3,900	77×155	0.20	28.7	38	41	24	HCGF6A2H392YE155PH
	4,700	77×171	0.20	32.9	34	37	24	HCGF6A2H472YE171PH
		90×131	0.20	31.4	34	37	24	HCGF6A2H472YF131PH
	5,600	77×195	0.20	37.8	28	31	24	HCGF6A2H562YE195PH
		90×157	0.20	36.7	28	31	24	HCGF6A2H562YF157PH
	6,800	90×171	0.20	41.8	23	25	24	HCGF6A2H682YF171PH
	8,200	90×196	0.20	48.5	21	23	24	HCGF6A2H822YF196PH
		101×175	0.20	47.1	21	23	33	HCGF6A2H822YG175PH
	10,000	90×236	0.20	57.9	17	19	24	HCGF6A2H103YF236PH
		101×195	0.20	54.3	17	19	33	HCGF6A2H103YG195PH
	12,000	101×237	0.20	64.1	16	18	33	HCGF6A2H123YG237PH

Life time graph

Useful life depending on ambient temperature Ta and ripple current operating conditions Ⅰ versus rated ripple current at 40℃, 120Hz