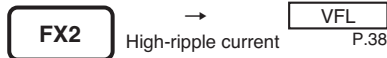


FX2 Series Useful of 8,000 hours at 85°C

- Conform RoHS

Features

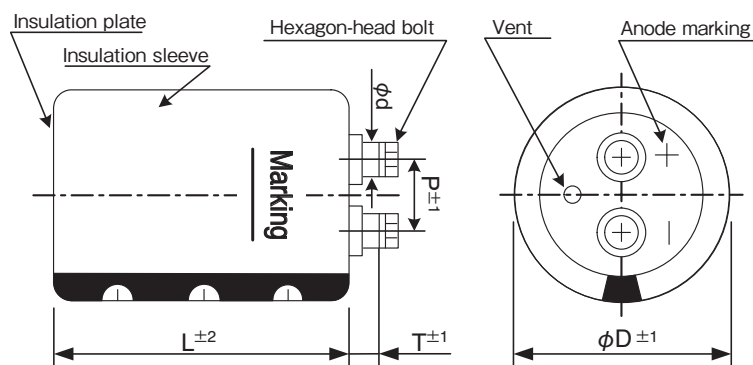
- Developed specially for the demand of higher voltage with compact size.
- The size is reduced by around 14% of conventional FXA series through development of electrolyte liquid.
- 600V added in the series.



Product Specifications

Items	Specifications
Temperature range	−40°C ~ +85°C (400 ~ 550V.DC) −25°C ~ +85°C (600V.DC)
Rated voltage	400 ~ 600V.DC
Capacitance tolerance	±20% (20°C, 120Hz)
Leakage current	0.01CV (μA) or 5mA, 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. (85°C, 120Hz)
Endurance	After the rated voltage with specified ripple current is applied at 85°C for 5,000 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
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	41.5	11.0	14.0	M8×16	Phenol resin

Ripple current correction coefficient

Temperature (°C)	40	60	85		
Correction coefficient	1.89	1.67	1.00		
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 ; 120Arms for M8.
Please use this type of capacitor at a terminal current below the permissible.

Product code

(Example) FX2 Series 400V 10,000μF±20%					
FX2	2G	103	Y	E	195
Type of series	Case height code	Case dia code	Type of bracket code	Capacitance code	Rated voltage code

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 the type of bracket code.
- Bracket will be delivered separately.

SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

FX2 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
400	2,200	51 $\times$ 115	0.15	8.8	46	48	21	FX22G222YC115
	2,700	51 $\times$ 130	0.15	10.2	38	40	21	FX22G272YC130
	3,300	64 $\times$ 96	0.15	11.0	30	32	22	FX22G332YD096
	3,900	64 $\times$ 115	0.15	12.8	26	28	22	FX22G392YD115
	4,700	64 $\times$ 130	0.15	14.8	21	22	22	FX22G472YD130
	5,600	77 $\times$ 115	0.15	16.2	18	19	24	FX22G562YE115
	6,800	77 $\times$ 130	0.15	18.7	15	15	24	FX22G682YE130
	8,200	77 $\times$ 155	0.15	22.0	12	15	24	FX22G822YE155
	10,000	77 $\times$ 195	0.15	26.7	10	15	24	FX22G103YE195
		90 $\times$ 131	0.15	24.2	10	15	24	FX22G103YF131
	12,000	90 $\times$ 157	0.15	28.5	8	13	24	FX22G123YF157
	15,000	90 $\times$ 196	0.15	34.8	8	10	24	FX22G153YF196
450	1,800	51 $\times$ 115	0.15	7.6	56	58	21	FX22W182YC115
	2,200	51 $\times$ 130	0.15	8.8	46	48	21	FX22W222YC130
	2,700	64 $\times$ 96	0.15	9.5	38	40	22	FX22W272YD096
	3,300	64 $\times$ 115	0.15	11.2	30	35	22	FX22W332YD115
	3,900	64 $\times$ 130	0.15	12.8	27	32	22	FX22W392YD130
	4,700	77 $\times$ 115	0.15	14.1	21	21	24	FX22W472YE115
	5,600	77 $\times$ 130	0.15	16.2	20	20	24	FX22W562YE130
	6,800	77 $\times$ 155	0.15	19.1	15	18	24	FX22W682YE155
	8,200	77 $\times$ 195	0.15	23.0	14	16	24	FX22W822YE195
		90 $\times$ 131	0.15	21.0	14	17	24	FX22W822YF131
	10,000	90 $\times$ 171	0.15	25.7	10	15	24	FX22W103YF171
	12,000	90 $\times$ 196	0.15	29.7	9	12	24	FX22W123YF196
		101 $\times$ 175	0.15	29.3	9	12	33	FX22W123YG175
	15,000	90 $\times$ 236	0.15	35.9	7	10	24	FX22W153YF236
		101 $\times$ 195	0.15	34.2	7	10	33	FX22W153YG195
500	1,200	51 $\times$ 115	0.20	6.2	93	100	21	FX22H122YC115
		64 $\times$ 96	0.20	6.3	93	100	22	FX22H122YD096
	1,500	51 $\times$ 130	0.20	7.3	74	80	21	FX22H152YC130
		64 $\times$ 96	0.20	7.1	74	80	22	FX22H152YD096
	1,800	64 $\times$ 115	0.20	8.3	53	50	22	FX22H182YD115
	2,200	64 $\times$ 130	0.20	9.6	40	35	22	FX22H222YD130
	2,700	77 $\times$ 115	0.20	10.7	37	33	24	FX22H272YE115
	3,300	77 $\times$ 130	0.20	12.4	36	32	24	FX22H332YE130
	3,900	77 $\times$ 155	0.20	14.4	27	29	24	FX22H392YE155
	4,700	77 $\times$ 171	0.20	16.5	25	25	24	FX22H472YE171
		90 $\times$ 131	0.20	15.8	25	25	24	FX22H472YF131
	5,600	77 $\times$ 195	0.20	19.0	23	21	24	FX22H562YE195
		90 $\times$ 157	0.20	18.6	23	21	24	FX22H562YF157
	6,800	90 $\times$ 171	0.20	21.2	20	18	24	FX22H682YF171
	8,200	90 $\times$ 196	0.20	24.5	17	16	24	FX22H822YF196
		101 $\times$ 175	0.20	24.2	17	16	33	FX22H822YG175
	10,000	90 $\times$ 236	0.20	29.3	14	12	24	FX22H103YF236
		101 $\times$ 195	0.20	27.9	14	14	33	FX22H103YG195
550	1,000	51 $\times$ 130	0.20	5.9	112	120	21	FX22L102YC130
	1,200	64 $\times$ 115	0.20	6.8	93	100	22	FX22L122YD115
	1,500	64 $\times$ 130	0.20	8.0	74	80	22	FX22L152YD130
	1,800	77 $\times$ 115	0.20	8.7	61	50	24	FX22L182YE115
	2,200	77 $\times$ 130	0.20	10.1	53	50	24	FX22L222YE130
	2,700	77 $\times$ 155	0.20	12.0	40	35	24	FX22L272YE155
	3,300	77 $\times$ 155	0.20	13.3	38	32	24	FX22L332YE155
	3,900	90 $\times$ 157	0.20	15.5	30	27	24	FX22L392YF157
	4,700	90 $\times$ 171	0.20	17.6	25	20	24	FX22L472YF171
	5,600	90 $\times$ 196	0.20	20.3	20	17	24	FX22L562YF196
	6,800	90 $\times$ 236	0.20	24.1	17	17	24	FX22L682YF236
	8,200	101 $\times$ 237	0.20	27.3	15	15	33	FX22L822YG237
600	1,000	64 $\times$ 96	0.20	4.2	129	133	22	FX2600V102YD096
	1,200	64 $\times$ 115	0.20	4.9	122	125	22	FX2600V122YD115
	1,500	77 $\times$ 96	0.20	5.5	111	114	24	FX2600V152YE096
	1,800	77 $\times$ 115	0.20	6.4	99	102	24	FX2600V182YE115
	2,200	77 $\times$ 130	0.20	7.4	85	87	24	FX2600V222YE130
	2,700	77 $\times$ 155	0.20	8.8	66	68	24	FX2600V272YE155
	3,300	90 $\times$ 131	0.20	9.8	44	45	24	FX2600V332YF131
	3,900	90 $\times$ 157	0.20	11.4	22	22	24	FX2600V392YF157

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

