

# SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

**New**

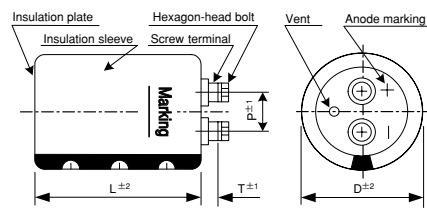
## FXR3 Series

Useful of 8,000 hours at 85°C (Warranty of 5,000 hours at 85°C)

• Conform RoHS

### Features

• FXR3 series has smaller case size (ave.10%) and higher ripple current (ave.20%) compared with FX2 series. These features are accomplished by new heat radiation structure and low ESR material.



(unit : mm)

φ D	P	S	T	Cap material
64	28.6	M5×10	4.0	PPS
77	32.0	M6×12	4.5	PPS
90	32.0	M6×12	3.0	PPS

### Product Specifications

Items	Specifications
Temperature range	-40°C ~ +85°C
Rated voltage	400,450V.DC
Capacitance tolerance	±20% (20°C, 120Hz)
Leakage current	0.01CV (μA) or 5 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. (85°C,120Hz)
High-temperature load	After the rated voltage with specified ripple current is applied at 85°C for 5000 hours: Capacitance tolerance: ±15% or less of the initial value Dissipation factor: 175% or less of the specified initial value Leakage current: Specified initial value or less
Others	JIS C 5101-4.

### Ripple current correction coefficient

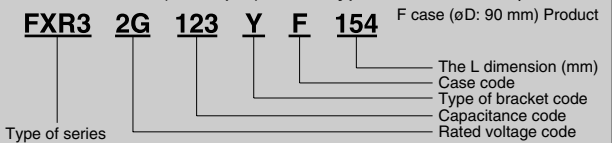
Temperature (°C)	40	60	85		
Correction coefficient	1.89	1.67	1.00		
Frequency (Hz)	50/60	120	300	1k	≥10K
Correction coefficient	0.7	1.0	1.1	1.3	1.4
Forced wind(m/s)	<0.5	0.5≤			
Correction coefficient	1	1.1			

Terminal shapes: M5 for φ64; M6 for φ77, 90.

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) FXR3 type 400 V 12,000μF±20%



### Bracket

- See page 55 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.

### Standard Products Table

Rated Voltage Code (Surge Voltage) (V. DC)	Capacitance (μF)	Case size φDXL(mm)	tanδ 20°C, 120Hz	Ripple current 85°C, 120Hz (Arms)	ESR(typ.) 20°C, 100Hz (mΩ)	Z max 20°C, 10kHz (mΩ)	ESL(typ.) (nH)	Product name
400 2G (450)	3900	64×99	0.20	15.5	26	28	22	FXR32G392YD099
	4700	64×128	0.20	18.0	21	22	22	FXR32G472YD128
	5600	64×152	0.20	20.5	18	19	22	FXR32G562YD152
		77×100	0.20	19.8	18	19	23	FXR32G562YE100
	6800	64×169	0.20	23.6	15	16	22	FXR32G682YD169
		77×129	0.20	23.0	15	16	23	FXR32G682YE129
	8200	77×153	0.20	26.3	12	12	23	FXR32G822YE153
		90×101	0.20	25.8	12	12	23	FXR32G822YF101
	10000	77×170	0.20	30.3	10	10	23	FXR32G103YE170
		90×130	0.20	29.9	10	10	23	FXR32G103YF130
	12000	90×154	0.20	33.9	8	10	23	FXR32G123YF154
	15000	77×233	0.20	41.3	8	10	23	FXR32G153YE233
18000	90×234	0.20	48.0	6	9	23	FXR32G183YF234	
22000	90×234	0.20	53.0	6	8	23	FXR32G223YF234	
450 2W (500)	2700	64×99	0.20	12.7	39	41	22	FXR32W272YD099
	3300	64×112	0.20	14.1	32	34	22	FXR32W332YD112
	3900	64×128	0.20	16.2	26	28	22	FXR32W392YD128
	4700	64×152	0.20	18.5	21	22	22	FXR32W472YD152
	5600	64×169	0.20	21.0	18	19	22	FXR32W562YD169
	6800	64×192	0.20	23.9	15	15	22	FXR32W682YD192
	8200	77×170	0.20	27.0	12	12	23	FXR32W822YE170
	10000	77×193	0.20	30.5	10	10	23	FXR32W103YE193
		90×154	0.20	30.4	10	10	23	FXR32W103YF154
	12000	90×194	0.20	35.4	8	10	23	FXR32W123YF194
	15000	90×234	0.20	42.8	8	10	23	FXR32W153YF234

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Rated Voltage Code (Surge Voltage) (V <sub>DC</sub> )	Capacitance (μF)	Case size øDXL(mm)	tanδ 20°C, 120Hz	Ripple current 85°C, 120Hz (Arms)	ESR(typ.) 20°C, 100Hz (mΩ)	Z max 20°C, 10kHz (mΩ)	ESL(typ.) (nH)	Product name
500	1800	64×99	0.20	10.2	53	50	22	FXR32H182YD099
	2200	64×112	0.20	11.4	40	35	22	FXR32H222YD112
	2700	64×128	0.20	13.3	37	33	22	FXR32H272YD128
	3300	64×152	0.20	15.2	36	32	22	FXR32H332YD152
		77×113	0.20	14.8	36	32	24	FXR32H332YE113
	3900	64×169	0.20	17.3	27	29	22	FXR32H392YD169
		77×129	0.20	17.0	27	29	24	FXR32H392YE129
	4700	77×153	0.20	19.3	25	25	24	FXR32H472YE153
	5600	77×170	0.20	21.9	23	21	24	FXR32H562YE170
		90×130	0.20	21.7	23	21	24	FXR32H562YF130
	6800	90×154	0.20	24.7	20	18	24	FXR32H682YF154
	8200	90×171	0.20	28.2	17	16	24	FXR32H822YF171
	10000	90×194	0.20	31.8	15	14	24	FXR32H103YF194
12000	90×234	0.20	37.7	13	12	24	FXR32H123YF234	

## 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

