

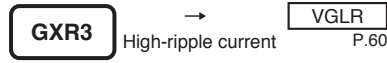
# GXR3 Series

Useful of 8,000 hours at 105°C

- Conform RoHS

## Features

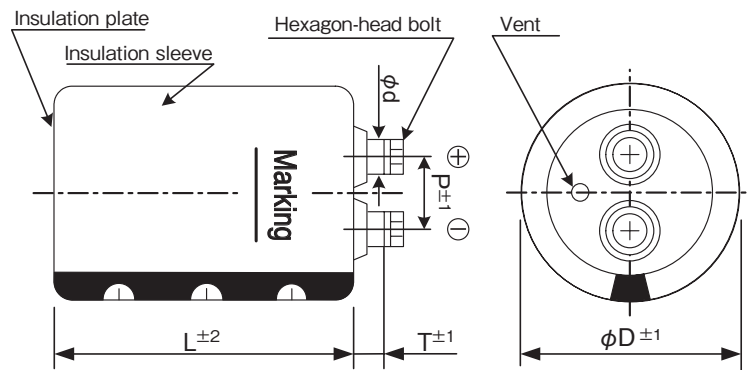
- GXR3 series has smaller case size (ave.10%) and higher ripple current (ave.17%) compared with GX2 series. These features are accomplished by new heat radiation structure and low ESR material.



## Product Specifications

Items	Specifications
Temperature range	-40°C ~ +105°C
Rated voltage	400 ~ 450V.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. (105°C, 120Hz)
Endurance	After the rated voltage with specified ripple current is applied at 105°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 105°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
64	28.6	8.0	11.0	M5×10	Phenol resin
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	85	105	
Correction coefficient	2.44	2.16	2.00	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	1.0	1.1			

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) GXR3 Series 400V 10,000 µF±20%

**GXR3 2G 103 Y F 126 PH**

- Type of series
- Sealing code
- Case height code
- Case dia code
- Type of bracket code
- Capacitance code
- Rated voltage 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.

Standard Products Table

Rated Voltage (V. DC)	Capacitance (μF)	Case size φD×L(mm)	tanδ 20°C, 120Hz	Ripple current (Arms) 105°C, 120Hz	ESR(typ.) (mΩ) 20°C, 100Hz	Z max (mΩ) 20°C, 10kHz	ESL(typ.) (nH)	Product name
400	3,300	64×94	0.20	11.1	31	33	22	GXR32G332YD094PH
	3,900	64×107	0.20	12.1	26	28	22	GXR32G392YD107PH
	4,700	64×123	0.20	14.1	21	22	22	GXR32G472YD123PH
		77×95	0.20	14.1	21	22	23	GXR32G472YE095PH
	5,600	64×147	0.20	15.9	18	19	22	GXR32G562YD147PH
		77×108	0.20	15.4	18	19	23	GXR32G562YE108PH
	6,800	64×187	0.20	18.8	15	16	22	GXR32G682YD187PH
		77×124	0.20	17.9	15	16	23	GXR32G682YE124PH
		90×97	0.20	18.2	15	16	23	GXR32G682YF097PH
	8,200	77×148	0.20	20.3	12	12	23	GXR32G822YE148PH
		90×110	0.20	20.0	12	12	23	GXR32G822YF110PH
	10,000	77×188	0.20	24.1	10	10	23	GXR32G103YE188PH
		90×126	0.20	23.3	10	10	23	GXR32G103YF126PH
	12,000	77×228	0.20	28.6	8	10	23	GXR32G123YE228PH
90×150		0.20	26.3	8	10	23	GXR32G123YF150PH	
15,000	90×190	0.20	31.4	8	10	23	GXR32G153YF190PH	
18,000	90×230	0.20	37.0	6	9	23	GXR32G183YF230PH	
450	2,200	64×94	0.20	9.0	46	48	22	GXR32W222YD094PH
	2,700	64×107	0.20	10.0	38	40	22	GXR32W272YD107PH
	3,300	64×123	0.20	11.6	31	33	22	GXR32W332YD123PH
		77×95	0.20	11.6	31	33	23	GXR32W332YE095PH
	3,900	64×147	0.20	13.1	26	28	22	GXR32W392YD147PH
		77×108	0.20	12.7	26	28	23	GXR32W392YE108PH
	4,700	64×164	0.20	15.1	21	22	22	GXR32W472YD164PH
		77×124	0.20	14.7	21	22	23	GXR32W472YE124PH
		90×97	0.20	15.0	21	22	23	GXR32W472YF097PH
	5,600	64×187	0.20	17.0	18	19	22	GXR32W562YD187PH
		77×148	0.20	16.6	18	19	23	GXR32W562YE148PH
		90×110	0.20	16.4	18	19	23	GXR32W562YF110PH
	6,800	77×165	0.20	19.1	15	16	23	GXR32W682YE165PH
		90×126	0.20	19.0	15	16	23	GXR32W682YF126PH
	8,200	77×188	0.20	21.5	12	12	23	GXR32W822YE188PH
		90×150	0.20	21.4	12	12	23	GXR32W822YF150PH
	10,000	77×228	0.20	25.7	10	10	23	GXR32W103YE228PH
		90×167	0.20	24.6	10	10	23	GXR32W103YF167PH
	12,000	90×190	0.20	27.7	8	10	23	GXR32W123YF190PH
	15,000	90×230	0.20	33.5	8	10	23	GXR32W153YF230PH

ALUMINUM ELECTROLYTIC CAPACITORS

### Life time graph

Useful life depending on ambient temperature  $T_a$  and ripple current operating conditions  $I$  versus rated ripple current at 105°C, 120Hz

