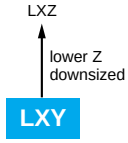
NIPPON CHEMI-CON

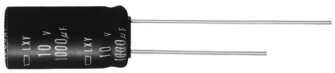
MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

High reliability, Low impedance, 105℃

LXY Series

- Newly innovative electrolyte and internal architecture are employed
- Endurance with ripple current : 105℃ 2000 to 8000 hours
- Solvent-proof type (see PRECAUTIONS AND GUIDELINES)

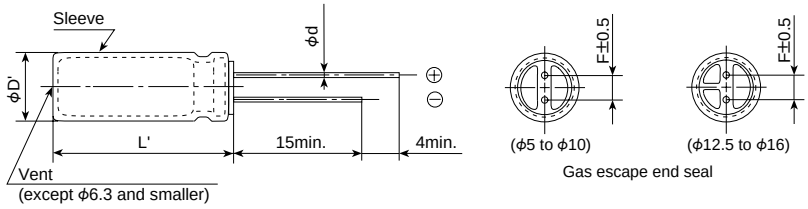




◆SPECIFICATIONS

Items	Characteristics						
Category Temperature Range	−55 to +105℃						
Rated Voltage Range	10 to 63Vdc						
Capacitance Tolerance	±20% (M) (at 20℃, 120Hz)						
Leakage Current	I=0.01CV or 3μA, whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20℃ after 2 minutes)						
Dissipation Factor (tanδ)	Rated voltage (Vdc)	10V	16V	25V	35V	50V	63V
	tanδ (Max.)	0.19	0.16	0.14	0.12	0.10	0.10
	When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase. (at 20℃, 120Hz)						
Low Temperature Characteristics (Max. Impedance Ratio)	Z(−55℃)/Z(+20℃)	10Vdc to 50Vdc : 3max.					
		63Vdc : 6max.					
	(at 120Hz)						
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied for the specified period of time at 105℃.						
	Time	φ5 & 6.3 : 2000hours φ8 : 3000hours φ10 : 5000hours φ12.5 : 7000hours φ16 & 18 : 8000hours					
	Capacitance change	≦±20% of the initial value					
	D.F. (tanδ)	≦200% of the initial specified value					
	Leakage current	≦The initial specified value					
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1000 hours at 105℃ without voltage applied.						
	Capacitance change	≦±20% of the initial value					
	D.F. (tanδ)	≦200% of the initial specified value					
	Leakage current	≦The initial specified value					

◆DIMENSIONS (Radial Lead Type=VB) [mm]



φD	5	6.3	8	10	12.5	16
φd	0.5	0.5	0.6	0.6	0.6	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5
φD'	φD+0.5max.					
L'	L+1.5max.					

◆PART NUMBERING SYSTEM

LXY 16 VB 2200 M K30

- K30 : Case code
- M : Cap tolerance (±20%)
- 2200 : Nominal cap code
- VB : Radial lead type
- 16 : Rated voltage in volts
- LXY : Series name

Capacitance	Code
4.7μF	4R7
10μF	10
100μF	100
2200μF	2200

CAT. No. E1001B

LXY Series

◆STANDARD RATINGS

Vdc / Items / Case code / ϕDXL (mm)	10				16				25				35			
	Capacitance (μF)	Impedance (Ωmax/100kHz)		Rated ripple current (mArms/ 105℃ 100kHz)	Capacitance (μF)	Impedance (Ωmax/100kHz)		Rated ripple current (mArms/ 105℃ 100kHz)	Capacitance (μF)	Impedance (Ωmax/100kHz)		Rated ripple current (mArms/ 105℃ 100kHz)	Capacitance (μF)	Impedance (Ωmax/100kHz)		Rated ripple current (mArms/ 105℃ 100kHz)
		20℃	−10℃			20℃	−10℃			20℃	−10℃			20℃	−10℃	
5X11.5 E11	82	0.75	1.5	163	56	0.75	1.5	163	39	0.75	1.5	163	27	0.75	1.5	163
6.3X11.5 F11	180	0.35	0.70	273	120	0.35	0.70	273	82	0.35	0.70	273	56	0.35	0.70	273
6.3X15 F15	220	0.25	0.50	390	180	0.25	0.50	390	120	0.25	0.50	390	82	0.25	0.50	390
8X12 H12	330	0.17	0.34	445	270	0.17	0.34	445	150	0.17	0.34	445	120	0.17	0.34	445
8X15 H15	470	0.13	0.26	555	330	0.13	0.26	555	220	0.13	0.26	555	180	0.13	0.26	555
8X20 H20	680	0.095	0.19	740	470	0.095	0.19	740	330	0.095	0.19	740	220	0.095	0.19	740
10X12.5 J12	390	0.12	0.24	625	270	0.12	0.24	625	180	0.12	0.24	625	120	0.12	0.24	625
10X16 J16	680	0.084	0.17	825	470	0.084	0.17	825	330	0.084	0.17	825	220	0.084	0.17	825
10X20 J20	1,000	0.062	0.13	1,040	680	0.062	0.13	1,040	470	0.062	0.13	1,040	330	0.062	0.13	1,040
10X25 J25	1,200	0.052	0.11	1,260	820	0.052	0.11	1,260	560	0.052	0.11	1,260	390	0.052	0.11	1,260
10X30 J30	1,500	0.044	0.088	1,440	1,200	0.044	0.088	1,440	820	0.044	0.088	1,440	560	0.044	0.088	1,440
12.5X20 K20	1,800	0.046	0.092	1,340	1,200	0.046	0.092	1,340	820	0.046	0.092	1,340	560	0.046	0.092	1,340
12.5X25 K25	2,200	0.034	0.068	1,690	1,500	0.034	0.068	1,690	1,000	0.034	0.068	1,690	680	0.034	0.068	1,690
12.5X30 K30	2,700	0.030	0.060	1,950	2,200	0.030	0.060	1,950	1,500	0.030	0.060	1,950	1,000	0.030	0.060	1,950
12.5X35 K35	3,300	0.024	0.048	2,220	2,700	0.024	0.048	2,220	1,800	0.024	0.048	2,220	1,200	0.024	0.048	2,220
12.5X40 K40	3,900	0.022	0.044	2,390	3,300	0.022	0.044	2,390	2,200	0.022	0.044	2,390	1,500	0.022	0.044	2,390
16X20 L20	3,300	0.038	0.076	1,630	2,200	0.038	0.076	1,630	1,500	0.038	0.076	1,630	1,000	0.038	0.076	1,630
16X25 L25	3,900	0.028	0.056	2,070	2,700	0.028	0.056	2,070	1,800	0.028	0.056	2,070	1,200	0.028	0.056	2,070
16X30 L30	5,600	0.025	0.050	2,350	3,900	0.025	0.050	2,350	2,700	0.025	0.050	2,350	1,800	0.025	0.050	2,350
16X35 L35	6,800	0.022	0.044	2,550	4,700	0.022	0.044	2,550	3,300	0.022	0.044	2,550	2,200	0.022	0.044	2,550
16X40 L40	8,200	0.018	0.036	2,900	5,600	0.018	0.036	2,900	3,900	0.018	0.036	2,900	2,700	0.018	0.036	2,900

Vdc / Items / Case code / ϕDXL (mm)	50				63			
	Capacitance (μF)	Impedance (Ωmax/100kHz)		Rated ripple current (mArms/ 105℃ 100kHz)	Capacitance (μF)	Impedance (Ωmax/100kHz)		Rated ripple current (mArms/ 105℃ 100kHz)
		20℃	−10℃			20℃	−10℃	
5X11.5 E11	18	1.2	2.4	129	10	1.9	4.8	103
6.3X11.5 F11	39	0.54	1.1	219	18	1.0	2.5	161
6.3X15 F15	56	0.34	0.68	310	33	0.61	1.6	233
8X12 H12	68	0.30	0.60	340	47	0.47	1.2	274
8X15 H15	82	0.20	0.40	470	68	0.34	0.85	360
8X20 H20	120	0.14	0.28	610	82	0.21	0.53	500
10X12.5 J12	82	0.20	0.40	480	56	0.27	0.68	418
10X16 J16	120	0.13	0.26	755	68	0.21	0.53	525
10X20 J20	180	0.088	0.18	945	120	0.16	0.40	650
10X25 J25	220	0.073	0.15	1,150	150	0.13	0.33	783
10X30 J30	330	0.054	0.11	1,260	180	0.10	0.25	960
12.5X20 K20	330	0.059	0.12	1,190	220	0.11	0.28	870
12.5X25 K25	470	0.044	0.088	1,490	270	0.074	0.19	1,150
12.5X30 K30	560	0.039	0.078	1,720	390	0.068	0.17	1,280
12.5X35 K35	680	0.033	0.066	1,890	470	0.063	0.16	1,390
12.5X40 K40	820	0.029	0.058	2,030	560	0.051	0.13	1,530
16X20 L20	680	0.050	0.10	1,420	330	0.085	0.22	1,100
16X25 L25	820	0.034	0.068	1,880	470	0.055	0.14	1,480
16X30 L30	1,000	0.030	0.060	2,150	680	0.046	0.12	1,720
16X35 L35	1,200	0.027	0.054	2,320	820	0.040	0.10	1,910
16X40 L40	1,500	0.024	0.048	2,540	1,000	0.036	0.090	2,070

The following case sizes are also available upon request : ϕ4X7mm, ϕ5X7mm, ϕ5X15mm, ϕ6.3X7mm ϕ12.5X15mm, ϕ16X15mm, and ϕ18X15mm.

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Capacitance (μF) \ Frequency (Hz)	120	1k	10k	100k
10 to 180	0.40	0.75	0.90	1.00
220 to 560	0.50	0.85	0.94	1.00
680 to 1800	0.60	0.87	0.95	1.00
2200 to 3900	0.75	0.90	0.95	1.00
4700 to 8200	0.85	0.95	0.98	1.00