

# LXV Series

- Low impedance
- Endurance with ripple current : 2,000 to 5,000 hours at 105°C
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.



## SPECIFICATIONS

Items	Characteristics	
Category	-55 to +105°C	
Temperature Range	-55 to +105°C	
Rated Voltage Range	6.3 to 100V <sub>ac</sub>	
Capacitance Tolerance	±20% (M) (at 20°C, 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°C after 2 minutes)	
Dissipation Factor (tan δ)	Rated voltage (V <sub>ac</sub> )	6.3V 10V 16V 25V 35V 50V 63V 80V 100V
	tan δ (Max.)	0.22 0.19 0.16 0.14 0.12 0.10 0.10 0.09 0.08
	When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase. (at 20°C, 120Hz)	
Low Temperature Characteristics	Capacitance change ΔC (-55°C /+20°C)	0.7min.
	Max. impedance ratio (-55°C /+20°C)	3max.(6.3V <sub>ac</sub> : 4max.) (at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for the specified period of time at 105°C.	
	Time	φ 5 to 6.3 : 2,000hours φ 8 & 10: 3,000hours φ 12.5 to φ 18: 5,000hours
	Capacitance change	≤ ±20% of the initial value
	D.F. (tan δ)	≤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°C after exposing them for 1,000 hours at 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.	
	Capacitance change	≤ ±20% of the initial value
	D.F. (tan δ)	≤200% of the initial specified value
	Leakage current	≤The initial specified value

## DIMENSIONS [mm]

- Terminal Code : E



φD	5	6.3	8	10	12.5	16	18
φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φD'	φD+0.5max.						
L'	L+1.5max.						

## PART NUMBERING SYSTEM



Please refer to "Product code guide (radial lead type)"

◆STANDARD RATINGS

Table with 11 columns: WV (Vdc), Cap (µF), Case size φD×L(mm), Impedance (Ω max./100kHz) at 20°C and -10°C, Rated ripple current (mA rms/105°C, 100kHz), and Part No. It is divided into three sections: 6.3V, 10V, and 16V, each with sub-sections for different ripple current ratings (e.g., 165mA, 255mA, etc.).

□□ : Enter the appropriate lead forming or taping code.

◆STANDARD RATINGS

WV (V <sub>ac</sub> )	Cap (µF)	Case size ϕD×L(mm)	Impedance (Ω max./100kHz)		Rated ripple current (mA <sub>rms</sub> /105°C, 100kHz)	Part No.	WV (V <sub>ac</sub> )	Cap (µF)	Case size ϕD×L(mm)	Impedance (Ω max./100kHz)		Rated ripple current (mA <sub>rms</sub> /105°C, 100kHz)	Part No.
			20°C	-10°C						20°C	-10°C		
50	82	8×15	0.24	0.72	505	ELXV500E□□820MH15D	80	27	6.3×15	0.62	1.7	220	ELXV800E□□270MF15D
	82	10×12.5	0.16	0.40	530	ELXV500E□□820MJC5S		33	8×12	0.53	1.5	275	ELXV800E□□330MH12D
	120	8×20	0.18	0.52	610	ELXV500E□□121MH20D		39	10×12.5	0.47	1.3	380	ELXV800E□□390MJC5S
	120	10×16	0.12	0.30	755	ELXV500E□□121MJ16S		47	8×15	0.35	0.97	360	ELXV800E□□470MH15D
	180	10×20	0.088	0.22	945	ELXV500E□□181MJ20S		56	8×20	0.27	0.74	490	ELXV800E□□560MH20D
	220	10×25	0.068	0.17	1,150	ELXV500E□□221MJ25S		56	10×16	0.33	0.90	500	ELXV800E□□560MJ16S
	330	10×30	0.059	0.15	1,260	ELXV500E□□331MJ30S		82	10×20	0.26	0.70	620	ELXV800E□□820MH20S
	330	12.5×20	0.059	0.15	1,190	ELXV500E□□331MK20S		100	10×25	0.19	0.52	795	ELXV800E□□101MJ25S
	470	12.5×25	0.045	0.11	1,500	ELXV500E□□471MK25S		150	10×30	0.15	0.41	955	ELXV800E□□151MJ30S
	560	12.5×30	0.039	0.098	1,720	ELXV500E□□561MK30S		150	12.5×20	0.15	0.41	890	ELXV800E□□151MK20S
	680	12.5×35	0.033	0.083	1,900	ELXV500E□□681MK35S		180	12.5×25	0.11	0.30	1,040	ELXV800E□□181MK25S
	680	16×20	0.043	0.11	1,500	ELXV500E□□681ML20S		270	12.5×30	0.094	0.26	1,270	ELXV800E□□271MK30S
	820	12.5×40	0.029	0.073	2,120	ELXV500E□□821MK40S		270	16×20	0.11	0.30	1,240	ELXV800E□□271ML20S
	820	16×25	0.033	0.083	1,880	ELXV500E□□821ML25S		330	12.5×35	0.087	0.24	1,450	ELXV800E□□331MK35S
	820	18×20	0.039	0.098	1,660	ELXV500E□□821MM20S		330	16×25	0.081	0.22	1,440	ELXV800E□□331ML25S
	1,000	16×30	0.029	0.073	2,150	ELXV500E□□102ML30S		390	12.5×40	0.060	0.17	1,610	ELXV800E□□391MK40S
	1,000	18×25	0.030	0.075	2,020	ELXV500E□□102MM25S		390	18×20	0.085	0.23	1,450	ELXV800E□□391MM20S
	1,200	16×35	0.025	0.063	2,320	ELXV500E□□122ML35S		470	16×30	0.058	0.16	1,790	ELXV800E□□471ML30S
	1,500	16×40	0.021	0.053	2,650	ELXV500E□□152ML40S		470	18×25	0.070	0.19	1,650	ELXV800E□□471MM25S
	1,500	18×30	0.026	0.065	2,340	ELXV500E□□152MM30S		560	16×35	0.052	0.14	2,000	ELXV800E□□561ML35S
	1,800	18×35	0.023	0.058	2,620	ELXV500E□□182MM35S		680	16×40	0.041	0.11	2,200	ELXV800E□□681ML40S
2,200	18×40	0.020	0.050	2,790	ELXV500E□□222MM40S	680	18×30	0.058	0.16	1,850	ELXV800E□□681MM30S		
63	12	5×11.5	1.9	4.8	100	ELXV630E□□120MEB5D	100	5.6	5×11.5	1.9	5.1	100	ELXV101E□□5R6MEB5D
	27	6.3×11.5	1.1	2.8	160	ELXV630E□□270MFB5D		12	6.3×11.5	1.1	3.0	150	ELXV101E□□120MFB5D
	39	6.3×15	0.62	1.6	230	ELXV630E□□390MF15D		18	6.3×15	0.62	1.7	220	ELXV101E□□180MF15D
	47	8×12	0.49	1.3	275	ELXV630E□□470MH12D		22	8×12	0.53	1.5	275	ELXV101E□□220MH12D
	56	10×12.5	0.27	0.68	420	ELXV630E□□560MJC5S		27	10×12.5	0.47	1.3	380	ELXV101E□□270MJC5S
	68	8×15	0.34	0.85	360	ELXV630E□□680MH15D		33	8×15	0.35	0.97	360	ELXV101E□□330MH15D
	68	10×16	0.21	0.53	523	ELXV630E□□680MJ16S		33	10×16	0.33	0.90	500	ELXV101E□□330MJ16S
	82	8×20	0.21	0.53	500	ELXV630E□□820MH20D		39	8×20	0.27	0.74	490	ELXV101E□□390MH20D
	120	10×20	0.16	0.40	650	ELXV630E□□121MJ20S		56	10×20	0.26	0.70	620	ELXV101E□□560MJ20S
	150	10×25	0.13	0.33	780	ELXV630E□□151MJ25S		68	10×25	0.19	0.52	795	ELXV101E□□680MJ25S
	180	10×30	0.10	0.25	960	ELXV630E□□181MJ30S		100	10×30	0.15	0.41	955	ELXV101E□□101MJ30S
	220	12.5×20	0.11	0.28	870	ELXV630E□□221MK20S		100	12.5×20	0.15	0.41	890	ELXV101E□□101MK20S
	270	12.5×25	0.074	0.19	1,150	ELXV630E□□271MK25S		120	12.5×25	0.11	0.30	1,040	ELXV101E□□121MK25S
	390	12.5×30	0.068	0.17	1,280	ELXV630E□□391MK30S		180	12.5×30	0.094	0.26	1,270	ELXV101E□□181MK30S
	390	16×20	0.085	0.22	1,100	ELXV630E□□391ML20S		180	16×20	0.11	0.30	1,240	ELXV101E□□181ML20S
	470	12.5×35	0.063	0.16	1,390	ELXV630E□□471MK35S		220	12.5×35	0.087	0.24	1,450	ELXV101E□□221MK35S
	470	16×25	0.055	0.14	1,480	ELXV630E□□471ML25S		220	16×25	0.081	0.22	1,440	ELXV101E□□221ML25S
	560	12.5×40	0.051	0.13	1,530	ELXV630E□□561MK40S		270	12.5×40	0.060	0.17	1,610	ELXV101E□□271MK40S
	560	18×20	0.085	0.22	1,170	ELXV630E□□561MM20S		270	18×20	0.085	0.23	1,450	ELXV101E□□271MM20S
	680	16×30	0.046	0.12	1,720	ELXV630E□□681ML30S		330	16×30	0.058	0.16	1,790	ELXV101E□□331ML30S
	680	18×25	0.055	0.14	1,520	ELXV630E□□681MM25S		330	18×25	0.070	0.19	1,650	ELXV101E□□331MM25S
820	16×35	0.040	0.10	1,910	ELXV630E□□821ML35S	390	16×35	0.052	0.14	2,000	ELXV101E□□391ML35S		
820	18×30	0.046	0.12	1,770	ELXV630E□□821MM30S	390	18×30	0.058	0.16	1,850	ELXV101E□□391MM30S		
1,000	16×40	0.036	0.09	2,070	ELXV630E□□102ML40S	470	16×40	0.041	0.11	2,200	ELXV101E□□471ML40S		
1,000	18×35	0.040	0.10	1,970	ELXV630E□□102MM35S	560	18×35	0.052	0.14	1,990	ELXV101E□□561MM35S		
1,200	18×40	0.036	0.09	2,130	ELXV630E□□122MM40S	680	18×40	0.041	0.11	2,370	ELXV101E□□681MM40S		
80	8.2	5×11.5	1.9	5.1	100	ELXV800E□□8R2MEB5D							
	18	6.3×11.5	1.1	3.0	150	ELXV800E□□180MFB5D							

□ □ : Enter the appropriate lead forming or taping code.

◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

Rated voltage (V <sub>ac</sub> )	Case size ϕD (mm)	Frequency (Hz)				Rated voltage (V <sub>ac</sub> )	Case size ϕD (mm)	Frequency (Hz)			
		120	1k	10k	100k			120	1k	10k	100k
6.3 & 10	5 to 8	0.65	0.83	0.95	1.00	35 & 50	5 to 8	0.40	0.66	0.85	1.00
	10 & 12.5	0.70	0.85	0.96	1.00		10 & 12.5	0.50	0.73	0.89	1.00
	16 & 18	0.85	0.92	0.97	1.00		16 & 18	0.60	0.81	0.94	1.00
16 & 25	5 to 8	0.55	0.76	0.91	1.00	63 to 100	5 to 8	0.20	0.55	0.80	1.00
	10 & 12.5	0.65	0.83	0.93	1.00		10 & 12.5	0.35	0.65	0.85	1.00
	16 & 18	0.70	0.87	0.96	1.00		16 & 18	0.50	0.75	0.90	1.00

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.