



LARGE CAPACITANCE ALUMINUM ELECTROLYTIC CAPACITORS Long life, Overvoltage-proof design, 105°C

LXH Series

- No sparks against DC over-voltage
- Same case sizes of KMH
- Endurance with ripple current : 105°C 5000 hours
- Non solvent-proof type

LXH

↑
downsized
longer life
KLG

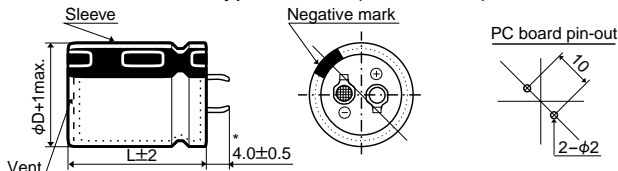


◆ SPECIFICATIONS

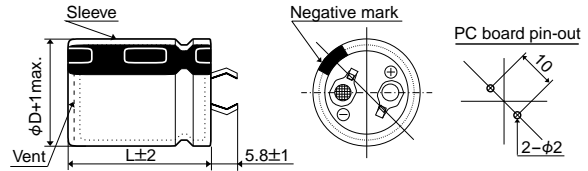
Items	Characteristics						
Category							
Temperature Range	-25 to +105°C						
Rated Voltage	200 & 400V _{dc}						
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)						
Leakage Current	I=0.02CV or 3mA, whichever is smaller. Where, I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V) (at 20°C after 5 minutes)						
Dissipation Factor (tanδ)	0.15 max. (at 20°C, 120Hz)						
Low Temperature Characteristics	Z(-25°C) / Z(+20°C) ≤ 4 (at 120Hz)						
ESL	50nH max. (at 20°C, 1MHz)						
DC Overvoltage Test	When an excessive DC voltage is applied to the capacitors under the test conditions on next page, the vent shall operate and then the capacitors shall become open-circuit without burning materials.						
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 for 3000 or 5000 hours at 105°C. <table border="1" style="margin-left: 20px;"> <tr> <td>Capacitance change</td> <td>≤ ±20% of the initial value</td> </tr> <tr> <td>D.F. (tanδ)</td> <td>≤ 200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤ The initial specified value</td> </tr> </table>	Capacitance change	≤ ±20% of the initial value	D.F. (tanδ)	≤ 200% of the initial specified value	Leakage current	≤ The initial specified value
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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°C after exposing them for 1000 hours at 105°C without voltage applied. <table border="1" style="margin-left: 20px;"> <tr> <td>Capacitance change</td> <td>≤ ±15% of the initial value</td> </tr> <tr> <td>D.F. (tanδ)</td> <td>≤ 150% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤ The initial specified value</td> </tr> </table>	Capacitance change	≤ ±15% of the initial value	D.F. (tanδ)	≤ 150% of the initial specified value	Leakage current	≤ The initial specified value
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◆ DIMENSIONS [mm]

● Standard Terminal Type : VSSN (φ22 to φ35)

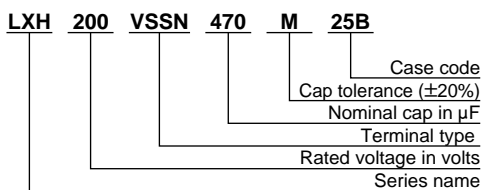


● Terminal Type : VNSN (φ22 to φ35)



* : φD=35mm : 3.5±0.5mm

◆ PART NUMBERING SYSTEM



◆ CASE CODE [mm]

Case code	Case size φDXL	Case code	Case size φDXL	Case code	Case size φDXL	Case code	Case size φDXL
22A	22×25	25A	25.4×25	30A	30×25	35A	35×25
22B	22×30	25B	25.4×30	30B	30×30	35B	35×30
22C	22×35	25C	25.4×35	30C	30×35	35C	35×35
22D	22×40	25D	25.4×40	30D	30×40	35D	35×40
22E	22×45	25E	25.4×45	30E	30×45	35E	35×45
22F	22×50	25F	25.4×50	30F	30×50	—	—

◆ RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

Frequency (Hz)	50	120	300	1k	10k	50k
200V _{dc}	0.81	1.00	1.17	1.32	1.45	1.50
400V _{dc}	0.77	1.00	1.16	1.30	1.41	1.43

◆STANDARD RATINGS

μF	V _{dc}		200							
	φ		22		25.4		30		35	
270	22×25 ← Upper : Case size φD×L (mm)									
	0.45	0.87								
330	22×30		25.4×25							
	0.62	1.20	0.62	1.21						
390	22×35		25.4×30							
	0.67	1.31	0.66	1.28						
470	22×40		25.4×30		30×25					
	0.72	1.40	0.72	1.41	0.77	1.50				
560	22×45		25.4×35		30×30					
	0.80	1.56	0.78	1.53	0.81	1.57				
680	22×50		25.4×40		30×30		35×25			
	0.89	1.74	0.89	1.74	0.89	1.74	0.88	1.72		
820	↑		25.4×50		30×35		35×30			
			1.05	2.04	1.03	2.00	1.05	2.04		
1,000	↑		30×45		35×35					
			1.18	2.30	1.18	2.30				
1,200	↑		30×50		35×40					
			1.33	2.60	1.36	2.65				
1,500	↑		35×45							
			1.57	3.08						

Rated ripple current for 3000 hours at 105°C (Arms, 120Hz)
Rated ripple current for 5000 hours at 105°C (Arms, 120Hz)

μF	V _{dc}		400							
	φ		22		25.4		30		35	
68	22×25 ← Upper : Case size φD×L (mm)									
	0.26	0.51								
82	22×30		25.4×25							
	0.30	0.58	0.30	0.58						
100	22×35		25.4×30							
	0.34	0.66	0.34	0.66						
120	22×40		25.4×30		30×25					
	0.37	0.72	0.37	0.72	0.39	0.76				
150	22×45		25.4×35		30×30					
	0.42	0.82	0.43	0.84	0.43	0.84				
180	22×50		25.4×40		30×30		35×25			
	0.49	0.95	0.48	0.94	0.47	0.92	0.48	0.94		
220	↑		25.4×45		30×35		35×30			
			0.55	1.07	0.54	1.06	0.55	1.08		
270	↑		25.4×50		30×40		35×30			
			0.62	1.21	0.62	1.21	0.59	1.15		
330	↑		30×45		35×35					
			0.71	1.39	0.69	1.35				
390	↑		30×50		35×40					
			0.80	1.55	0.79	1.54				
470	↑		35×45							
			0.89	1.74						

Rated ripple current for 3000 hours at 105°C (Arms, 120Hz)
Rated ripple current for 5000 hours at 105°C (Arms, 120Hz)

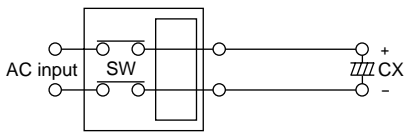
◆DC OVERVOLTAGE TEST CONDITIONS

The vent will operate and the capacitor shall become an open circuit without burning materials when the following excess DC voltage is applied.

●Test DC voltage

Rated Voltage	Capacitance	Current limit	Test DC voltage
200V _{dc}	<330μF	4A	300/375V _{dc}
	330≤C<470μF	5A	
	≥470μF	7A	
400V _{dc}	<100μF	2A	500/600V _{dc}
	100≤C<220μF	4A	
	≥220μF	7A	

●Test Circuit



Constant DC voltage/current power supply

●105°C Endurance with Rated Ripple Current

