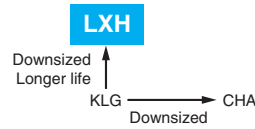




# LARGE CAPACITANCE ALUMINUM ELECTROLYTIC CAPACITORS Long life, Overvoltage resistant design, 105°C

## LXH Series

- Doesn't spark with DC over voltage
- Same case sizes of KMH
- Endurance with ripple current : 5,000 hours at 105°C
- Non solvent resistant type
- RoHS Compliant

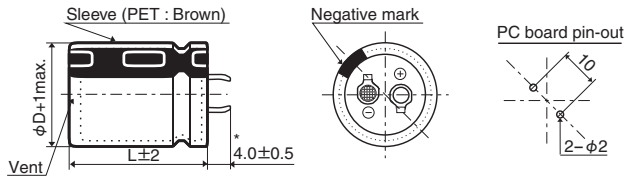


### ◆ SPECIFICATIONS

Items	Characteristics	
Category		
Temperature Range	-25 to +105°C	
Rated Voltage	200 & 400V <sub>dc</sub>	
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 (the peak voltage shall not exceed the rated voltage) for 5,000 or 3,000 hours at 105°C	
	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°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	≤ ±15% of the initial value
	D.F. (tanδ)	≤ 150% of the initial specified value
	Leakage current	≤ The initial specified value

### ◆ DIMENSIONS [mm]

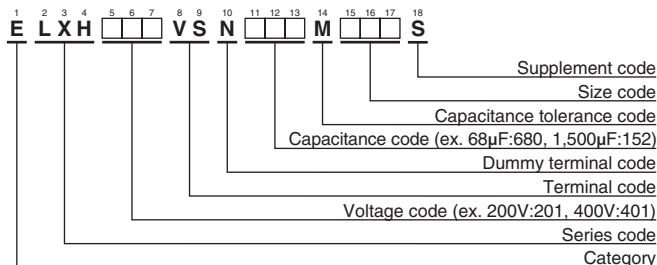
- Terminal Code : VS (φ22 to φ35)



\* φD=35mm : 3.5±0.5mm

The standard design has no plastic disc.

### ◆ PART NUMBERING SYSTEM



Please refer to "Product code guide (snap-in type)"

### ◆ RATED RIPPLE CURRENT MULTIPLIERS

- Frequency Multipliers

Frequency (Hz)	50	120	300	1k	10k	50k
200V <sub>dc</sub>	0.81	1.00	1.17	1.32	1.45	1.50
400V <sub>dc</sub>	0.77	1.00	1.16	1.30	1.41	1.43

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.

### ◆STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/105°C,120Hz)		Part No.
				5,000 hours	3,000 hours	
200	270	22×25	0.15	0.45	0.87	ELXH201VSN271MP25S
	330	22×30	0.15	0.62	1.20	ELXH201VSN331MP30S
	330	25.4×25	0.15	0.62	1.21	ELXH201VSN331MQ25S
	390	22×35	0.15	0.67	1.31	ELXH201VSN391MP35S
	390	25.4×30	0.15	0.66	1.28	ELXH201VSN391MQ30S
	470	22×40	0.15	0.72	1.40	ELXH201VSN471MP40S
	470	25.4×30	0.15	0.72	1.41	ELXH201VSN471MQ30S
	470	30×25	0.15	0.77	1.50	ELXH201VSN471MR25S
	560	22×45	0.15	0.80	1.56	ELXH201VSN561MP45S
	560	25.4×35	0.15	0.78	1.53	ELXH201VSN561MQ35S
	560	30×30	0.15	0.81	1.57	ELXH201VSN561MR30S
	680	22×50	0.15	0.89	1.74	ELXH201VSN681MP50S
	680	25.4×40	0.15	0.89	1.74	ELXH201VSN681MQ40S
	680	30×30	0.15	0.89	1.74	ELXH201VSN681MR30S
	680	35×25	0.15	0.88	1.72	ELXH201VSN681MA25S
	820	25.4×50	0.15	1.05	2.04	ELXH201VSN821MQ50S
	820	30×35	0.15	1.03	2.00	ELXH201VSN821MR35S
	820	35×30	0.15	1.05	2.04	ELXH201VSN821MA30S
	1,000	30×45	0.15	1.18	2.30	ELXH201VSN102MR45S
	1,000	35×35	0.15	1.18	2.30	ELXH201VSN102MA35S
1,200	30×50	0.15	1.33	2.60	ELXH201VSN122MR50S	
1,200	35×40	0.15	1.36	2.65	ELXH201VSN122MA40S	
1,500	35×45	0.15	1.57	3.08	ELXH201VSN152MA45S	
400	68	22×25	0.15	0.26	0.51	ELXH401VSN680MP25S
	68	25.4×20	0.15	0.24	0.46	ELXH401VSN680MQ20S
	82	22×30	0.15	0.30	0.58	ELXH401VSN820MP30S
	82	25.4×25	0.15	0.30	0.58	ELXH401VSN820MQ25S
	100	22×35	0.15	0.34	0.66	ELXH401VSN101MP35S
	100	25.4×30	0.15	0.34	0.66	ELXH401VSN101MQ30S
	120	22×40	0.15	0.37	0.72	ELXH401VSN121MP40S
	120	25.4×30	0.15	0.37	0.72	ELXH401VSN121MQ30S
	120	30×25	0.15	0.39	0.76	ELXH401VSN121MR25S
	150	22×45	0.15	0.42	0.82	ELXH401VSN151MP45S
	150	25.4×35	0.15	0.43	0.84	ELXH401VSN151MQ35S
	150	30×30	0.15	0.43	0.84	ELXH401VSN151MR30S
	180	22×50	0.15	0.49	0.95	ELXH401VSN181MP50S
	180	25.4×40	0.15	0.48	0.94	ELXH401VSN181MQ40S
	180	30×30	0.15	0.47	0.92	ELXH401VSN181MR30S
	180	35×25	0.15	0.48	0.94	ELXH401VSN181MA25S
	220	25.4×45	0.15	0.55	1.07	ELXH401VSN221MQ45S
	220	30×35	0.15	0.54	1.06	ELXH401VSN221MR35S
	220	35×30	0.15	0.55	1.08	ELXH401VSN221MA30S
	270	25.4×50	0.15	0.62	1.21	ELXH401VSN271MQ50S
	270	30×40	0.15	0.62	1.21	ELXH401VSN271MR40S
	270	35×30	0.15	0.59	1.15	ELXH401VSN271MA30S
	330	30×45	0.15	0.71	1.39	ELXH401VSN331MR45S
	330	35×35	0.15	0.69	1.35	ELXH401VSN331MA35S
	390	30×50	0.15	0.80	1.55	ELXH401VSN391MR50S
	390	35×40	0.15	0.79	1.54	ELXH401VSN391MA40S
	470	35×45	0.15	0.89	1.74	ELXH401VSN471MA45S

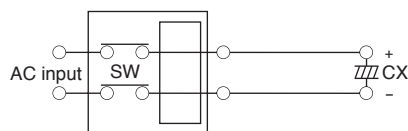
### ◆DC OVERVOLTAGE TEST CONDITIONS

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

#### ●Test DC voltage

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

#### ●Test Circuit



Constant DC voltage/current power supply