

# LXM Series

- Endurance with ripple current : 7,000 hours at 105°C
- Non solvent resistant type
- RoHS2 Compliant

LXM

Longer life

LXQ



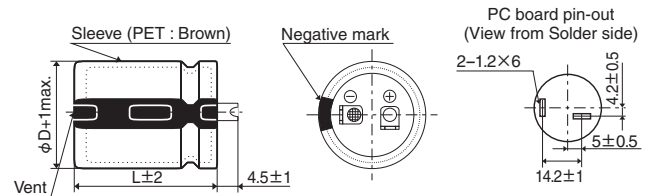
## SPECIFICATIONS

Items	Characteristics		
Category	-25 to +105°C		
Temperature Range	-25 to +105°C		
Rated Voltage Range	160 to 450V <sub>dc</sub>		
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)		
Leakage Current	I ≤ 3√CV Where, I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V) (at 20°C after 5 minutes)		
Dissipation Factor (tan δ)	Rated voltage (V <sub>dc</sub> )	160 to 400V	420 & 450V
	tan δ (Max.)	0.15	0.20
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )	160 to 400V	420 & 450V
	Z (-25°C)/Z (+20°C)	4	8
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 7,000 hours at 105°C.		
	Capacitance change	≤ ±20% of the initial value	
	D.F. (tan δ)	≤ 250% 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. (tan δ)	≤ 150% of the initial specified value	
	Leakage current	≤ The initial specified value	

## DIMENSIONS [mm]

Terminal Code : VS (φ22 to φ35) : Standard

Terminal Code : LI (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)"

STANDARD RATINGS

Table with columns: WV (Vdc), Cap (uF), Case size (phi D x L (mm)), tan delta, Rated ripple current (Arms/105°C, 120Hz), Part No. Rows include models 160, 180, and 200.

Table with columns: WV (Vdc), Cap (uF), Case size (phi D x L (mm)), tan delta, Rated ripple current (Arms/105°C, 120Hz), Part No. Rows include models 220, 250, and 315.

Product specifications in this catalog are subject to change without notice. Request our product specifications before purchase and/or use. Please use our products based on the information contained in this catalog and product specifications.

◆STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/105°C, 120Hz)	Part No.	WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/105°C, 120Hz)	Part No.
350	100	22 × 25	0.15	0.67	ELXM351VSN101MP25S	420	56	22 × 25	0.20	0.50	ELXM421VSN560MP25S
	120	22 × 30	0.15	0.77	ELXM351VSN121MP30S		68	22 × 30	0.20	0.58	ELXM421VSN680MP30S
	120	25.4 × 25	0.15	0.76	ELXM351VSN121MQ25S		82	22 × 30	0.20	0.63	ELXM421VSN820MP30S
	150	22 × 35	0.15	0.88	ELXM351VSN151MP35S		82	25.4 × 25	0.20	0.63	ELXM421VSN820MQ25S
	150	25.4 × 30	0.15	0.88	ELXM351VSN151MQ30S		100	22 × 35	0.20	0.72	ELXM421VSN101MP35S
	180	22 × 40	0.15	0.99	ELXM351VSN181MP40S		100	25.4 × 30	0.20	0.72	ELXM421VSN101MQ30S
	180	25.4 × 30	0.15	0.96	ELXM351VSN181MQ30S		120	22 × 40	0.20	0.81	ELXM421VSN121MP40S
	180	30 × 25	0.15	0.98	ELXM351VSN181MR25S		120	25.4 × 30	0.20	0.79	ELXM421VSN121MQ30S
	220	22 × 45	0.15	1.12	ELXM351VSN221MP45S		120	30 × 25	0.20	0.80	ELXM421VSN121MR25S
	220	25.4 × 35	0.15	1.11	ELXM351VSN221MQ35S		150	22 × 45	0.20	0.92	ELXM421VSN151MP45S
	220	30 × 30	0.15	1.11	ELXM351VSN221MR30S		150	25.4 × 35	0.20	0.92	ELXM421VSN151MQ35S
	270	25.4 × 40	0.15	1.26	ELXM351VSN271MQ40S		150	30 × 30	0.20	0.92	ELXM421VSN151MR30S
	270	30 × 35	0.15	1.28	ELXM351VSN271MR35S		180	25.4 × 40	0.20	1.03	ELXM421VSN181MQ40S
	330	25.4 × 45	0.15	1.40	ELXM351VSN331MQ45S		180	30 × 35	0.20	1.05	ELXM421VSN181MR35S
	330	30 × 35	0.15	1.42	ELXM351VSN331MR35S		220	25.4 × 50	0.20	1.19	ELXM421VSN221MP50S
	330	35 × 30	0.15	1.45	ELXM351VSN331MA30S		220	30 × 35	0.20	1.16	ELXM421VSN221MR35S
	390	30 × 40	0.15	1.60	ELXM351VSN391MR40S		220	35 × 30	0.20	1.18	ELXM421VSN221MA30S
	390	35 × 35	0.15	1.61	ELXM351VSN391MA35S		270	30 × 45	0.20	1.38	ELXM421VSN271MR45S
	470	30 × 50	0.15	1.86	ELXM351VSN471MR50S		270	35 × 35	0.20	1.34	ELXM421VSN271MA35S
	470	35 × 40	0.15	1.85	ELXM351VSN471MA40S		330	30 × 50	0.20	1.56	ELXM421VSN331MR50S
560	35 × 40	0.15	2.02	ELXM351VSN561MA40S	330	35 × 40	0.20	1.55	ELXM421VSN331MA40S		
680	35 × 50	0.15	2.36	ELXM351VSN681MA50S	390	35 × 45	0.20	1.74	ELXM421VSN391MA45S		
400	68	22 × 25	0.15	0.55	ELXM401VSN680MP25S	470	35 × 50	0.20	1.96	ELXM421VSN471MA50S	
	82	22 × 30	0.15	0.63	ELXM401VSN820MP30S	450	47	22 × 25	0.20	0.46	ELXM451VSN470MP25S
	100	22 × 30	0.15	0.70	ELXM401VSN101MP30S		56	22 × 30	0.20	0.52	ELXM451VSN560MP30S
	100	25.4 × 25	0.15	0.70	ELXM401VSN101MQ25S		68	22 × 30	0.20	0.58	ELXM451VSN680MP30S
	120	22 × 35	0.15	0.79	ELXM401VSN121MP35S		68	25.4 × 25	0.20	0.58	ELXM451VSN680MQ25S
	120	25.4 × 30	0.15	0.79	ELXM401VSN121MQ30S		82	22 × 35	0.20	0.65	ELXM451VSN820MP35S
	150	22 × 40	0.15	0.90	ELXM401VSN151MP40S		82	25.4 × 30	0.20	0.65	ELXM451VSN820MQ30S
	150	25.4 × 30	0.15	0.88	ELXM401VSN151MQ30S		100	22 × 40	0.20	0.74	ELXM451VSN101MP40S
	150	30 × 25	0.15	0.90	ELXM401VSN151MR25S		100	25.4 × 30	0.20	0.72	ELXM451VSN101MQ30S
	180	22 × 45	0.15	0.99	ELXM401VSN181MP45S		100	30 × 25	0.20	0.73	ELXM451VSN101MR25S
	180	25.4 × 35	0.15	1.01	ELXM401VSN181MQ35S		120	22 × 45	0.20	0.83	ELXM451VSN121MP45S
	180	30 × 30	0.15	1.01	ELXM401VSN181MR30S		120	25.4 × 35	0.20	0.82	ELXM451VSN121MQ35S
	220	25.4 × 40	0.15	1.14	ELXM401VSN221MQ40S		120	30 × 30	0.20	0.82	ELXM451VSN121MR30S
	220	30 × 35	0.15	1.16	ELXM401VSN221MR35S		150	25.4 × 40	0.20	0.94	ELXM451VSN151MQ40S
	270	25.4 × 50	0.15	1.32	ELXM401VSN271MQ50S		150	30 × 35	0.20	0.96	ELXM451VSN151MR35S
	270	30 × 40	0.15	1.33	ELXM401VSN271MR40S		180	25.4 × 45	0.20	1.06	ELXM451VSN181MQ45S
	270	35 × 30	0.15	1.31	ELXM401VSN271MA30S		180	30 × 35	0.20	1.05	ELXM451VSN181MR35S
	330	30 × 45	0.15	1.52	ELXM401VSN331MR45S		180	35 × 30	0.20	1.07	ELXM451VSN181MA30S
	330	35 × 35	0.15	1.48	ELXM401VSN331MA35S		220	30 × 40	0.20	1.20	ELXM451VSN221MR40S
	390	30 × 50	0.15	1.69	ELXM401VSN391MR50S		220	35 × 35	0.20	1.21	ELXM451VSN221MA35S
390	35 × 40	0.15	1.68	ELXM401VSN391MA40S	270		30 × 50	0.20	1.41	ELXM451VSN271MR50S	
470	35 × 45	0.15	1.91	ELXM401VSN471MA45S	270	35 × 40	0.20	1.40	ELXM451VSN271MA40S		
560	35 × 50	0.15	2.14	ELXM401VSN561MA50S	330	35 × 45	0.20	1.60	ELXM451VSN331MA45S		
					390	35 × 50	0.20	1.79	ELXM451VSN391MA50S		

◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
160 to 250V <sub>dc</sub>	0.81	1.00	1.17	1.32	1.45	1.50
315 to 450V <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.