

# LXS Series

- For solar power generation
- Endurance with ripple current : 5,000 hours at 105°C
- Rated voltage range : 160 to 500V
- Downsized from LXQ series
- Non solvent resistant type
- RoHS Compliant



**500V  
Lineup!**



## ◆ SPECIFICATIONS

Items	Characteristics		
<b>Category</b>	-25 to +105°C		
<b>Temperature Range</b>	-25 to +105°C		
<b>Rated Voltage Range</b>	160 to 500V <sub>dc</sub>		
<b>Capacitance Tolerance</b>	±20% (M) (at 20°C, 120Hz)		
<b>Leakage Current</b>	I ≤ 3/CV Where, I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V) (at 20°C after 5 minutes)		
<b>Dissipation Factor (tan δ)</b>	Rated voltage (V <sub>dc</sub> )	160 to 400V	420 to 500V
	tan δ (Max.)	0.15	0.20
<b>Low Temperature Characteristics (Max. Impedance Ratio)</b>	Rated voltage (V <sub>dc</sub> )	160 to 400V	420 to 500V
	Z(-25°C)/Z(+20°C)	4	8
<b>Endurance</b>	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 hours at 105°C.		
	Capacitance change	≤ ±20% of the initial value	
	D.F. (tan δ)	≤ 200% of the initial specified value (500V <sub>dc</sub> : ≤ 250%)	
	Leakage current	≤ The initial specified value	
<b>Shelf Life</b>	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

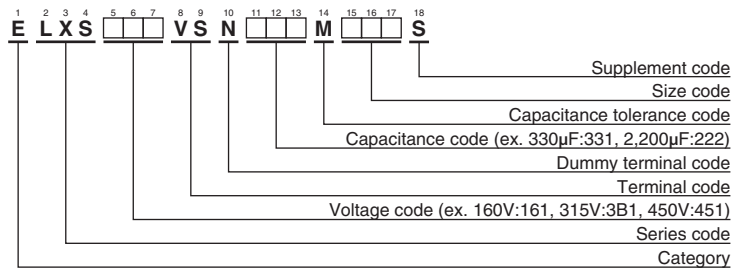


- Terminal Code : LI (φ30, φ35)



The standard design has no plastic disc.

## ◆ PART NUMBERING SYSTEM



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

### ◆ 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.	
160	470	22 × 25	0.15	1.47	ELXS161VSN471MP25S	200	1,500	35 × 35	0.15	3.36	ELXS201VSN152MA35S	
	680	22 × 30	0.15	1.86	ELXS161VSN681MP30S		1,800	30 × 50	0.15	3.72	ELXS201VSN182MR50S	
	680	25.4 × 25	0.15	1.84	ELXS161VSN681MQ25S		1,800	35 × 40	0.15	3.81	ELXS201VSN182MA40S	
	820	22 × 35	0.15	2.09	ELXS161VSN821MP35S		2,200	35 × 45	0.15	4.32	ELXS201VSN222MA45S	
	820	25.4 × 30	0.15	2.08	ELXS161VSN821MQ30S		2,700	35 × 50	0.15	4.88	ELXS201VSN272MA50S	
	1,000	22 × 40	0.15	2.35	ELXS161VSN102MP40S		250	270	22 × 25	0.15	1.11	ELXS251VSN271MP25S
	1,000	22 × 45	0.15	2.40	ELXS161VSN102MP45S			330	22 × 30	0.15	1.29	ELXS251VSN331MP30S
	1,000	25.4 × 35	0.15	2.40	ELXS161VSN102MQ35S			390	22 × 35	0.15	1.44	ELXS251VSN391MP35S
	1,000	30 × 25	0.15	2.50	ELXS161VSN102MR25S			390	25.4 × 25	0.15	1.40	ELXS251VSN391MQ25S
	1,200	22 × 50	0.15	2.69	ELXS161VSN122MP50S			470	22 × 40	0.15	1.61	ELXS251VSN471MP40S
	1,200	25.4 × 40	0.15	2.68	ELXS161VSN122MQ40S	470		25.4 × 30	0.15	1.57	ELXS251VSN471MQ30S	
	1,200	30 × 30	0.15	2.77	ELXS161VSN122MR30S	560		22 × 45	0.15	1.79	ELXS251VSN561MP45S	
	1,200	35 × 25	0.15	2.91	ELXS161VSN122MA25S	560		25.4 × 35	0.15	1.79	ELXS251VSN561MQ35S	
	1,500	25.4 × 45	0.15	3.05	ELXS161VSN152MQ45S	560		30 × 25	0.15	1.87	ELXS251VSN561MR25S	
	1,500	30 × 35	0.15	3.17	ELXS161VSN152MR35S	680		22 × 50	0.15	2.02	ELXS251VSN681MP50S	
	1,800	25.4 × 50	0.15	3.40	ELXS161VSN182MQ50S	680	25.4 × 40	0.15	2.02	ELXS251VSN681MQ40S		
	1,800	30 × 40	0.15	3.57	ELXS161VSN182MR40S	680	30 × 30	0.15	2.08	ELXS251VSN681MR30S		
	1,800	35 × 30	0.15	3.62	ELXS161VSN182MA30S	680	35 × 25	0.15	2.19	ELXS251VSN681MA25S		
	2,200	30 × 45	0.15	4.05	ELXS161VSN222MR45S	820	25.4 × 45	0.15	2.26	ELXS251VSN821MQ45S		
	2,200	30 × 50	0.15	4.11	ELXS161VSN222MR50S	820	25.4 × 50	0.15	2.29	ELXS251VSN821MQ50S		
2,200	35 × 35	0.15	4.07	ELXS161VSN222MA35S	820	30 × 35	0.15	2.34	ELXS251VSN821MR35S			
2,700	35 × 40	0.15	4.67	ELXS161VSN272MA40S	820	35 × 30	0.15	2.45	ELXS251VSN821MA30S			
2,700	35 × 45	0.15	4.78	ELXS161VSN272MA45S	1,000	30 × 40	0.15	2.66	ELXS251VSN102MR40S			
3,300	35 × 50	0.15	5.40	ELXS161VSN332MA50S	1,200	30 × 45	0.15	2.99	ELXS251VSN122MR45S			
180	390	22 × 25	0.15	1.34	ELXS181VSN391MP25S	1,200	30 × 50	0.15	3.04	ELXS251VSN122MR50S		
	560	22 × 30	0.15	1.68	ELXS181VSN561MP30S	1,200	35 × 35	0.15	3.00	ELXS251VSN122MA35S		
	560	25.4 × 25	0.15	1.67	ELXS181VSN561MQ25S	1,200	35 × 40	0.15	3.11	ELXS251VSN122MA40S		
	680	22 × 35	0.15	1.90	ELXS181VSN681MP35S	1,500	35 × 45	0.15	3.56	ELXS251VSN152MA45S		
	820	22 × 40	0.15	2.13	ELXS181VSN821MP40S	1,800	35 × 50	0.15	3.98	ELXS251VSN182MA50S		
	820	25.4 × 30	0.15	2.08	ELXS181VSN821MQ30S	315	180	22 × 25	0.15	0.95	ELXS3B1VSN181MP25S	
	820	25.4 × 35	0.15	2.17	ELXS181VSN821MQ35S		220	22 × 30	0.15	1.10	ELXS3B1VSN221MP30S	
	820	30 × 25	0.15	2.26	ELXS181VSN821MR25S		220	25.4 × 25	0.15	1.10	ELXS3B1VSN221MQ25S	
	1,000	22 × 45	0.15	2.40	ELXS181VSN102MP45S		270	22 × 35	0.15	1.24	ELXS3B1VSN271MP35S	
	1,000	22 × 50	0.15	2.45	ELXS181VSN102MP50S		270	25.4 × 30	0.15	1.25	ELXS3B1VSN271MQ30S	
	1,000	25.4 × 40	0.15	2.45	ELXS181VSN102MQ40S		330	22 × 40	0.15	1.40	ELXS3B1VSN331MP40S	
	1,000	30 × 30	0.15	2.52	ELXS181VSN102MR30S		330	30 × 25	0.15	1.43	ELXS3B1VSN331MR25S	
	1,000	35 × 25	0.15	2.66	ELXS181VSN102MA25S		390	22 × 45	0.15	1.56	ELXS3B1VSN391MP45S	
	1,200	25.4 × 45	0.15	2.73	ELXS181VSN122MQ45S		390	22 × 50	0.15	1.59	ELXS3B1VSN391MP50S	
	1,200	30 × 35	0.15	2.83	ELXS181VSN122MR35S		390	25.4 × 35	0.15	1.57	ELXS3B1VSN391MQ35S	
	1,500	25.4 × 50	0.15	3.10	ELXS181VSN152MQ50S	470	25.4 × 40	0.15	1.76	ELXS3B1VSN471MQ40S		
	1,500	30 × 40	0.15	3.26	ELXS181VSN152MR40S	470	25.4 × 45	0.15	1.79	ELXS3B1VSN471MQ45S		
	1,500	35 × 30	0.15	3.31	ELXS181VSN152MA30S	470	30 × 30	0.15	1.73	ELXS3B1VSN471MR30S		
	1,800	30 × 45	0.15	3.66	ELXS181VSN182MR45S	470	35 × 25	0.15	1.82	ELXS3B1VSN471MA25S		
	1,800	35 × 35	0.15	3.68	ELXS181VSN182MA35S	560	25.4 × 50	0.15	1.99	ELXS3B1VSN561MQ50S		
2,200	30 × 50	0.15	4.11	ELXS181VSN222MR50S	560	30 × 35	0.15	1.93	ELXS3B1VSN561MR35S			
2,200	35 × 40	0.15	4.22	ELXS181VSN222MA40S	560	35 × 30	0.15	2.02	ELXS3B1VSN561MA30S			
2,200	35 × 45	0.15	4.32	ELXS181VSN222MA45S	680	30 × 40	0.15	2.19	ELXS3B1VSN681MR40S			
2,700	35 × 50	0.15	4.88	ELXS181VSN272MA50S	680	30 × 45	0.15	2.25	ELXS3B1VSN681MR45S			
200	390	22 × 25	0.15	1.34	ELXS201VSN391MP25S	680	35 × 35	0.15	2.26	ELXS3B1VSN681MA35S		
	470	22 × 30	0.15	1.54	ELXS201VSN471MP30S	820	30 × 50	0.15	2.51	ELXS3B1VSN821MR50S		
	560	22 × 35	0.15	1.72	ELXS201VSN561MP35S	820	35 × 40	0.15	2.57	ELXS3B1VSN821MA40S		
	560	25.4 × 25	0.15	1.67	ELXS201VSN561MQ25S	1,000	35 × 45	0.15	2.91	ELXS3B1VSN102MA45S		
	680	22 × 40	0.15	1.94	ELXS201VSN681MP40S	1,200	35 × 50	0.15	3.25	ELXS3B1VSN122MA50S		
	680	25.4 × 30	0.15	1.89	ELXS201VSN681MQ30S	400	120	22 × 25	0.15	0.77	ELXS401VSN121MP25S	
	680	30 × 25	0.15	2.06	ELXS201VSN681MR25S		150	22 × 30	0.15	0.90	ELXS401VSN151MP30S	
	820	22 × 45	0.15	2.17	ELXS201VSN821MP45S		180	22 × 35	0.15	1.02	ELXS401VSN181MP35S	
	820	25.4 × 35	0.15	2.17	ELXS201VSN821MQ35S		180	25.4 × 25	0.15	0.99	ELXS401VSN181MQ25S	
	1,000	22 × 50	0.15	2.45	ELXS201VSN102MP50S		220	22 × 40	0.15	1.15	ELXS401VSN221MP40S	
	1,000	25.4 × 40	0.15	2.45	ELXS201VSN102MQ40S		220	25.4 × 30	0.15	1.13	ELXS401VSN221MQ30S	
	1,000	30 × 30	0.15	2.52	ELXS201VSN102MR30S		220	30 × 25	0.15	1.17	ELXS401VSN221MQ25S	
	1,000	35 × 25	0.15	2.66	ELXS201VSN102MA25S		270	22 × 45	0.15	1.29	ELXS401VSN271MP45S	
	1,200	25.4 × 45	0.15	2.73	ELXS201VSN122MQ45S		270	22 × 50	0.15	1.32	ELXS401VSN271MP50S	
	1,200	25.4 × 50	0.15	2.78	ELXS201VSN122MQ50S		270	25.4 × 35	0.15	1.30	ELXS401VSN271MQ35S	
	1,200	30 × 35	0.15	2.83	ELXS201VSN122MR35S	330	25.4 × 40	0.15	1.47	ELXS401VSN331MQ40S		
	1,200	35 × 30	0.15	2.96	ELXS201VSN122MA30S	330	30 × 30	0.15	1.45	ELXS401VSN331MR30S		
	1,500	30 × 40	0.15	3.26	ELXS201VSN152MR40S	330	35 × 25	0.15	1.52	ELXS401VSN331MA25S		
	1,500	30 × 45	0.15	3.34	ELXS201VSN152MR45S	390	25.4 × 45	0.15	1.63	ELXS401VSN391MQ45S		

◆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.
400	390	25.4 × 50	0.15	1.66	ELXS401VSN391MQ50S
	390	30 × 35	0.15	1.61	ELXS401VSN391MR35S
	390	35 × 30	0.15	1.68	ELXS401VSN391MA30S
	470	30 × 40	0.15	1.82	ELXS401VSN471MR40S
	470	35 × 35	0.15	1.88	ELXS401VSN471MA35S
	560	30 × 45	0.15	2.04	ELXS401VSN561MR45S
	560	30 × 50	0.15	2.07	ELXS401VSN561MR50S
	560	35 × 40	0.15	2.13	ELXS401VSN561MA40S
	680	35 × 45	0.15	2.40	ELXS401VSN681MA45S
	820	35 × 50	0.15	2.69	ELXS401VSN821MA50S
420	100	22 × 25	0.20	0.70	ELXS421VSN101MP25S
	120	22 × 30	0.20	0.81	ELXS421VSN121MP30S
	120	25.4 × 25	0.20	0.81	ELXS421VSN121MQ25S
	150	22 × 35	0.20	0.93	ELXS421VSN151MP35S
	180	22 × 40	0.20	1.04	ELXS421VSN181MP40S
	180	25.4 × 30	0.20	1.02	ELXS421VSN181MQ30S
	180	30 × 25	0.20	1.06	ELXS421VSN181MR25S
	220	22 × 45	0.20	1.17	ELXS421VSN221MP45S
	220	22 × 50	0.20	1.20	ELXS421VSN221MP50S
	220	25.4 × 35	0.20	1.18	ELXS421VSN221MQ35S
	270	25.4 × 40	0.20	1.33	ELXS421VSN271MQ40S
	270	25.4 × 45	0.20	1.36	ELXS421VSN271MQ45S
	270	30 × 30	0.20	1.31	ELXS421VSN271MR30S
	270	35 × 25	0.20	1.38	ELXS421VSN271MA25S
	330	25.4 × 50	0.20	1.52	ELXS421VSN331MQ50S
	330	30 × 35	0.20	1.48	ELXS421VSN331MR35S
	330	35 × 30	0.20	1.55	ELXS421VSN331MA30S
	390	30 × 40	0.20	1.66	ELXS421VSN391MR40S
	390	30 × 45	0.20	1.70	ELXS421VSN391MR45S
	390	35 × 35	0.20	1.71	ELXS421VSN391MA35S
	470	30 × 50	0.20	1.90	ELXS421VSN471MR50S
	470	35 × 40	0.20	1.95	ELXS421VSN471MA40S
	560	35 × 45	0.20	2.17	ELXS421VSN561MA45S
	680	35 × 50	0.20	2.45	ELXS421VSN681MA50S

WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/105°C, 120Hz)	Part No.	
450	82	22 × 25	0.20	0.64	ELXS451VSN820MP25S	
	120	22 × 30	0.20	0.81	ELXS451VSN121MP30S	
	120	22 × 35	0.20	0.83	ELXS451VSN121MP35S	
	120	25.4 × 25	0.20	0.81	ELXS451VSN121MQ25S	
	150	22 × 40	0.20	0.94	ELXS451VSN151MP40S	
	150	25.4 × 30	0.20	0.93	ELXS451VSN151MQ30S	
	180	22 × 45	0.20	1.06	ELXS451VSN181MP45S	
	180	25.4 × 35	0.20	1.06	ELXS451VSN181MQ35S	
	180	30 × 25	0.20	1.06	ELXS451VSN181MR25S	
	220	22 × 50	0.20	1.20	ELXS451VSN221MP50S	
	220	25.4 × 40	0.20	1.20	ELXS451VSN221MQ40S	
	220	30 × 30	0.20	1.18	ELXS451VSN221MR30S	
	220	35 × 25	0.20	1.24	ELXS451VSN221MA25S	
	270	25.4 × 45	0.20	1.36	ELXS451VSN271MQ45S	
	270	25.4 × 50	0.20	1.38	ELXS451VSN271MQ50S	
	270	30 × 35	0.20	1.34	ELXS451VSN271MR35S	
	270	35 × 30	0.20	1.40	ELXS451VSN271MA30S	
	330	30 × 40	0.20	1.52	ELXS451VSN331MR40S	
	390	30 × 45	0.20	1.70	ELXS451VSN391MR45S	
	390	30 × 50	0.20	1.73	ELXS451VSN391MR50S	
	390	35 × 35	0.20	1.71	ELXS451VSN391MA35S	
	470	35 × 40	0.20	1.95	ELXS451VSN471MA40S	
	470	35 × 45	0.20	1.99	ELXS451VSN471MA45S	
	560	35 × 50	0.20	2.22	ELXS451VSN561MA50S	
	500	100	30 × 25	0.20	0.82	ELXS501VSN101MR25S
		120	30 × 30	0.20	0.91	ELXS501VSN121MR30S
120		35 × 25	0.20	0.88	ELXS501VSN121MA25S	
150		30 × 35	0.20	1.04	ELXS501VSN151MR35S	
180		30 × 40	0.20	1.17	ELXS501VSN181MR40S	
180		35 × 30	0.20	1.10	ELXS501VSN181MA30S	
220		30 × 45	0.20	1.33	ELXS501VSN221MR45S	
220		35 × 35	0.20	1.23	ELXS501VSN221MA35S	
270		30 × 50	0.20	1.50	ELXS501VSN271MR50S	
270		35 × 40	0.20	1.42	ELXS501VSN271MA40S	
330	35 × 45	0.20	1.60	ELXS501VSN331MA45S		
390	35 × 50	0.20	1.78	ELXS501VSN391MA50S		
470	35 × 60	0.20	2.03	ELXS501VSN471MA60S		

◆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
500V <sub>dc</sub>	0.70	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.