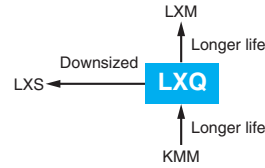


# LXQ Series

- Endurance with ripple current : 5,000 hours at 105°C
- Downsized and higher ripple version of LXG series
- Non solvent resistant type
- RoHS2 Compliant



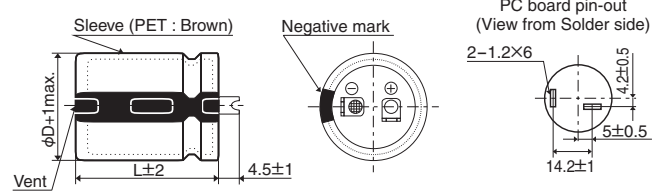
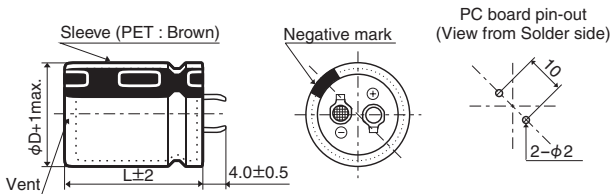
## SPECIFICATIONS

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 5,000 hours at 105°C. 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	≤ ±15% of the initial value	
	D.F. (tan δ)	≤ 150% of the initial specified value	
	Leakage current	≤ The initial specified value	

## DIMENSIONS [mm]

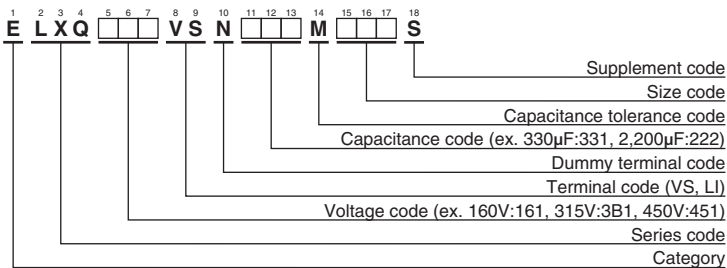
Terminal Code : VS (φ22 to φ35) : Standard

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	390	22 × 25	0.15	1.32	ELXQ161VSN391MP25S	200	1,200	30 × 50	0.15	2.88	ELXQ201VSN122MR50S
	560	22 × 30	0.15	1.66	ELXQ161VSN561MP30S		1,200	35 × 35	0.15	2.88	ELXQ201VSN122MA35S
	560	25.4 × 25	0.15	1.68	ELXQ161VSN561MQ25S		1,500	35 × 40	0.15	3.34	ELXQ201VSN152MA40S
	680	22 × 35	0.15	1.87	ELXQ161VSN681MP35S		1,800	35 × 45	0.15	3.74	ELXQ201VSN182MA45S
	680	25.4 × 30	0.15	1.88	ELXQ161VSN681MQ30S		1,800	35 × 50	0.15	3.82	ELXQ201VSN182MA50S
	680	30 × 25	0.15	1.96	ELXQ161VSN681MR25S		270	22 × 25	0.15	1.10	ELXQ221VSN271MP25S
	820	22 × 40	0.15	2.09	ELXQ161VSN821MP40S		330	22 × 30	0.15	1.19	ELXQ221VSN331MP30S
	1,000	22 × 45	0.15	2.36	ELXQ161VSN102MP45S		390	25.4 × 25	0.15	1.39	ELXQ221VSN391MQ25S
	1,000	22 × 50	0.15	2.41	ELXQ161VSN102MP50S		470	22 × 35	0.15	1.55	ELXQ221VSN471MP35S
	1,000	25.4 × 35	0.15	2.38	ELXQ161VSN102MQ35S		470	25.4 × 30	0.15	1.56	ELXQ221VSN471MQ30S
	1,000	30 × 30	0.15	2.40	ELXQ161VSN102MR30S		470	30 × 25	0.15	1.63	ELXQ221VSN471MR25S
	1,000	35 × 25	0.15	2.55	ELXQ161VSN102MA25S		560	22 × 40	0.15	1.73	ELXQ221VSN561MP40S
	1,200	25.4 × 40	0.15	2.66	ELXQ161VSN122MQ40S	560	30 × 30	0.15	1.79	ELXQ221VSN561MR30S	
	1,200	25.4 × 45	0.15	2.71	ELXQ161VSN122MQ45S	680	22 × 45	0.15	1.94	ELXQ221VSN681MP45S	
	1,200	30 × 35	0.15	2.69	ELXQ161VSN122MR35S	680	22 × 50	0.15	1.99	ELXQ221VSN681MQ50S	
	1,200	30 × 40	0.15	2.77	ELXQ161VSN122MR40S	680	25.4 × 35	0.15	1.96	ELXQ221VSN681MQ35S	
	1,200	35 × 30	0.15	2.86	ELXQ161VSN122MA30S	680	30 × 35	0.15	2.02	ELXQ221VSN681MP35S	
	1,500	25.4 × 50	0.15	3.08	ELXQ161VSN152MQ50S	680	35 × 25	0.15	2.10	ELXQ221VSN681MA25S	
	1,500	30 × 45	0.15	3.17	ELXQ161VSN152MR45S	820	25.4 × 40	0.15	2.20	ELXQ221VSN821MQ40S	
	1,500	35 × 35	0.15	3.22	ELXQ161VSN152MA35S	820	25.4 × 45	0.15	2.24	ELXQ221VSN821MQ45S	
	1,800	30 × 50	0.15	3.53	ELXQ161VSN182MR50S	820	30 × 40	0.15	2.29	ELXQ221VSN821MR40S	
	1,800	35 × 40	0.15	3.66	ELXQ161VSN182MA40S	820	35 × 30	0.15	2.36	ELXQ221VSN821MA30S	
	2,200	35 × 45	0.15	4.14	ELXQ161VSN222MA45S	1,000	25.4 × 50	0.15	2.51	ELXQ221VSN102MQ50S	
	2,700	35 × 50	0.15	4.68	ELXQ161VSN272MA50S	1,000	30 × 45	0.15	2.59	ELXQ221VSN102MR45S	
180	330	22 × 25	0.15	1.21	ELXQ181VSN331MP25S	1,000	35 × 35	0.15	2.63	ELXQ221VSN102MA35S	
	470	22 × 30	0.15	1.52	ELXQ181VSN471MP30S	1,200	30 × 50	0.15	2.88	ELXQ221VSN122MR50S	
	470	25.4 × 25	0.15	1.52	ELXQ181VSN471MQ25S	1,200	35 × 40	0.15	2.98	ELXQ221VSN122MA40S	
	560	22 × 35	0.15	1.70	ELXQ181VSN561MP35S	1,500	35 × 45	0.15	3.41	ELXQ221VSN152MA45S	
	560	30 × 25	0.15	1.78	ELXQ181VSN561MR25S	1,800	35 × 50	0.15	3.82	ELXQ221VSN182MA50S	
	680	22 × 40	0.15	1.91	ELXQ181VSN681MP40S	220	22 × 25	0.15	1.01	ELXQ251VSN221MP25S	
	680	25.4 × 30	0.15	1.88	ELXQ181VSN681MQ30S	270	22 × 30	0.15	1.20	ELXQ251VSN271MP30S	
	820	22 × 45	0.15	1.99	ELXQ181VSN821MP45S	330	25.4 × 25	0.15	1.32	ELXQ251VSN331MQ25S	
	820	25.4 × 35	0.15	2.16	ELXQ181VSN821MQ35S	390	22 × 35	0.15	1.44	ELXQ251VSN391MP35S	
	820	30 × 30	0.15	2.17	ELXQ181VSN821MR30S	390	25.4 × 30	0.15	1.43	ELXQ251VSN391MQ30S	
	820	35 × 25	0.15	2.31	ELXQ181VSN821MA25S	390	30 × 25	0.15	1.51	ELXQ251VSN391MR25S	
	1,000	22 × 50	0.15	2.25	ELXQ181VSN102MP50S	470	22 × 40	0.15	1.62	ELXQ251VSN471MP40S	
	1,000	25.4 × 40	0.15	2.43	ELXQ181VSN102MQ40S	560	22 × 45	0.15	1.80	ELXQ251VSN561MP45S	
	1,000	25.4 × 45	0.15	2.47	ELXQ181VSN102MQ45S	560	22 × 50	0.15	1.84	ELXQ251VSN561MP50S	
	1,000	30 × 35	0.15	2.46	ELXQ181VSN102MR35S	560	25.4 × 35	0.15	1.78	ELXQ251VSN561MQ35S	
	1,200	25.4 × 50	0.15	2.75	ELXQ181VSN122MQ50S	560	30 × 30	0.15	1.83	ELXQ251VSN561MR30S	
	1,200	30 × 40	0.15	2.77	ELXQ181VSN122MR40S	560	35 × 25	0.15	1.91	ELXQ251VSN561MA25S	
	1,200	35 × 30	0.15	2.86	ELXQ181VSN122MA30S	680	25.4 × 40	0.15	2.00	ELXQ251VSN681MQ40S	
	1,500	30 × 45	0.15	3.17	ELXQ181VSN152MR45S	680	25.4 × 45	0.15	2.04	ELXQ251VSN681MQ45S	
	1,500	30 × 50	0.15	3.22	ELXQ181VSN152MR50S	680	30 × 35	0.15	2.06	ELXQ251VSN681MR35S	
	1,500	35 × 35	0.15	3.22	ELXQ181VSN152MA35S	680	35 × 30	0.15	2.15	ELXQ251VSN681MA30S	
	1,800	35 × 40	0.15	3.66	ELXQ181VSN182MA40S	820	25.4 × 50	0.15	2.28	ELXQ251VSN821MQ50S	
	1,800	35 × 45	0.15	3.74	ELXQ181VSN182MA45S	820	30 × 40	0.15	2.33	ELXQ251VSN821MR40S	
	2,200	35 × 50	0.15	4.22	ELXQ181VSN222MA50S	820	30 × 45	0.15	2.39	ELXQ251VSN821MR45S	
200	270	22 × 25	0.15	1.10	ELXQ201VSN271MP25S	820	35 × 35	0.15	2.38	ELXQ251VSN821MA35S	
	390	22 × 30	0.15	1.38	ELXQ201VSN391MP30S	1,000	30 × 50	0.15	2.68	ELXQ251VSN102MR50S	
	390	25.4 × 25	0.15	1.39	ELXQ201VSN391MQ25S	1,000	35 × 40	0.15	2.72	ELXQ251VSN102MA40S	
	470	22 × 35	0.15	1.55	ELXQ201VSN471MP35S	1,200	35 × 45	0.15	3.05	ELXQ251VSN122MA45S	
	560	22 × 40	0.15	1.73	ELXQ201VSN561MP40S	1,500	35 × 50	0.15	3.49	ELXQ251VSN152MA50S	
	560	25.4 × 30	0.15	1.71	ELXQ201VSN561MQ30S	150	22 × 25	0.15	0.80	ELXQ3B1VSN151MP25S	
	560	30 × 25	0.15	1.78	ELXQ201VSN561MR25S	180	22 × 30	0.15	0.92	ELXQ3B1VSN181MP30S	
	680	22 × 45	0.15	1.81	ELXQ201VSN681MP45S	180	25.4 × 25	0.15	0.94	ELXQ3B1VSN181MQ25S	
	680	25.4 × 35	0.15	1.87	ELXQ201VSN681MQ35S	220	22 × 35	0.15	1.04	ELXQ3B1VSN221MP35S	
	680	30 × 30	0.15	1.98	ELXQ201VSN681MR30S	220	30 × 25	0.15	1.17	ELXQ3B1VSN221MR25S	
	680	35 × 25	0.15	2.10	ELXQ201VSN681MA25S	270	22 × 40	0.15	1.18	ELXQ3B1VSN271MP40S	
	820	22 × 50	0.15	2.18	ELXQ201VSN821MP50S	270	25.4 × 30	0.15	1.19	ELXQ3B1VSN271MQ30S	
	820	25.4 × 40	0.15	2.09	ELXQ201VSN821MQ40S	330	22 × 45	0.15	1.33	ELXQ3B1VSN331MP45S	
	820	30 × 35	0.15	2.22	ELXQ201VSN821MR35S	330	25.4 × 35	0.15	1.37	ELXQ3B1VSN331MQ35S	
	1,000	25.4 × 45	0.15	2.35	ELXQ201VSN102MQ45S	330	30 × 30	0.15	1.40	ELXQ3B1VSN331MR30S	
	1,000	25.4 × 50	0.15	2.39	ELXQ201VSN102MQ50S	330	35 × 25	0.15	1.49	ELXQ3B1VSN331MA25S	
	1,000	30 × 40	0.15	2.53	ELXQ201VSN102MR40S	390	22 × 50	0.15	1.48	ELXQ3B1VSN391MP50S	
	1,000	35 × 30	0.15	2.61	ELXQ201VSN102MA30S	390	25.4 × 40	0.15	1.52	ELXQ3B1VSN391MQ40S	
	1,200	30 × 45	0.15	2.84	ELXQ201VSN122MR45S	470	25.4 × 45	0.15	1.70	ELXQ3B1VSN471MQ45S	

◆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.	
315	470	30 × 35	0.15	1.71	ELXQ3B1VSN471MR35S	400	470	30 × 45	0.15	1.81	ELXQ401VSN471MR45S	
	470	35 × 30	0.15	1.82	ELXQ3B1VSN471MA30S		470	30 × 50	0.15	1.84	ELXQ401VSN471MR50S	
	560	25.4 × 50	0.15	1.88	ELXQ3B1VSN561MQ50S		470	35 × 40	0.15	1.90	ELXQ401VSN471MA40S	
	560	30 × 40	0.15	1.92	ELXQ3B1VSN561MR40S		560	35 × 45	0.15	2.12	ELXQ401VSN561MA45S	
	560	30 × 45	0.15	1.97	ELXQ3B1VSN561MR45S		680	35 × 50	0.15	2.39	ELXQ401VSN681MA50S	
	560	35 × 35	0.15	2.00	ELXQ3B1VSN561MA35S		420	100	22 × 25	0.20	0.66	ELXQ421VSN101MP25S
	680	30 × 50	0.15	2.21	ELXQ3B1VSN681MR50S			120	22 × 30	0.20	0.75	ELXQ421VSN121MP30S
	680	35 × 40	0.15	2.29	ELXQ3B1VSN681MA40S			120	25.4 × 25	0.20	0.77	ELXQ421VSN121MQ25S
	820	35 × 45	0.15	2.57	ELXQ3B1VSN821MA45S			150	22 × 35	0.20	0.86	ELXQ421VSN151MP35S
	1,000	35 × 50	0.15	2.89	ELXQ3B1VSN102MA50S			180	22 × 40	0.20	0.96	ELXQ421VSN181MP40S
350	120	22 × 25	0.15	0.72	ELXQ351VSN121MP25S	180		22 × 45	0.20	0.98	ELXQ421VSN181MP45S	
	150	22 × 30	0.15	0.84	ELXQ351VSN151MP30S	180		25.4 × 30	0.20	0.97	ELXQ421VSN181MQ30S	
	180	25.4 × 25	0.15	0.94	ELXQ351VSN181MQ25S	180		25.4 × 35	0.20	1.01	ELXQ421VSN181MQ35S	
	220	22 × 35	0.15	1.04	ELXQ351VSN221MP35S	180		30 × 25	0.20	1.02	ELXQ421VSN181MR25S	
	220	22 × 40	0.15	1.06	ELXQ351VSN221MP40S	220		22 × 50	0.20	1.11	ELXQ421VSN221MP50S	
	220	25.4 × 30	0.15	1.07	ELXQ351VSN221MQ30S	220		25.4 × 40	0.20	1.14	ELXQ421VSN221MQ40S	
	220	30 × 25	0.15	1.13	ELXQ351VSN221MR25S	220		30 × 30	0.20	1.14	ELXQ421VSN221MP30S	
	270	22 × 45	0.15	1.20	ELXQ351VSN271MP45S	220		35 × 25	0.20	1.22	ELXQ421VSN221MA25S	
	270	25.4 × 35	0.15	1.24	ELXQ351VSN271MQ35S	270		25.4 × 45	0.20	1.29	ELXQ421VSN271MQ45S	
	270	30 × 30	0.15	1.27	ELXQ351VSN271MR30S	270		30 × 35	0.20	1.30	ELXQ421VSN271MR35S	
	270	35 × 25	0.15	1.35	ELXQ351VSN271MA25S	270		35 × 30	0.20	1.38	ELXQ421VSN271MA30S	
	330	22 × 50	0.15	1.36	ELXQ351VSN331MP50S	330		25.4 × 50	0.20	1.44	ELXQ421VSN331MQ50S	
	330	25.4 × 40	0.15	1.39	ELXQ351VSN331MQ40S	330		30 × 40	0.20	1.48	ELXQ421VSN331MP40S	
	330	30 × 35	0.15	1.43	ELXQ351VSN331MR35S	330		35 × 35	0.20	1.54	ELXQ421VSN331MA35S	
	390	25.4 × 45	0.15	1.55	ELXQ351VSN391MQ45S	390		30 × 45	0.20	1.64	ELXQ421VSN391MR45S	
	390	30 × 40	0.15	1.60	ELXQ351VSN391MR40S	390	35 × 40	0.20	1.73	ELXQ421VSN391MA40S		
	390	35 × 30	0.15	1.66	ELXQ351VSN391MA30S	470	30 × 50	0.20	1.84	ELXQ421VSN471MR50S		
	470	25.4 × 50	0.15	1.72	ELXQ351VSN471MQ50S	470	35 × 45	0.20	1.94	ELXQ421VSN471MA45S		
	470	30 × 45	0.15	1.81	ELXQ351VSN471MR45S	560	35 × 50	0.20	2.17	ELXQ421VSN561MA50S		
	470	35 × 35	0.15	1.83	ELXQ351VSN471MA35S	450	82	22 × 25	0.20	0.59	ELXQ451VSN820MP25S	
560	30 × 50	0.15	2.00	ELXQ351VSN561MQ50S	100		22 × 30	0.20	0.69	ELXQ451VSN101MP30S		
560	35 × 40	0.15	2.07	ELXQ351VSN561MA40S	100		25.4 × 25	0.20	0.70	ELXQ451VSN101MQ25S		
680	35 × 45	0.15	2.34	ELXQ351VSN681MA45S	120		22 × 35	0.20	0.77	ELXQ451VSN121MP35S		
820	35 × 50	0.15	2.62	ELXQ351VSN821MA50S	150		22 × 40	0.20	0.88	ELXQ451VSN151MP40S		
400	100	22 × 25	0.15	0.66	ELXQ401VSN101MP25S		150	22 × 45	0.20	0.90	ELXQ451VSN151MP45S	
	120	22 × 30	0.15	0.75	ELXQ401VSN121MP30S		150	25.4 × 30	0.20	0.88	ELXQ451VSN151MQ30S	
	150	22 × 35	0.15	0.86	ELXQ401VSN151MP35S		150	25.4 × 35	0.20	0.92	ELXQ451VSN151MQ35S	
	150	25.4 × 25	0.15	0.86	ELXQ401VSN151MQ25S		150	30 × 25	0.20	0.93	ELXQ451VSN151MR25S	
	180	22 × 40	0.15	0.96	ELXQ401VSN181MP40S		180	22 × 50	0.20	1.01	ELXQ451VSN181MP50S	
	180	25.4 × 30	0.15	0.97	ELXQ401VSN181MQ30S		180	25.4 × 40	0.20	1.03	ELXQ451VSN181MQ40S	
	180	30 × 25	0.15	1.02	ELXQ401VSN181MR25S		180	30 × 30	0.20	1.03	ELXQ451VSN181MR30S	
	220	22 × 45	0.15	1.09	ELXQ401VSN221MP45S		180	35 × 25	0.20	1.10	ELXQ451VSN181MA25S	
	220	25.4 × 35	0.15	1.12	ELXQ401VSN221MQ35S		220	25.4 × 45	0.20	1.16	ELXQ451VSN221MQ45S	
	220	35 × 25	0.15	1.22	ELXQ401VSN221MA25S		220	30 × 35	0.20	1.17	ELXQ451VSN221MR35S	
	270	22 × 50	0.15	1.23	ELXQ401VSN271MP50S		220	35 × 30	0.20	1.24	ELXQ451VSN221MA30S	
	270	25.4 × 40	0.15	1.26	ELXQ401VSN271MQ40S		270	25.4 × 50	0.20	1.31	ELXQ451VSN271MQ50S	
	270	25.4 × 45	0.15	1.29	ELXQ401VSN271MQ45S		270	30 × 40	0.20	1.33	ELXQ451VSN271MR40S	
	270	30 × 30	0.15	1.27	ELXQ401VSN271MR30S		270	35 × 35	0.20	1.39	ELXQ451VSN271MA35S	
	330	25.4 × 50	0.15	1.44	ELXQ401VSN331MQ50S		330	30 × 45	0.20	1.51	ELXQ451VSN331MR45S	
	330	30 × 35	0.15	1.43	ELXQ401VSN331MR35S	390	30 × 50	0.20	1.67	ELXQ451VSN391MR50S		
	330	35 × 30	0.15	1.52	ELXQ401VSN331MA30S	390	35 × 40	0.20	1.73	ELXQ451VSN391MA40S		
	390	30 × 40	0.15	1.60	ELXQ401VSN391MR40S	390	35 × 45	0.20	1.77	ELXQ451VSN391MA45S		
	390	35 × 35	0.15	1.67	ELXQ401VSN391MA35S	470	35 × 50	0.20	1.98	ELXQ451VSN471MA50S		

◆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.