

KXQ Series

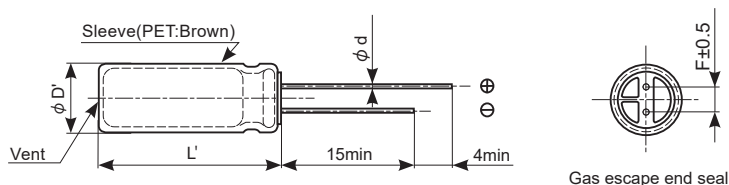
- Ideal for On-board battery charger applications
- Downsizing from KXJ series
- Rated voltage range : 400 to 500V_{dc}, Nominal capacitance range : 33 to 220μF
- Endurance with ripple current : 10,000 to 12,000 hours at 105°C
- Non solvent resistant type
- RoHS2 Compliant
- AEC-Q200 Compliant. Please contact Chemi-Con for more details, test data, information.

◆ SPECIFICATIONS

Items	Characteristics		
Category	-40 to +105°C		
Temperature Range			
Rated Voltage Range	400 to 500V _{dc}		
Capacitance Tolerance	±20% (M)		(at 20°C , 120Hz)
Leakage Current	I=0.04CV + 100 (at 20°C after 1 minute) I=0.02CV + 25 (at 20°C after 5 minutes) Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C)		
Dissipation Factor (tan δ)	Rated voltage (V _{dc})	400 to 500V	(at 20°C , 120Hz)
	tan δ (Max.)	0.30	
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	400 to 500V	(at 120Hz)
	Z(-25°C) / Z(+20°C)	6	
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 the 12,000 hours (10,000 hours for 25L and less) 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	≤ ±20% of the initial value	
	D.F. (tan δ)	≤ 200% of the initial specified value	
	Leakage current	≤ 500% of the initial specified value	

◆ DIMENSIONS [mm]

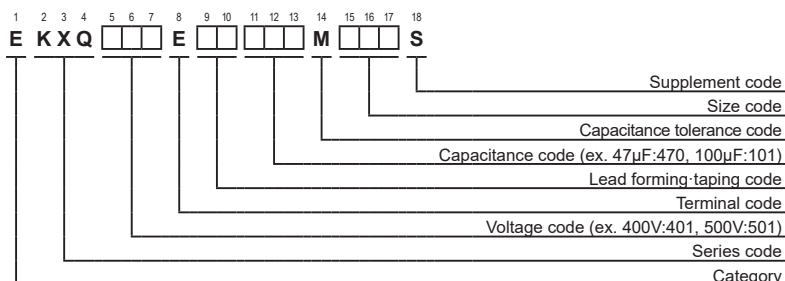
- Terminal Code : E



φ D	16	18
φ d	0.8	0.8
F	7.5	7.5
φ D'	φ D+0.5max.	
L'	L+2.0max.	

*For 500V products, L': L+2.5max.

◆ PART NUMBERING SYSTEM



KXQ Series

◆ STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size φ D×L(mm)	tan δ	Rated ripple current (mAmps/105°C, 120Hz)	Part No.	WV (Vdc)	Cap (μF)	Case size φ D×L(mm)	tan δ	Rated ripple current (mAmps/105°C, 120Hz)	Part No.
400	56	16×20	0.30	450	EKXQ401E □□ 560ML20S	450	47	16×20	0.30	400	EKXQ451E □□ 470ML20S
	68	18×20	0.30	530	EKXQ401E □□ 680MM20S		62	16×25	0.30	510	EKXQ451E □□ 620ML25S
	75	16×25	0.30	580	EKXQ401E □□ 750ML25S		62	18×20	0.30	510	EKXQ451E □□ 620MM20S
	100	16×31.5	0.30	730	EKXQ401E □□ 101MLN3S		82	16×31.5	0.30	650	EKXQ451E □□ 820MLN3S
	100	18×25	0.30	660	EKXQ401E □□ 101MM25S		82	18×25	0.30	640	EKXQ451E □□ 820MM25S
	120	16×35.5	0.30	830	EKXQ401E □□ 121MLP1S		100	16×35.5	0.30	750	EKXQ451E □□ 101MLP1S
	130	16×40	0.30	910	EKXQ401E □□ 131ML40S		110	18×31.5	0.30	800	EKXQ451E □□ 111MMN3S
	130	18×31.5	0.30	860	EKXQ401E □□ 131MMN3S		120	16×40	0.30	860	EKXQ451E □□ 121ML40S
	150	16×45	0.30	1,070	EKXQ401E □□ 151ML45S		130	18×35.5	0.30	920	EKXQ451E □□ 131MMP1S
	160	16×50	0.30	1,120	EKXQ401E □□ 161ML50S		150	16×50	0.30	1,020	EKXQ451E □□ 151ML50S
	160	18×35.5	0.30	980	EKXQ401E □□ 161MMP1S		160	18×40	0.30	980	EKXQ451E □□ 161MM40S
	180	18×40	0.30	1,020	EKXQ401E □□ 181MM40S		180	18×45	0.30	1,120	EKXQ451E □□ 181MM45S
	190	18×45	0.30	1,200	EKXQ401E □□ 191MM45S		200	18×50	0.30	1,200	EKXQ451E □□ 201MM50S
	220	18×50	0.30	1,320	EKXQ401E □□ 221MM50S		33	16×20	0.30	360	EKXQ501E □□ 330ML20S
420	51	16×20	0.30	400	EKXQ421E □□ 510ML20S	500	43	18×20	0.30	430	EKXQ501E □□ 430MM20S
	68	16×25	0.30	510	EKXQ421E □□ 680ML25S		47	16×25	0.30	470	EKXQ501E □□ 470ML25S
	68	18×20	0.30	510	EKXQ421E □□ 680MM20S		62	16×31.5	0.30	590	EKXQ501E □□ 620MLN3S
	91	16×31.5	0.30	650	EKXQ421E □□ 910MLN3S		62	18×25	0.30	550	EKXQ501E □□ 620MM25S
	91	18×25	0.30	640	EKXQ421E □□ 910MM25S		68	16×35.5	0.30	660	EKXQ501E □□ 680MLP1S
	110	16×35.5	0.30	750	EKXQ421E □□ 111MLP1S		82	16×40	0.30	730	EKXQ501E □□ 820ML40S
	120	18×31.5	0.30	800	EKXQ421E □□ 121MMN3S		82	18×31.5	0.30	680	EKXQ501E □□ 820MMN3S
	130	16×40	0.30	860	EKXQ421E □□ 131ML40S		91	16×45	0.30	800	EKXQ501E □□ 910ML45S
	150	16×45	0.30	1,010	EKXQ421E □□ 151ML45S		91	18×35.5	0.30	770	EKXQ501E □□ 910MMP1S
	150	18×35.5	0.30	920	EKXQ421E □□ 151MMP1S		100	16×50	0.30	850	EKXQ501E □□ 101ML50S
	160	16×50	0.30	1,020	EKXQ421E □□ 161ML50S		110	18×40	0.30	850	EKXQ501E □□ 111MM40S
	160	18×40	0.30	980	EKXQ421E □□ 161MM40S		120	18×45	0.30	930	EKXQ501E □□ 121MM45S
	180	18×45	0.30	1,130	EKXQ421E □□ 181MM45S		130	18×50	0.30	970	EKXQ501E □□ 131MM50S
	200	18×50	0.30	1,200	EKXQ421E □□ 201MM50S						

□□ :Enter the appropriate lead forming or taping code.

New products are indicated in red text.

◆ RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

Capacitance (μF)	Frequency (Hz)			
	120	1k	10k	100k
33 to 91	1.00	1.50	1.90	2.00
100 to 220	1.00	1.40	1.65	1.70

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current.