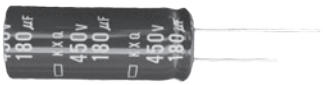
CHEMI-CON MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS 400 to 450Vdc, long life, 105℃

KXQ Series

KXJ → Downsized → KXQ



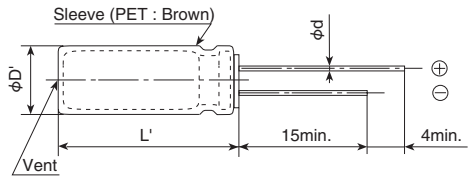
- Ideal for on-board charger
- Downsized from KXJ series
- Rated voltage range : 400 to 450Vdc, Capacitance range : 47 to 180μF
- Endurance with ripple current : 10,000 to 12,000 hours at 105℃
- Non solvent resistant type
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

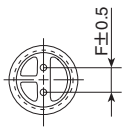
◆SPECIFICATIONS

Items	Characteristics		
Category Temperature Range	-40 to +105℃		
Rated Voltage Range	400 to 450Vdc		
Capacitance Tolerance	±20% (M)		(at 20℃, 120Hz)
Leakage Current	I=0.04CV+100 (after 1 minute) I=0.02CV+25 (after 5 minutes) Where, I : Max. leakage current(μA), C : Nominal capacitance (μF), V : Rated voltage (V)		(at 20℃)
Dissipation Factor (tan δ)	Rated voltage (Vdc)	400 to 450V	
	tan δ (Max.)	0.30	(at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (Vdc)	400 to 450V	
	Z(-25℃)/Z(+20℃)	6	(at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 12,000 hours (10,000 hours for 25L and less) at 105℃.		
	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℃ after exposing them for 1,000 hours at 105℃ 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





φD	16	18
φd	0.8	0.8
F	7.5	7.5
φD'	φD+0.5 max.	
L'	L+2.0 max.	

◆PART NUMBERING SYSTEM

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

E K X Q □□□ E □□ □□□ M □□□ S

- Supplement code
- Size code
- Capacitance tolerance code
- Capacitance code (ex. 47μF:470,100μF:101)
- Lead forming·taping code
- Terminal code
- Voltage code (ex. 400V:401,450V:451)
- Series code
- Category

Please refer to "Product code guide (radial lead type)"

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.

KXQ Series

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (mArms/ 105℃, 120Hz)	Part No.
400	56	16×20	0.30	450	EKXQ401E□□560ML20S
	68	18×20	0.30	530	EKXQ401E□□680MM20S
	75	16×25	0.30	580	EKXQ401E□□750ML25S
	100	16×31.5	0.30	730	EKXQ401E□□101MLN3S
	100	18×25	0.30	660	EKXQ401E□□101MM25S
	120	16×35.5	0.30	830	EKXQ401E□□121MLP1S
	130	16×40	0.30	910	EKXQ401E□□131ML40S
	130	18×31.5	0.30	860	EKXQ401E□□131MMN3S
	160	18×35.5	0.30	980	EKXQ401E□□161MMP1S
	180	18×40	0.30	1,020	EKXQ401E□□181MM40S
	180	18×45	0.30	1,080	EKXQ401E□□181MM45S
420	51	16×20	0.30	400	EKXQ421E□□510ML20S
	68	16×25	0.30	510	EKXQ421E□□680ML25S
	68	18×20	0.30	510	EKXQ421E□□680MM20S
	91	16×31.5	0.30	650	EKXQ421E□□910MLN3S
	91	18×25	0.30	640	EKXQ421E□□910MM25S
	110	16×35.5	0.30	750	EKXQ421E□□111MLP1S
	120	18×31.5	0.30	800	EKXQ421E□□121MMN3S
	130	16×40	0.30	860	EKXQ421E□□131ML40S
	150	18×35.5	0.30	920	EKXQ421E□□151MMP1S
	160	18×40	0.30	980	EKXQ421E□□161MM40S
	180	18×45	0.30	1,000	EKXQ421E□□181MM45S

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (mArms/ 105℃, 120Hz)	Part No.
450	47	16×20	0.30	400	EKXQ451E□□470ML20S
	62	16×25	0.30	510	EKXQ451E□□620ML25S
	62	18×20	0.30	510	EKXQ451E□□620MM20S
	82	16×31.5	0.30	650	EKXQ451E□□820MLN3S
	82	18×25	0.30	640	EKXQ451E□□820MM25S
	100	16×35.5	0.30	750	EKXQ451E□□101MLP1S
	110	18×31.5	0.30	800	EKXQ451E□□111MMN3S
	120	16×40	0.30	860	EKXQ451E□□121ML40S
	130	18×35.5	0.30	920	EKXQ451E□□131MMP1S
	160	18×40	0.30	980	EKXQ451E□□161MM40S
	180	18×45	0.30	1,000	EKXQ451E□□181MM45S

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

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Capacitance(μF) \ Frequency(Hz)	120	1k	10k	100k
47 to 91	1.00	1.50	1.90	2.00
100 to 180	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. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.

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.

■ Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.

■ Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.

■ The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.

■ The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.
Please make sure that you take appropriate safety measures such as use of redundant design and malfunction prevention measures in order to prevent fatal accidents and/or fires in the event any of our products malfunction.

■ We strongly recommend our customers to purchase Nippon Chemi-Con products only through our official sales channels. We assume no responsibility for any defects or damages caused by using products purchased from outside our official sales channel or of counterfeit goods. In addition, we will ask the customer to pay the investigation cost for products purchased outside our official sales channel.

■ We reserve the right to discontinue production and delivery of products. We do not guarantee that all the products included in this catalog will be available in the future.
The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products

■ We continually strive to improve the quality and reliability of our products, but in any case that our product does not meet our published specifications, please stop using it promptly and contact us immediately. As for compensation for non-conforming goods delivered by Chemi-Con, we will limit it only to goods found in non-compliance of our published specifications. This may be accomplished by a no cost replacement of non-conforming individual products, a credit of the piece price paid per each individual non-conforming product, or in other ways deemed necessary.
In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

Part Numbering System
Part Numbering System (Appendix)
Standardization
Available Items by Manufacturing Locations
Environmental Measures
Technical Note
Precautions and Guidelines
Recommended Soldering Conditions
Taping, Lead-preforming and Packaging
Available Terminals for Snap-in and Screw Mount Type

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