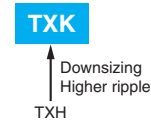


**TXK** New! Series

- Endurance with ripple current : 8,000 to 12,000 hours at 105°C
- Rated voltage range : 400 to 450V<sub>dc</sub>, Capacitance range : 190 to 1,100μF
- Ideal for communication base station power supplies, industrial equipment inverters, solar power generation applications, etc.
- Non solvent resistant type
- RoHS2 Compliant
- The logo mark printed on the sleeve will be changed.

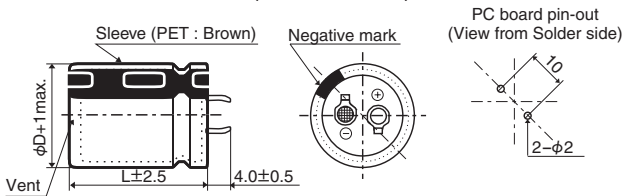


◆ SPECIFICATIONS

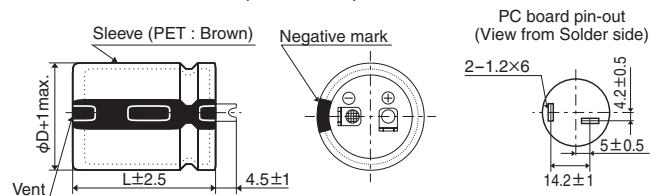
Items	Characteristics	
Category	-40 to +105°C	
Temperature Range	-40 to +105°C	
Rated Voltage Range	400 to 450V <sub>dc</sub>	
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)	
Leakage Current	I ≤ 3√CV Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 5 minutes)	
Dissipation Factor (tan δ)	Rated voltage (V <sub>dc</sub> )	400 to 450V
	tan δ (Max.)	0.20 (at 20°C, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )	400 to 450V
	Z(-25°C)/Z(+20°C)	8 (at 120Hz)
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 12,000 hours (8,000 hours for 35L and less) at 105°C.	
	Capacitance change	≤ ±20% of the initial value
	D.F. (tan δ)	≤ 300% 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)	≤ 200% of the initial specified value
	Leakage current	≤ The initial specified value

◆ DIMENSIONS [mm]

● Terminal Code : VS (φ25.4 to φ35) : Standard

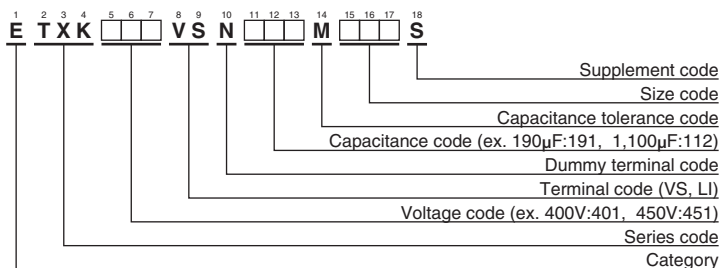


● Terminal Code : LI (φ30, φ35)



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 (mA <sub>rms</sub> /105°C, 120Hz)	Part No.	WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (mA <sub>rms</sub> /105°C, 120Hz)	Part No.
400	220	25.4 × 30	0.20	1.34	ETXK401VSN221MQ30S	450	190	25.4 × 30	0.20	1.25	ETXK451VSN191MQ30S
	280	25.4 × 35	0.20	1.58	ETXK401VSN281MQ35S		240	25.4 × 35	0.20	1.46	ETXK451VSN241MQ35S
	330	25.4 × 40	0.20	1.75	ETXK401VSN331MQ40S		280	25.4 × 40	0.20	1.61	ETXK451VSN281MQ40S
	350	30 × 30	0.20	1.68	ETXK401VSN351MR30S		300	30 × 30	0.20	1.55	ETXK451VSN301MR30S
	380	25.4 × 45	0.20	1.92	ETXK401VSN381MQ45S		330	25.4 × 45	0.20	1.79	ETXK451VSN331MQ45S
	430	25.4 × 50	0.20	2.07	ETXK401VSN431MQ50S		370	25.4 × 50	0.20	1.92	ETXK451VSN371MQ50S
	430	30 × 35	0.20	1.90	ETXK401VSN431MR35S		370	30 × 35	0.20	1.77	ETXK451VSN371MR35S
	450	35 × 30	0.20	1.83	ETXK401VSN451MA30S		390	35 × 30	0.20	1.70	ETXK451VSN391MA30S
	490	25.4 × 55	0.20	2.27	ETXK401VSN491MQ55S		420	25.4 × 55	0.20	2.10	ETXK451VSN421MQ55S
	510	30 × 40	0.20	2.13	ETXK401VSN511MR40S		430	30 × 40	0.20	1.96	ETXK451VSN431MR40S
	530	25.4 × 60	0.20	2.41	ETXK401VSN531MQ60S		450	25.4 × 60	0.20	2.22	ETXK451VSN451MQ60S
	560	35 × 35	0.20	2.07	ETXK401VSN561MA35S		480	35 × 35	0.20	1.92	ETXK451VSN481MA35S
	590	30 × 45	0.20	2.35	ETXK401VSN591MR45S		500	30 × 45	0.20	2.17	ETXK451VSN501MR45S
	670	30 × 50	0.20	2.55	ETXK401VSN671MR50S		570	30 × 50	0.20	2.35	ETXK451VSN571MR50S
	670	35 × 40	0.20	2.35	ETXK401VSN671MA40S		570	35 × 40	0.20	2.17	ETXK451VSN571MA40S
	750	30 × 55	0.20	2.75	ETXK401VSN751MR55S		640	30 × 55	0.20	2.54	ETXK451VSN641MR55S
	780	35 × 45	0.20	2.60	ETXK401VSN781MA45S		670	35 × 45	0.20	2.41	ETXK451VSN671MA45S
	810	30 × 60	0.20	2.91	ETXK401VSN811MR60S		700	30 × 60	0.20	2.71	ETXK451VSN701MR60S
	890	35 × 50	0.20	2.83	ETXK401VSN891MA50S		760	35 × 50	0.20	2.62	ETXK451VSN761MA50S
	990	35 × 55	0.20	3.04	ETXK401VSN991MA55S		850	35 × 55	0.20	2.82	ETXK451VSN851MA55S
1,100	35 × 60	0.20	3.27	ETXK401VSN112MA60S	950	35 × 60	0.20	3.04	ETXK451VSN951MA60S		
420	210	25.4 × 30	0.20	1.31	ETXK421VSN211MQ30S						
	260	25.4 × 35	0.20	1.52	ETXK421VSN261MQ35S						
	310	25.4 × 40	0.20	1.70	ETXK421VSN311MQ40S						
	320	30 × 30	0.20	1.60	ETXK421VSN321MR30S						
	360	25.4 × 45	0.20	1.87	ETXK421VSN361MQ45S						
	400	25.4 × 50	0.20	2.00	ETXK421VSN401MQ50S						
	400	30 × 35	0.20	1.84	ETXK421VSN401MR35S						
	420	35 × 30	0.20	1.77	ETXK421VSN421MA30S						
	450	25.4 × 55	0.20	2.18	ETXK421VSN451MQ55S						
	470	30 × 40	0.20	2.05	ETXK421VSN471MR40S						
	490	25.4 × 60	0.20	2.32	ETXK421VSN491MQ60S						
	520	35 × 35	0.20	2.00	ETXK421VSN521MA35S						
	550	30 × 45	0.20	2.27	ETXK421VSN551MR45S						
	620	30 × 50	0.20	2.45	ETXK421VSN621MR50S						
	620	35 × 40	0.20	2.26	ETXK421VSN621MA40S						
	700	30 × 55	0.20	2.66	ETXK421VSN701MR55S						
	720	35 × 45	0.20	2.49	ETXK421VSN721MA45S						
	750	30 × 60	0.20	2.80	ETXK421VSN751MR60S						
	820	35 × 50	0.20	2.72	ETXK421VSN821MA50S						
	930	35 × 55	0.20	2.95	ETXK421VSN931MA55S						
1,030	35 × 60	0.20	3.16	ETXK421VSN1A2MA60S							

## ◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
400 to 450V <sub>dc</sub>	0.74	1.00	1.13	1.21	1.27	1.37

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.



- 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](#)