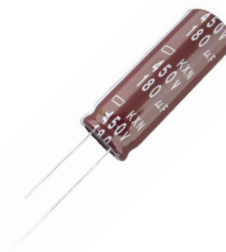


# KXN Series

- Ideal for low profile power supply applications
- Downsizing from KXL series
- Rated voltage range : 420, 450V<sub>dc</sub>, Nominal capacitance range : 15 to 270μF
- Endurance with ripple current : 10,000 to 12,000 hours at 105°C
- Non solvent resistant type
- RoHS2 Compliant

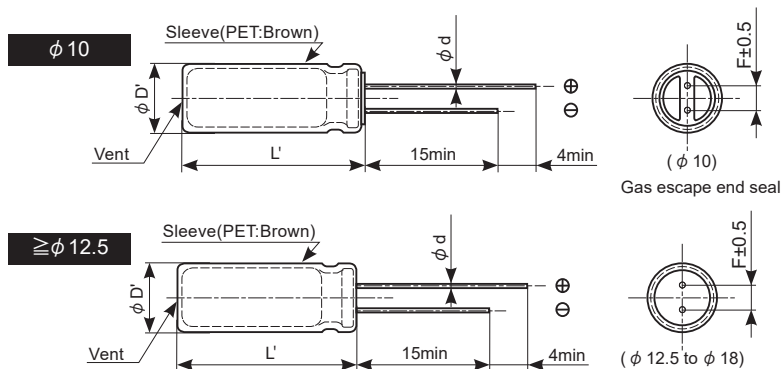


## ◆ SPECIFICATIONS

Items	Characteristics	
Category	-40 to +105°C	
Temperature Range	-40 to +105°C	
Rated Voltage Range	420, 450V <sub>dc</sub>	
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 <sub>dc</sub> )    420, 450V tan δ (Max.)                0.24	(at 20°C, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )    420, 450V Z(-25°C) / Z(+20°C)    6 Z(-40°C) / Z(+20°C)    10	(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 the 12,000 hours (10,000 hours for 20L 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

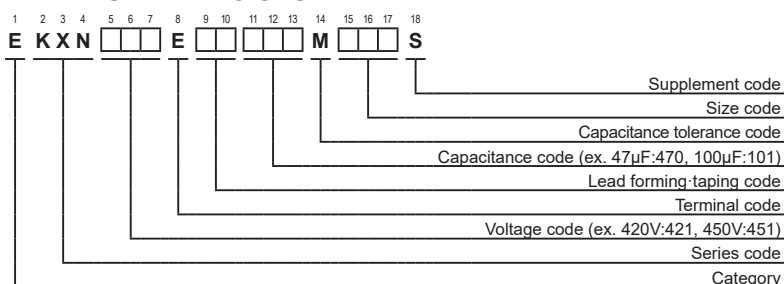
## ◆ DIMENSIONS [mm]

- Terminal Code : E



φ D	10	12.5	16	18
φ d	0.6	0.6	0.8	0.8
F	5.0	5.0	7.5	7.5
φ D'	φ D+0.5max.			
L'	L+2.0max.			

## ◆ PART NUMBERING SYSTEM



Product specifications in this bulletin 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 bulletin and product specifications.

KXN 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.
420	15	10×16	0.24	185	EKXN421E □□ 150MJ16S	450	15	10×16	0.24	185	EKXN451E □□ 150MJ16S
	22	10×20	0.24	245	EKXN421E □□ 220MJ20S		18	10×20	0.24	220	EKXN451E □□ 180MJ20S
	27	10×25	0.24	295	EKXN421E □□ 270MJ25S		22	12.5×16	0.24	255	EKXN451E □□ 220MK16S
	27	12.5×16	0.24	285	EKXN421E □□ 270MK16S		27	10×25	0.24	295	EKXN451E □□ 270MJ25S
	33	10×30	0.24	350	EKXN421E □□ 330MJ30S		33	10×30	0.24	360	EKXN451E □□ 330MJ30S
	39	10×35	0.24	405	EKXN421E □□ 390MJ35S		33	12.5×20	0.24	350	EKXN451E □□ 330MK20S
	39	12.5×20	0.24	380	EKXN421E □□ 390MK20S		39	10×35	0.24	410	EKXN451E □□ 390MJ35S
	39	16×16	0.24	400	EKXN421E □□ 390ML16S		39	16×16	0.24	400	EKXN451E □□ 390ML16S
	47	10×40	0.24	465	EKXN421E □□ 470MJ40S		47	10×40	0.24	465	EKXN451E □□ 470MJ40S
	56	10×45	0.24	530	EKXN421E □□ 560MJ45S		47	10×45	0.24	485	EKXN451E □□ 470MJ45S
	56	10×50	0.24	545	EKXN421E □□ 560MJ50S		47	12.5×25	0.24	455	EKXN451E □□ 470MK25S
	56	12.5×25	0.24	500	EKXN421E □□ 560MK25S		47	18×16	0.24	455	EKXN451E □□ 470MM16S
	56	18×16	0.24	500	EKXN421E □□ 560MM16S		56	10×50	0.24	545	EKXN451E □□ 560MJ50S
	68	12.5×30	0.24	585	EKXN421E □□ 680MK30S		56	12.5×30	0.24	530	EKXN451E □□ 560MK30S
	68	16×20	0.24	560	EKXN421E □□ 680ML20S		56	16×20	0.24	510	EKXN451E □□ 560ML20S
	82	12.5×35	0.24	675	EKXN421E □□ 820MK35S		68	12.5×35	0.24	615	EKXN451E □□ 680MK35S
	82	12.5×40	0.24	705	EKXN421E □□ 820MK40S		82	12.5×40	0.24	705	EKXN451E □□ 820MK40S
	82	16×25	0.24	670	EKXN421E □□ 820ML25S		82	12.5×45	0.24	725	EKXN451E □□ 820MK45S
	82	18×20	0.24	645	EKXN421E □□ 820MM20S		82	16×25	0.24	670	EKXN451E □□ 820ML25S
	100	12.5×45	0.24	805	EKXN421E □□ 101MK45S		82	18×20	0.24	645	EKXN451E □□ 820MM20S
	100	16×30	0.24	795	EKXN421E □□ 101ML30S		100	12.5×50	0.24	825	EKXN451E □□ 101MK50S
	120	12.5×50	0.24	905	EKXN421E □□ 121MK50S		100	16×30	0.24	795	EKXN451E □□ 101ML30S
	120	16×35	0.24	890	EKXN421E □□ 121ML35S		100	18×25	0.24	760	EKXN451E □□ 101MM25S
	120	18×25	0.24	830	EKXN421E □□ 121MM25S		120	16×35	0.24	890	EKXN451E □□ 121ML35S
	150	16×40	0.24	1030	EKXN421E □□ 151ML40S		120	16×40	0.24	920	EKXN451E □□ 121ML40S
	150	18×30	0.24	995	EKXN421E □□ 151MM30S		120	18×30	0.24	890	EKXN451E □□ 121MM30S
	180	16×45	0.24	1140	EKXN421E □□ 181ML45S		150	16×45	0.24	1040	EKXN451E □□ 151ML45S
180	16×50	0.24	1160	EKXN421E □□ 181ML50S	150	18×35	0.24	1030	EKXN451E □□ 151MM35S		
180	18×35	0.24	1130	EKXN421E □□ 181MM35S	180	16×50	0.24	1160	EKXN451E □□ 181ML50S		
180	18×40	0.24	1160	EKXN421E □□ 181MM40S	180	18×40	0.24	1160	EKXN451E □□ 181MM40S		
220	18×45	0.24	1310	EKXN421E □□ 221MM45S	180	18×45	0.24	1180	EKXN451E □□ 181MM45S		
270	18×50	0.24	1450	EKXN421E □□ 271MM50S	220	18×50	0.24	1310	EKXN451E □□ 221MM50S		

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

◆ RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

Capacitance (μF)	Frequency (Hz)			
	120	1k	10k	100k
15 to 82	1.00	1.75	2.25	2.50
100 to 270	1.00	1.67	2.05	2.25

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.