# CHEMI-CON LARGE CAPACITANCE ALUMINUM ELECTROLYTIC CAPACITORS High ripple snap-ins, 105°C



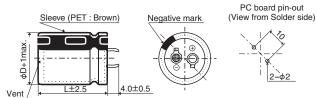
## SPECIFICATIONS

Characteristics								
-25 to +105°C								
420, 450V <sub>dc</sub>								
±20% (M) (at 20°C, 120Hz)								
I≦3,∕CV								
Where, I : Max. leakage	/here, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 5 m							
Rated voltage (Vdc)	420 & 450V							
tan $\delta$ (Max.)	0.20		(at 20℃, 120Hz)					
Rated voltage (Vdc)	420 & 450V							
Z(-25℃)/Z(+20℃)	8							
		-	(at 120Hz)					
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 3,000 hours at 105°C.								
Capacitance change	$\leq \pm 20\%$ of the ini	tial value						
D.F. (tan δ )	≦200% of the initi	ial specified value						
Leakage current	≦The initial specif	fied value						
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	$\leq \pm 15\%$ of the ini	tial value						
D.F. (tan $\delta$ )	$\leq$ 150% of the initial specified value							
Leakage current	≦The initial specif	fied value						
	420, 450V <sub>dc</sub> ± 20% (M) I≤3, $CV$ Where, I : Max. leakage Rated voltage (V <sub>dc</sub> ) tan δ (Max.) Rated voltage (V <sub>dc</sub> ) Z(-25°C)/Z(+20°C) The following specification ripple current is applied ( Capacitance change D.F. (tan δ) Leakage current The following specification voltage applied. Before th Capacitance change D.F. (tan δ)	$420, 450V_{dc}$ $\pm 20\%$ (M) $I \leq 3\sqrt{CV}$ Where, I : Max. leakage current ( $\mu$ A), C : NonRated voltage ( $V_{dc}$ ) $420 \& 450V$ tan $\delta$ (Max.) $0.20$ Rated voltage ( $V_{dc}$ ) $420 \& 450V$ Z(-25°C)/Z(+20°C)8The following specifications shall be satisfiedripple current is applied (the peak voltage shaCapacitance change $\leq \pm 20\%$ of the initLeakage current $\leq$ The initial specifications shall be satisfied whyvoltage applied. Before the measurement, the colspan="2">Capacitance change $\leq \pm 15\%$ of the initD.F. (tan $\delta$ ) $\leq 150\%$ of the init	-25 to +105°C 420, 450V <sub>dc</sub> $\pm 20\%$ (M) $I \le 3\sqrt{CV}$ Where, I : Max. leakage current (µA), C : Nominal capacitance (µF Rated voltage (V <sub>dc</sub> ) 420 & 450V tan $\delta$ (Max.) 0.20 Rated voltage (V <sub>dc</sub> ) 420 & 450V Z(-25°C)/Z(+20°C) 8 The following specifications shall be satisfied when the capacitors ripple current is applied (the peak voltage shall not exceed the rate Capacitance change $\leq \pm 20\%$ of the initial value D.F. (tan $\delta$ ) $\leq 200\%$ of the initial specified value Leakage current $\leq$ The initial specified value The following specifications shall be satisfied when the capacitors are voltage applied. Before the measurement, the capacitor shall be prece Capacitance change $\leq \pm 15\%$ of the initial specified value					

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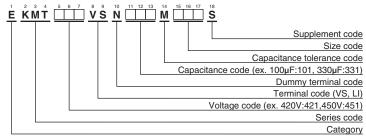
## DIMENSIONS [mm]





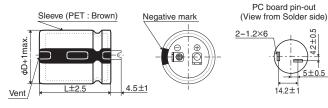
The standard design has no plastic disc.

# **♦**PART NUMBERING SYSTEM



Please refer to "Product code guide (snap-in type)"

#### •Terminal Code : LI ( $\phi$ 35)



# KMTSeries

### **♦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.
	100	$22 \times 25$	0.20	0.89	EKMT421VSN101MP25S		82	$22 \times 25$	0.20	0.81	EKMT451VSN820MP25S
	120	22 × 30	0.20	1.06	EKMT421VSN121MP30S		100	22 × 30	0.20	0.97	EKMT451VSN101MP30S
	120	$25.4 \times 25$	0.20	1.09	EKMT421VSN121MQ25S		100	$25.4 \times 25$	0.20	1.04	EKMT451VSN101MQ25S
	150	22 × 35	0.20	1.21	EKMT421VSN151MP35S		120	22 × 35	0.20	1.08	EKMT451VSN121MP35S
	180	$22 \times 40$	0.20	1.34	EKMT421VSN181MP40S		150	$22 \times 40$	0.20	1.22	EKMT451VSN151MP40S
	180	$25.4 \times 30$	0.20	1.28	EKMT421VSN181MQ30S		150	$25.4 \times 35$	0.20	1.31	EKMT451VSN151MQ35S
	180	$30 \times 25$	0.20	1.42	EKMT421VSN181MR25S		150	$30 \times 25$	0.20	1.31	EKMT451VSN151MR25S
	220	$22 \times 45$	0.20	1.47	EKMT421VSN221MP45S		180	$22 \times 45$	0.20	1.35	EKMT451VSN181MP45S
	220	$22 \times 50$	0.20	1.60	EKMT421VSN221MP50S		180	$22 \times 50$	0.20	1.42	EKMT451VSN181MP50S
	220	$25.4 \times 35$	0.20	1.47	EKMT421VSN221MQ35S		180	$25.4 \times 40$	0.20	1.35	EKMT451VSN181MQ40S
	220	$30 \times 30$	0.20	1.64	EKMT421VSN221MR30S		180	$30 \times 30$	0.20	1.49	EKMT451VSN181MR30S
420	220	$35 \times 25$	0.20	1.64	EKMT421VSN221MA25S	450	180	$35 \times 25$	0.20	1.60	EKMT451VSN181MA25S
420	270	$25.4 \times 40$	0.20	1.63	EKMT421VSN271MQ40S		220	$25.4 \times 45$	0.20	1.55	EKMT451VSN221MQ45S
	270	$25.4 \times 45$	0.20	1.79	EKMT421VSN271MQ45S		220	$30 \times 35$	0.20	1.71	EKMT451VSN221MR35S
	270	$30 \times 35$	0.20	1.87	EKMT421VSN271MR35S		270	$25.4 \times 50$	0.20	1.74	EKMT451VSN271MQ50S
	330	$25.4 \times 50$	0.20	1.93	EKMT421VSN331MQ50S		270	$30 \times 40$	0.20	1.90	EKMT451VSN271MR40S
	330	30 × 40	0.20	2.10	EKMT421VSN331MR40S		270	$35 \times 30$	0.20	1.90	EKMT451VSN271MA30S
	330	$35 \times 30$	0.20	2.05	EKMT421VSN331MA30S		330	$30 \times 45$	0.20	2.20	EKMT451VSN331MR45S
	390	30 × 45	0.20	2.32	EKMT421VSN391MR45S		330	$35 \times 35$	0.20	2.20	EKMT451VSN331MA35S
	390	$35 \times 35$	0.20	2.32	EKMT421VSN391MA35S		390	$30 \times 50$	0.20	2.40	EKMT451VSN391MR50S
	470	$30 \times 50$	0.20	2.51	EKMT421VSN471MR50S		390	$35 \times 40$	0.20	2.42	EKMT451VSN391MA40S
	470	$35 \times 40$	0.20	2.62	EKMT421VSN471MA40S		470	$35 \times 45$	0.20	2.67	EKMT451VSN471MA45S
	560	$35 \times 45$	0.20	2.88	EKMT421VSN561MA45S		560	$35 \times 50$	0.20	2.85	EKMT451VSN561MA50S
	680	$35 \times 50$	0.20	3.10	EKMT421VSN681MA50S						

# **♦**RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
420, 450V <sub>dc</sub>	0.68	1.00	1.16	1.30	1.41	1.43

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.

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# CHEMI-CON ALUMINUM ELECTROLYTIC CAPACITORS

- 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.

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- 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
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In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

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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