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



- Higher ripple current from LXS series
- ●Endurance with ripple current : 5,000 hours at 105°C
- $\blacksquare$  Rated voltage range : 400 to 450Vdc, Capacitance range : 220 to 810  $\mu F$
- For inverter control, switching power supplies

Non solvent resistant type

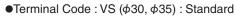
RoHS2 Compliant

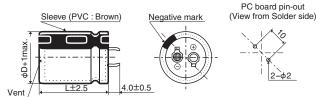
# SPECIFICATIONS

Items	Characteristics								
Category Temperature Range	-40 to +105℃								
Rated Voltage Range	400 to 450V <sub>dc</sub>								
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)								
Leakage Current	I≤3√CV								
Dissipation Factor	Rated voltage (Vdc)	400V	420 & 450V						
(tan δ)	tanδ (Max.)	0.15	0.20	(at 20℃, 120Hz)					
Low Temperature	Rated voltage (Vdc)	400V	420 & 450V						
Characteristics	Z(-25℃)/Z(+20℃)	3	8						
(Max. Impedance Ratio)	Z(-40°C)/Z(+20°C)	12	14	(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 5,000 hours at 105°C.								
	Capacitance change	$\leq \pm 20\%$ of the initial	tial value						
	D.F. (tan δ)	≦200% of the initi	al specified value						
	Leakage current	≦The initial specif	ied 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	$\leq \pm 15\%$ of the initial	tial value						
	D.F. (tan δ )	≦150% of the initi	al specified value	]					
	Leakage current	≦The initial specif	ied value						

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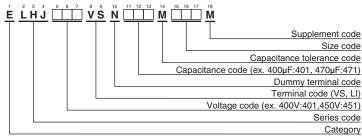
## **DIMENSIONS** [mm]





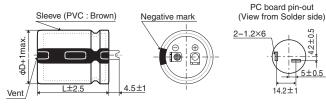
The standard design has no plastic disc.

## **♦**PART NUMBERING SYSTEM



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

#### •Terminal Code : LI ( $\phi$ 35)



LHJ

LXS

Higher ripple

00v**40**0

# 

## **♦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℃, 120Hz)	Part No.
	280	$30 \times 35$	0.15	2.31	ELHJ401VSN281MR35M		440	$30 \times 54$	0.20	3.06	ELHJ421VSN441MR54M
	350	30×41	0.15	2.67	ELHJ401VSN351MR41M		490	$30 \times 59$	0.20	3.28	ELHJ421VSN491MR59M
	400	$30 \times 46$	0.15	2.92	ELHJ401VSN401MR46M	420	490	$35 \times 46$	0.20	3.22	ELHJ421VSN491MA46M
	400	$35 \times 35$	0.15	2.92	ELHJ401VSN401MA35M	420	580	35 × 51	0.20	3.60	ELHJ421VSN581MA51M
	470	$30 \times 51$	0.15	3.23	ELHJ401VSN471MR51M		620	$35 \times 54$	0.20	3.76	ELHJ421VSN621MA54M
400	500	35 × 41	0.15	3.39	ELHJ401VSN501MA41M		700	$35 \times 59$	0.20	4.06	ELHJ421VSN701MA59M
400	510	$30 \times 54$	0.15	3.41	ELHJ401VSN511MR54M		220	$30 \times 35$	0.20	1.98	ELHJ451VSN221MR35M
	570	$30 \times 59$	0.15	3.66	ELHJ401VSN571MR59M		280	30 × 41	0.20	2.31	ELHJ451VSN281MR41M
	570	$35 \times 46$	0.15	3.70	ELHJ401VSN571MA46M		310	30×46	0.20	2.48	ELHJ451VSN311MR46M
	670	$35 \times 51$	0.15	4.12	ELHJ401VSN671MA51M		320	$35 \times 35$	0.20	2.45	ELHJ451VSN321MA35M
	720	$35 \times 54$	0.15	4.32	ELHJ401VSN721MA54M		370	30 × 51	0.20	2.77	ELHJ451VSN371MR51M
	810	$35 \times 59$	0.15	4.66	ELHJ401VSN811MA59M	450	400	$30 \times 54$	0.20	2.91	ELHJ451VSN401MR54M
	240	$30 \times 35$	0.20	2.07	ELHJ421VSN241MR35M	450	400	35 × 41	0.20	2.85	ELHJ451VSN401MA41M
420	300	30 × 41	0.20	2.39	ELHJ421VSN301MR41M		450	$30 \times 59$	0.20	3.14	ELHJ451VSN451MR59M
	340	30 × 46	0.20	2.60	ELHJ421VSN341MR46M		450	$35 \times 46$	0.20	3.09	ELHJ451VSN451MA46M
	350	$35 \times 35$	0.20	2.57	ELHJ421VSN351MA35M		530	35 × 51	0.20	3.44	ELHJ451VSN531MA51M
	410	30×51	0.20	2.92	ELHJ421VSN411MR51M		570	$35 \times 54$	0.20	3.61	ELHJ451VSN571MA54M
	430	35 × 41	0.20	2.95	ELHJ421VSN431MA41M		640	$35 \times 59$	0.20	3.89	ELHJ451VSN641MA59M

# **♦**RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

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Frequency(Hz)	50	120	300	1k	10k	50k
400 to 450V	0.72	1.00	1.21	1.38	1.48	1.46

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.

- 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.

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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