

# LRB Series

- Higher ripple current on high frequency band
- Endurance with high frequency ripple current : 5,000 hours at 105°C
- Rated voltage range : 400 to 450V<sub>dc</sub>, Capacitance range : 85 to 330μF
- Ideal for high frequency drive power conversion system applications such as solar power conditioners
- Non solvent resistant type
- RoHS2 Compliant

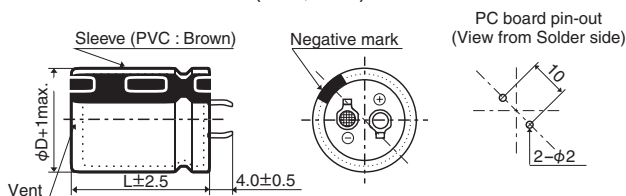


## SPECIFICATIONS

Items	Characteristics			
Category	-40 to +105℃			
Temperature Range				
Rated Voltage Range	400 to 450V <sub>dc</sub>			
Capacitance Tolerance	± 20% (M) (at 20℃, 120Hz)			
Leakage Current	I ≤ 3√CV Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20℃ after 5 minutes)			
Dissipation Factor (tan δ)	Rated voltage (V <sub>dc</sub> )	400V	420 & 450V	(at 20℃, 120Hz)
	tan δ (Max.)	0.15	0.20	
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )	400V	420 & 450V	(at 120Hz)
	Z(-25℃)/Z(+20℃)	3	8	
	Z(-40℃)/Z(+20℃)	12	14	
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 5,000 hours 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	≤ ± 15% of the initial value		
	D.F. (tan δ)	≤ 150% of the initial specified value		
	Leakage current	≤ The initial specified value		

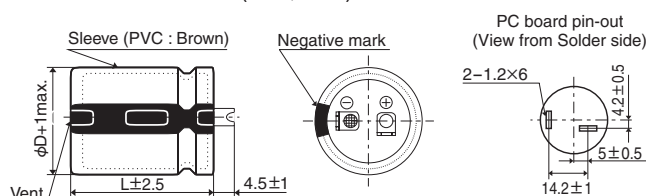
## DIMENSIONS [mm]

- Terminal Code : VS (φ30, φ35) : Standard

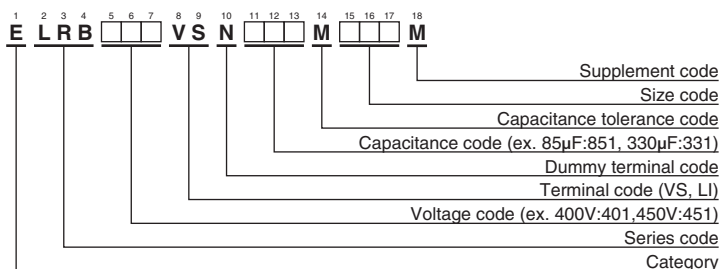


The standard design has no plastic disc.

- Terminal Code : LI (φ30, φ35)



## 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 (Arms/ 105°C, 100kHz)	Part No.
400	120	30 × 35	0.15	5.54	ELRB401VSN121MR35M
	150	30 × 41	0.15	5.69	ELRB401VSN151MR41M
	170	30 × 46	0.15	5.83	ELRB401VSN171MR46M
	170	35 × 35	0.15	5.87	ELRB401VSN171MA35M
	190	30 × 51	0.15	5.97	ELRB401VSN191MR51M
	210	30 × 54	0.15	6.06	ELRB401VSN211MR54M
	210	35 × 41	0.15	6.10	ELRB401VSN211MA41M
	230	30 × 59	0.15	6.20	ELRB401VSN231MR59M
	230	35 × 46	0.15	6.30	ELRB401VSN231MA46M
	270	35 × 51	0.15	6.45	ELRB401VSN271MA51M
	290	35 × 54	0.15	6.60	ELRB401VSN291MA54M
	330	35 × 59	0.15	6.85	ELRB401VSN331MA59M
420	100	30 × 35	0.20	4.58	ELRB421VSN101MR35M
	120	30 × 41	0.20	4.91	ELRB421VSN121MR41M
	140	30 × 46	0.20	5.15	ELRB421VSN141MR46M
	140	35 × 35	0.20	5.23	ELRB421VSN141MA35M
	160	30 × 51	0.20	5.39	ELRB421VSN161MR51M
	170	30 × 54	0.20	5.54	ELRB421VSN171MR54M
	170	35 × 41	0.20	5.63	ELRB421VSN171MA41M
	190	30 × 59	0.20	5.78	ELRB421VSN191MR59M
	200	35 × 46	0.20	5.95	ELRB421VSN201MA46M
	230	35 × 51	0.20	6.28	ELRB421VSN231MA51M
	250	35 × 54	0.20	6.47	ELRB421VSN251MA54M
	280	35 × 59	0.20	6.72	ELRB421VSN281MA59M

WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 105°C, 100kHz)	Part No.
450	85	30 × 35	0.20	4.58	ELRB451VSN850MR35M
	110	30 × 41	0.20	4.91	ELRB451VSN111MR41M
	120	30 × 46	0.20	5.15	ELRB451VSN121MR46M
	120	35 × 35	0.20	5.23	ELRB451VSN121MA35M
	140	30 × 51	0.20	5.39	ELRB451VSN141MR51M
	150	30 × 54	0.20	5.54	ELRB451VSN151MR54M
	150	35 × 41	0.20	5.63	ELRB451VSN151MA41M
	170	30 × 59	0.20	5.78	ELRB451VSN171MR59M
	170	35 × 46	0.20	5.95	ELRB451VSN171MA46M
	200	35 × 51	0.20	6.28	ELRB451VSN201MA51M
	210	35 × 54	0.20	6.47	ELRB451VSN211MA54M
	240	35 × 59	0.20	6.72	ELRB451VSN241MA59M

## ◆ RATED RIPPLE CURRENT MULTIPLIERS

## ● Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k	100k
400 to 450V	0.22	0.33	0.49	0.73	1.00	1.00	1.00

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.
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[Part Numbering System](#)

[Part Numbering System \(Appendix\)](#)

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[Available Terminals for Snap-in and Screw Mount Type](#)

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