

KVC Series

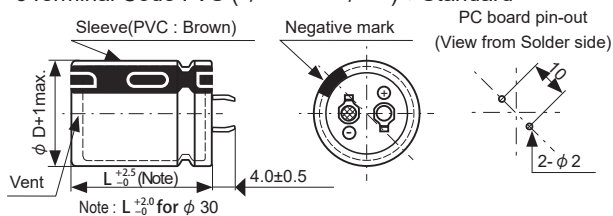
- KVB series with higher capacitance and higher ripple current
- Endurance with ripple current : 3,000 hours at 105°C.
- Rated voltage range : 450 to 500V, Capacitance range : 150 to 790μF
- Designed for automotive application (including On Board Charger) by high vibration resistance structure.
- Non solvent resistant type
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.
- The logo printed on the sleeve will be changed.

◆ SPECIFICATION

Items	Characteristics																		
Category																			
Temperature Range	-40 to +105℃																		
Rated Voltage Range	450 to 500V _{dc}																		
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 _{dc})	450 to 500V	(at 20℃ , 120Hz)																
	tanδ (Max.)	0.20																	
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	450 to 500V	(at 120Hz)																
	Z(-25℃)/Z(+20℃)	8																	
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 3,000 hours at 105℃ . <table><tr><td>Capacitance change</td><td>≤ ±20% of the initial value</td></tr><tr><td>D.F. (tan δ)</td><td>≤ 200% of the initial specified value</td></tr><tr><td>Leakage current</td><td>≤ The initial specified value</td></tr></table>			Capacitance change	≤ ±20% of the initial value	D.F. (tan δ)	≤ 200% of the initial specified value	Leakage current	≤ The initial specified value										
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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. <table><tr><td>Capacitance change</td><td>≤ ±15% of the initial value</td></tr><tr><td>D.F. (tan δ)</td><td>≤ 150% of the initial specified value</td></tr><tr><td>Leakage current</td><td>≤ The initial specified value</td></tr></table>			Capacitance change	≤ ±15% of the initial value	D.F. (tan δ)	≤ 150% of the initial specified value	Leakage current	≤ The initial specified value										
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Vibration	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to vibration test (vibration profile shown below) at room temperature (15 to 35℃). <table><tr><td>Capacitance change</td><td>≤ ±5% of the initial value</td></tr><tr><td>D.F. (tanδ)</td><td>≤ The initial specified value</td></tr><tr><td>Leakage current</td><td>≤ The initial specified value</td></tr><tr><td colspan="2">Vibration profile</td></tr><tr><td>Vibration frequency range</td><td>10 to 2,000Hz</td></tr><tr><td>Acceleration</td><td>49m/s²(5G)</td></tr><tr><td>Sweep rate</td><td>10 to 2,000 to 10Hz 20 minutes</td></tr><tr><td>Direction and period of motion</td><td>4 hours in each of 3 mutually perpendicular directions (total of 12 hours)</td></tr></table> Fixation Securely attach the main body using a fixing tool. Please contact us for details.			Capacitance change	≤ ±5% of the initial value	D.F. (tanδ)	≤ The initial specified value	Leakage current	≤ The initial specified value	Vibration profile		Vibration frequency range	10 to 2,000Hz	Acceleration	49m/s ² (5G)	Sweep rate	10 to 2,000 to 10Hz 20 minutes	Direction and period of motion	4 hours in each of 3 mutually perpendicular directions (total of 12 hours)
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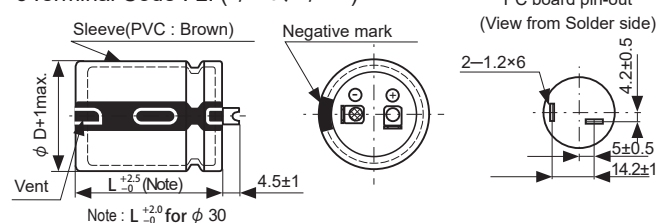
◆ DIMENSIONS [mm]

- Terminal Code : VS (φ 25.4 to φ 35) : Standard

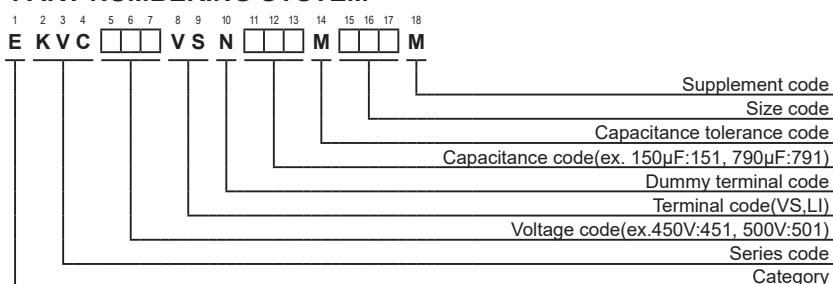


The standard design has no plastic disc.

- Terminal Code : LI (φ 30、φ 35)



◆ 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. Please contact us for mass production schedule.

KVC Series

◆ STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Case size φ D×L(mm)	tan δ	Rated ripple current (Arms/ 105°C, 120Hz)	Part No.	WV (V _{dc})	Cap (μF)	Case size φ D×L(mm)	tan δ	Rated ripple current (Arms/ 105°C, 120Hz)	Part No.
450	210	25.4×30	0.20	1.40	EKVC451VSN211MQ30M	475	390	25.4×55	0.20	1.93	EKVC4H1VSN391MQ55M
	260	25.4×35	0.20	1.63	EKVC451VSN261MQ35M		410	30×45	0.20	2.09	EKVC4H1VSN411MR45M
	270	30×30	0.20	1.72	EKVC451VSN271MR30M		410	35×35	0.20	1.90	EKVC4H1VSN411MA35M
	310	25.4×40	0.20	1.81	EKVC451VSN311MQ40M		430	25.4×60	0.20	2.08	EKVC4H1VSN431MQ60M
	340	30×35	0.20	1.97	EKVC451VSN341MR35M		470	30×50	0.20	2.28	EKVC4H1VSN471MR50M
	360	25.4×45	0.20	1.99	EKVC451VSN361MQ45M		500	35×40	0.20	2.15	EKVC4H1VSN501MA40M
	380	35×30	0.20	1.97	EKVC451VSN381MA30M		530	30×55	0.20	2.48	EKVC4H1VSN531MR55M
	410	25.4×50	0.20	2.16	EKVC451VSN411MQ50M		580	35×45	0.20	2.38	EKVC4H1VSN581MA45M
	410	30×40	0.20	2.05	EKVC451VSN411MR40M		670	35×50	0.20	2.62	EKVC4H1VSN671MA50M
	460	25.4×55	0.20	2.14	EKVC451VSN461MQ55M	500	150	25.4×30	0.20	1.06	EKVC501VSN151MQ30M
	490	30×45	0.20	2.29	EKVC451VSN491MR45M		190	25.4×35	0.20	1.24	EKVC501VSN191MQ35M
	490	35×35	0.20	2.07	EKVC451VSN491MA35M		210	30×30	0.20	1.39	EKVC501VSN211MR30M
	510	25.4×60	0.20	2.30	EKVC451VSN511MQ60M		230	25.4×40	0.20	1.39	EKVC501VSN231MQ40M
	560	30×50	0.20	2.50	EKVC451VSN561MR50M		260	30×35	0.20	1.59	EKVC501VSN261MR35M
	590	35×40	0.20	2.33	EKVC451VSN591MA40M		270	25.4×45	0.20	1.54	EKVC501VSN271MQ45M
	630	30×55	0.20	2.70	EKVC451VSN631MR55M		290	35×30	0.20	1.56	EKVC501VSN291MA30M
	690	35×45	0.20	2.59	EKVC451VSN691MA45M		310	25.4×50	0.20	1.68	EKVC501VSN311MQ50M
	790	35×50	0.20	2.83	EKVC451VSN791MA50M		320	30×40	0.20	1.80	EKVC501VSN321MR40M
	180	25.4×30	0.20	1.16	EKVC4H1VSN181MQ30M		340	25.4×55	0.20	1.81	EKVC501VSN341MQ55M
475	220	25.4×35	0.20	1.34	EKVC4H1VSN221MQ35M		370	30×45	0.20	1.98	EKVC501VSN371MR45M
	230	30×30	0.20	1.46	EKVC4H1VSN231MR30M		370	35×35	0.20	1.81	EKVC501VSN371MA35M
	260	25.4×40	0.20	1.48	EKVC4H1VSN261MQ40M		380	25.4×60	0.20	1.95	EKVC501VSN381MQ60M
	290	30×35	0.20	1.68	EKVC4H1VSN291MR35M		430	30×50	0.20	2.18	EKVC501VSN431MR50M
	300	25.4×45	0.20	1.62	EKVC4H1VSN301MQ45M		450	35×40	0.20	2.04	EKVC501VSN451MA40M
	320	35×30	0.20	1.63	EKVC4H1VSN321MA30M		480	30×55	0.20	2.36	EKVC501VSN481MR55M
	350	25.4×50	0.20	1.78	EKVC4H1VSN351MQ50M		530	35×45	0.20	2.27	EKVC501VSN531MA45M
	350	30×40	0.20	1.89	EKVC4H1VSN351MR40M						

◆ RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
450V _{dc}	0.77	1.00	1.10	1.21	1.32	1.33
475、500V _{dc}	0.77	1.00	1.11	1.20	1.25	1.33

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current.