



- For solar power generation
- Endurance with ripple current: 3,000 hours at 105°C
- Non solvent resistant type

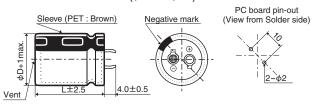


# **SPECIFICATIONS**

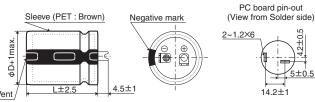
Items	Characteristics								
Category Temperature Range	-40 to +105°C (450, 475V <sub>dc</sub> ), -25 to +105°C (500V <sub>dc</sub> )								
Rated Voltage Range	450 to 500V <sub>dc</sub>								
Capacitance Tolerance	±20% (M) (at 20℃, 120Hz)								
Leakage Current	I≦3 $\sqrt{CV}$ Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 5 minutes)								
Dissipation Factor	Rated voltage (Vdc)	450 to 500V							
(tan δ )	tan δ (Max.)	0.20			(at 20℃, 120Hz)				
Low Temperature	Rated voltage (Vdc)	450 to 500V							
Characteristics	Z(-25°C)/Z(+20°C)	8							
(Max. Impedance Ratio)					(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 3,000 hours at 105°C.								
	Capacitance change	≦±20% of the ini							
	D.F. (tan δ )	≤200% of the initial specified value (500V <sub>dc</sub> : ≤ 250%)							
	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	≤±15% of the ini	tial value						
	D.F. (tan $\delta$ )	≦150% of the initi	al specified value						
	Leakage current	≦The initial specif	ied value						

# **◆DIMENSIONS** [mm]

●Terminal Code : VS (φ22 to φ35) : Standard

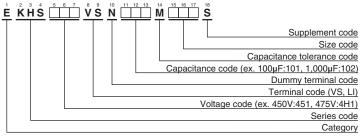


●Terminal Code : LI (φ35)



The standard design has no plastic disc.

# **◆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, 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 × 25	0.20	0.71	EKHS451VSN101MP25S		330	30 × 35	0.20	1.53	EKHS4H1VSN331MR35S
	150	22 × 30	0.20	0.91	EKHS451VSN151MP30S		350	$25.4 \times 50$	0.20	1.63	EKHS4H1VSN351MQ50S
	180	22 × 35	0.20	1.02	EKHS451VSN181MP35S		360	35 × 30	0.20	1.56	EKHS4H1VSN361MA30S
	180	22 × 40	0.20	1.04	EKHS451VSN181MP40S		390	30 × 40	0.20	1.71	EKHS4H1VSN391MR40S
	180	25.4 × 25	0.20	1.02	EKHS451VSN181MQ25S		400	25.4 × 55	0.20	1.77	EKHS4H1VSN401MQ55S
	220	22 × 45	0.20	1.17	EKHS451VSN221MP45S		440	25.4 × 60	0.20	1.89	EKHS4H1VSN441MQ60S
	220	$25.4 \times 30$	0.20	1.16	EKHS451VSN221MQ30S		440	35 × 35	0.20	1.75	EKHS4H1VSN441MA35S
	270	22 × 50	0.20	1.33	EKHS451VSN271MP50S		450	30 × 45	0.20	1.89	EKHS4H1VSN451MR45S
	270	25.4 × 35	0.20	1.34	EKHS451VSN271MQ35S	475	510	30 × 50	0.20	2.04	EKHS4H1VSN511MR50S
	270	30 × 25	0.20	1.28	EKHS451VSN271MR25S		530	35 × 40	0.20	1.99	EKHS4H1VSN531MA40S
	270	35 × 25	0.20	1.24	EKHS451VSN271MA25S		560	35 × 50	0.20	2.13	EKHS4H1VSN561MA50S
	330	22 × 60	0.20	1.54	EKHS451VSN331MP60S		570	30 × 55	0.20	2.20	EKHS4H1VSN571MR55S
	330	$25.4 \times 40$	0.20	1.51	EKHS451VSN331MQ40S		610	35 × 45	0.20	2.18	EKHS4H1VSN611MA45S
	330	30 × 30	0.20	1.43	EKHS451VSN331MR30S		640	30 × 60	0.20	2.38	EKHS4H1VSN641MR60S
450	390	25.4 × 45	0.20	1.67	EKHS451VSN391MQ45S		700	35 × 50	0.20	2.39	EKHS4H1VSN701MA50S
	390	30 × 35	0.20	1.59	EKHS451VSN391MR35S		790	35 × 55	0.20	2.59	EKHS4H1VSN791MA55S
	390	35 × 30	0.20	1.52	EKHS451VSN391MA30S		870	35 × 60	0.20	2.77	EKHS4H1VSN871MA60S
	470	25.4 × 50	0.20	1.86	EKHS451VSN471MQ50S		68	22 × 25	0.20	0.61	EKHS501VSN680MP25S
	470	30 × 40	0.20	1.79	EKHS451VSN471MR40S		82	22 × 30	0.20	0.70	EKHS501VSN820MP30S
	470	35 × 35	0.20	1.69	EKHS451VSN471MA35S		82	25.4 × 25	0.20	0.72	EKHS501VSN820MQ25S
	560	25.4 × 60	0.20	2.09	EKHS451VSN561MQ60S		100	22 × 35	0.20	0.79	EKHS501VSN101MP35S
	560	30 × 45	0.20	2.01	EKHS451VSN561MR45S		120	22 × 40	0.20	0.89	EKHS501VSN121MP40S
	560	35 × 40	0.20	1.95	EKHS451VSN561MA40S		120	25.4 × 30	0.20	0.89	EKHS501VSN121MQ30S
	680	30 × 50	0.20	2.25	EKHS451VSN681MR50S		120	30 × 25	0.20	0.90	EKHS501VSN121MR25S
	680	35 × 45	0.20	2.16	EKHS451VSN681MA45S		150	22 × 45	0.20	1.01	EKHS501VSN151MP45S
	680	35 × 50	0.20	2.22	EKHS451VSN681MA50S		150	25.4 × 35	0.20	1.04	EKHS501VSN151MQ35S
	820	30 × 60	0.20	2.56	EKHS451VSN821MR60S		180	22 × 50	0.20	1.13	EKHS501VSN181MP50S
	820	35 × 55	0.20	2.47	EKHS451VSN821MA55S		180	25.4 × 40	0.20	1.16	EKHS501VSN181MQ40S
	1,000	35 × 60	0.20	2.78	EKHS451VSN102MA60S		180	25.4 × 45	0.20	1.18	EKHS501VSN181MQ45S
	100	22 × 25	0.20	0.76	EKHS4H1VSN101MP25S		180	30 × 30	0.20	1.11	EKHS501VSN181MR30S
	130	22 × 30	0.20	0.90	EKHS4H1VSN131MP30S		180	35 × 25	0.20	1.08	EKHS501VSN181MA25S
	140	25.4 × 25	0.20	0.91	EKHS4H1VSN141MQ25S	500	220	22 × 60	0.20	1.31	EKHS501VSN221MP60S
	160	22 × 35	0.20	1.03	EKHS4H1VSN161MP35S		220	$25.4 \times 50$	0.20	1.33	EKHS501VSN221MQ50S
	180	25.4 × 30	0.20	1.06	EKHS4H1VSN181MQ30S		220	30 × 35	0.20	1.26	EKHS501VSN221MR35S
	190	22 × 40	0.20	1.14	EKHS4H1VSN191MP40S		220	35 × 30	0.20	1.22	EKHS501VSN221MA30S
475	200	30 × 25	0.20	1.15	EKHS4H1VSN201MR25S		270	25.4 × 60	0.20	1.51	EKHS501VSN271MQ60S
	220	22 × 45	0.20	1.25	EKHS4H1VSN221MP45S		270	30 × 40	0.20	1.44	EKHS501VSN271MR40S
	230	$25.4 \times 35$	0.20	1.25	EKHS4H1VSN231MQ35S		270	30 × 45	0.20	1.47	EKHS501VSN271MR45S
	250	22 × 50	0.20	1.37	EKHS4H1VSN251MP50S		270	35 × 35	0.20	1.37	EKHS501VSN271MA35S
	270	25.4 × 40	0.20	1.38	EKHS4H1VSN271MQ40S		330	30 × 50	0.20	1.66	EKHS501VSN331MR50S
	270	30 × 30	0.20	1.35	EKHS4H1VSN271MR30S		330	35 × 40	0.20	1.57	EKHS501VSN331MA40S
	270	35 × 25	0.20	1.33	EKHS4H1VSN271MA25S		390	30 × 60	0.20	1.87	EKHS501VSN391MR60S
	290	22 × 55	0.20	1.50	EKHS4H1VSN291MP55S		390	35 × 45	0.20	1.74	EKHS501VSN391MA45S
	310	25.4 × 45	0.20	1.51	EKHS4H1VSN311MQ45S		470	35 × 50	0.20	1.95	EKHS501VSN471MA50S
	320	22 × 60	0.20	1.60	EKHS4H1VSN321MP60S		560	35 × 60	0.20	2.22	EKHS501VSN561MA60S

# **◆RATED RIPPLE CURRENT MULTIPLIERS**

# Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
450V <sub>dc</sub>	0.77	1.00	1.16	1.30	1.41	1.43
475V <sub>dc</sub>	0.77	1.00	1.11	1.20	1.25	1.33
500V <sub>dc</sub>	0.70	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.



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

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