

# KMW Series

- Downsized from KMR series
- Endurance with ripple current : 2,000 hours at 105°C
- Rated voltage range : 400 to 450V<sub>dc</sub>, Capacitance range : 120 to 1,000μF
- Non solvent resistant type
- RoHS2 Compliant

KMW

Downsized

KMR P6-11

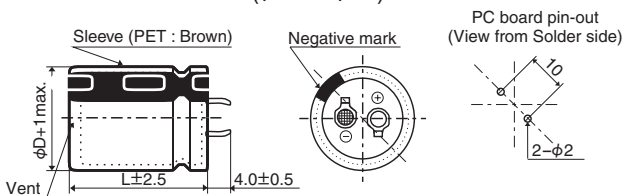


## SPECIFICATIONS

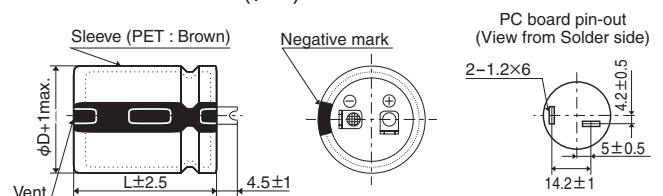
Items	Characteristics		
Category	-25 to +105°C		
Temperature Range			
Rated Voltage Range	400 to 450V <sub>dc</sub>		
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)		
Leakage Current	$I \leq 3\sqrt{CV}$ Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 5 minutes)		
Dissipation Factor (tan δ)	Rated voltage (V <sub>dc</sub> )	400V	420 & 450V
	tan δ (Max.)	0.15	0.20 (at 20°C, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )	400 to 450V	
	Z(-25°C)/Z(+20°C)	8 (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 2,000 hours at 105°C.		
	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°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 initial value	
	D.F. (tan δ)	≤ 150% of the initial specified value	
	Leakage current	≤ The initial specified value	

## DIMENSIONS [mm]

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

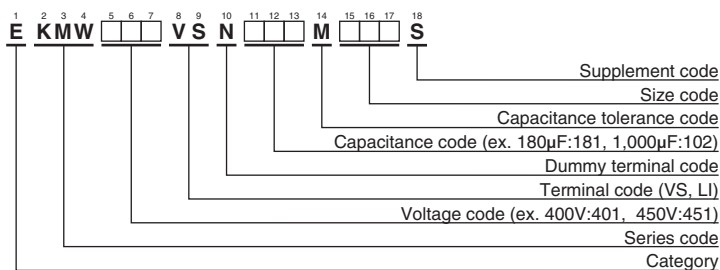


● Terminal Code : LI (φ35)



The standard design has no plastic disc.

## PART NUMBERING SYSTEM



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

KMW Series

◆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.
400	150	22 × 25	0.15	0.91	EKMW401VSN151MP25S	420	330	35 × 25	0.20	1.38	EKMW421VSN331MA25S
	180	22 × 30	0.15	1.04	EKMW401VSN181MP30S		390	25.4 × 45	0.20	1.67	EKMW421VSN391MQ45S
	220	22 × 35	0.15	1.18	EKMW401VSN221MP35S		390	25.4 × 50	0.20	1.70	EKMW421VSN391MQ50S
	220	25.4 × 25	0.15	1.15	EKMW401VSN221MQ25S		390	30 × 35	0.20	1.59	EKMW421VSN391MR35S
	270	25.4 × 30	0.15	1.31	EKMW401VSN271MQ30S		470	30 × 40	0.20	1.79	EKMW421VSN471MR40S
	330	22 × 45	0.15	1.50	EKMW401VSN331MP45S		470	35 × 30	0.20	1.67	EKMW421VSN471MA30S
	330	25.4 × 35	0.15	1.51	EKMW401VSN331MQ35S		560	30 × 45	0.20	2.01	EKMW421VSN561MR45S
	330	30 × 25	0.15	1.46	EKMW401VSN331MR25S		560	35 × 35	0.20	1.85	EKMW421VSN561MA35S
	390	22 × 50	0.15	1.67	EKMW401VSN391MP50S		680	35 × 40	0.20	2.11	EKMW421VSN681MA40S
	390	25.4 × 40	0.15	1.67	EKMW401VSN391MQ40S		450	120	22 × 25	0.20	0.78
	390	30 × 30	0.15	1.61	EKMW401VSN391MR30S	150		22 × 30	0.20	0.91	EKMW451VSN151MP30S
	390	35 × 25	0.15	1.40	EKMW401VSN391MA25S	150		25.4 × 25	0.20	0.93	EKMW451VSN151MQ25S
	470	25.4 × 45	0.15	1.87	EKMW401VSN471MQ45S	180		22 × 35	0.20	1.02	EKMW451VSN181MP35S
	470	30 × 35	0.15	1.81	EKMW401VSN471MR35S	180		25.4 × 30	0.20	1.05	EKMW451VSN181MQ30S
	560	30 × 40	0.15	2.03	EKMW401VSN561MR40S	220		22 × 40	0.20	1.15	EKMW451VSN221MP40S
	560	35 × 30	0.15	1.70	EKMW401VSN561MA30S	220		25.4 × 35	0.20	1.21	EKMW451VSN221MQ35S
	680	30 × 45	0.15	2.29	EKMW401VSN681MR45S	220		30 × 25	0.20	1.15	EKMW451VSN221MR25S
	680	30 × 50	0.15	2.33	EKMW401VSN681MR50S	270		22 × 50	0.20	1.36	EKMW451VSN271MP50S
	680	35 × 35	0.15	1.90	EKMW401VSN681MA35S	270		25.4 × 40	0.20	1.36	EKMW451VSN271MQ40S
	820	35 × 40	0.15	2.16	EKMW401VSN821MA40S	270	30 × 30	0.20	1.29	EKMW451VSN271MR30S	
1,000	35 × 50	0.15	2.50	EKMW401VSN102MA50S	330	25.4 × 45	0.20	1.54	EKMW451VSN331MQ45S		
420	120	22 × 25	0.20	0.78	EKMW421VSN121MP25S	330	30 × 35	0.20	1.46	EKMW451VSN331MR35S	
	150	22 × 30	0.20	0.91	EKMW421VSN151MP30S	390	25.4 × 50	0.20	1.70	EKMW451VSN391MQ50S	
	180	25.4 × 25	0.20	1.02	EKMW421VSN181MQ25S	390	30 × 40	0.20	1.63	EKMW451VSN391MR40S	
	220	25.4 × 30	0.20	1.16	EKMW421VSN221MQ30S	390	35 × 30	0.20	1.52	EKMW451VSN391MA30S	
	270	22 × 45	0.20	1.30	EKMW421VSN271MP45S	470	30 × 45	0.20	1.85	EKMW451VSN471MR45S	
	270	25.4 × 35	0.20	1.34	EKMW421VSN271MQ35S	470	35 × 35	0.20	1.77	EKMW451VSN471MA35S	
	270	30 × 25	0.20	1.28	EKMW421VSN271MR25S	560	30 × 50	0.20	2.04	EKMW451VSN561MR50S	
	330	22 × 50	0.20	1.47	EKMW421VSN331MP50S	560	35 × 40	0.20	2.02	EKMW451VSN561MA40S	
	330	25.4 × 40	0.20	1.51	EKMW421VSN331MQ40S	680	35 × 45	0.20	2.16	EKMW451VSN681MA45S	
	330	30 × 30	0.20	1.43	EKMW421VSN331MR30S	820	35 × 50	0.20	2.42	EKMW451VSN821MA50S	

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
400 to 450V <sub>dc</sub>	0.77	1.00	1.16	1.30	1.41	1.43

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.