

# KMM Series

- Longer life from KMQ series
- Endurance with ripple current : 2,000 to 3,000 hours at 105°C
- Non solvent resistant type
- RoHS Compliant



## ◆ SPECIFICATIONS

Items	Characteristics	
Category	Temperature Range	
Temperature Range	-25 to +105°C	
Rated Voltage Range	160 to 450V <sub>dc</sub>	
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)	
Leakage Current	I ≤ 3√CV Where, I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V) (at 20°C after 5 minutes)	
Dissipation Factor (tanδ)	Rated voltage (V <sub>dc</sub> )	160 to 400V 420 & 450V
	tanδ (Max.)	0.15 0.20 (at 20°C, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )	160 to 400V 420 & 450V
	Z(-25°C)/Z(+20°C)	4 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 3,000 hours (2,000 hours for φ20×20L products) at 105°C.	
	Capacitance change	≤ ±20% of the initial value
	D.F. (tanδ)	≤ 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. (tanδ)	≤ 150% of the initial specified value
	Leakage current	≤ The initial specified value

## ◆ DIMENSIONS [mm]

● Terminal Code : VS (φ20 to φ35) : Standard



● Terminal Code : LI (φ35)



\* φD=35mm : 3.5±0.5mm

The standard design has no plastic disc.

## ◆ PART NUMBERING SYSTEM



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

## KMM Series

### ◆ STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.	WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.
160	180	20×20	0.15	0.68	EKMM161VSN181MN20S	180	560	20×45	0.15	1.55	EKMM181VSN561MN45S
	220	20×25	0.15	0.85	EKMM161VSN221MN25S		560	22×40	0.15	1.67	EKMM181VSN561MP40S
	220	22×20	0.15	0.81	EKMM161VSN221MP20S		560	25.4×30	0.15	1.67	EKMM181VSN561MQ30S
	270	20×25	0.15	1.10	EKMM161VSN271MN25S		560	30×25	0.15	1.67	EKMM181VSN561MR25S
	270	25.4×20	0.15	0.98	EKMM161VSN271MQ20S		560	35×20	0.15	1.43	EKMM181VSN561MA20S
	330	20×30	0.15	1.20	EKMM161VSN331MN30S		680	20×50	0.15	1.75	EKMM181VSN681MN50S
	330	22×25	0.15	1.20	EKMM161VSN331MP25S		680	22×45	0.15	1.78	EKMM181VSN681MP45S
	330	25.4×20	0.15	1.02	EKMM161VSN331MQ20S		680	25.4×35	0.15	1.78	EKMM181VSN681MQ35S
	390	20×30	0.15	1.30	EKMM161VSN391MN30S		680	30×30	0.15	1.78	EKMM181VSN681MR30S
	390	22×25	0.15	1.30	EKMM161VSN391MP25S		680	35×25	0.15	1.83	EKMM181VSN681MA25S
	390	25.4×25	0.15	1.26	EKMM161VSN391MQ25S		820	22×50	0.15	2.04	EKMM181VSN821MP50S
	390	30×20	0.15	1.25	EKMM161VSN391MR20S		820	25.4×40	0.15	2.04	EKMM181VSN821MQ40S
	470	20×35	0.15	1.34	EKMM161VSN471MN35S		820	30×30	0.15	2.04	EKMM181VSN821MR30S
	470	22×30	0.15	1.55	EKMM161VSN471MP30S		820	35×25	0.15	2.04	EKMM181VSN821MA25S
	470	25.4×25	0.15	1.55	EKMM161VSN471MQ25S		1,000	25.4×45	0.15	2.30	EKMM181VSN102MQ45S
	470	30×20	0.15	1.30	EKMM161VSN471MR20S		1,000	30×35	0.15	2.30	EKMM181VSN102MR35S
	560	20×40	0.15	1.50	EKMM161VSN561MN40S		1,000	35×30	0.15	2.30	EKMM181VSN102MA30S
	560	22×35	0.15	1.67	EKMM161VSN561MP35S		1,200	25.4×50	0.15	2.55	EKMM181VSN122MP50S
	560	25.4×30	0.15	1.67	EKMM161VSN561MQ30S		1,200	30×40	0.15	2.55	EKMM181VSN122MR40S
	560	30×25	0.15	1.67	EKMM161VSN561MR25S		1,200	35×30	0.15	2.55	EKMM181VSN122MA30S
	560	35×20	0.15	1.46	EKMM161VSN561MA20S		1,500	30×45	0.15	2.90	EKMM181VSN152MR45S
	680	20×45	0.15	1.70	EKMM161VSN681MN45S		1,500	35×35	0.15	2.90	EKMM181VSN152MA35S
	680	22×40	0.15	1.82	EKMM161VSN681MP40S		1,800	30×60	0.15	3.49	EKMM181VSN182MR60S
	680	25.4×30	0.15	1.82	EKMM161VSN681MQ30S		1,800	35×40	0.15	3.30	EKMM181VSN182MA40S
	680	30×25	0.15	1.82	EKMM161VSN681MR25S		2,200	35×50	0.15	3.65	EKMM181VSN222MA50S
	680	35×20	0.15	1.51	EKMM161VSN681MA20S		2,700	35×60	0.15	4.19	EKMM181VSN272MA60S
	820	22×45	0.15	2.04	EKMM161VSN821MP45S		120	20×20	0.15	0.56	EKMM201VSN121MN20S
	820	25.4×35	0.15	2.04	EKMM161VSN821MQ35S		150	20×25	0.15	0.71	EKMM201VSN151MN25S
	820	30×30	0.15	2.04	EKMM161VSN821MR30S		150	22×20	0.15	0.73	EKMM201VSN151MP20S
	820	35×25	0.15	2.04	EKMM161VSN821MA25S		180	20×25	0.15	0.77	EKMM201VSN181MN25S
	1,000	22×50	0.15	2.25	EKMM161VSN102MP50S		180	22×20	0.15	0.80	EKMM201VSN181MP20S
	1,000	25.4×40	0.15	2.25	EKMM161VSN102MQ40S		220	20×25	0.15	1.00	EKMM201VSN221MN25S
	1,000	30×30	0.15	2.25	EKMM161VSN102MR30S		220	25.4×20	0.15	0.85	EKMM201VSN221MQ20S
	1,000	35×25	0.15	2.25	EKMM161VSN102MA25S		270	20×30	0.15	1.10	EKMM201VSN271MN30S
	1,200	25.4×45	0.15	2.49	EKMM161VSN122MP45S		270	22×25	0.15	1.10	EKMM201VSN271MP25S
	1,200	30×35	0.15	2.49	EKMM161VSN122MR35S		270	30×20	0.15	1.05	EKMM201VSN271MR20S
	1,200	35×30	0.15	2.49	EKMM161VSN122MA30S		330	20×35	0.15	1.20	EKMM201VSN331MN35S
	1,500	25.4×60	0.15	2.97	EKMM161VSN152MQ60S		330	22×30	0.15	1.25	EKMM201VSN331MP30S
	1,500	30×40	0.15	2.84	EKMM161VSN152MR40S		330	25.4×25	0.15	1.25	EKMM201VSN331MQ25S
	1,500	35×30	0.15	2.84	EKMM161VSN152MA30S		330	30×20	0.15	1.10	EKMM201VSN331MR20S
	1,800	30×45	0.15	3.32	EKMM161VSN182MR45S		390	20×40	0.15	1.31	EKMM201VSN391MN40S
	1,800	35×35	0.15	3.00	EKMM161VSN182MA35S		390	22×30	0.15	1.35	EKMM201VSN391MP30S
2,200	30×60	0.15	3.86	EKMM161VSN222MR60S	390	25.4×25	0.15	1.35	EKMM201VSN391MQ25S		
2,200	35×45	0.15	3.50	EKMM161VSN222MA45S	390	35×20	0.15	1.30	EKMM201VSN391MA20S		
2,700	35×50	0.15	4.00	EKMM161VSN272MA50S	470	20×45	0.15	1.45	EKMM201VSN471MN45S		
3,300	35×60	0.15	4.63	EKMM161VSN332MA60S	470	22×35	0.15	1.50	EKMM201VSN471MP35S		
180	150	20×20	0.15	0.62	EKMM181VSN151MN20S	470	25.4×30	0.15	1.50	EKMM201VSN471MQ30S	
	180	20×25	0.15	0.77	EKMM181VSN181MN25S	470	30×25	0.15	1.50	EKMM201VSN471MR25S	
	180	22×20	0.15	0.80	EKMM181VSN181MP20S	470	35×20	0.15	1.41	EKMM201VSN471MA20S	
	220	20×25	0.15	1.00	EKMM181VSN221MN25S	560	20×50	0.15	1.58	EKMM201VSN561MN50S	
	220	25.4×20	0.15	0.90	EKMM181VSN221MQ20S	560	22×40	0.15	1.67	EKMM201VSN561MP40S	
	270	20×30	0.15	1.10	EKMM181VSN271MN30S	560	25.4×30	0.15	1.67	EKMM201VSN561MQ30S	
	270	22×25	0.15	1.00	EKMM181VSN271MP25S	560	30×25	0.15	1.67	EKMM201VSN561MR25S	
	270	25.4×20	0.15	0.95	EKMM181VSN271MQ20S	680	22×45	0.15	1.78	EKMM201VSN681MP45S	
	330	20×30	0.15	1.20	EKMM181VSN331MN30S	680	25.4×35	0.15	1.78	EKMM201VSN681MQ35S	
	330	22×25	0.15	1.20	EKMM181VSN331MP25S	680	30×30	0.15	1.78	EKMM201VSN681MR30S	
	330	25.4×25	0.15	1.16	EKMM181VSN331MQ25S	680	35×25	0.15	1.78	EKMM201VSN681MA25S	
	330	30×20	0.15	1.15	EKMM181VSN331MR20S	820	25.4×45	0.15	2.04	EKMM201VSN821MQ45S	
	390	20×35	0.15	1.30	EKMM181VSN391MN35S	820	30×30	0.15	2.04	EKMM201VSN821MR30S	
	390	22×30	0.15	1.35	EKMM181VSN391MP30S	820	35×25	0.15	2.04	EKMM201VSN821MA25S	
	390	25.4×25	0.15	1.35	EKMM181VSN391MQ25S	1,000	25.4×50	0.15	2.30	EKMM201VSN102MQ50S	
	390	30×20	0.15	1.20	EKMM181VSN391MR20S	1,000	30×35	0.15	2.30	EKMM201VSN102MR35S	
	470	20×40	0.15	1.40	EKMM181VSN471MN40S	1,000	35×30	0.15	2.30	EKMM201VSN102MA30S	
	470	22×35	0.15	1.50	EKMM181VSN471MP35S	1,200	25.4×60	0.15	2.66	EKMM201VSN122MQ60S	
	470	25.4×30	0.15	1.50	EKMM181VSN471MQ30S	1,200	30×40	0.15	2.65	EKMM201VSN122MR40S	
	470	30×25	0.15	1.50	EKMM181VSN471MR25S	1,200	35×35	0.15	2.65	EKMM201VSN122MA35S	
	470	35×20	0.15	1.36	EKMM181VSN471MA20S	1,500	30×50	0.15	3.08	EKMM201VSN152MR50S	

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### ◆ STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.	WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.
200	1,500	35×40	0.15	3.08	EKMM201VSN152MA40S	250	330	30×25	0.15	1.30	EKMM251VSN331MR25S
	1,800	30×60	0.15	3.49	EKMM201VSN182MR60S		330	35×20	0.15	1.16	EKMM251VSN331MA20S
	1,800	35×45	0.15	3.48	EKMM201VSN182MA45S		390	20×50	0.15	1.45	EKMM251VSN391MN50S
	2,200	35×50	0.15	3.78	EKMM201VSN222MA50S		390	22×40	0.15	1.49	EKMM251VSN391MP40S
220	120	20×20	0.15	0.56	EKMM221VSN121MN20S		390	25.4×35	0.15	1.49	EKMM251VSN391MQ35S
	150	20×25	0.15	0.73	EKMM221VSN151MN25S		390	30×25	0.15	1.49	EKMM251VSN391MR25S
	150	22×20	0.15	0.67	EKMM221VSN151MP20S		470	22×45	0.15	1.65	EKMM251VSN471MP45S
	180	20×25	0.15	0.90	EKMM221VSN181MN25S		470	25.4×35	0.15	1.65	EKMM251VSN471MQ35S
	180	25.4×20	0.15	0.76	EKMM221VSN181MQ20S		470	30×30	0.15	1.65	EKMM251VSN471MR30S
	220	20×30	0.15	1.00	EKMM221VSN221MN30S		470	35×25	0.15	1.65	EKMM251VSN471MA25S
	220	22×25	0.15	1.00	EKMM221VSN221MP25S		560	22×50	0.15	1.67	EKMM251VSN561MP50S
	220	25.4×20	0.15	0.84	EKMM221VSN221MQ20S		560	25.4×40	0.15	1.80	EKMM251VSN561MQ40S
	270	20×35	0.15	1.15	EKMM221VSN271MN35S		560	30×30	0.15	1.80	EKMM251VSN561MR30S
	270	22×30	0.15	1.15	EKMM221VSN271MP30S		560	35×25	0.15	1.80	EKMM251VSN561MA25S
	270	25.4×25	0.15	1.08	EKMM221VSN271MQ25S		680	25.4×50	0.15	2.00	EKMM251VSN681MQ50S
	270	30×20	0.15	0.98	EKMM221VSN271MR20S		680	30×35	0.15	2.00	EKMM251VSN681MR35S
	330	20×40	0.15	1.25	EKMM221VSN331MN40S		680	35×30	0.15	2.00	EKMM251VSN681MA30S
	330	22×35	0.15	1.25	EKMM221VSN331MP35S		820	25.4×60	0.15	2.20	EKMM251VSN821MQ60S
	330	25.4×25	0.15	1.25	EKMM221VSN331MQ25S		820	30×40	0.15	2.30	EKMM251VSN821MR40S
	330	35×20	0.15	1.13	EKMM221VSN331MA20S		820	35×35	0.15	2.30	EKMM251VSN821MA35S
	390	20×45	0.15	1.40	EKMM221VSN391MN45S		1,000	30×50	0.15	2.47	EKMM251VSN102MR50S
	390	22×35	0.15	1.40	EKMM221VSN391MP35S		1,000	35×40	0.15	2.47	EKMM251VSN102MA40S
	390	25.4×30	0.15	1.40	EKMM221VSN391MQ30S		1,200	30×60	0.15	2.85	EKMM251VSN122MR60S
	390	30×25	0.15	1.36	EKMM221VSN391MR25S		1,200	35×45	0.15	2.60	EKMM251VSN122MA45S
	390	35×20	0.15	1.23	EKMM221VSN391MA20S		1,500	35×50	0.15	3.00	EKMM251VSN152MA50S
	470	20×50	0.15	1.51	EKMM221VSN471MN50S		1,800	35×60	0.15	3.42	EKMM251VSN182MA60S
	470	22×40	0.15	1.51	EKMM221VSN471MP40S		56	20×20	0.15	0.38	EKMM3B1VSN560MN20S
	470	25.4×35	0.15	1.54	EKMM221VSN471MQ35S		68	20×25	0.15	0.47	EKMM3B1VSN680MN25S
	470	30×25	0.15	1.50	EKMM221VSN471MR25S		68	22×20	0.15	0.45	EKMM3B1VSN680MP20S
	560	22×45	0.15	1.70	EKMM221VSN561MP45S		82	20×25	0.15	0.64	EKMM3B1VSN820MN25S
	560	25.4×40	0.15	1.72	EKMM221VSN561MQ40S		82	22×20	0.15	0.47	EKMM3B1VSN820MP20S
	560	30×30	0.15	1.70	EKMM221VSN561MR30S		100	20×30	0.15	0.69	EKMM3B1VSN101MN30S
	560	35×25	0.15	1.71	EKMM221VSN561MA25S		100	22×25	0.15	0.61	EKMM3B1VSN101MP25S
	680	25.4×45	0.15	1.94	EKMM221VSN681MQ45S		100	25.4×20	0.15	0.56	EKMM3B1VSN101MQ20S
	680	30×35	0.15	1.93	EKMM221VSN681MR35S		120	20×30	0.15	0.75	EKMM3B1VSN121MN30S
	680	35×25	0.15	1.89	EKMM221VSN681MA25S		120	22×25	0.15	0.75	EKMM3B1VSN121MP25S
	820	25.4×50	0.15	2.18	EKMM221VSN821MQ50S		120	25.4×20	0.15	0.62	EKMM3B1VSN121MQ20S
	820	30×40	0.15	2.19	EKMM221VSN821MR40S		120	30×20	0.15	0.65	EKMM3B1VSN121MR20S
	820	35×30	0.15	2.16	EKMM221VSN821MA30S		150	20×35	0.15	0.82	EKMM3B1VSN151MN35S
	1,000	25.4×60	0.15	2.54	EKMM221VSN102MQ60S		150	22×30	0.15	0.82	EKMM3B1VSN151MP30S
	1,000	30×45	0.15	2.50	EKMM221VSN102MR45S		150	25.4×25	0.15	0.82	EKMM3B1VSN151MQ25S
	1,000	35×35	0.15	2.44	EKMM221VSN102MA35S		150	30×20	0.15	0.70	EKMM3B1VSN151MR20S
	1,200	30×50	0.15	2.81	EKMM221VSN122MR50S		150	35×20	0.15	0.76	EKMM3B1VSN151MA20S
	1,200	35×40	0.15	2.79	EKMM221VSN122MA40S		180	20×40	0.15	0.90	EKMM3B1VSN181MN40S
	1,500	30×60	0.15	3.30	EKMM221VSN152MR60S	180	22×35	0.15	0.92	EKMM3B1VSN181MP35S	
	1,500	35×45	0.15	3.22	EKMM221VSN152MA45S	180	25.4×25	0.15	0.92	EKMM3B1VSN181MQ25S	
	1,800	35×50	0.15	3.63	EKMM221VSN182MA50S	180	30×25	0.15	0.90	EKMM3B1VSN181MR25S	
	2,200	35×60	0.15	4.23	EKMM221VSN222MA60S	180	35×20	0.15	0.85	EKMM3B1VSN181MA20S	
250	100	20×20	0.15	0.51	EKMM251VSN101MN20S	220	20×50	0.15	1.00	EKMM3B1VSN221MN50S	
	120	20×25	0.15	0.58	EKMM251VSN121MN25S	220	22×40	0.15	1.04	EKMM3B1VSN221MP40S	
	120	22×20	0.15	0.60	EKMM251VSN121MP20S	220	25.4×30	0.15	1.04	EKMM3B1VSN221MQ30S	
	150	20×25	0.15	0.79	EKMM251VSN151MN25S	220	30×25	0.15	1.04	EKMM3B1VSN221MR25S	
	150	25.4×20	0.15	0.74	EKMM251VSN151MQ20S	220	35×20	0.15	0.90	EKMM3B1VSN221MA20S	
	180	20×30	0.15	0.90	EKMM251VSN181MN30S	270	22×45	0.15	1.16	EKMM3B1VSN271MP45S	
	180	22×25	0.15	0.78	EKMM251VSN181MP25S	270	25.4×35	0.15	1.16	EKMM3B1VSN271MQ35S	
	180	25.4×20	0.15	0.75	EKMM251VSN181MQ20S	270	30×25	0.15	1.16	EKMM3B1VSN271MR25S	
	220	20×30	0.15	1.00	EKMM251VSN221MN30S	270	35×25	0.15	1.15	EKMM3B1VSN271MA25S	
	220	22×25	0.15	1.00	EKMM251VSN221MP25S	330	22×50	0.15	1.33	EKMM3B1VSN331MP50S	
	220	25.4×25	0.15	0.95	EKMM251VSN221MQ25S	330	25.4×40	0.15	1.33	EKMM3B1VSN331MQ40S	
	220	30×20	0.15	0.95	EKMM251VSN221MR20S	330	30×30	0.15	1.33	EKMM3B1VSN331MR30S	
	270	20×35	0.15	1.10	EKMM251VSN271MN35S	330	35×25	0.15	1.33	EKMM3B1VSN331MA25S	
	270	22×30	0.15	1.18	EKMM251VSN271MP30S	390	25.4×45	0.15	1.47	EKMM3B1VSN391MQ45S	
	270	25.4×25	0.15	1.18	EKMM251VSN271MQ25S	390	30×35	0.15	1.47	EKMM3B1VSN391MR35S	
	270	30×20	0.15	1.00	EKMM251VSN271MR20S	390	35×30	0.15	1.47	EKMM3B1VSN391MA30S	
	330	20×40	0.15	1.20	EKMM251VSN331MN40S	470	25.4×50	0.15	1.70	EKMM3B1VSN471MQ50S	
	330	22×35	0.15	1.30	EKMM251VSN331MP35S	470	30×40	0.15	1.70	EKMM3B1VSN471MR40S	
	330	25.4×30	0.15	1.30	EKMM251VSN331MQ30S	470	35×30	0.15	1.70	EKMM3B1VSN471MA30S	

◆ STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.	WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.
315	560	30×45	0.15	2.05	EKMM3B1VSN561MR45S	400	100	30×20	0.15	0.60	EKMM401VSN101MR20S
	560	35×35	0.15	2.05	EKMM3B1VSN561MA35S		120	20×40	0.15	0.75	EKMM401VSN121MN40S
	680	30×50	0.15	2.17	EKMM3B1VSN681MR50S		120	22×35	0.15	0.75	EKMM401VSN121MP35S
	680	35×40	0.15	2.17	EKMM3B1VSN681MA40S		120	25.4×25	0.15	0.75	EKMM401VSN121MQ25S
	820	35×45	0.15	2.20	EKMM3B1VSN821MA45S		120	30×25	0.15	0.73	EKMM401VSN121MR25S
	1,000	35×60	0.15	2.55	EKMM3B1VSN102MA60S		120	35×20	0.15	0.75	EKMM401VSN121MA20S
350	47	20×20	0.15	0.35	EKMM351VSN470MN20S		150	20×45	0.15	0.83	EKMM401VSN151MN45S
	56	20×25	0.15	0.43	EKMM351VSN560MN25S		150	22×40	0.15	0.88	EKMM401VSN151MP40S
	56	22×20	0.15	0.41	EKMM351VSN560MP20S		150	25.4×30	0.15	0.88	EKMM401VSN151MQ30S
	68	20×25	0.15	0.47	EKMM351VSN680MN25S		150	30×25	0.15	0.88	EKMM401VSN151MR25S
	68	25.4×20	0.15	0.46	EKMM351VSN680MQ20S		150	35×20	0.15	0.80	EKMM401VSN151MA20S
	82	20×30	0.15	0.54	EKMM351VSN820MN30S		180	22×45	0.15	0.98	EKMM401VSN181MP45S
	82	22×25	0.15	0.55	EKMM351VSN820MP25S		180	25.4×35	0.15	0.98	EKMM401VSN181MQ35S
	82	25.4×20	0.15	0.51	EKMM351VSN820MQ20S		180	30×30	0.15	0.98	EKMM401VSN181MR30S
	100	20×30	0.15	0.60	EKMM351VSN101MN30S		180	35×25	0.15	0.98	EKMM401VSN181MA25S
	100	22×25	0.15	0.69	EKMM351VSN101MP25S		220	22×50	0.15	1.10	EKMM401VSN221MP50S
	100	30×20	0.15	0.60	EKMM351VSN101MR20S		220	25.4×40	0.15	1.10	EKMM401VSN221MQ40S
	120	20×35	0.15	0.68	EKMM351VSN121MN35S		220	30×30	0.15	1.10	EKMM401VSN221MR30S
	120	22×30	0.15	0.75	EKMM351VSN121MP30S		220	35×25	0.15	1.10	EKMM401VSN221MA25S
	120	25.4×25	0.15	0.75	EKMM351VSN121MQ25S		270	25.4×45	0.15	1.22	EKMM401VSN271MQ45S
	120	30×20	0.15	0.65	EKMM351VSN121MR20S		270	30×35	0.15	1.22	EKMM401VSN271MR35S
	150	20×40	0.15	0.78	EKMM351VSN151MN40S		270	35×30	0.15	1.22	EKMM401VSN271MA30S
	150	22×35	0.15	0.82	EKMM351VSN151MP35S		330	25.4×50	0.15	1.44	EKMM401VSN331MQ50S
	150	25.4×30	0.15	0.83	EKMM351VSN151MQ30S		330	30×40	0.15	1.44	EKMM401VSN331MR40S
	150	30×25	0.15	0.82	EKMM351VSN151MR25S	330	35×30	0.15	1.44	EKMM401VSN331MA30S	
	150	35×20	0.15	0.76	EKMM351VSN151MA20S	390	25.4×60	0.15	1.51	EKMM401VSN391MQ60S	
	180	20×45	0.15	0.87	EKMM351VSN181MN45S	390	30×45	0.15	1.60	EKMM401VSN391MR45S	
	180	22×40	0.15	0.92	EKMM351VSN181MP40S	390	35×35	0.15	1.60	EKMM401VSN391MA35S	
	180	25.4×30	0.15	0.92	EKMM351VSN181MQ30S	470	30×50	0.15	1.90	EKMM401VSN471MR50S	
	180	30×25	0.15	0.90	EKMM351VSN181MR25S	470	35×40	0.15	1.90	EKMM401VSN471MA40S	
	220	20×50	0.15	1.00	EKMM351VSN221MN50S	560	30×60	0.15	2.10	EKMM401VSN561MR60S	
	220	22×45	0.15	1.05	EKMM351VSN221MP45S	560	35×45	0.15	2.12	EKMM401VSN561MA45S	
	220	25.4×35	0.15	1.04	EKMM351VSN221MQ35S	680	35×60	0.15	2.27	EKMM401VSN681MA60S	
	220	30×30	0.15	1.02	EKMM351VSN221MR30S	420	39	20×20	0.20	0.32	EKMM421VSN390MN20S
	220	35×25	0.15	1.04	EKMM351VSN221MA25S		47	20×25	0.20	0.39	EKMM421VSN470MN25S
	270	22×50	0.15	1.16	EKMM351VSN271MP50S		47	22×20	0.20	0.37	EKMM421VSN470MP20S
	270	25.4×40	0.15	1.18	EKMM351VSN271MQ40S		56	20×25	0.20	0.51	EKMM421VSN560MN25S
	270	30×30	0.15	1.17	EKMM351VSN271MR30S		56	25.4×20	0.20	0.42	EKMM421VSN560MQ20S
	270	35×25	0.15	1.20	EKMM351VSN271MA25S		68	20×30	0.20	0.56	EKMM421VSN680MN30S
	330	25.4×45	0.15	1.29	EKMM351VSN331MQ45S		68	22×25	0.20	0.50	EKMM421VSN680MP25S
	330	30×35	0.15	1.34	EKMM351VSN331MR35S		68	25.4×20	0.20	0.46	EKMM421VSN680MQ20S
	330	35×30	0.15	1.22	EKMM351VSN331MA30S		82	20×35	0.20	0.64	EKMM421VSN820MN35S
390	25.4×50	0.15	1.51	EKMM351VSN391MQ50S	82		22×25	0.20	0.64	EKMM421VSN820MP25S	
390	30×40	0.15	1.51	EKMM351VSN391MR40S	82		25.4×25	0.20	0.58	EKMM421VSN820MQ25S	
390	35×35	0.15	1.47	EKMM351VSN391MA35S	82		30×20	0.20	0.53	EKMM421VSN820MR20S	
470	25.4×60	0.15	1.66	EKMM351VSN471MQ60S	100		20×35	0.20	0.70	EKMM421VSN101MN35S	
470	30×45	0.15	1.65	EKMM351VSN471MR45S	100		22×30	0.20	0.70	EKMM421VSN101MP30S	
470	35×35	0.15	1.69	EKMM351VSN471MA35S	100		25.4×25	0.20	0.70	EKMM421VSN101MQ25S	
560	30×50	0.15	1.85	EKMM351VSN561MR50S	100		30×20	0.20	0.59	EKMM421VSN101MR20S	
560	35×40	0.15	1.90	EKMM351VSN561MA40S	120		20×40	0.20	0.75	EKMM421VSN121MN40S	
680	30×60	0.15	2.15	EKMM351VSN681MR60S	120		22×35	0.20	0.75	EKMM421VSN121MP35S	
680	35×50	0.15	1.99	EKMM351VSN681MA50S	120		25.4×30	0.20	0.75	EKMM421VSN121MQ30S	
820	35×60	0.15	2.31	EKMM351VSN821MA60S	120		30×25	0.20	0.73	EKMM421VSN121MR25S	
400	39	20×20	0.15	0.32	EKMM401VSN390MN20S		120	35×20	0.20	0.67	EKMM421VSN121MA20S
	47	20×25	0.15	0.39	EKMM401VSN470MN25S		150	20×50	0.20	0.88	EKMM421VSN151MN50S
	47	22×20	0.15	0.37	EKMM401VSN470MP20S		150	22×40	0.20	0.88	EKMM421VSN151MP40S
	56	20×25	0.15	0.51	EKMM401VSN560MN25S		150	25.4×35	0.20	0.88	EKMM421VSN151MQ35S
	56	25.4×20	0.15	0.42	EKMM401VSN560MQ20S		150	30×25	0.20	0.88	EKMM421VSN151MR25S
	68	20×30	0.15	0.56	EKMM401VSN680MN30S		180	22×45	0.20	0.95	EKMM421VSN181MP45S
	68	22×25	0.15	0.50	EKMM401VSN680MP25S		180	25.4×35	0.20	0.95	EKMM421VSN181MQ35S
	68	25.4×20	0.15	0.46	EKMM401VSN680MQ20S		180	30×30	0.20	0.95	EKMM421VSN181MR30S
	82	20×30	0.15	0.64	EKMM401VSN820MN30S		180	35×25	0.20	0.94	EKMM421VSN181MA25S
	82	22×25	0.15	0.64	EKMM401VSN820MP25S		220	22×50	0.20	1.10	EKMM421VSN221MP50S
	82	30×20	0.15	0.55	EKMM401VSN820MR20S		220	25.4×45	0.20	1.10	EKMM421VSN221MQ45S
	100	20×35	0.15	0.70	EKMM401VSN101MN35S		220	30×35	0.20	1.10	EKMM421VSN221MR35S
	100	22×30	0.15	0.70	EKMM401VSN101MP30S		220	35×25	0.20	1.10	EKMM421VSN221MA25S
	100	25.4×25	0.15	0.70	EKMM401VSN101MQ25S		270	25.4×50	0.20	1.22	EKMM421VSN271MQ50S

KMM Series

◆STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.	WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.
420	270	30×40	0.20	1.22	EKMM421VSN271MR40S	450	120	20×50	0.20	0.75	EKMM451VSN121MN50S
	270	35×30	0.20	1.22	EKMM421VSN271MA30S		120	22×40	0.20	0.80	EKMM451VSN121MP40S
	330	25.4×60	0.20	1.41	EKMM421VSN331MQ60S		120	25.4×30	0.20	0.80	EKMM451VSN121MQ30S
	330	30×45	0.20	1.45	EKMM421VSN331MR45S		120	30×25	0.20	0.80	EKMM451VSN121MR25S
	330	35×35	0.20	1.45	EKMM421VSN331MA35S		120	35×25	0.20	0.73	EKMM451VSN121MA25S
	390	30×50	0.20	1.55	EKMM421VSN391MR50S		150	22×45	0.20	0.88	EKMM451VSN151MP45S
	390	35×40	0.20	1.55	EKMM421VSN391MA40S		150	25.4×35	0.20	0.88	EKMM451VSN151MQ35S
	470	30×60	0.20	1.79	EKMM421VSN471MR60S		150	30×30	0.20	0.88	EKMM451VSN151MR30S
	470	35×45	0.20	1.90	EKMM421VSN471MA45S		150	35×25	0.20	0.75	EKMM451VSN151MA25S
	560	35×50	0.20	2.15	EKMM421VSN561MA50S		180	22×50	0.20	1.00	EKMM451VSN181MP50S
	680	35×60	0.20	2.27	EKMM421VSN681MA60S		180	25.4×40	0.20	1.00	EKMM451VSN181MQ40S
450	39	20×25	0.20	0.34	EKMM451VSN390MN25S		180	30×30	0.20	1.00	EKMM451VSN181MR30S
	47	20×25	0.20	0.39	EKMM451VSN470MN25S		220	25.4×45	0.20	1.12	EKMM451VSN221MQ45S
	56	20×30	0.20	0.51	EKMM451VSN560MN30S		220	30×35	0.20	1.12	EKMM451VSN221MR35S
	56	22×25	0.20	0.40	EKMM451VSN560MP25S		220	35×30	0.20	1.12	EKMM451VSN221MA30S
	68	20×35	0.20	0.56	EKMM451VSN680MN35S		270	25.4×60	0.20	1.18	EKMM451VSN271MQ60S
	68	22×30	0.20	0.53	EKMM451VSN680MP30S		270	30×40	0.20	1.28	EKMM451VSN271MR40S
	68	25.4×25	0.20	0.50	EKMM451VSN680MQ25S		270	35×35	0.20	1.28	EKMM451VSN271MA35S
	82	20×35	0.20	0.64	EKMM451VSN820MN35S		330	30×50	0.20	1.45	EKMM451VSN331MR50S
	82	22×30	0.20	0.64	EKMM451VSN820MP30S		330	35×40	0.20	1.45	EKMM451VSN331MA40S
	82	25.4×25	0.20	0.64	EKMM451VSN820MQ25S		390	30×60	0.20	1.51	EKMM451VSN391MR60S
	100	20×45	0.20	0.69	EKMM451VSN101MN45S	390	35×40	0.20	1.55	EKMM451VSN391MA40S	
	100	22×35	0.20	0.69	EKMM451VSN101MP35S	470	35×50	0.20	1.85	EKMM451VSN471MA50S	
	100	25.4×30	0.20	0.69	EKMM451VSN101MQ30S	560	35×60	0.20	1.91	EKMM451VSN561MA60S	
	100	30×25	0.20	0.64	EKMM451VSN101MR25S						

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Frequency (Hz)	50	120	300	1k	10k	50k
160 to 250V <sub>dc</sub>	0.81	1.00	1.17	1.32	1.45	1.50
315 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.