

# KMQ Series

- Downsized from current downsized snap-ins KMH series
- Endurance with ripple current : 105°C 2000 hours
- Non solvent-proof type
- Pb-free design

KMQ

↑ downsized  
KMH

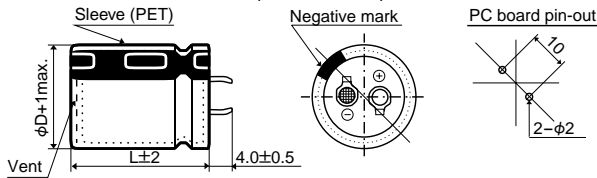


## ◆ SPECIFICATIONS

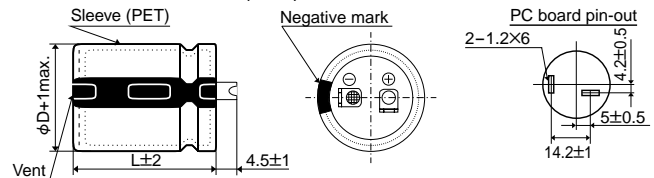
Items	Characteristics			
Category	Temperature Range			
Temperature Range	-25 to +105°C			
Rated Voltage Range	160 to 450V <sub>dc</sub>			
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)			
Leakage Current	I ≤ 3√CV Where, I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V) (at 20°C after 5 minutes)			
Dissipation Factor (tanδ)	Rated voltage (V <sub>dc</sub> )	160 to 250V	315 to 400V	420 & 450V
	tanδ (Max.)	0.15	0.15	0.20
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )	160 to 250V	315 to 400V	420 & 450V
	Z(-25°C)/Z(+20°C)	4	8	8
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 for 2000 hours 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 1000 hours at 105°C without voltage applied.			
	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 (φ22 to φ35) : Standard

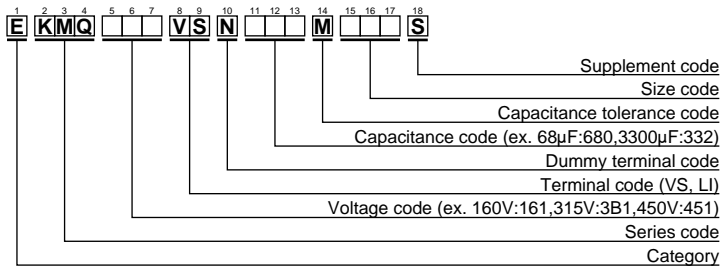


● Terminal Code : LI (φ35)



No plastic disk is the standard design.

## ◆ PART NUMBERING SYSTEM



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



◆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	470	22×25	0.15	1.40	EKMQ161VSN471MP25S	200	1800	35×40	0.15	3.08	EKMQ201VSN182MA40S
	560	22×30	0.15	1.50	EKMQ161VSN561MP30S		2200	35×45	0.15	3.48	EKMQ201VSN222MA45S
	680	22×30	0.15	1.70	EKMQ161VSN681MP30S		220	22×25	0.15	1.00	EKMQ251VSN221MP25S
	680	25.4×25	0.15	1.70	EKMQ161VSN681MQ25S		270	22×25	0.15	1.10	EKMQ251VSN271MP25S
	820	22×35	0.15	2.00	EKMQ161VSN821MP35S		330	22×30	0.15	1.20	EKMQ251VSN331MP30S
	820	25.4×30	0.15	2.00	EKMQ161VSN821MQ30S		330	25.4×25	0.15	1.20	EKMQ251VSN331MQ25S
	820	30×25	0.15	2.00	EKMQ161VSN821MR25S		390	22×35	0.15	1.30	EKMQ251VSN391MP35S
	1000	22×40	0.15	2.20	EKMQ161VSN102MP40S		390	25.4×25	0.15	1.30	EKMQ251VSN391MQ25S
	1000	25.4×35	0.15	2.20	EKMQ161VSN102MQ35S		470	22×40	0.15	1.40	EKMQ251VSN471MP40S
	1000	30×25	0.15	2.20	EKMQ161VSN102MR25S		470	25.4×30	0.15	1.40	EKMQ251VSN471MQ30S
	1200	25.4×40	0.15	2.30	EKMQ161VSN122MQ40S		470	30×25	0.15	1.40	EKMQ251VSN471MR25S
	1200	30×30	0.15	2.30	EKMQ161VSN122MR30S		560	22×45	0.15	1.50	EKMQ251VSN561MP45S
	1200	35×25	0.15	2.30	EKMQ161VSN122MA25S		560	25.4×35	0.15	1.50	EKMQ251VSN561MQ35S
	1500	25.4×45	0.15	2.50	EKMQ161VSN152MQ45S		560	30×25	0.15	1.50	EKMQ251VSN561MR25S
	1500	30×35	0.15	2.50	EKMQ161VSN152MR35S		680	22×50	0.15	1.70	EKMQ251VSN681MP50S
	1500	35×30	0.15	2.50	EKMQ161VSN152MA30S		680	25.4×40	0.15	1.70	EKMQ251VSN681MQ40S
	1800	25.4×50	0.15	2.70	EKMQ161VSN182MQ50S		680	30×30	0.15	1.70	EKMQ251VSN681MR30S
	1800	30×40	0.15	2.70	EKMQ161VSN182MR40S		680	35×25	0.15	1.70	EKMQ251VSN681MA25S
	1800	35×30	0.15	2.70	EKMQ161VSN182MA30S		820	25.4×45	0.15	2.00	EKMQ251VSN821MQ45S
	2200	30×45	0.15	2.90	EKMQ161VSN222MR45S		820	30×35	0.15	2.00	EKMQ251VSN821MR35S
	2200	35×35	0.15	2.90	EKMQ161VSN222MA35S		820	35×30	0.15	2.00	EKMQ251VSN821MA30S
2700	30×50	0.15	3.10	EKMQ161VSN272MR50S	1000	30×40	0.15	2.20	EKMQ251VSN102MR40S		
2700	35×40	0.15	3.10	EKMQ161VSN272MA40S	1000	35×30	0.15	2.20	EKMQ251VSN102MA30S		
3300	35×50	0.15	3.30	EKMQ161VSN332MA50S	1200	30×45	0.15	2.30	EKMQ251VSN122MR45S		
180	390	22×25	0.15	1.30	EKMQ181VSN391MP25S	1200	35×35	0.15	2.30	EKMQ251VSN122MA35S	
	470	22×30	0.15	1.40	EKMQ181VSN471MP30S	1500	35×45	0.15	2.50	EKMQ251VSN152MA45S	
	560	22×30	0.15	1.50	EKMQ181VSN561MP30S	1800	35×50	0.15	2.70	EKMQ251VSN182MA50S	
	560	25.4×25	0.15	1.50	EKMQ181VSN561MQ25S	150	22×25	0.15	0.82	EKMQ3B1VSN151MP25S	
	680	22×35	0.15	1.70	EKMQ181VSN681MP35S	180	22×30	0.15	0.90	EKMQ3B1VSN181MP30S	
	680	25.4×30	0.15	1.70	EKMQ181VSN681MQ30S	220	22×30	0.15	1.00	EKMQ3B1VSN221MP30S	
	820	22×40	0.15	2.00	EKMQ181VSN821MP40S	220	25.4×25	0.15	1.00	EKMQ3B1VSN221MQ25S	
	820	25.4×30	0.15	2.00	EKMQ181VSN821MQ30S	270	22×35	0.15	1.10	EKMQ3B1VSN271MP35S	
	820	30×25	0.15	2.00	EKMQ181VSN821MR25S	270	25.4×30	0.15	1.10	EKMQ3B1VSN271MQ30S	
	1000	22×45	0.15	2.20	EKMQ181VSN102MP45S	330	22×45	0.15	1.20	EKMQ3B1VSN331MP45S	
	1000	25.4×40	0.15	2.20	EKMQ181VSN102MQ40S	330	25.4×35	0.15	1.20	EKMQ3B1VSN331MQ35S	
	1000	30×30	0.15	2.20	EKMQ181VSN102MR30S	330	30×25	0.15	1.20	EKMQ3B1VSN331MR25S	
	1000	35×25	0.15	2.20	EKMQ181VSN102MA25S	390	22×45	0.15	1.30	EKMQ3B1VSN391MP45S	
	1200	25.4×45	0.15	2.30	EKMQ181VSN122MQ45S	390	25.4×40	0.15	1.30	EKMQ3B1VSN391MQ40S	
	1200	30×35	0.15	2.30	EKMQ181VSN122MR35S	390	30×30	0.15	1.30	EKMQ3B1VSN391MR30S	
	1200	35×30	0.15	2.30	EKMQ181VSN122MA30S	390	35×25	0.15	1.30	EKMQ3B1VSN391MA25S	
	1500	25.4×50	0.15	2.50	EKMQ181VSN152MQ50S	470	25.4×45	0.15	1.40	EKMQ3B1VSN471MQ45S	
	1500	30×40	0.15	2.50	EKMQ181VSN152MR40S	470	30×35	0.15	1.40	EKMQ3B1VSN471MR35S	
	1500	35×30	0.15	2.50	EKMQ181VSN152MA30S	470	35×25	0.15	1.40	EKMQ3B1VSN471MA25S	
	1800	30×45	0.15	2.70	EKMQ181VSN182MR45S	560	25.4×50	0.15	1.50	EKMQ3B1VSN561MQ50S	
	1800	35×35	0.15	2.70	EKMQ181VSN182MA35S	560	30×40	0.15	1.50	EKMQ3B1VSN561MR40S	
2200	30×50	0.15	2.90	EKMQ181VSN222MR50S	560	35×30	0.15	1.50	EKMQ3B1VSN561MA30S		
2200	35×40	0.15	2.90	EKMQ181VSN222MA40S	680	30×45	0.15	1.70	EKMQ3B1VSN681MR45S		
2700	35×50	0.15	3.10	EKMQ181VSN272MA50S	680	35×35	0.15	1.70	EKMQ3B1VSN681MA35S		
200	390	22×25	0.15	1.31	EKMQ201VSN391MP25S	820	30×50	0.15	2.00	EKMQ3B1VSN821MR50S	
	470	22×30	0.15	1.45	EKMQ201VSN471MP30S	820	35×40	0.15	2.00	EKMQ3B1VSN821MA40S	
	560	22×30	0.15	1.67	EKMQ201VSN561MP30S	1000	35×45	0.15	2.30	EKMQ3B1VSN102MA45S	
	560	25.4×25	0.15	1.67	EKMQ201VSN561MQ25S	120	22×25	0.15	0.75	EKMQ351VSN121MP25S	
	680	22×40	0.15	1.75	EKMQ201VSN681MP40S	150	22×30	0.15	0.82	EKMQ351VSN151MP30S	
	680	25.4×30	0.15	1.75	EKMQ201VSN681MQ30S	180	22×30	0.15	0.90	EKMQ351VSN181MP30S	
	820	22×45	0.15	2.04	EKMQ201VSN821MP45S	180	25.4×25	0.15	0.90	EKMQ351VSN181MQ25S	
	820	25.4×35	0.15	2.04	EKMQ201VSN821MQ35S	220	22×35	0.15	1.00	EKMQ351VSN221MP35S	
	820	30×25	0.15	2.04	EKMQ201VSN821MR25S	220	25.4×30	0.15	1.00	EKMQ351VSN221MQ30S	
	1000	22×50	0.15	2.30	EKMQ201VSN102MP50S	270	22×40	0.15	1.10	EKMQ351VSN271MP40S	
	1000	25.4×45	0.15	2.30	EKMQ201VSN102MQ45S	270	25.4×30	0.15	1.10	EKMQ351VSN271MQ30S	
	1000	30×30	0.15	2.30	EKMQ201VSN102MR30S	270	30×25	0.15	1.10	EKMQ351VSN271MR25S	
	1000	35×25	0.15	2.30	EKMQ201VSN102MA25S	330	22×45	0.15	1.20	EKMQ351VSN331MP45S	
	1200	25.4×50	0.15	2.65	EKMQ201VSN122MQ50S	330	25.4×40	0.15	1.20	EKMQ351VSN331MQ40S	
	1200	30×35	0.15	2.65	EKMQ201VSN122MR35S	330	30×30	0.15	1.20	EKMQ351VSN331MR30S	
	1200	35×30	0.15	2.65	EKMQ201VSN122MA30S	390	25.4×45	0.15	1.30	EKMQ351VSN391MQ45S	
	1500	30×40	0.15	2.80	EKMQ201VSN152MR40S	390	30×35	0.15	1.30	EKMQ351VSN391MR35S	
	1500	35×30	0.15	2.80	EKMQ201VSN152MA30S	470	25.4×50	0.15	1.40	EKMQ351VSN471MQ50S	
	1800	30×45	0.15	3.08	EKMQ201VSN182MR45S	470	30×35	0.15	1.40	EKMQ351VSN471MR35S	

## ◆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.
350	470	35×30	0.15	1.40	EKMQ351VSN471MA30S	420	220	22×45	0.20	1.05	EKMQ421VSN221MP45S
	560	30×45	0.15	1.50	EKMQ351VSN561MR45S		220	25.4×35	0.20	1.05	EKMQ421VSN221MQ35S
	560	35×35	0.15	1.50	EKMQ351VSN561MA35S		220	30×30	0.20	1.05	EKMQ421VSN221MR30S
	680	30×50	0.15	1.70	EKMQ351VSN681MR50S		220	35×25	0.20	1.05	EKMQ421VSN221MA25S
	680	35×40	0.15	1.70	EKMQ351VSN681MA40S		270	25.4×40	0.20	1.25	EKMQ421VSN271MQ40S
	820	35×45	0.15	1.90	EKMQ351VSN821MA45S		270	30×30	0.20	1.25	EKMQ421VSN271MR30S
400	100	22×25	0.15	0.70	EKMQ401VSN101MP25S		270	35×25	0.20	1.25	EKMQ421VSN271MA25S
	120	22×30	0.15	0.75	EKMQ401VSN121MP30S		330	25.4×50	0.20	1.42	EKMQ421VSN331MQ50S
	150	22×30	0.15	0.88	EKMQ401VSN151MP30S		330	30×35	0.20	1.42	EKMQ421VSN331MR35S
	150	25.4×25	0.15	0.88	EKMQ401VSN151MQ25S		330	35×30	0.20	1.42	EKMQ421VSN331MA30S
	180	22×35	0.15	0.95	EKMQ401VSN181MP35S		390	30×40	0.20	1.61	EKMQ421VSN391MA40S
	180	25.4×30	0.15	0.95	EKMQ401VSN181MQ30S		390	35×35	0.20	1.61	EKMQ421VSN391MA35S
	220	22×45	0.15	1.10	EKMQ401VSN221MP45S		470	30×45	0.20	1.86	EKMQ421VSN471MR45S
	220	25.4×35	0.15	1.10	EKMQ401VSN221MQ35S		470	35×40	0.20	1.86	EKMQ421VSN471MA40S
	220	30×25	0.15	1.10	EKMQ401VSN221MP25S		560	35×45	0.20	2.10	EKMQ421VSN561MA45S
	270	22×50	0.15	1.22	EKMQ401VSN271MP50S	680	35×50	0.20	2.20	EKMQ421VSN681MA50S	
	270	25.4×40	0.15	1.22	EKMQ401VSN271MQ40S	450	68	22×25	0.20	0.50	EKMQ451VSN680MP25S
	270	30×30	0.15	1.22	EKMQ401VSN271MR30S		82	22×30	0.20	0.56	EKMQ451VSN820MP30S
	270	35×25	0.15	1.22	EKMQ401VSN271MA25S		100	22×30	0.20	0.64	EKMQ451VSN101MP30S
	330	25.4×45	0.15	1.44	EKMQ401VSN331MQ45S		100	25.4×25	0.20	0.64	EKMQ451VSN101MQ25S
	330	30×35	0.15	1.44	EKMQ401VSN331MR35S		120	22×35	0.20	0.72	EKMQ451VSN121MP35S
	330	35×30	0.15	1.44	EKMQ401VSN331MA30S		120	25.4×30	0.20	0.72	EKMQ451VSN121MQ30S
	390	25.4×50	0.15	1.55	EKMQ401VSN391MQ50S		150	22×40	0.20	0.79	EKMQ451VSN151MP40S
	390	30×40	0.15	1.55	EKMQ401VSN391MR40S		150	25.4×30	0.20	0.79	EKMQ451VSN151MQ30S
	390	35×30	0.15	1.55	EKMQ401VSN391MA30S		150	30×25	0.20	0.79	EKMQ451VSN151MR25S
	470	30×45	0.15	1.68	EKMQ401VSN471MR45S		180	22×45	0.20	0.87	EKMQ451VSN181MP45S
	470	35×35	0.15	1.68	EKMQ401VSN471MA35S		180	25.4×40	0.20	0.87	EKMQ451VSN181MQ40S
560	30×50	0.15	1.90	EKMQ401VSN561MR50S	180		30×30	0.20	0.87	EKMQ451VSN181MR30S	
560	35×40	0.15	1.90	EKMQ401VSN561MA40S	220		25.4×45	0.20	1.00	EKMQ451VSN221MQ45S	
680	35×45	0.15	2.12	EKMQ401VSN681MA45S	220		30×30	0.20	1.00	EKMQ451VSN221MR30S	
420	82	22×25	0.20	0.64	EKMQ421VSN820MP25S		220	35×25	0.20	1.00	EKMQ451VSN221MA25S
	100	22×25	0.20	0.66	EKMQ421VSN101MP25S		270	25.4×50	0.20	1.19	EKMQ451VSN271MQ50S
	100	25.4×25	0.20	0.66	EKMQ421VSN101MQ25S		270	30×40	0.20	1.19	EKMQ451VSN271MR40S
	120	22×30	0.20	0.81	EKMQ421VSN121MP30S		270	35×30	0.20	1.19	EKMQ451VSN271MA30S
	120	25.4×25	0.20	0.81	EKMQ421VSN121MQ25S		330	30×45	0.20	1.38	EKMQ451VSN331MR45S
	150	22×35	0.20	0.84	EKMQ421VSN151MP35S		330	35×35	0.20	1.38	EKMQ451VSN331MA35S
	150	25.4×30	0.20	0.84	EKMQ421VSN151MQ30S		390	30×50	0.20	1.55	EKMQ451VSN391MR50S
	150	30×25	0.20	0.84	EKMQ421VSN151MR25S	390	35×40	0.20	1.55	EKMQ451VSN391MA40S	
	180	22×40	0.20	0.91	EKMQ421VSN181MP40S	470	35×45	0.20	1.74	EKMQ451VSN471MA45S	
	180	25.4×30	0.20	0.91	EKMQ421VSN181MQ30S	560	35×50	0.20	1.90	EKMQ451VSN561MA50S	
	180	30×25	0.20	0.91	EKMQ421VSN181MR25S						

## ◆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