

# KMS Series

- For solar power generation
- Endurance with ripple current : 3,000 hours at 105°C
- Rated voltage range : 160 to 550V
- Capacitance range : 47 to 3,300μF
- Non solvent resistant type
- RoHS Compliant

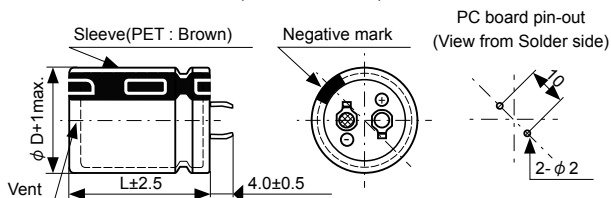


## ◆ SPECIFICATION

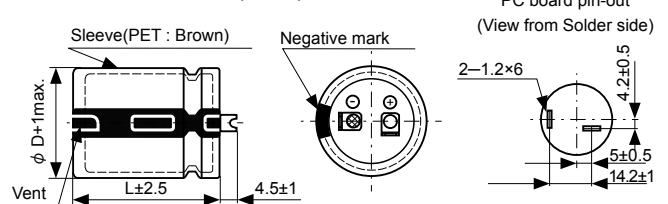
Items	Characteristics		
Category	-25 to +105°C		
Temperature Range	-25 to +105°C		
Rated Voltage Range	160 to 550V <sub>dc</sub>		
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)		
Leakage Current	$I \leq 3\sqrt{CV}$ Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 5 minutes)		
Dissipation Factor (tan δ)	Rated voltage (V <sub>dc</sub> )	160 to 400V	420 to 550V
	tan δ (Max.)	0.15	0.20
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )	160 to 400V	420 to 550V
	Z(-25°C)/Z(+20°C)	4	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 (the peak voltage shall not exceed the rated voltage) for 3,000 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 ( φ 22 to φ 35 ) : Standard

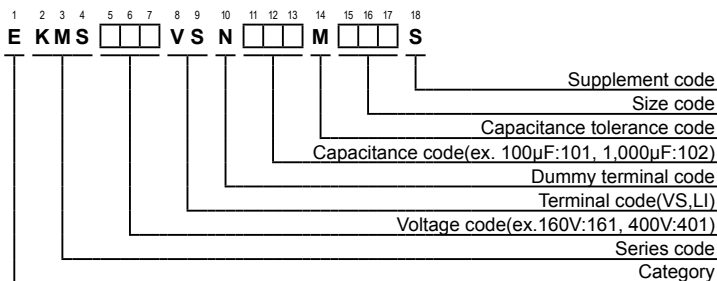


● Terminal Code : LI ( φ 35 )



The standard design has no plastic disc.

## ◆ PART NUMBERING SYSTEM



Please contact us for mass production schedule.  
Specifications in this bulletin are subject to change without notice.

# KMS Series

## ◆ STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Case size φ D×L(mm)	tan δ	Rated ripple current (Arms/105°C, 120Hz)	Part No.	WV (V <sub>dc</sub> )	Cap (μF)	Case size φ D×L(mm)	tan δ	Rated ripple current (Arms/105°C, 120Hz)	Part No.	
160	470	22×25	0.15	1.47	EKMS161VSN471MP25S	200	1,500	30×40	0.15	3.26	EKMS201VSN152MR40S	
	680	22×30	0.15	1.86	EKMS161VSN681MP30S		1,500	35×35	0.15	3.36	EKMS201VSN152MA35S	
	680	25.4×25	0.15	1.84	EKMS161VSN681MQ25S		1,800	30×45	0.15	3.66	EKMS201VSN182MR45S	
	820	22×35	0.15	2.09	EKMS161VSN821MP35S		1,800	30×50	0.15	3.72	EKMS201VSN182MR50S	
	820	25.4×30	0.15	2.08	EKMS161VSN821MQ30S		1,800	35×40	0.15	3.81	EKMS201VSN182MA40S	
	1,000	22×40	0.15	2.35	EKMS161VSN102MP40S		2,200	35×45	0.15	4.32	EKMS201VSN222MA45S	
	1,000	22×45	0.15	2.40	EKMS161VSN102MP45S		2,700	35×50	0.15	4.88	EKMS201VSN272MA50S	
	1,000	25.4×35	0.15	2.40	EKMS161VSN102MQ35S		250	270	22×25	0.15	1.11	EKMS251VSN271MP25S
	1,000	30×25	0.15	2.50	EKMS161VSN102MR25S			330	22×30	0.15	1.29	EKMS251VSN331MP30S
	1,200	22×50	0.15	2.69	EKMS161VSN122MP50S			390	22×35	0.15	1.44	EKMS251VSN391MP35S
	1,200	25.4×40	0.15	2.68	EKMS161VSN122MQ40S			390	25.4×25	0.15	1.40	EKMS251VSN391MQ25S
	1,200	30×30	0.15	2.77	EKMS161VSN122MR30S			470	22×40	0.15	1.61	EKMS251VSN471MP40S
	1,200	35×25	0.15	2.91	EKMS161VSN122MA25S			470	25.4×30	0.15	1.57	EKMS251VSN471MQ30S
	1,500	25.4×45	0.15	3.05	EKMS161VSN152MQ45S			560	22×45	0.15	1.79	EKMS251VSN561MP45S
	1,500	30×35	0.15	3.17	EKMS161VSN152MR35S			560	25.4×35	0.15	1.79	EKMS251VSN561MQ35S
	1,800	25.4×50	0.15	3.40	EKMS161VSN182MQ50S			560	30×25	0.15	1.87	EKMS251VSN561MR25S
	1,800	30×40	0.15	3.57	EKMS161VSN182MR40S			680	22×50	0.15	2.02	EKMS251VSN681MP50S
	1,800	35×30	0.15	3.62	EKMS161VSN182MA30S			680	25.4×40	0.15	2.02	EKMS251VSN681MQ40S
	2,200	30×45	0.15	4.05	EKMS161VSN222MR45S			680	30×30	0.15	2.08	EKMS251VSN681MR30S
	2,200	35×35	0.15	4.07	EKMS161VSN222MA35S			680	35×25	0.15	2.19	EKMS251VSN681MA25S
2,700	30×50	0.15	4.56	EKMS161VSN272MR50S	820	25.4×45		0.15	2.29	EKMS251VSN821MQ45S		
2,700	35×40	0.15	4.67	EKMS161VSN272MA40S	820	30×35		0.15	2.34	EKMS251VSN821MR35S		
2,700	35×45	0.15	4.78	EKMS161VSN272MA45S	1,000	25.4×50		0.15	2.53	EKMS251VSN102MQ50S		
3,300	35×50	0.15	5.40	EKMS161VSN332MA50S	1,000	30×40		0.15	2.66	EKMS251VSN102MR40S		
180	390	22×25	0.15	1.34	EKMS181VSN391MP25S	1,000		35×30	0.15	2.70	EKMS251VSN102MA30S	
	560	22×30	0.15	1.68	EKMS181VSN561MP30S	1,200		30×45	0.15	2.99	EKMS251VSN122MR45S	
	560	25.4×25	0.15	1.67	EKMS181VSN561MQ25S	1,200		30×50	0.15	3.04	EKMS251VSN122MR50S	
	680	22×35	0.15	1.90	EKMS181VSN681MP35S	1,200	35×35	0.15	3.00	EKMS251VSN122MA35S		
	820	22×40	0.15	2.13	EKMS181VSN821MP40S	1,500	35×40	0.15	3.48	EKMS251VSN152MA40S		
	820	25.4×30	0.15	2.08	EKMS181VSN821MQ30S	1,500	35×45	0.15	3.56	EKMS251VSN152MA45S		
	820	30×25	0.15	2.26	EKMS181VSN821MR25S	1,800	35×50	0.15	3.98	EKMS251VSN182MA50S		
	1,000	22×45	0.15	2.40	EKMS181VSN102MP45S	315	180	22×25	0.15	0.95	EKMS315VSN181MP25S	
	1,000	22×50	0.15	2.45	EKMS181VSN102MP50S		220	22×30	0.15	1.10	EKMS315VSN221MP30S	
	1,000	25.4×35	0.15	2.40	EKMS181VSN102MQ35S		220	25.4×25	0.15	1.10	EKMS315VSN221MQ25S	
	1,000	25.4×40	0.15	2.45	EKMS181VSN102MQ40S		270	22×35	0.15	1.24	EKMS315VSN271MP35S	
	1,000	30×30	0.15	2.52	EKMS181VSN102MR30S		330	22×40	0.15	1.40	EKMS315VSN331MP40S	
	1,200	25.4×45	0.15	2.73	EKMS181VSN122MQ45S		330	25.4×30	0.15	1.38	EKMS315VSN331MQ30S	
	1,200	30×35	0.15	2.83	EKMS181VSN122MR35S		330	30×25	0.15	1.43	EKMS315VSN331MR25S	
	1,200	35×25	0.15	2.91	EKMS181VSN122MA25S		390	22×45	0.15	1.56	EKMS315VSN391MP45S	
	1,500	25.4×50	0.15	3.10	EKMS181VSN152MQ50S		390	22×50	0.15	1.59	EKMS315VSN391MP50S	
	1,500	30×40	0.15	3.26	EKMS181VSN152MR40S		390	25.4×35	0.15	1.57	EKMS315VSN391MQ35S	
	1,500	35×30	0.15	3.31	EKMS181VSN152MA30S		470	25.4×40	0.15	1.76	EKMS315VSN471MQ40S	
	1,800	30×45	0.15	3.66	EKMS181VSN182MR45S		470	30×30	0.15	1.73	EKMS315VSN471MR30S	
	1,800	35×35	0.15	3.68	EKMS181VSN182MA35S		470	35×25	0.15	1.82	EKMS315VSN471MA25S	
2,200	30×50	0.15	4.11	EKMS181VSN222MR50S	560		25.4×45	0.15	1.96	EKMS315VSN561MQ45S		
2,200	35×40	0.15	4.22	EKMS181VSN222MA40S	560		25.4×50	0.15	1.99	EKMS315VSN561MQ50S		
2,700	35×45	0.15	4.78	EKMS181VSN272MA45S	560		30×35	0.15	1.93	EKMS315VSN561MR35S		
2,700	35×50	0.15	4.88	EKMS181VSN272MA50S	560		35×30	0.15	2.02	EKMS315VSN561MA30S		
200	390	22×25	0.15	1.34	EKMS201VSN391MP25S		680	30×40	0.15	2.19	EKMS315VSN681MR40S	
	470	22×30	0.15	1.54	EKMS201VSN471MP30S		680	35×35	0.15	2.26	EKMS315VSN681MA35S	
	560	22×35	0.15	1.72	EKMS201VSN561MP35S		820	30×45	0.15	2.47	EKMS315VSN821MR45S	
	560	25.4×25	0.15	1.67	EKMS201VSN561MQ25S	820	30×50	0.15	2.51	EKMS315VSN821MR50S		
	680	22×40	0.15	1.94	EKMS201VSN681MP40S	820	35×40	0.15	2.57	EKMS315VSN821MA40S		
	680	25.4×30	0.15	1.89	EKMS201VSN681MQ30S	1,000	35×45	0.15	2.91	EKMS315VSN102MA45S		
	820	22×45	0.15	2.17	EKMS201VSN821MP45S	1,200	35×50	0.15	3.25	EKMS315VSN122MA50S		
	820	25.4×35	0.15	2.17	EKMS201VSN821MQ35S	400	120	22×25	0.15	0.77	EKMS401VSN121MP25S	
	820	30×25	0.15	2.26	EKMS201VSN821MR25S		150	22×30	0.15	0.90	EKMS401VSN151MP30S	
	1,000	22×50	0.15	2.45	EKMS201VSN102MP50S		180	22×35	0.15	1.02	EKMS401VSN181MP35S	
	1,000	25.4×40	0.15	2.45	EKMS201VSN102MQ40S		180	25.4×25	0.15	0.99	EKMS401VSN181MQ25S	
	1,000	30×30	0.15	2.52	EKMS201VSN102MR30S		220	22×40	0.15	1.15	EKMS401VSN221MP40S	
	1,000	35×25	0.15	2.66	EKMS201VSN102MA25S		220	25.4×30	0.15	1.13	EKMS401VSN221MQ30S	
	1,200	25.4×45	0.15	2.73	EKMS201VSN122MQ45S		270	22×45	0.15	1.29	EKMS401VSN271MP45S	
	1,200	25.4×50	0.15	2.78	EKMS201VSN122MQ50S		270	25.4×35	0.15	1.30	EKMS401VSN271MQ35S	
	1,200	30×35	0.15	2.83	EKMS201VSN122MR35S		270	30×25	0.15	1.29	EKMS401VSN271MR25S	
	1,200	35×30	0.15	2.96	EKMS201VSN122MA30S		330	22×50	0.15	1.47	EKMS401VSN331MP50S	

Please contact us for mass production schedule. Specifications in this bulletin are subject to change without notice.

# KMS Series

## ◆ STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Case size φ D×L(mm)	tan δ	Rated ripple current (Arms/105°C, 120Hz)	Part No.	WV (V <sub>dc</sub> )	Cap (μF)	Case size φ D×L(mm)	tan δ	Rated ripple current (Arms/105°C, 120Hz)	Part No.	
400	330	25.4×40	0.15	1.47	EKMS401VSN331MQ40S	450	270	30×35	0.20	1.34	EKMS451VSN271MR35S	
	330	30×30	0.15	1.45	EKMS401VSN331MR30S		270	35×30	0.20	1.40	EKMS451VSN271MA30S	
	330	35×25	0.15	1.52	EKMS401VSN331MA25S		330	30×40	0.20	1.52	EKMS451VSN331MR40S	
	390	25.4×45	0.15	1.63	EKMS401VSN391MQ45S		390	30×45	0.20	1.70	EKMS451VSN391MR45S	
	390	25.4×50	0.15	1.66	EKMS401VSN391MQ50S		390	30×50	0.20	1.73	EKMS451VSN391MR50S	
	390	30×35	0.15	1.61	EKMS401VSN391MR35S		390	35×35	0.20	1.71	EKMS451VSN391MA35S	
	470	30×40	0.15	1.82	EKMS401VSN471MR40S		470	35×40	0.20	1.95	EKMS451VSN471MA40S	
	470	35×30	0.15	1.85	EKMS401VSN471MA30S		470	35×45	0.20	1.99	EKMS451VSN471MA45S	
	560	30×45	0.15	2.04	EKMS401VSN561MR45S		560	35×50	0.20	2.22	EKMS451VSN561MA50S	
	560	30×50	0.15	2.07	EKMS401VSN561MR50S		500	47	22×25	0.20	0.51	EKMS501VSN470MP25S
	560	35×35	0.15	2.05	EKMS401VSN561MA35S			56	22×30	0.20	0.58	EKMS501VSN560MP30S
	680	35×40	0.15	2.34	EKMS401VSN681MA40S			68	25.4×25	0.20	0.65	EKMS501VSN680MQ25S
	680	35×45	0.15	2.40	EKMS401VSN681MA45S			82	22×35	0.20	0.72	EKMS501VSN820MP35S
	820	35×50	0.15	2.69	EKMS401VSN821MA50S			82	25.4×30	0.20	0.74	EKMS501VSN820MQ30S
420	100	22×25	0.20	0.70	EKMS421VSN101MP25S	100		22×45	0.20	0.83	EKMS501VSN101MP45S	
	120	22×30	0.20	0.81	EKMS421VSN121MP30S	100		30×25	0.20	0.82	EKMS501VSN101MR25S	
	120	25.4×25	0.20	0.81	EKMS421VSN121MQ25S	120		22×50	0.20	0.93	EKMS501VSN121MP50S	
	150	22×35	0.20	0.93	EKMS421VSN151MP35S	120		25.4×35	0.20	0.93	EKMS501VSN121MQ35S	
	180	22×40	0.20	1.04	EKMS421VSN181MP40S	120		30×30	0.20	0.91	EKMS501VSN121MR30S	
	180	25.4×30	0.20	1.02	EKMS421VSN181MQ30S	150		25.4×45	0.20	1.08	EKMS501VSN151MQ45S	
	180	30×25	0.20	1.06	EKMS421VSN181MR25S	150		30×35	0.20	1.04	EKMS501VSN151MR35S	
	220	22×45	0.20	1.17	EKMS421VSN221MP45S	150		35×25	0.20	0.99	EKMS501VSN151MA25S	
	220	22×50	0.20	1.20	EKMS421VSN221MP50S	180		25.4×50	0.20	1.20	EKMS501VSN181MQ50S	
	220	25.4×35	0.20	1.18	EKMS421VSN221MQ35S	180	30×40	0.20	1.17	EKMS501VSN181MR40S		
	220	30×30	0.20	1.18	EKMS421VSN221MR30S	180	35×30	0.20	1.10	EKMS501VSN181MA30S		
	270	25.4×40	0.20	1.33	EKMS421VSN271MQ40S	220	30×45	0.20	1.33	EKMS501VSN221MR45S		
	270	25.4×45	0.20	1.36	EKMS421VSN271MQ45S	220	35×35	0.20	1.23	EKMS501VSN221MA35S		
	270	35×25	0.20	1.38	EKMS421VSN271MA25S	270	30×50	0.20	1.50	EKMS501VSN271MR50S		
330	25.4×50	0.20	1.52	EKMS421VSN331MQ50S	270	35×40	0.20	1.42	EKMS501VSN271MA40S			
450	330	30×35	0.20	1.48	EKMS421VSN331MR35S	330	35×45	0.20	1.60	EKMS501VSN331MA45S		
	330	30×40	0.20	1.52	EKMS421VSN331MR40S	390	35×50	0.20	1.78	EKMS501VSN391MA50S		
	330	35×30	0.20	1.55	EKMS421VSN331MA30S	470	35×60	0.20	2.03	EKMS501VSN471MA60S		
	390	30×45	0.20	1.70	EKMS421VSN391MR45S	550	82	22×35	0.20	0.72	EKMS551VSN820MP35S	
	390	35×35	0.20	1.71	EKMS421VSN391MA35S		82	25.4×30	0.20	0.74	EKMS551VSN820MQ30S	
	470	30×50	0.20	1.90	EKMS421VSN471MR50S		100	22×45	0.20	0.83	EKMS551VSN101MP45S	
	470	35×40	0.20	1.95	EKMS421VSN471MA40S		100	25.4×35	0.20	0.85	EKMS551VSN101MQ35S	
	560	35×45	0.20	2.17	EKMS421VSN561MA45S		100	30×25	0.20	0.82	EKMS551VSN101MR25S	
	680	35×50	0.20	2.45	EKMS421VSN681MA50S		120	22×50	0.20	0.93	EKMS551VSN121MP50S	
	450	82	22×25	0.20	0.64		EKMS451VSN820MP25S	120	25.4×40	0.20	0.95	EKMS551VSN121MQ40S
		120	22×30	0.20	0.81		EKMS451VSN121MP30S	120	30×30	0.20	0.91	EKMS551VSN121MR30S
		120	22×35	0.20	0.83		EKMS451VSN121MP35S	120	35×25	0.20	0.88	EKMS551VSN121MA25S
		120	25.4×25	0.20	0.81		EKMS451VSN121MQ25S	150	25.4×45	0.20	1.08	EKMS551VSN151MQ45S
		150	22×40	0.20	0.94		EKMS451VSN151MP40S	150	30×35	0.20	1.04	EKMS551VSN151MR35S
150		25.4×30	0.20	0.93	EKMS451VSN151MQ30S		180	25.4×50	0.20	1.20	EKMS551VSN181MQ50S	
180		22×45	0.20	1.06	EKMS451VSN181MP45S		180	30×40	0.20	1.17	EKMS551VSN181MR40S	
180		25.4×35	0.20	1.06	EKMS451VSN181MQ35S		180	35×30	0.20	1.10	EKMS551VSN181MA30S	
180		30×25	0.20	1.06	EKMS451VSN181MR25S	220	30×45	0.20	1.33	EKMS551VSN221MR45S		
220		22×50	0.20	1.20	EKMS451VSN221MP50S	220	35×35	0.20	1.23	EKMS551VSN221MA35S		
220		25.4×40	0.20	1.20	EKMS451VSN221MQ40S	270	30×50	0.20	1.50	EKMS551VSN271MR50S		
220		30×30	0.20	1.18	EKMS451VSN221MR30S	270	35×40	0.20	1.42	EKMS551VSN271MA40S		
220		35×25	0.20	1.24	EKMS451VSN221MA25S	330	35×45	0.20	1.60	EKMS551VSN331MA45S		
270		25.4×45	0.20	1.36	EKMS451VSN271MQ45S	470	35×60	0.20	2.03	EKMS551VSN471MA60S		
270	25.4×50	0.20	1.38	EKMS451VSN271MQ50S								

## ◆ 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
500, 550V <sub>dc</sub>	0.70	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.

For lifetime estimation, please consult us.

Please contact us for mass production schedule.  
Specifications in this bulletin are subject to change without notice.