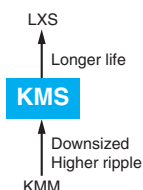


KMS Series

- For solar power generation
- Endurance with ripple current : 105°C 3,000 hours
- Rated voltage range : 160 to 500V
- Capacitance range : 47 to 3,300μF
- Non solvent resistant type
- RoHS Compliant



500V
Lineup!

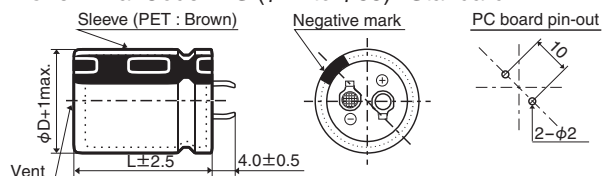


SPECIFICATIONS

Items	Characteristics		
Category	Temperature Range		
Temperature Range	-25 to +105°C		
Rated Voltage Range	160 to 500V _{dc}		
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 (tanδ)	Rated voltage (V _{dc})	160 to 400V	420 to 500V
	tanδ (Max.)	0.15	0.20 (at 20°C, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	160 to 400V	420 to 500V
	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 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	

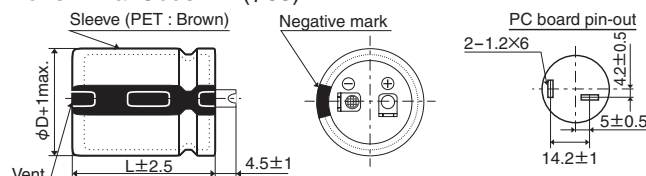
DIMENSIONS [mm]

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

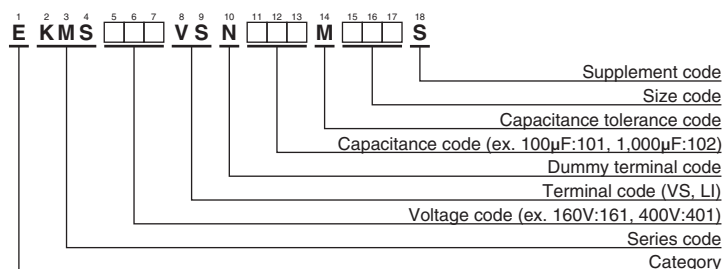


The standard design has no plastic disc.

- Terminal Code : LI (φ35)



PART NUMBERING SYSTEM



Please refer to "Product code guide (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	1.47	EKMS161VSN471MP25S	200	1,800	30×45	0.15	3.66	EKMS201VSN182MR45S
	680	22×30	0.15	1.86	EKMS161VSN681MP30S		1,800	30×50	0.15	3.72	EKMS201VSN182MR50S
	680	25.4×25	0.15	1.84	EKMS161VSN681MQ25S		1,800	35×40	0.15	3.81	EKMS201VSN182MA40S
	820	22×35	0.15	2.09	EKMS161VSN821MP35S		2,200	35×45	0.15	4.32	EKMS201VSN222MA45S
	820	25.4×30	0.15	2.08	EKMS161VSN821MQ30S		2,700	35×50	0.15	4.88	EKMS201VSN272MA50S
	1,000	22×40	0.15	2.35	EKMS161VSN102MP40S	250	270	22×25	0.15	1.11	EKMS251VSN271MP25S
	1,000	22×45	0.15	2.40	EKMS161VSN102MP45S		330	22×30	0.15	1.29	EKMS251VSN331MP30S
	1,000	25.4×35	0.15	2.40	EKMS161VSN102MQ35S		390	22×35	0.15	1.44	EKMS251VSN391MP35S
	1,000	30×25	0.15	2.50	EKMS161VSN102MR25S		390	25.4×25	0.15	1.40	EKMS251VSN391MQ25S
	1,200	22×50	0.15	2.69	EKMS161VSN122MP50S		470	22×40	0.15	1.61	EKMS251VSN471MP40S
	1,200	25.4×40	0.15	2.68	EKMS161VSN122MQ40S		470	25.4×30	0.15	1.57	EKMS251VSN471MQ30S
	1,200	30×30	0.15	2.77	EKMS161VSN122MR30S		560	22×45	0.15	1.79	EKMS251VSN561MP45S
	1,200	35×25	0.15	2.91	EKMS161VSN122MA25S		560	25.4×35	0.15	1.79	EKMS251VSN561MQ35S
	1,500	25.4×45	0.15	3.05	EKMS161VSN152MQ45S		560	30×25	0.15	1.87	EKMS251VSN561MR25S
	1,500	30×35	0.15	3.17	EKMS161VSN152MR35S		680	22×50	0.15	2.02	EKMS251VSN681MP50S
	1,800	25.4×50	0.15	3.40	EKMS161VSN182MQ50S		680	25.4×40	0.15	2.02	EKMS251VSN681MQ40S
	1,800	30×40	0.15	3.57	EKMS161VSN182MR40S		680	30×30	0.15	2.08	EKMS251VSN681MR30S
	1,800	35×30	0.15	3.62	EKMS161VSN182MA30S		680	35×25	0.15	2.19	EKMS251VSN681MA25S
	2,200	30×45	0.15	4.05	EKMS161VSN222MR45S		820	25.4×45	0.15	2.26	EKMS251VSN821MQ45S
	2,200	35×35	0.15	4.07	EKMS161VSN222MA35S		820	30×35	0.15	2.34	EKMS251VSN821MR35S
	2,700	30×50	0.15	4.56	EKMS161VSN272MR50S		1,000	25.4×50	0.15	2.53	EKMS251VSN102MQ50S
	2,700	35×40	0.15	4.67	EKMS161VSN272MA40S		1,000	30×40	0.15	2.66	EKMS251VSN102MR40S
	2,700	35×45	0.15	4.78	EKMS161VSN272MA45S		1,000	35×30	0.15	2.70	EKMS251VSN102MA30S
	3,300	35×50	0.15	5.40	EKMS161VSN332MA50S		1,200	30×45	0.15	2.99	EKMS251VSN122MR45S
180	390	22×25	0.15	1.34	EKMS181VSN391MP25S	315	1,200	30×50	0.15	3.04	EKMS251VSN122MR50S
	560	22×30	0.15	1.68	EKMS181VSN561MP30S		1,200	35×35	0.15	3.00	EKMS251VSN122MA35S
	560	25.4×25	0.15	1.67	EKMS181VSN561MQ25S		1,500	35×40	0.15	3.48	EKMS251VSN152MA40S
	680	22×35	0.15	1.90	EKMS181VSN681MP35S		1,500	35×45	0.15	3.56	EKMS251VSN152MA45S
	820	22×40	0.15	2.13	EKMS181VSN821MP40S		1,800	35×50	0.15	3.98	EKMS251VSN182MA50S
	820	25.4×30	0.15	2.08	EKMS181VSN821MQ30S	400	180	22×25	0.15	0.95	EKMS3B1VSN181MP25S
	820	30×25	0.15	2.26	EKMS181VSN821MR25S		220	22×30	0.15	1.10	EKMS3B1VSN221MP30S
	1,000	22×45	0.15	2.40	EKMS181VSN102MP45S		220	25.4×25	0.15	1.10	EKMS3B1VSN221MQ25S
	1,000	22×50	0.15	2.45	EKMS181VSN102MP50S		270	22×35	0.15	1.24	EKMS3B1VSN271MP35S
	1,000	25.4×35	0.15	2.40	EKMS181VSN102MQ35S		330	22×40	0.15	1.40	EKMS3B1VSN331MP40S
	1,000	25.4×40	0.15	2.45	EKMS181VSN102MQ40S		330	25.4×30	0.15	1.38	EKMS3B1VSN331MQ30S
	1,000	30×30	0.15	2.52	EKMS181VSN102MR30S		330	30×25	0.15	1.43	EKMS3B1VSN331MR25S
	1,200	25.4×45	0.15	2.73	EKMS181VSN122MQ45S		390	22×45	0.15	1.56	EKMS3B1VSN391MP45S
	1,200	30×35	0.15	2.83	EKMS181VSN122MR35S		390	22×50	0.15	1.59	EKMS3B1VSN391MP50S
	1,200	35×25	0.15	2.91	EKMS181VSN122MA25S		390	25.4×35	0.15	1.57	EKMS3B1VSN391MQ35S
	1,500	25.4×50	0.15	3.10	EKMS181VSN152MQ50S		470	25.4×40	0.15	1.76	EKMS3B1VSN471MQ40S
	1,500	30×40	0.15	3.26	EKMS181VSN152MR40S		470	30×30	0.15	1.73	EKMS3B1VSN471MR30S
	1,500	35×30	0.15	3.31	EKMS181VSN152MA30S		470	35×25	0.15	1.82	EKMS3B1VSN471MA25S
	1,800	30×45	0.15	3.66	EKMS181VSN182MR45S		560	25.4×45	0.15	1.96	EKMS3B1VSN561MQ45S
	1,800	35×35	0.15	3.68	EKMS181VSN182MA35S		560	25.4×50	0.15	1.99	EKMS3B1VSN561MQ50S
	2,200	30×50	0.15	4.11	EKMS181VSN222MR50S		560	30×35	0.15	1.93	EKMS3B1VSN561MR35S
	2,200	35×40	0.15	4.22	EKMS181VSN222MA40S		560	35×30	0.15	2.02	EKMS3B1VSN561MA30S
	2,700	35×45	0.15	4.78	EKMS181VSN272MA45S		680	30×40	0.15	2.19	EKMS3B1VSN681MR40S
	2,700	35×50	0.15	4.88	EKMS181VSN272MA50S		680	35×35	0.15	2.26	EKMS3B1VSN681MA35S
200	390	22×25	0.15	1.34	EKMS201VSN391MP25S	400	820	30×45	0.15	2.47	EKMS3B1VSN821MR45S
	470	22×30	0.15	1.54	EKMS201VSN471MP30S		820	30×50	0.15	2.51	EKMS3B1VSN821MR50S
	560	22×35	0.15	1.72	EKMS201VSN561MP35S		820	35×40	0.15	2.57	EKMS3B1VSN821MA40S
	560	25.4×25	0.15	1.67	EKMS201VSN561MQ25S		1,000	35×45	0.15	2.91	EKMS3B1VSN102MA45S
	680	22×40	0.15	1.94	EKMS201VSN681MP40S		1,200	35×50	0.15	3.25	EKMS3B1VSN122MA50S
	680	25.4×30	0.15	1.89	EKMS201VSN681MQ30S	400	120	22×25	0.15	0.77	EKMS401VSN121MP25S
	820	22×45	0.15	2.17	EKMS201VSN821MP45S		150	22×30	0.15	0.90	EKMS401VSN151MP30S
	820	25.4×35	0.15	2.17	EKMS201VSN821MQ35S		180	22×35	0.15	1.02	EKMS401VSN181MP35S
	820	30×25	0.15	2.26	EKMS201VSN821MR25S		180	25.4×25	0.15	0.99	EKMS401VSN181MQ25S
	1,000	22×50	0.15	2.45	EKMS201VSN102MP50S		220	22×40	0.15	1.15	EKMS401VSN221MP40S
	1,000	25.4×40	0.15	2.45	EKMS201VSN102MQ40S		220	25.4×30	0.15	1.13	EKMS401VSN221MQ30S
	1,000	30×30	0.15	2.52	EKMS201VSN102MR30S		270	22×45	0.15	1.29	EKMS401VSN271MP45S
	1,000	35×25	0.15	2.66	EKMS201VSN102MA25S		270	25.4×35	0.15	1.30	EKMS401VSN271MQ35S
	1,200	25.4×45	0.15	2.73	EKMS201VSN122MQ45S		270	30×25	0.15	1.29	EKMS401VSN271MR25S
	1,200	25.4×50	0.15	2.78	EKMS201VSN122MQ50S		330	22×50	0.15	1.47	EKMS401VSN331MP50S
	1,200	30×35	0.15	2.83	EKMS201VSN122MR35S		330	25.4×40	0.15	1.47	EKMS401VSN331MQ40S
	1,200	35×30	0.15	2.96	EKMS201VSN122MA30S		330	30×30	0.15	1.45	EKMS401VSN331MR30S
	1,500	30×40	0.15	3.26	EKMS201VSN152MR40S		330	35×25	0.15	1.52	EKMS401VSN331MA25S
	1,500	35×35	0.15	3.36	EKMS201VSN152MA35S		390	25.4×45	0.15	1.63	EKMS401VSN391MQ45S

◆STANDARD RATINGS

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

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
160 to 250Vdc	0.81	1.00	1.17	1.32	1.45	1.50
315 to 450Vdc	0.77	1.00	1.16	1.30	1.41	1.43
500Vdc	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.