

# KMH Series

- Endurance with ripple current : 2,000 hours at 105°C
- Non solvent resistant type
- RoHS2 Compliant

KMM P6-35

Downsized  
Longer life

KMH



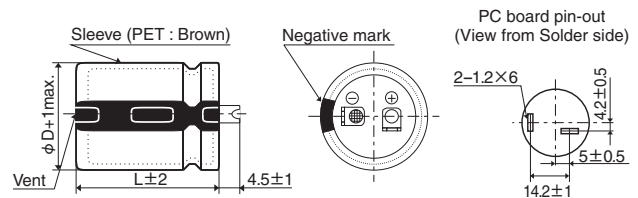
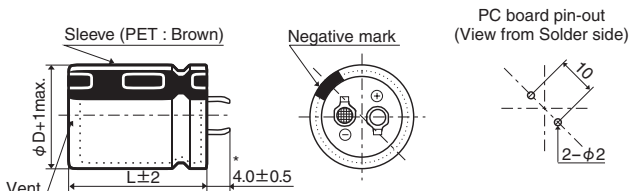
## SPECIFICATIONS

Items	Characteristics										
Category	-40 to +105°C										
Temperature Range											
Rated Voltage Range	6.3 to 100V <sub>dc</sub>										
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)										
Leakage Current	I=0.02CV or 3mA, whichever is smaller 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> )	6.3V	10V	16V	25V	35V	50V	63V	80V	100V	
	tan δ (Max.)	0.60	0.50	0.40	0.30	0.25	0.20	0.15	0.15	0.15	(at 20°C, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )	6.3V	10V	16V	25V	35V	50V	63V	80V	100V	
	Z(-25°C)/Z(+20°C)	4	4	4	3	3	2	2	2	2	
	Z(-45°C)/Z(+20°C)	15	15	15	10	8	6	6	5	5	(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	≤ ±20% 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

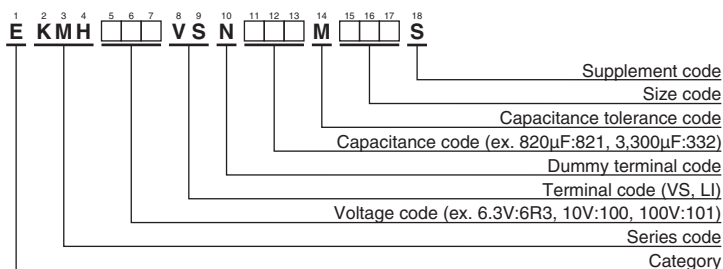
Terminal Code : LI (φ35)



\*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)"



◆STANDARD RATINGS

Table with columns: WV (Vdc), Cap (µF), Case size φD×L(mm), tan δ, Rated ripple current (Arms/105°C, 120Hz), Part No. The table is organized into four main sections based on WV (6.3, 10, 16, 50) and Cap values (12,000 to 27,000 for 6.3; 10,000 to 33,000 for 10; 6,800 to 10,000 for 16; 1,800 to 7,000 for 50).

Product specifications in this catalog are subject to change without notice. Request our product specifications before purchase and/or use. Please use our products based on the information contained in this catalog and product specifications.

◆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.		
50	5,600	25.4 × 40	0.20	2.70	EKMH500VSN562MQ40S	80	1,800	25.4 × 30	0.15	1.76	EKMH800VSN182MQ30S		
	5,600	30 × 35	0.20	2.76	EKMH500VSN562MR35S		1,800	30 × 25	0.15	1.65	EKMH800VSN182MR25S		
	5,600	35 × 25	0.20	2.70	EKMH500VSN562MA25S		2,200	22 × 45	0.15	2.04	EKMH800VSN222MP45S		
	6,800	25.4 × 50	0.20	3.30	EKMH500VSN682MQ50S		2,200	25.4 × 35	0.15	2.01	EKMH800VSN222MQ35S		
	6,800	30 × 40	0.20	3.30	EKMH500VSN682MR40S		2,200	30 × 30	0.15	2.05	EKMH800VSN222MR30S		
	6,800	35 × 30	0.20	3.25	EKMH500VSN682MA30S		2,200	35 × 25	0.15	2.07	EKMH800VSN222MA25S		
	8,200	30 × 45	0.20	3.60	EKMH500VSN822MR45S		2,700	25.4 × 45	0.15	2.36	EKMH800VSN272MQ45S		
	8,200	35 × 35	0.20	3.55	EKMH500VSN822MA35S		2,700	30 × 35	0.15	2.35	EKMH800VSN272MR35S		
	10,000	30 × 50	0.20	4.04	EKMH500VSN103MR50S		2,700	35 × 25	0.15	2.29	EKMH800VSN272MA25S		
63	10,000	35 × 40	0.20	4.03	EKMH500VSN103MA40S	80	3,300	25.4 × 50	0.15	2.68	EKMH800VSN332MQ50S		
	12,000	35 × 45	0.20	4.55	EKMH500VSN123MA45S		3,300	30 × 40	0.15	2.68	EKMH800VSN332MP40S		
	80	1,200	22 × 25	0.15	1.19		EKMH630VSN122MP25S	3,300	35 × 30	0.15	2.45	EKMH800VSN332MA30S	
		1,500	22 × 25	0.15	1.33		EKMH630VSN152MP25S	3,900	30 × 45	0.15	3.00	EKMH800VSN392MR45S	
		1,800	22 × 30	0.15	1.51		EKMH630VSN182MP30S	3,900	35 × 35	0.15	2.98	EKMH800VSN392MA35S	
		1,800	25.4 × 25	0.15	1.52		EKMH630VSN182MQ25S	4,700	30 × 50	0.15	3.39	EKMH800VSN472MP50S	
		2,200	22 × 35	0.15	1.73		EKMH630VSN222MP35S	4,700	35 × 40	0.15	3.38	EKMH800VSN472MA40S	
		2,200	25.4 × 30	0.15	1.74		EKMH630VSN222MQ30S	5,600	35 × 45	0.15	3.80	EKMH800VSN562MA45S	
		2,700	22 × 40	0.15	1.97		EKMH630VSN272MP40S	6,800	35 × 50	0.15	3.90	EKMH800VSN682MA50S	
		2,700	25.4 × 35	0.15	1.99		EKMH630VSN272MQ35S	100	560	22 × 25	0.15	1.05	EKMH101VSN561MP25S
		2,700	30 × 25	0.15	1.76		EKMH630VSN272MR25S		820	22 × 30	0.15	1.32	EKMH101VSN821MP30S
		3,300	22 × 50	0.15	2.29		EKMH630VSN332MP50S		820	25.4 × 25	0.15	1.33	EKMH101VSN821MQ25S
		3,300	25.4 × 40	0.15	2.27	EKMH630VSN332MQ40S	1,000		22 × 35	0.15	1.50	EKMH101VSN102MP35S	
		3,300	30 × 30	0.15	2.24	EKMH630VSN332MR30S	1,000		25.4 × 30	0.15	1.51	EKMH101VSN102MQ30S	
		3,300	35 × 25	0.15	2.06	EKMH630VSN332MA25S	1,200		22 × 40	0.15	1.69	EKMH101VSN122MP40S	
		3,900	25.4 × 45	0.15	2.54	EKMH630VSN392MQ45S	1,200		25.4 × 35	0.15	1.71	EKMH101VSN122MQ35S	
		3,900	30 × 35	0.15	2.55	EKMH630VSN392MR35S	1,200		30 × 25	0.15	1.68	EKMH101VSN122MR25S	
		3,900	35 × 25	0.15	2.24	EKMH630VSN392MA25S	1,500		22 × 45	0.15	1.94	EKMH101VSN152MP45S	
		4,700	25.4 × 50	0.15	2.86	EKMH630VSN472MQ50S	1,500		25.4 × 40	0.15	1.98	EKMH101VSN152MQ40S	
		4,700	30 × 40	0.15	2.86	EKMH630VSN472MR40S	1,500		30 × 30	0.15	1.95	EKMH101VSN152MR30S	
		4,700	35 × 30	0.15	2.79	EKMH630VSN472MA30S	1,500		35 × 25	0.15	1.98	EKMH101VSN152MA25S	
5,600		30 × 45	0.15	3.22	EKMH630VSN562MR45S	1,800	25.4 × 45	0.15	2.23	EKMH101VSN182MQ45S			
5,600		35 × 35	0.15	3.19	EKMH630VSN562MA35S	1,800	30 × 35	0.15	2.50	EKMH101VSN182MR35S			
6,800	30 × 50	0.15	3.65	EKMH630VSN682MR50S	1,800	35 × 25	0.15	2.17	EKMH101VSN182MA25S				
6,800	35 × 40	0.15	3.64	EKMH630VSN682MA40S	2,200	25.4 × 50	0.15	2.53	EKMH101VSN222MQ50S				
8,200	35 × 45	0.15	3.90	EKMH630VSN822MA45S	2,200	30 × 40	0.15	2.70	EKMH101VSN222MR40S				
10,000	35 × 50	0.15	4.40	EKMH630VSN103MA50S	2,200	35 × 30	0.15	2.50	EKMH101VSN222MA30S				
80	820	22 × 25	0.15	1.11	EKMH800VSN821MP25S	2,700	30 × 45	0.15	2.88	EKMH101VSN272MR45S			
	1,000	22 × 25	0.15	1.22	EKMH800VSN102MP25S	2,700	35 × 35	0.15	2.86	EKMH101VSN272MA35S			
	1,200	22 × 30	0.15	1.38	EKMH800VSN122MP30S	3,300	30 × 50	0.15	3.28	EKMH101VSN332MR50S			
	1,200	25.4 × 25	0.15	1.39	EKMH800VSN122MQ25S	3,300	35 × 40	0.15	3.27	EKMH101VSN332MA40S			
	1,500	22 × 35	0.15	1.59	EKMH800VSN152MP35S	3,900	35 × 45	0.15	3.67	EKMH101VSN392MA45S			
	1,500	25.4 × 30	0.15	1.61	EKMH800VSN152MQ30S	4,700	35 × 50	0.15	3.80	EKMH101VSN472MA50S			
	1,800	22 × 40	0.15	1.80	EKMH800VSN182MP40S								

\*For the rated voltage ≥ 160V<sub>dc</sub>, please use KMR and KMQ series.

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
6.3 to 50V <sub>dc</sub>	0.95	1.00	1.03	1.05	1.08	1.08
63 to 100V <sub>dc</sub>	0.92	1.00	1.07	1.13	1.19	1.20

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.