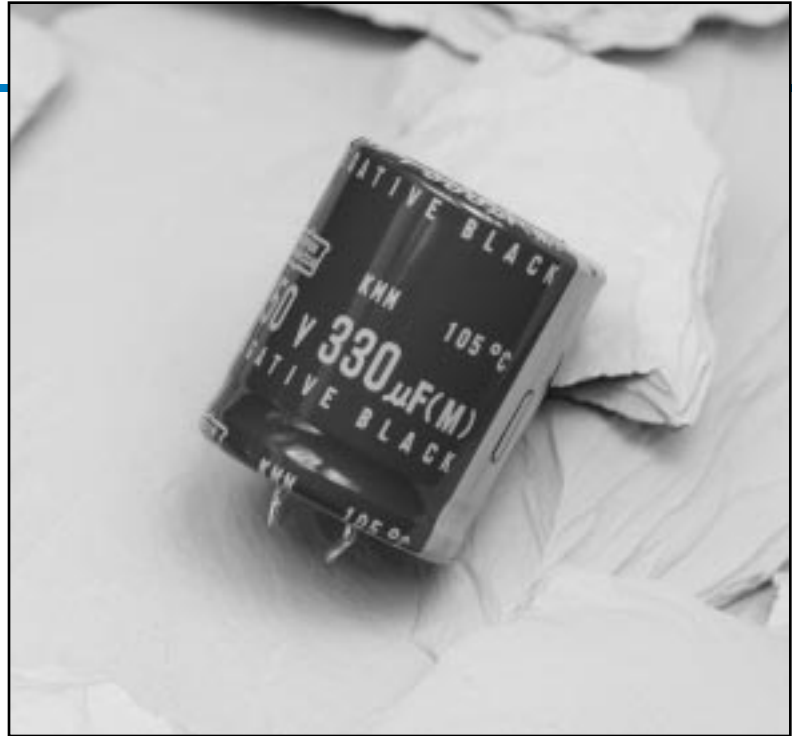


- Snap Mount
- Large Capacitance
- Downsized
- High Ripple
- +105°C Maximum Temperature



The KMM series capacitors are new downsized high temperature snap-in capacitors from United Chemi-Con. The smaller sizes and longer rated lifetime compared to the KMH series make these capacitors ideal for use in power supply filter circuits. The KMM series also has a very high ripple current capability making them ideal for use in filter circuits. The standard mounting style for the KMM series is a snap-in, 2-terminal configuration. Alternate 3 and 4 straight pin terminal styles are available upon request.

The standard KMM capacitors are non-solvent proof and are not recommended when halogenated cleaning solvents are used. Refer to the Mini-Glossary for recommended cleaning conditions.

Summary of Specifications

- PC board 2-terminal snap-in; optional 3 or 4 straight pin terminals.
- Capacitance range: 39 to 3,300 μ F.
- Voltage range: 160 to 450VDC.
- Operating temperature range: -25°C to +105°C.
- Leakage current: 0.02CV(μ A) or 3mA, whichever is smaller, after 5 minutes at +20°C; for 20mm case length, 0.03CV(μ A) or 3mA, whichever is smaller, after 5 minutes at +20°C.
- Standard capacitance tolerance: \pm 20%
- Nominal case size (D \times L): 20 \times 20mm to 35 \times 60mm.
- Rated lifetime: 2,000 to 3,000 hours at +105°C with the rated ripple current applied, depending on case size.

KMM Series

KMM Specifications

Item	Characteristics																		
Operating Temperature Range	-25 to +105°C																		
Rated Voltage Range	160 to 450VDC																		
Capacitance Range	39 to 3,300μF																		
Capacitance Tolerance	±20% (M) at +20°C, 120Hz																		
Leakage Current	I = 0.02CV (μA) or 3mA, whichever is smaller, after 5 minutes at +20°C. For 20mm length: I = 0.03CV (μA) or 3mA, whichever is smaller, after 5 minutes at +20°C. Where I = Leakage current (μA), C = Nominal capacitance (μF) and V = Rated voltage (V)																		
Dissipation Factor (Tan δ)	At +20°C, 120Hz <table border="1" style="margin-left: 20px;"> <tr> <td>Rated Voltage (V)</td> <td>160</td> <td>180</td> <td>200</td> <td>250</td> <td>315</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>Tan δ (DF)</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.20</td> </tr> </table>	Rated Voltage (V)	160	180	200	250	315	350	400	450	Tan δ (DF)	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.20
Rated Voltage (V)	160	180	200	250	315	350	400	450											
Tan δ (DF)	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.20											
Low Temperature Characteristics	At 120Hz, impedance (Z) ratio between the -25°C value and +20°C value shall not exceed the values given below. <table border="1" style="margin-left: 20px;"> <tr> <td>Rated Voltage (V)</td> <td>160</td> <td>180</td> <td>200</td> <td>250</td> <td>315</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>Z(-25°C) / Z(+20°C)</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>8</td> </tr> </table>	Rated Voltage (V)	160	180	200	250	315	350	400	450	Z(-25°C) / Z(+20°C)	4	4	4	4	4	4	4	8
Rated Voltage (V)	160	180	200	250	315	350	400	450											
Z(-25°C) / Z(+20°C)	4	4	4	4	4	4	4	8											
Load Life	The following specifications shall be satisfied when the capacitors are restored to +20°C after subjecting them to the DC rated voltage for the specified test time at +105°C with the rated ripple current applied. The sum of DC voltage and peak AC voltage must not exceed the full rated voltage of the capacitors. Case Diameter Test Time 20mm 2,000 hours 22mm & above 3,000 hours Capacitance change: ≤ ±20% of initial measured value Tan δ (DF) : ≤ 200% of initial specified value Leakage current : ≤ 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. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements. Capacitance change: ≤ ±20% of initial measured value Tan δ (DF) : ≤ 150% of initial specified value Leakage current : ≤ initial specified value																		
Others	Satisfies characteristic W of JIS C5141																		

Part Numbering System for KMM Series

When ordering, always specify complete catalog number for KMM Series.

Part Number	Description
KMM	Series Name: Indicates Basic Capacitor Design.
450	DC Rated Voltage: Expressed in Volts (e.g. 450 = 450VVDC).
VN	Lead Configuration: VN = Snap-in. See diagrams for terminal options.
331	Capacitance Value: Expressed in microfarads. The first two digits are significant figures, and the third digit indicates the number of zeros for capacitance of 100μF or more. R indicates the decimal point for capacitance less than 100μF (e.g. R33 = .33μF; 3R3 = 3.3μF; 33R = 33μF; 331 = 330μF; 332 = 3,300μF; 333 = 33,000μF).
M	Capacitance Tolerance: M = ±20%
35X40	Case Code: See Case Sizes in Tables.
T2	Terminal Code: T2 = 2-Pin Snap-in (Standard).

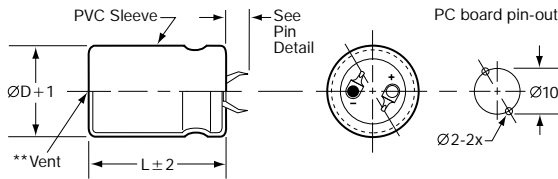
KMM Series

Diagram of Dimensions

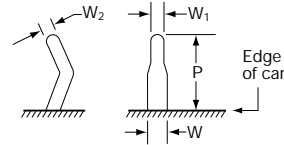
Snap Mount

Unit: mm

Types VN-T2 & VS-T2 $\varnothing D = \varnothing 20 - \varnothing 35$

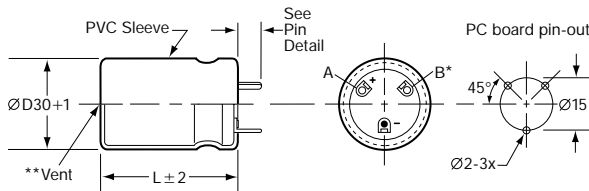


VN & VS Pin Dimensions



Type	P	W	W ₁	W ₂
VN	5.8 ± 1.0	1.5 ± 0.2	1.0 ± 0.1	1.0 ± 0.1
VS	4.0 ± 0.5			

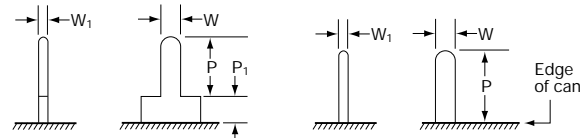
Type VR-T3 $\varnothing D = \varnothing 30$



VR Pin Dimensions

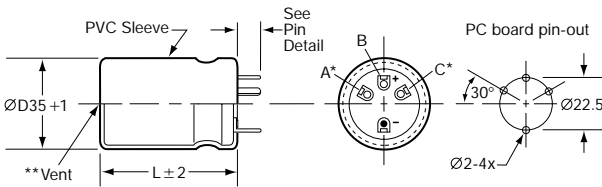
Standoff Pin (Standard)***

Straight Pin



Type	P	P ₁	W	W ₁
VR (Standoff Pin)	6.3 ± 1.0	2.0 max.	1.5 ± 0.1	0.7
VR (Straight Pin)	5.5 ± 1.0	—		

Type VR-T4 $\varnothing D = \varnothing 35$



CAUTION:

* Use the blank terminals for mechanical support only. The blank terminals must not be connected to a solder trace on the PC board, but be electrically isolated from the negative or positive terminal.

** Vent may be located either on the bottom or side of the can.

*** Please add an "H" to the end of the part number for standoffs.

Standard Voltage Ratings - VN/Snap Mount

Rated Voltage (VVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D × L (mm)	Maximum ESR (Ω) at +20°C, 120Hz	Maximum Ripple Current (A rms) at +105°C, 120Hz
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160 Volts 200 Volts Surge	180	KMM160VN181M20X20T2	20 × 20	1.381	0.68
	270	KMM160VN271M20X25T2	20 × 25	0.921	0.94
	330	KMM160VN331M20X30T2	20 × 30	0.753	1.09
	390	KMM160VN391M20X30T2	20 × 30	0.638	1.19
	470	KMM160VN471M20X35T2	20 × 35	0.529	1.34
	560	KMM160VN561M20X40T2	20 × 40	0.444	1.50
	680	KMM160VN681M20X45T2	20 × 45	0.366	1.70
	220	KMM160VN221M22X20T2	22 × 20	1.13	0.81
	330	KMM160VN331M22X25T2	22 × 25	0.753	1.20
	390	KMM160VN391M22X30T2	22 × 30	0.638	1.30
	470	KMM160VN471M22X30T2	22 × 30	0.529	1.40

* The case sizes in table are with no sleeve, refer to diagrams for case sizes with sleeve.

KMM Series

Standard Voltage Ratings - VN/Snap Mount

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D x L (mm)	Maximum ESR (Ω) at +20°C, 120Hz	Maximum Ripple Current (A rms) at +105°C, 120Hz
160 Volts 200 Volts Surge	560	KMM160VN561M22X35T2	22 x 35	0.444	1.50
	680	KMM160VN681M22X40T2	22 x 40	0.366	1.71
	820	KMM160VN821M22X45T2	22 x 45	0.303	2.00
	1,000	KMM160VN102M22X50T2	22 x 50	0.249	2.23
	330	KMM160VN331M25X20T2	25 x 20	0.753	1.02
	470	KMM160VN471M25X25T2	25 x 25	0.529	1.41
	560	KMM160VN561M25X30T2	25 x 30	0.444	1.51
	680	KMM160VN681M25X30T2	25 x 30	0.366	1.70
	820	KMM160VN821M25X35T2	25 x 35	0.303	2.00
	1,000	KMM160VN102M25X40T2	25 x 40	0.249	2.20
	1,200	KMM160VN122M25X45T2	25 x 45	0.207	2.45
	1,500	KMM160VN152M25X60T2	25 x 60	0.166	2.97
	470	KMM160VN471M30X20T2	30 x 20	0.529	1.29
	680	KMM160VN681M30X25T2	30 x 25	0.366	1.72
	820	KMM160VN821M30X30T2	30 x 30	0.303	2.00
	1,000	KMM160VN102M30X30T2	30 x 30	0.249	2.20
	1,200	KMM160VN122M30X35T2	30 x 35	0.207	2.44
	1,500	KMM160VN152M30X40T2	30 x 40	0.166	2.82
	1,800	KMM160VN182M30X45T2	30 x 45	0.138	3.31
	2,200	KMM160VN222M30X60T2	30 x 60	0.113	3.86
	680	KMM160VN681M35X20T2	35 x 20	0.366	1.51
	1,000	KMM160VN102M35X25T2	35 x 25	0.249	2.20
	1,200	KMM160VN122M35X30T2	35 x 30	0.207	2.44
	1,500	KMM160VN152M35X35T2	35 x 35	0.166	2.67
	1,800	KMM160VN182M35X35T2	35 x 35	0.138	2.92
	2,200	KMM160VN222M35X45T2	35 x 45	0.113	3.48
	2,700	KMM160VN272M35X50T2	35 x 50	0.092	3.97
	3,300	KMM160VN332M35X60T2	35 x 60	0.075	4.63
180 Volts 225 Volts Surge	150	KMM180VN151M20X20T2	20 x 20	1.658	0.62
	220	KMM180VN221M20X25T2	20 x 25	1.13	0.85
	270	KMM180VN271M20X30T2	20 x 30	0.921	0.99
	330	KMM180VN331M20X30T2	20 x 30	0.753	1.09
	390	KMM180VN391M20X35T2	20 x 35	0.638	1.22
	470	KMM180VN471M20X40T2	20 x 40	0.529	1.38
	560	KMM180VN561M20X45T2	20 x 45	0.444	1.54
	180	KMM180VN181M22X20T2	22 x 20	1.381	0.73
	270	KMM180VN271M22X25T2	22 x 25	0.921	1.00
	330	KMM180VN331M22X30T2	22 x 30	0.753	1.20
	390	KMM180VN391M22X30T2	22 x 30	0.638	1.30
	470	KMM180VN471M22X35T2	22 x 35	0.529	1.40
	560	KMM180VN561M22X40T2	22 x 40	0.444	1.51
	680	KMM180VN681M22X45T2	22 x 45	0.366	1.70
	820	KMM180VN821M22X50T2	22 x 50	0.303	2.00
	270	KMM180VN271M25X20T2	25 x 20	0.921	0.92
	390	KMM180VN391M25X25T2	25 x 25	0.638	1.30
	470	KMM180VN471M25X30T2	25 x 30	0.529	1.40
	560	KMM180VN561M25X30T2	25 x 30	0.444	1.53
	680	KMM180VN681M25X35T2	25 x 35	0.366	1.74
	820	KMM180VN821M25X40T2	25 x 40	0.303	2.00
	1,000	KMM180VN102M25X45T2	25 x 45	0.249	2.23
	1,200	KMM180VN122M25X50T2	25 x 50	0.207	2.51
	390	KMM180VN391M30X20T2	30 x 20	0.638	1.17
	560	KMM180VN561M30X25T2	30 x 25	0.444	1.51
	680	KMM180VN681M30X30T2	30 x 30	0.366	1.72
	820	KMM180VN821M30X30T2	30 x 30	0.303	2.00
	1,000	KMM180VN102M30X35T2	30 x 35	0.249	2.24
	1,200	KMM180VN122M30X40T2	30 x 40	0.207	2.52
	1,500	KMM180VN152M30X45T2	30 x 45	0.166	2.89
	1,800	KMM180VN182M30X60T2	30 x 60	0.138	3.49

*The case sizes in table are with no sleeve, refer to diagrams for case sizes with sleeve.

KMM Series

Standard Voltage Ratings - VN/Snap Mount

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D x L (mm)	Maximum ESR (Ω) at +20°C, 120Hz	Maximum Ripple Current (A rms) at +105°C, 120Hz
180 Volts 225 Volts Surge	560	KMM180VN561M35X20T2	35 x 20	0.444	1.37
	820	KMM180VN821M35X25T2	35 x 25	0.303	1.91
	1,000	KMM180VN102M35X30T2	35 x 30	0.249	2.26
	1,200	KMM180VN122M35X30T2	35 x 30	0.207	2.50
	1,500	KMM180VN152M35X35T2	35 x 35	0.166	2.89
	1,800	KMM180VN182M35X40T2	35 x 40	0.138	3.05
	2,200	KMM180VN222M35X50T2	35 x 50	0.113	3.60
	2,700	KMM180VN273M35X60T2	35 x 60	0.092	4.19
200 Volts 250 Volts Surge	120	KMM200VN121M20X20T2	20 x 20	2.072	0.56
	220	KMM200VN221M20X25T2	20 x 25	1.13	0.85
	270	KMM200VN271M20X30T2	20 x 30	0.921	0.99
	330	KMM200VN331M20X35T2	20 x 35	0.753	1.12
	390	KMM200VN391M20X40T2	20 x 40	0.638	1.25
	470	KMM200VN471M20X45T2	20 x 45	0.529	1.41
	560	KMM200VN561M20X50T2	20 x 50	0.444	1.58
	180	KMM200VN181M22X20T2	22 x 20	1.381	0.78
	270	KMM200VN271M22X25T2	22 x 25	0.921	1.00
	330	KMM200VN331M22X30T2	22 x 30	0.753	1.20
	390	KMM200VN391M22X30T2	22 x 30	0.638	1.31
	470	KMM200VN471M22X35T2	22 x 35	0.529	1.40
	560	KMM200VN561M22X40T2	22 x 40	0.444	1.56
	680	KMM200VN681M22X45T2	22 x 45	0.366	1.74
	220	KMM200VN221M25X20T2	25 x 20	1.13	0.83
	330	KMM200VN331M25X25T2	25 x 25	0.753	1.21
	390	KMM200VN391M25X25T2	25 x 25	0.638	1.30
	470	KMM200VN471M25X30T2	25 x 30	0.529	1.41
	560	KMM200VN561M25X35T2	25 x 35	0.444	1.60
	680	KMM200VN681M25X40T2	25 x 40	0.366	1.74
	820	KMM200VN821M25X45T2	25 x 45	0.303	2.04
	1,000	KMM200VN102M25X50T2	25 x 50	0.249	2.30
	1,200	KMM200VN122M25X60T2	25 x 60	0.207	2.66
	330	KMM200VN331M30X20T2	30 x 20	0.753	1.08
	560	KMM200VN561M30X25T2	30 x 25	0.444	1.50
	680	KMM200VN681M30X30T2	30 x 30	0.366	1.74
	820	KMM200VN821M30X35T2	30 x 35	0.303	2.04
	1,000	KMM200VN102M30X40T2	30 x 40	0.249	2.33
	1,200	KMM200VN122M30X45T2	30 x 45	0.207	2.60
	1,500	KMM200VN152M30X50T2	30 x 50	0.166	3.03
	1,800	KMM200VN182M30X60T2	30 x 60	0.138	3.49
	470	KMM200VN471M35X20T2	35 x 20	0.529	1.41
	680	KMM200VN681M35X25T2	35 x 25	0.366	1.72
	820	KMM200VN821M35X30T2	35 x 30	0.303	2.04
1,000	KMM200VN102M35X30T2	35 x 30	0.249	2.30	
1,200	KMM200VN122M35X35T2	35 x 35	0.207	2.65	
1,500	KMM200VN152M35X40T2	35 x 40	0.166	3.08	
1,800	KMM200VN182M35X45T2	35 x 45	0.138	3.47	
2,200	KMM200VN222M35X60T2	35 x 60	0.113	3.78	
250 Volts 300 Volts Surge	100	KMM250VN101M20X20T2	20 x 20	2.486	0.51
	150	KMM250VN151M20X25T2	20 x 25	1.658	0.70
	180	KMM250VN181M20X30T2	20 x 30	1.381	0.81
	220	KMM250VN221M20X30T2	20 x 30	1.13	0.89
	270	KMM250VN271M20X35T2	20 x 35	0.921	1.02
	330	KMM250VN331M20X40T2	20 x 40	0.753	1.15
	120	KMM250VN121M22X20T2	22 x 20	2.072	0.60
	180	KMM250VN181M22X25T2	22 x 25	1.381	0.78
	220	KMM250VN221M22X30T2	22 x 30	1.13	0.95
	270	KMM250VN271M22X30T2	22 x 30	0.921	1.14
	330	KMM250VN331M22X35T2	22 x 35	0.753	1.26
	390	KMM250VN391M22X40T2	22 x 40	0.638	1.49

*The case sizes in table are with no sleeve, refer to diagrams for case sizes with sleeve.

KMM Series

Standard Voltage Ratings - VN/Snap Mount

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D x L (mm)	Maximum ESR (Ω) at +20°C, 120Hz	Maximum Ripple Current (A rms) at +105°C, 120Hz
250 Volts 300 Volts Surge	470	KMM250VN471M22X45T2	22 x 45	0.529	1.57
	560	KMM250VN561M22X50T2	22 x 50	0.444	1.67
	180	KMM250VN181M25X20T2	25 x 20	1.381	0.75
	220	KMM250VN221M25X25T2	25 x 25	1.13	0.95
	270	KMM250VN271M25X25T2	25 x 25	0.921	1.10
	330	KMM250VN331M25X30T2	25 x 30	0.753	1.20
	390	KMM250VN391M25X35T2	25 x 35	0.638	1.49
	470	KMM250VN471M25X35T2	25 x 35	0.529	1.57
	560	KMM250VN561M25X40T2	25 x 40	0.444	1.79
	680	KMM250VN681M25X50T2	25 x 50	0.366	1.84
	820	KMM250VN821M25X60T2	25 x 60	0.303	2.20
	270	KMM250VN271M30X20T2	30 x 20	0.921	0.98
	390	KMM250VN391M30X25T2	30 x 25	0.638	1.31
	470	KMM250VN471M30X30T2	30 x 30	0.529	1.57
	560	KMM250VN561M30X30T2	30 x 30	0.444	1.79
	680	KMM250VN681M30X35T2	30 x 35	0.366	2.00
	820	KMM250VN821M30X40T2	30 x 40	0.303	2.16
	1,000	KMM250VN102M30X50T2	30 x 50	0.249	2.47
	1,200	KMM250VN122M30X60T2	30 x 60	0.207	2.85
	330	KMM250VN331M35X20T2	35 x 20	0.753	1.16
	560	KMM250VN561M35X25T2	35 x 25	0.444	1.68
	680	KMM250VN681M35X30T2	35 x 30	0.366	1.75
	820	KMM250VN821M35X35T2	35 x 35	0.303	2.00
	1,000	KMM250VN102M35X40T2	35 x 40	0.249	2.30
	1,200	KMM250VN122M35X45T2	35 x 45	0.207	2.43
	1,500	KMM250VN152M35X50T2	35 x 50	0.166	2.96
	1,800	KMM250VN182M35X60T2	35 x 60	0.138	3.42
	315 Volts 365 Volts Surge	56	KMM315VN56RM20X20T2	20 x 20	4.44
82		KMM315VN82RM20X25T2	20 x 25	3.032	0.52
100		KMM315VN101M20X30T2	20 x 30	2.486	0.64
120		KMM315VN121M20X30T2	20 x 30	2.072	0.66
150		KMM315VN151M20X35T2	20 x 35	1.658	0.76
180		KMM315VN181M20X40T2	20 x 40	1.381	0.85
220		KMM315VN221M20X50T2	20 x 50	1.13	0.99
68		KMM315VN68RM22X20T2	22 x 20	3.656	0.45
100		KMM315VN101M22X25T2	22 x 25	2.486	0.61
120		KMM315VN121M22X30T2	22 x 30	2.072	0.75
150		KMM315VN151M22X35T2	22 x 35	1.658	0.82
180		KMM315VN181M22X35T2	22 x 35	1.381	0.91
220		KMM315VN221M22X40T2	22 x 40	1.13	1.02
270		KMM315VN271M22X45T2	22 x 45	0.921	1.16
100		KMM315VN101M25X20T2	25 x 20	2.486	0.56
120		KMM315VN121M25X25T2	25 x 25	2.072	0.76
150		KMM315VN151M25X25T2	25 x 25	1.658	0.82
180		KMM315VN181M25X30T2	25 x 30	1.381	0.90
220		KMM315VN221M25X35T2	25 x 35	1.13	1.02
270		KMM315VN271M25X40T2	25 x 40	0.921	1.15
330		KMM315VN331M25X45T2	25 x 45	0.753	1.33
390		KMM315VN391M25X50T2	25 x 50	0.638	1.43
470		KMM315VN471M25X60T2	25 x 60	0.529	1.66
120		KMM315VN121M30X20T2	30 x 20	2.072	0.65
220		KMM315VN221M30X25T2	30 x 25	1.13	1.02
270		KMM315VN271M30X30T2	30 x 30	0.921	1.12
330		KMM315VN331M30X35T2	30 x 35	0.753	1.30
390		KMM315VN391M30X40T2	30 x 40	0.638	1.46
470		KMM315VN471M30X45T2	30 x 45	0.529	1.70
560		KMM315VN561M30X50T2	30 x 50	0.444	1.85
180		KMM315VN181M35X20T2	35 x 20	1.381	0.83
270		KMM315VN271M35X25T2	35 x 25	0.921	1.15

*The case sizes in table are with no sleeve, refer to diagrams for case sizes with sleeve.

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Standard Voltage Ratings - VN/Snap Mount

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D x L (mm)	Maximum ESR (Ω) at +20°C, 120Hz	Maximum Ripple Current (A rms) at +105°C, 120Hz
315 Volts 365 Volts Surge	330	KMM315VN331M35X30T2	35 × 30	0.753	1.32
	390	KMM315VN391M35X30T2	35 × 30	0.638	1.47
	470	KMM315VN471M35X35T2	35 × 35	0.529	1.69
	560	KMM315VN561M35X40T2	35 × 40	0.444	1.90
	680	KMM315VN681M35X45T2	35 × 45	0.366	2.15
	820	KMM315VN821M35X50T2	35 × 50	0.303	2.18
	1,000	KMM315VN102M35X60T2	35 × 60	0.249	2.55
350 Volts 400 Volts Surge	47	KMM350VN47RM20X20T2	20 × 20	5.29	0.35
	68	KMM350VN68RM20X25T2	20 × 25	3.656	0.47
	82	KMM350VN82RM20X30T2	20 × 30	3.032	0.54
	100	KMM350VN101M20X30T2	20 × 30	2.486	0.60
	120	KMM350VN121M20X35T2	20 × 35	2.072	0.68
	150	KMM350VN151M20X40T2	20 × 40	1.658	0.78
	180	KMM350VN181M20X45T2	20 × 45	1.381	0.87
	56	KMM350VN56RM22X20T2	22 × 20	4.44	0.41
	100	KMM350VN101M22X25T2	22 × 25	2.486	0.69
	120	KMM350VN121M22X30T2	22 × 30	2.072	0.75
	150	KMM350VN151M22X35T2	22 × 35	1.658	0.82
	180	KMM350VN181M22X40T2	22 × 40	1.381	0.92
	220	KMM350VN221M22X45T2	22 × 45	1.13	1.05
	270	KMM350VN271M22X50T2	22 × 50	0.921	1.16
	82	KMM350VN82RM25X20T2	25 × 20	3.032	0.51
	120	KMM350VN121M25X25T2	25 × 25	2.072	0.75
	150	KMM350VN151M25X30T2	25 × 30	1.658	0.83
	180	KMM350VN181M25X30T2	25 × 30	1.381	0.92
	220	KMM350VN221M25X35T2	25 × 35	1.13	1.04
	270	KMM350VN271M25X40T2	25 × 40	0.921	1.18
	330	KMM350VN331M25X45T2	25 × 45	0.753	1.29
	390	KMM350VN391M25X60T2	25 × 60	0.638	1.51
	470	KMM350VN471M25X60T2	25 × 60	0.529	1.66
	120	KMM350VN121M30X20T2	30 × 20	2.072	0.65
	180	KMM350VN181M30X25T2	30 × 25	1.381	0.90
	220	KMM350VN221M30X30T2	30 × 30	1.13	1.02
	270	KMM350VN271M30X30T2	30 × 30	0.921	1.17
	330	KMM350VN331M30X35T2	30 × 35	0.753	1.34
	390	KMM350VN391M30X40T2	30 × 40	0.638	1.51
	470	KMM350VN471M30X45T2	30 × 45	0.529	1.65
	560	KMM350VN561M30X50T2	30 × 50	0.444	1.85
	680	KMM350VN681M30X60T2	30 × 60	0.366	2.15
	150	KMM350VN151M35X20T2	35 × 20	1.658	0.76
	270	KMM350VN271M35X25T2	35 × 25	0.921	1.20
	330	KMM350VN331M35X30T2	35 × 30	0.753	1.22
	390	KMM350VN391M35X35T2	35 × 35	0.638	1.47
	470	KMM350VN471M35X35T2	35 × 35	0.529	1.69
	560	KMM350VN561M35X40T2	35 × 40	0.444	1.90
	680	KMM350VN681M35X50T2	35 × 50	0.366	1.99
	820	KMM350VN821M35X60T2	35 × 60	0.303	2.31
400 Volts 450 Volts Surge	39	KMM400VN39RM20X20T2	20 × 20	6.375	0.32
	56	KMM400VN56RM20X25T2	20 × 25	4.44	0.43
	68	KMM400VN68RM20X30T2	20 × 30	3.656	0.49
	82	KMM400VN82RM20X30T2	20 × 30	3.032	0.54
	100	KMM400VN101M20X35T2	20 × 35	2.486	0.62
	120	KMM400VN121M20X40T2	20 × 40	2.072	0.69
	150	KMM400VN151M20X45T2	20 × 45	1.658	0.79
	47	KMM400VN47RM22X20T2	22 × 20	5.29	0.37
	82	KMM400VN82RM22X25T2	22 × 25	3.032	0.58
	100	KMM400VN101M22X30T2	22 × 30	2.486	0.69
	120	KMM400VN121M22X35T2	22 × 35	2.072	0.75

* The case sizes in table are with no sleeve, refer to diagrams for case sizes with sleeve.

KMM Series

Standard Voltage Ratings - VN/Snap Mount

Rated Voltage (WVDC)	Capacitance (µF)	Catalog Part Number	Nominal Case Size* D x L (mm)	Maximum ESR (Ω) at +20°C, 120Hz	Maximum Ripple Current (A rms) at +105°C, 120Hz
400 Volts 450 Volts Surge	150	KMM400VN151M22X40T2	22 x 40	1.658	0.82
	180	KMM400VN181M22X45T2	22 x 45	1.381	0.95
	220	KMM400VN221M22X50T2	22 x 50	1.13	1.05
	68	KMM400VN68RM25X20T2	25 x 20	3.656	0.46
	100	KMM400VN101M25X25T2	25 x 25	2.486	0.69
	120	KMM400VN121M25X30T2	25 x 30	2.072	0.75
	150	KMM400VN151M25X30T2	25 x 30	1.658	0.84
	180	KMM400VN181M25X35T2	25 x 35	1.381	0.94
	220	KMM400VN221M25X40T2	25 x 40	1.13	1.07
	270	KMM400VN271M25X45T2	25 x 45	0.921	1.21
	330	KMM400VN331M25X50T2	25 x 50	0.753	1.33
	100	KMM400VN101M30X20T2	30 x 20	2.486	0.59
	150	KMM400VN151M30X25T2	30 x 25	1.658	0.82
	180	KMM400VN181M30X30T2	30 x 30	1.381	0.92
	220	KMM400VN221M30X30T2	30 x 30	1.13	1.06
	270	KMM400VN271M30X35T2	30 x 35	0.921	1.21
	330	KMM400VN331M30X40T2	30 x 40	0.753	1.39
	390	KMM400VN391M30X45T2	30 x 45	0.638	1.55
	470	KMM400VN471M30X50T2	30 x 50	0.529	1.69
	560	KMM400VN561M30X60T2	30 x 60	0.444	1.95
	150	KMM400VN151M35X20T2	35 x 20	1.658	0.76
	220	KMM400VN221M35X25T2	35 x 25	1.13	1.08
	270	KMM400VN271M35X30T2	35 x 30	0.921	1.10
	330	KMM400VN331M35X35T2	35 x 35	0.753	1.35
	390	KMM400VN391M35X35T2	35 x 35	0.638	1.54
	470	KMM400VN471M35X40T2	35 x 40	0.529	1.74
560	KMM400VN561M35X50T2	35 x 50	0.444	1.80	
680	KMM400VN681M35X60T2	35 x 60	0.366	2.10	
450 Volts 500 Volts Surge	47	KMM450VN47RM20X25T2	20 x 25	7.053	0.36
	56	KMM450VN56RM20X30T2	20 x 30	5.92	0.41
	68	KMM450VN68RM20X35T2	20 x 35	4.875	0.47
	82	KMM450VN82RM20X35T2	20 x 35	4.043	0.52
	100	KMM450VN101M20X45T2	20 x 45	3.315	0.60
	120	KMM450VN121M20X50T2	20 x 50	2.763	0.68
	56	KMM450VN56RM22X25T2	22 x 25	5.92	0.40
	82	KMM450VN82RM22X30T2	22 x 30	4.043	0.56
	100	KMM450VN101M22X35T2	22 x 35	3.315	0.64
	120	KMM450VN121M22X40T2	22 x 40	2.763	0.72
	150	KMM450VN151M22X45T2	22 x 45	2.21	0.79
	82	KMM450VN82RM25X25T2	25 x 25	4.043	0.54
	100	KMM450VN101M25X30T2	25 x 30	3.315	0.57
	120	KMM450VN121M25X35T2	25 x 35	2.763	0.71
	150	KMM450VN151M25X40T2	25 x 40	2.21	0.75
	180	KMM450VN181M25X45T2	25 x 45	1.842	0.84
	220	KMM450VN221M25X50T2	25 x 50	1.507	0.98
	270	KMM450VN271M25X60T2	25 x 60	1.228	1.13
	100	KMM450VN101M30X25T2	30 x 25	3.315	0.64
	150	KMM450VN151M30X30T2	30 x 30	2.21	0.74
	180	KMM450VN181M30X35T2	30 x 35	1.842	0.87
	220	KMM450VN221M30X40T2	30 x 40	1.507	0.98
	270	KMM450VN271M30X45T2	30 x 45	1.228	1.15
	330	KMM450VN331M30X50T2	30 x 50	1.005	1.38
	390	KMM450VN391M30X60T2	30 x 60	0.85	1.46
	150	KMM450VN151M35X25T2	35 x 25	2.21	0.75
	220	KMM450VN221M35X30T2	35 x 30	1.507	1.00
	270	KMM450VN271M35X35T2	35 x 35	1.228	1.17
	330	KMM450VN331M35X40T2	35 x 40	1.005	1.38
	390	KMM450VN391M35X45T2	35 x 45	0.85	1.55
	470	KMM450VN471M35X50T2	35 x 50	0.705	1.72
	560	KMM450VN561M35X60T2	35 x 60	0.592	1.91

*The case sizes in table are with no sleeve, refer to diagrams for case sizes with sleeve.