

K2M TYPE -40°C +105°C 5000H

Preliminary version

- High voltage and high ripple current design
- Strong miniaturization
- Surge-proof capacitor in full insulated box (UL approved)
- Mechanical design optimized for low profile modular machines
- Low capacitance value versus ground
- Low inductance design
- Central point of voltage available for circuital connections

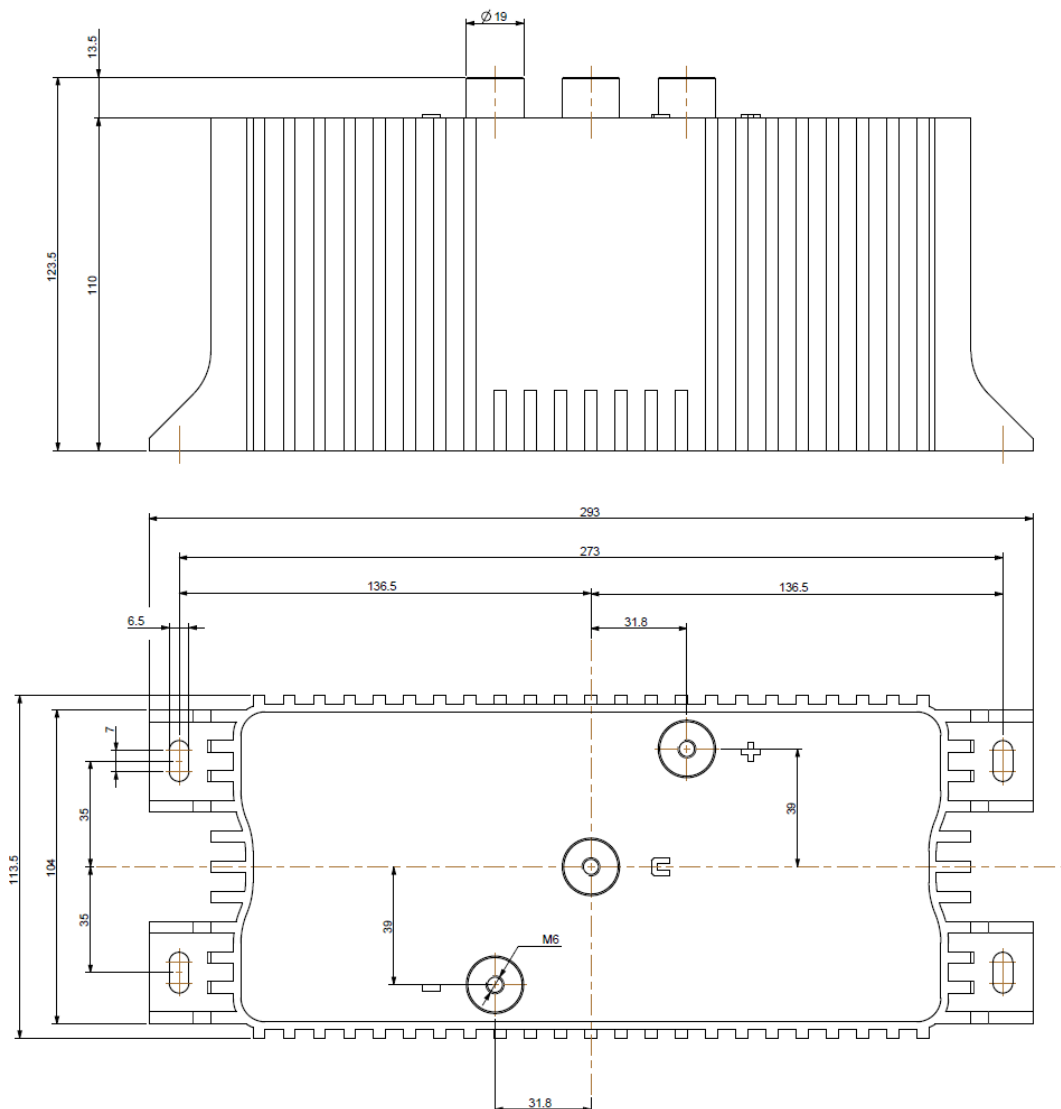


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APPLICATIONS

Designed for professional application.

Switch mode power suppliers, high ripple current converters, motor drives.



SPECIFICATIONS

Preliminary version

Temperature Range	Operating: -40°C +105°C Storage: Preferably below +25°C, not exceeding +40°C	[Environmental classification 40/ 105 /56 IEC-68]																																
Rated Voltage Range (V_r)	from 500V to 1000V DC																																	
Surge Voltage (V_p)	V _p = 1.10 V _r																																	
Rated Capacitance Range	from 3300 µF to 14000 µF																																	
Capacitance Tolerance	±20% at 100 Hz, 20°C [M class IEC-62] on request: -10% +30% at 100 Hz, 20°C [Q class IEC-62]																																	
Leakage Current (I_L) (5 min, 20°C)	max I _L = 0.006 C _r V _r + 4 µA																																	
Ripple current (I_r)	<p>Refer to table at 105°C and 100Hz :</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>FREQUENCY</th> <th>50Hz</th> <th>100Hz</th> <th>500 Hz</th> <th>1000Hz</th> <th>>10kHz</th> </tr> </thead> <tbody> <tr> <td>MULTIPLIER</td> <td>0.8</td> <td>1.0</td> <td>1.2</td> <td>1.3</td> <td>1.5</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>AMBIENT TEMP</th> <th>35°C</th> <th>40°C</th> <th>55°C</th> <th>65°C</th> <th>75°C</th> <th>85°C</th> <th>95°C</th> <th>105°C</th> <th>110°C</th> </tr> </thead> <tbody> <tr> <td>MULTIPLIER</td> <td>3.0</td> <td>2.8</td> <td>2.6</td> <td>2.4</td> <td>2.2</td> <td>1.8</td> <td>1.5</td> <td>1.0</td> <td>0.5</td> </tr> </tbody> </table> <p>Maximum internal temperature 110°C</p> <p>Maximum current 250A RSM</p>		FREQUENCY	50Hz	100Hz	500 Hz	1000Hz	>10kHz	MULTIPLIER	0.8	1.0	1.2	1.3	1.5	AMBIENT TEMP	35°C	40°C	55°C	65°C	75°C	85°C	95°C	105°C	110°C	MULTIPLIER	3.0	2.8	2.6	2.4	2.2	1.8	1.5	1.0	0.5
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Insulation Resistance	At 100V DC for 1 min is >100 MΩ across insulating frame and terminals																																	
Vibration Resistance	Frequency range: 10 Hz to 55 Hz, amplitude 0.75 mm max acceleration 5G for 3x0.5 h																																	
Life test	After 2,000 hours application of rated voltage at 85°C capacitors meet characteristics aside	Cap change ≤ 10% Tan δ ≤ 130% Leakage current (I _L) < initial limit Impedance (Z) ≤ 130%																																
Shelf life	After leaving capacitors under no load for 2000 hours at 85°C, when restored at 20°C meet specifications aside	Cap change ≤ ±15% Tan δ ≤ 150% Leakage current (I _L) < initial limit																																
Useful life	> 5000 h at 105°C																																	
Failure rate	≤ 150 fit (200 10 ⁻⁹ /h)																																	
Self inductance	Approx. 10 nH																																	
Reference standards	CECC 30.300 IEC 60384-4 LONG LIFE GRADE																																	

K2M TYPE STANDARD RATINGS

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Cap μF	NOMINA L VOLTAGE VDC	RATED VOLTAG E VDC	Tan δ MAX 100Hz 20°C	ESR TYP mΩ 100Hz 20°C	Z TYP mΩ 10KHz 20°C	Ir a.c. A max 100Hz 105°C *	Ir a.c. A max 100Hz 105°C **	Ir a.c. A max 10KHz 35°C **	PART NUMBER
3300	1000	880	PLEASE TO CONTACT OUR TECHNICAL SERVICE FOR MORE INFORMATION						K2M10133206M00ABC
5600	900	800				K2M90056206M00ABC			
6000	840	740				K2M84060206M00ABC			
6800	800	700				K2M80068206M00ABC			
8800	700	610				K2M70088206M00ABC			
14000	500	450				K2M50014306M00ABC			

* Natural air flow, Rated Voltage

** Forced air flow, Rated Voltage

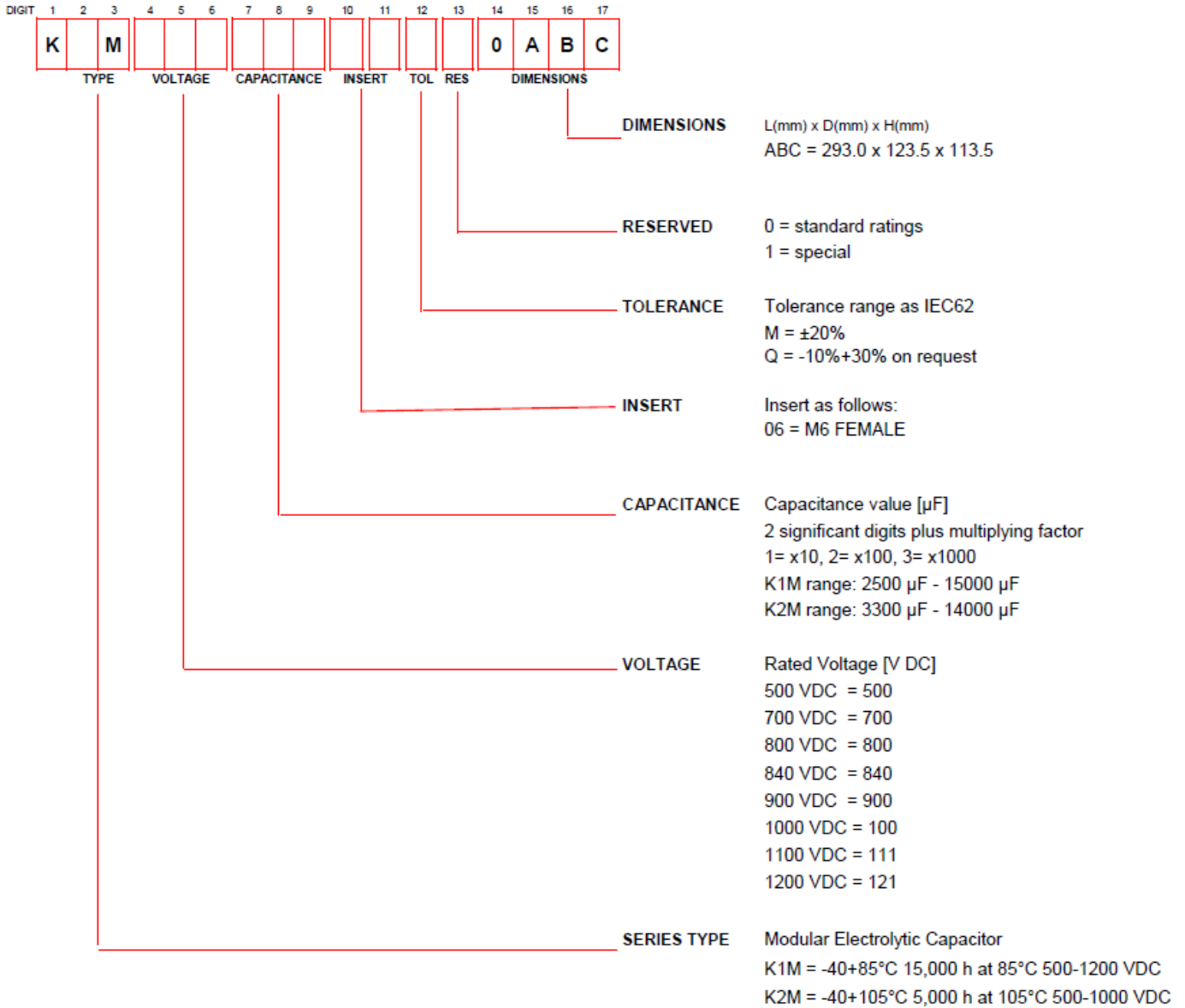
Remarks: ABC = 293.0 x 123.5 x 113.5 - L(mm) x D(mm) x H(mm)

PART NUMBER SYSTEM

Preliminary version

Total length is 17 digits

MODULAR ELECTROLYTIC CAPACITOR



Examples

K	1	M	7	0	0	1	0	3	0	6	M	0	0	A	B	C	K1M 700V 10000µF, insert M6, -20%+20%, size 293 x 123.5 x 113.5
K	2	M	8	0	0	6	8	2	0	6	Q	0	0	A	B	C	K2M 800V 6800µF, insert M6, -10%+30%, size 293 x 123.5 x 113.5