

特徴/Features

- MMCタイプを更に、小型化した製品です。
- 自己回復作用があるため、信頼性に優れています。
- 外装は最新のエポキシ加工により難燃性のエポキシ樹脂による均一な厚さで覆われていますので小型軽量となっています。

- ★Smaller version of MMC type.
- ★Highly reliable because of its self-healing performance.
- ★Uniform flame-retardant epoxy resin coating through the latest resin technology. This provides miniature size and light weight.

規格/Specifications

使用温度範囲 Temp. range	-40~+85°C (+105°C)※1	絶縁抵抗 Insulation resistance	C ≤ 0.33 μF 15,000M Ω <sub>以上</sub> <sup>More</sup> C > 0.33 μF 5,000 Ω F <sub>以上</sub> <sup>More</sup>
定格電圧 Rated voltage	250V, 400V, 450V※2, 630Vdc	高温負荷 Endurance	85°C、WV × 125% 1000hr印加 ※3 ΔC/C ±10% <sub>以内</sub> tan δ 0.011 <sub>以下</sub> <sup>Less</sup>
静電容量範囲 Capacitance	250Vdc 0.18~10 μF (E-12), 450Vdc 0.10~2.2 μF (E-12) 400Vdc 0.0010~4.7 μF (E-12), 630Vdc 0.0010~2.2 μF (E-12)	耐湿負荷 Damp heat	40°C、90~95%RH、WV 500hr印加 ΔC/C ±10% <sub>以内</sub> tan δ 0.011 <sub>以下</sub> <sup>Less</sup>
静電容量許容差 Cap. tolerance	±5% (J), ±10% (K)	誘電正接 Tangent of loss angle	IR C ≤ 0.33 μF 2,700M Ω <sub>以上</sub> <sup>More</sup> C > 0.33 μF 900 Ω F <sub>以上</sub> <sup>More</sup>
誘電正接 Tangent of loss angle	0.008 <sub>以下</sub> <sup>Less</sup> (at 1kHz)		

※1 ( ) 温度は電圧軽減による使用可能範囲です。

※1 ( ) Marked temperature shows operatable when voltage is derated.

※2 450Vdcはアクティブフィルタ専用

※2 450Vdc:Recommendable for Active filtering circuit.

※3 450Vdcは85°C WV × 111% 1000hr印加

※3 450Vdc:85°C WV × 111% 1000hr applied.

寸法/Dimensions (mm)

Cap CODE	Cap (μF)	MMX 250Vdc										MMX 400Vdc												
		基準収納数 NUMBER OF PIECES FOR PACKING UNIT							テーピング Taping			ロング Long			フォーミング Formed			基準収納数 NUMBER OF PIECES FOR PACKING UNIT						
		W	H	T	P	F	φd	Ammo	Bag	Box	Bag	Box	W	H	T	P	F	φd	Ammo	Bag	Box	Bag	Box	
102	0.0010											9.8	5.5	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000		
122	0.0012											9.8	5.5	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000		
152	0.0015											9.8	5.5	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000		
182	0.0018											9.8	5.5	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000		
222	0.0022											9.8	5.5	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000		
272	0.0027											9.8	5.5	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000		
332	0.0033											9.8	6.0	4.2	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000		
392	0.0039											9.8	6.0	4.2	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000		
472	0.0047											9.8	6.0	4.2	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000		
562	0.0056											9.8	6.5	4.2	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000		
682	0.0068											9.8	6.5	4.4	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000		
822	0.0082											9.8	6.8	4.4	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000		
103	0.010											9.8	6.8	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000		
123	0.012											9.8	6.8	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000		
153	0.015											9.8	6.8	4.0	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000		
183	0.018											9.8	6.8	4.0	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000		
223	0.022											9.8	6.8	4.0	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000		
273	0.027											9.8	6.8	4.2	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000		
333	0.033											9.8	6.8	4.2	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000		
393	0.039											9.8	7.0	4.2	7.5	5.0/7.5	0.6	1,000	200	1,600	200	1,600		
473	0.047											9.8	7.2	4.2	7.5	5.0/7.5	0.6	1,000	200	1,600	200	1,600		
563	0.056											9.8	8.0	4.2	7.5	5.0/7.5	0.6	1,000	200	1,600	200	1,600		
683	0.068											9.8	8.3	4.4	7.5	5.0/7.5	0.6	1,000	100	1,500	100	1,500		
823	0.082											9.8	8.6	4.8	7.5	5.0/7.5	0.6	1,000	100	1,500	100	1,500		
104	0.10											9.8	10.8	4.5	7.5	5.0/7.5	0.6	1,000	100	1,000	100	1,000		
124	0.12											12.5	10.5	4.2	10.0	5.0/7.5	0.6	1,000	100	1,000	100	1,000		
154	0.15											12.5	10.7	4.6	10.0	5.0/7.5	0.6	1,000	100	1,000	100	1,000		
184	0.18	9.8	11.0	4.6	7.5	5.0/7.5	0.6	1,000	100	1,500	100	1,500	12.5	10.0	5.5	10.0	5.0/7.5	0.6	1,000	100	1,000	100	1,000	
224	0.22	9.8	11.3	5.0	7.5	5.0/7.5	0.6	1,000	100	1,500	100	1,500	12.5	10.5	5.8	10.0	5.0/7.5	0.6	1,000	100	1,000	100	1,000	
274	0.27	9.8	12.0	5.5	7.5	5.0/7.5	0.6	1,000	100	1,500	100	1,500	12.5	13.5	5.2	10.0	5.0/7.5	0.6	1,000	100	500	100	500	
334	0.33	9.8	12.5	6.0	7.5	5.0/7.5	0.6	1,000	100	1,500	100	1,500	12.5	14.3	5.8	10.0	5.0/7.5	0.6	1,000	100	500	100	500	
394	0.39	12.5	14.0	4.3	10.0	5.0/7.5/10.0	0.6	1,000	100	1,000	100	1,000	12.5	14.5	6.3	10.0	5.0/7.5	0.6	500	50	500	50	500	
474	0.47	12.5	14.4	4.8	10.0	5.0/7.5/10.0	0.6	1,000	100	1,000	100	1,000	12.5	15.5	7.0	10.0	5.0/7.5	0.6	500	50	500	50	500	
564	0.56	12.5	14.8	5.2	10.0	5.0/7.5/10.0	0.6	1,000	100	500	100	500	17.8	14.3	6.0	15.0	5.0/7.5/15.0	0.6	500	50	500	50	500	
684	0.68	12.5	15.2	5.8	10.0	5.0/7.5/10.0	0.6	1,000	100	500	100	500	17.8	14.8	6.5	15.0	5.0/7.5/15.0	0.8	400	50	500	50	500	
824	0.82	15.0	15.4	5.5	12.5	7.5/10.0/12.5	0.6	500	100	500	100	500	17.8	15.5	7.0	15.0	5.0/7.5/15.0	0.8	400	50	500	50	500	
105	1.0	15.0	16.0	6.2	12.5	7.5/10.0/12.5	0.6	400	100	500	100	500	17.8	16.3	7.5	15.0	5.0/7.5/15.0	0.8	400	50	400	50	400	
125	1.2	15.0	16.5	6.8	12.5	7.5/10.0/12.5	0.6	400	100	500	100	500	17.8	17.0	8.5	15.0	5.0/7.5/15.0	0.8	300	50	400	50	400	
155	1.5	15.0	17.5	7.8	12.5	7.5/10.0/12.5	0.6	400	100	500	100	500	25.5	16.0	7.8	22.5	17.5/22.5	0.8		50	200	50	200	
185	1.8	20.3	16.8	6.6	17.5	7.5/10.0/12.5	0.8	400	50	250	50	250	25.5	17.0	8.3	22.5	17.5/22.5	0.8		50	200	50	200	
225	2.2	20.3	17.8	7.3	17.5	7.5/10.0/12.5	0.8	400	50	250	50	250	25.5	18.8	8.8	22.5	17.5/22.5	0.8		50	200	50	200	
275	2.7	20.3	18.6	8.3	17.5	7.5/10.0/12.5	0.8	300	50	200	50	200	25.5	19.8	10.0	22.5	17.5/22.5	0.8		20	100	20	100	
335	3.3	20.3	21.0	9.0	17.5	7.5/10.0/12.5	0.8	300	50	200	50	200	25.5	21.0	11.0	22.5	17.5/22.5	0.8		20	100	20	100	
395	3.9	20.3	21.8	9.8	17.5	7.5/10.0/12.5	0.8	300	50	200	50	200	25.5	22.0	12.0	22.5	17.5/22.5	0.8		20	100	20	100	
475	4.7	20.3	23.8	10.7	17.5	7.5/10.0/12.5	0.8		50	200	50	200	25.5	23.6	12.5	22.5	17.5/22.5	0.8		20	100	20	100	
565	5.6	25.5	22.3	10.8	22.5	17.5/22.5	0.8		20	100	20	100												
685	6.8	25.5	23.5	12.0	22.5	17.5/22.5	0.8		20	100	20	100												
825	8.2	25.5	25.0	13.3	22.5	17.5/22.5	0.8		20	100	20	100												
106	10.0	25.5	27.5	13.8	22.5	17.5/22.5	0.8		20	100	20	100												

ご使用にあたっては、使用上の注意事項をご確認の上、技術仕様書等をお求め願ひ、仕様書の範囲内でのご使用をお願いします。

When using our capacitors, please consider the application notes contact NISSEI for additional technical specifications relating to the limits of our performance characteristics.

## 寸法/Dimensions (mm)

Cap CODE	Cap (μF)	MMX 450Vdc							基準収納数 NUMBER OF PIECES FOR PACKING UNIT			
		W	H	T	P	F	φ d	テーピング	ロング		フォーミング	
								Taping	Bag	Box	Bag	Box
104	0.10	9.8	10.8	4.5	7.5	5.0/7.5	0.6	1,000	100	1,000	100	1,000
124	0.12	12.5	10.5	4.2	10.0	5.0/7.5	0.6	1,000	100	1,000	100	1,000
154	0.15	12.5	10.7	4.6	10.0	5.0/7.5	0.6	1,000	100	1,000	100	1,000
184	0.18	12.5	10.0	5.5	10.0	5.0/7.5	0.6	1,000	100	1,000	100	1,000
224	0.22	12.5	10.5	5.8	10.0	5.0/7.5	0.6	1,000	100	1,000	100	1,000
274	0.27	12.5	13.5	5.2	10.0	5.0/7.5	0.6	1,000	100	500	100	500
334	0.33	12.5	14.3	5.8	10.0	5.0/7.5	0.6	1,000	100	500	100	500
394	0.39	12.5	14.5	6.3	10.0	5.0/7.5	0.6	500	50	500	50	500
474	0.47	12.5	15.5	7.0	10.0	5.0/7.5	0.6	500	50	500	50	500
564	0.56	17.8	14.3	6.0	15.0	5.0/7.5/15.0	0.6	500	50	500	50	500
684	0.68	17.8	14.8	6.5	15.0	5.0/7.5/15.0	0.8	400	50	500	50	500
824	0.82	17.8	15.5	7.0	15.0	5.0/7.5/15.0	0.8	400	50	500	50	500
105	1.0	17.8	16.3	7.5	15.0	5.0/7.5/15.0	0.8	400	50	400	50	400
125	1.2	17.8	17.0	8.5	15.0	5.0/7.5/15.0	0.8	300	50	400	50	400
155	1.5	25.5	16.0	7.8	22.5	17.5/22.5	0.8		50	200	50	200
185	1.8	25.5	17.0	8.3	22.5	17.5/22.5	0.8		50	200	50	200
225	2.2	25.5	18.8	8.8	22.5	17.5/22.5	0.8		50	200	50	200
275	2.7	25.5	19.8	10.0	22.5	17.5/22.5	0.8		20	100	20	100
335	3.3	25.5	21.0	11.0	22.5	17.5/22.5	0.8		20	100	20	100
395	3.9	25.5	22.0	12.0	22.5	17.5/22.5	0.8		20	100	20	100
475	4.7	25.5	23.6	12.5	22.5	17.5/22.5	0.8		20	100	20	100

Cap CODE	Cap (μF)	MMX 630Vdc							基準収納数 NUMBER OF PIECES FOR PACKING UNIT			
		W	H	T	P	F	φ d	テーピング	ロング		フォーミング	
								Taping	Bag	Box	Bag	Box
102	0.0010	9.8	5.5	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000
122	0.0012	9.8	5.5	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000
152	0.0015	9.8	5.5	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000
182	0.0018	9.8	5.5	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000
222	0.0022	9.8	5.5	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000
272	0.0027	9.8	5.5	3.5	7.5	5.0/7.5	0.6	2,000	200	2,000	200	2,000
332	0.0033	9.8	6.0	4.2	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000
392	0.0039	9.8	6.0	4.2	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000
472	0.0047	9.8	6.0	4.2	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000
562	0.0056	9.8	6.5	4.2	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000
682	0.0068	9.8	6.5	4.4	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000
822	0.0082	9.8	6.8	4.4	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000
103	0.010	9.8	7.7	4.2	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000
123	0.012	9.8	7.7	4.2	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000
153	0.015	9.8	8.0	4.2	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000
183	0.018	9.8	8.3	4.4	7.5	5.0/7.5	0.6	1,000	200	2,000	200	2,000
223	0.022	9.8	8.3	5.0	7.5	5.0/7.5	0.6	1,000	200	1,600	200	1,600
273	0.027	9.8	8.7	5.5	7.5	5.0/7.5	0.6	1,000	200	1,600	200	1,600
333	0.033	9.8	11.3	5.0	7.5	5.0/7.5	0.6	1,000	100	1,500	100	1,500
393	0.039	9.8	11.5	5.3	7.5	5.0/7.5	0.6	1,000	100	1,500	100	1,500
473	0.047	9.8	11.0	6.3	7.5	5.0/7.5	0.6	1,000	100	1,000	100	1,000
563	0.056	12.5	10.0	5.5	10.0	5.0/7.5/10.0	0.6	1,000	100	1,000	100	1,000
683	0.068	12.5	10.5	5.8	10.0	5.0/7.5/10.0	0.6	1,000	100	1,000	100	1,000
823	0.082	12.5	10.8	6.0	10.0	5.0/7.5/10.0	0.6	1,000	100	1,000	100	1,000
104	0.10	12.5	13.8	5.8	10.0	5.0/7.5/10.0	0.6	1,000	100	500	100	500
124	0.12	12.5	14.3	6.3	10.0	5.0/7.5/10.0	0.6	1,000	50	500	50	500
154	0.15	12.5	13.8	7.7	10.0	5.0/7.5/10.0	0.6	500	50	500	50	500
184	0.18	12.5	15.0	8.3	10.0	5.0/7.5/10.0	0.6	500	50	500	50	500
224	0.22	12.5	15.8	9.0	10.0	5.0/7.5/10.0	0.6	500	50	500	50	500
274	0.27	17.8	14.3	7.5	15.0	5.0/7.5/15.0	0.8	400	50	400	50	400
334	0.33	17.8	14.8	8.0	15.0	5.0/7.5/15.0	0.8	300	50	400	50	400
394	0.39	17.8	16.5	8.0	15.0	5.0/7.5/15.0	0.8	300	50	400	50	400
474	0.47	17.8	17.3	9.0	15.0	5.0/7.5/15.0	0.8	300	50	400	50	400
564	0.56	17.8	19.3	9.5	15.0	5.0/7.5/15.0	0.8	300	50	200	50	200
684	0.68	17.8	20.3	10.5	15.0	5.0/7.5/15.0	0.8		50	200	50	200
824	0.82	25.5	19.8	8.5	22.5	17.5/22.5	0.8		20	100	20	100
105	1.0	25.5	20.8	9.5	22.5	17.5/22.5	0.8		20	100	20	100
125	1.2	25.5	21.8	10.5	22.5	17.5/22.5	0.8		20	100	20	100
155	1.5	25.5	23.0	11.8	22.5	17.5/22.5	0.8		20	100	20	100
185	1.8	25.5	24.3	13.5	22.5	17.5/22.5	0.8		20	100	20	100
225	2.2	25.5	26.8	14.3	22.5	17.5/22.5	0.8		20	100	20	100

形状 Style	ストレートリード Straight lead type		フォーミング Forming lead type		
Cap 範囲 Cap range	250Vdc	184~106	F= 5.0	184~334	394~684
			F= 7.5	184~684	824~475
			F=10.0	394~155	185~475
			F=12.5	824~155	185~475
			F=17.5		565~106
			F=22.5	565~106	
	400Vdc	102~475	F= 5.0	102~104	124~125
			F= 7.5	102~474	564~125
			F=10.0	124~474	
			F=15.0	564~125	
			F=17.5		155~475
			F=22.5	155~475	
450Vdc	104~225	F= 5.0	104	124~125	
		F= 7.5	104~474	564~125	
		F=10.0	124~474		
		F=15.0	564~125		
		F=17.5		155~225	
		F=22.5	155~225		
630Vdc	102~225	F= 5.0	102~473	563~684	
		F= 7.5	102~224	274~684	
		F=10.0	563~224		
		F=15.0	274~684		
		F=17.5		824~225	
		F=22.5	824~225		

テーピング仕様のリードピッチ寸法(F)は、6~7頁のテーピング 寸法表をご参照下さい。  
For a pitch space (F) of the taping specification, refer to "TAPING DIMENSIONS" on pages 6 to 7.

### 周波数に対する許容電流特性 / Characteristics of permissible current to frequency

