

MXC SERIES

105°C Standard

•Load Life : 105°C 3000 hours.

RoHS
compliance



◆SPECIFICATIONS

Items	Characteristics																																											
Category Temperature Range	-40~+105℃								-25~+105℃																																			
Rated Voltage Range	10~250Vdc								315~450Vdc																																			
Capacitance Tolerance	±20% (20℃,120Hz)																																											
Leakage Current(MAX)	I=3 √CV (After 5 minutes application of rated voltage) I=Leakage Current(μA) C=Capacitance(μF) V=Rated Voltage(Vdc)																																											
Dissipation Factor(MAX) (tanδ)	<table border="1"><tr><td>Rated Voltage (Vdc)</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>80</td><td>100</td><td>160~400</td><td>420~450</td></tr><tr><td>tanδ</td><td>0.55</td><td>0.50</td><td>0.45</td><td>0.40</td><td>0.35</td><td>0.30</td><td>0.25</td><td>0.20</td><td>0.15</td><td>0.20</td></tr></table> (20℃,120Hz)											Rated Voltage (Vdc)	10	16	25	35	50	63	80	100	160~400	420~450	tanδ	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.20											
Rated Voltage (Vdc)	10	16	25	35	50	63	80	100	160~400	420~450																																		
tanδ	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.20																																		
Endurance	After applying rated voltage with rated ripple current for 3000 hours at 105℃, the capacitors shall meet the following requirements. <table border="1"><tr><td>Capacitance Change</td><td colspan="10">Within ±20% of the initial value.</td></tr><tr><td>Dissipation Factor</td><td colspan="10">Not more than 200% of the specified value.</td></tr><tr><td>Leakage Current</td><td colspan="10">Not more than the specified value.</td></tr></table>											Capacitance Change	Within ±20% of the initial value.										Dissipation Factor	Not more than 200% of the specified value.										Leakage Current	Not more than the specified value.									
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1"><tr><td>Rated Voltage (Vdc)</td><td>10~250</td><td>315~450</td></tr><tr><td>Z(-25℃)/Z(20℃)</td><td>3</td><td>8</td></tr><tr><td>Z(-40℃)/Z(20℃)</td><td>12</td><td>—</td></tr></table> (120Hz)											Rated Voltage (Vdc)	10~250	315~450	Z(-25℃)/Z(20℃)	3	8	Z(-40℃)/Z(20℃)	12	—																								
Rated Voltage (Vdc)	10~250	315~450																																										
Z(-25℃)/Z(20℃)	3	8																																										
Z(-40℃)/Z(20℃)	12	—																																										

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency (Hz)		60(50)	120(100)	300	500	1k	10k≤
Coefficient	10~100Vdc	0.90	1.00	1.03	1.05	1.10	1.15
	160~250Vdc	0.80	1.00	1.15	1.20	1.30	1.50
	315~450Vdc	0.80	1.00	1.15	1.20	1.25	1.40

◆PART NUMBER

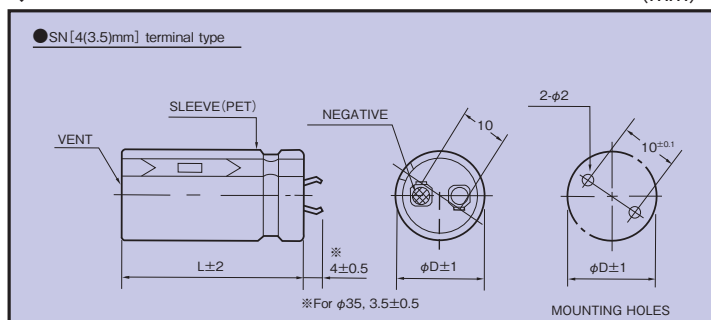
 MXC **M** **SN** **DXL**
 Rated Voltage Series Capacitance Capacitance Tolerance Option Terminal Code Case Size

◆OPTION

	Code
PET Sleeve without plate	EFC

◆DIMENSIONS

(mm)



◆ STANDARD SIZE

Cap (μ F)	Vdc ϕ D	10					16				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
6800		20×25:1.31					20×25:1.80				
8200		20×30:1.59					20×30:2.08	22×25:2.08			
10000		20×30:1.88	22×25:1.77				20×35:2.15	22×30:2.15			
12000		20×35:2.18	22×30:2.10	25×25:1.94			20×40:2.31	22×30:2.31	25×25:2.31		
15000		20×40:2.27	22×35:2.23	25×30:2.10				22×35:2.68	25×30:2.68		
18000			22×40:2.41	25×30:2.34	30×25:2.25			22×40:3.20	25×30:3.20	30×25:3.20	
22000			22×45:2.58	25×35:2.54	30×30:2.50			22×45:3.36	25×35:3.36	30×30:3.36	
27000			22×50:3.17	25×40:3.07	30×30:2.95			22×50:3.85	25×40:3.85	30×30:3.85	
33000				25×45:3.39	30×35:3.33	35×30:3.21			25×45:4.30	30×35:4.30	35×30:4.30
39000					30×40:3.70	35×35:3.68			25×50:4.81	30×40:4.81	35×35:4.81
47000					30×45:4.22	35×40:4.16				30×45:5.53	35×40:5.53
56000						35×45:5.00				30×50:6.00	35×45:6.00
68000											35×50:6.40

Cap (μ F)	Vdc ϕ D	25					35				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
2700							20×25:1.29				
3300							20×30:1.57				
3900							20×30:1.78	22×25:1.78			
4700		20×25:1.65					20×35:2.02	22×30:2.02			
5600		20×30:1.85	22×25:1.85				20×40:2.13	22×35:2.13	25×25:2.13		
6800		20×35:2.11	22×30:2.11					22×40:2.41	25×30:2.41		
8200		20×40:2.34	22×30:2.34	25×25:2.34				22×45:2.85	25×35:2.85	30×25:2.85	
10000			22×35:2.65	25×30:2.65				22×50:3.05	25×40:3.05	30×30:3.05	
12000			22×40:2.81	25×30:2.81	30×25:2.81				25×45:3.37	30×35:3.37	35×30:3.37
15000			22×45:3.13	25×35:3.13	30×30:3.13				25×50:3.72	30×40:3.72	35×35:3.72
18000				25×40:3.56	30×30:3.56					30×45:4.37	35×35:4.37
22000				25×50:4.04	30×35:4.04	35×30:4.04				30×50:4.92	35×40:4.92
27000					30×40:4.74	35×35:4.74					35×50:5.30
33000					30×50:5.50	35×40:5.50					
39000						35×45:5.80					
47000						35×50:6.30					

Cap (μ F)	Vdc ϕ D	50					63				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
1200							20×25:1.20				
1500							20×30:1.47	22×25:1.47			
1800		20×25:1.39					20×35:1.58	22×30:1.58			
2200		20×30:1.60	22×25:1.60				20×40:1.82	22×35:1.82	25×25:1.82		
2700		20×35:1.73	22×30:1.73	25×25:1.73				22×35:2.11	25×30:2.11		
3300		20×40:1.97	22×35:1.97	25×30:1.97				22×45:2.33	25×35:2.33	30×25:2.33	
3900			22×40:2.22	25×30:2.22				22×50:2.55	25×40:2.55	30×30:2.55	
4700			22×45:2.43	25×35:2.43	30×25:2.43				25×45:2.97	30×35:2.97	
5600			22×50:2.75	25×40:2.75	30×30:2.75				25×50:3.22	30×35:3.22	35×30:3.22
6800				25×45:3.30	30×35:3.30					30×40:3.65	35×35:3.65
8200				25×50:3.60	30×40:3.60	35×30:3.60				30×50:4.04	35×40:4.04
10000					30×45:4.05	35×35:4.05					35×45:4.48
12000					30×50:4.56	35×40:4.56					35×50:4.75
15000						35×50:4.77					

Cap (μ F)	Vdc ϕ D	80					100				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
560							20×25:0.95				
680							20×30:1.15	22×25:1.15			
820		20×25:1.04					20×35:1.32	22×30:1.32			
1000		20×30:1.24	22×25:1.24				20×35:1.47	22×30:1.47	25×25:1.47		
1200		20×35:1.44	22×30:1.44				20×40:1.69	22×35:1.69	25×30:1.69		
1500		20×35:1.59	22×30:1.59	25×25:1.59				22×40:1.98	25×35:1.98	30×25:1.98	
1800		20×40:1.79	22×35:1.79	25×30:1.79				22×45:2.23	25×35:2.23	30×30:2.23	
2200			22×40:2.03	25×30:2.03	30×25:2.03				25×45:2.55	30×35:2.55	35×30:2.55
2700			22×45:2.39	25×35:2.39	30×30:2.39				25×50:2.89	30×40:2.89	35×30:2.89
3300				25×40:2.64	30×35:2.64					30×45:3.30	35×35:3.30
3900				25×50:2.97	30×35:2.97	35×30:2.97				30×50:3.67	35×40:3.67
4700					30×40:3.38	35×35:3.38					35×45:3.80
5600					30×45:3.80	35×40:3.80					35×50:4.05
6800						35×45:4.10					
8200						35×50:4.30					

↑ Ripple Current (A r.m.s./120Hz, 105°C)
↑ Case Size ϕ D×L(mm)

◆ STANDARD SIZE

Cap (μ F)	Vdc ϕ D	160					180				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
270		20×25: 1.10					20×25: 0.93				
330		20×30: 1.20	22×25: 1.21				20×30: 1.20	22×25: 1.20			
390		20×30: 1.24	22×25: 1.30				20×35: 1.30	22×30: 1.35			
470		20×35: 1.42	22×30: 1.41				20×40: 1.40	22×35: 1.42	25×25: 1.38		
560		20×40: 1.57	22×35: 1.54	25×25: 1.51			20×45: 1.55	22×40: 1.60	25×30: 1.55		
680		20×45: 1.70	22×40: 1.74	25×30: 1.74	30×25: 1.74			22×45: 1.78	25×35: 1.78	30×25: 1.55	
820			22×45: 2.00	25×35: 2.00	30×30: 2.00			22×50: 2.00	25×40: 2.00	30×30: 2.00	35×25: 2.00
1000			22×50: 2.25	25×40: 2.25	30×30: 2.25	35×25: 2.25			25×45: 2.25	30×35: 2.25	35×30: 2.26
1200				25×45: 2.49	30×35: 2.49	35×30: 2.45			25×50: 2.54	30×40: 2.52	35×30: 2.60
1500					30×40: 2.84	35×30: 2.68				30×45: 2.90	35×35: 2.95
1800					30×45: 3.32	35×35: 3.00				30×50: 3.00	35×40: 3.30
2200						35×45: 3.50					35×50: 3.65
2700						35×50: 4.00					

Cap (μ F)	Vdc ϕ D	200					220				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
180							20×25: 0.86				
220		20×25: 1.00					20×30: 1.04	22×25: 0.99			
270		20×30: 1.10	22×25: 1.10				20×30: 1.08	22×25: 1.04			
330		20×30: 1.15	22×30: 1.25				20×35: 1.30	22×30: 1.32	25×25: 1.26		
390		20×35: 1.25	22×30: 1.31	25×25: 1.31			20×40: 1.45	22×35: 1.42	25×30: 1.45		
470		20×40: 1.42	22×35: 1.45	25×30: 1.45			20×45: 1.63	22×40: 1.67	25×35: 1.54	30×25: 1.48	
560			22×40: 1.60	25×30: 1.60	30×25: 1.60			22×45: 1.77	25×35: 1.66	30×30: 1.65	
680			22×45: 1.75	25×35: 1.78	30×30: 1.78				25×40: 1.87	30×30: 1.82	35×25: 1.78
820			22×50: 1.95	25×40: 1.95	30×30: 2.00				25×45: 2.04	30×35: 2.00	35×30: 1.93
1000				25×45: 2.10	30×35: 2.30	35×30: 2.30				30×40: 2.48	35×35: 2.33
1200					30×40: 2.64	35×35: 2.65				30×45: 2.88	35×40: 2.65
1500					30×50: 3.08	35×40: 3.08					35×45: 2.96
1800						35×45: 3.48					35×50: 3.39
2200						35×50: 3.55					

Cap (μ F)	Vdc ϕ D	250					315				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
82							20×25: 0.64				
100							20×30: 0.69	22×25: 0.62			
120							20×30: 0.75	22×25: 0.75	25×25: 0.76		
150							20×35: 0.82	22×30: 0.82	25×25: 0.82		
180							20×40: 0.90	22×35: 0.92	25×25: 0.90		
220		20×30: 1.00	22×25: 1.00				20×50: 1.00	22×40: 1.04	25×30: 1.04	30×25: 1.04	
270		20×35: 1.10	22×30: 1.15					22×45: 1.16	25×35: 1.15	30×25: 1.15	35×25: 1.15
330		20×40: 1.20	22×35: 1.28					22×50: 1.22	25×40: 1.23	30×30: 1.33	35×25: 1.32
390		20×45: 1.35	22×40: 1.49	25×30: 1.35	30×25: 1.49				25×45: 1.40	30×35: 1.47	35×30: 1.47
470			22×45: 1.60	25×35: 1.57	30×30: 1.65					30×40: 1.70	35×30: 1.70
560			22×50: 1.72	25×40: 1.80	30×30: 1.80					30×45: 2.05	35×35: 1.90
680				25×45: 1.85	30×35: 2.00	35×30: 2.00				30×50: 2.14	35×40: 2.17
820				25×50: 2.10	30×40: 2.18	35×35: 2.30					35×45: 2.20
1000					30×45: 2.40	35×35: 2.35					
1200						35×40: 2.50					
1500						35×50: 3.00					

Cap (μ F)	Vdc ϕ D	350					385				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
56							20×25: 0.42				
68		20×25: 0.47					20×30: 0.47	22×25: 0.49			
82		20×30: 0.55					20×30: 0.52	22×25: 0.55			
100		20×30: 0.60	22×25: 0.69				20×35: 0.60	22×30: 0.66	25×25: 0.66		
120		20×35: 0.70	22×30: 0.75	25×25: 0.75			20×40: 0.68	22×35: 0.71	25×25: 0.71		
150		20×40: 0.78	22×35: 0.82	25×30: 0.83				22×40: 0.83	25×30: 0.83	30×25: 0.77	
180		20×45: 0.88	22×40: 0.92	25×30: 0.92	30×25: 0.92			22×45: 0.92	25×35: 0.92	30×30: 0.89	
220			22×45: 1.05	25×35: 1.05	30×30: 1.02			22×50: 1.03	25×40: 1.03	30×30: 1.01	35×25: 1.03
270			22×50: 1.18	25×40: 1.18	30×30: 1.18	35×25: 1.20			25×45: 1.14	30×35: 1.15	35×30: 1.13
330				25×45: 1.30	30×35: 1.35	35×30: 1.22				30×40: 1.32	35×30: 1.35
390				25×50: 1.45	30×40: 1.52	35×35: 1.48				30×45: 1.46	35×35: 1.50
470					30×45: 1.65	35×35: 1.70				30×50: 1.72	35×40: 1.79
560					30×50: 1.85	35×40: 1.90					35×45: 1.99
680						35×45: 2.00					

↑ Ripple Current (A r.m.s./120Hz, 105°C)
↑ Case Size ϕ D×L(mm)

◆ STANDARD SIZE

Cap (μ F)	Vdc ϕ D	400					420				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
56		20×25:0.51					20×25:0.44				
68		20×30:0.56	22×25:0.52				20×30:0.49	22×25:0.51			
82		20×30:0.64	22×25:0.64				20×35:0.54	22×30:0.65	25×25:0.65		
100		20×35:0.70	22×30:0.70	25×25:0.70			20×35:0.61	22×30:0.68	25×25:0.67		
120		20×40:0.75	22×35:0.75	25×25:0.75			20×40:0.70	22×35:0.73	25×30:0.76	30×25:0.81	
150		20×45:0.83	22×40:0.88	25×30:0.88	30×25:0.82		20×45:0.78	22×40:0.86	25×35:0.87	30×25:0.84	
180			22×45:0.98	25×35:0.98	30×30:0.95			22×45:0.96	25×35:0.95	30×30:0.97	35×25:0.91
220			22×50:1.10	25×40:1.10	30×30:1.10	35×25:1.10			25×40:1.08	30×35:1.14	35×30:1.07
270				25×45:1.21	30×35:1.22	35×30:1.22			25×50:1.38	30×35:1.20	35×35:1.29
330					30×40:1.44	35×30:1.44				30×40:1.37	35×35:1.44
390					30×45:1.55	35×35:1.60				30×45:1.50	35×40:1.63
470						35×40:1.90					35×45:1.88
560						35×45:2.12					

Cap (μ F)	Vdc ϕ D	450				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
47		20×25:0.39				
56		20×30:0.51	22×25:0.44			
68		20×35:0.56	22×30:0.53			
82		20×35:0.64	22×30:0.64	25×25:0.64		
100		20×45:0.69	22×35:0.69	25×30:0.69	30×25:0.69	
120		20×50:0.75	22×40:0.75	25×30:0.75	30×25:0.80	
150			22×45:0.88	25×35:0.88	30×30:0.88	35×25:0.75
180				25×40:0.95	30×30:1.00	35×30:0.86
220				25×45:1.10	30×35:1.12	35×30:1.05
270					30×40:1.28	35×35:1.27
330					30×50:1.45	35×40:1.45
390						35×40:1.65
470						35×50:1.85

↑ Ripple Current (A r.m.s./120Hz, 105°C)
 ↑ Case Size ϕ D×L(mm)