



LARGE CAN TYPE ALUMINUM ELECTROLYTIC CAPACITORS MXR

MXR SERIES

105°C Standard, Snap-in Terminal Type

◆FEATURES

- Load Life : 105°C 3000 hours.
- Smaller size with higher ripple current endurance than MXP series.



◆ SPECIFICATIONS

Items	Characteristics																																
Category Temperature Range	-40~+105℃								-25~+105℃																								
Rated Voltage Range	10~100V.DC								160~450V.DC																								
Capacitance Tolerance	±20% (20℃, 120Hz)																																
Leakage Current(MAX)	I=3√CV (After 5 minutes application of rated voltage) I=Leakage Current(μ A) V=Rated Voltage(V) C=Rated Capacitance(μ F)																																
Dissipation Factor(MAX)	<table><tr><td>Rated Voltage(V)</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>160~250</td><td>315~450</td></tr><tr><td>tan δ</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>0.15</td></tr></table> (20℃, 120Hz)											Rated Voltage(V)	10	16	25	35	50	63	80	100	160~250	315~450	tan δ	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.15
Rated Voltage(V)	10	16	25	35	50	63	80	100	160~250	315~450																							
tan δ	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.15																							
Impedance Ratio(MAX)	<table><tr><td>Rated Voltage(V)</td><td>10~100</td><td>160~250</td><td>315~450</td></tr><tr><td>Z(-25℃)/Z(20℃)</td><td>3</td><td>3</td><td>8</td></tr><tr><td>Z(-40℃)/Z(20℃)</td><td>12</td><td></td><td></td></tr></table> (120Hz)											Rated Voltage(V)	10~100	160~250	315~450	Z(-25℃)/Z(20℃)	3	3	8	Z(-40℃)/Z(20℃)	12												
Rated Voltage(V)	10~100	160~250	315~450																														
Z(-25℃)/Z(20℃)	3	3	8																														
Z(-40℃)/Z(20℃)	12																																
Endurance	After applying rated voltage with rated ripple current for 3000hrs at 105℃, the capacitors shall meet the following requirements. <table><tr><td>Capacitance Change</td><td>Within ±20% of the initial value.</td></tr><tr><td>Dissipation Factor</td><td>Not more than 200% of the specified value.</td></tr><tr><td>Leakage Current</td><td>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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◆MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Frequency (Hz)		60(50)	120	500	1k	10k $\leq$
Coefficient	10 $\sim$ 100WV	0.90	1.00	1.05	1.10	1.15
	160 $\sim$ 250WV	0.80	1.00	1.10	1.14	1.18
	315 $\sim$ 450WV	0.80	1.00	1.05	1.10	1.15

◆PART NUMBER

□□□	MXR	□□□□□	□	OOE	□□	D×L
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Terminal Code	Case Size

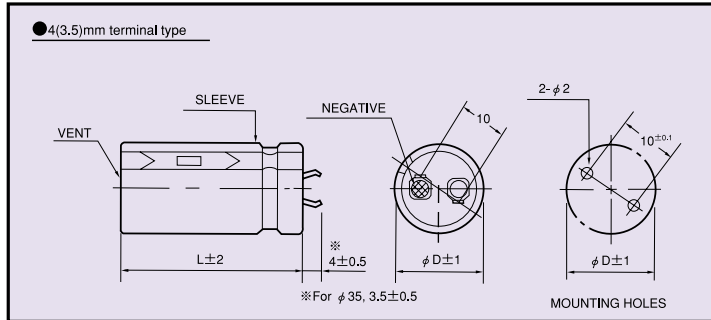
◆ Option

	Code
without plate	OOE
with plate	Blank



◆ **DIMENSIONS**

(mm)



◆ **STANDARD SIZE, RATED RIPPLE CURRENT**

Cap (μF)	WV ϕD	10					16				
		$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$	$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$
5600							20×25; 1.68				
6800	20×25; 1.31						20×30; 1.80	22×25; 1.75			
8200	20×30; 1.59						20×35; 2.08	22×30; 2.00			
10000	20×30; 1.88	22×25; 1.77					20×40; 2.15	22×30; 2.10	25×25; 2.05		
12000	20×35; 2.18	22×30; 2.10	25×25; 1.94					22×35; 2.31	25×30; 2.30	30×25; 2.30	
15000	20×40; 2.27	22×35; 2.23	25×30; 2.10					22×40; 2.68	25×35; 2.58	30×30; 2.57	
18000		22×40; 2.41	25×30; 2.34	30×25; 2.25				22×50; 3.20	25×40; 3.16	30×30; 2.98	
22000		22×45; 2.58	25×35; 2.54	30×30; 2.50					25×45; 3.36	30×35; 3.30	35×30; 3.25
27000		22×50; 3.17	25×40; 3.07	30×30; 2.95					25×50; 3.85	30×40; 3.80	35×35; 3.93
33000			25×45; 3.39	30×35; 3.33	35×30; 3.21					30×45; 4.30	35×35; 4.27
39000				30×40; 3.70	35×35; 3.68					30×50; 4.81	35×40; 4.80
47000				30×45; 4.22	35×40; 4.16						35×45; 5.53
56000					35×45; 5.00						

Cap (μF)	WV ϕD	25					35				
		$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$	$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$
2700							20×25; 1.29				
3300							20×30; 1.57	22×25; 1.45			
3900	20×25; 1.58						20×35; 1.78	22×30; 1.69			
4700	20×30; 1.65	22×25; 1.61					20×40; 2.02	22×35; 2.02	25×25; 1.62		
5600	20×35; 1.85	22×30; 1.80						22×35; 2.13	25×30; 2.00		
6800	20×40; 2.11	22×35; 2.09	25×25; 1.87					22×40; 2.41	25×35; 2.31	30×25; 2.31	
8200		22×40; 2.31	25×30; 2.34	30×25; 2.16				22×50; 2.85	25×40; 2.73	30×30; 2.75	
10000		22×45; 2.65	25×35; 2.61	30×30; 2.61					25×45; 3.05	30×35; 3.05	
12000		22×50; 2.80	25×40; 2.81	30×30; 2.74					25×50; 3.37	30×40; 3.23	35×30; 3.19
15000			25×45; 3.27	30×35; 3.13	35×30; 3.26					30×45; 3.72	35×35; 3.67
18000				30×40; 3.56	35×35; 3.84						35×40; 4.37
22000				30×45; 4.04	35×35; 3.75						35×45; 4.92
27000					35×45; 4.74						
33000					35×50; 5.50						

Cap (μF)	WV ϕD	50					63				
		$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$	$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$
1000							20×25; 1.10				
1200							20×30; 1.20	22×25; 1.20			
1500	20×25; 1.15						20×35; 1.47	22×30; 1.47			
1800	20×30; 1.39	22×25; 1.34					20×35; 1.58	22×30; 1.58	25×25; 1.52		
2200	20×35; 1.60	22×30; 1.60					20×40; 1.80	22×35; 1.82	25×30; 1.75		
2700	20×35; 1.73	22×30; 1.70	25×25; 1.70					22×40; 2.07	25×35; 2.11	30×25; 1.72	
3300	20×40; 1.97	22×35; 1.97	25×30; 1.88					22×45; 2.33	25×35; 2.27	30×30; 2.24	
3900		22×40; 2.22	25×30; 2.20	30×25; 1.95					25×40; 2.51	30×35; 2.55	
4700		22×45; 2.43	25×35; 2.43	30×30; 2.25					25×50; 2.97	30×40; 2.86	35×30; 2.80
5600		22×50; 2.75	25×40; 2.72	30×30; 2.64						30×40; 3.22	35×35; 3.20
6800			25×45; 3.30	30×35; 3.30	35×30; 3.25					30×50; 3.65	35×40; 3.65
8200				30×40; 3.60	35×35; 3.60						35×45; 4.04
10000				30×50; 4.05	35×40; 4.04						35×50; 4.48
12000					35×45; 4.56						
15000					35×50; 4.77						

↑ Ripple Current A r.m.s./120Hz-105°C

↑ Case Size $\phi D \pm 1 \times L \pm 2$ (mm)



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◆ STANDARD SIZE, RATED RIPPLE CURRENT

Cap (μ F)	WV 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; 1.09			
820	20×25; 1.04						20×35; 1.31	22×30; 1.32			
1000	20×30; 1.24	22×25; 1.19					20×35; 1.43	22×30; 1.47	25×25; 1.45		
1200	20×35; 1.43	22×30; 1.44					20×40; 1.61	22×35; 1.69	25×30; 1.68		
1500	20×35; 1.57	22×30; 1.59	25×25; 1.59					22×40; 1.97	25×35; 1.98	30×25; 1.95	
1800	20×40; 1.77	22×35; 1.79	25×30; 1.71					22×45; 2.23	25×40; 2.20	30×30; 2.20	
2200		22×40; 2.03	25×35; 1.98	30×25; 1.98					25×45; 2.53	30×35; 2.55	35×30; 2.50
2700		22×45; 2.39	25×40; 2.35	30×30; 2.35					25×50; 2.82	30×40; 2.86	35×35; 2.89
3300			25×45; 2.64	30×35; 2.61	35×30; 2.47					30×45; 3.30	35×35; 3.25
3900			25×50; 2.92	30×40; 2.82	35×30; 2.97					30×50; 3.60	35×40; 3.67
4700				30×45; 3.34	35×35; 3.38						35×45; 3.80
5600				30×50; 3.80	35×40; 3.80						35×50; 4.05
6800					35×45; 3.90						
8200					35×50; 4.20						

Cap (μ F)	WV ϕ D	160					180				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
220							20×25; 0.81				
270	20×25; 0.87						20×30; 0.95	22×25; 0.97			
330	20×30; 1.02	22×25; 1.03					20×35; 1.09	22×30; 1.13			
390	20×35; 1.15	22×30; 1.17					20×35; 1.28	22×30; 1.32	25×25; 1.33		
470	20×40; 1.25	22×30; 1.28	25×25; 1.29				20×40; 1.34	22×35; 1.39	25×30; 1.43		
560		22×35; 1.45	25×30; 1.49					22×40; 1.56	25×30; 1.53	30×25; 1.56	
680		22×40; 1.64	25×35; 1.70	30×25; 1.63				22×45; 1.76	25×35; 1.76	30×30; 1.74	
820		22×45; 1.85	25×40; 1.92	30×30; 1.91				22×50; 1.97	25×40; 1.99	30×30; 1.93	
1000			25×45; 2.17	30×35; 2.19					25×45; 2.24	30×35; 2.24	35×30; 2.20
1200			25×50; 2.43	30×40; 2.48	35×30; 2.25					30×40; 2.53	35×35; 2.54
1500				30×45; 2.82	35×35; 2.62					30×50; 3.03	35×40; 2.91
1800				30×50; 3.13	35×40; 2.97						35×45; 3.25
2200					35×45; 3.34						35×50; 3.62

Cap (μ F)	WV 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; 0.81				
220	20×25; 0.83						20×30; 0.94	22×25; 0.94			
270	20×30; 0.97	22×25; 0.99					20×35; 1.10	22×30; 1.09			
330	20×35; 1.17	22×30; 1.20	25×25; 1.20				20×40; 1.18	22×35; 1.24	25×25; 1.14		
390	20×40; 1.27	22×35; 1.30	25×30; 1.34				20×45; 1.33	22×35; 1.30	25×25; 1.26		
470		22×40; 1.44	25×30; 1.44	30×25; 1.48				22×40; 1.41	25×30; 1.39	30×25; 1.37	
560		22×45; 1.60	25×35; 1.60	30×30; 1.60				22×45; 1.60	25×35; 1.56	30×30; 1.61	35×25; 1.52
680		22×50; 1.75	25×40; 1.76	30×30; 1.74					25×40; 1.75	30×35; 1.76	35×30; 1.72
820			25×45; 2.10	30×35; 2.11	35×30; 2.10				25×45; 1.97	30×40; 2.06	35×30; 1.95
1000			25×50; 2.36	30×40; 2.40	35×35; 2.30					30×45; 2.44	35×35; 2.30
1200				30×45; 2.69	35×35; 2.53						35×40; 2.37
1500					35×40; 2.97						35×45; 2.64
1800					35×50; 3.45						

Cap (μ F)	WV 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; 0.39				
100							20×30; 0.45				
120							20×30; 0.54	22×25; 0.56			
150	20×25; 0.71						20×35; 0.64	22×30; 0.66	25×25; 0.65		
180	20×30; 0.82	22×25; 0.84					20×40; 0.75	22×35; 0.78	25×30; 0.71		
220	20×35; 0.95	22×30; 0.97	25×25; 0.99					22×40; 0.89	25×30; 0.85	30×25; 0.83	
270	20×40; 1.08	22×35; 1.11	25×30; 1.15					22×45; 1.01	25×35; 0.98	30×30; 1.01	
330		22×40; 1.26	25×30; 1.26	30×25; 1.31				22×50; 1.14	25×40; 1.12	30×35; 1.21	
390		22×45; 1.41	25×35; 1.42	30×30; 1.50					25×45; 1.31	30×35; 1.30	35×30; 1.23
470		22×50; 1.58	25×40; 1.61	30×30; 1.61						30×40; 1.53	35×35; 1.47
560			25×45; 1.80	30×35; 1.84						30×45; 1.65	35×40; 1.66
680			25×50; 2.03	30×40; 2.09	35×30; 1.96						35×45; 1.96
820				30×45; 2.35	35×35; 2.26						35×50; 2.19
1000				30×50; 2.64	35×40; 2.57						
1200					35×45; 2.88						

↑ Ripple Current A r.m.s./120Hz·105°C
Case Size ϕ D $\pm$ 1×L $\pm$ 2(mm)

◆STANDARD SIZE, RATED RIPPLE CURRENT

Cap (μ F)	WV 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; 0.37				
68		20×25; 0.41					20×30; 0.44	22×25; 0.45			
82		20×30; 0.45					20×30; 0.50	22×30; 0.52			
100		20×30; 0.51	22×25; 0.53				20×35; 0.56	22×30; 0.58	25×25; 0.57		
120		20×35; 0.59	22×30; 0.61	25×25; 0.62			20×40; 0.66	22×35; 0.68	25×30; 0.68		
150		20×40; 0.70	22×35; 0.73	25×30; 0.73				22×40; 0.79	25×30; 0.78	30×25; 0.75	
180			22×40; 0.83	25×30; 0.80	30×25; 0.81			22×45; 0.89	25×35; 0.86	30×30; 0.88	
220			22×45; 0.94	25×35; 0.92	30×30; 0.98			22×50; 1.01	25×40; 1.00	30×30; 1.00	
270			22×50; 1.07	25×40; 1.05	30×30; 1.03				25×45; 1.13	30×40; 1.14	35×30; 1.10
330				25×45; 1.24	30×35; 1.24	35×30; 1.18				30×45; 1.31	35×35; 1.32
390				25×50; 1.38	30×40; 1.39	35×35; 1.39				30×50; 1.48	35×40; 1.48
470					30×45; 1.57	35×35; 1.50					35×45; 1.76
560					30×50; 1.75	35×40; 1.69					35×50; 1.95
680						35×45; 1.96					

Cap (μ F)	WV 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; 0.40					20×25; 0.40				
68		20×30; 0.48	22×25; 0.49				20×30; 0.48	22×25; 0.50			
82		20×30; 0.54	22×30; 0.56				20×35; 0.53	22×30; 0.56	25×25; 0.56		
100		20×35; 0.60	22×30; 0.62	25×25; 0.61			20×35; 0.58	22×30; 0.63	25×25; 0.63		
120		20×40; 0.71	22×35; 0.73	25×30; 0.73			20×45; 0.71	22×35; 0.73	25×30; 0.72	30×25; 0.75	
150			22×40; 0.85	25×35; 0.85	30×25; 0.79			22×45; 0.86	25×35; 0.83	30×25; 0.83	
180			22×45; 0.95	25×35; 0.92	30×30; 0.95			22×50; 1.02	25×40; 0.94	30×30; 0.95	35×25; 0.90
220			22×50; 1.08	25×40; 1.05	30×35; 1.24				25×45; 1.13	30×35; 1.09	35×30; 1.05
270				25×50; 1.29	30×40; 1.30	35×30; 1.18			25×50; 1.37	30×40; 1.25	35×35; 1.25
330					30×45; 1.47	35×35; 1.41				30×45; 1.49	35×35; 1.42
390					30×50; 1.64	35×40; 1.59				30×50; 1.67	35×40; 1.61
470						35×45; 1.87					35×45; 1.86
560						35×50; 2.09					

Cap (μ F)	WV ϕ D	450				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
47		20×25; 0.36				
56		20×30; 0.41	22×25; 0.42			
68		20×35; 0.47	22×30; 0.50	25×25; 0.50		
82		20×40; 0.53	22×35; 0.56	25×30; 0.57		
100			22×40; 0.64	25×30; 0.63	30×25; 0.67	
120			22×45; 0.72	25×35; 0.71	30×30; 0.77	
150			22×50; 0.80	25×40; 0.82	30×30; 0.85	
180				25×45; 0.93	30×35; 0.97	
220				25×50; 1.05	30×40; 1.10	35×30; 1.01
270					30×45; 1.25	35×35; 1.26
330					30×50; 1.42	35×40; 1.44
390						35×45; 1.61
470						35×50; 1.80

↑ Ripple Current A r.m.s./120Hz-105°C
 ↑ Case Size ϕ D^{±1}×L^{±2}(mm)