

ALUMINUM ELECTROLYTIC CAPACITORS



PV Series

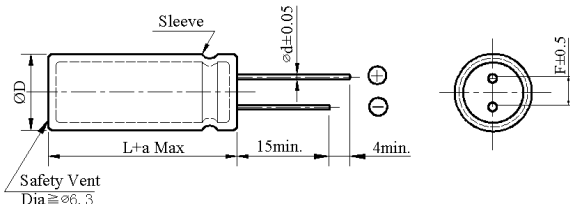
- Downsize and high ripple current
- Load life 2,000 ~ 5,000 hours at 105°C



SPECIFICATIONS

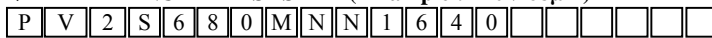
Item	Performance Characteristics														
Category Temperature Range	-25 ~ +105°C														
Working Voltage Range	200 ~ 450Vdc														
Capacitance Range	6.8 ~ 470 µF														
Capacitance Tolerance	±20% (at 25°C and 120Hz)														
Dissipation Factor (tanδ) (at 25°C, 120Hz)	<table border="1"> <tr> <td>Rated Voltage (V)</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>420</td> <td>450</td> </tr> <tr> <td>tanδ(Max)</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> </tr> </table> <p>The above values should be increased by 0.02 for every additional 1000µF</p>	Rated Voltage (V)	200	250	350	400	420	450	tanδ(Max)	0.20	0.20	0.20	0.20	0.20	0.20
Rated Voltage (V)	200	250	350	400	420	450									
tanδ(Max)	0.20	0.20	0.20	0.20	0.20	0.20									
Leakage Current	I=0.02CV or 3000µA whichever is smaller I : Leakage current (µA) C : Rated capacitance (µF) V : Rated voltage (V) Impress the rated voltage for 2 minutes														
Low Temperature Characteristics Impedance Ratio(MAX)	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>200~250</td> <td>350</td> <td>400</td> <td>420 ~ 450</td> </tr> <tr> <td>Z(-25°C)/Z(+20°C)</td> <td>3</td> <td>5</td> <td>5</td> <td>6</td> </tr> </table> <p style="text-align: right;">(at 120Hz)</p>	Rated voltage (V)	200~250	350	400	420 ~ 450	Z(-25°C)/Z(+20°C)	3	5	5	6				
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Z(-25°C)/Z(+20°C)	3	5	5	6											
Endurance	<p>The following specifications shall be satisfied when the capacitors are restored to 25°C after subjected to DC voltage with the rated ripple current is applied for 2,000 ~ 5,000 hours at 105°C</p> <table border="1"> <tr> <td>Capacitance change</td> <td>≒ ±20% of the initial value</td> <td rowspan="3"> <table border="1"> <tr> <th>Size</th> <th>Life time (hours)</th> </tr> <tr> <td>ΦD ≒ 12.5Φ</td> <td>2,000</td> </tr> <tr> <td>ΦD ≒ 16 Φ</td> <td>5,000</td> </tr> </table> </td> </tr> <tr> <td>Dissipation factor(tanδ)</td> <td>≒ 200% of the specified value</td> </tr> <tr> <td>Leakage current</td> <td>≒ specified value</td> </tr> </table>	Capacitance change	≒ ±20% of the initial value	<table border="1"> <tr> <th>Size</th> <th>Life time (hours)</th> </tr> <tr> <td>ΦD ≒ 12.5Φ</td> <td>2,000</td> </tr> <tr> <td>ΦD ≒ 16 Φ</td> <td>5,000</td> </tr> </table>	Size	Life time (hours)	ΦD ≒ 12.5Φ	2,000	ΦD ≒ 16 Φ	5,000	Dissipation factor(tanδ)	≒ 200% of the specified value	Leakage current	≒ specified value	
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Dissipation factor(tanδ)	≒ 200% of the specified value														
Leakage current	≒ specified value														
Shelf Life	<p>The following requirements shall be satisfied when the capacitor are restored to 25°C after exposing them for 1,000 hours at 105°C without voltage applied.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>≒ ±20% of the initial value</td> </tr> <tr> <td>Dissipation factor(tanδ)</td> <td>≒ 200% of the specified value</td> </tr> <tr> <td>Leakage current</td> <td>≒ 200% of the specified value</td> </tr> </table>	Capacitance change	≒ ±20% of the initial value	Dissipation factor(tanδ)	≒ 200% of the specified value	Leakage current	≒ 200% of the specified value								
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Leakage current	≒ 200% of the specified value														
Others	Conforms to JIS-C-5101-4 (1998), characteristic W														

DIMENSIONS (mm)



ΦD	10	12.5 L < 35	12.5 L ≥ 35	16	18
ΦD	ΦD +0.5 Max				
Φd	0.6	0.6	0.8	0.8	0.8
F	5.0	5.0		7.5	7.5
a	L + 1.5 Max	≒ 35 L + 1.5 Max ≒ 40 L + 2.0 Max		L + 1.5 Max	

PART NUMBER SYSTEM (Example : 420V 68µF)



Special Request

Size code(1640 : 16×40)

Lead length code

Lead forming Type code

Capacitance tolerance code(M: ±20%)

Capacitance code (68µF)

Voltage code (420V)

Series code (PV)



PV Series

◆ **Case size & Permissible rated ripple current: (mA rms) at 105°C / 120Hz**

uF \ Vdc	200		250		350	
	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC
6.8					10×16	90
10	10×16	100	10×20	110	10×20	110
15	10×16	110	10×20	130	10×20	130
22	10×20	180	10×20	180	12.5×20	235
33	10×20	215	12.5×20	245	12.5×25	265
47	12.5×20	310	12.5×25	340	16×25	400
68	12.5×25	420	16×20	460	18×25	510
82	16×25	490	16×25	490	18×31.5	570
100	18×25	560	18×25	610	18×35.5	650
120	18×25	600	18×25	650	18×40	750
150	18×31.5	780	18×31.5	810	20×34	840
220	18×35.5	920	18×35.5	940		
330	18×40	1010	18×50	1050		
390	18×45	1130				
470	18×50	1270				

uF \ Vdc	400		420		450	
	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC
6.8	10×16	90	10×16	90	10×20	80
10	10×20	110	10×20	110	12.5×20	130
15	12.5×20	180	12.5×20	180	12.5×20	160
22	12.5×25	240	12.5×25	240	12.5×25	200
33	16×25	280	16×25	290	16×25	310
47	16×31.5	390	16×31.5	390	18×25	400
68	16×35.5	505	16×40	510	18×31.5	550
82	18×31.5	560	18×31.5	570	18×35.5	635
100	18×35.5	640	18×35.5	610	18×40	720
120	18×40	745	18×40	660	18×45	770
150	18×45	760	18×50	710	18×50	820

◆ **RIPPLE CURRENT MULTIPLIERS**

Frequency Multipliers

Vdc	Frequency (Hz)				
	50	120	1K	10K	100K
200 ~ 450	0.80	1.00	1.30	1.40	1.50