

CD293 LX Series Snap-in Type Aluminum Electrolytic Capacitors

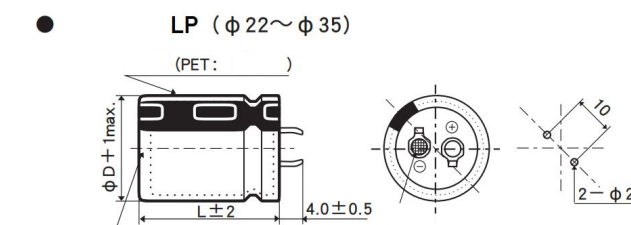


Endurance: 2,000 hours at 105°C
RoHS Compliant and lead-free

■ Specifications

Operating Temperature Range	-40 ~+105°C	-25 ~+105°C																								
Rated Voltage Range	16~100V DC	160~550V DC																								
Capacitance Tolerance	±20% (120Hz, 20°C)																									
(20°C) Leakage Current	$I \leq 3 \sqrt{CV}$ (after 5 min) I=Leakage Current(µA), C=Capacitance(µF), V=Rated DC Working Voltage(V)																									
Dissipation Factor (120Hz 20°C)	<table border="1"> <tr> <th>W.V.</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63~100</th> <th>160~400</th> <th>420~450</th> </tr> <tr> <td>tgδ</td> <td>0.50</td> <td>0.40</td> <td>0.35</td> <td>0.30</td> <td>0.20</td> <td>0.15</td> <td>0.20</td> </tr> </table> <p>0.02 is added to every 1000µF increase over 1000µF</p>		W.V.	16	25	35	50	63~100	160~400	420~450	tgδ	0.50	0.40	0.35	0.30	0.20	0.15	0.20								
W.V.	16	25	35	50	63~100	160~400	420~450																			
tgδ	0.50	0.40	0.35	0.30	0.20	0.15	0.20																			
Temperature Characteristics Impedance Ratio (120Hz)	<table border="1"> <tr> <th>W.V.</th> <th>16~100</th> <th>160~250</th> <th>315~550V</th> </tr> <tr> <td>Z_{-25°C}/Z_{+20°C}</td> <td>4</td> <td>4</td> <td>8</td> </tr> <tr> <td>Z_{-40°C}/Z_{+20°C}</td> <td>15</td> <td>-</td> <td>-</td> </tr> </table>		W.V.	16~100	160~250	315~550V	Z _{-25°C} /Z _{+20°C}	4	4	8	Z _{-40°C} /Z _{+20°C}	15	-	-												
W.V.	16~100	160~250	315~550V																							
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Z _{-40°C} /Z _{+20°C}	15	-	-																							
Load Life	<p>105°C environment d rated operating voltage after 2,000 hours , capacitor characteristics meet the requirements in the following table.</p> <table border="1"> <tr> <td>Capacitance Change</td> <td>≤±20% of Initial measured value</td> </tr> <tr> <td>Leakage</td> <td>≤The specified value</td> </tr> <tr> <td>Dissipation Factor</td> <td>≤200% of the specified value</td> </tr> </table>		Capacitance Change	≤±20% of Initial measured value	Leakage	≤The specified value	Dissipation Factor	≤200% of the specified value																		
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Shelf Life	<p>Test time :105°C, 1000hours ; Voltage application treatment : According to JIS C5101-4 4.1</p> <table border="1"> <tr> <td>Capacitance Change</td> <td>≤±15% of Initial measured value</td> </tr> <tr> <td>Leakage</td> <td>≤The specified value</td> </tr> <tr> <td>Dissipation Factor</td> <td>≤150% of the specified value</td> </tr> </table>		Capacitance Change	≤±15% of Initial measured value	Leakage	≤The specified value	Dissipation Factor	≤150% of the specified value																		
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Coefficient of Frequency for Rated Ripple Current	<table border="1"> <tr> <th>Frequency Voltage</th> <th>50Hz</th> <th>120Hz</th> <th>1KHz</th> <th>10KHz</th> <th>≥50KHz</th> </tr> <tr> <td>≤100V</td> <td>0.95</td> <td>1.00</td> <td>1.13</td> <td>1.19</td> <td>1.20</td> </tr> <tr> <td>160~250V</td> <td>0.87</td> <td>1.00</td> <td>1.32</td> <td>1.45</td> <td>1.50</td> </tr> <tr> <td>≥315V</td> <td>0.80</td> <td>1.00</td> <td>1.30</td> <td>1.41</td> <td>1.43</td> </tr> </table>		Frequency Voltage	50Hz	120Hz	1KHz	10KHz	≥50KHz	≤100V	0.95	1.00	1.13	1.19	1.20	160~250V	0.87	1.00	1.32	1.45	1.50	≥315V	0.80	1.00	1.30	1.41	1.43
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≥315V	0.80	1.00	1.30	1.41	1.43																					

■ Drawing



Nominal capacitance, rated voltage, rated ripple current and case size table

WV Cap(μF)	16V		25V		35V		50V		63V		80V	
	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)
820											22×25	1.11
1000											22×25	1.25
1200									22×25	1.25	22×30 25×25	1.39 1.39
1800							22×25	1.31	22×30 25×25	1.52 1.52	22×40 30×25	1.83 1.81
2200							22×30	1.45	22×35 25×30	1.73 1.75	22×45 25×35 30×30 35×25	2.09 2.01 2.10 2.17
2700							22×30 25×25	1.70 1.70	22×40 25×35 30×25	1.97 1.99 1.93	25×45 30×35	2.43 2.43
3300					22×25	1.43	22×35 25×30	1.98 2.00	22×50 25×40 30×30 35×25	2.32 2.27 2.24 2.41	25×50 30×40 35×30	2.76 2.78 2.71
3900					22×30	1.65	22×40 25×35 30×25	2.25 2.28 2.22	25×45 30×35	2.54 2.55	30×45 35×35	3.12 3.07
4700			22×25	1.55	25×25	1.78	22×45 30×30 35×25	2.56 2.58 2.67	25×50 30×40 35×30	2.88 2.90 2.83	30×50 35×40	3.56 3.50
5600					22×35 25×30 30×25	2.02 2.04 2.12	22×50 25×40 30×35	2.89 2.81 2.95	30×45 35×35	3.28 3.24	35×45	3.87
6800	22×25	1.60	22×30 25×25	1.91 1.91	22×40 25×35	2.28 2.31	25×50 30×40 35×30	3.37 3.39 3.31	30×50 35×40	3.73 3.71	35×50	4.19
8200			22×35 25×30 30×25	2.14 2.16 2.25	22×50 25×40 30×30 35×25	2.67 2.60 2.56 2.78	30×45 35×35	3.71 3.66	35×45	4.16		
10000	22×30 25×25	1.99 1.99	22×40 25×35	2.40 2.44	25×45 30×35	2.92 2.92	30×50 35×40	4.09 4.07	35×50	4.69		
12000	22×35 25×30 30×25	2.28 2.30 2.38	22×45 25×40 30×30 35×25	2.69 2.74 2.70 2.80	25×50 30×40 35×30	3.26 3.28 3.20	35×45	4.50				
15000	22×40 25×35	2.64 2.68	25×45 30×35 30×35	3.15 3.13 3.22	30×45 35×35	3.74 3.69						
18000	22×45 25×40 30×30 35×25	2.98 3.04 3.00 3.10	25×50 30×40	3.54 3.54	35×40	4.16						
22000	25×45 30×35	3.40 3.39	30×45 35×35	4.24 3.96	35×50	4.92						
27000	25×50 30×40 35×30	3.81 3.83 3.74	35×45	4.75								
33000	30×45 35×35	4.30 4.24	35×50	5.39								
39000	30×50 35×40	4.74 4.72										
47000	35×45	5.27										

Rated ripple current: (A , 105°C,120Hz)

Nominal capacitance, rated voltage, rated ripple current and case size table

WV Cap(μF)	100V		160V		180V		200V		250V		315V	
	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)
100											22×25	0.61
120											22×30	0.68
150											22×35 25×25	0.76 0.78
180									22×25	0.94	22×40 25×30	0.78 0.85
220							22×25	1.08	22×30 25×25	1.10 1.15	22×45 25×35 30×30	0.91 0.94 0.95
270					22×25	1.08	22×30	1.20	22×35	1.13	22×50 25×40 30×35	0.98 1.00 0.98
330			22×25	1.16	22×30	1.30	22×30 25×25	1.30 1.35	22×40 25×30 30×25	1.20 1.30 1.35	25×45 30×40	1.13 1.13
390			22×30	1.43	25×25	1.35	22×35	1.41	22×45 25×35	1.26 1.41	30×45 35×30	1.20 1.20
470			22×35 25×25	1.52 1.55	22×35 25×30	1.50 1.62	22×40 25×30 30×25	1.50 1.47 1.56	22×50 25×40 30×30 35×25	1.37 1.34 1.36 1.40	35×35	1.28
560	22×25	1.07	22×40 25×30	1.62 1.73	22×40 25×35 30×25	1.62 1.69 1.67	22×45 25×35	1.58 1.65	25×45 30×35 35×30	1.59 1.57 1.56	35×40	1.46
680			22×45 25×35 30×25	1.70 1.81 1.82	22×50 25×40 30×30 35×25	1.76 1.72 1.74 1.92	22×50 25×40 30×30 35×25	1.68 1.80 1.82 1.96	25×50 30×40	1.66 1.76	35×45	1.85
820	22×30 25×25	1.35 1.35	22×50 25×40 30×30 35×25	1.81 1.98 1.98 1.93	25×45 30×35	1.78 1.85	25×50 30×35 35×30	1.87 1.99 2.07	30×45 35×35	1.83 1.82	35×50	2.10
1000	22×35 25×30	1.54 1.56	25×45 30×35	2.04 2.14	25×50 30×40 35×30	1.91 2.01 2.16	30×45 35×35	2.17 2.22	30×50 35×40	1.87 1.99	35×55	2.42
1200	22×40 25×35 30×25	1.74 1.76 1.71	25×50 30×40 35×30	2.12 2.22 2.40	30×45 35×35	2.19 2.34	30×50 35×40	2.22 2.42	35×45	2.10		
1500	22×45 25×40 30×30 35×25	1.99 2.03 2.00 2.07	30×45 35×35	2.46 2.53	30×50 35×40	2.36 2.56	35×45	2.59	35×50	2.70		
1800	25×45 30×35	2.28 2.27	35×45	2.98	35×45	2.67	35×50	2.70	35×60	2.92		
2200	25×50 30×40 35×30	2.57 2.59 2.52	35×50	3.10	35×50	3.27	35×60	3.23				
2700	30×45 35×35	2.94 2.90	35×55	3.77	35×60	3.92						
3300	30×50 35×40	3.32 3.31	35×60	4.33								
3900	35×45	3.69										
4700	35×50	4.14										

Rated ripple current: (A , 105°C,120Hz)

Nominal capacitance, rated voltage, rated ripple current and case size table

WV Cap(μF)	350V		400V		420V		450V		500V		550V	
	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)
39									22×25	0.35		
47									22×30	0.41		
56							22×25	0.47	22×35	0.47		
68	22×25	0.56	22×25	0.47	22×25	0.50	22×30 25×25	0.56 0.56	22×40	0.54		
82	22×25	0.56	22×25	0.56	22×30	0.60	22×35	0.65	25×30	0.62		
100	22×30 25×25	0.70 0.70	22×30	0.60	22×35	0.65	22×40 25×30	0.70 0.70	25×35	0.67		
120	22×35	0.73	22×35 25×25	0.64 0.70	22×40 25×30	0.70 0.72	22×45 25×35	0.73 0.73	25×40 30×30	0.77 0.72		
150	22×40 25×30 30×25	0.79 0.82 0.82	22×40 25×30	0.70 0.73	22×45 25×35	0.75 0.80	22×50 25×40 30×30	0.78 0.82 0.83	30×40	0.85		
180	22×45 25×35 30×30	0.81 0.89 0.90	22×45 25×35	0.78 0.82	25×40 35×30	0.85 0.85	25×45 30×35	0.87 0.86	30×45	1.01	30×50 35×35	1.06 1.06
220	22×50 25×40 35×25	0.93 0.97 0.98	25×40 35×30	0.87 0.96	25×45 30×35	0.90 0.96	25×50 30×40 35×30	0.94 0.95 0.91	35×35	1.12	30×55 35×40	1.18 1.18
270	25×50 30×35 35×30	1.01 1.05 1.01	25×45 30×35	0.94 0.95	25×50 30×40	1.05 1.06	30×45 35×35	1.11 1.13	35×40	1.29	35×45	1.31
330	30×45 35×35	1.16 1.16	30×40 35×30	1.11 1.13	30×45 35×35	1.14 1.20	30×50 35×40	1.15 1.26	35×45	1.40	35×50	1.50
390	30×50 35×40	1.26 1.26	30×45 35×35	1.15 1.26	30×50 35×40	1.25 1.26	35×45	1.31	35×50	1.60	35×60	1.67
470	35×45	1.35	35×40	1.31	35×45	1.31	35×50	1.50	35×60	1.80	35×70	1.95
560	35×50	1.51	35×45	1.50	35×50	1.50	35×55	1.70	35×65	1.90	35×80	2.10
680	35×55	1.92	35×50	1.90	35×55	1.90	35×60	2.00	35×70	2.20		
820	35×60	2.25	35×60	2.2	35×60	2.20	35×65	2.20				
1000	35×60	2.50	35×65	2.6			35×70	2.60				

Rated ripple current: (A , 105°C, 120Hz)