

### CD 288H Series

105°C 2000–3000小时

2000–3000h at 105°C

- 低阻抗
- 高纹波
- 适用于开关电源等
- low impedance
- High ripple Current
- SMPS,UPS

项目 Item	特性 Characteristics																										
使用温度范围 ( °C ) Operating Temperature Range	-40~+105																										
额定电压范围 ( V ) Voltage Range	6.3~100																										
标称电容量范围 ( μF ) Capacitance Range	0.47~15000																										
标称电容量允许偏差 Capacitance Tolerance ( 20°C , 120Hz )	± 20%																										
漏电流(μA) Leakage Current	$I \leq 0.02 CV$ or $3 \mu A$ , 取较大者 ( 2分钟 ) $I \leq 0.02 CV$ or $3 \mu A$ whichever is greater ( at 20°C, after 2 minutes ) C: 标称电容量 ( μF )    V:额定电压 ( V )    C:Nominal Capacitance(μF)    V: Rated Voltage(V)																										
损耗角正切值(tg δ) Dissipation Factor ( 20°C , 120Hz )	<table border="1"> <tr> <td>额定电压 Rated Voltage(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>损耗角正切值 <math>\tan \delta</math> (amx)</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> </tr> </table> <p>标称电容量大于1000 μF者，每增加1000 μF，其损耗角正切值增加0.02 When nominal capacitance is over 1000 μF <math>\tan \delta</math> shall be added 0.02 to the listed value with increase of every 1000 μF</p>									额定电压 Rated Voltage(V)	6.3	10	16	25	35	50	63	100	损耗角正切值 $\tan \delta$ (amx)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08
额定电压 Rated Voltage(V)	6.3	10	16	25	35	50	63	100																			
损耗角正切值 $\tan \delta$ (amx)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08																			
低温特性 Stability at Low Temperature (Impedance Ratio at 120Hz)	<table border="1"> <tr> <td>额定电压 Rated Voltage(V)</td> <td colspan="8">6.3~100</td> </tr> <tr> <td><math>Z_{-40^\circ\text{C}}/Z_{+20^\circ\text{C}}</math></td> <td colspan="8">3</td> </tr> </table>									额定电压 Rated Voltage(V)	6.3~100								$Z_{-40^\circ\text{C}}/Z_{+20^\circ\text{C}}$	3							
额定电压 Rated Voltage(V)	6.3~100																										
$Z_{-40^\circ\text{C}}/Z_{+20^\circ\text{C}}$	3																										

项目 Item	使用性 Useful Life		负载寿命 Load Life		耐久试验 Endurance Test		高温贮存 shelf Life
使用寿命 Lifetime	$\Phi D=5~6.3:2000h$ $\Phi D=8~10:3000h$ $\Phi D=12.5~18:3000h$		$\Phi D=5~6.3:2000h$ $\Phi D=8~10:3000h$ $\Phi D=12.5~18:3000h$		$\Phi D=5~6.3:2000h$ $\Phi D=8~10:3000h$ $\Phi D=12.5~18:3000h$		1000h
漏电流 Leakage Current	≤初始规定值 Not more than specified value		≤初始规定值 Not more than specified value		≤初始规定值 Not more than specified value		≤初始规定值 Not more than specified value
容量变化率 Capacitance Change	初始值 ± 30% 以内 Within ±30% of initial Value		初始值 ± 20% 以内 Within ±20% of initial Value		初始值 ± 20% 以内 Within ±20% of initial Value		初始值 ± 20% 以内 Within ±20% of initial Value
损耗变化率 Dissipation Factor	≤初始规定值的3倍 Not more than 300% of specified value		≤初始规定值的2倍 Not more than 200% of specified value		≤初始规定值的2倍 Not more than 200% of specified value		≤初始规定值的2倍 Not more than 200% of specified value
使用条件 Condition 使用电压 Applied Voltage 使用电流 Applied Current 使用温度 Applied Temperature	$U_R$ $I_R$ 105°C	$U_R$ $1.4 \times I_R$ 40°C	$U_R$ $I_R$ 105°C	$U_R$ $I_R=0$ 105°C	$U_R=0$ $I_R=0$ 105°C	试验后： 施加额定电压30分钟 后恢复24小时 After test: UR to be applied for 30min >24h before measurement	

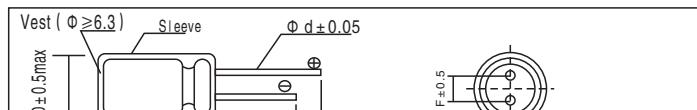
### CD 288H 系列 Ratings for CD 288H Series

$U_R$ (Surge Voltage) Code	Rated Capaci- tance	Max ESR 20°C 120Hz	Max Imp 20°C 100kHz	Max Imp -10°C 100kHz	Rated Ripple Current 105°C 100kHz	Size $\phi$ DXL
(V)	( $\mu$ F)	( $\Omega$ )	( $\Omega$ )	( $\Omega$ )	(mAmps)	(mm)
6.3 (7.2) 0J	100	2.919	0.65	1.3	175	5x11.5
	150	1.946	0.46	0.92	235	5x15
	220	1.327	0.3	0.6	290	6.3x11.5
	330	0.885	0.2	0.4	400	6.3x15
	470	0.621	0.17	0.34	488	8x11.5
	680	0.429	0.13	0.26	617	8x16
		0.429	0.12	0.24	613	10x12.5
	820	0.356	0.095	0.19	743	10x16
	1000	0.292	0.095	0.19	800	8x20
	1200	0.243	0.065	0.13	1010	10x20
		0.243	0.065	0.13	1010	12.5x15
	1500	0.195	0.055	0.11	1190	10x25
		0.145	0.045	0.09	1440	10x30
	2200	0.145	0.042	0.084	1400	12.5x20
		0.118	0.038	0.076	1690	12.5x25
		0.118	0.046	0.092	1310	16x15
	3300	0.105	0.043	0.086	1460	18x15
	3900	0.088	0.032	0.064	1950	12.5x30
		0.079	0.028	0.056	2220	12.5x35
	4700	0.079	0.034	0.068	1660	16x20
		0.071	0.026	0.052	2390	12.5x40
	5600	0.071	0.028	0.056	2070	16x25
		0.071	0.03	0.06	1850	18x20
	6800	0.062	0.025	0.05	2350	16x31.5
		0.062	0.027	0.054	2120	18x25
	8200	0.058	0.022	0.044	2550	16x35.5
	10000	0.053	0.023	0.046	2410	18x31.5
		0.049	0.02	0.04	2970	16x40
	12000	0.049	0.02	0.04	2680	18x35.5
	15000	0.044	0.019	0.038	3010	18x40
10 (13) 1A	82	3.075	0.65	1.3	175	5x11.5
	100	2.521	0.46	0.92	235	5x15
	180	1.401	0.3	0.6	290	6.3x11.5
	220	1.146	0.2	0.4	400	6.3x15
	330	0.764	0.17	0.34	488	8x11.5
	470	0.536	0.13	0.26	617	8x16
		0.536	0.12	0.24	613	10x12.5
	560	0.45	0.095	0.19	734	10x16
	680	0.371	0.095	0.19	800	8x20
		0.252	0.065	0.13	1010	10x20
	1000	0.252	0.065	0.13	1010	12.5x15
	1200	0.21	0.055	0.11	1190	10x25
	1500	0.168	0.045	0.09	1440	10x30
	1800	0.14	0.042	0.084	1400	12.5x20
		0.14	0.046	0.092	1310	16x15
	2200	0.127	0.038	0.076	1690	12.5x25
		0.127	0.043	0.086	1460	18x15
	2700	0.103	0.032	0.064	1950	12.5x30
		0.092	0.028	0.056	2220	12.5x35
	3300	0.092	0.034	0.068	1660	16x20
		0.078	0.026	0.052	2390	12.5x40
	3900	0.078	0.028	0.056	2070	16x25
		0.078	0.03	0.06	1850	18x20
	4700	0.071	0.027	0.054	2120	18x25
	5600	0.064	0.025	0.05	2350	16x31.5
		0.057	0.022	0.044	2550	16x35.5
	6800	0.057	0.023	0.046	2410	18x31.5
		0.053	0.02	0.04	2970	16x40
	8200	0.053	0.02	0.04	2680	18x35.5
	10000	0.049	0.019	0.038	3010	18x40
16 (20) 1C	56	3.791	0.65	1.3	175	5x11.5
	82	2.589	0.46	0.92	235	5x15
	120	1.769	0.3	0.6	290	6.3x11.5
	180	1.180	0.2	0.4	400	6.3x15
	270	0.786	0.17	0.34	501	8x11.5
	330	0.643	0.13	0.26	575	8x16
		0.643	0.12	0.24	625	10x12.5
	390	0.544	0.095	0.19	795	10x16
	470	0.452	0.095	0.19	760	8x20

$U_R$ (Surge Voltage) Code	Rated Capaci- tance	Max ESR 20°C 120Hz	Max Imp 20°C 100kHz	Max Imp -10°C 100kHz	Rated Ripple Current 105°C 100kHz	Size $\phi$ DXL
(V)	( $\mu$ F)	( $\Omega$ )	( $\Omega$ )	( $\Omega$ )	(mAmps)	(mm)
16 (20) 1C	680	0.312	0.065	0.13	1010	10x20
	820	0.259	0.055	0.11	1190	12.5x15
	1200	0.177	0.045	0.09	1430	10x30
	1500	0.142	0.038	0.076	1690	12.5x25
	2200	0.109	0.032	0.064	1950	12.5x30
	2700	0.088	0.028	0.056	2200	12.5x35
	3300	0.08	0.026	0.052	2390	12.5x40
	3900	0.068	0.025	0.05	2350	16x31.5
	4700	0.062	0.022	0.044	2550	16x35.5
	5600	0.057	0.023	0.046	2450	18x31.5
	6800	0.051	0.02	0.04	2730	18x35.5
	8200	0.049	0.019	0.038	3060	18x40
	39	4.763	0.65	1.3	175	5x11.5
	56	3.317	0.46	0.92	235	5x15
	82	2.266	0.3	0.6	290	6.3x11.5
	120	1.548	0.2	0.4	400	6.3x15
	180	1.032	0.17	0.34	503	8x11.5
	220	0.844	0.13	0.26	575	8x16
	270	0.688	0.095	0.19	629	10x12.5
	330	0.563	0.095	0.19	795	10x16
	470	0.395	0.065	0.13	1010	10x20
	560	0.332	0.055	0.11	1190	10x25
	820	0.227	0.045	0.09	1440	10x30
	1000	0.186	0.038	0.076	1690	12.5x25
	1200	0.155	0.043	0.086	1500	18x15
	1500	0.124	0.032	0.064	1950	12.5x30
	1800	0.103	0.028	0.056	2200	12.5x35
	2200	0.097	0.026	0.052	2390	12.5x40
	2700	0.079	0.025	0.05	2350	16x31.5

Frequency 容量 Cap( $\mu$ F)	120Hz	1KHz	10KHz	100KHz
0.47~4.7	0.40	0.68	0.83	1.00
5.6~47	0.50	0.76	0.87	1.00
56~270	0.70	0.85	0.90	1.00
330~1000	0.80	0.93	0.98	1.00
1200~15000	0.90	0.95	1.00	1.00

频率系数 Frequency Coefficient



### CD 288H 系列 Ratings for CD 288H Series

$U_R$ (Surge Voltage) Code	Rated Capaci- tance	Max ESR 20°C 120Hz	Max Imp 20°C 100kHz	Max Imp -10°C 100kHz	Rated Ripple Current 105°C 100kHz	Size $\Phi$ DXL
(V)	( $\mu$ F)	( $\Omega$ )	( $\Omega$ )	( $\Omega$ )	(mAmps)	(mm)
25 (32) 1E	2700	0.079	0.027	0.054	2180	18x25
	3300	0.072	0.022	0.044	2550	16x35.5
	3900	0.072	0.023	0.046	2470	18x31.5
	3900	0.061	0.02	0.04	2900	16x40
	4700	0.061	0.02	0.04	2740	18x35.5
35 (44) 1V	27	5.898	0.65	1.3	175	5x11.5
	39	4.083	0.46	0.92	235	5x15
	56	2.843	0.3	0.6	290	6.3x11.5
	82	1.942	0.2	0.4	400	6.3x15
	120	1.327	0.17	0.34	501	8x11.5
	150	1.062	0.12	0.24	625	10x12.5
	180	0.885	0.13	0.26	575	8x16
	180	0.885	0.095	0.19	795	10x16
	220	0.724	0.095	0.19	760	8x20
	330	0.483	0.065	0.13	1010	10x20
	390	0.483	0.065	0.13	1010	12.5x15
	390	0.408	0.055	0.11	1190	10x25
	560	0.284	0.045	0.09	1450	10x30
	560	0.284	0.042	0.084	1400	12.5x20
	560	0.284	0.046	0.092	1360	16x15
	680	0.234	0.038	0.076	1690	12.5x25
	680	0.234	0.043	0.086	1520	18x15
	1000	0.159	0.032	0.064	1950	12.5x30
	1000	0.159	0.034	0.068	1730	16x20
	1200	0.133	0.028	0.056	2200	12.5x35
	1200	0.133	0.028	0.056	2070	16x25
	1200	0.133	0.03	0.06	1900	18x20
	1500	0.106	0.026	0.52	2390	12.5x40
	1800	0.088	0.025	0.05	2350	16x31.5
	1800	0.088	0.027	0.054	2200	18x25
	2200	0.084	0.022	0.044	2550	16x35.5
	2200	0.084	0.023	0.046	2490	18x31.5
	2700	0.069	0.02	0.04	2900	16x40
	2700	0.069	0.02	0.04	2770	18x31.5
	3300	0.064	0.019	0.038	3110	18x40
50 (63) 1H	0.47	282.333	3.9	7.8	22	5x11.5
	1	132.696	3.5	7	36	5x11.5
	2.2	60.317	3	6	54	5x11.5
	3.3	40.211	2.6	5.2	63	5x11.5
	4.7	28.233	2.2	4.4	75	5x11.5
	10	13.270	1.4	2.8	110	5x11.5
	18	7.372	0.95	1.9	120	5x11.5
	27	4.915	0.55	1.1	135	5x15
	39	3.402	0.36	0.72	148	6.3x11.5
	56	2.370	0.28	0.56	153	6.3x15
	68	1.591	0.20	0.40	360	8x11.5
	82	1.618	0.18	0.36	460	8x16
	82	1.618	0.18	0.36	443	10x12.5
	100	1.327	0.15	0.3	553	10x16
	120	1.106	0.13	0.26	670	8x20
	180	0.737	0.085	0.17	676	10x20
	180	0.737	0.095	0.19	745	12.5x15
	220	0.603	0.075	0.15	876	10x25
	330	0.402	0.055	0.11	1010	10x30
	330	0.402	0.060	0.12	979	12.5x20
	330	0.402	0.065	0.13	982	16x15
	470	0.282	0.044	0.088	1180	12.5x25
	470	0.282	0.048	0.096	1180	18x15
	560	0.237	0.040	0.080	1310	12.5x30
	680	0.195	0.036	0.072	1470	12.5x35
	680	0.195	0.045	0.090	1210	16x20
	820	0.162	0.034	0.068	1590	12.5x40
	820	0.162	0.038	0.076	1490	16x25
	1000	0.133	0.032	0.064	1890	16x31.5
	1000	0.133	0.032	0.064	1720	18x25
	1200	0.111	0.028	0.056	2140	16x35.5
	1500	0.088	0.026	0.052	2410	16x40
	1500	0.088	0.026	0.052	1970	18x31.5
	1800	0.074	0.025	0.050	2310	18x35.5
	2200	0.072	0.024	0.048	2530	18x40

$U_R$ (Surge Voltage) Code	Rated Capaci- tance	Max ESR 20°C 120Hz	Max Imp 20°C 100kHz	Max Imp -10°C 100kHz	Rated Ripple Current 105°C 100kHz	Size $\Phi$ DXL
(V)	( $\mu$ F)	( $\Omega$ )	( $\Omega$ )	( $\Omega$ )	(mAmps)	(mm)
63 (79) 1J	12	9.952	1.2	3.6	120	5x11.5
	18	6.635	0.85	2.6	135	5x15
	27	4.423	0.55	1.7	148	6.3x11.5
	39	3.062	0.38	1.1	153	6.3x15
	47	2.541	0.32	0.96	360	8x11.5
	56	2.133	0.23	0.69	448	10x12.5
	68	1.756	0.24	0.72	469	8x16
	82	1.756	0.17	0.51	553	10x16
	120	0.995	0.12	0.36	676	10x20
	150	0.796	0.10	0.30	876	10x25
	180	0.663	0.085	0.26	1020	10x30
	220	0.543	0.075	0.23	979	12.5x20
	270	0.442	0.065	0.20	1180	12.5x25
	330	0.362	0.065	0.20	1200	18x15
	390	0.306	0.055	0.17	1310	12.5x30
	470	0.254	0.048	0.14	1470	12.5x35
	560	0.213	0.042	0.13	1590	12.5x40
	680	0.176	0.042	0.13	1890	16x31.5
	820	0.146	0.036	0.11	2140	16x35.5
	1000	0.119	0.032	0.096	2410	16x40
	1200	0.100	0.032	0.096	2560	18x40
100 (125) 2A	5.6	18.957	1.9	7.6	57	5x11.5
	8.2	12.946	1.3	5.2	74	5x15
	12	8.846	1.1	4.4	78	6.3x11.5
	18	5.898	0.62	2.5	85	6.3x15
	22	4.825	0.53	2.1	275	8x11.5
	27	3.932	0.47	1.9	319	10x12.5
	33	3.217	0.35	1.4	360	8x16
	39	2.722	0.27	1.1	490	8x20
	56	1.896	0.25	1.0	499	10x20
	68	1.561	0.18	0.72	634	10x25
	100	1.062	0.15	0.60	739	10x30
	120	0.885	0.11	0.44	857	12.5x25
	150	0.708	0.12	0.48	871	18x15
	180	0.59	0.09	0.36	1120	12.5x30
	220	0.483	0.075	0.3	1240	12.5x35
	270	0.393	0.06	0.24	1320	12.5x40
	330	0.322	0.059	0.23	1630	16x31.5
	390	0.272	0.052	0.21	1750	16x35.5
	470	0.226	0.045	0.18	1920	16x40
	560	0.19	0.054	0.22	1920	18x35.5
	680	0.156	0.041	0.16	2100	18x40