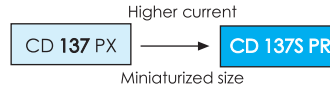


12000h at 85°C

- Features
 - Extremely compact
 - High ripple current & High Reliability
 - RoHS Compliant
- Applications
 - Higher Currents for High Professional
 - Power Application and Inverters

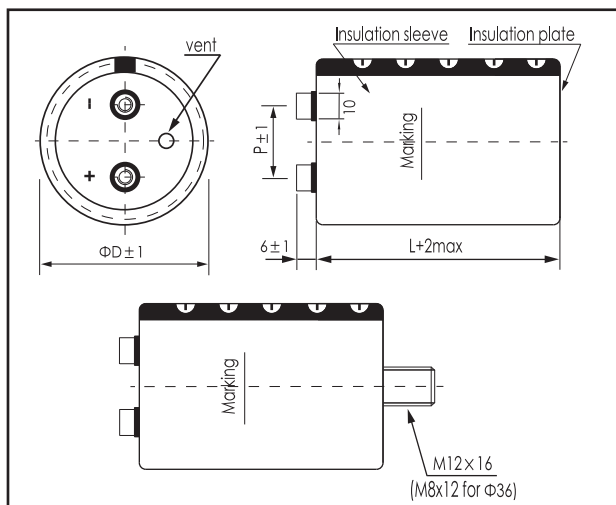


Items	Characteristics
Operating Temperature Range (°C)	-40 ~ +85
Voltage Range (V)	350 ~ 500
Capacitance Range (µF)	1000 ~ 22000
Capacitance Tolerance (20°C, 120Hz)	± 20%
Leakage Current (µA)	After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 5mA, whichever is smaller. C: Nominal Capacitance (µF) V: Rated Voltage (V)
Dissipation Factor (20°C, 120Hz)	Less than 0.15
Stability at Low Temperature (120Hz)	$C_{-25°C} / C_{+20°C} \geq 0.7, C_{-40°C} / C_{+20°C} \geq 0.6$

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	12000h	>150000h	5000h	5000h	1000h
Leakage Current	Not more than specified value		Not more than specified value	Not more than specified value	Not more than specified value
Capacitance Change	Within ± 20% of initial value		Within ± 15% of initial value	Within ± 10% of initial value	Within ± 20% of initial value
Dissipation Factor	Not more than 200% of specified value		Not more than 175% of specified value	Not more than 130% of specified value	Not more than 200% of specified value
Condition: Applied Voltage Applied Current Applied Temperature	U_R I_R 85°C	U_R $1.4 \times I_R$ 40°C	U_R I_R 85°C	U_R $I_R = 0$ 85°C	$U_R = 0$ $I_R = 0$ 85°C After test: U_R to be applied for 60min >24h before measurement

Dimensions

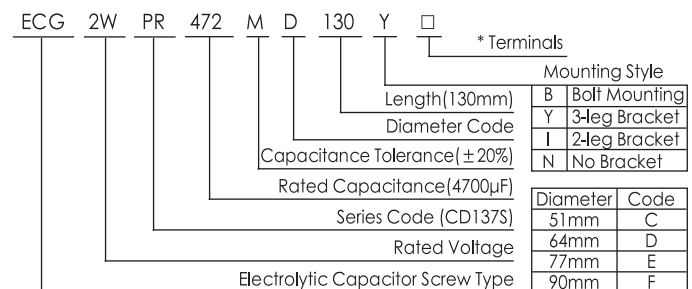
mm



ΦD/mm	51	64	77	90
P/mm	22.0	28.2	31.4	31.4

*Hex head screw M5 x 10 and M6 x 12 are standard screws. Longer screws are available on request.
 *Max tightening torque for screw terminal M5: 3Nm, M6: 4Nm. Max torque for bolt mounting M12: 12.5Nm.
 *Screws, Bracket and cap nut will be delivered separately. See "Accessories" (page 104.105) for shape and dimensions.

Part Number System (Ex: 450V4700µF)



*See page 105 for detailed dimensions of terminals.

Ripple Current Coefficient

Frequency (Hz)	50/60	120	300	1k	>10k
Coefficient	0.80	1.00	1.18	1.30	1.40

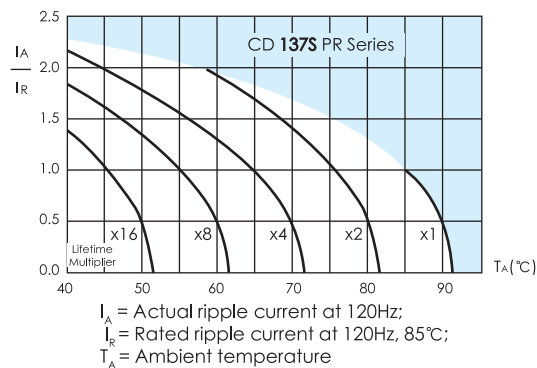
Ambient Temp (°C)	40	60	70	85
Coefficient	2.24	1.81	1.56	1.00

The useful life can be prolonged by operating capacitor at loads below the rated values (e.g. lower operating voltage, Rms ripple current or ambient temperature) and by appropriate cooling measures.
 It is advisable not to apply a ripple current exceeding the rated ripple current without any cooling measures as this will shorten capacitor's life.

Ratings for CD 137S PR Series

U_R (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size ΦD x L
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)
350 (400) 2V	2200	56	28	8.38	51 × 80
	2700	46	23	9.90	51 × 96
	3300	40	20	11.0	51 × 105
		40	20	11.4	64 × 80
	3900	34	17	12.7	51 × 117
		34	17	13.2	64 × 96
	4700	28	14	14.4	64 × 96
		24	12	16.8	64 × 115
	5600	24	12	17.2	77 × 96
		20	10	18.8	64 × 130
	6800	20	10	19.5	77 × 105
		18	9	22.3	77 × 117
	8200	14	7	28.3	90 × 115
	10000	12	6	29.8	77 × 155
	12000	12	6	32.0	90 × 130
15000	10	5	36.0	90 × 145	
18000	9	4.5	40.4	90 × 171	
22000	7	3.5	46.9	90 × 196	
400 (450) 2G	1800	68	34	7.58	51 × 80
	2200	45	28	9.05	51 × 96
	2700	46	23	10.4	51 × 105
		46	23	10.5	64 × 80
	3300	38	19	12.5	51 × 130
		38	19	12.4	64 × 96
	3900	32	16	13.3	64 × 96
		28	14	15.2	64 × 115
	4700	28	14	16.3	77 × 96
		24	12	17.1	64 × 130
	5600	24	12	18.2	77 × 105
		20	10	20.5	77 × 117
	8200	18	9	23.3	77 × 130
		14	7	27.0	77 × 155
	10000	14	7	29.1	90 × 130
12		6	31.5	77 × 190	
12000	12	6	32.4	90 × 145	
	10	5	37.2	77 × 220	
15000	10	5	38.3	90 × 170	
	9	4.5	42.4	90 × 196	
450 (500) 2W	1500	112	56	7.10	51 × 80
	1800	94	47	8.03	51 × 96
	2200	78	39	9.22	51 × 105
		78	39	9.70	64 × 80
	2700	66	33	10.5	51 × 117
		66	33	10.9	64 × 96
	3300	56	28	12.1	64 × 100
		48	24	13.9	64 × 115
	3900	48	24	15.2	77 × 96
		40	20	15.5	64 × 130
	4700	40	20	16.9	77 × 105
		37	17	18.2	64 × 155
	5600	34	17	19.4	77 × 117
		28	14	21.5	77 × 130
	6800	28	14	24.3	90 × 115
24		12	24.5	77 × 155	
8200	24	12	27.5	90 × 130	
	20	10	29.2	77 × 190	
10000	20	10	30.3	90 × 145	
	17	8.5	33.4	77 × 220	
12000	17	8.5	34.6	90 × 170	
	14	6.8	39.8	90 × 196	
500 (550) 2H	1000	176	88	6.14	51 × 80
	1200	146	73	7.00	51 × 92
	1500	120	60	8.06	51 × 105
		120	60	8.15	64 × 80
	1800	102	51	9.25	51 × 117
		86	43	10.6	64 × 100
	2200	86	43	11.0	77 × 85
		72	36	12.2	64 × 115
	3300	60	30	14.1	77 × 105
		52	26	16.5	77 × 130
	4700	42	21	18.8	77 × 143
		42	21	19.2	90 × 115
	5600	38	19	21.4	90 × 130
	6800	32	16	24.6	90 × 145
	8200	26	13	28.5	90 × 170
10000	22	11	32.9	90 × 196	
12000	20	10	34.7	90 × 220	

Lifetime Diagram



Customer products are available on request.