CD137S PR SERIES

5000h at 85℃

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

CD137 PX → (Higher current) CD137S PR (Miniaturized size)

SCREW

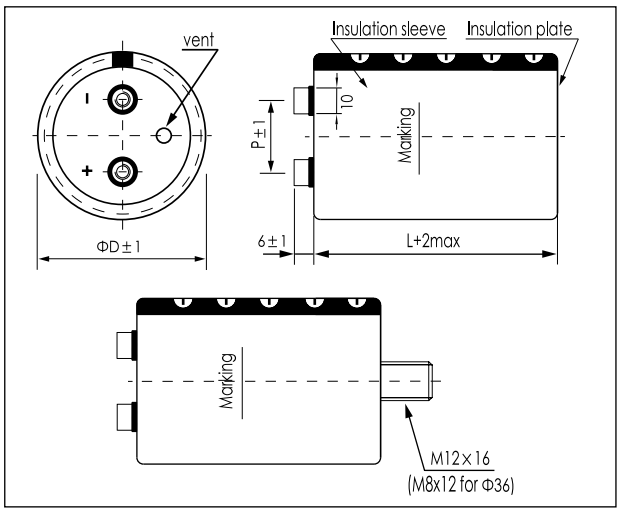
Specifications

Items	Characteristics
Operating Temperature Range	-40 ~ +85℃
Range Voltage U_R	350 ~ 500V_{dc}
Capacitance Range	1000 ~ 22000μF
Capacitance Tolerance	± 20%(M) (at 20℃ , 120Hz)
Leakage Current I_L	IL=0.01$C_R U_R$ (μA) or 5mA, whichever is smaller. (C_R : Norminal Capacitance,in μF) (at 20℃ , 5minutes)
Dissipation Factor tan δ	Less than 0.15 (at 20℃ , 120Hz)
Stability at Low Temperature	C(-25℃)/C(+20)℃≥ 0.7, C(-40℃)/C(+20)℃≥ 0.6 (at 120Hz)

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	12000h	＞ 150000h	5000h	5000h	1000h
Leakage Current I_L	Not more than specified value		Not more than specified value	Not more than specified value	Not more than specified value
Capacitance Change △C	Within ± 20% of initial value		Within ± 15% of initial value	Within ± 10% of initial value	Within ± 20% of initial value
Dissipation Factor tan δ	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:	U_R I_R 85℃	U_R 1.4 x I_R 40℃	U_R I_R 85℃	U_R 85℃	85℃

*Shelf Life 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 × 10 and M6 × 12 are standard screws.
Longer screws are available on request.
*Max tightening torque for screw terminanl M5: 3Nm, M6: 4Nm.
Max troque for bolt mounting M12: 12.5Nm.
*Screws, Bracket and cap nut will be delivered separately.
See "Accessories" for shape and dimensions.

Part Number System (Ex: 450v4700μF)

ECG 2W PR 472 M D 130 Y □

- □ : * Terminals
- Y : Mounting Style

B	Bolt Mounting
Y	3-leg Bracket
I	2-leg Bracket
N	No Bracket

- 130 : Length(130mm)
- D : Diameter Code

Diameter	Code
51mm	C
64mm	D
77mm	E
90mm	F

- M : Capacitance Tolerance(± 20%)
- 472 : Rated Capacitance(4700μF)
- PR : Series Code (CD137S)
- 2W : Rated Voltage
- ECG : Electrolytic Capacitor Screw Type

Ripple Current Coefficient

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

Ambient Temp (℃)	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 advasiable not to apply a ripple current exeeding the rated ripple current without any cooling measures as this will shorten capacitor's life.

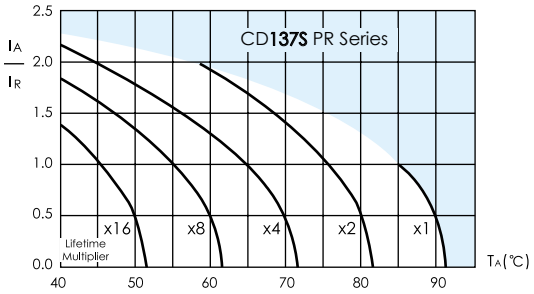
SCREW

Ratings for CD137S PR Series

U_R (Surge Voltage) Code	Rated Capacitance	Max.ESR 20℃, 120Hz	Typ ESR 20℃, 120Hz	Rated Ripple Current 85℃, 120Hz	Size ΦD x L	P/N
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-
350 (400) 2V	2200	56	28	8.38	51X80	ECG2VPR222MC080 □□
	2700	46	23	9.9	51X96	ECG2VPR272MC096 □□
	3300	40	20	11	51X105	ECG2VPR332MC105 □□
		40	20	11.4	64X80	ECG2VPR332MD080 □□
	3900	34	17	12.7	51X117	ECG2VPR392MC117 □□
		34	17	13.2	64X96	ECG2VPR392MD096 □□
	4700	28	14	14.4	64X96	ECG2VPR472MD096 □□
	5600	24	12	16.8	64X115	ECG2VPR562MD115 □□
		24	12	17.2	77X96	ECG2VPR562ME096 □□
	6800	20	10	18.8	64X130	ECG2VPR682MD130 □□
		20	10	19.5	77X105	ECG2VPR682ME105 □□
	8200	18	9	22.3	77X115	ECG2VPR822ME115 □□
	10000	14	7	28.3	90X115	ECG2VPR103MF115 □□
	12000	12	6	29.8	77X155	ECG2VPR123ME155 □□
		12	6	32	90X130	ECG2VPR123MF130 □□
	15000	10	5	36	90X145	ECG2VPR153MF145 □□
	18000	9	4.5	40.4	90X171	ECG2VPR183MF171 □□
	22000	7	3.5	46.9	90X196	ECG2VPR223MF196 □□
400 (450) 2G	1800	68	34	7.58	51X80	ECG2GPR182MC080 □□
	2200	56	28	9.05	51X96	ECG2GPR222MC096 □□
	2700	46	23	10.4	51X105	ECG2GPR272MC105 □□
		46	23	10.5	64X80	ECG2GPR272MD080 □□
	3300	38	19	12.5	51X130	ECG2GPR332MC130 □□
		38	19	12.4	64X96	ECG2GPR332MD096 □□
	3900	32	16	13.3	64X96	ECG2GPR392MD096 □□
	4700	28	14	15.2	64X115	ECG2GPR472MD115 □□
		28	14	16.3	77X96	ECG2GPR472ME096 □□
	5600	24	12	17.1	64X130	ECG2GPR562MD130 □□
		24	12	18.2	77X100	ECG2GPR562ME100 □□
	6800	20	10	20.6	77X115	ECG2GPR682ME115 □□
	8200	18	9	23.3	77X130	ECG2GPR822ME130 □□
	10000	14	7	27	77X155	ECG2GPR103ME155 □□
		14	7	29.1	90X130	ECG2GPR103MF130 □□
	12000	12	6	31.5	77X190	ECG2GPR123ME190 □□
		12	6	32.4	90X145	ECG2GPR123MF145 □□
	15000	10	5	37.2	77X220	ECG2GPR153ME220 □□
		10	5	38.3	90X170	ECG2GPR153MF170 □□
	18000	9	4.5	42.4	90X196	ECG2GPR183MF196 □□
450 (500) 2W	1500	112	56	7.1	51X80	ECG2WPR152MC080 □□
	1800	94	47	8.03	51X96	ECG2WPR182MC096 □□
	2200	78	39	9.22	51X105	ECG2WPR222MC105 □□
		78	39	9.7	64X80	ECG2WPR222MD080 □□
	2700	66	33	10.5	51X117	ECG2WPR272MC117 □□
		66	33	10.9	64X96	ECG2WPR272MD096 □□
	3300	56	28	12.1	64X100	ECG2WPR332MD100 □□
	3900	48	24	13.9	64X115	ECG2WPR392MD115 □□
		48	24	15.2	77X96	ECG2WPR392ME096 □□
	4700	40	20	15.5	64X130	ECG2WPR472MD130 □□
		40	20	16.9	77X105	ECG2WPR472ME105 □□
	5600	34	17	18.2	64X155	ECG2WPR562MD155 □□
		34	17	19.4	77X115	ECG2WPR562ME115 □□
	6800	28	14	21.5	77X130	ECG2WPR682ME130 □□
		28	14	24.3	90X115	ECG2WPR682MF115 □□
	8200	24	12	24.5	77X155	ECG2WPR822ME155 □□
		24	12	27.5	90X130	ECG2WPR822MF130 □□
	10000	20	10	29.2	77X190	ECG2WPR103ME190 □□
		20	10	30.3	90X145	ECG2WPR103MF145 □□
	12000	17	8.5	33.4	77X220	ECG2WPR123ME220 □□
		17	8.5	34.6	90X170	ECG2WPR123MF170 □□
	15000	14	6.8	39.8	90X196	ECG2WPR153MF196 □□
500 (550) 2H	1000	176	88	6.14	51X80	ECG2HPR102MC080 □□
	1200	146	73	7	51X92	ECG2HPR122MC092 □□
	1500	120	60	8.06	51X105	ECG2HPR152MC105 □□
		120	60	8.15	64X80	ECG2HPR152MD080 □□
	1800	102	51	9.25	51X117	ECG2HPR182MC117 □□
	2200	86	43	10.6	64X100	ECG2HPR222MD100 □□
		86	43	11	77X85	ECG2HPR222ME085 □□
	2700	72	36	12.2	64X115	ECG2HPR272MD115 □□
	3300	60	30	14.1	77X105	ECG2HPR332ME105 □□
	3900	52	26	16.5	77X130	ECG2HPR392ME130 □□
	4700	42	21	18.8	77X143	ECG2HPR472ME143 □□
		42	21	19.2	90X115	ECG2HPR472MF105 □□
	5600	38	19	21.4	90X130	ECG2HPR562MF130 □□
	6800	32	16	24.6	90X145	ECG2HPR682MF145 □□
	8200	26	13	28.5	90X170	ECG2HPR822MF170 □□
	10000	22	11	32.9	90X196	ECG2HPR103MF196 □□
	12000	20	10	34.7	90X220	ECG2HPR123MF220 □□

Customer products are availabel on request.

Lifetime Diagram



I_A = Actual ripple current at 120Hz;
I_R = Rated ripple current at 120Hz, 85℃;
T_A = Ambient temperature