

10000h at 85°C

- Features
 - Higher ripple current
 - Long useful life & High Reliability
 - RoHS Compliant
- Applications
 - For Professional Power application and Inverters



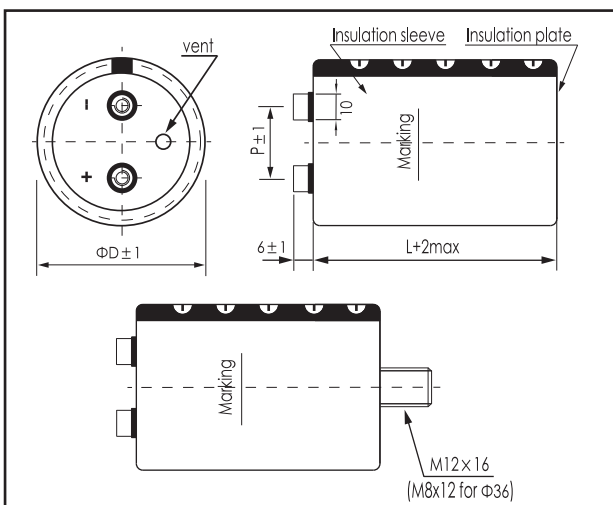
SCREW

Items	Characteristics
Operating Temperature Range (°C)	-40 ~ +85
Voltage Range (V)	350 ~ 500
Capacitance Range (µF)	1500 ~ 12000
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)	$C_{-25°C} / C_{+20°C} \geq 0.7$

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	15000h	>250000h	10000h	12000h	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 ± 30% of initial value		Within ± 20% of initial value	Within ± 10% of initial value	Within ± 20% of initial value
Dissipation Factor	Not more than 300% of specified value		Not more than 200% 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 $1.2 \times I_R$ 40°C	U_R I_R 85°C	U_R $I_R = 0$ 85°C	After test: U_R to be applied for 60min $I_R = 0$ >24h before measurement

Dimensions

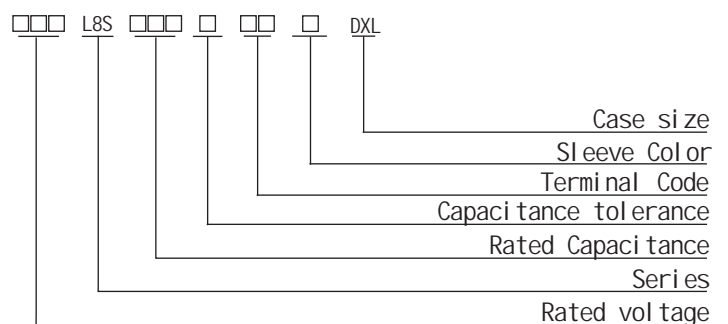
mm



ΦD/mm	51	64	77	90	101
P/mm	22.0	28.2	31.4	31.4	41.5

*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" for shape and dimensions.

Part Number System



Ripple Current Coefficient

Frequency (Hz)	50/60	120	300	1k	>10k
Coefficient	0.80	1.00	1.10	1.30	1.40

Ambient Temp (°C)	40	60	85
Coefficient	1.89	1.67	1.00

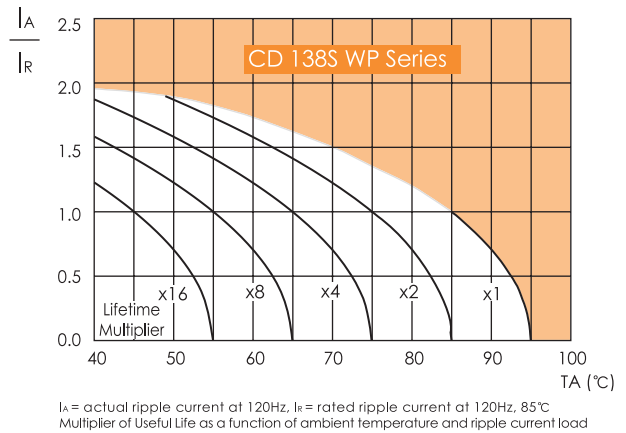
The useful life can be prolonged by operating capacitor at loads below the rated values (e.g. lower operating voltage, Rms ripple current or ambient temperature) and by appropriate cooling measures.
 It is advisable not to apply a ripple current exceeding the rated ripple current without any cooling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

Ratings for CD 138S Series

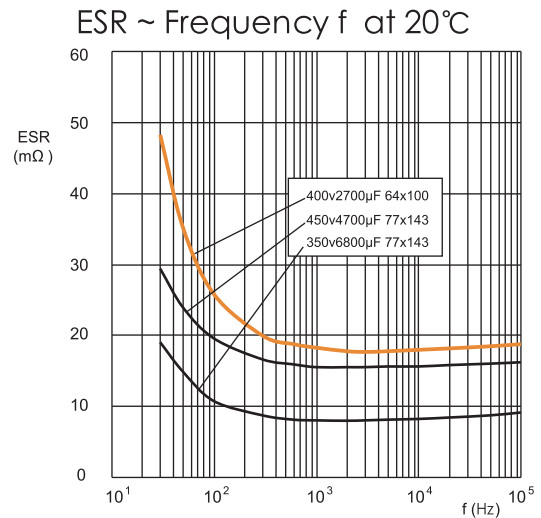
U_R (Surge Voltage) Code	Rated Capacitance	Max.ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size $\Phi D \times L$
(V)	(μF)	(m Ω)	(m Ω)	(Arms)	(mm)
350 (400) 2V	3900	50	25	14.6	64×96
	4700	40	20	16.9	64×115
	5600	34	17	19.8	64×130
	5600	34	17	21.6	77×115
	6800	28	14	25.0	77×143
	6800	28	14	26.2	90×105
	8200	24	12	29.3	77×143
	8200	24	12	30.1	77×155
	10000	18	9	35.7	90×157
12000	16	8	39.1	90×157	
400 (450) 2G	2700	76	38	11.5	64×96
	3300	60	30	14.2	64×115
	3900	52	26	16.5	64×115
	3900	52	26	17.2	77×105
	4700	42	21	18.1	64×130
	4700	42	21	20.8	77×115
	5600	36	18	22.7	77×130
	5600	36	18	23.8	90×105
	6800	30	15	26.6	77×155
	6800	30	15	27.4	90×130
8200	24	12	32.2	90×157	
10000	20	10	35.7	90×157	
450 (500) 2W	2200	92	46	10.4	64×96
	2200	92	46	11.5	77×80
	2700	76	38	12.8	64×115
	3300	60	30	15.2	64×130
	3300	60	30	15.8	77×105
	3900	54	27	16.5	64×130
	3900	54	27	18.0	77×115
	4700	42	21	20.8	77×143
	4700	42	21	21.8	90×105
	5600	36	18	24.2	77×143
	5600	36	18	24.9	90×130
	6800	30	15	29.4	90×157
8200	24	12	32.2	90×157	
10000	20	10	36.9	90×171	
500 (550) 2H	1500	148	74	8.6	64×96
	1800	132	62	10.0	64×115
	2200	102	51	11.7	64×130
	2700	82	41	15.0	77×115
	3300	68	34	17.5	77×130
	3900	58	29	20.2	77×143
	4700	48	24	21.8	90×130
	5600	40	20	25.3	90×157
6800	32	16	29.0	90×171	

Mounting code(" B" for bolt mounting, "Y/I/N" for bracket mounting)
Terminal options(A,B,C see "Dimensions" for details.)

Lifetime Diagram



Typical Curves



Impedance Z ~ Frequency f at 20°C

