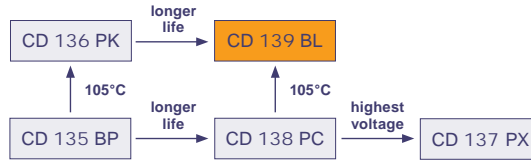


9000h at 105°C

- Longest Life at 105°C
- Highest Professional Power Application



Item	Characteristics
Operating Temperature Range (°C)	-40 ~ +105
Voltage Range (V)	350 ~ 450
Capacitance Range (µF)	1000 ~ 15000
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

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	9000h	>200000h	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
Capacity 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	U_R	U_R	U_R	U_R	$U_R = 0$
Applied Current	I_R	$1,4 \times I_R$	I_R	$I_R = 0$	$I_R = 0$
Applied Temperature	105°C	50°C	105°C	105°C	105°C
Failure Rate Level	≤ 1% Failure Rate	≤ 1% Failure Rate	guaranteed		After test: U_R to be applied for 30min >24h before measurement

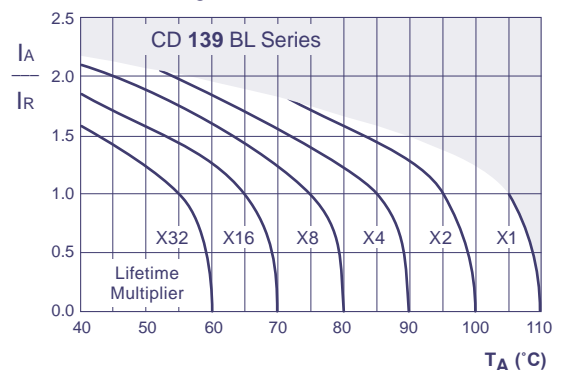
Screw

Multiplier for Ripple Current

Frequency Coefficient

Frequency	50Hz	120Hz	300Hz	1kHz	≥10kHz
Coefficient	0,80	1,00	1,10	1,30	1,40

Lifetime Diagram



I_A = actual ripple current at 120Hz, I_R = rated ripple current at 120Hz, 105°C
Multiplier of Useful Life as a function of ambient temperature and ripple current load

Ratings for CD 139 BL Series

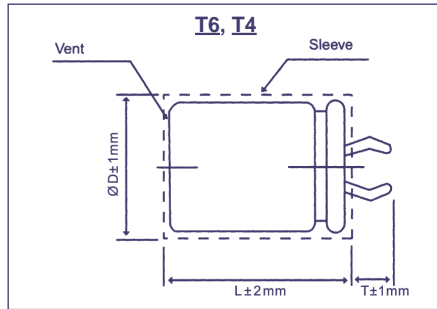
V _{DC} (Surge Voltage) Code	Rated Capa- citan- ce	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Max Ripple Current 105°C, 120Hz	Size Ø D x L
(V)	(µF)	(mΩ)	(mΩ)	(mArms)	(mm)
350 (400) 2V	1000	259	69	3,9	51 x 75
	1200	215	65	4,2	51 x 75
	1500	172	55	5,2	51 x 96
	1800	143	43	5,7	51 x 96
	2200	117	30	7,1	51 x 130
	2700	96	27	7,7	64 x 96
	3300	78	23	9,1	64 x 115
	3900	66	19	10,4	64 x 130
	4700	55	16	12,2	64 x 155
		55	14	11,5	77 x 115
	5600	46	14	14,6	64 x 195
		46	12	13,1	77 x 130
	6800	38	13	15,5	77 x 155
	8200	31	11	18,1	90 x 157
	10000	26	10	19,9	90 x 157
12000	22	8	23,8	90 x 196	
15000	17	6	28,8	90 x 236	
400 (450) 2G	1000	215	70	3,9	51 x 75
	1200	179	64	4,6	51 x 96
	1500	143	54	5,6	51 x 115
	1800	119	43	6,4	51 x 130
	2200	98	41	6,9	64 x 96
	2700	80	38	8,2	64 x 115
	3300	65	29	9,5	64 x 130
	3900	55	28	11,1	64 x 155
		55	25	10,4	77 x 115
	4700	46	20	13,4	64 x 195
		46	22	12,0	77 x 130
	5600	39	19	14,6	64 x 195
		39	19	14,0	77 x 155
	6800	32	17	16,5	90 x 157
	8200	26	15	18,1	90 x 157
10000	22	12	21,7	90 x 196	
12000	18	8	25,8	90 x 236	
450 (500) 2W	1000	215	70	4,2	51 x 96
	1200	179	66	5,0	51 x 115
	1500	143	54	5,9	51 x 130
	1800	119	44	6,3	64 x 96
	2200	98	42	7,4	64 x 115
	2700	80	40	8,6	64 x 130
		80	42	8,7	77 x 115
	3300	65	31	10,2	64 x 155
		65	35	10,1	77 x 130
	3900	55	28	12,3	64 x 195
	4700	46	25	12,9	77 x 155
	5600	38	22	15,4	77 x 195
		38	24	14,9	90 x 157
	6800	32	21	18,0	90 x 196
	8200	27	18	19,8	90 x 196
10000	22	16	23,6	90 x 236	

Screw

Custom products are available on request.

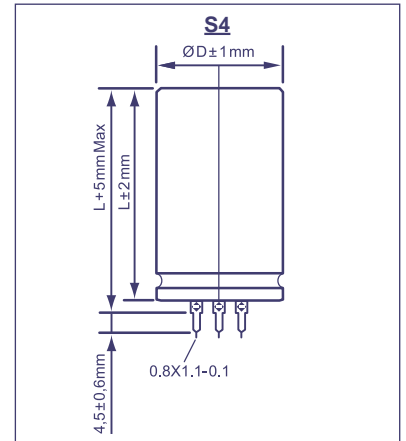
Technical Specification Snap-In Type

Pin Type: Snap-In
Order Code: T6, T4

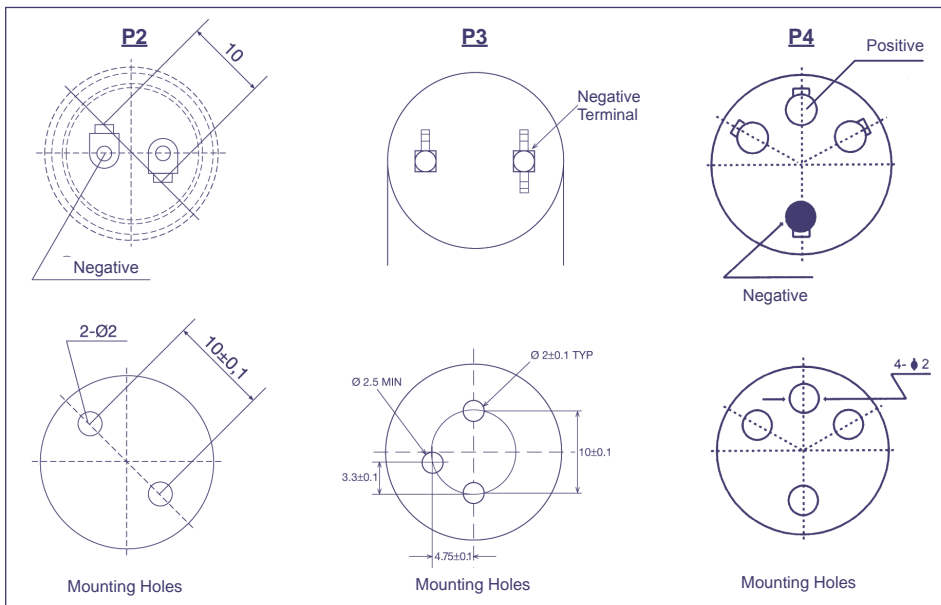


Terminal	T6	T4
Pin Length T	6,3	4,0

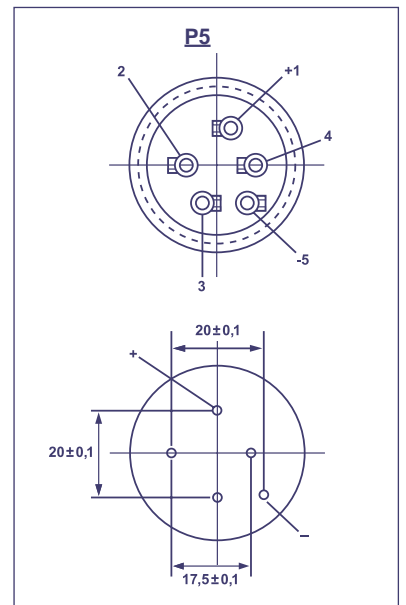
Pin Type: Soldering
Order Code: S4



Snap-In Terminal
Order Code: P2, P3, P4



Soldering Terminal
Order Code: P5



P3 only T4 Terminal

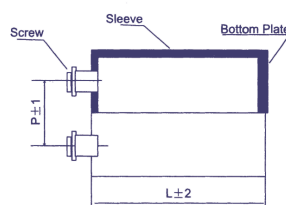
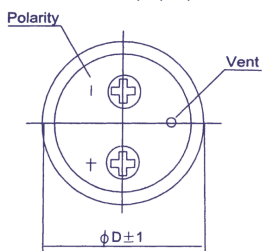
Order Code Screw Type

EC	G	1C	BP	101	M	B	E	160	A361	JExxxxx
Technology	Terminal Type	Rated Voltage Code	Series Code	Capacitance Code	Capacitance Tolerance	Mounting	Diameter	Length	For Terminal Code see tables below	for Specials only
EC = Electrolytic Capacitor	Screw = G	For coding please refer to the pages of ratings	CD 135 = BP	100 = 101	±20% = M	Bolt = B	36 = A	53 = 053		
			CD 136 = PK	1000 = 102	±10% = K	No double sleeve = N	40 = B	65 = 065		
			CD 137 = PX	10000 = 103	+30 / -10% = Q	2 stoppers bracket+double sleeve* = I	51 = C	96 = 096		
			CD 138 = PC		+20 / -0% = R	3 stoppers bracket+double sleeve* = Y	64 = D	100 = 100		
			CD 139 = BL		+50 / -10% = T	No bracket, but double sleeve* = D	77 = E	115 = 115		
				preferred	* Double sleeve for diameter ≥ 51 only		90 = F	236 = 236		
							101 = G			

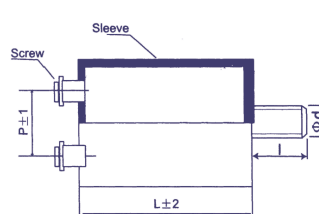
Technical Specification Screw Type

Dimensions

Standard Housing
Order Code: I, Y, D, N



Bolt Housing
Order Code: B



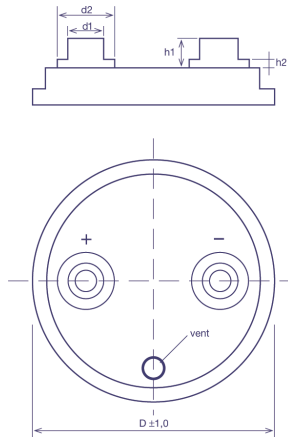
Ø D	Ø d	l
Ø 36	M8	12
≥ Ø 51	M12	16

in mm

Terminal Form

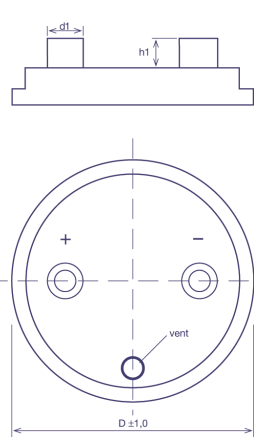
Terminal A

Order Code: AXXX



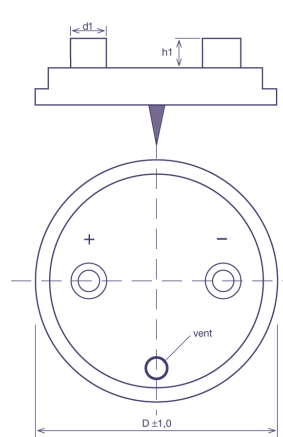
Terminal B

Order Code: BXXX



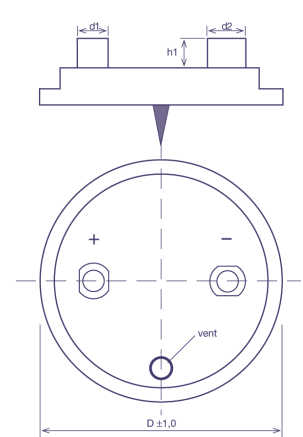
Terminal C

Order Code: CXXX



Terminal D

Order Code: DXXX



Tolerances of d1, d2, h1, h2 : +/- 0,3 mm

Code	ØD	Screw	Pitch P	d1	d2	h1	h2
A361	36	M5	12,7	8	11	6,8	1,8
A362	36	10 - 32	12,7	8	11	6,8	1,8
A511	51	M5	21,8	10	13	6,8	1,8
D551	55	M5	21,8	10	13	5,5	0
A641	64	M5	28,2	10	15,5	6,8	1,8
A642	64	M5	28,2	15	20	7,3	3,5
A643	64	1/4 - 28	28,2	15	20	7,3	3,5
B641	64	1/4 - 28	28,2	17,2	0	6,4	0
D641	64	M5	28,2	13,0	15,0	7,14	0
A771	77	M5	31,4	10	15,5	6,3	1,3
A772	77	M6	31,4	10	15,5	6,3	1,3
B771	77	M6	31,4	17,2	0	3,17	0

Code	ØD	Screw	Pitch P	d1	d2	h1	h2
B772	77	M6	31,4	17,2	0	6,4	0
B773	77	M8	31,4	17,2	0	3,17	0
B774	77	M5	31,4	17,2	0	6,4	0
C771	77	M5	31,4	17,2	0	3,5	0
C772	77	M6	31,4	17,2	0	3,5	0
C773	77	M5	31,4	17,2	0	5,5	0
C774	77	M5	31,4	17,2	0	6,4	0
A901	90	M5	31,4	10	15,5	6,3	1,3
A902	90	M6	31,4	10	15,5	6,3	1,3
B901	90	M6	31,4	17,2	0	6,4	0
B902	90	M5	31,4	17,2	0	6,4	0
A101	101	M8	41,5	21,5	17,2	11,0	6,0

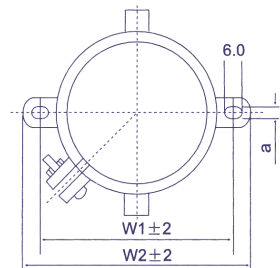
preferred, other forms on request

in mm

Bracket Mounting

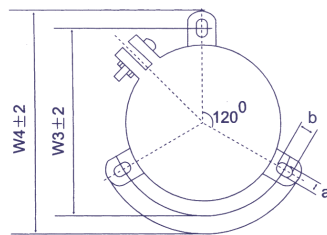
I-Type

Ø D 36-90



Y-Type

Ø D 51-101



Ø D	W1	W2	W3	W4	a	b
36	48,0	58,0	-	-	3,5	-
51	68,0	80,0	63,5	73,0	4,5	7,0
64	81,0	93,0	76,2	85,1	4,5	7,0
77	93,5	106,0	88,9	98,4	4,5	7,0
90	108,0	120,5	101,6	111,1	4,5	7,0
101	-	-	115,0	127,0	5,0	8,0

preferred

in mm

Height of brackets: ~30mm

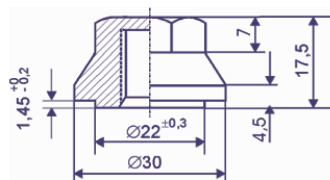
Terminal Detail



Screw Definition

Hexagon-Head	M5x10
Hexagon-Head	M6x12
Hexagon-Head	M8x16

Accessories for Bolt Mounting



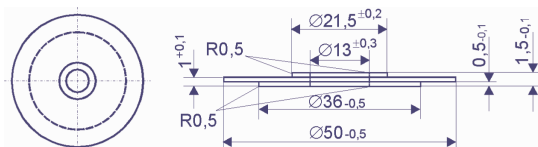
Cap Nut

Order Code: CNN30M12

Insulation Washer

Order Code: K100-ISO-50

Ø D 51, 64



Insulation Washer

Order Code: K100-ISO-77

Ø D 77, 90

