

DATASHEET 3.0V CELL ST SERIES



PRODUCT CODES	CTC 0XXX0C0 0003V0 ST00
DATASHEET VERSION	V2020-0 of 16/10/2020

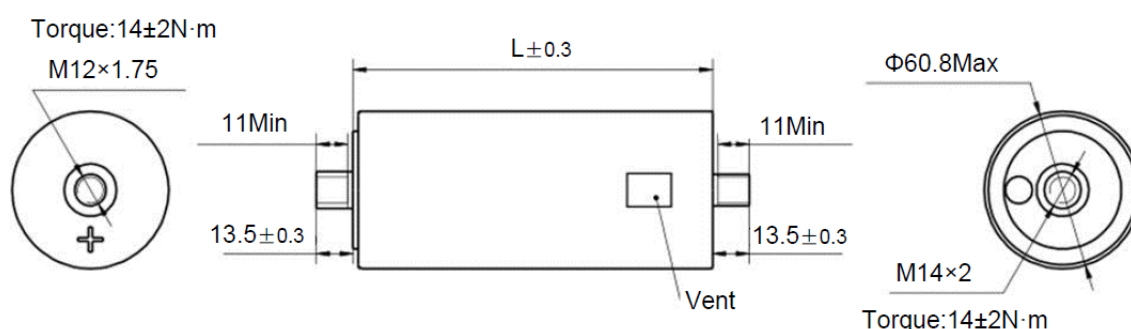
CapTop 3V ST Supercapacitor Cell family has low ESR & high Power Density, over 1,000,000 duty cycles and low maintenance needs. Suitable for applications like EV/HEV, hybrid drive trains, heavy duty machinery, locomotive engine startup system, mass transportation braking energy recovery system and wherever high power is required for short time. The complete 3V cell series ranges from 650 F to 5000 F and can be provided with external thread terminal.

CONSTRUCTION & DIMENSIONS

1) Construction

Inside structure: fold anode and cathode electrode with separator
Outer structure: aluminum case, insulating sleeve

2) Dimensions



Cap/F	L/mm
650	51.1
1200	74
1500	85
2000	102
3000	138
5000	203

SPECIFICATIONS	
Items	Characteristics
Operating Voltage	3.0V DC
Surge Voltage	3.15V DC
Operating Temperature Range	-40°C to 65°C
Capacitance Tolerance	0% a +20% (25°C)
Temperature Performance (-40°C to 65°C)	$\Delta C \leq 5\%$ of rated value @ 25°C $\Delta ESR \leq 50\%$ of rated value
Life (1,500 hours @65°C, 2.7V DC)	$\Delta C \leq 20\%$ of rated value $\Delta ESR \leq 100\%$ of rated value
Cycle life (1,000,000 cycles between VR and 1/2VR)	$\Delta C \leq 20\%$ of rated value $\Delta ESR \leq 100\%$ of rated value

STANDARD PRODUCTS											
CAP (F)	Product Code	ESR (mΩ)		LC (72h @ RT, mA)	Max. Energy Stored (Wh)	Max. Energy Density (Wh/Kg)	Max. Continuous Current (15°/40°C,A)	Max. Peak Current (A)	Typical Thermal Resistance (°C /W)	Typical Thermal Capacitance (Cth, J/°C)	Typical Mass (g)
		AC@ 1kHz Max.	DC Max.								
650	CTC 00650C0 0003VO ST00	0.57	0.61	3.5	0.8	4.2	62/101	723	6.3	229	194
1,200	CTC 01200C0 0003VO ST00	0.33	0.44	4.8	1.5	5.7	82/135	1,196	4.9	302	265
1,500	CTC 01500C0 0003VO ST00	0.27	0.36	5.8	1.9	6.1	96/157	1,486	4.5	348	309
2,000	CTC 02000C0 0003VO ST00	0.20	0.27	6.7	2.5	6.8	119/195	1,988	3.9	421	366
3,000	CTC 03000C0 0003VO ST00	0.18	0.22	10.0	3.8	7.6	148/242	2,711	3.1	586	496
5,000	CTC 05000C0 0003VO ST00	0.17	0.21	25.0	6.3	8.6	178/291	3,521	2.2	852	724

*All values are provisional and may vary

Product dimensions are for reference only unless otherwise identified.
 Product dimensions and specifications may change without notice.
 Product complies to the following certification requirements:



Version	Date	Revision History
V2020-0	16/10/2020	Original Version

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