

SECH with its high performance and ultra-low internal resistance Ultracapacitor designs, develops and supplies customized energy storage and power delivery solutions for various applications and markets.

Our single cell ultracapacitors, the standard modules and customized systems are characterized by **high energy** and **very high-power density**.



**Ultracapacitor** cells  
3V – 3F up to 100F  
3V – 330F up to 3000F



Standard **modules**  
e.g. 12V, 18V, 54V up to 174V



Customized **systems**  
and **solutions**

### Key features of our products

- State-of-the-art 3V cell voltage and ultra-low ESR
- 35mm, 46mm & 60mm
  - Laser welded connections for highest quality and robustness
  - Optimal thermal behaviour, ideal for heavy duty cycling
  - Hermetically sealed cells for longest life
- Small cell
  - Excellent DC life performance and wetting proof design

### Selection of ultracapacitor cells

Other types and detailed values see datasheet on our website

CELL TYPE	SMALL CELL		35MM		46MM		60MM
Type	C10S-3R0-0005	C18S-3R0-0050	C35S-3R0-0330	C35S-3R0-0360	C46W-3R0-0600	C46W-3R0-1100	C-35S-3R0-3000
Rated Voltage $V_R$	3.00 V						
Rated capacitance C	10 F	50 F	330 F	360 F	600 F	1100 F	3000 F
ESR*	39 mΩ	13 mΩ	<1.2 mΩ	<2 mΩ	<0.7 mΩ	<0.55 mΩ	<0.28 mΩ
Leakage current $I_L$	<0.45 mA	<0.45 mA	1 mA	1 mA	<3 mA	<5 mA	<12 mA
Self-discharge rate	<20%	<20%	<20%	<20%	<20%	<20%	<20%
Max constant working current IMCC $\Delta T=15^\circ C?$	33 A	25 A	33 A	25 A	52 A	65 A	130 A
Energy storage E	0.4 Wh	0.45 Wh	0.4 Wh	0.45 Wh	0.75 Wh	1.37 Wh	3.75 Wh
Energy density $E_d$	10.9 kW/kg	8.3 kW/kg	5.9 Wh/kg	6.3 Wh/kg	5.5 Wh/kg	6.8 Wh/kg	7.8 Wh/kg