

## Carbon-based Power Capacitor Specifications



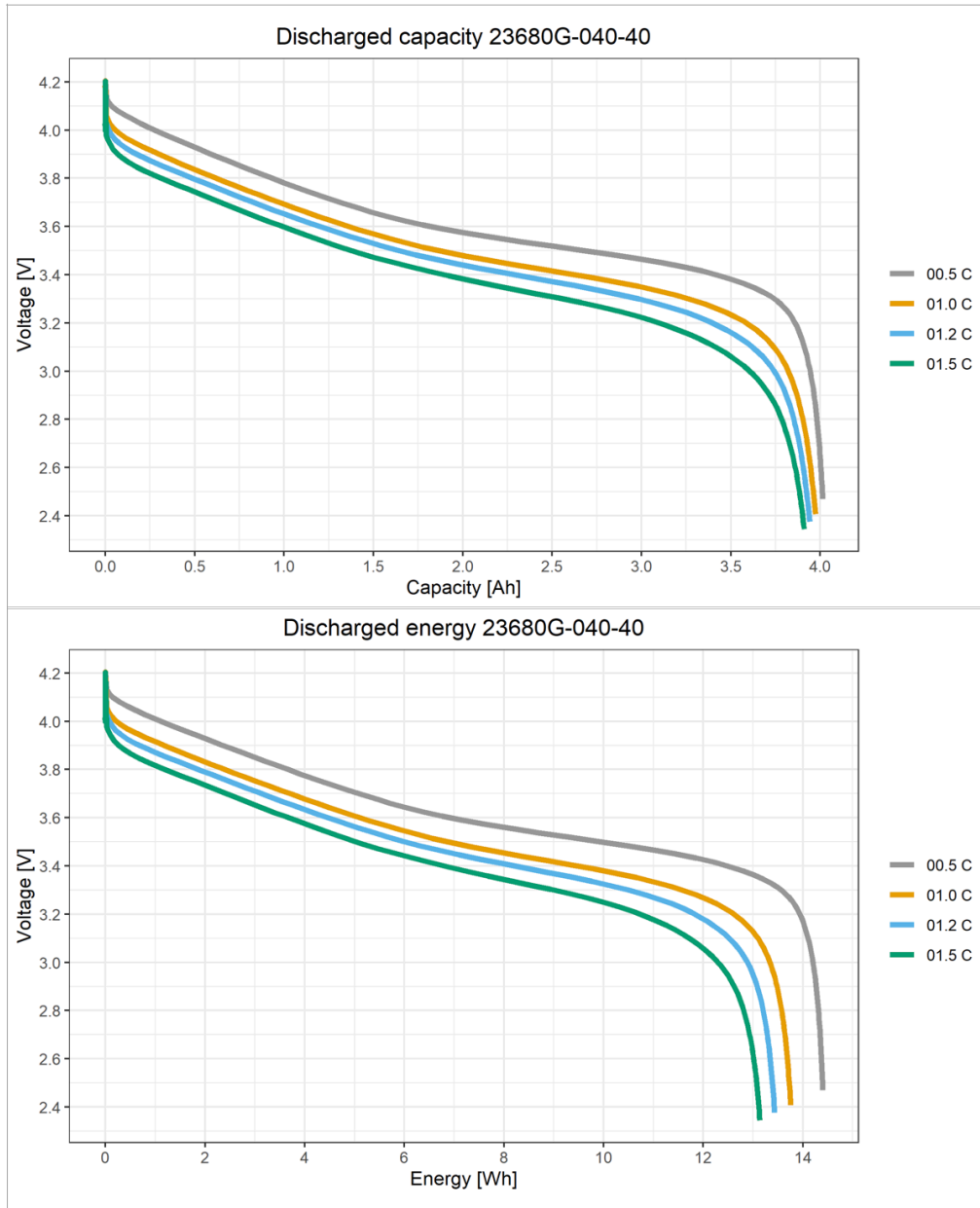
	23680G-040-4 0	
Nominal capacity (discharged with standard profile <1C) ± 5%	4,00	Ah
Nominal energy (discharging @1C till cut-off)	13,8	Wh
Nominal voltage	4,00	V
Recommended cut-off voltage @ 1C	2,50	V
Max. recommended charging voltage **	4,20	V
Max. float charging voltage **	4,00	V
Rated capacity (discharging 50% max current till cut-off voltage)	3,90	Ah
Rated energy (discharged 50% max. current until the cut-off voltage) (cell)	13,0	Wh
Max. C-rate charging *** (cell)	1,25	C
Max. C-rate discharging *** (cell)	1,5	C
Recommended Depth of Discharge	96	%
Max. continuous charging current *** (cell)	5,00	A
Max. continuous discharging current *** (cell)	6,00	A
Max. sustained power capability *** (cell)	24,0	W
Ohmic Resistance Ri (@50% SoC)	≤ 32	mΩ
Gravimetric energy density (cells) (@1C)	197	Wh/kg
Volumetric energy density (cells) (@1C)	464	Wh/dm <sup>3</sup>
Gravimetric power density (cells) @ max. C-rate	343	W/kg
Cycles life at 25°C	> 10.000	cycles
Dimensions of cell	23,6∅ x 68H	mm
Recommended transportation voltage	3,50	V
Recommended storage voltage	3,50	V
Operation temperature ***	-30 to +70 °C	°C
Storage temperature	-20 to +45 °C	°C
Energy leakage 30 days at 25°C/80%SoC	< 1	%
Short circuit temperature	< 150	°C
Weight of cells	70	g
Guarantee period (manufacturing)	12	months
Fire Hazardous substances: Cells do not pose a fire or explosion risk.		

\* Custom designed. Specifications might deviate.

\*\* Cell damage possible outside these margins

\*\*\* Max. C-rating of powerpack is limited by selected cable and connector parameters and can be lower than theoretical maximum derived from cell parameters  
The operating temperature must take into account cell heating resulting from load profile.  
C-rates can be higher than maximum for a short duration. Contact Altreonic case by case.

## Graphs as tested on a specific cell



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