

## Preliminary

### Carbon-based Power Capacitor Specifications



	300175Y-099-4 2	
Nominal capacity (discharged with standard profile <1C) $\pm$ 5%	9,90	Ah
Nominal energy (discharging @1C till cut-off)	33,0	Wh
Nominal voltage	4,00	V
Recommended cut-off voltage @ 1C	2,50	V
Max. recommended charging voltage **	4,20	V
Rated capacity (discharging 50% max current till cut-off voltage)	9,00	Ah
Rated energy (discharged 50% max. current until the cut-off voltage) (cell)	30,0	Wh
Max. C-rate charging *** (cell)	3	C
Max. C-rate discharging *** (cell)	10	C
Max. continuous charging current *** (cell)	29,7	A
Max. continuous discharging current *** (cell)	99,0	A
Max. sustained power capability *** (cell)	49,5	W
Ohmic Resistance Ri (@50% SoC)	$\leq$ 1	m $\Omega$
Gravimetric energy density (cells) (@1C)	97,1	Wh/kg
Volumetric energy density (cells) (@1C)	13,3	Wh/dm <sup>3</sup>
Gravimetric power density (cells) @ max. C-rate	1.165	W/kg
Cycles life at 25°C	> 10.000	cycles
Dimensions of cell	300 x 175 x 60	mm
Recommended transportation voltage	3,50	V
Recommended storage voltage	4,00	V
Operation temperature	-40 to +80	°C
Storage temperature	-20 to +45	°C
Retained energy after 28 days at 25°C	92	%
Short circuit temperature	< 150	°C
Weight of cells	340	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.

C-rates can be higher than maximum for a short duration. Contact Altreonic case by case.

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