

**Preliminary: 60140Y-180-40****Carbon-based Power Capacitor Specifications**

	21700Y-022-40	21700Y-024-40	60140Y-180-40	
Nominal capacity (discharged with standard profile <1C) ± 5%	2,20	2,40	18,0	Ah
Nominal energy (discharging @1C till cut-off)	6,90	8,40	65,0	Wh
Nominal voltage	4,00	4,00	4,00	V
Recommended cut-off voltage @ 1C	2,50	2,50	2,50	V
Max. recommended charging voltage **	4,20	4,20	4,20	V
Rated capacity (discharging 50% max current till cut-off voltage)	2,00	2,30	17,9	Ah
Rated energy (discharged 50% max. current until the cut-off voltage) (cell)	6,30	7,75	61,5	Wh
Max. C-rate charging *** (cell)	10,0	10,0	10,0	C
Max. C-rate discharging *** (cell)	10,0	10,0	10,0	C
Max. continuous charging current *** (cell)	22,0	24,0	180	A
Max. continuous discharging current *** (cell)	22,0	24,0	180	A
Max. sustained power capability *** (cell)	11,0	12,0	576	W
Ohmic Resistance Ri (@50% SoC)	10,0	8,00	2,00	mΩ
Gravimetric energy density (cells) (@1C)	111	129	73,9	Wh/kg
Volumetric energy density (cells) (@1C)	261	317	164	Wh/dm <sup>3</sup>
Gravimetric power density (cells) @ max. C-rate	1.419	1.477	818	W/kg
Cycles life at 25°C	20.000	20.000	10.000	cycles
Dimensions of cell	21,7ø x 71,6H	21,7ø x 71,6H	60ø x 140H	mm
Recommended transportation voltage	3,50	3,50	3,50	V
Recommended storage voltage	4,00	4,00	4,00	V
Operation temperature	-35 to +80	-35 to +80	-40 to +80	°C
Storage temperature	-20 to +45	-20 to +45	-20 to +45	°C
Retained energy after 28 days at 25°C	92,0	92,0	92,0	%
Short circuit temperature	< 150	< 150	< 150	°C
Weight of cells	62,0	65,0	880	g
Guarantee period (manufacturing)	12,0	12,0	12,0	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.