

**- Datasheet TMDD/25.0/50.0/18650**

<b>Carbon based Power Capacitors Cell Specifications. *</b>		
<b>Power Pack</b>	<b>TMDD25,0/50,0/18650</b>	
<b>Cell type: 18650, 20 S, 20 P, Rectangular</b>	<b>Nb of cells</b>	<b>400</b>
<b>Dimension est. mm: L= 497, W= 386, H= 203</b>		
<b>Item</b>	<b>Unit</b>	
Nominal capacity (discharged with the standard profile (<1C))	Ah	25,0
Capacitance	F	3.300,0
Tolerance	%	5,0
Rated capacity (discharged at 50% max current until the cut-off voltage is reached)	Ah	24,00
Nominal energy (discharged with standard profile (<1C))	kWh	1,40
Rated energy (discharged at 50% max. current until the cut-off voltage is reached)	kWh	1,20
Nominal voltage	V	50,0
Charge mode - constant potential		
Max. allowable charging voltage**	V	52,0
Discharging cut-off voltage **	V	32,0
Max. continuous charging current	A	390,0
Max. continuous discharging current	A	390,0
C Rating powerpack	C	20
Max. continuous current	A	500
Allowable pulse discharging current <200 ms	A	2.000,0
Max. sustained power capability	kW	19,5
Max. pulse power capability <200 ms	kW	100,0
Max. internal resistance	mOhm	13,0
Recommended transportation voltage	V	48
Recommended storage voltage	V	48
Min. operation temperature	°C	-40
Max. operation temperature	°C	80
Min. storage temperature	°C	-5
Max. storage temperature	°C	35
Max. storage humidity	RH %	85
Gravimetric energy density	Wh/kg	80,0
Volumetric energy density	Wh/dm <sup>3</sup>	180,0
Power density	W/kg	1.500,0

Pulse power density (200 ms)	W/kg	4.000,0
Cycles life (charge/discharge till 75%)		50.000
Retained energy after 28 days	%	95
Short circuit temperature	°C	< 150
Guarantee period (manufacturing)	months	12
Volume powerpack	dm <sup>3</sup>	38,9
Volume naked cells	dm <sup>3</sup>	6,6
Total volume "silicon"	dm <sup>3</sup>	32,3
Weight of cells	kg	15,6
Weight PCB/insulat/cable (est.)	kg	0,8
Type of silicon		None
Weight of silicon (est.)	kg	0,0
Type of metal		Steel
Weight of metal (est.)	kg	0,0
Weight of powerpack (est.)	kg	16,4
Thermal heat at nominal current	W	8,1
Thermal heat at 50% max current	W	494,3
Fire Hazardous substances: Cells does not pose a fire or explosion risk.		
* Custom designed. specifications might deviate.		
** Cell damage possible outside these margins		