UltraCap®

Module
100 F/ 42 V

Series/Type:
Ordering code: **B48621A7105Q018**
Date: March 2005

Features

- Screw terminal M8 × 15 (plus), M10 × 15 (minus)
- Active cell voltage balancing
- Case material polyethylene, black
- Power type
- 18 serial single cells of 1800 F
- Maintenance-free
- Short-circuit-proof
- Low ESR due to laser-welded interconnections

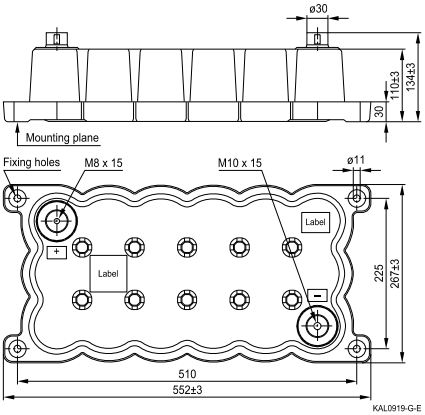
Options

- Passive cell voltage balancing (by resistor)

Note

- Please pay attention to the safety, transport and waste disposal instructions in chapter "Cautions".

Dimensional drawing



Dimensions in mm

Electrical specifications

Rated capacitance	(T_A = 25 °C; DCC) [1]	C_R	100	F
Tolerance of C_R			−10/+30	%
Rated voltage	(T_A = 25 °C)	V_R	42	V
Capacity			1200	mAh
Specific power	(IEC 62391-2)		1.5	kW/kg
Specific power	(IEC 62391-2)		1.4	kW/l
Stored energy	($V = V_R$)	E	88200	J
Specific energy	($V = V_R$)		1.9	Wh/kg
Specific energy	($V = V_R$)		1.8	Wh/l
Surge voltage		V_{surge}	48	V
Maximum series resistance	(T_A = 25 °C; 1 kHz)	ESR	6.0	mΩ
Maximum series resistance	(T_A = 25 °C; 50 mHz)	ESR_{DC}	11.0	mΩ
Weight			13.0	kg
Volume			14.0	l
Operating temperature range		T_{op}	−30/+70	°C
Storage temperature	(V = 0 V)	T_{st}	−40/+70	°C
Lifetime (hours) [2]	(T_A = 25 °C; $V = V_R$)		90000	h
Lifetime (cycles) [3]	(T_A = 25 °C; I = 75 A)		500000	cycles

1) DCC: discharging with constant current.

2) Requirements: $|\Delta C/C_R| \leq 30\%$, ESR ≤ 2 times of specified limit, I_{leak} ≤ 2 times of initial value.

3) Requirements: $|\Delta C/C_R| \leq 30\%$, ESR ≤ 2 times of specified limit, I_{leak} ≤ 2 times of initial value (1 cycle: charging to V_R, 30 s rest, discharging to $V_R/2$, 30 s rest).