



UltraCap[®]

Module
100 F/ 42 V

Series/Type:

Ordering code: B48621A7105Q018

Date: March 2005

© EPCOS AG 2005. Reproduction, publication and dissemination of this data sheet, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited.

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

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

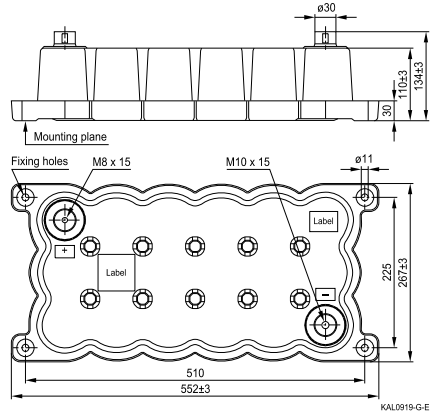
Options

- 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	($T_A = 25\text{ °C}$; DCC) ¹⁾	C_R	100	F
Tolerance of C_R			-10/+30	%
Rated voltage	($T_A = 25\text{ °C}$)	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	($T_A = 25\text{ °C}$; 1 kHz)	ESR	6.0	mΩ
Maximum series resistance	($T_A = 25\text{ °C}$; 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	($V = 0\text{ V}$)	T_{st}	-40/+70	°C
Lifetime (hours) ²⁾	($T_A = 25\text{ °C}$; $V = V_R$)		90000	h
Lifetime (cycles) ³⁾	($T_A = 25\text{ °C}$; $I = 75\text{ A}$)		500000	cycles

1) DCC: discharging with constant current.

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

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