



UltraCap[®]

Module
9 F/ 28 V

Series/Type:

Ordering code: B48611A5903Q012

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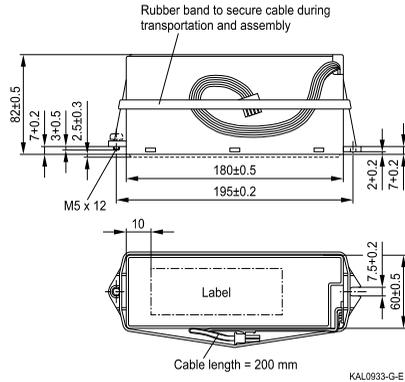
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Features

- Cable connector
- Passive cell voltage balancing
- Case material polyethylene, black
- Power type
- 12 serial single cells of 110 F
- Maintenance-free
- Short-circuit-proof
- Fast-acting blowout fuse 20 A

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	9	F
Tolerance of C_R			-10/+30	%
Rated voltage	($T_A = 25\text{ °C}$)	V_R	28	V
Capacity			70	mAh
Specific power	(IEC 62391-2)		1.0	kW/kg
Specific power	(IEC 62391-2)		0.9	kW/l
Stored energy	($V = V_R$)	E	3528	J
Specific energy	($V = V_R$)		1.3	Wh/kg
Specific energy	($V = V_R$)		1.1	Wh/l
Surge voltage		V_{surge}	32	V
Maximum series resistance	($T_A = 25\text{ °C}$; 1 kHz)	ESR	60	mΩ
Maximum series resistance	($T_A = 25\text{ °C}$; 50 mHz)	ESR _{DC}	120	mΩ
Weight			0.75	kg
Volume			0.9	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⁾	($T_A = 25\text{ °C}$; $I = 10\text{ A}$)		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).