



Module 9 F/ 28 V

Series/Type: Ordering code: B48611A5903Q012 Date: March 2005

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UltraCap[®]

Module, 9 F/ 28 V

B48611A5903Q012

Features

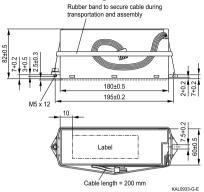
- Cable connector
- Passive cell voltage balancing
- Case material polyethylene, black
- Power type
- 12 serial single cells of 110 F
- Maintenance-free
- Short-circuit-proof
- Fast-acting blowout fuse 20 A

Electrical specifications

Note

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

Dimensional drawing



Dimensions in mm

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Rated capacitance	(T _A = 25 °C; DCC) ¹⁾	C _R	9	F
Tolerance of C _R			-10/+30	%
Rated voltage	(T _A = 25 °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	$(V = V_B)$	E	3528	J
Specific energy	$(V = V_B)$		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 °C; 1 kHz)	ESR	60	mΩ
Maximum series resistance	(T _A = 25 °C; 50 mHz)	ESR_{DC}	120	mΩ
Weight			0.75	kg
Volume			0.9	1
Operating temperature range		T _{op}	-30/+70	°C
Storage temperature	(V = 0 V)	T _{st}	-40/+70	°C
Lifetime (hours) ²⁾	$(T_A = 25 \ ^{\circ}C; \ V = V_R)$		90000	h
Lifetime (cycles) 3)	(T _A = 25 °C; I = 10 A)		500000	cycles

1) DCC: discharging with constant current.

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

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