



Module 100 F/ 42 V

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

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# **UltraCap**<sup>®</sup>

### Module, 100 F/ 42 V

# B48621A7105Q018

### 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".

## **Electrical specifications**

# Fing holes MB x 15 MI0 x 15 to 55223

# Dimensions in mm

**Dimensional drawing** 

		-	-	
Rated capacitance	(T <sub>A</sub> = 25 °C; DCC) <sup>1)</sup>	CR	100	F
Tolerance of C <sub>R</sub>			-10/+30	%
Rated voltage	(T <sub>A</sub> = 25 °C)	V <sub>R</sub>	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/I
Surge voltage		$V_{\text{surge}}$	48	V
Maximum series resistance	(T <sub>A</sub> = 25 °C; 1 kHz)	ESR	6.0	mΩ
Maximum series resistance	(T <sub>A</sub> = 25 °C; 50 mHz)	$ESR_{DC}$	11.0	mΩ
Weight			13.0	kg
Volume			14.0	1
Operating temperature range		T <sub>op</sub>	-30/+70	°C
Storage temperature	(V = 0 V)	T <sub>st</sub>	-40/+70	°C
Lifetime (hours) <sup>2)</sup>	$(T_A = 25 \ ^{\circ}C; \ V = V_R)$		90000	h
Lifetime (cycles) 3)	(T <sub>A</sub> = 25 °C; I = 75 A)		500000	cycles

1) DCC: discharging with constant current.

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

3) Requirements:  $|\Delta C/C_R| \le 30\%$ , ESR  $\le 2$  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).