



## UltraCap<sup>®</sup>

Module  
600 F/ 14 V

**Series/Type:**

**Ordering code:** B48621A4605Q006

**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**

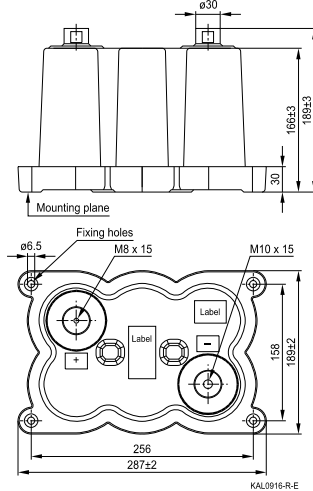
- Screw terminal M8 × 15 (plus), M10 × 15 (minus)
- Active cell voltage balancing
- Case material polyethylene, black
- Power type
- 6 serial single cells of 3600 F
- Maintenance-free
- Short-circuit-proof
- Low ESR due to laser-welded interconnections

**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) <sup>1)</sup>   | $C_R$              | 600     | F      |
| Tolerance of $C_R$              |   |                    | -10/+30 | %      |
| Rated voltage                   | ( $T_A = 25\text{ °C}$ )                      | $V_R$              | 14      | V      |
| Capacity                        |   |                    | 2300    | mAh    |
| Specific power                  | (IEC 62391-2)                                 |                    | 1.9     | kW/kg  |
| Specific power                  | (IEC 62391-2)                                 |                    | 1.8     | kW/l   |
| Stored energy                   | ( $V = V_R$ )                                 | E                  | 58800   | J      |
| Specific energy                 | ( $V = V_R$ )                                 |                    | 2.3     | Wh/kg  |
| Specific energy                 | ( $V = V_R$ )                                 |                    | 2.2     | Wh/l   |
| Surge voltage                   |   | $V_{\text{surge}}$ | 16      | V      |
| Maximum series resistance       | ( $T_A = 25\text{ °C}$ ; 1 kHz)               | ESR                | 1.0     | mΩ     |
| Maximum series resistance       | ( $T_A = 25\text{ °C}$ ; 50 mHz)              | ESR <sub>DC</sub>  | 1.8     | mΩ     |
| Weight                          |   |                    | 7.0     | kg     |
| Volume                          |   |                    | 7.4     | l      |
| Operating temperature range     |   | $T_{\text{op}}$    | -30/+70 | °C     |
| Storage temperature             | ( $V = 0\text{ V}$ )                          | $T_{\text{st}}$    | -40/+70 | °C     |
| Lifetime (hours) <sup>2)</sup>  | ( $T_A = 25\text{ °C}$ ; $V = V_R$ )          |                    | 90000   | h      |
| Lifetime (cycles) <sup>3)</sup> | ( $T_A = 25\text{ °C}$ ; $I = 100\text{ A}$ ) |                    | 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).