

## Double-Layer Capacitors in Rectangular Metal Case with very High Capacitances in the Farad Range

### Special Features

- Storage capacitors with very high capacitance values from 100 F to 600 F and a rated voltage of 2.5 VDC
- Discharge current up to 800 A
- Maintenance-free
- With rectangular metal case
- Series connection possible
- According to RoHS 2002/95/EC

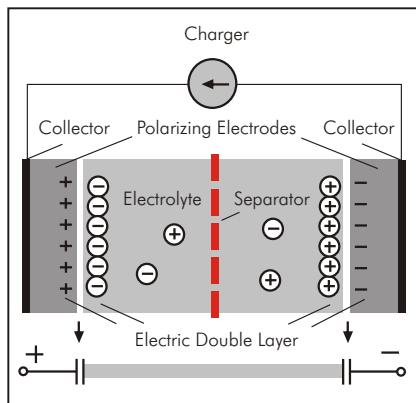
### Typical Applications

Suitable for support, protection or replacement of batteries in the field of new traction technologies in

- Automotive
- Railway technology
- Wind power systems
- Uninterruptible power systems (UPS)

### Construction

#### Internal construction:



#### Encapsulation:

Rectangular aluminium case, sealed by laser welding

#### Terminations:

FS 6.3 slip-on terminations according to DIN 46244

#### Marking:

Colour: Black. Marking: Gold

### Technical Data

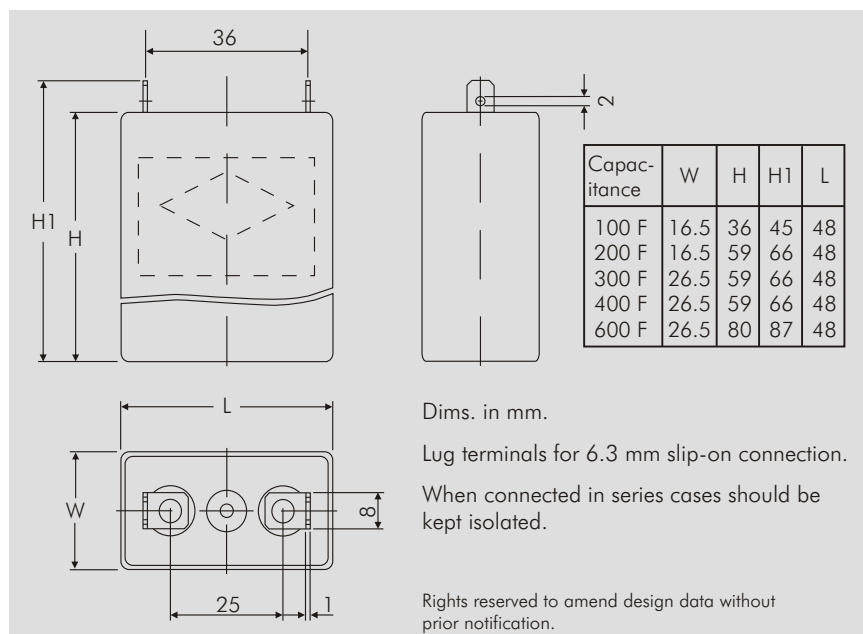
Rated capacitance:	CR	100F	200F	300F	400F	600F
Capacitance tolerance:	-	±20%	±20%	±20%	±20%	±20%
Rated voltage:	UR	2.5V	2.5V	2.5V	2.5V	2.5V
Rated current:	IC	30A	45A	50A	80A	100A
Pulse current:	IP	upto 200A	upto 350A	upto 400A	upto 600A	upto 800A
Internal resistance:	RDC	12 mΩ	7 mΩ	6 mΩ	4 mΩ	3 mΩ
Max. energy: ±20%	E <sub>max</sub>	313J	625J	938J	1250J	1875J
Operating temperature:	T <sub>op</sub>	-30°C... +65°C				
Storage temperature:	T <sub>st</sub>	-40°C... +70°C				
Weight:	m	40g	62g	90g	95g	120g
Volume:	v	0.028l	0.047l	0.075l	0.075l	0.1l

### Additional Data

Case:	-	Al99.5	Al99.5	Al99.5	Al99.5	Al99.5
Lug terminals:	-	Brass	Brass	Brass	Brass	Brass

### Comparative Data

Density of capacitance:						
gravimetric	C <sub>d</sub>	2500 F/kg	3200 F/kg	3400 F/kg	4300 F/kg	6400 F/kg
volumetric	C <sub>v</sub>	3600 F/l	4600 F/l	4400 F/l	5900 F/l	6660 F/l
Energy density:						
gravimetric	E <sub>d</sub>	2.2 Wh/kg	2.8 Wh/kg	3.0 Wh/kg	3.8 Wh/kg	4.5 Wh/kg
volumetric	E <sub>v</sub>	3.2 Wh/l	3.7 Wh/l	4.0 Wh/l	5.4 Wh/l	6.0 Wh/l



■ New values

## Double-Layer Capacitors in Rectangular Metal Case with very High Capacitance in the Farad Range

### Special Features

- Storage capacitors with very high capacitance value of 3000 F and a rated voltage of 2.5 VDC
- Discharge current up to 3000 A
- Maintenance-free
- With rectangular metal case
- Screwable terminations
- Series connection possible
- According to RoHS 2002/95/EC

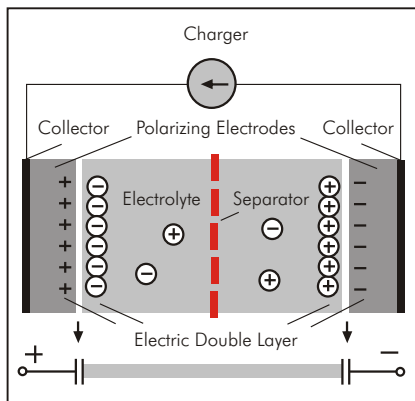
### Typical Applications

Suitable for support, protection or replacement of batteries in the field of new traction technologies in

- Automotive
- Railway technology
- Wind power systems
- Uninterruptible power systems (UPS)

### Construction

#### Internal construction:



#### Encapsulation:

Rectangular aluminium case, sealed by laser welding

#### Terminations:

Screw connection M8

#### Marking:

Colour: Black. Marking: Gold

### Technical Data

<b>Rated capacitance:</b>	CR	<b>3000 F</b>
<b>Capacitance tolerance:</b>	-	±20%
<b>Rated voltage:</b>	UR	2.5 V
<b>Rated current:</b>	IC	800 A
<b>Pulse current:</b>	IP	up to 3000 A
<b>Internal resistance:</b>	RDC	0.7 mΩ
<b>Max. energy: ±20%</b>	E <sub>max.</sub>	10 000 J
<b>Operating temperature:</b>	T <sub>op</sub>	-30° C ... +65° C
<b>Storage temperature:</b>	T <sub>st</sub>	-40° C ... +70° C
<b>Weight:</b>	m	615 g
<b>Volume:</b>	v	0.45 l

### Additional Data

<b>Case:</b>	-	Al99.5
<b>Screw terminations:</b>	-	2 x M8

### Comparative Data

<b>Density of capacitance:</b>		
gravimetric	C <sub>d</sub>	5300 F/kg
volumetric	C <sub>v</sub>	7360 F/l
<b>Energy density:</b>		
gravimetric	E <sub>d</sub>	4.7 Wh/kg
volumetric	E <sub>v</sub>	6.3 Wh/l

