

Double-Layer Capacitor Modules Based on SuperCap C Cylindrical Cells

Special Features

- Storage capacitor modules with very high capacitance values of 300 F and 600 F and a rated voltage of 5 VDC
- Discharge current up to 2000 A
- Maintenance-free
- Series connected
- Actively or passively balanced
- According to RoHS 2002/95/EC

Construction

Encapsulation: Aluminium case

Terminations: Metal plates

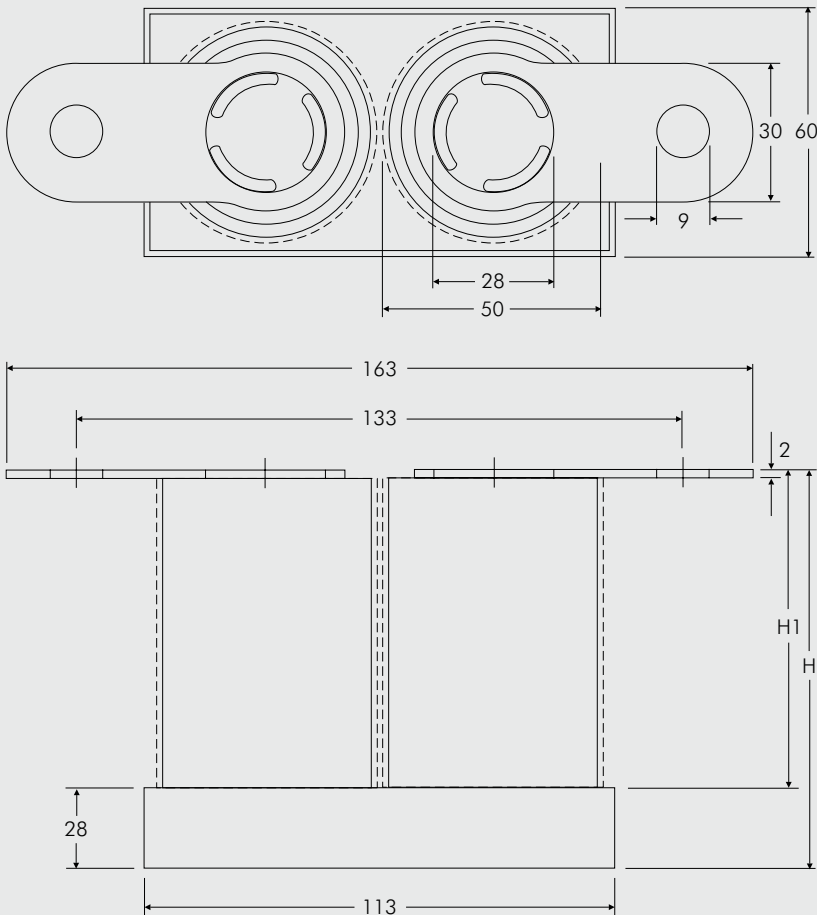
Marking: Colour: Black.

Marking: Gold

General Data

U _R	C _N	Dimensions			Part number	Typical applications
		W	H	L		
5 V	300 F	60	84	113	SCMCA6B300MH00V00	- Automotive - Railway technology - Wind power systems - Uninterruptible power supply (UPS) - Industry
	600 F	60	110	113	SCMCA6B600MH00V00	

The new range of SuperCap modules offers the possibility to achieve higher capacitances and/or voltages by simple cascading. Customized solutions can be realized on request.



Dims in mm.

U _R	C _N	Dimensions			
		W	H	H1	L
5 V	300 F	60	84	56	113
	600 F	60	110	81	113

Rights reserved to amend design data without prior notification.

Continuation

Technical Data

Capacitance:	C _N	300 F	600 F
Capacitance tolerance:	–	±20%	
Rated voltage:	U _R	5 V	
Rated current:	I _C	400 A	650 A
Pulse current:	I _P	up to 1000 A	up to 2000 A
Internal resistance:	R _{DC}	1.5 mΩ	1 mΩ
Max. stored energy: ±20%	E _{max.}	3600 J	7500 J
Operating temperature:	T _{Op}	–30° C ... +65° C	
Storage temperature:	T _{st}	–40° C ... +70° C	
Weight:	m	525 g	620 g
Volume:	V	0.41 l	0.51 l

Additional Data

Case:	–	Aluminium
Terminations:	–	Metal plates

Comparative Data

Lifetime:			
in hours ¹⁾	h	90 000	
in cycles ²⁾	Cycles	> 800 000	
Energy density:			
gravimetric	E _d	1.9 Wh/kg	3.4 Wh/kg
volumetric	E _v	2.4 Wh/l	4.1 Wh/l

1) Requirements:

$|\Delta C/C_N| \leq 30\%$, $ESR \leq 2$ times specified limit, $I_{leak} \leq 2$ times of initial value.

2) Test conditions:

$|\Delta C/C_N| \leq 30\%$, $ESR \leq 2$ times specified limit, $I_{leak} \leq 2$ times of initial value
(cycles: charging to U_R, 30 sec rest, discharging to U_R/2, 30 sec rest).