



Cell Pack V2

- Innovative in energy storage & Power Electronics
- Custom-made solutions
- Complete solution: storage & Power Electronics
- Design and system integration

Features

- Flexible configuration possible
- Cost-efficient
- High capacity and low internal resistance
- Diagnostic interface via fiber optics
- Passive and active resistive balancing
- Voltage and temperature monitoring of all cells
- No external voltage supply needed

Applications

- Pulsed current sources
- Braking energy recuperation systems
- Stabilization of power grids

Mechanical Data

Width x Depth x Height
600 x 436 x 167 mm
33 kg

Configuration opportunities

- Number of cells: 42, 44, 46, 48
- Capacity per cell: 3000 F, 2000 F

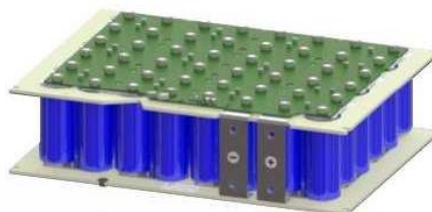
Standard

Low-cost version for stationary
Applications in buildings



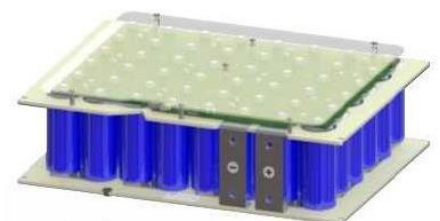
Vibration proof (VP)

Mobile application like cranes
and ships



Vibration proof with safety plate (VPS)

Additional protection for the electronics





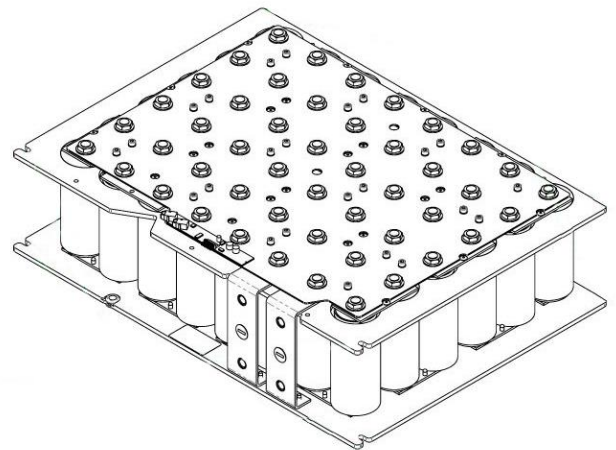
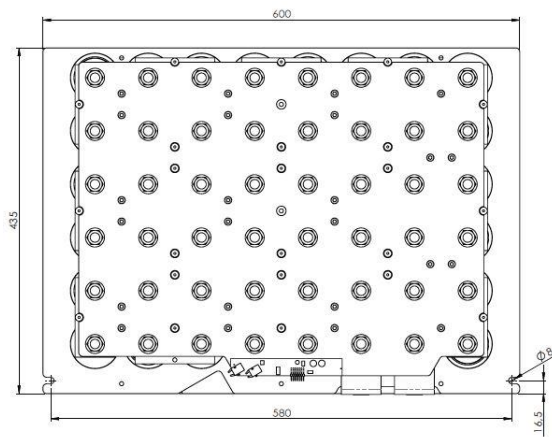
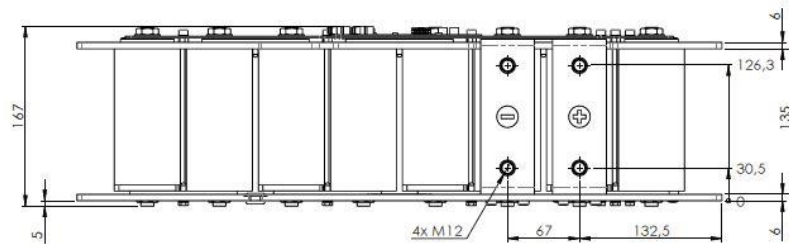
Typical Characteristics

Type VP with 48 cells for example

Symbol	Parameter	Description	Value	Unit
Capacity				
C_r	Rated capacity		62,5	F
	Tolerance		+20/-0	%
Voltage				
V_r	Rated voltage		130	VDC
V_{max}	Max. operating voltage		137	VDC
V_{MN}	Isolation voltage	Max. voltage at base isolation	1800	VDC
Internal resistance				
ESR, DC	Equivalent series resistance DC	@ 25°C (initial...Life time)	9...28	mΩ
ESR, AC	Equivalent series resistance AC	@ 25°C and 1 kHz (initial)	11	mΩ
Environment				
T_n	Operating temperature range		-20 till +65	°C
$T_{storage}$	Storage temperature range		-40 till +65	°C
	Protection degree		IP00	
Energy				
E_{max}	Energy density	@ V_r	4,4	Wh/kg
E_{ava}	Usable energy	Between V_r and $\frac{1}{2} V_r$	110	Wh
Current				
I_r	Rated current	Continuous	100	A rms
	Peak current	< 1 s	2000	A
		< 5 s	750	A
I_{leak}	Leakage current	After 72 hour @ 25°C and V_r (only the cells)	5,2	mA
Lifetime				
	Projected cycle life	Between V_r and $\frac{1}{2} V_r$ @ 25°C	1.000.000	
	Projected DC life	@ V_r and 25°	10	a
		@ V_r and 65°	1500	h
Mechanical data				
	Weight		33	Kg
	Width		600	mm
	Depth		436	mm
	Height		167	mm

Module dimensions

Type VP with 3000 F cells



Example for series connection

- 6 modules in series for rated voltage of 780V
- Strong mounting rails for mobile applications
- Adapted for standard Rittal TS8 cabinet (800 mm wide and 600 mm deep)
- Polycarbonate front cover as touch protection



Additional equipment

- External Monitoring Control Unit (MCU) with documented and extensible CAN interface
- Mounting rails for cabinets or customized mounting equipment for your application
- Adapted for standard Rittal TS8 cabinet (800 mm wide and 600 mm deep)