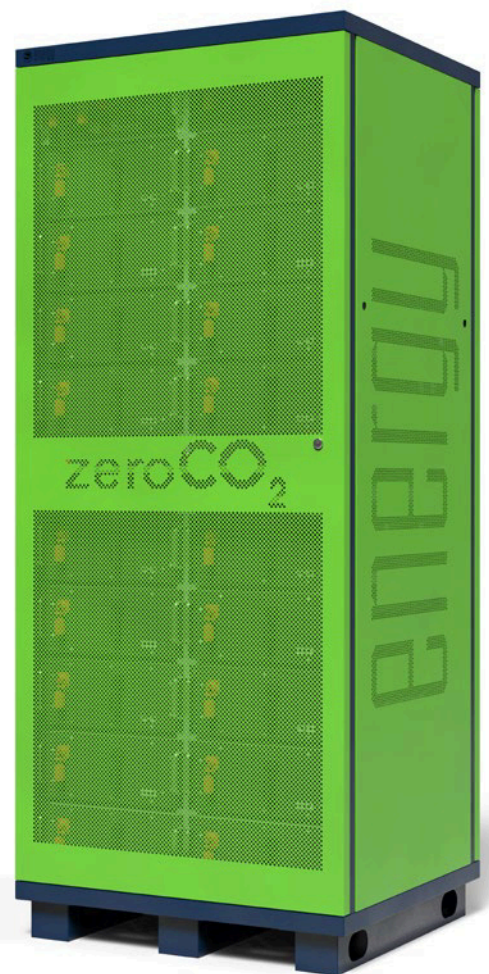


RACK M1-22

Solution:

zeroCO₂ - RACK M1-22 is an energy storage system based on high voltage Li-ion (LFP) lithium batteries, to be combined with the zeroCO₂ - XL System. Each rack can hold up to 21 Pylontech H32148-C battery modules, for a nominal storage capacity of 100 kWh. The battery modules are connected in series inside the rack and managed by a BMS controller which monitors their state of charge and safety.

- Battery technology: high voltage Li-ion (LFP);
- Nominal storage capacity of 100 kWh;
- Integrated BMS controller for battery string management;
- Integrated DC protection;
- DC circuit breaker switch included;
- UN 38.3 certification for the transport of lithium batteries;
- Possibility of parallelization of several racks to increase the storage capacity;



SC1000-200J-C



H32148-C

RACK M1-22

Rack dimensions:

Length: 818 mm

Height: 2013 mm

Depth: 776 mm



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Swiss distributor

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MODEL	RACK M1-22
Order Code (battery number to configure)	90110035
Order Code (supplied with 21 batteries)	90110040
Dimensions [WxHxD, mm]	818 x 2013 x 776
Weight [kg]	222 + (48 x n)
Cell technology	Li-ion (LFP)
Battery module model	H32148-C
BMS Controller Name	SC1000-200J-C
Charge / discharge test current [A] (*)	29.6
Rated charging / discharging current [A]	74
Max charge / discharge current [A]	148
Nominal module voltage [V]	32
Nominal module capacity [kWh/Ah]	4.74 / 148
Module efficiency [%]	95
DC PARAMETERS	
System rated voltage [V]	32 x n
Max System charge voltage [V]	36 x n
Min System discharge voltage [V]	28.8 x n
Nominal capacity [kWh/Ah]	4.74 x n / 148
DOD discharge depth [%]	90% (8 - 98% SOC)
Usable capacity [kWh/Ah]	4.27 x n / 133
Battery modules quantity [n]	13 ~ 21
COMMUNICATION	
Communication interfaces	CAN, LAN, Modbus RTU, TCP/IP
AMBIENT CONDITIONS	
Working temperature range [°C]	0 ~ 50
Working humidity range [RH%]	0 ~ 95 (without condensation)
Storage temperature range [°C]	-20 ~ 60
Storage humidity range [RH%]	0 ~ 95 (without condensation)
Cooling	Natural cooling
Altitude [m]	<3000
SAFETY	
IP protection rating	IP20
Operational life [years]	15+
Dangerous goods transport certificate	UN38.3

(*) current value used to determine the capacity of the battery during test.

ACCESSORY	Order Code
BMS SC1000-200J-C (**)	90040281
H32148-C (**)	90040280
Cable kit (**)	90900245
UPS 3 kVA 2U -19" module	90100080
Eastron three-phase meter kit with external CT 200A/5A	90900315
Eastron three-phase meter kit without CT (***)	90900305
Medium voltage meter	90900323

(**) Only for order code 90110035.

(***) If the system requires higher current values, it is possible to purchase the meter alone. In this case the choice of CT is left to the customer.

High Voltage Lithium-Ion Phosphate Battery storage system -Powercube M1C Battery Module: H32148-C



Module **H32148 -C**

Basic Parameters

Capacity(kWh)	4.74
Nominal Voltage(Vdc)	32
Nominal Capacity(AH)	148
Voltage Range(Vdc)	30~36
Depth of Discharge	90%
Dimension(W*D*H,mm)	330*628*150.5
Communication	RS485/CAN
Protection Class	IP20
Weight(kg)	48
Operation Life	10+ years
Operation Temperature	0~50°C
Storage Temperature	-20~60°C
Product Certificate	UN38.3/ UL9540A

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Main Controller : SC1000-200J



Module

SC1000-200J-C

Basic Parameters	
Related Product	PowerCube-M1C
AC Supply	---
System Operation Voltage (Vdc)	0~1000
Operation Current (Max.) (A)	148
Self-consumption Power-Relay Off (W)	6
Self-consumption Power-Relay On (W)	15
Dimension (W*D*H, mm)	330×628×150.5
Communication	MODBUS RTU/CAN /LAN
Protection Class	IP20
Weight(kg)	13
Operation Life	15+
Operation Temperature	-20~65
Storage Temperature	-40~80

BMS Function

Protection and Alarm

- Charge/Discharge End
- Charge Over Voltage
- Charge/Discharge Over Current
- High/Low Temperature
- Operation Record
- Administrator Monitor: Current, Voltage, Temperature, SOC&SOH.

Management and Monitor

- Cells Balance
- Intelligent Charge Model
- Capacity Retention Calculate
- Isolation and Protection
- Alarm and Protection