

TAB

Li-Ion batteries

e.storage C183 ESS – Outdoor version specification



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Index

1	C183 ESS Outdoor version	3
1.1	Battery module: e.module H10.2	3
1.2	Control module: e.module S920	3
1.3	Cabinet	4
1.3.1	Overview	4
1.3.2	Noise emission	4
1.3.3	HVAC: Envicool MC50HDNC1A	5
1.4	C183 ESS Warranty	6
2	Kaco Blueplanet Gridsave 92.0 TL3-S	7
2.1	Location	7
2.2	Inverter Warranty	7
3	Main Configurations	8

1 C183 ESS Outdoor version

The C183 ESS outdoor version is formed by the following main components.

1.1 Battery module: e.module H10.2

The battery module TAB e.module H10.2 is the basic component that consists of a group of battery cells arranged and connected to form a single, manageable unit. The C183 ESS is formed by strings of 18 modules connected in series.



For more information, refer to the C183 ESS User Manual.

1.2 Control module: e.module S920

The control module TAB e.module S920 is in charge of protecting and controlling a string of 18 e.module H10.2.



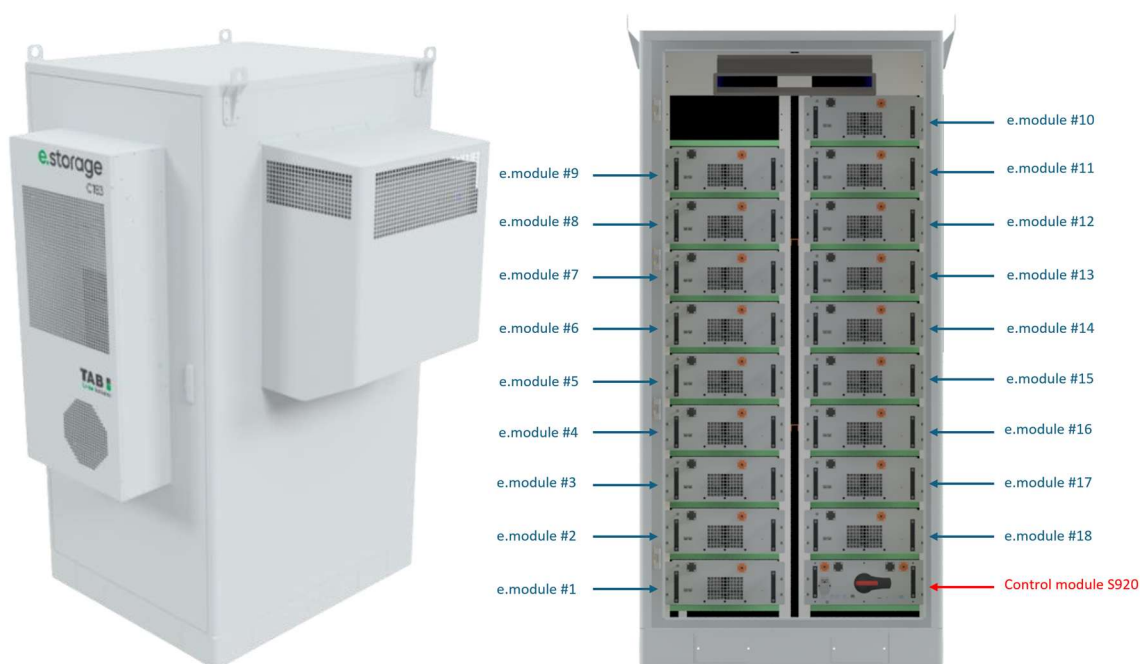
For more information, refer to the C183 ESS User Manual.

1.3 Cabinet

1.3.1 Overview

The cabinet is only available for the C183 ESS Outdoor version. It grants IP 55 protection and weighs 2700kg. It contains:

- 18 x battery module: e.module H10.2
- 1 x control module: e.module S920
- 1 x HVAC: Envicool MC50HDNC1A
- Additional elements for system protection, power connection and communication.



1.3.2 Noise emission

Noise emission per device:

- The HVAC's noise level is 70 dB(A).
- The inverter's noise level is <60 dB(A)
- The internal fans noise level is 43,5dB (A).

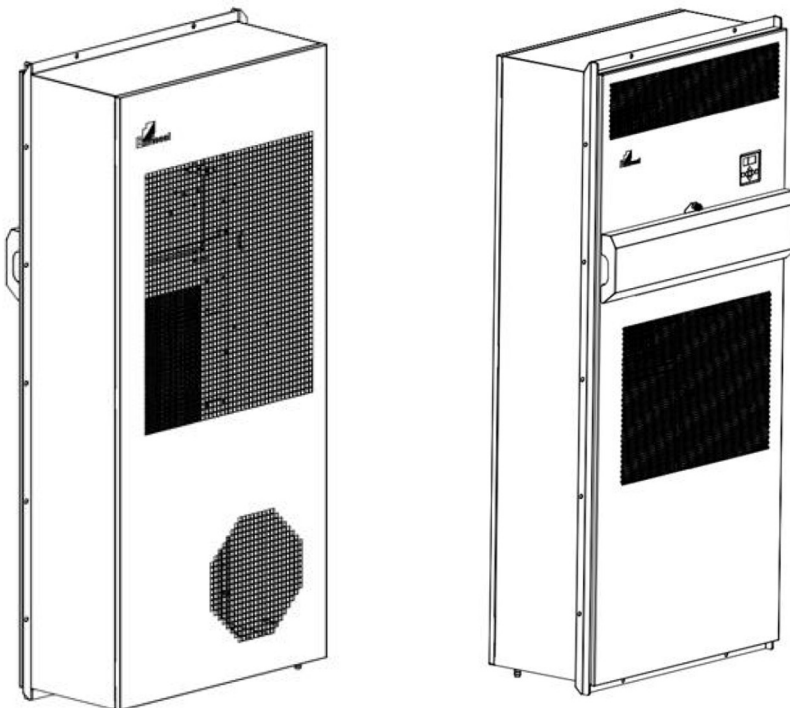
The total noise emission of the system is 70,57 dB(A) at it's loudest.

1.3.3 HVAC: Envicool MC50HDNC1A

The Envicool MC50HDNC1A is a HVAC unit designed for outdoor use, featuring a 5000 W cooling capacity and IP 55 protection. Weighing 90 kg, it uses R134a refrigerant.

The following table shows the main characteristics:

General data	Envicool MC50HDNC1A
Input voltage	220 Vac; 50 Hz
HVAC power	Up to 5000 W
Maximum power consumption	1.85 kW
Internal airflow	1400 m ³ / h
Dimensions H x W x D	1350 x 620 x 300 mm
IP protection level	IP 55
Wight	90 kg
Noise emission	< 70,57 dB(A)
Refrigerant	R134a
Standards	IEC 61000-4-7, IEC 60335-1, IEC 60721-3-1, 60721-3-2, 60721-3-3



1.4 C183 ESS Warranty

The TAB warranty covers the C183 ESS and ensures that if a defect occurs within the valid warranty period of five (5) years, the product will be repaired or replaced.

TAB guarantees that the product will retain either seventy (70) percent of its usable capacity at the end of the warranty period or when the minimum throughput energy is reached, whichever comes first.

The minimum throughput energy for a single C183 ESS is 552.96 MWh. The minimum throughput energy for a complete system depends on the number of C183 units in the system.

For other components, such as the HVAC, the warranty period is two (2) years. TAB may offer the option to extend the warranty period beyond these conditions upon customer request after an individual project review.

For further details, please refer to the warranty document.

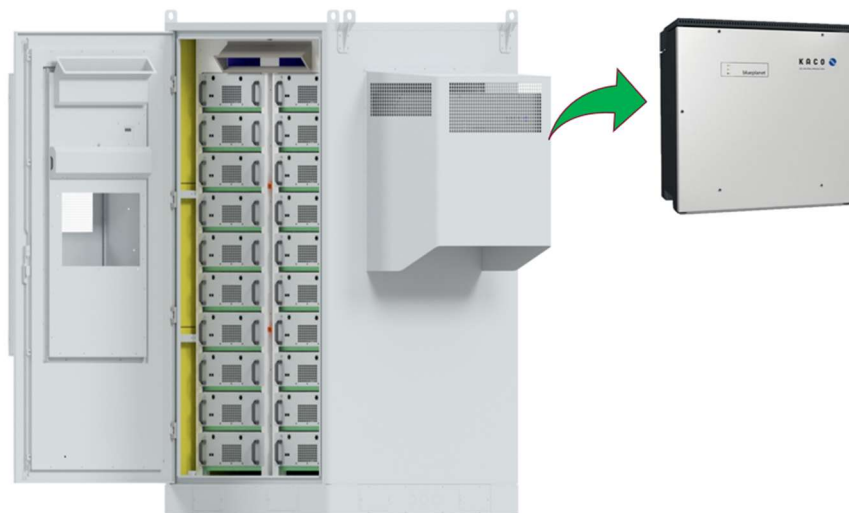
2 Kaco Blueplanet Gridsave 92.0 TL3-S

The battery inverter enables bidirectional energy conversion for charge/discharge the battery. The main characteristics are shown in the inverter's datasheet. Refer to it for more information.

2.1 Location

The inverter is connected directly to the e.module S920 control module through positive and negative power wires.

It can be placed in the space reserved inside the C183 cabinet for the inverter, as shown in the following image:



It is also possible to install the inverter outside the cabinet. In that case, the wall must be suitable for supporting the inverter, as described in the inverter's User Manual. This option is mandatory for the C183 ESS indoor version.

2.2 Inverter Warranty

TAB may also supply battery or hybrid inverter, which may be considered part of the C183 ESS product. In this case, inverter original equipment manufacturer warranty will be transferred. This warranty may depend on battery inverter.

For more information, refer to the Warranty and Service Conditions for Inverters document of Kaco.

The Kaco Blueplanet Gridsave 92.0 TL3-S inverter manufacturer grants a standard warranty of five (5) years. Also provides three types of warranty extension to a total of 10, 15 or 20 years.

3 Main Configurations

The C183 ESS Outdoor version offers scalable energy solutions, ranging from 92 kVA/178 kWh with one cabinet to 552 kVA/1068 kWh with six cabinets. Each configuration adjusts the number of modules and inverters, resulting in weights from 2780 kg up to 16680 kg. This modularity supports various commercial and industrial energy storage needs effectively. The following table shows different configurations:

Art. No	AC Nominal Power / Energy capacity	N° of Cabinets	N° of Modules	N° of Inverters	Gross weight (kg)	Cabinet's Packaging Size (H*W*D) mm	Inverter's Packaging Size (H*W*D) mm
C183O11	92 kVA / 178 kWh	1	18	1	2780	2500 * 1220 * 1600	790 * 760 * 550
C183O12	92 kVA / 356 kWh	2	36	1	5480	2500 * 2440 * 1600	790 * 760 * 1100
C183O22	184 kVA / 356 kWh	2	36	2	5560	2500 * 2440 * 1600	790 * 760 * 1100
C183O33	276 kVA / 534 kWh	3	54	3	8340	2500 * 3660 * 1600	790 * 760 * 1650
C183O44	368 kVA / 712 kWh	4	72	4	11120	2500 * 2440 * 3200	790 * 1520 * 1100
C183O55	460 kVA / 890 kWh	5	90	5	13900	2500 * 3660 * 3200	790 * 1520 * 2200
C183O66	552 kVA / 1068 kWh	6	108	6	16680	2500 * 3660 * 3200	790 * 1520 * 2200

