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BESS
STAND SpC 400Vdc
range 30÷100kWh
2025

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BESS STORAGE SYSTEMS
STAND SpC 400Vdc range 30÷100kWh

(Battery Energy Storage System)

RANGE STAND ACCUMULATION SYSTEMS SpC
400Vdc THREE-PHASE Un=400V, 50Hz
AND ACCESSORIES

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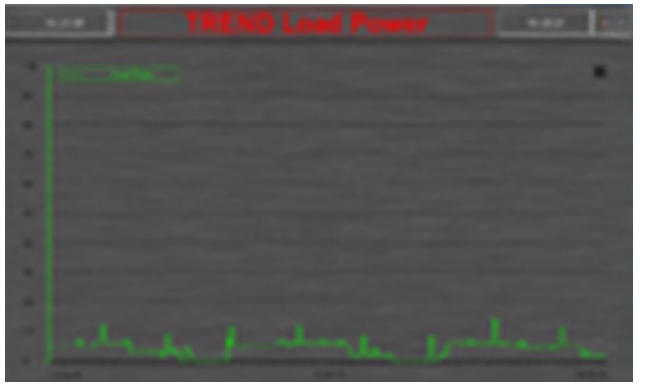
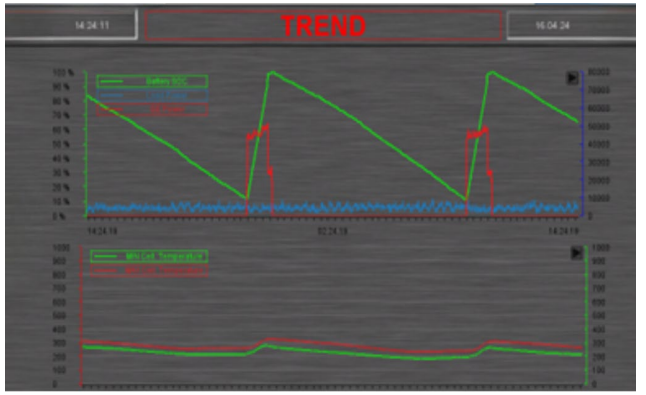
STAND SpC 400Vdc is a device that enables energy management in **three-phase off grid / stand alone electrical systems with generator sets and/or renewable energy sources**. It optimises the efficiency, noise, emissions and fuel consumption of diesel generators.

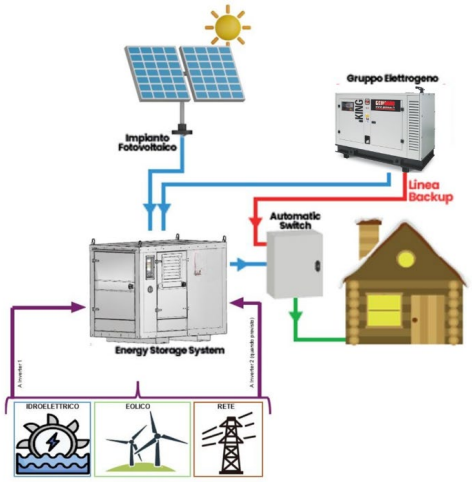
The **Genmac StMS** control module is the controller of the storage unit, consisting of a touch screen panel that allows supervision, monitoring and control of the entire unit at a high level. This controller natively integrates information from the battery pack, inverter and security systems.
The **Genmac StMS** control module, allows data to be recorded and sent from the STAND SpC to a remote energy management platform that allows the user to control and optimise the energy consumed, as well as monitor and generate reports on each piece of equipment or the entire fleet of equipment owned by the user.





The control system helps to manage energy storage, allowing you to get the most out of incoming energy sources and respond more effectively to electrical load requirements, maximising renewable energy production and minimising the use of the genset.

STAND SpC 400Vdc storage is available in different models, and for each of them several optional versions are available. The models depend on the active power from the inverters and thus on the energy available in the batteries. The versions differ in the options included in each model, in order to adapt to user requirements.



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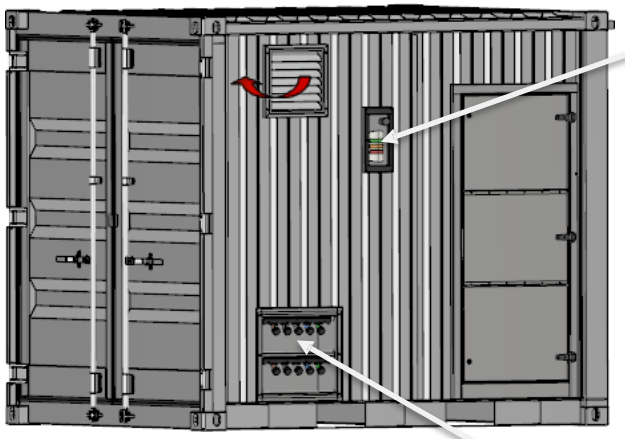
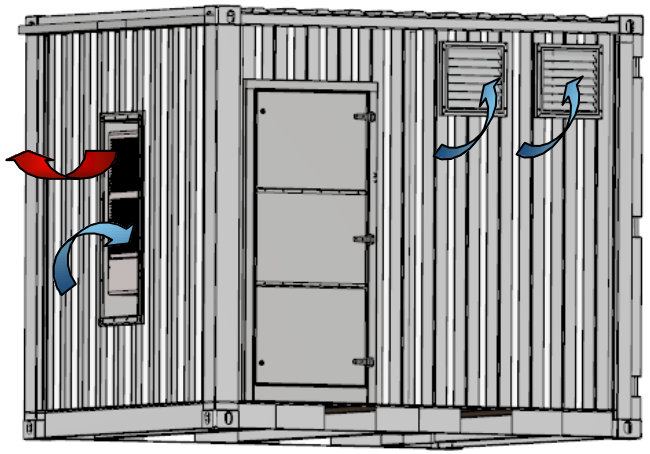
Three-phase 400V 50Hz

	Continuous Power Output	Continuous Power Output	Peak Power Output (10s)	Voltage	Frequency	Battery Type	Number of Cycles [DoD 95%].	Battery Nominal DC Voltage	Battery Nominal Capacity	Charging Current	Max Load 8h Continuous	Recharging Time [SoC 90%].
Models	kVA	kW	kW	V	Hz		Life	V	kWh	A	kW	h
S-50/50	55	50	75	400	50	LLP	20000	400	50	100	5,94	1,13
S-100/100	110	100	150	400	50	LLP	20000	400	100	200	11,88	0,87

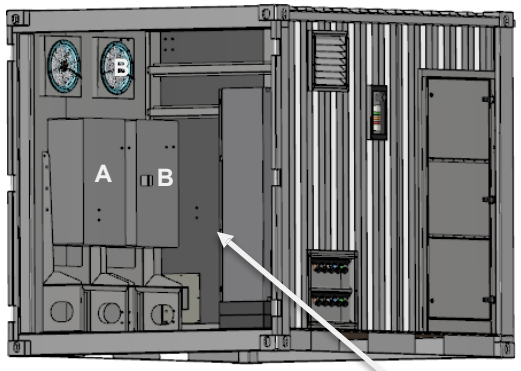


Niche indicator light and horn, remote connection antenna, temperature and outside pressure sensor

Green light	OK STOP
Orange light	ALARM
Red light	



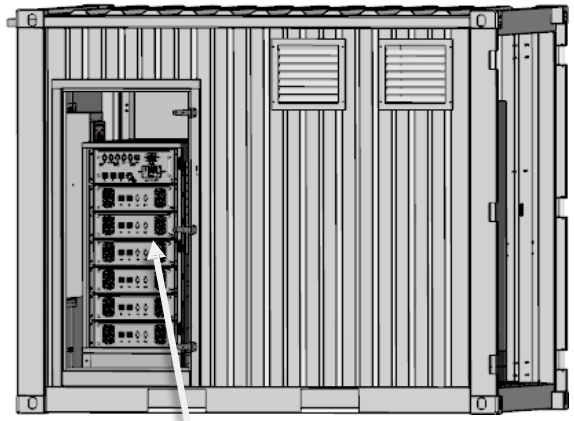
Power lock IN/OUT
RUGGED VERSION



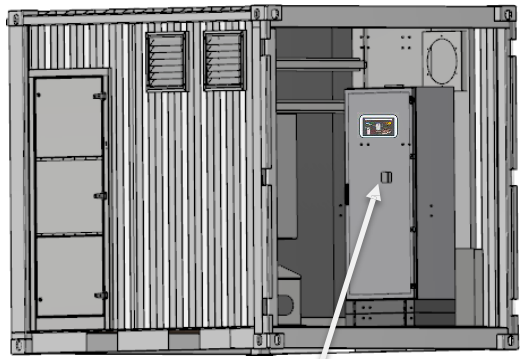
A -INVERTER 1

B -INVERTER 2 (IF APPLICABLE) + VENT

Technical room Inverter and control cabinet



Local Battery pack



Electrical control panel

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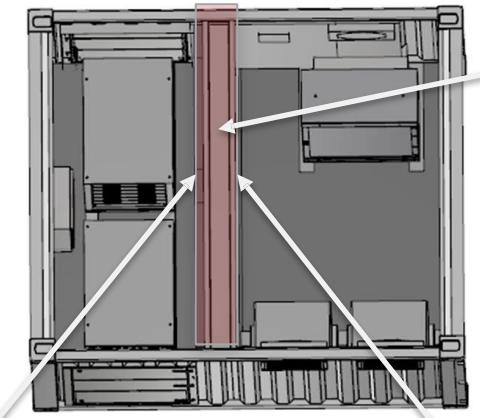
Sealed cable routing



Wall of fireproof separation

Immediate opening of electrical protections in case of opening connectors

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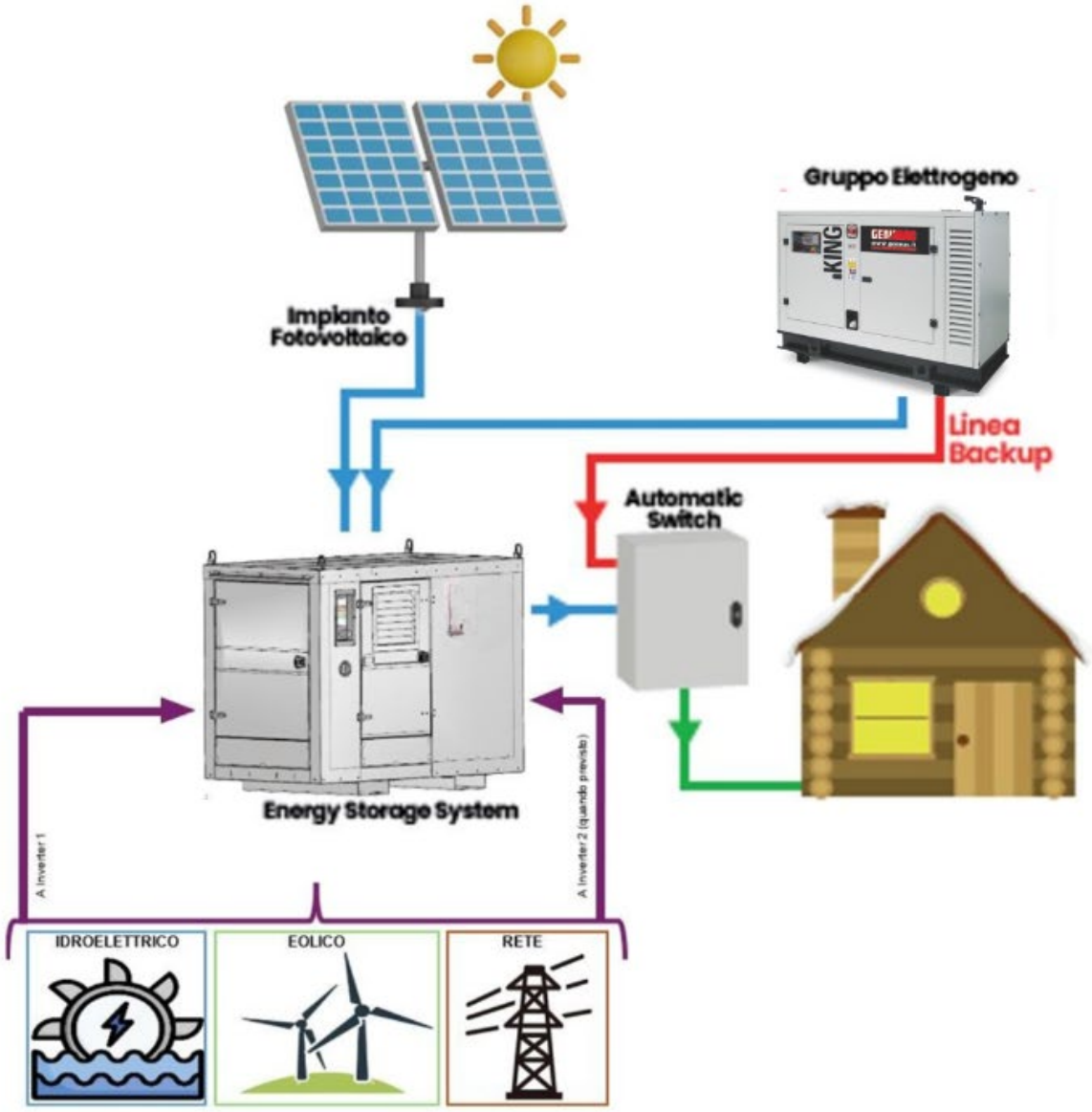
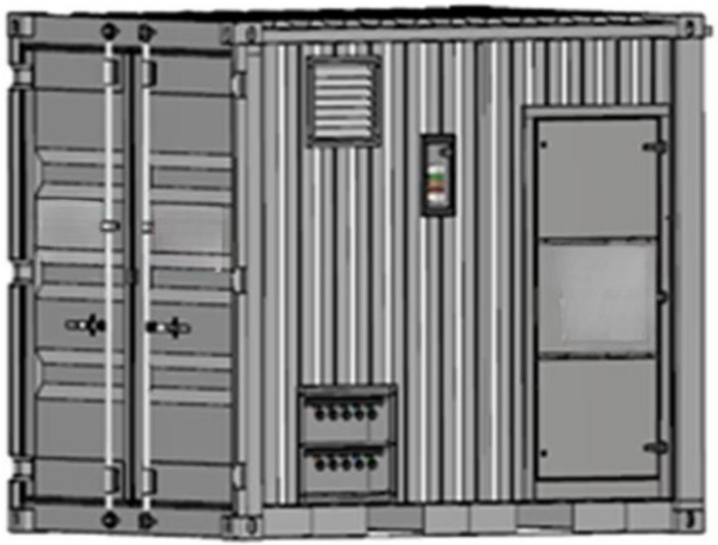
The regulation governing BESS (Battery Energy Storage System) storage systems is:

EN 62933-5-2

In a nutshell, this standard provides the way to classify the BESS according to its main characteristics.
Identifies a set of minimum safety equipment to be provided
It imparts rules for Tests to be carried out both in installation phase



Stand_SpC400Vdc_THREE-PHASE



MODELS	OPTIONAL		
	OVERHEAD UNLOADERS	COOLING UNIT	POWER LOCK SOCKETS RUGGED VERSION
S-50/50			
S-100/100			

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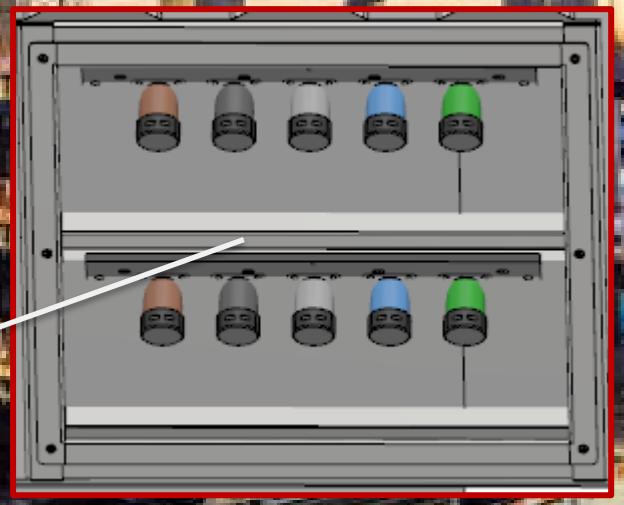
Power Lock input and output



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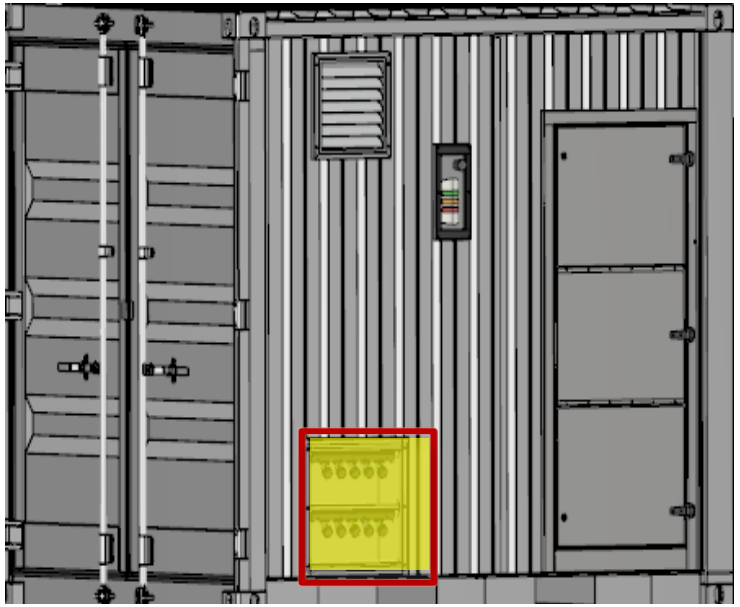
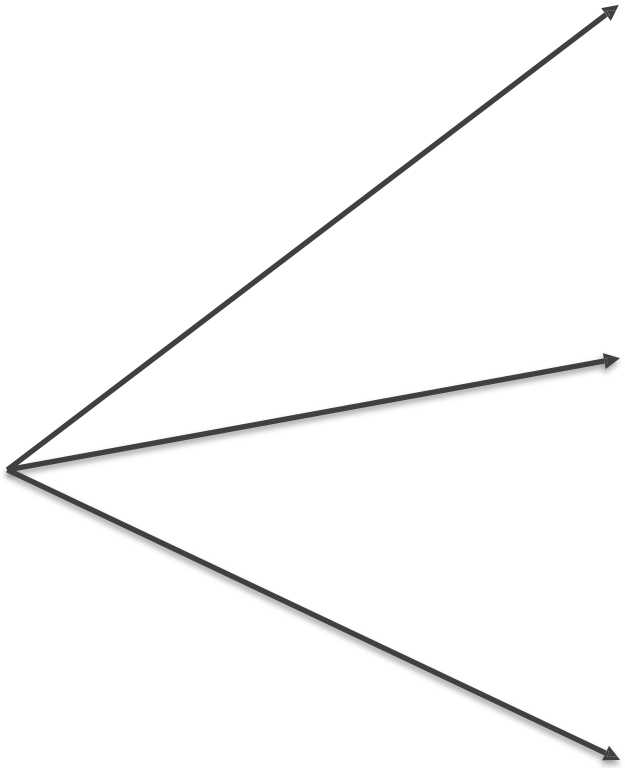
RUGGED_SpC400Vdc_ThREE-PHASE

MODELS	OPTIONAL		
	OVERHEAD UNLOADERS	COOLING UNIT	POWER LOCK SOCKETS RUGGED VERSION
R-50/50			
R-100/100			



MODELS
S-50/50
S-100/100



SURGE ARRESTERS

COOLING UNIT

POWER LOCK SOCKETS RUGGED VERSION

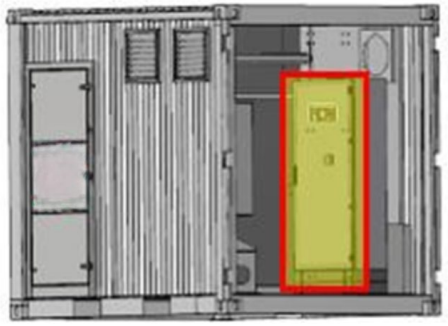
STAND SpC400Vdc
50/100kWh
With BESS Genmac StMS control panel

Electrical cabinet BESS GenmacStMS integrated, storage system control STAND SpC 400Vdc

-

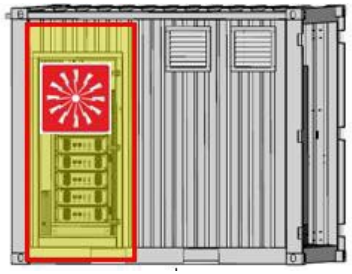
Graphical display, supervision and control of energy flows. Parallel control of safety functions to prevent failure of the main components of the storage unit.

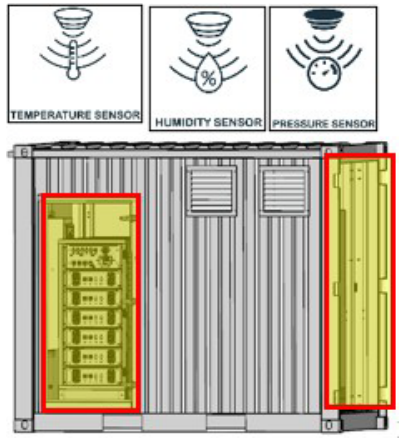
[SERIES]



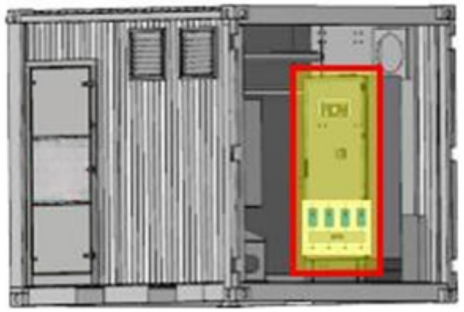
The BESS Genmac StMS control cabinet consists of a part power, a control part, the auxiliary circuit is made to have a full custom version.
The power part is realised with two switches:
Input Line Switch: is set up for the Generator input for OffGid plant. It can also be configured, when ordering, as a WIND / HYDROELECTRIC input, this depends on how many plants are planned as inputs. In the case of two plants one input, for example, Generating Set and
HYDROELECTRIC/WIND, the generator will be directed to the inverter with line dedicated and protected upstream (genset switch).
Output line switch to Electric Load.
The connection to the photovoltaic system is made directly on the connectors of the power inverter.
The auxiliary part consists of a complete circuit for ventilation and measurement systems and is designed in such a way that any accessories can also be fitted with a subsequent upgrade.
A dedicated display to supervise the unit with the possibility of remote control.
The control of the unit is handled by the PLC, which via the Genmac STAND Management System (Genmac StMS) controls the entire unit and is the only interface with the user.
The Genmac StMS enables the management of the storage system from a functional point of view, because it interacts directly with the battery system and inverter controllers.
The Genmac StMS allows you to manage the storage system with a higher level of security, because it performs parallel checks with the battery and inverter controllers, anticipating any faults and giving immediate feedback to the user.

The Genmac StMS controller allows the local remote display of all trends, working curves of the device, enabling the user to check the working points, yields and charge/discharge cycles as well as the energy savings achieved.

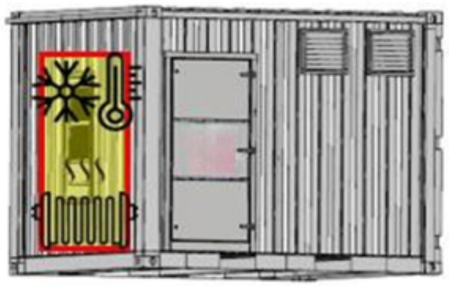
Fire Detection [STANDARD]		For all BESS with power above 20kW the detection fire is required (ref. IEC 62933-5-2). This system detects the presence of smoke in the battery compartment and warns by means of the optical acoustic signal; it also acts on the safety of the machine by switching off the accumulator and putting it into protection.

Sensing [SERIES]		The pressure and humidity-temperature sensors installed inside the bonnet inside the battery compartment and inside the BESS Genmac inverter-panel compartment are made to work in synergy. The temperature and humidity rise inside the battery compartment if different in terms of gradient than the same measurement in the inverter compartment can indicate an anomaly such as an overload, overheating of the battery bank, or inverters. These sensors improve the safety of the appliance especially when installed together with the air conditioner.

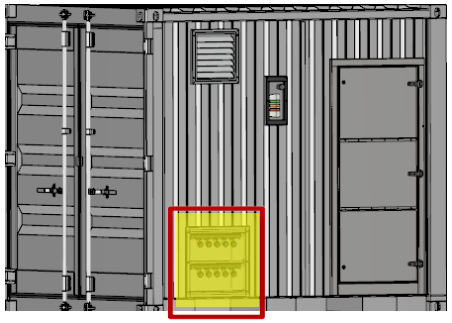
SURGE ARRESTERS

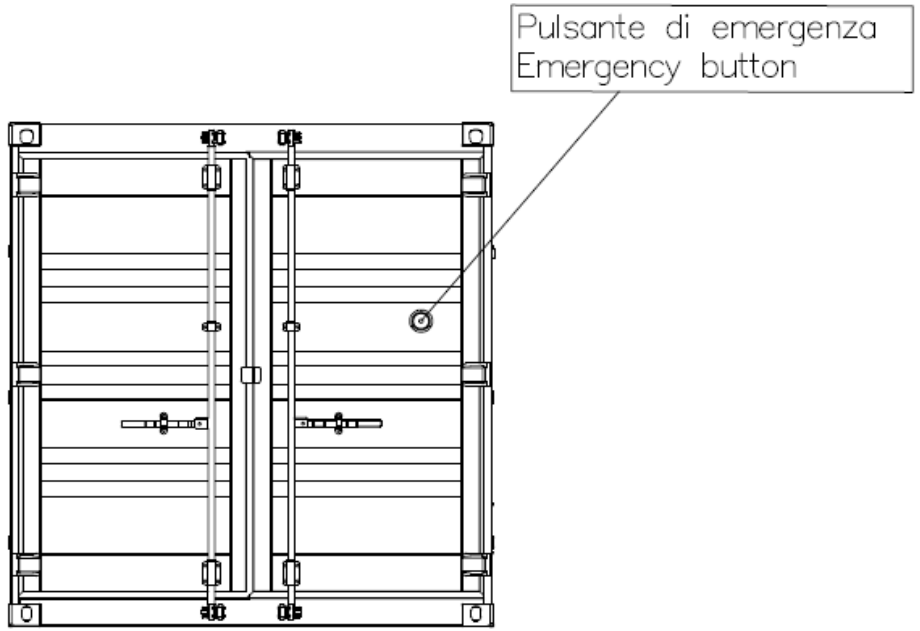
Surge arresters incoming line and outgoing line [MUST BE REQUESTED IN PHASE OF ORDER]		In the event of a lightning strike, the incoming line and the outgoing line must be protected against the lightning risk. If the customer provides a lightning risk assessment showing that the system is self-protected, SPDs are not required. When this is not possible: Inside the BESS Genmac StMS ELECTRICAL PANEL two voltage arresters are mounted, one for the incoming line and one for the outgoing line to the electrical load.

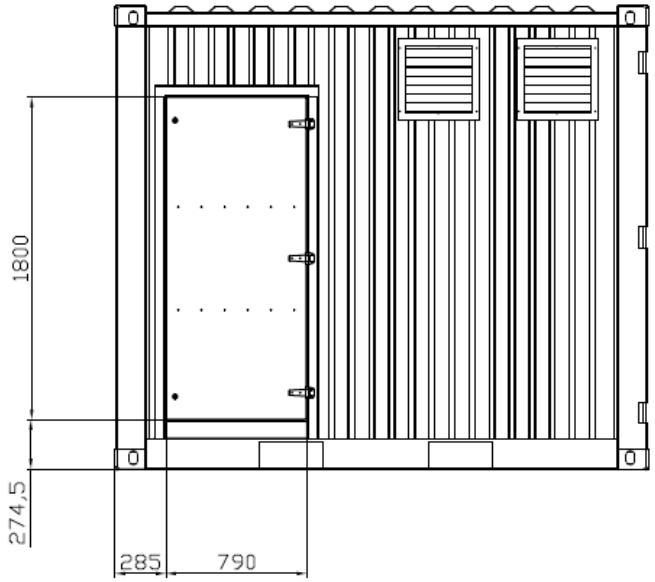
COOLING UNIT

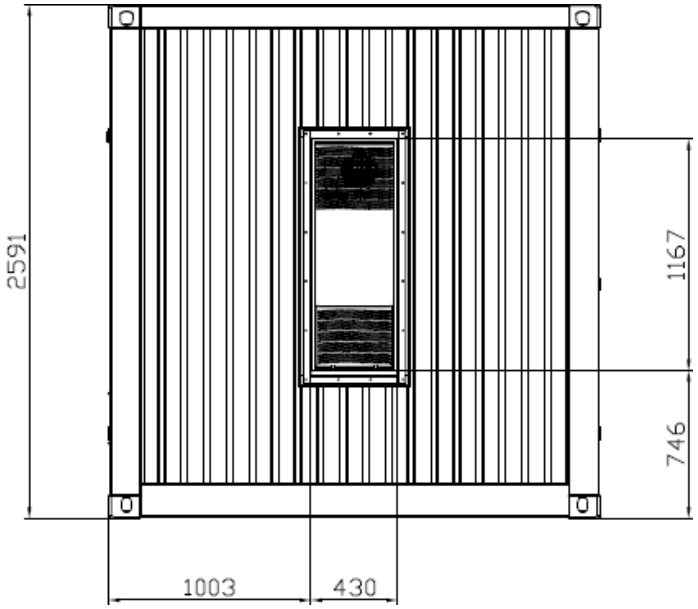
Air conditioner And heater **[TO BE REQUESTED AT ORDER CONFIRMATION].**		The air conditioner + heater makes it possible to maintain the performance of the BESS during the charge/discharge phase without derating to the maximum: 1C charge/discharge phase even at +50°C ambient without deratig. If temperatures can fall below 0°C, the heater is needed to keep the charging phase available even in cold ambient temperatures, the air conditioner, in winter operation, is needed to equalise the air temperature throughout the battery compartment. If derating above 25°C ambient is accepted or the installation site does not have large temperature fluctuations around the average values +5°/ +25°C, then it is not necessary to install this component.

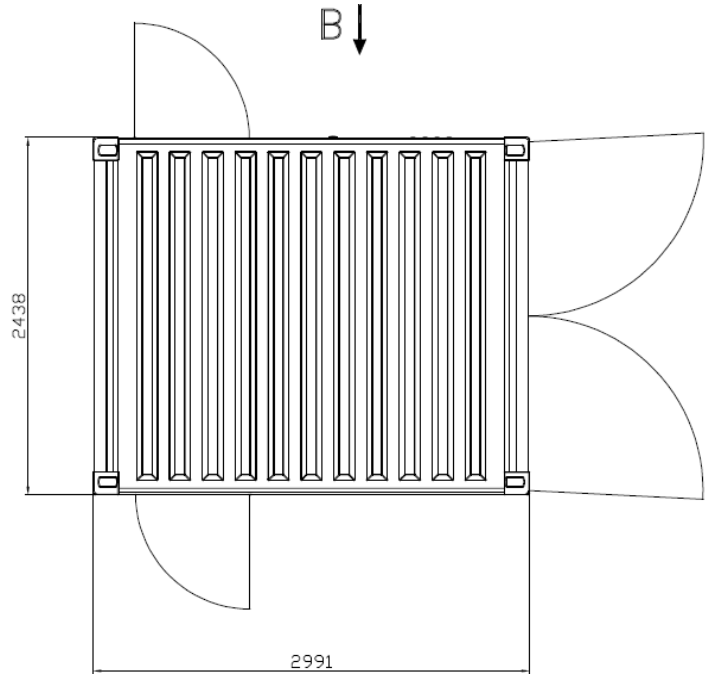
POWER LOCK SOCKETS RUGGED VERSION

RUGGED VERSION POWER LOCK SOCKETS [MUST BE REQUESTED IN PHASE OF ORDER]		The output plate with power-lock sockets allows safe incoming and outgoing line connections using pre-wired and pre-arranged power-lock plug cables. This is the typical construction site or rental configuration to facilitate the connection and disconnection of the storage system









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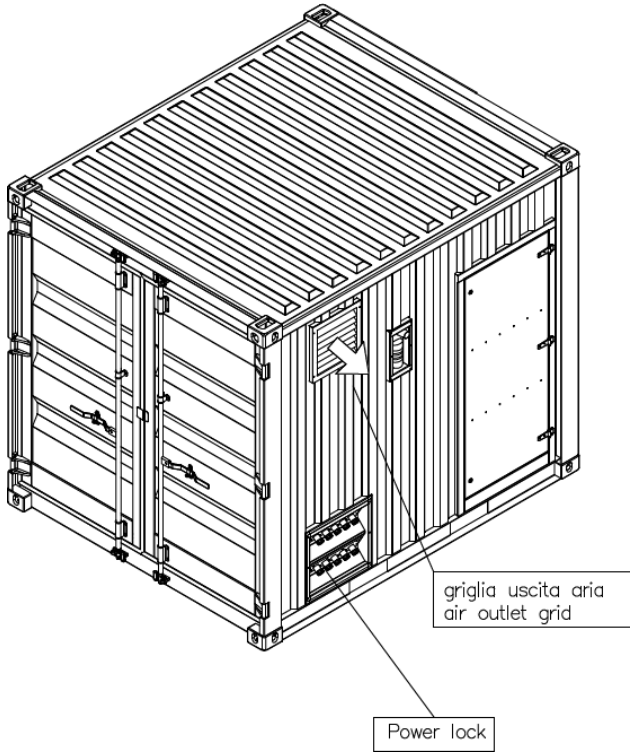

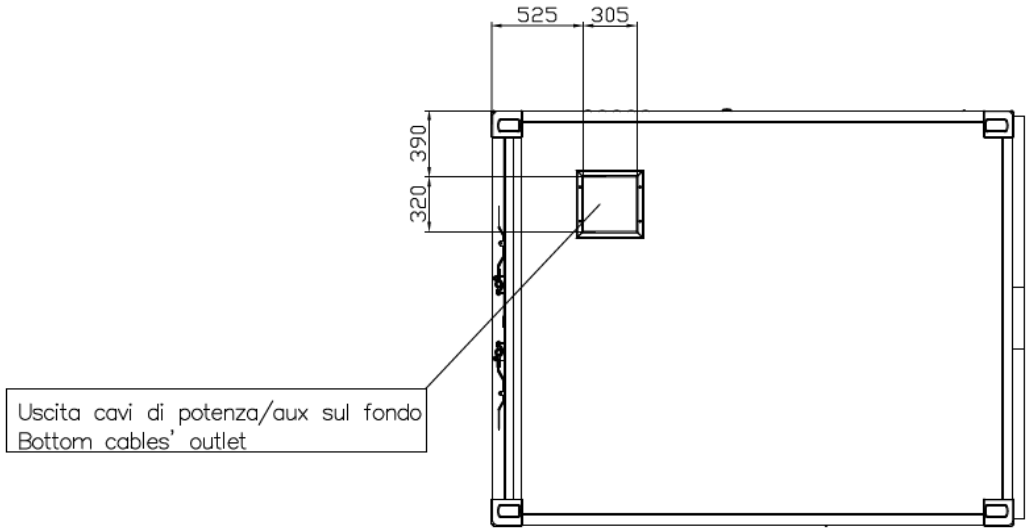

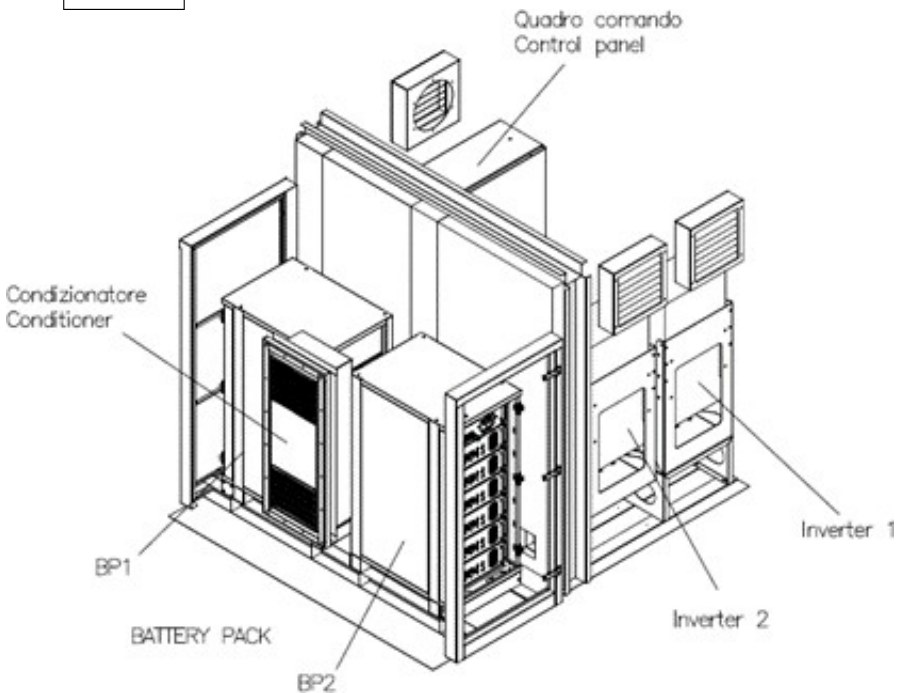

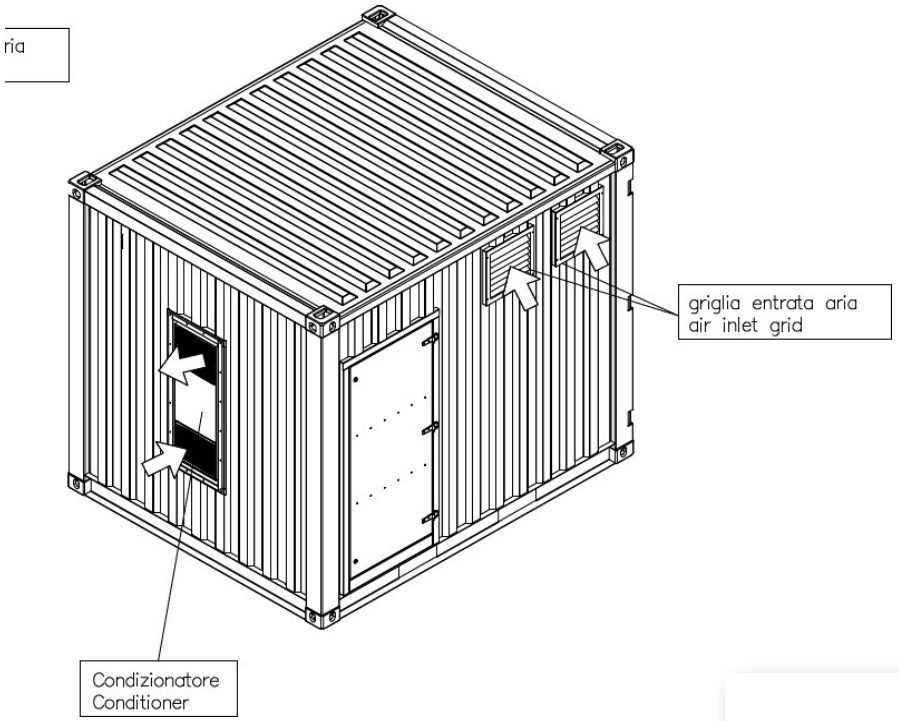

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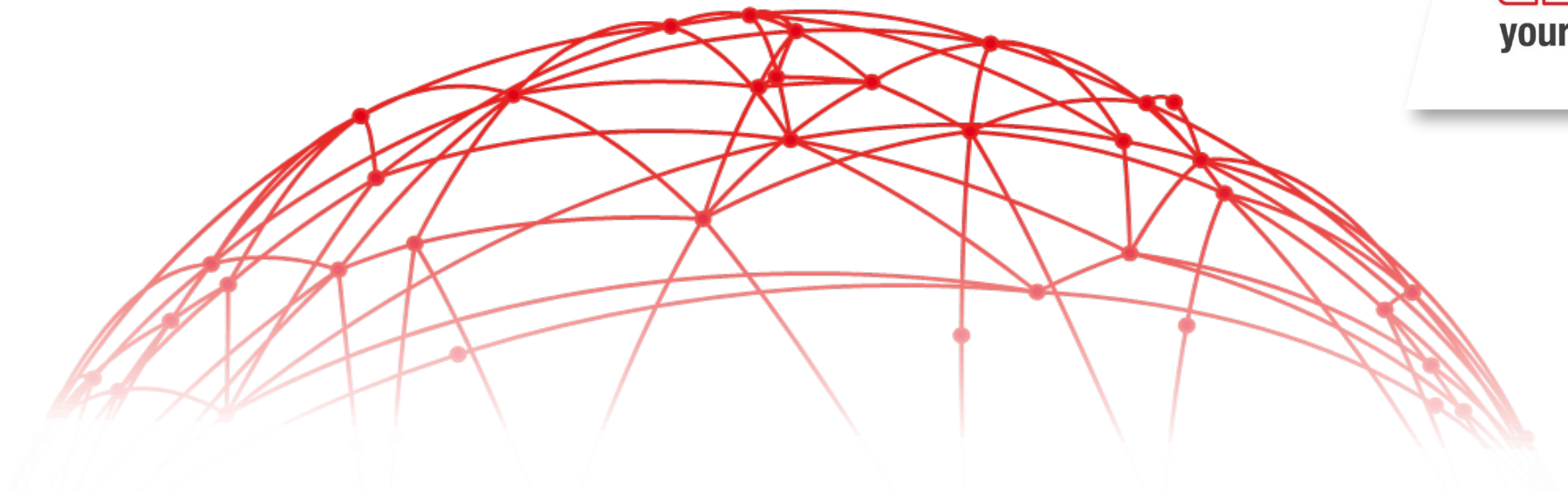

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FOR A BETTER FUTURE

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