GENMAC
your power source.

BESS
STAND SpC 48Vdc
range 7.6÷30kWh
2025

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BESS STORAGE SYSTEMS
STAND SpC 48Vdc range 7.6÷30kWh
(Battery Energy Storage System)

RANGE STAND SPC ACCUMULATION SYSTEMS
48Vdc THREE-PHASE Un=400V, 50Hz
AND ACCESSORIES

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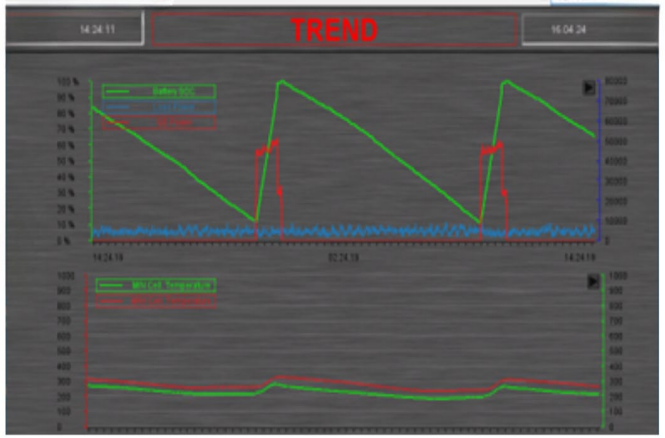
STAND SpC 48Vdc is a device for energy management in three-phase mains-parallel electrical systems or off grid / stand alone, with generator sets and/or renewable energy sources. Optimises the efficiency, noise, emissions and fuel consumption of diesel generators.

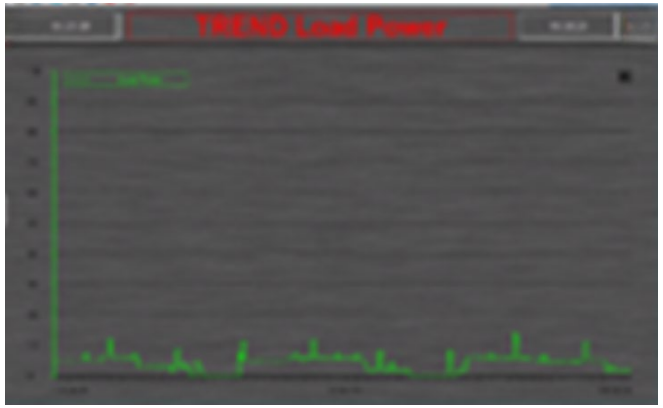
The **Genmac StMS** control module is the controller of the storage unit, consisting of a touch screen panel that allows supervision, monitoring and control of the entire unit at a high level. This controller natively integrates information from the battery pack, inverter and security systems.

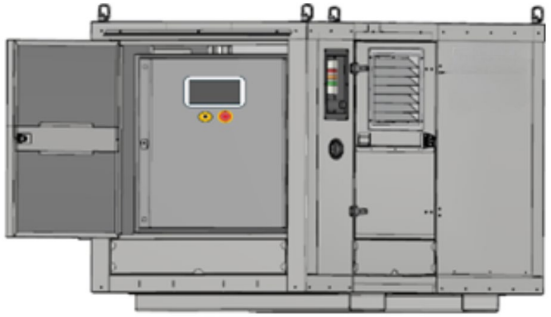
The **Genmac StMS** control module, allows data to be recorded and sent from the STAND SpC to a remote energy management platform that allows the user to control and optimise the energy consumed, as well as monitor and generate reports on each piece of equipment or the entire fleet of equipment owned by the user.

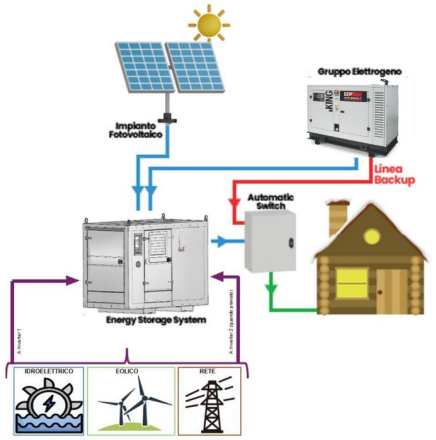
The control system helps to manage energy storage, allowing you to get the most out of incoming energy sources and to respond more effectively to electrical load requirements, maximising renewable energy production and minimising the use of the genset and/or grid input.

The STAND SpC 48Vdc 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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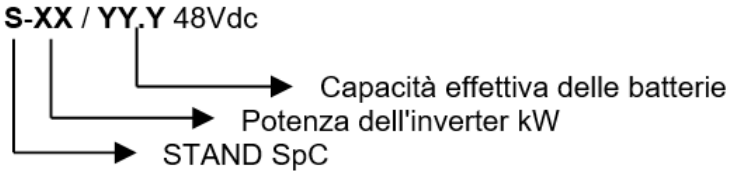
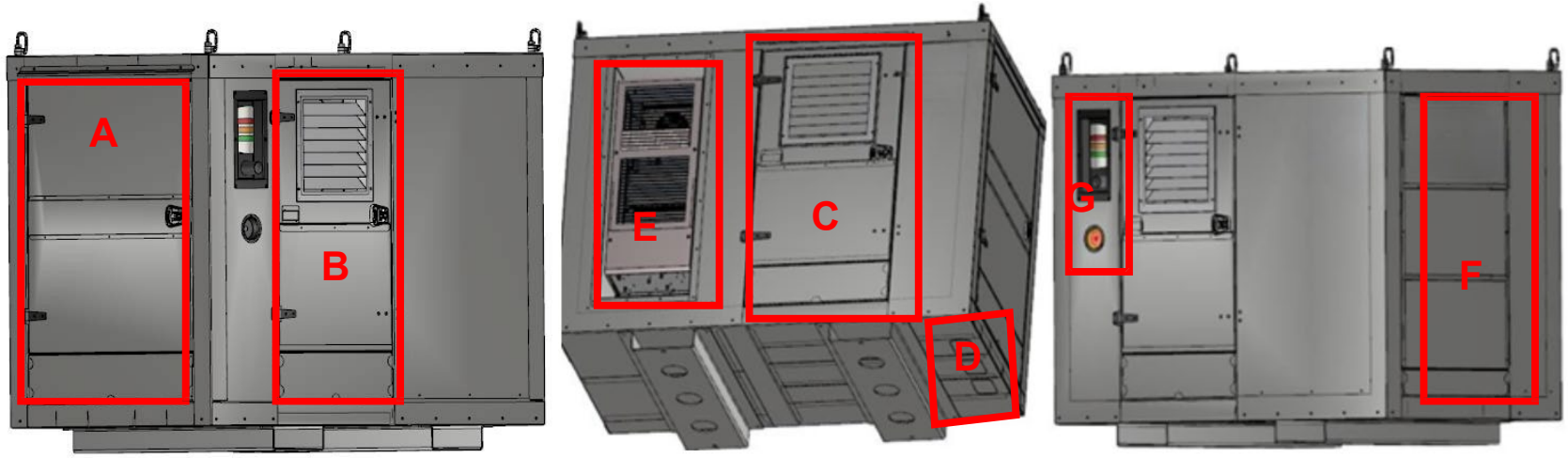


Three-phase 400V 50Hz

	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-12/7,6	13,2	12	24	400	50	LLP	20000	48	7,6	240	0,9	1,43
S-12/15,2	13,2	12	24	400	50	LLP	20000	48	15,2	240	1,81	1,43
S-12/22,8	13,2	12	24	400	50	LLP	20000	48	22,8	240	2,71	1,78
S-12/30,4	13,2	12	24	400	50	LLP	20000	48	30,4	240	3,61	2,38
S-24/7,6	26,4	24	48	400	50	LLP	20000	48	7,6	480	0,9	1,43
S-24/15,2	26,4	24	48	400	50	LLP	20000	48	15,2	480	1,81	1,43
S-24/22,8	26,4	24	48	400	50	LLP	20000	48	22,8	480	2,71	1,43
S-24/30,4	26,4	24	48	400	50	LLP	20000	48	30,4	480	3,61	1,43

Access to the interior of the storage ID system cabinet is secured with key-locked doors.

The keys are provided with the unit upon delivery.

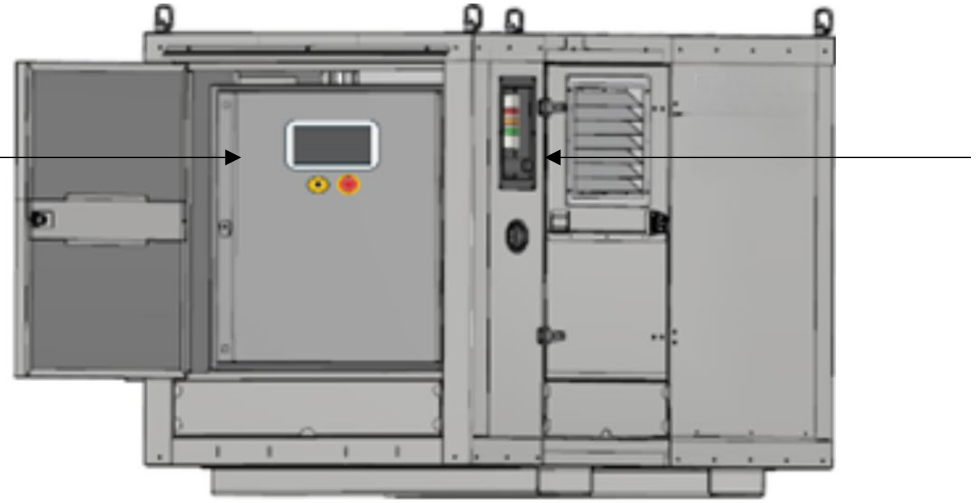


A. Access door to electrical cabinet
B. Access door to Inverter 1
C. access door to Inverter 2 (only for models with the second inverter)
D. Cable input/output from below
E. Battery Pack compartment conditioner
F. Access to battery compartment
G. Beeper niche /luminous accumulation status and emergency button

Zone B – Access Door to the Control and Command Panel of the Storage System
Zone G – Acoustic/Visual Signal Niche

Access to the electrical panel of the STAND SpV 48Vdc system is provided through a lockable door. The electrical panel is the connection point for both power and auxiliary links of the storage system.
The niche with the acoustic and visual signal device allows remote monitoring of the operational status of the storage system.

Control panel with StMS controller, emergency stop button, and ON/OFF key selector.



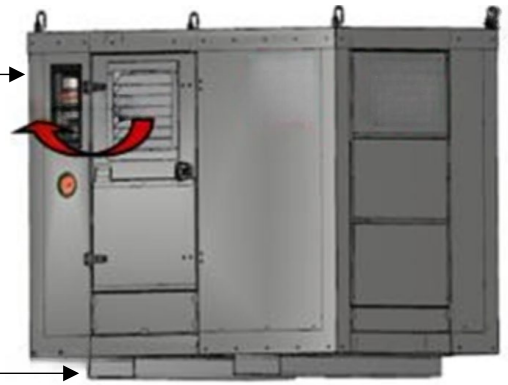
Niche with visual indicator and acoustic alarm, remote connection antenna, external temperature and pressure sensor.

Green light – OK
Amber light – OK
Red light – OK

Zone B access door to Inverter 1 - Identification of air flows

Hot air outlet

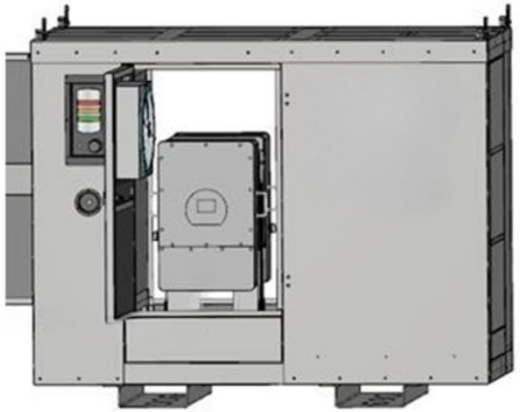
Lifting pockets for forklift

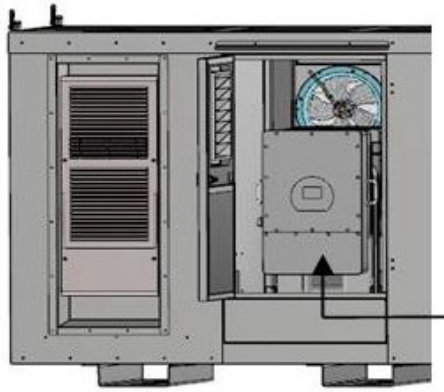


Lifting points

Zone B – Access to Inverter 1 / Zone C – Access to Inverter 2

Access to Inverter 1 (connections for PV system input, grid input, or hydroelectric system input).

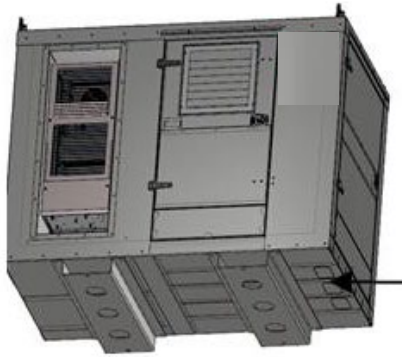




Access to Inverter 2 (where provided) (connections for PV system input, grid input, or hydroelectric system input).

Zone D – Electrical Cable Entry / Exit from Below

Three openings are available at the bottom of the canopy frame for cable routing. Each opening measures 100x150 mm.



Cable Entry/Exit Openings at the Bottom of the Frame

Zone E – Air Conditioner

Zone C – Access Door to Inverter 2 (when provided):

Indication of air flow directions.

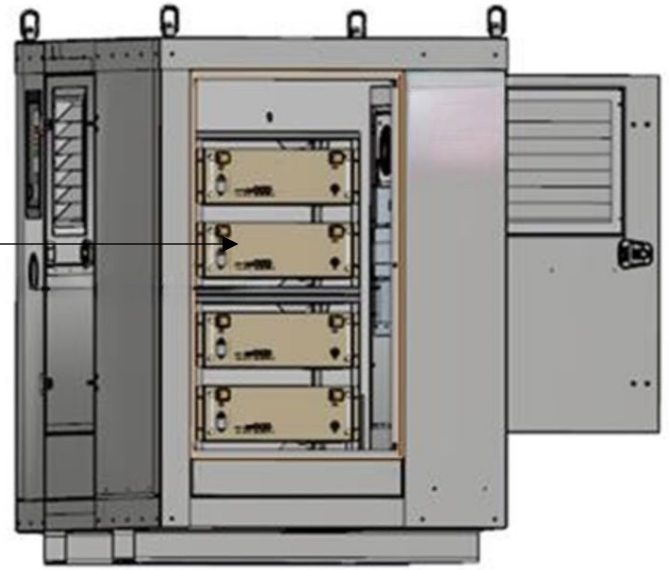
Air Conditioning Airflow

Fresh air intake

Zone F – Battery Compartment Access

The battery compartment is accessible only by Genmac technical personnel or by a service centre authorized by Genmac.

Battery Pack



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

EN 62933-5-2

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

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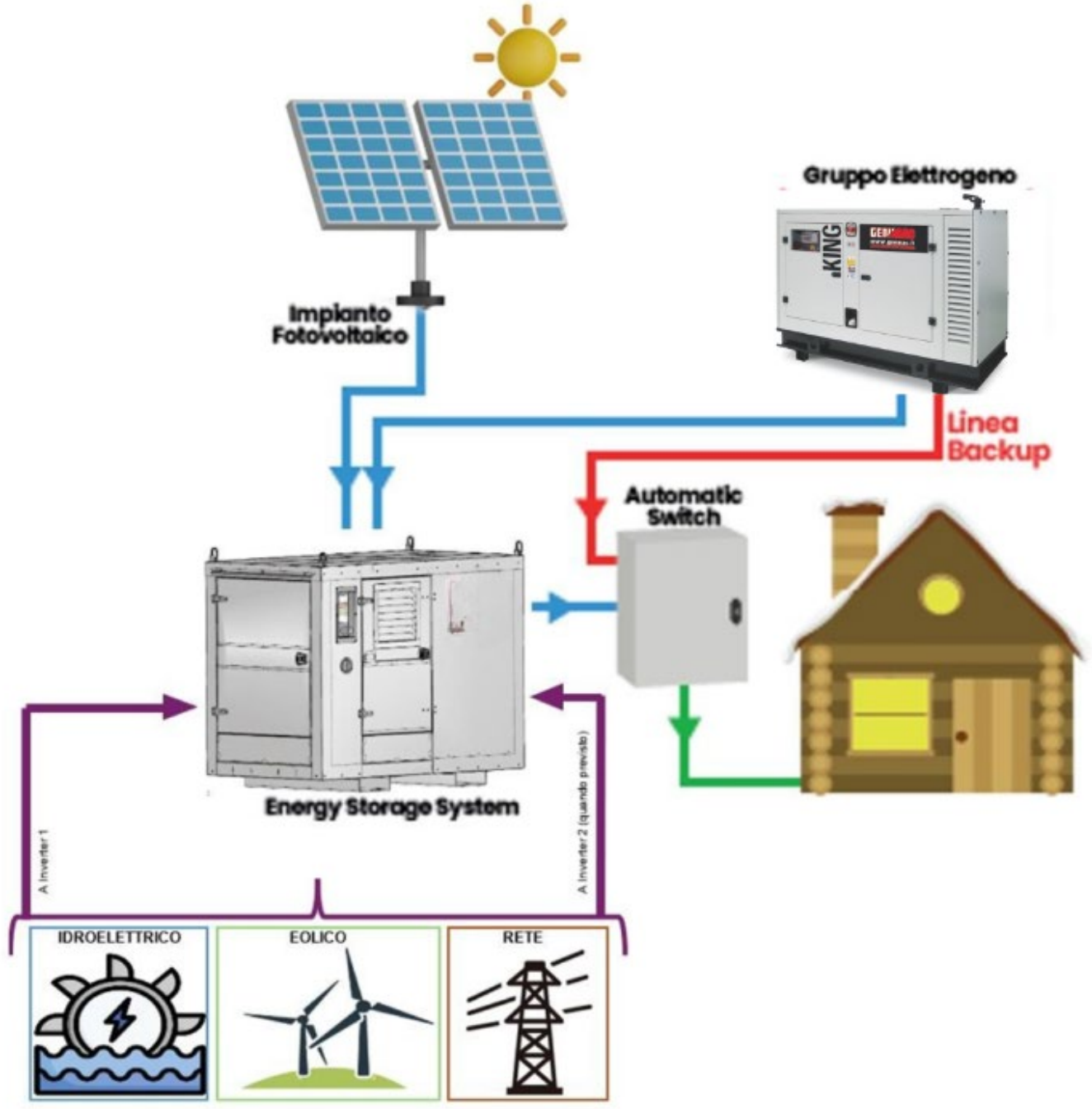

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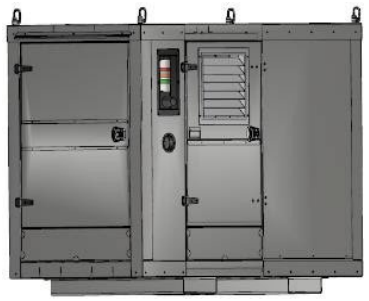
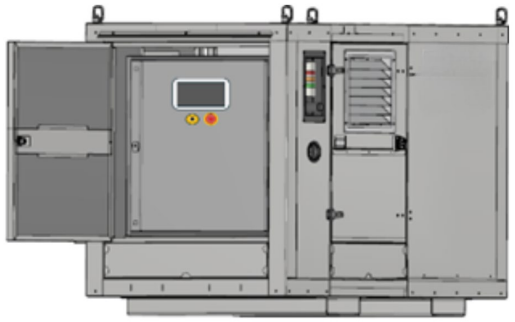
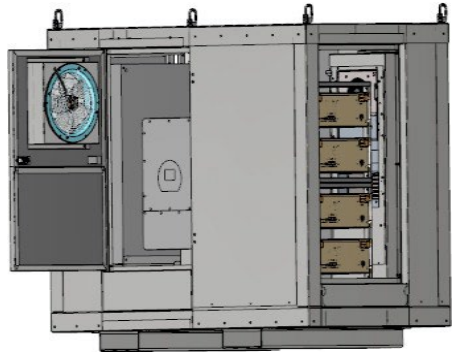
Stand_SpC_TRIFASE

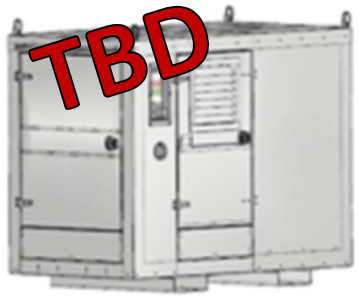
MODELS	OPTIONAL					
	SURGE ARRESTER (ONLY FOR BASIC VERSION)	COMPLETE ELECTRICAL PANEL	OVERHEAD UNLOADERS	DETECTIVE FIRE DETECTION	COOLING UNIT	RISTIC SENSUS
S-12/7,6						
S-12/15,2						
S-12/22,8						
S-12/30,2						
S-24/7,6						
S-24/15,2						
S-24/22,8						
S-24/30,2						

1 X 32A - 5p - 6h - 400Vac - IP54

1 X 16A - 5p - 6h - 400Vac - IP54

1 X 16A - 4p - 9h - 230Vac - IP54

1 X 16A - 2p+E - 230Vac - IP54 - **SCHUKO**



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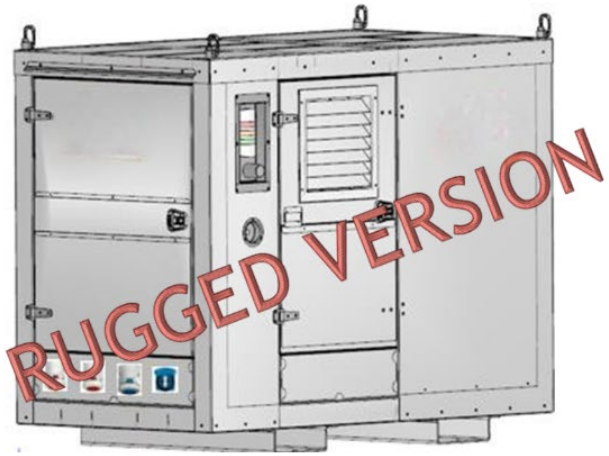
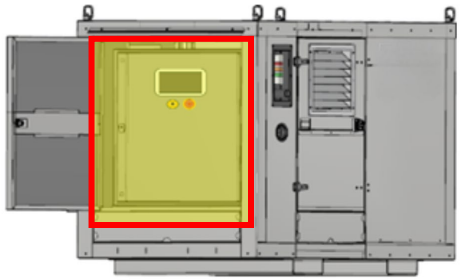


MODELS
R-12/7,6
R-12/15,2
R-12/22,8
R-12/30,2
R-24/7,6
R-24/15,2
R-24/22,8
R-24/30,2

BESS Genmac BASE control panel
Basic controls accumulation system
STAND SpC 48Vdc

OPTIONAL



The BESS Genmac BASE control cabinet consists of one part power, one part control,
the auxiliary circuit is realised to the minimum necessary for basic equipment.
The power part is realised with three switches:
input line switch (MAINS/WIND/HYDROELECTRIC)
generating set line switch
output switch to the Electric Load.
The connection to the photovoltaic system is made directly on the connectors available on the interface terminal board of the inverter.
The auxiliary part consists of: power supply and buffer batteries, display, remote controls, inverter zone forced ventilation system.
The dedicated storage supervision display is not the only interface with the device, remote control is possible. The control of the storage system is managed by the inverter and the battery BMS. The display has the function of concentrating signals, and warning messages, any failures due to faults, coming from the power inverter and the battery pack. Control is simplified and at a basic level there are no additional controls.

MATCHING ACCESSORIES
BESS GenmacBASE control panel

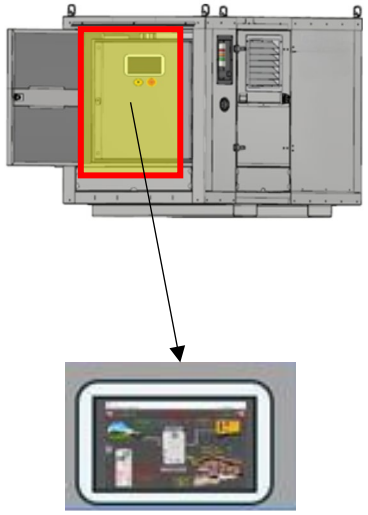
→ **SURGE ARRESTER (ONLY FOR BASIC VERSION)**

COMPLETE ELECTRICAL PANEL

QE GenmacStMS

BESS Genmac StMS control cabinet integrated, storage system control STAND SpC 48Vdc
- Graphic display, supervision and control of energy flows.
Parallel control of safety functions to prevent failure of the main components of the Accumulo.

STANDARD

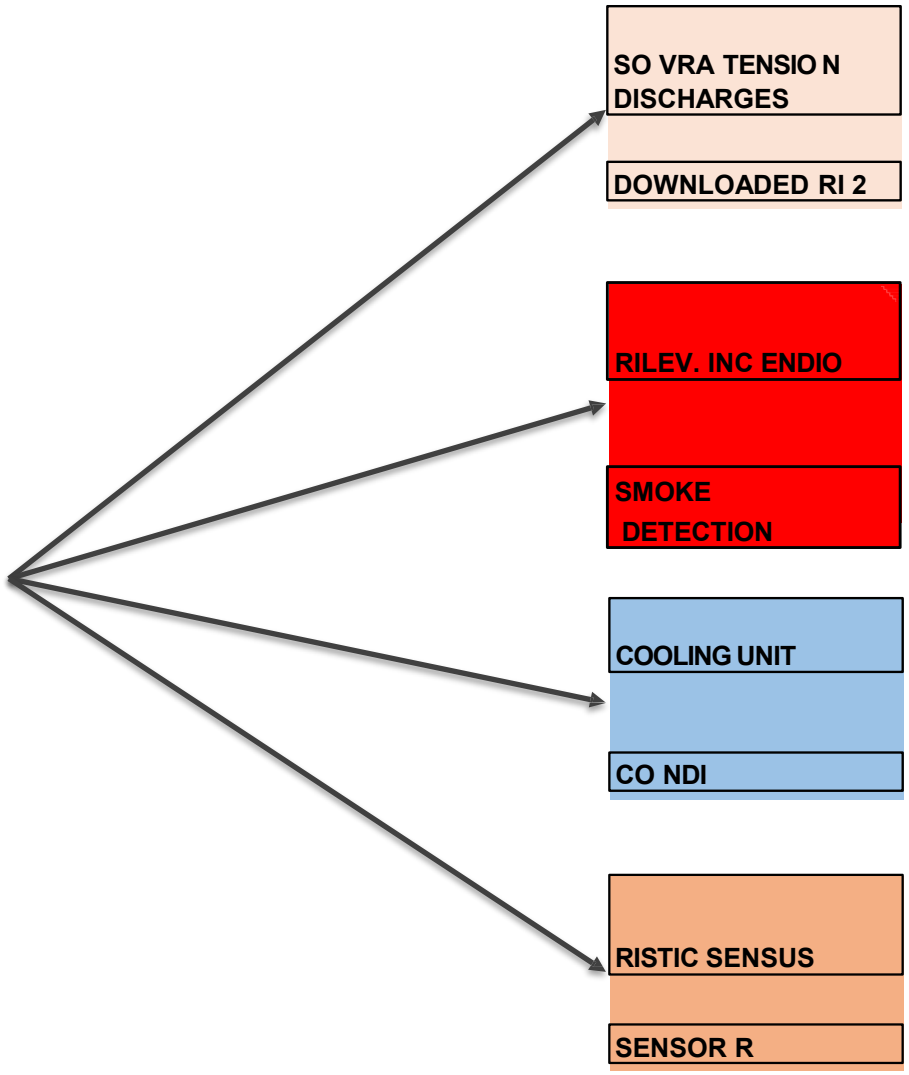


The BESS Genmac StMS control cabinet consists of a power, a control part, the auxiliary circuit is realised for a complete accessoryisation.
The power part is realised with two switches:
Input Line Switch: is set up for the Generator input for OffGid system. It can also be configured, when ordering, as a NETWORK / WIND / HYDROELECTRIC input, this depends on how many systems are planned as inputs. In the case of two plants one input for example Generating Set and NETWORK, the Generating Set will be directed to the inverter with a dedicated and protected line upstream.
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 makes it possible to manage the storage system from a functional point of view, because it interacts directly with the controllers of the battery system and the inverter.
The Genmac StMS allows the storage system to be managed with a higher level of security, because it performs parallel checks to the battery and inverter controllers, anticipating any anomalies and giving immediate feedback to the user.
The Genmac StMS controller allows the local remote display of all trends and working curves of the appliance, enabling the user to check the working points, yields and loading and unloading cycles as well as savings.
of energy realised.

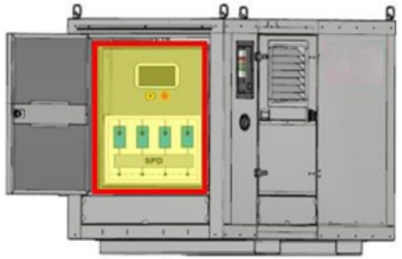
COMPLETE ELECTRICAL PANEL

QE GenmacStMS

MATCHING ACCESSORIES
BESS Genmac StMS control cabinet

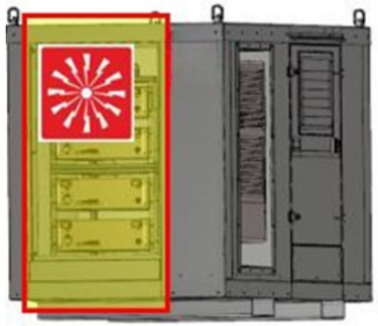


SO VRA TENSIVE DISCHARGE (ONLY FOR BASIC VERSION)	SO VRA TENSION DISCHARGES
DOWNLOADED RI 1	DOWNLOADED RI 2

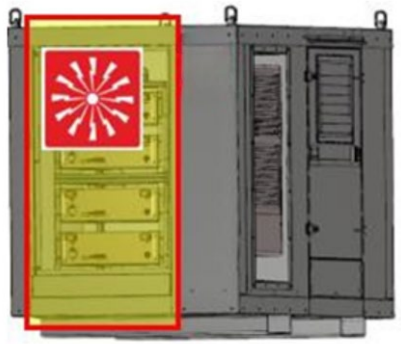
Dischargers overvoltage 1 **Surge Arresters 2**		In the event of a lightning strike, the incoming line and the outgoing line must be protected against the lightning risk. If the customer provides a lightning risk assessment showing that the system is self-protected, SPDs are not required. When this is not possible: FOR THE BESS Genmac BASE ELECTRICAL PANEL VERSION: is fitted a voltage arrester only for the outgoing line, for incoming lines the arrester must be mounted upstream of the line. FOR THE BESS Genmac StMS ELECTRICAL PANEL VERSION: two voltage arresters one for the incoming line and one for the line outgoing to the electrical load.

RILEV. INC ENDIO

SMOKE DETECTION

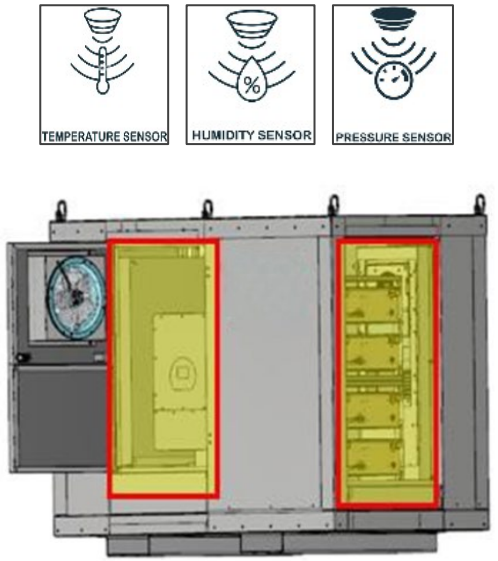
Fire detection		Below 20kW, fire detection is not necessary for BESS, but is recommended. Above 20kW it is necessary. This system detects the presence of smoke in the battery compartment and warns by means of the optical acoustic signal; it also acts on the safety of the machine by switching off the accumulator and putting it into protection.

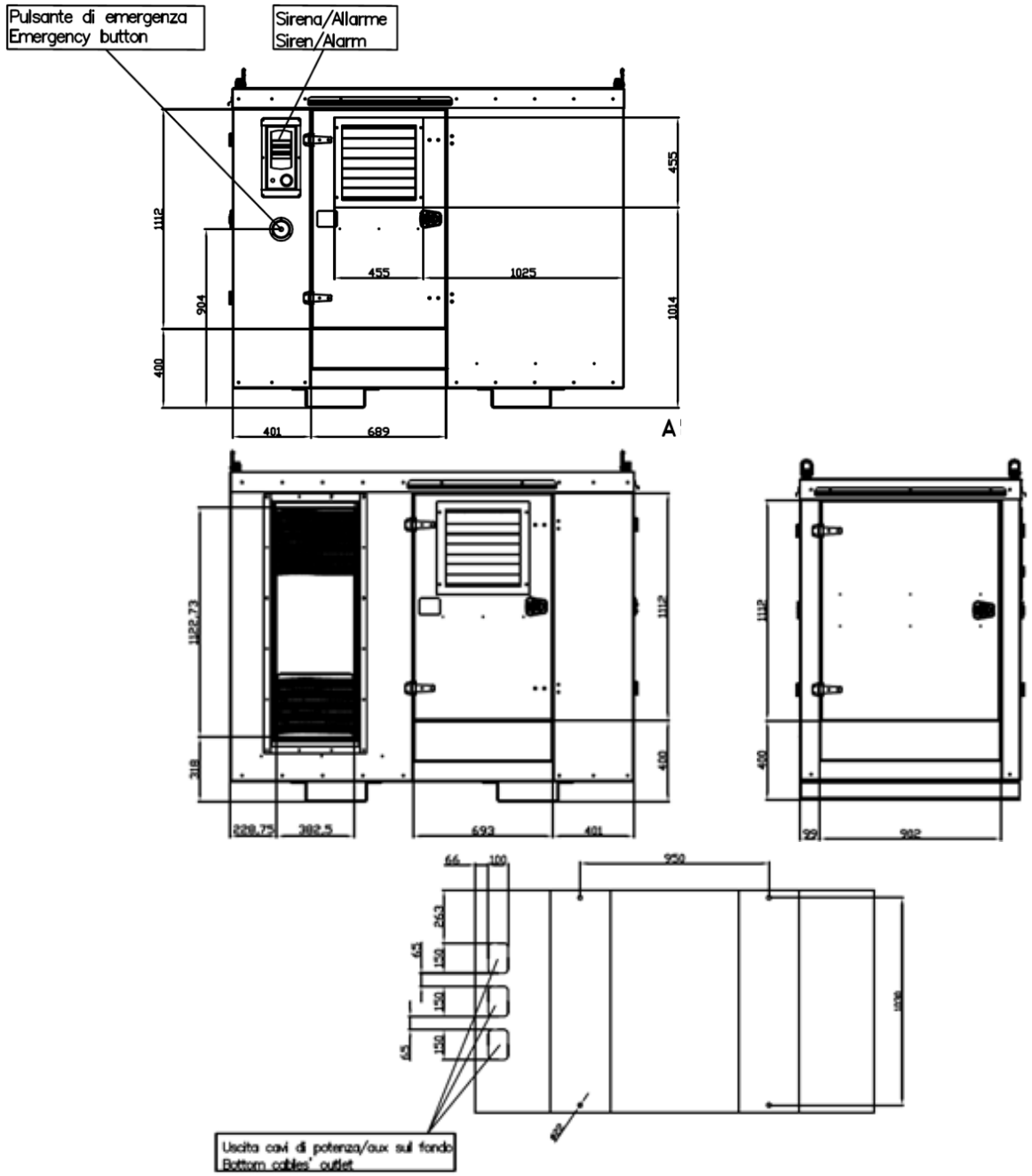
COOLING UNIT
CO NDI

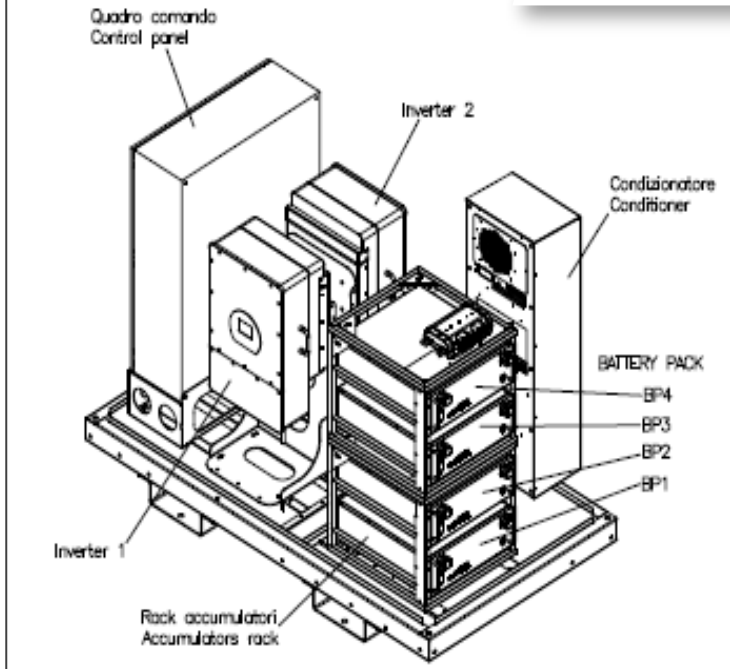
Air conditioner and heater		The air conditioner + heater makes it possible to maintain the performance of the BESS during the charge/discharge phase without derating to the maximum: 1C charge/discharge phase even at +50°C ambient without deratig. If temperatures can fall below 0°C, the heater is needed 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 place of installation has no major temperature fluctuations around the average +5°□ +25°C, then it is not necessary to install this component.

SENSORISTICA

SENSOR R

Sensing		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 from the same measurement in the inverter compartment may indicate an anomaly such as an overload, overheating of the battery bank, or of the inverters. These sensors improve the safety features of the unit, especially when installed together with the air conditioner.





kW	kWh	Inv1	Inv2	Batt. pack
12	7,6	✓	-	BP1
	15,2	✓	-	BP1+BP2
	22,8	✓	-	BP1+BP2+BP3
	30,4	✓	-	BP1+BP2+BP3+BP4
24	7,6	✓	✓	BP1
	15,2	✓	✓	BP1+BP2
	22,8	✓	✓	BP1+BP2+BP3
	30,4	✓	✓	BP1+BP2+BP3+BP4

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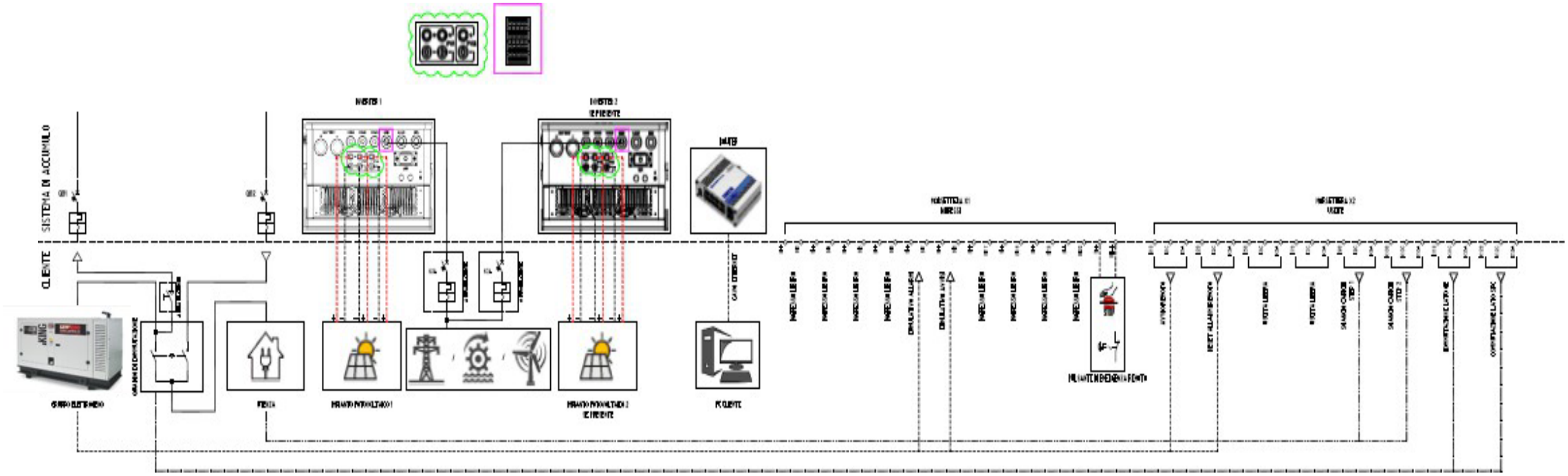

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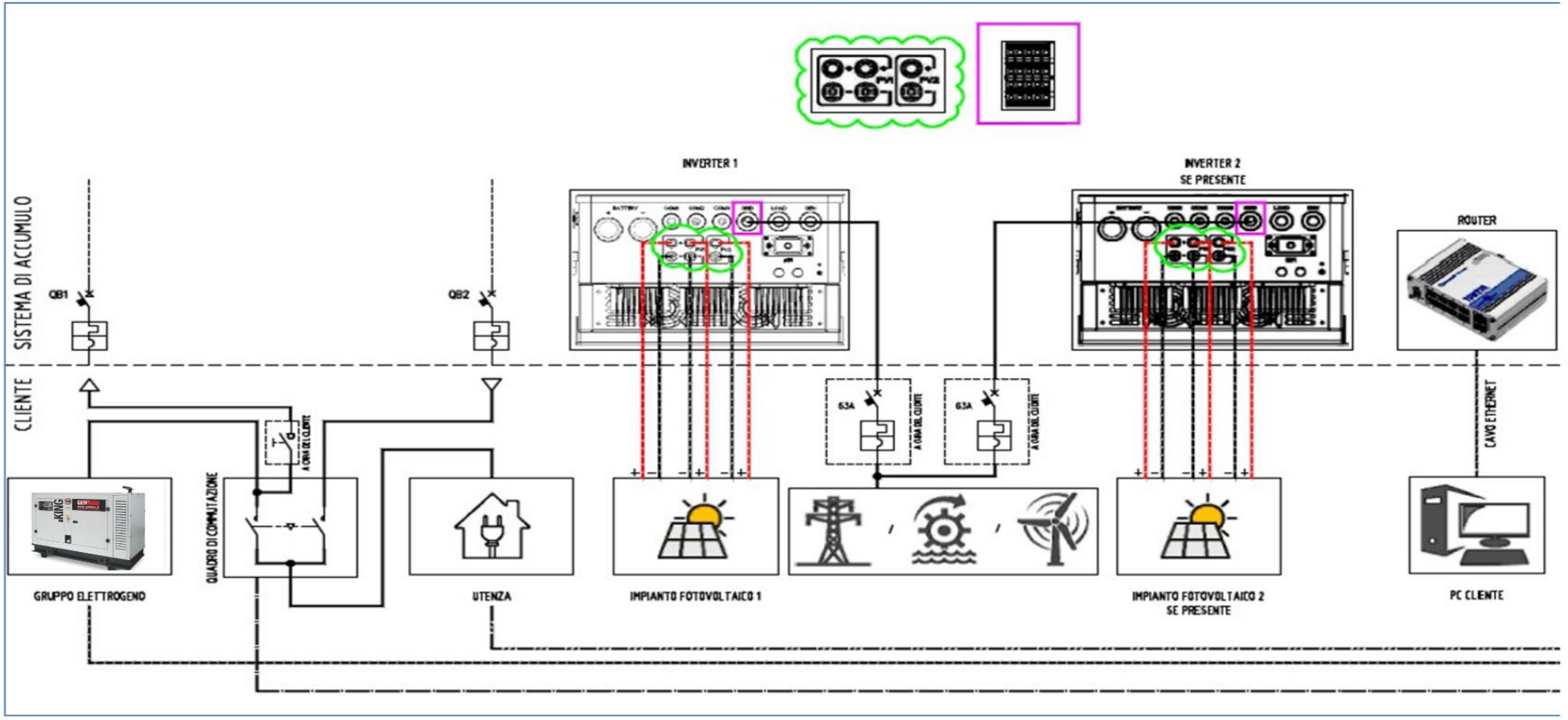
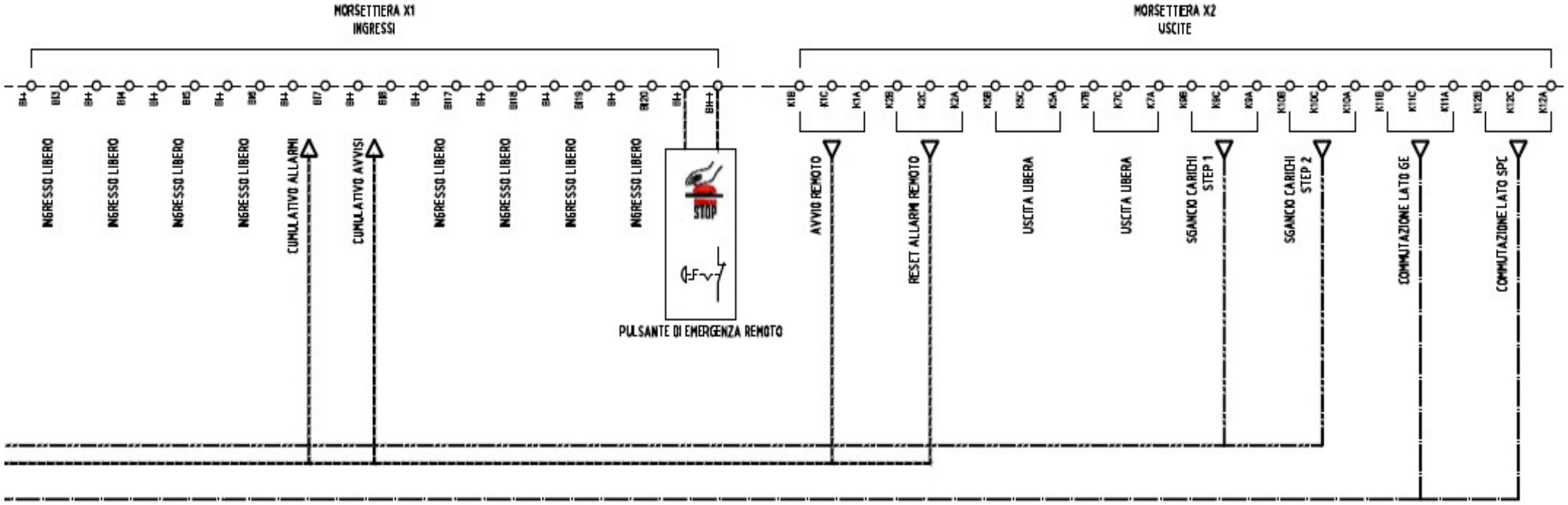

INVERTER 1
INVERTER 2
SE PRESENTE
ROUTER
SISTEMA DI ACCUMULO
QB1
QB2
CLIENTE
63A
63A
CAVO ETHERNET
GRUPPO ELETTROGENO
QUADRO DI COMMUTAZIONE
UTENZA
IMPIANTO FOTOVOLTAICO 1
IMPIANTO FOTOVOLTAICO 2
SE PRESENTE
PC CLIENTE



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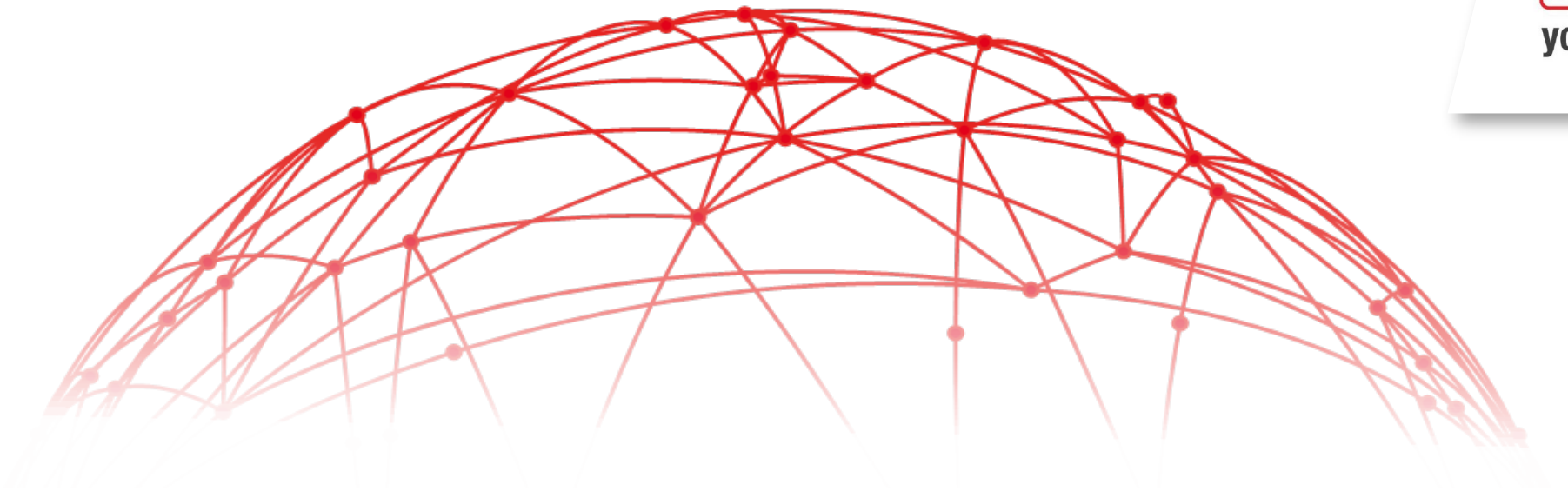

GROWING TOGETHER
FOR A BETTER FUTURE

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