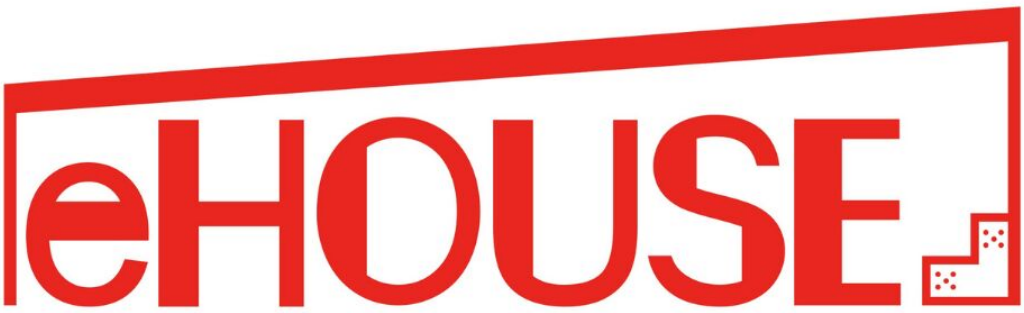
Licence agreement

PATENTED DESIGN

BECOME OUR PARTNER IN BUILDING eHOUSES

CR TECHNOLOGY SYSTEMS



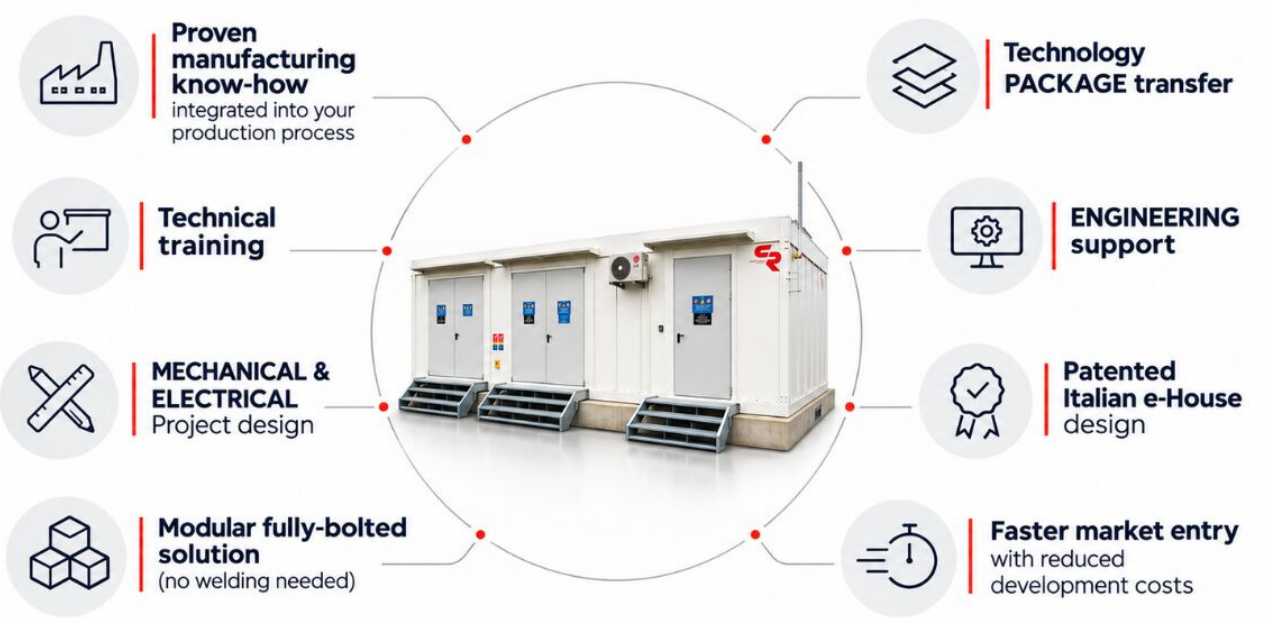


Catalogue: eHouse - Switchroom & Control room
Code: CRTS_ESW039_Ctlg_Switchroom_USA-eHouse_2026_Eng_Rev01
Publication: 2026
C.R. TECHNOLOGY SYSTEMS SPA

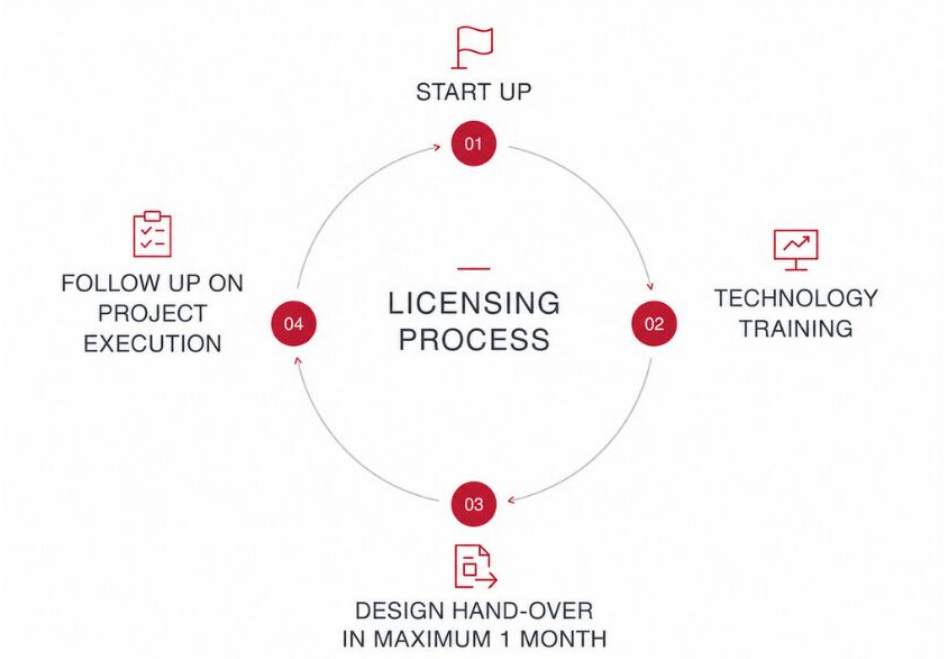
E-HOUSE BUILDER LICENCE AGREEMENT

Becoming a Licensed eHouse Builder, empowers you to a series of advantages:

- PROVEN MANUFACTURING KNOW-HOW INTEGRATED INTO YOUR PRODUCTION PROCESS
- TECHNOLOGY PACKAGE TRANSFER
- TECHNICAL TRAINING
- MECHANICAL & ELECTRICAL PROJECT DESIGN
- ENGINEERING SUPPORT
- PATENTED ITALIAN E-HOUSE DESIGN
- MODULAR FULLY-BOLTED SOLUTION (NO WELDING NEEDED)
- FASTER MARKET ENTRY WITH REDUCED DEVELOPMENT COSTS



BUILD YOUR E-HOUSE BUSINESS IN JUST 4 STEPS



From initial preparation to project execution, C.R. Technology Systems guides your team through a structured licensing process. Four coordinated phases connect our engineering know-how with your manufacturing capabilities, supporting the development of your eHouse project.

01. START UP

Define project objectives, manufacturing requirements, responsibilities and an implementation plan.

02. TECHNOLOGY TRAINING

Train your team in eHouse technology, manufacturing methods and assembly procedures.

03. DESIGN HAND-OVER

Receive the agreed mechanical and electrical design documentation for eHouse development and manufacturing in maximum one month.

04. FOLLOW UP ON PROJECT EXECUTION

Engineering support to address technical questions and apply the transferred technology.



MODULAR POWER

ENGINEERED FOR QUICK INTEGRATION

Our electrical eHouse is a modular, factory-assembled unit that integrates all components. Pre-tested before delivery, it enables immediate on-site connection and operation, cutting lead times by up to 50% compared to traditional concrete installations.

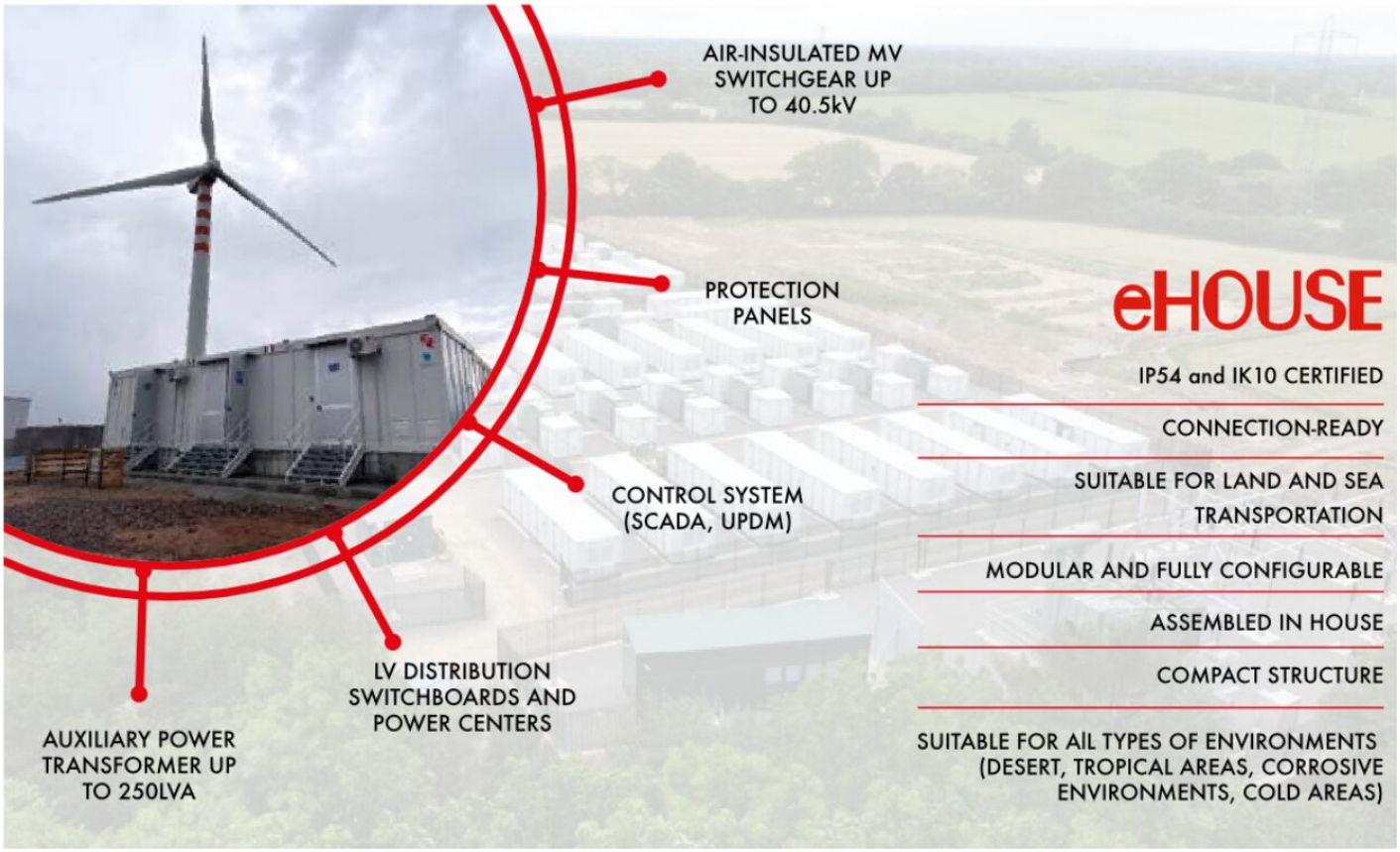
Modular components:

- Medium-voltage switchgear
- Protection and Control Cabinets
- Control SCADA software
- Low-voltage Distribution switchboards and Power Centers
- Auxiliary Equipment and systems

Its plug-and-play configuration simplifies installation and minimizes on-site work, making it ideal for fast-track projects and remote locations.

This versatility makes our eHouse a reliable solution for a wide range of applications, including industrial plants, data centers, renewable energy facilities, and utility substations.

Built to the highest quality standards, each unit undergoes rigorous factory testing to ensure long-term performance, operational safety, and seamless integration into existing infrastructures.



TECHNICAL SHEET

CLIMATE CONDITION

Operating temperature	-5°C / +40°C (+55°C on demand)
Relative humidity	Up to 95%
Climatic range	From moderate to tropical climate
Resistance to pollution	Degree 4

CONSTRUCTION FEATURES

Accessibility	Customized
IP Degree of protection	IP54
Assembly system	Modular bolted
Resistance to fire	Up to REI/EI 120
Fire-fighting system	Smoke detection / Fire detection and manual or automatic extinguishing
Intrusion detection system	Perimeter / Volumetric / Infrared
Air-conditioning system	Split / Industrial fixed / Industrial pull-out / Industrial on roof (on request)
Roofing system	Fixed / Roof shading
Protection against rust and corrosion	Painting cycle up to C4M (higher level on demand)
Plant distribution	Distribution on metal or plastic cableways Distribution in rigid and flexible PVC foambottom plate and cable gland
Cable entry	From below: direct / with blind bottom plate / with drilled bottom plate with bottom plate and cable gland

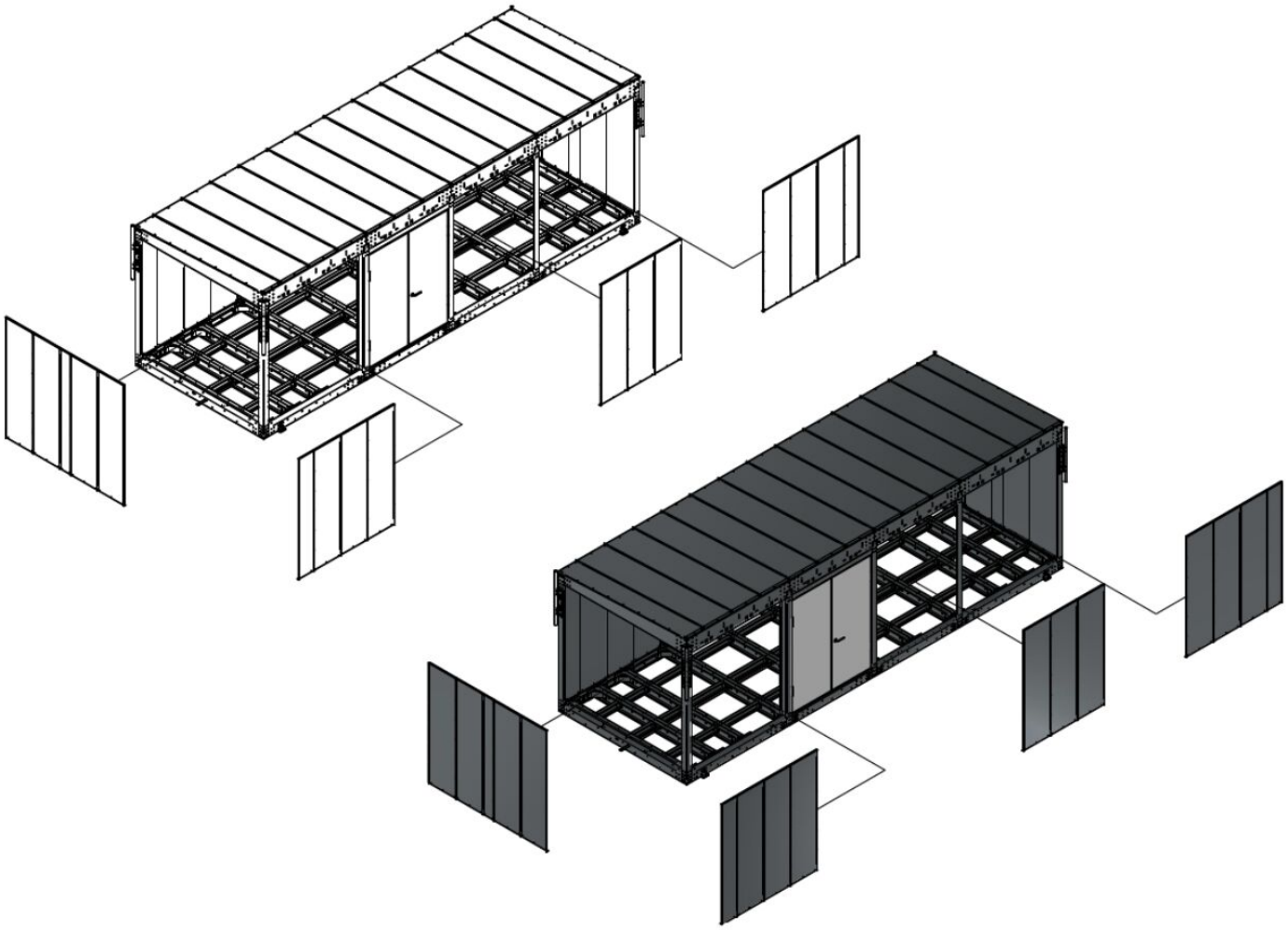
MATERIAL FEATURES

Insulating panels	Polyurethane
Construction elements	Galvanized steel (Sendzimir, Magnelis)
Load-bearing elements	Galvanized steel (Sendzimir, Magnelis)

PRODUCTS STANDARDS

Low-voltage switchboard	IEC 61439-1/2
Medium-voltage switchgear	IEC 62271-200
Electrical substation	IEC 62271-202 / CEI 99-4 / IEC 61936
Civil distribution system	IEC 62271-202
Fire-detection plant	EN54

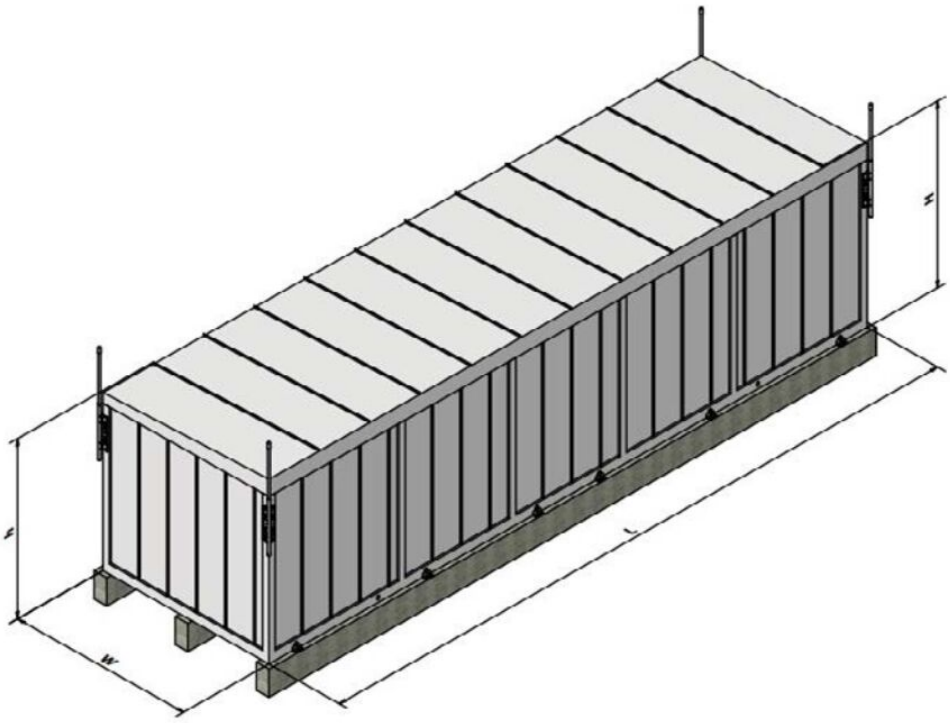
LAYOUT AND DIMENSIONS



EM = END MODULE (2650MM)
SCM = STANDARD CENTRAL MODULE (2200MM)

TYPE	L Lenght	W Width 1	W Width 2	W Width 3	H Front Height	H Rear Height
1	7500	3300	3500	4000	3300	3185
2	9700	3300	3500	4000	3300	3185
3	11900	3300	3500	4000	3300	3185
4	14100	3300	3500	4000	3300	3185
5	16300	3300	3500	4000	3300	3185
6	18500	3300	3500	-	3300	3185

TRANSPORT AND HANDLING



The Switchroom requires a basement, which ensures proper levelling, enhances structural stability, and provides protection against environmental and weather-related elements.
Typically, it is a concrete or steel structure frame and pillars, studied for allowing the most suitable power cable routing inlet from below.
It is equipped with special accessories (eyebolt and lifting plate) for lifting operations, which can be carried out using the provided hooks.



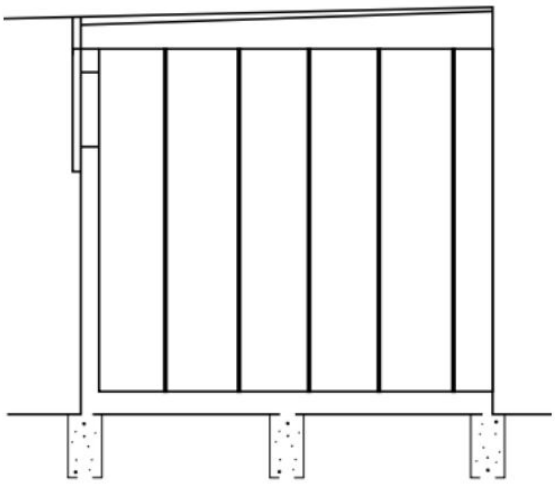
Transport must be carried out using a suitable trailer that guarantees good stability during the journey and compliance with current regulations.



Due to the sizing and weight of the Switchroom, it is classified as exceptional transport, thus requiring suitable straps and, optionally, heat shrink wrap.

SLOPED ROOF DESIGN

Its feature is the distinctive single-sloped roof design with a two-degree angular inclination. This architectural choice prevents water accumulation during rainfall, ensuring better durability and protection of the structure.
The sloped roof facilitates easier maintenance, reduces the risk of infiltration, and enhances the long-term reliability of the Switchroom even in harsh weather conditions.



MATERIALS

The Switchroom is engineered to guarantee solidity, durability, and protection in the most demanding environments. Its construction combines galvanized steel with advanced coatings and insulating layers, ensuring resistance to weather, thermal variations, and mechanical stress.

ELEMENT	MATERIAL	KEY FEATURES
Base and reinforcements	Galvanized steel sheets, coated with polyurethane resin for outdoor use.	Structural stability, corrosion resistance, long durability.
Uprights	Galvanized steel (30/10 thickness) angle brackets.	Positioned at corners and long sides, reinforcement of the structure.
Walls	External galvanized steel sheet (15/10) with polyurethane resin + inner polyurethane panels.	Thermal and acoustic insulation, weather resistance.
Roof	External galvanized steel sheet (15/10) with polyurethane resin + inner polyurethane panels.	High weather resistance, long durability, effective thermal protection.
Floor	Zinc-coated metal sheet with polyurethane resin finish.	Outdoor resistance, optional pre-cut cable entry openings on request.

** The thickness of the polyurethane insulated panels varies depending on the installation's climatic conditions or the project specifications. The structure has been designed to ensure a customizable fire resistance class.*

SUSTAINABLE MATERIAL SELECTION

In line with the proactive role of the company in caring for the environment, the R&D department is constantly engaged in the selection and development of materials and components, ensuring high efficiency, performance and minimizing the CO_2 emissions and our carbon footprint.

SENDZIMIR Z 275 is a galvanized steel, with a smooth and glossy appearance. The zinc coating is offered in a wide range of thicknesses.
Application: entire structure.
Characteristics: medium corrosion résistent, standard climate conditions.

- Shiny, crystalline surface
- Corrosion resistant
- Guaranteed for 20 years
- Surface and thickness tolerance in accordance with NEN-EN 10143
- Hot-dip galvanized

MAGNELIS ZM 310 A is a metallic, steel-coated product which uses a metallic chemical composition of zinc with 3.5% aluminum and 3% magnesium.
Application: entire structure.
Characteristics: high corrosion resistance, tropical climate (salt, sun, high temp and humidity).

- High corrosion resistance
- Long duration
- Alternative to Stainless Steel
- Edge protection during processing
- Environmentally friendly
- Performs well in its natural state
- Non-magnetic
- 100% recyclable

ALUMINUM 99.5 aluminum alloy that is at least 99.5% pure aluminum.
Application: seldom, for doors.
Characteristics: high corrosion resistance.

- Lightness
- High duration
- Ductile
- Corrosion resistant
- Non-magnetic
- 100% recyclable

FUNCTIONAL DESIGN AND AREAS

1. MEDIUM VOLTAGE SWITCHGEAR ROOM

This central section is designed to house medium-voltage switchgear and related equipment, ensuring reliable power distribution and system protection.
We manufacture our own SF_6-Free MV switchgears, the metal-enclosed ATR38 and the metal-clad CR POWER 38kV.

2. PROTECTION & CONTROL, LOW VOLTAGE ROOM

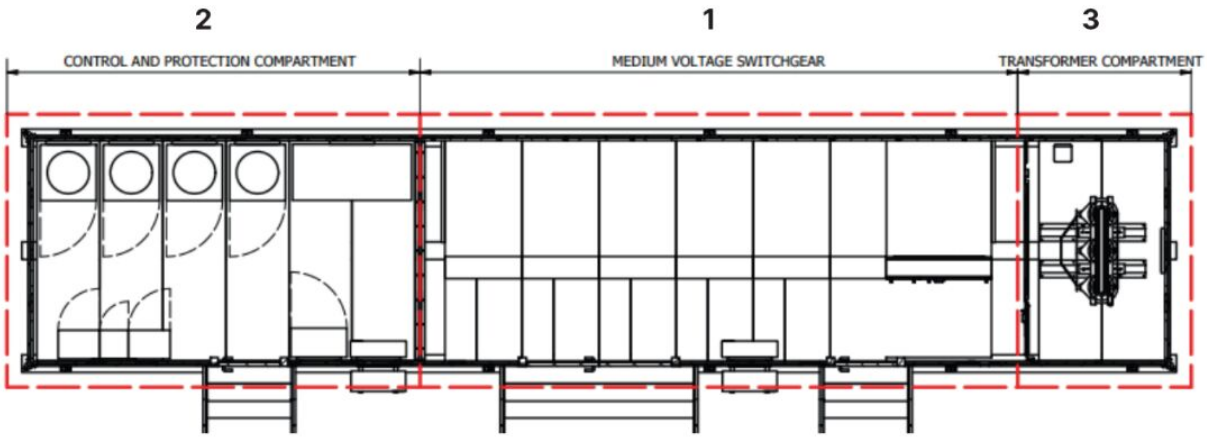
The area includes protection and control panels, SCADA control systems and Low Voltage switchboards. It serves as the core for monitoring and managing the electrical infrastructure.

3. TRANSFORMER COMPARTMENT

Dedicated to housing the transformer units, this section is engineered for safe integration and accessibility during maintenance operations.

**Specific configurations can be arranged according to the customer needs*





DIGITALIZATION AND AUTOMATION SYSTEM

Built for the present, ready for the next-gen energy.

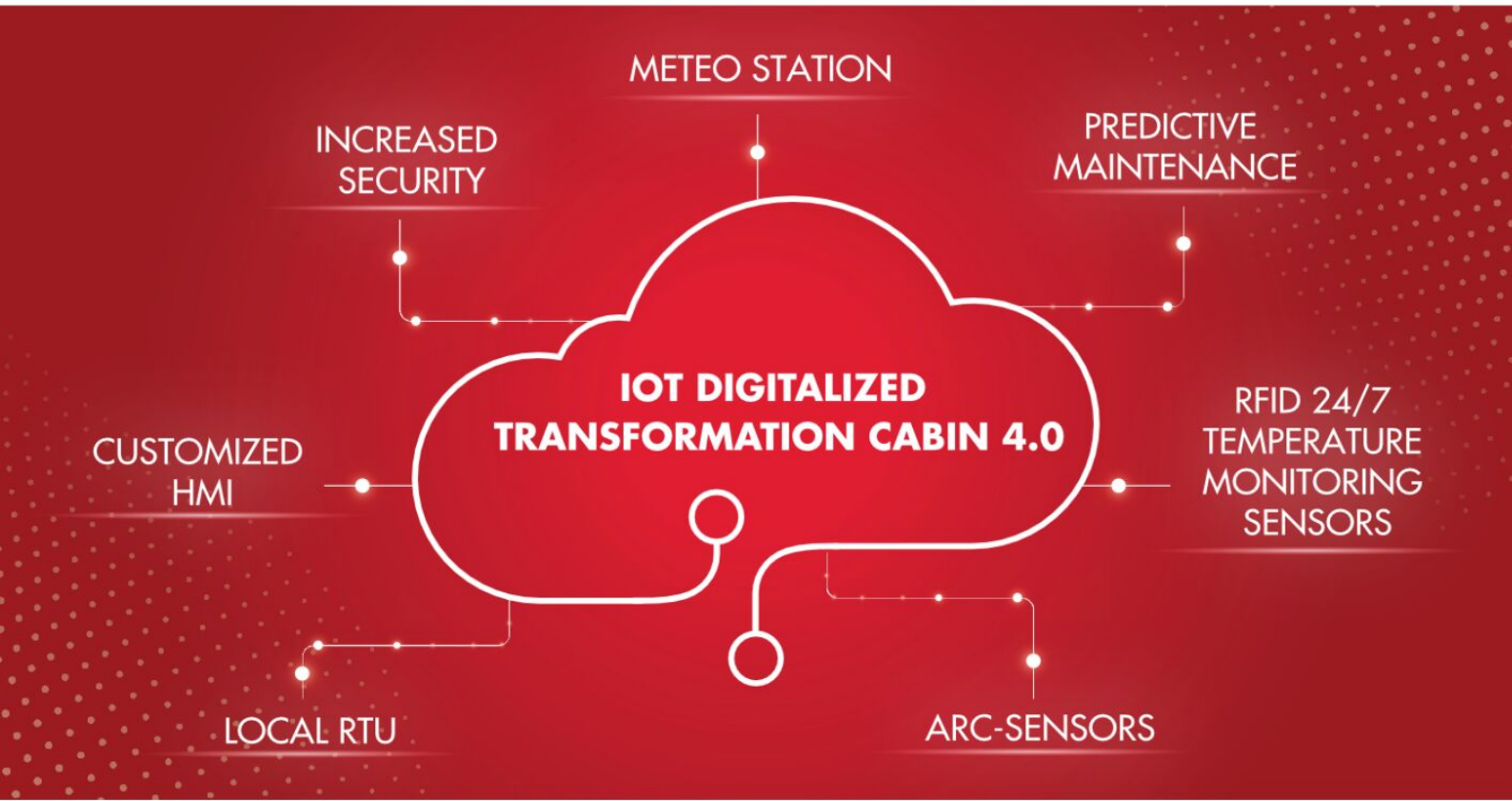
In an increasingly digital and interconnected energy landscape, the integration of intelligent monitoring and automation systems is essential to ensure safety, efficiency, and continuity. C.R. Technology Systems develops advanced solutions that support the digital transformation of electrical plants, enabling real-time diagnostics, predictive maintenance, and faster fault recovery.

By combining cutting-edge sensor technology with smart automation, our systems help reduce downtime, extend equipment lifespan, and optimize overall performance. These innovations are designed to meet the evolving needs of modern energy infrastructures, while remaining adaptable to future developments.

The following technologies represent our commitment to delivering reliable, scalable, and intelligent solutions for today's and tomorrow's power systems.

SCADA SYSTEM

One of the major components of an automation system is SCADA (Supervisory, Control And Data Acquisition) software, which allows monitoring and supervision of plants, through remote control. Furthermore, it educes the plant's footprint and saves up to 80% of copper wiring, minimizing the need for onsite visits in case of problem. It is connected to smart sensors and allows real-time control of the plant.



C.R. Technology Systems integrates SCADA Systems and configurates a customized and user-friendly HMI (Human-Machine Interface).
The advantages of integrating this solution into the MV Switchroom are many:

- Timeliness in diagnostics and remote control
- Optimal preventive maintenance
- Plant continuity of service
- Environmental benefits, thanks to reduced energy losses and fewer staff travels
- Customized interface, on demand
- Possibility to monitor and control the site in viewport and alarm windows
- Transmits operational information related to the I/O point in real time
- Long-term data storage using the relational database
- Reports generation in various formats tailored to user needs.

In an increasingly interconnected future, with a large amount of data that needs to be managed and processed, automation is an essential tool for the new model of innovation, based on the collaborative relationship between man-machine.



ARC-FAULT DETECTORS

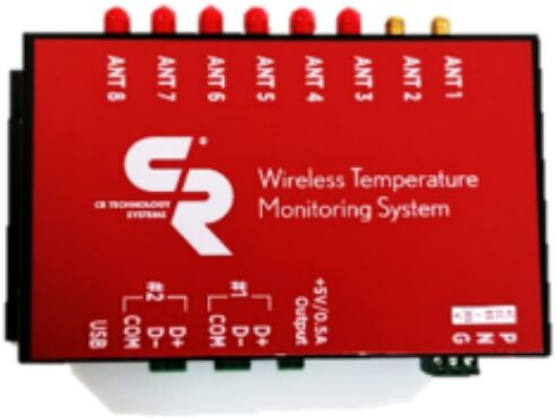
The fast detection system uses light-wave sensors which detect the luminescence generated by the arc to ensure the circuit-breaker intervention on the load side or the feeder side, minimizing the duration of the electrical arc in less than 70 ms. In this way, it is possible to limit system faults and to isolate the fault point, thus guaranteeing a higher service continuity and a faster and more efficient system restoration.
Knowing the trigger point of the arc, the reconstruction process is more effective, and it can ensure the improvement of the plant and its loyalty.

PR.E.SE. SENSORS

PR.E.SE. solution (PRedictive Electrical SEnsors) permits a wireless constant monitoring of temperature of the electrical equipment, based on the RFID technology (Radio Frequency Identification) in UHF band. These sensors play an important role in the prevention of the overheating of electrical devices (critical temperature >120°C) due to overload, corrosion, loose connections and difficult environmental conditions and permit predictive maintenance of the electrical insulation.
The sensors allow improving the performance of the system and extending its life cycle. Their technical features have several advantages:

- Adaptable: tags can be applied to any type of surface and environment, and in any weather condition.
- Reliable: tags are battery-less and do not require maintenance after their application.
- Modularity: sensors are equipped with a modular and scalable architecture. A large number of uniquely addressable sensors can be applied.
- Economic advantage: the technology based on radiofrequency allows lower costs than the traditional ones.
- Accuracy: sensors with ID prevent reading errors.
- Retrofit: sensors can be integrated into operational plants, enlarging their lifespan.
- Tailor-made products: thanks to the different shapes and surfaces of the sensors, and the possibility of integrating them in a variable number according.





C.R. TECHNOLOGY SYSTEMS

YOUR PARTNER FOR CONNECTING THE POWER



WORLDWIDE PROJECTS



ENGINEERING



EXPORT EXPERTISE



MANUFACTURING



ONE RELIABLE INTERLOCUTOR



CONNECTION-READY SOLUTIONS



AUTOMATION SYSTEM INTEGRATION



#GREENATTITUDE



+5 GW BESS & +4,8 GW PV PLANTS CONNECTED TO OUR MV SWITCHROOMS

VISIT OUR WEBSITE



www.crtsgroup.com

CR TECHNOLOGY SYSTEMS

C.R. TECHNOLOGY SYSTEMS S.p.A.
Via Stezzano, 7E
24050 Zanica (BG) - Italy

Contact us:
sales@crtsgroup.com
Ph. +39 036334981
Fax +39 02 95732316
VAT 01637141001

LET'S TEAM UP AND MAKE GREAT AND CLEAN THINGS HAPPEN!

LEGAL QUARTER
Via Crescenzio 82
00193 Roma
Italy

OFFICES
Via Rossaro, 9
24047 Treviglio (BG)
Italy

OFFICES
23 Avenue Hédi Nouira
Imm. Mohamed Chérif,
Nabeul, 8000

C.R. SARDEGNA Srl
Via Francesco Ciusa, 46
09131 Cagliari
Italy