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CUADROS ELÉCTRICOS J.M.



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In **CUADROS ELÉCTRICOS JM** we have official certifications and collaborating companies that accredit us as experts and quality professionals within our sector:

**Prisma
Certified
Partner**

Schneider Electric España, S.A.
declara que la empresa:

Cuadros Eléctricos JM, S.L.
C/ Carpintería, 35 - Pepino
45638 Toledo - España

es un partner homologado en la fabricación y venta de cuadros BT Prisma ensayados.

Las empresas **Prisma Certified Partner** de **Schneider Electric** destacan por su experiencia y formación en las tecnologías más innovadoras del sector, así como por su conocimiento de la normativa que las atañe y los cambios y actualizaciones de la misma.

Schneider Electric audita periódicamente a estas compañías para garantizar que sus soluciones con cuadros BT Prisma ofrecen siempre la mayor calidad, las mejores prestaciones y el mejor servicio.

Cristian Martín
Responsable Clientela Cuadristas
Schneider Electric España S.A.



Este documento permanece vigente hasta 31/03/2020



schneider-electric.com

Life Is On

**Schneider
Electric**

Schneider Electric España, S.A. • Bac de Roda, 52, edificio A • 08019 Barcelona





CERTIFICATE

AENOR has issued an IQNet recognized certificate that the organization:

CUADROS ELECTRICOS JM, S.L

**CL CARPINTERIA, 37-39.
45638 - PEPINO
(TOLEDO)**

has implemented and maintains a

Environmental Management System

for the following scope:

Production of industrial electrical panels.

which fulfills the requirements of the following standard

ISO 14001:2015

First issued on: **2017-11-07** Last issued: **2020-11-07** Validity date: **2023-11-07**

This attestation is directly linked to the IQNet Partner's original certificate and shall not be used as a stand-alone document

Registration Number: ES-2017/0259



Alex Stoichitoiu
President of IQNet

Rafael GARCÍA MEIRO
Chief Executive Officer

AENOR

Original Electronic Certificate

IQNet Partners*:

AENOR Spain AFNOR Certification France APCER Portugal CCC Cyprus CISQ Italy
CQC China CQM China CQS Czech Republic Cro Cert Croatia DQS Holding GmbH Germany EAGLE Certification Group USA
FCAV Brazil FONDONORMA Venezuela ICONTEC Colombia Inspecta Sertifiointi Oy Finland INTECO Costa Rica
IRAM Argentina JQA Japan KFQ Korea MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland
NYCE-SIGE México PCBC Poland Quality Austria Austria RR Russia SII Israel SIQ Slovenia
SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TEST St Petersburg Russia TSE Turkey YUQS Serbia

* The list of IQNet partners is valid at the time of issue of this certificate. Updated information is available under www.iqnet-certification.com



CERTIFICATE

AENOR has issued an IQNet recognized certificate that the organization:

CUADROS ELECTRICOS JM, S.L

**CL CARPINTERIA, 37-39.
45638 - PEPINO
(TOLEDO)**

has implemented and maintains a

Quality Management System

for the following scope:

Production of industrial electrical panels

which fulfills the requirements of the following standard

ISO 9001:2015

First issued on: **2017-03-03** Last issued: **2020-11-07** Validity date: **2023-11-07**

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Registration Number: **ES-0090/2017**



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Chief Executive Officer

AENOR

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1 About CUADROS ELÉCTRICOS JM

CUADROS ELÉCTRICOS JM was born with the aim of offering a comprehensive service for the design, production and installation of electrical panels and always adapted to the needs and specifications demanded by the client.

We are qualified and certified professionals with more than 20 years of experience in the field of design, manufacture and assembly of electrical panels. We have extensive professional experience collaborating with national and multinational companies and offering and providing our products and services in various sectors: energy, renewables, treatment and desalination plants, the naval industry, hospital services or the hospitality sector, among others.

All the projects carried out, and the current economic and professional situation, make our professionals and collaborators continue in constant training and evolution. All this to offer our current and potential clients adequate solutions for each challenge posed.

2 Our mission and objective

In **CUADROS ELÉCTRICOS JM** we aim at total customer satisfaction, which translates into future collaborations and the establishment of a commercial relationship that is not limited only to the fulfillment of the order placed. Therefore, our mission is to always offer a comprehensive service for your needs ranging from advice, to the design, production, installation and maintenance of the demanded electrical panels.



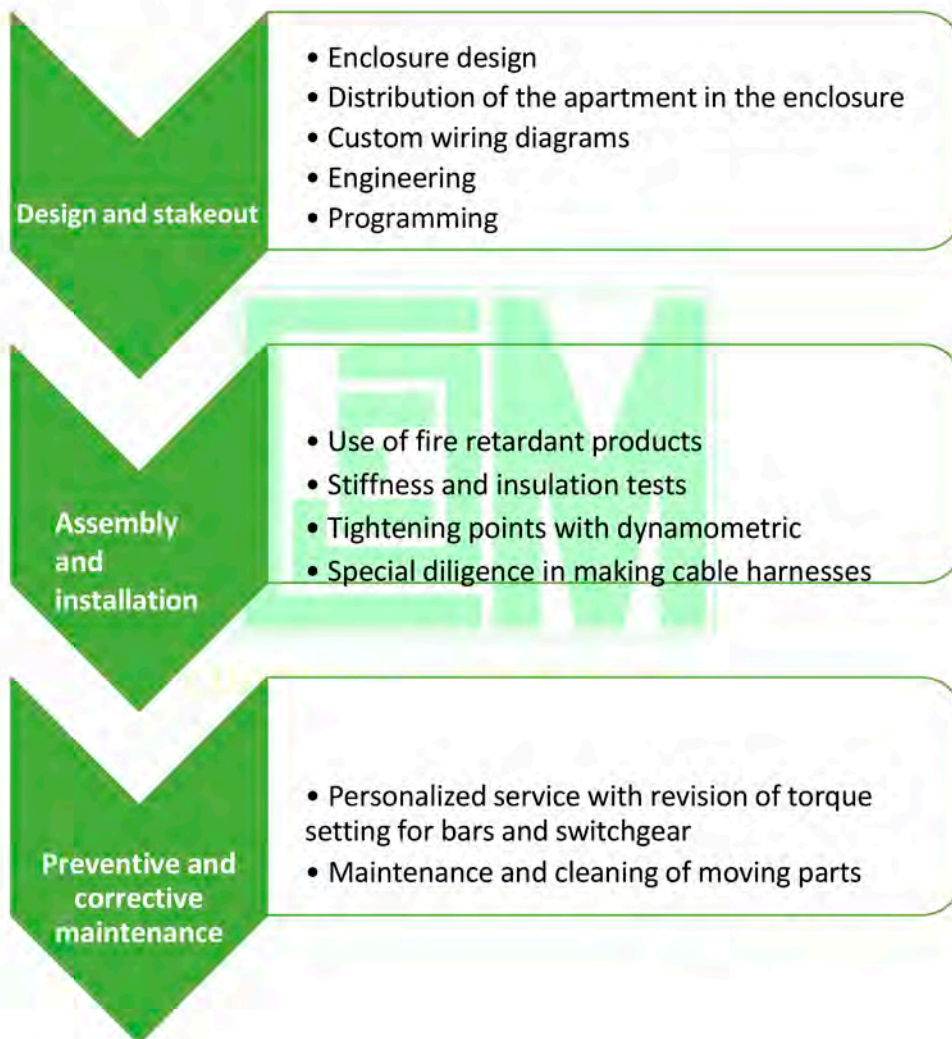
3 Products.

The production that CUADROS ELECTRICOS JM carries out adapts the characteristics and demands of the following sectors:

Industrial	<ul style="list-style-type: none">• Naval• Production line• CCMs
Energy	<ul style="list-style-type: none">• Substations and nuclear power plants.
Environment	<ul style="list-style-type: none">• Desalination plants• RSU• Photovoltaic• Treatment plants
Air Conditioning	<ul style="list-style-type: none">• Office buildings• Malls
Commercial	<ul style="list-style-type: none">• Hotels• Supermarkets• Malls
Telecommunication	<ul style="list-style-type: none">• Technical rooms• Emission centers
Aeronautical	<ul style="list-style-type: none">• Control of luggage conveyer belt• Motor control• Emergency and lighting systems
Railway	<ul style="list-style-type: none">• Catenary control, lighting and emergencies



On the other hand, the services offered that may be associated with the manufacture and assembly of electrical panels are the following:



4 Logistics

Once the production of the panel is finished, the logistical process is started, which consists of 4 fundamental phases:

- Packaging and transportation of the panel to the location specified by the client.
- Installation of the panel on site.
- Interconnection of power and manoeuvre.
- Commissioning of the panel.



5 E-HOUSE transportable, electric room.

Manufactured to meet structural demands, site requirements, fire ratings, transportation considerations and requirements in a variety of Applications. E House in maritime containers of up to 40' for transport in a 12mt trailer.

E-HOUSE Electrical Room Applications

• Mining • Network substations • Infrastructure projects • Operations of processing • Motor and drive control centers • communications • Distribution boards



ELECTRONIC HOUSE OUR DESIGN

Designed to meet standards

BUILDING

High quality construction, which adapts to any Terrain, fire, security, protection and environmental requirements.

IMPROVED SAFETY

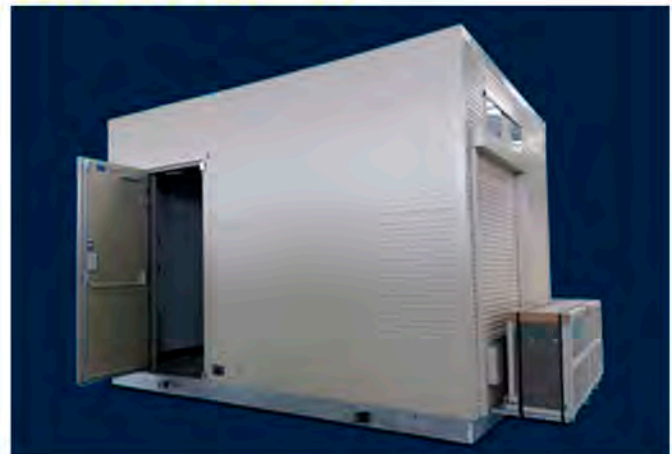
The advanced ventilation design to ensure the safety of personnel.

ASSEMBLY AND TESTING

All electrical and mechanical equipment, as well as software are integrated and tested before the E-HOUSE leaves our facilities.

INSTALLATION AND START-UP SITE

Cost effective in terms of delivery time and reduced installation time and commissioning on site.





New headquarters of Banco Santander

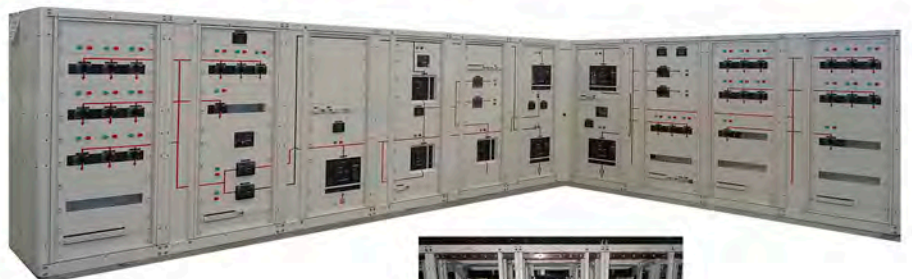
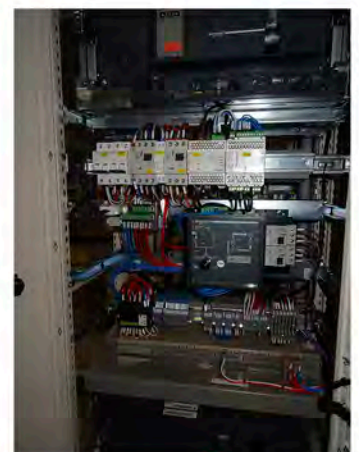
New headquarters of Banco Santander in Luca de Tena, Madrid.

CEJM was the winner of this great work carried out in 2015 with more than 200 electrical panels manufactured in the city of Madrid.

They were manufactured with the latest technology on the market by Schneider, with the installation of BCPMS boards for consumption control, IFE, IFMS for communication with the building's BMS and also the possibility of operating the switches remotely.

The JDBs of the CGBTs were made with EPOX I treatment, in addition to constructing them in an "L" shape.

CEJM worked hand in hand with the BMS integrator, configuring the communications of all the panels for data reporting, in addition to carrying out the installed PLC programs.





Reform of the Court of Accounts

CUADROS ELÉCTRICOS JM participates in the Comprehensive Reform of the Court of Auditors Building in C / Fuencarral in Madrid

The intervention of the company **CUADROS ELÉCTRICOS JM** has been the MANUFACTURE AND DOCUMENTATION of the Items of LOW VOLTAGE ELECTRIC

PANELS of the entire Work. In this project, 13 panels were executed, from the GENERAL PANEL, through LIGHTING PANELS, to AIR CONDITIONING PANELS.

In this case, the Manufacturer chosen by the client was LEGRAND. Which gave us the opportunity to use a multitude of ranges from its catalog, all to apply and cover the needs that the work required. Different types of Envelopes and switchgear ranges were used, ranging from 1600 Amps to 10 Amps. Panels were also manufactured using various models of Envelope such as the XL³4000 (brand Insignia model), up to frames with XL³160 envelope.

Copper Busbar Machining works are carried out for the GENERAL PANELS, as well as Flexible Platen for smaller sections. Special emphasis is placed on lighting and air conditioning maneuvers, making a study of the client's needs and adapting the materials and documentation to them.





The busbar system of the GENERAL PANEL chosen in this Project is the XL3 ALUMINUM. This is a system of aluminum C-bars with tinned copper in which no machining is necessary for any future expansion. All this optimizes the installation both in the workshop and on the construction site.

CUADROS ELÉCTRICOS JM always tries to bet on and bring the client the latest technical news from each manufacturer, always adapting to the needs of each project.

Regarding the ENERGY MANAGEMENT SYSTEM used in this case has been the EMS CX3 (Energy Management System). It is a system for the supervision of energy in the CGBT. In this way, it is possible to count / measure, report, operate, program and visualize both on site and remotely. All this through a WEBSERVER (Energie Serveurs Web) that allows remote consultation in a web browser from several PCs, smart phones, web screens, digital tablets, etc. the values collected on the measuring equipment.

On the other hand, referring to the part of the electrical installation project in which **CUADROS ELÉCTRICOS JM** participated the work carried out on our part was as follows:

Design, development, installation and connection of a cold store complex with automatic control. It includes identification and redistribution of an installation that has already started, installation of pipes and connection boxes, development and definition of appropriate specific connections for the correct operation of the set, laying and identification of corresponding wires and their correct connection both in control and communication panels as with all the necessary elements (valves, sensors, ventilation, motors, etc ...), installation and connection of control screens for cold store doors.





CMR INFINITA - MERCAMADRID

CUADROS ELÉCTRICOS JM has the opportunity to participate in the **CMR INFINITA S.A. Project. at MERCAMADRID.**

The participation of **CUADROS ELÉCTRICOS JM** has been very important in the development of the work of this Industry for the Maturation, Handling and Packaging of Fruit and Vegetable Products belonging to **CMR INFINITA S.A.**

Our mission in this project was the **DOCUMENTATION** and **MANUFACTURE** of all the Low Voltage Electrical Panels of the work. But this time **CUADROS ELÉCTRICOS JM** has also worked on the Connection of the General Panels, Main Savings Banks and Cold Rooms.

Regarding the **MANUFACTURE AND DOCUMENTATION OF LOW ELECTRICAL PANELS TENSION** of the Work. In this project, 23 panels were executed, highlighting the **GENERAL PANEL** mounted in an "L" shape for its correct placement in the electrical room. In addition to a **NEW ENERGY MANAGEMENT SYSTEM** through **WEBSERVER** for the monitoring and control of different parameters online, both locally and remotely. In this project the client opted for the Manufacturer **LEGRAND**. Which provided us with a detailed study of both material adapted for the corner assembly of the **CGBT** and the Energy Management system through **WEBSERVER**. For this, our entire team was formed by the manufacturer.





The busbar system of the GENERAL PANEL chosen in this Project is ALUMINUM XL³. This is an aluminum C-bar system with tinned copper in which machining is not necessary for any future expansion. All this optimizes the installation both in the Workshop and on the Construction site. CUADROS ELÉCTRICOS JM always tries to bet and deliver the latest technical news from each manufacturer to the client, always adapting to the needs of each project.

Regarding the ENERGY MANAGEMENT SYSTEM used in this case, it has been the EMS CX³ (Energy Management System). It is a system for monitoring energy in the CGBT. In this way, it is possible to count / measure, report, operate, program and visualize both on-site and remotely. All this through a WEBSERVER (Energie Serveurs Web) that allows remote consultation in a web browser from several PCs, smartphones, web screens, digital tablets, etc. the values collected in the measurement equipment.

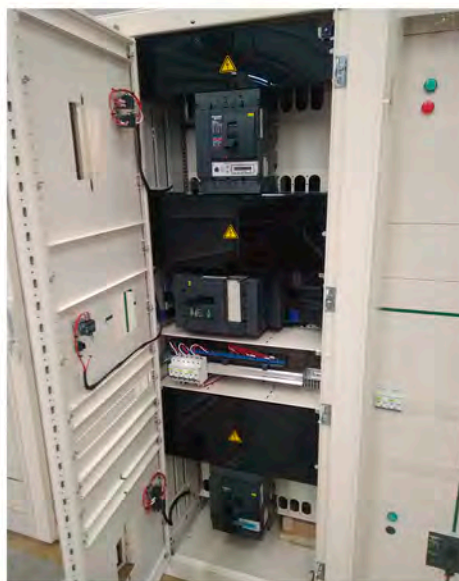
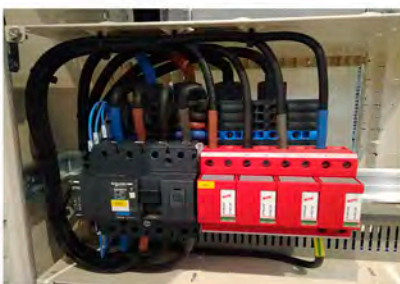
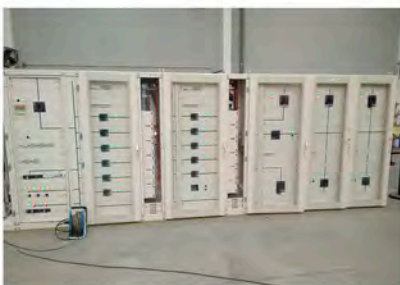
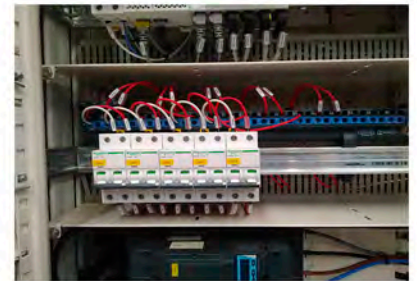
On the other hand, referring to the part of the Electrical Installation Project in which **CUADROS ELÉCTRICOS JM** participated. The work carried out by us was as follows:

Design, development, installation and connection of a cold store complex with automatic control. It includes identification and redistribution of an already started installation, installation of pipes and connection boxes, development and definition of specific connections appropriate for the correct operation of the set, laying and identification of corresponding wires and their correct connection both in control and communication panels as with all the necessary elements (valves, sensors, ventilation, motors, etc ...), installation and connection of control screens for cold store doors.



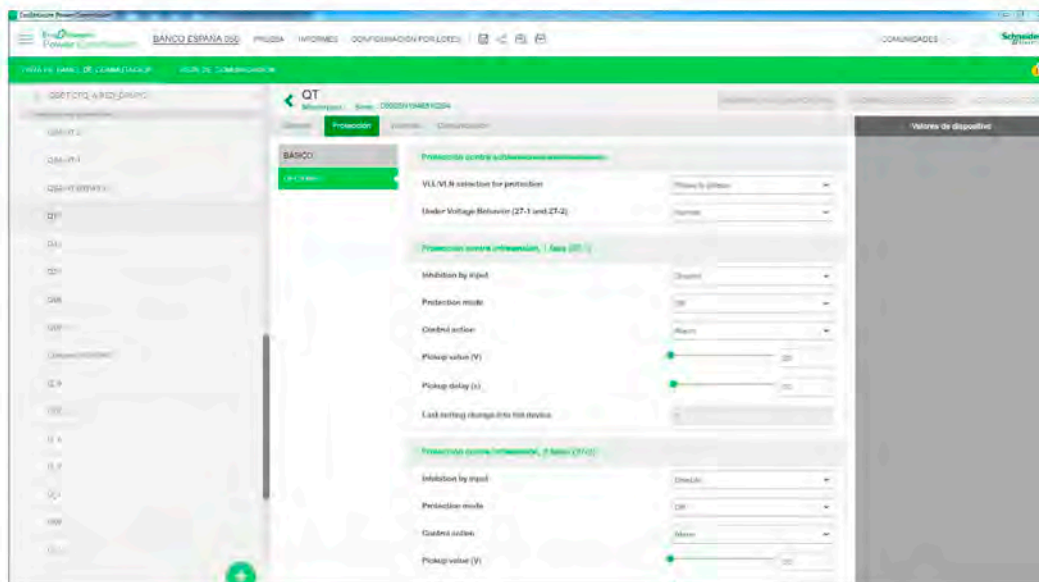
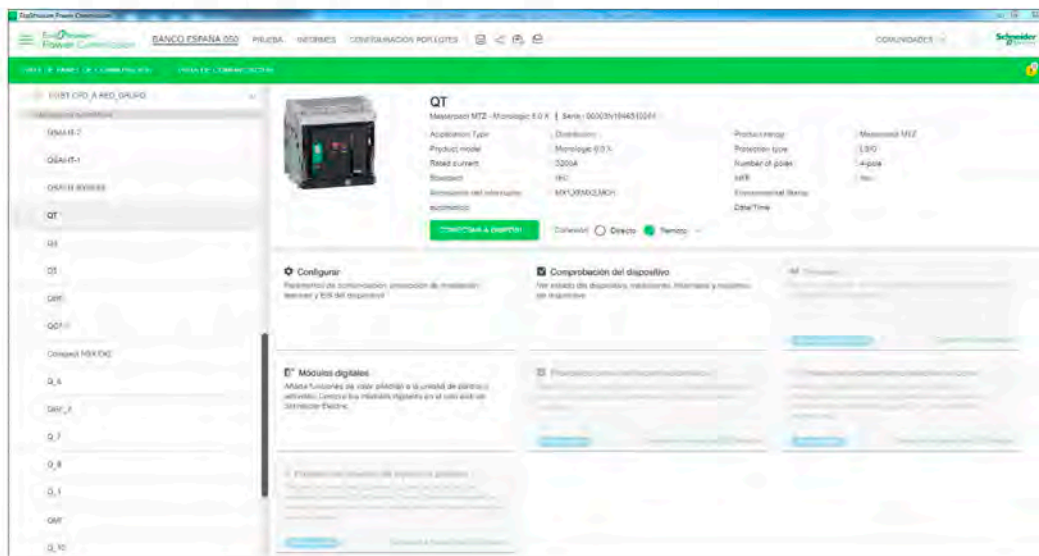
CPD Bank of Spain

This project has the peculiarity that all the general panels are made in 4B form with all its removable devices. In addition, these devices have ModBus communication, through which we can see all the parameters of voltage, currents, etc., that the devices report to us. This communication, although the integrator will be the final customer, but Cuadros Eléctricos JM has carried out the initial configuration, as well as the communications tests.

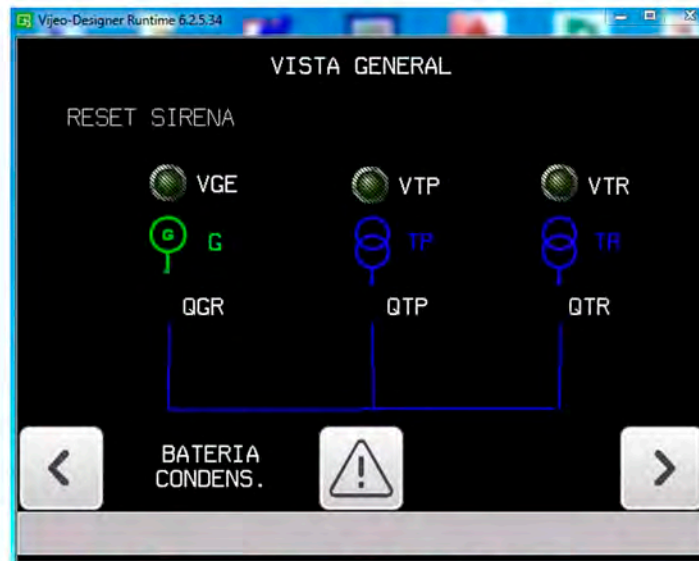




To do this we have used a provider program called EcoStruxure Power Commission, through which the devices and configurations can be configured. Below are screenshots of the settings made.



In addition, the general panel has a commutation of 3 devices controlled by a Schneider M340 PLC and commanded by an HMI also from Schneider, all programmed by **Cuadros Eléctricos JM**.



In the work the objectives have been achieved and the problems exposed by the client have been solved in a timely manner.



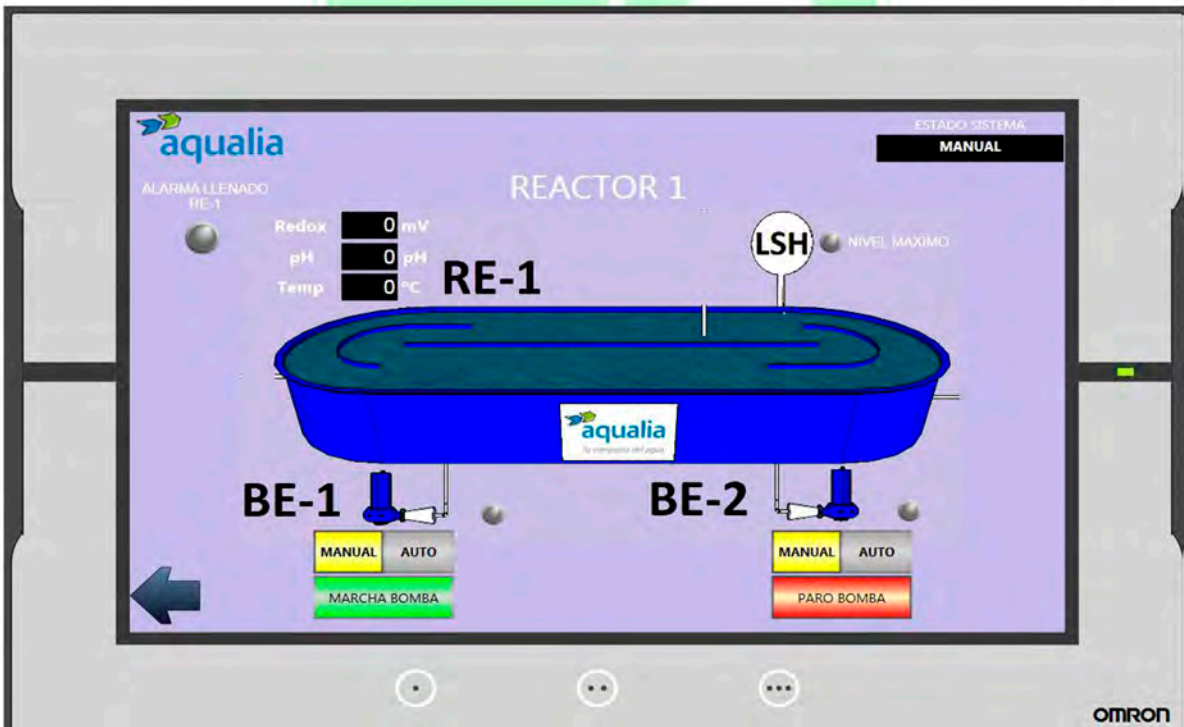
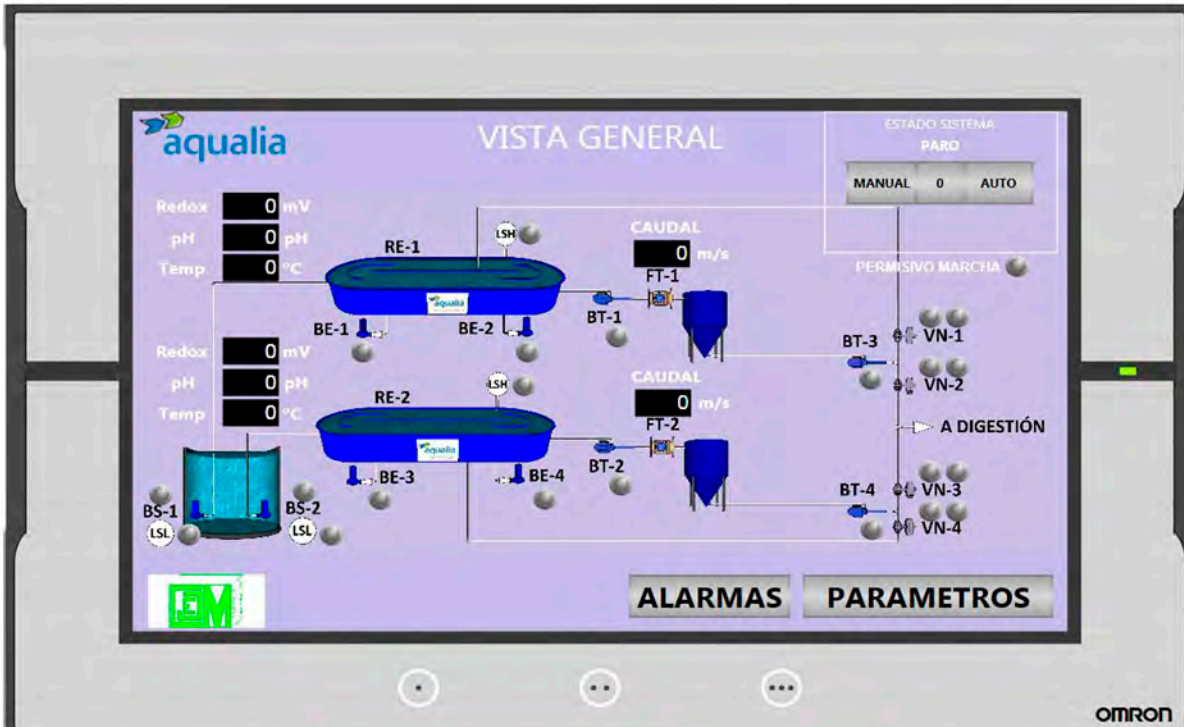
Panel pumps. Aqualia Toledo

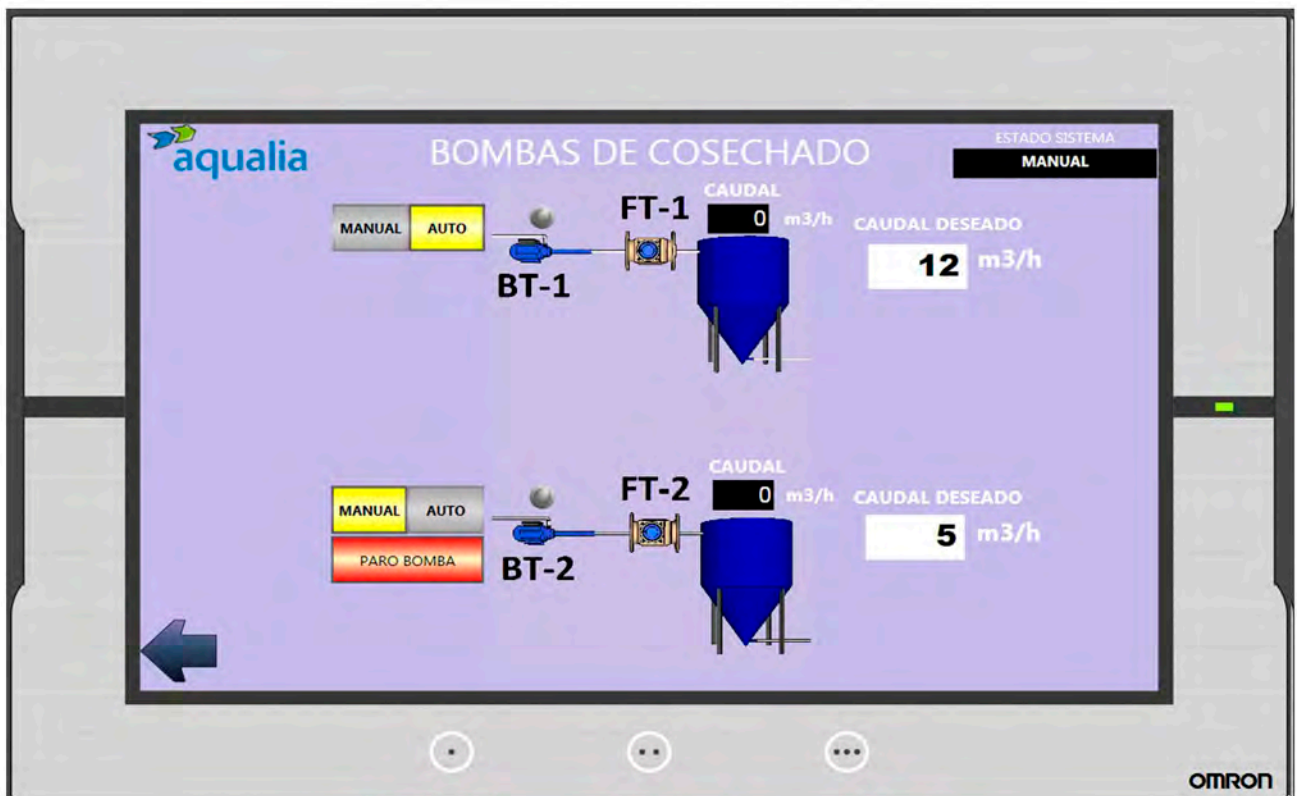
This work consists of an electrical panel to control a prototype plant based on water purification. The client exposed us to the problem of having remote access to the plant without being present in it.

That problem in this case was solved by installing an Omron screen with a Phoenix Contact 4G Router which offers us the possibility of having a VPN with which we can remotely access the screen with the mobile application as if we were at the foot of the machine.

All of this has been programmed and configured by us with Omron software. Screen images are attached.







CUADROS ELÉCTRICOS J.M., S.L.



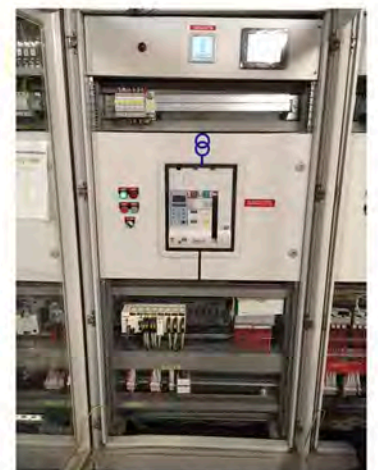
Algiers Airport.

Counting on COBRA as a client, PROINTEC in charge of the engineering and with the technology of the products of the manufacturer LEGRAND, the more than 1 000 lighting panels, power, air conditioning, control, CGBT..., of this work were manufactured between AEMSYS, AIMESA and **CUADROS ELECTRICOS JM.**

Cuadros Eléctricos JM was responsible for the definition of all the maneuvers, coordination of the manufacturing between the three companies, documentation in French, maritime packaging of all the panels and logistics of the entire work.

The most unique panels of the work are his 9 panels C.G.B .T. They consist of a commutation with 3 removable 4P 4,000A devices (2 transformers and group), and their corresponding motorized outputs, also removable. In each C.G.B.T, JM installed and programmed, on site, a SCHNEIDER PLC M340 with MAGELL screen, for switching control, as well as load shedding and rearming.

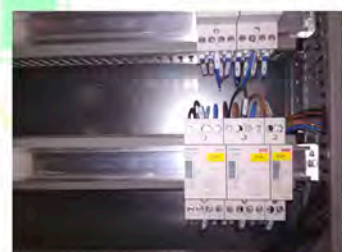
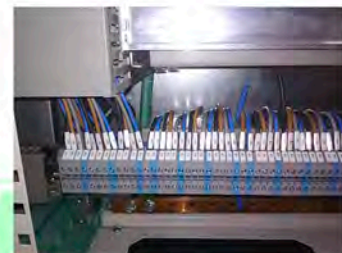
Cuadros Eléctricos JM, sent operators to Algiers, to carry out all the commissioning and expansion works.



Caleido Tower.

For this project, carried out at the request of the ENGIE company for SIEMENS, for the execution of the equipment building in Caleido tower, Cuadros Eléctricos JM manufactured various panels for lighting, power, air conditioning and C.G.B.T.

The panel C.G.B.T. is made up of a commutation with 4 devices (2 transformers, coupling and group) of 4P 2.000A removable, and their corresponding motorized outputs. In this panel, Cuadros Eléctricos JM installed and programmed a SIEMENS PLC S 71 500 to control the commutation, as well as load shedding and rearming.



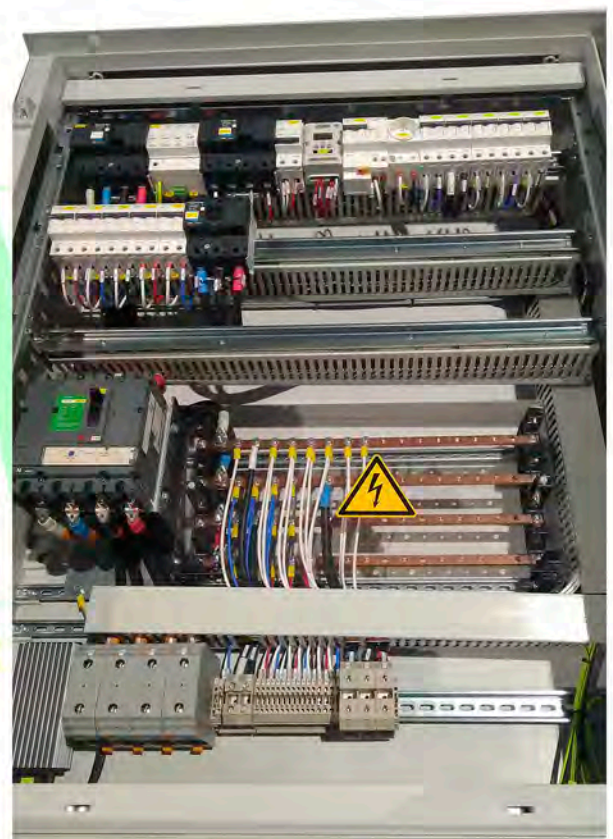


Atacama Cerro Dominador.

Complex project for the supply of outdoor panels, designed to withstand the aggressive environment in which they will carry out their work, the Atacama desert, Chile, a geographical place with the highest solar radiation in the world, for one of the most emblematic projects in South America.

The equipment belongs to the equipment of the solar field of the Cerro Dominador complex, made up of a 100 MW photovoltaic plant, and the first 110 MW thermosolar plant in Latin America and a thermal storage capacity of about 20 hours.

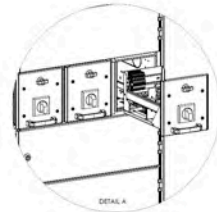
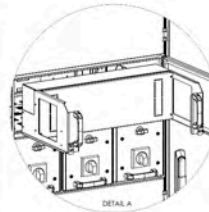
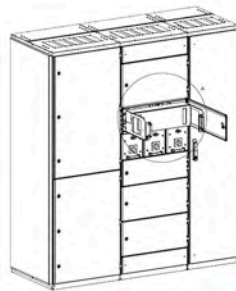
The complexity of the project was based on the precise calculations required by the equipment, applying the guidelines established in a strict specification, for which it was necessary to apply harsh criteria of thermal declassification and precise application of selectivity and filtration tables, use of a high degree of IP protection, justification of compliance with thermal radiation, all to ensure proper operation of teams in such a demanding work environment. Therefore, providing extensive documentation and supporting calculations that guarantee compliance with both the Spanish UNE Regulations, as well as the Chilean NCH required in the project specification.

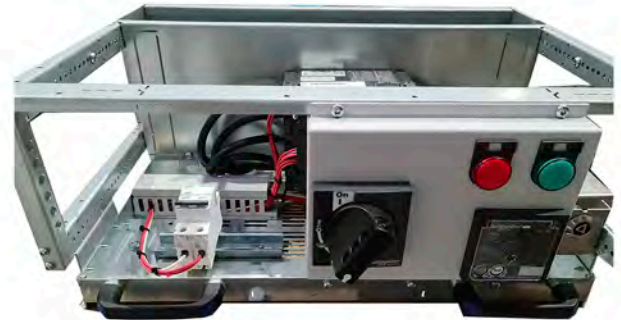
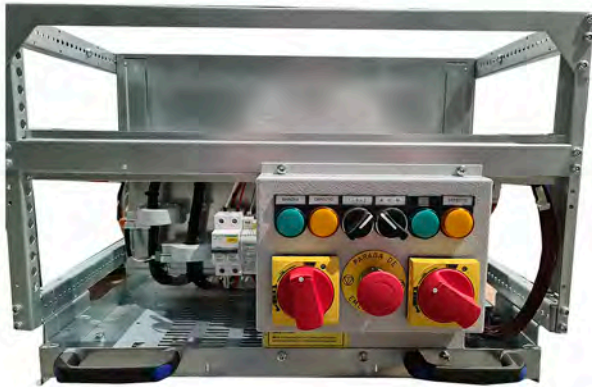




FINELCOMP[®]

PRODUCT PRESENTATION 2018





Within the development of the company, new products are incorporated for the development of sectors such as Water, energy and Construction.

With the incorporation of Finelcomp envelopes we cover the enclosure space with removable functional units for better operation, maintenance and repair.

A perfect mix between the quality of Finnish product and **CEJM** finishes, they make it the flagship product that is being marketed to compete with the largest manufacturers.





7 Various sectors





8 BIM project and REVIT software

JM and BIM electrical panels

In recent months, Cuadros Eléctricos JM has had the opportunity to launch itself into the market by making BIM Models of panels that will also be manufactured in our facilities. For this, Cuadros Eléctricos JM is committed to technology and innovation, always working with the latest versions of specific software for collaborative BIM work, such as Autodesk REVIT.

BIM Models are carried out at a LOD 350 level of Detail (or the one requested by the client). Modeling the tables and parameterizing all the information requested by the client for its correct implementation in the Origin Project. For a BIM modeling job, much prior information is necessary to take into account for its design, and who better for this job than the panel maker who will manufacture it? For this reason our clients will count on us for this new type of work and demands for the evolution of large-scale construction projects.

What is BIM?

Building Information Modeling (BIM) is a collaborative work methodology for creating and managing a construction project. Its objective is to centralize all the information of the project in a digital information model created by all its agents.

BIM represents the evolution of traditional plan-based design systems, since it incorporates geometric (3D), time (4D), cost (5D), environmental (6D) and maintenance (7D) information.

The use of BIM goes beyond the design phases, encompassing the execution of the project and extending throughout the life cycle of the building, allowing its management and reducing operating costs.

BIM implementation

During the last decade, the BIM methodology has been progressively implemented in different countries, being for some of them a priority objective of their Public Administrations, which have imposed or valued their use in public works, following the recommendation of the European Directive of Public Procurement 2014/24 / EU.

In Spain, the Ministry of Public Works created the es.BIM National Commission in 2015, which is analyzing how to implement BIM in the sector and how to introduce it in public tenders.



9 Quality and Environment

Certifications.

Quality is a constant in our manufacturing. Obtaining the quality system certification in 2016, UNE EN ISO 9001: 2008. We have implemented an environmental management system according to ISO 14001: 2004 integrated with our certified quality system according to ISO 9001: 2008.

Another of our added values is our commitment to offering high quality, with the continuous training of our operators, technicians and collaborators. At CEJM we carry out both technical and occupational risk prevention training courses, in addition to conducting reference training on all the innovations that manufacturers present in efficiency.

Environmental Management Policy.

At **Cuadros Eléctricos JM**, the conservation of the environment constitutes a commitment to society.

Our plans regarding the environmental management of our business activity are based on the following principles:

- Document, implement and keep up-to-date a Comprehensive Environmental Management System, periodically checking its effectiveness, as a basis for continuous improvement of environmental performance.
- Communicate the Environmental Policy to the staff.
- Always comply with applicable environmental legislation.
- Prevent and minimize the environmental impacts produced by the development of our activity.
- Carry out their activities with the criterion of minimizing the consumption of natural resources (water, fuels and energy).
- Periodically control the environmental aspects of the facilities, adopting corrective measures when necessary.
- Environmental awareness and awareness will be promoted among our workers, suppliers and users.
- Based on this Policy and annually, achievable and measurable goals and objectives are approved, establishing lines of improvement for the organization.
- We develop and train our teams so as not to question quality.



10 Quality politics

At Cuadros Eléctricos JM, customer satisfaction is our priority and we achieve it:

- Providing the best products, solutions and services.
- Managing client affairs with the highest standards of professionalism.
- Guaranteeing extensive experience, providing the best solutions.
- Complying with all legal and customer requirements, as well as applicable regulations.
- Giving the highest priority to the client, in case of any eventuality.
- Meeting our commitments.
- Actively listening and responding to the needs of our clients.
- Our human team has autonomy and confidence to carry out the work with the highest level of responsibility in its execution.
- Planning, controlling and continuously improving, always having excellence in our work as a goal.
- We commit to the client, through our extensive experience, to offer products and services that make a difference through the knowledge acquired.
- We develop a business culture with a clear customer orientation and training our human team so that quality prevails in any eventuality.

CALLE CARPINTERIA 37,35 45638 – PEPINO
TOLEDO – SPAIN
925701797

ADMINISTRACION

722158218

administracion@cejm.eu

contabilidad@cejm.eu

OFICINA TECNICA

722158217

oficinatecnica@cejm.eu

ALMACEN

722158216

almacen@cejm.eu

DEPARTAMENTO OPERACIONES

670376169

operaciones@cejm.eu

comercial@cejm.eu

