



Smart and
digital grids

Green
mobility

Sustainable
buildings and
infrastructure

Green
generation
and storage

PREFABRICATED SUBSTATIONS

Transformer substations

Ground-level or underground walk-in switching substations



The quality of the products designed, manufactured and installed by Ormazabal is backed by the implementation and certification of a quality management system, based on international Standard ISO 9001. Our commitment to the environment is reaffirmed with the implementation and certification of an environmental management system as laid down in international standard ISO 14001.

In view of the constant evolution in standards and design, the characteristics of the elements contained in this catalogue are subject to change without prior notice. These characteristics, as well as the availability of components, are subject to confirmation by Ormazabal.

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1. Introduction

Ormazabal

Benefits of our solutions

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Ormazabal

We are **experts in customised, high-tech electrical solutions, with more than 55 years' experience.**

Our solutions are focused on digitalising the power grid in order to integrate more renewable energy generation, enable greater sustainable mobility, and guarantee supply for buildings and infrastructure with critical energy needs.

Thanks to our permanent commitment to technological and industrial innovation, we have positioned our technology all round the world to become a global player. 16 industrial plants and a network of subsidiaries and distributors around the world help us serve **our customers' needs in over 50 countries.**

We have a unique innovation and technology centre and a team of over **2400 highly qualified professionals**, all with a common purpose: to lead the technological evolution of electricity networks, enabling energy transition toward a sustainable model.

We are the origin of Velatia, a **family-run, industrial and technology group with international standing**, made up of companies offering advanced technological solutions in line with the development of smart cities.

Velatia is present in electrical networks, helping in the deployment of smart grids. It accompanies its customers in their digital transformation process and offers its expertise in sectors such as aeronautics, energy services, electromechanical engineering and the manufacture of electronic components.





Smart and
digital grids

- Distribution
systems
and networks



Green
generation
and storage

- Renewable energy
- Energy storage
- Hydrogen production

Benefits of our solutions

Digitalisation

We respond to new requirements in smart grids with native digital solutions. Our equipment incorporates the sensors, electronics and communications necessary to ensure optimal network management:

- Greater safety
- Continuity of service
- Greater efficiency



Efficiency

We design flexible, compact equipment for easy handling, installation and replacement, minimising the impact on the environment.

Safety and reliability

We care about the safety of all people coming into contact with our solutions.

All our equipment is validated in accordance with the leading international standards, thereby ensuring it works and operates safely throughout its service life, while also helping to maintain continuity of supply for the electrical network.

Sustainability

We strive to ensure our environmental footprint is as small as possible, which we achieve thanks to an ISO 14001-certified environmental management system that monitors our impact on the environment.

That is why:

- We rationalise our use of primary products, selecting those materials that can best be recycled while continuously cutting down on the most harmful ones.
- We certify the sealtight integrity of our products, minimising the risk of leakage to the environment.
- We apply eco-design criteria in all our products.
- We optimise energy consumption for both our equipment and the entire manufacturing process.

2. General product characteristics

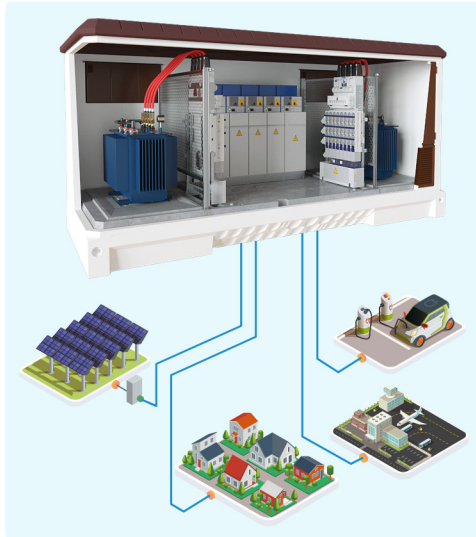
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Construction structure

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Introduction



Ormazabal develops solutions in line with its customers' requirements, identifying needs and providing optimal, innovative alternatives.

Our transformer substation families are designed to ensure the reliability, safety and robustness required in the most demanding applications, such as public services, airports, hospitals, and commercial and industrial sectors.

Ormazabal's prefabricated transformer substations, both for ground-level and underground installation, come in a range of sizes and configurations to adapt to the requirements of each project.

Our substations integrate easily in the environment with reduced visual, environmental and acoustic impact. In addition to offering a long service life with protection from aggressive environmental conditions.



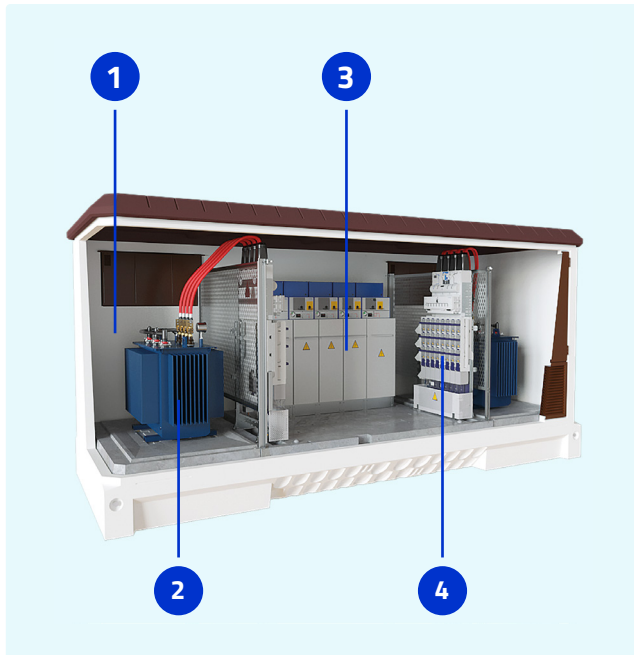
Experience and technology

Ormazabal stands out for working alongside leading electricity companies around the world. This extensive experience is accompanied by the constant search for excellence in industrial and operational technology.

Industrial flexibility

Ormazabal, as a global, industrial, technology company, has the flexibility necessary to work in changing environments.

Construction structure



1 Enclosure

Panel or monoblock reinforced concrete walk-in structure for protection from strong external impacts. Ground-level or underground options available.

2 Transformer

Ormazabal distribution transformers up to 1250 kVA*.

3 Medium-voltage switchgear

Ormazabal MV switchgear up to 40.5 kV.

2 Low-voltage board

LV boards up to 8 outputs per board*.

** For other values or configurations, please check with Ormazabal.*



At Ormazabal, we have a wide range of optional configurations for transformer substations.

Medium-voltage switchgear

Option to choose from Ormazabal's portfolio of medium-voltage switchgear up to 40.5 kV.



Transformers

Option to choose from Ormazabal's range of distribution transformers filled with liquid dielectric up to 40.5 kV.

The Organic and Organic Synth variants, with biodegradable liquid dielectric and high fire performance, are available for greater safety.



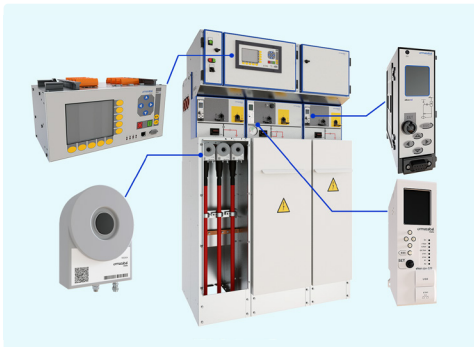
Low-voltage boards

Option of installing LV boards with up to 8 outputs, extensible and automated*.

Protection and automation

Various devices for transformer substation management:

Ormazabal protection, metering and control units (remote control, remote measurement, integrated control, remote management, etc.).



** For other values or configurations, please check with Ormazabal.*

3. Product families

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Product families

pfu basic range

Prefabricated concrete ground-level walk-in transformer substations.



Technical data

- Monoblock prefabricated reinforced concrete enclosure with removable roof
- Medium-voltage switchgear up to 40.5 kV
- Distribution transformers up to 1250 kVA*
- Low-voltage boards with up to 8 outputs per board*
- Standards: IEC 62271-202

pfu grand range

pfu prefabricated transformer substations for large-sized applications.



Technical data

- Self-supporting enclosure made up of reinforced concrete panels
- Medium-voltage switchgear up to 40.5 kV
- Distribution transformers up to 1250 kVA*
- Low-voltage boards with up to 8 outputs per board*
- Standards: IEC 62271-202

** For other values or configurations, please check with Ormazabal.*

pfs

Prefabricated concrete underground walk-in transformer substations.



Technical data

- Monoblock prefabricated reinforced concrete enclosure with removable roof
- Medium-voltage switchgear up to 40.5 kV
- Distribution transformers up to 1000 kVA*
- Low-voltage boards with up to 8 outputs per board*
- Standards: IEC 62271-202

** For other values or configurations, please check with Ormazabal.*

Installation and connection



Handling and transport

- Dimensions compatible with road transport
- Using an articulated truck with a platform height of less than 1000 mm is recommended.

Handling methods:

- Elevation: Crane with unit firmly secured
- Lifting: With slings, chains and lifting beams, using DEHA anchor points

Installation

Substations designed for use in normal outdoor service conditions in accordance with Standard IEC 62271-1.

The installation process will require:

- Preliminary study of the ground
- Excavating, grading and preparing the ground

Check with Ormazabal for handling and installation instructions.



4. Services

Ormazabal Services

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Ormazabal Services



Engineering and technical advice

Advice during the project's initial stages, providing solutions tailored to our customers' needs through innovative, efficient, sustainable products.



Assembly and commissioning

We accompany our customers at all times, from equipment factory acceptance tests through to delivery and commissioning on site.



Training and certification

Continuous personalised training for our customers, with official operation and maintenance certification for our equipment.



Ormazabal provides a wide range of services and support for its customers throughout the product's service life: from preliminary design and customisation, through to end of service life.

For further information, please check with Ormazabal.



Inspection and maintenance



Predictive, preventive and corrective inspections and maintenance of equipment in order to ensure maximum efficiency and optimal service life.



Manage parts and accessories



Availability of spare parts and accessories in order to offer a quick response on site and reduce downtime.



Modernisation and digitalisation

Upgrade equipment to the latest technologies in order to improve efficiency and extend service life, as well as providing remote monitoring and support for your facility.





Technology for a new
electric world

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More info



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