IMESA®
ELECTRICAL ENGINEERING

Company profile

IMESA®
ELECTRICAL ENGINEERING

Connecting projects and people

“My commitment and personal belief is that in my company **quality always comes first,** as for products, service and business relationship alike. With customers it is necessary to dialogue, cooperate, and share experiences. Quality must differentiate us.”

Giampiero Schiavoni
President

Electrical Engineering

We are leaders in the electromechanical sector and continuously evolving. Established in 1972 by the Schiavoni family, we have been guided by dynamic management over the years. Our business management model is undeniably one of our core resources for operational success. We rely on a dedicated team of professionals at every workflow stage, from product customization to production and service. This approach enables us to efficiently and effectively achieve the functional success of every project.

We are leaders

We are recognized by the community, and by our customers as the Italian leader in the construction of electrical power switchgears and digital electrification solutions. We embrace a culture that places people at the center, focusing on delivering tailored solutions for all our customers. Our vision is to expand our business into digital and automation systems, driving innovation and growth.

What is important for us

We ensure a sustainable business by enhancing our customer-oriented performance. Leveraging our experience, quality, and service in electrical and automation solutions, we deliver innovative and reliable results.

Our Company

Who we are

Imesa is a company that has been operating since 1972 in the field of electromechanical constructions. With a consolidated turnover of 30 million Euro, about 130 employees, and a production capacity of around 2,000 panels per year. Our headquarter is in Jesi, Ancona, and we were created as an offshoot of the Schiavoni Group, one of the most important business entities in the Marche region, founded by Sergio Schiavoni in the 1960s and now supported by the second, and third generations.

In the field of electromechanical equipment, we stand as one of Europe's leading manufacturers of electrical switchgears, as well as Automation. Our success is thanks to our long experience in this specific field and our strong roots in the Marche region, which share the region's key characteristics: a passion for work, entrepreneurial skills, innovation, knowledge dissemination, and a skilled labor force.

From the beginning, we have designed and built everything in our own factory, following a "homemade approach" while embracing the spirit of hard work. This has proven to be a winning strategy and a guarantee for our customers in terms of quality and delivery time. Our offices and factory in Jesi cover an area of 15,150 square meters, divided as follows: 4,000 sqm carpentry department, 6,200 sqm wiring department, 1,200 sqm warehouse, and 3,750 sqm office space.

Our taste for the work, propensity to save, simplicity, **accountability, and respect for the traditions.**

The region, the environment, the enterprise

We operate in a region that blends rich historical heritage with a modern focus on quality and high standards of living. The area is home to several charming medieval villages, each with its own fascinating historical center. Here, the "Marche model" thrives, a unique environment where rural culture remains deeply embedded in daily life. This region is defined by strong values such as a deep work ethic, a natural inclination to save, simplicity, accountability, and a profound respect for tradition. At the same time, we embrace innovation and entrepreneurial spirit. Business acumen, the widespread dissemination of knowledge, and a skilled, flexible workforce all contribute to the region's dynamic nature. This balance creates a stable social environment that fosters both growth and sustainable development, making it an ideal place for us to operate, and continue our success.

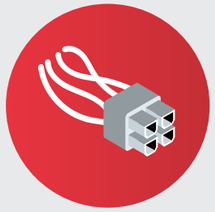
Our Facilities

Highest quality standards

Our headquarter and factory are based in Jesi, Ancona (Marche Region), in central Italy. We designed and built our facility using state-of-the-art construction standards, ensuring it is equipped with all the comforts and tools needed to meet the highest quality standards.

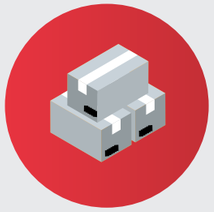
Headquarter and factory

Our three departments



Wiring
6,200sqm

Carpentery
4,000sqm



Warehouse
1,200sqm

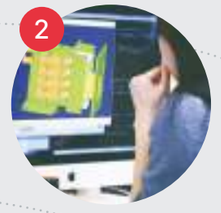
Our Business Management

We are professionals

We are a group of professionals guided by dynamic management. We offer a full range of services, including project preparation, electrical and mechanical engineering, cabling, steel structural work, testing, commissioning, and ongoing servicing.

Offer and Project Development

Electrical and Mechanical Engineering



Testing

MV Production Line

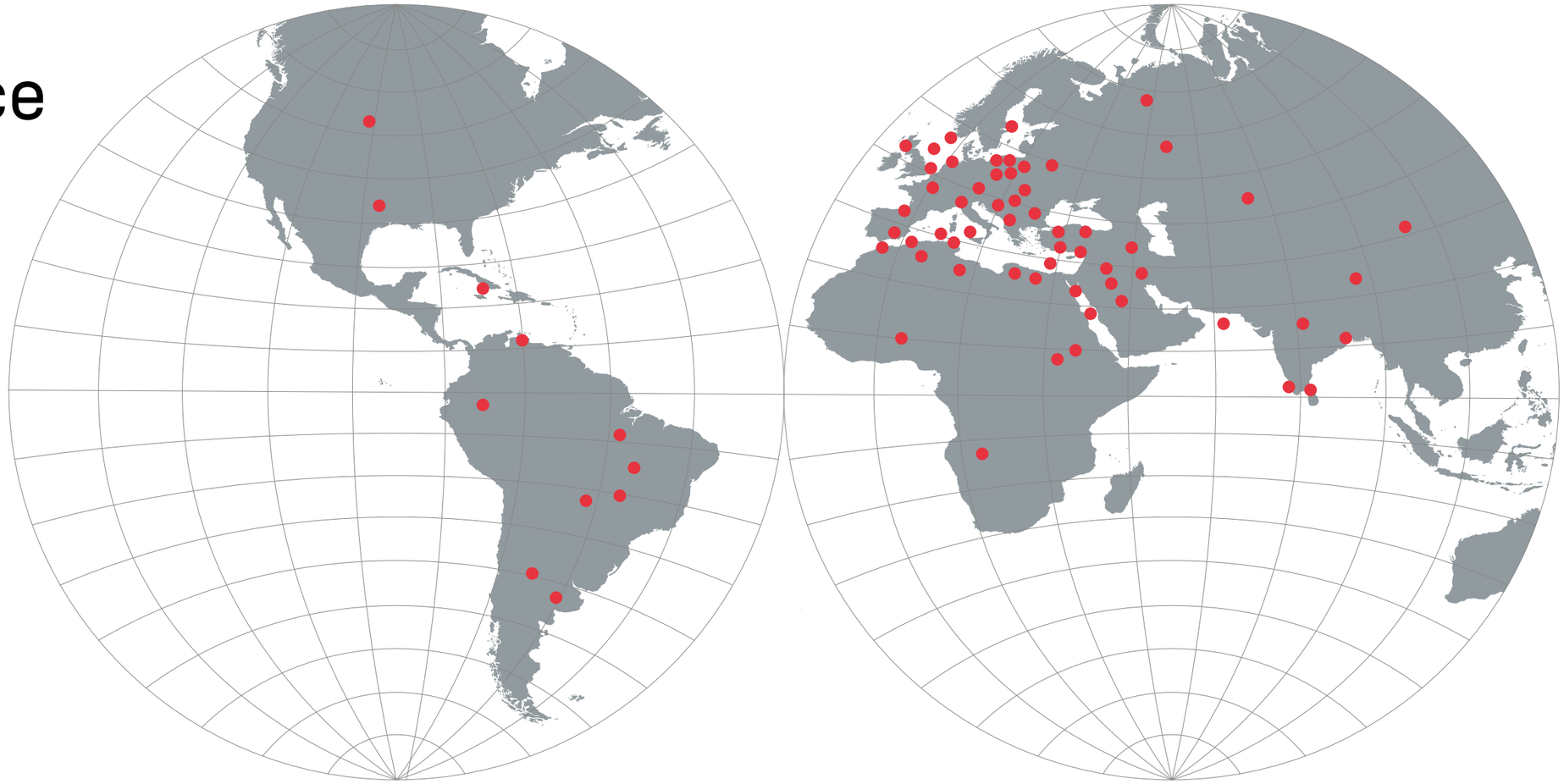
Processing Line Cooper

Wiring

Servicing

We are a global presence

We operate globally, with our products and systems serving clients across Europe, Asia, Africa, and Americas.
We provide **solutions tailored** to different markets and industries worldwide.



Symbols Key
- Supplies

Wordwide supplies

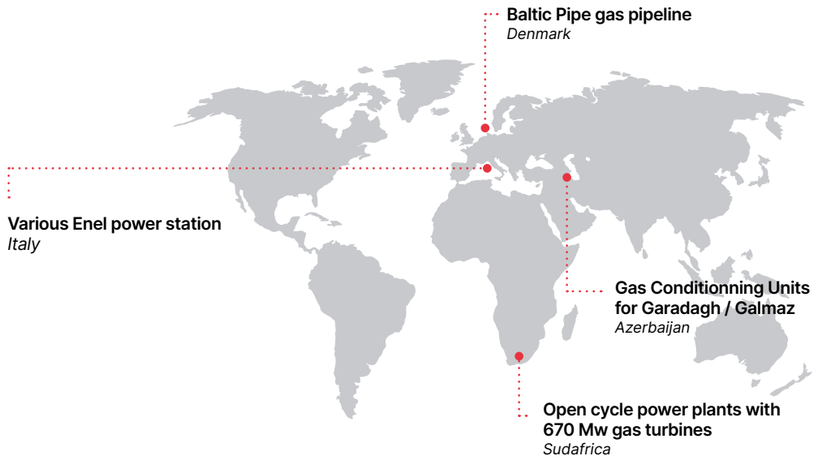
We have a strong global presence, with our products and systems operating in over 40 countries, including Europe, Asia, Africa, the Americas, and even Antarctica. We cater to different industries, offering reliable, innovative solutions that meet the unique needs of each market.

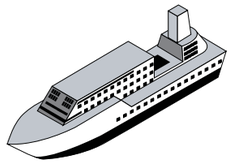
With a **long-standing history,**
we supply our products to Power
& Energy, Marine & Offshore, Industry,
Transport, and Oil & Gas sectors.

Power & Energy

Thanks to the development and implementation of increasingly advanced digital technologies and systems, we contribute to the evolution of electrification by providing our products for power, electricity production and distribution plants.

Our key global projects

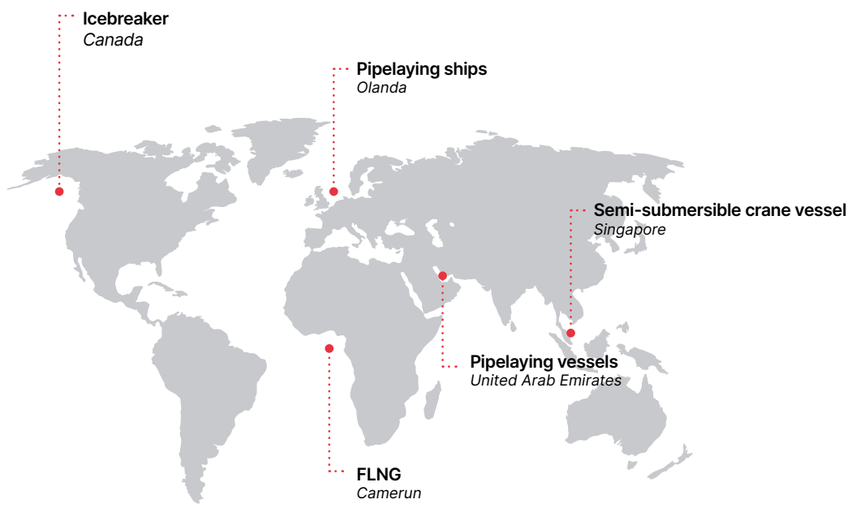


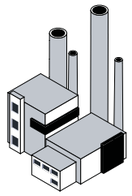


Marine & Offshore

One of our leading sectors is the marine where our electrical switchgears, complying with the most stringent naval registers, are installed in cruise ships, merchant vessels, military vessels, offshore installations and aircraft vessels.

Our key global projects

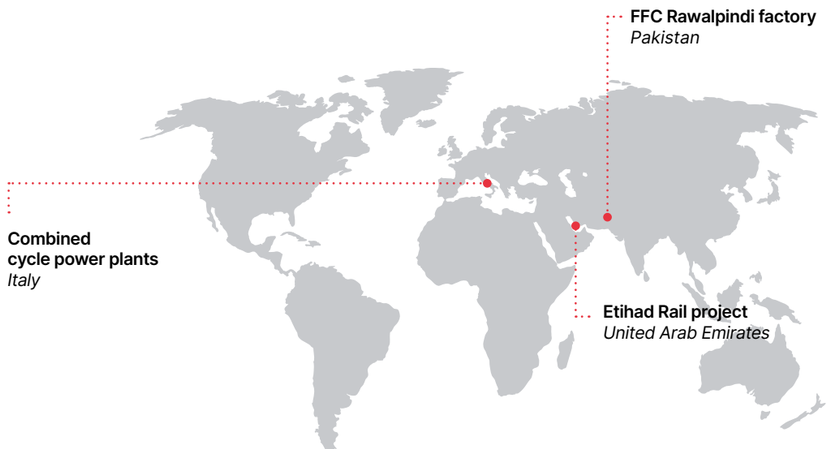


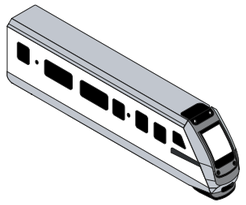


Industry

We have extensive experience in supplying our products to a wide range of clients, including industrial complexes, engineering companies, and main contractors, consistently meeting their unique needs and expectations.

Our key global projects

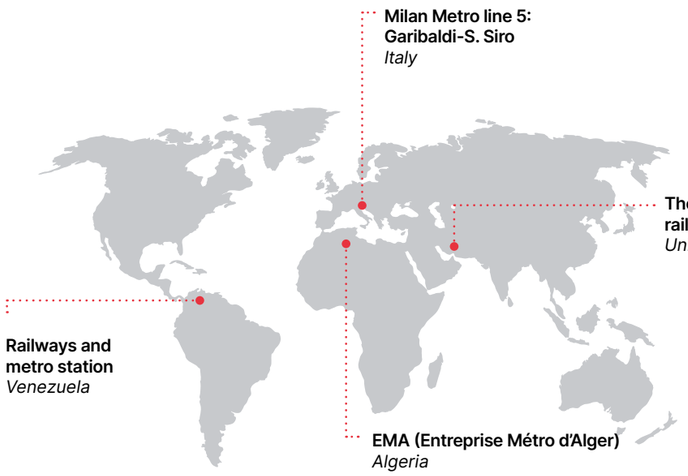




Transport

Our electrical switchgears are designed to meet a wide range of needs. In the transport sector, we provide tailored solutions for railway systems, underground networks, and maritime lines, ensuring reliability, and performance across various applications.

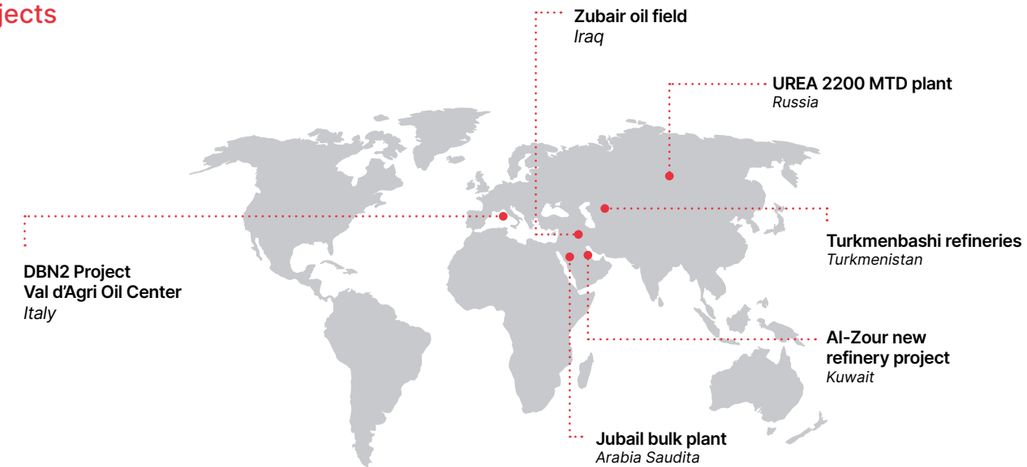
Our key global projects



Oil & Gas

In the realm of Electrification and Digitalization within the Oil & Gas sector, we bring extensive expertise and a deep understanding of the market as it evolves towards the energy transition, enabling us to provide innovative and sustainable solutions.

Our key global projects

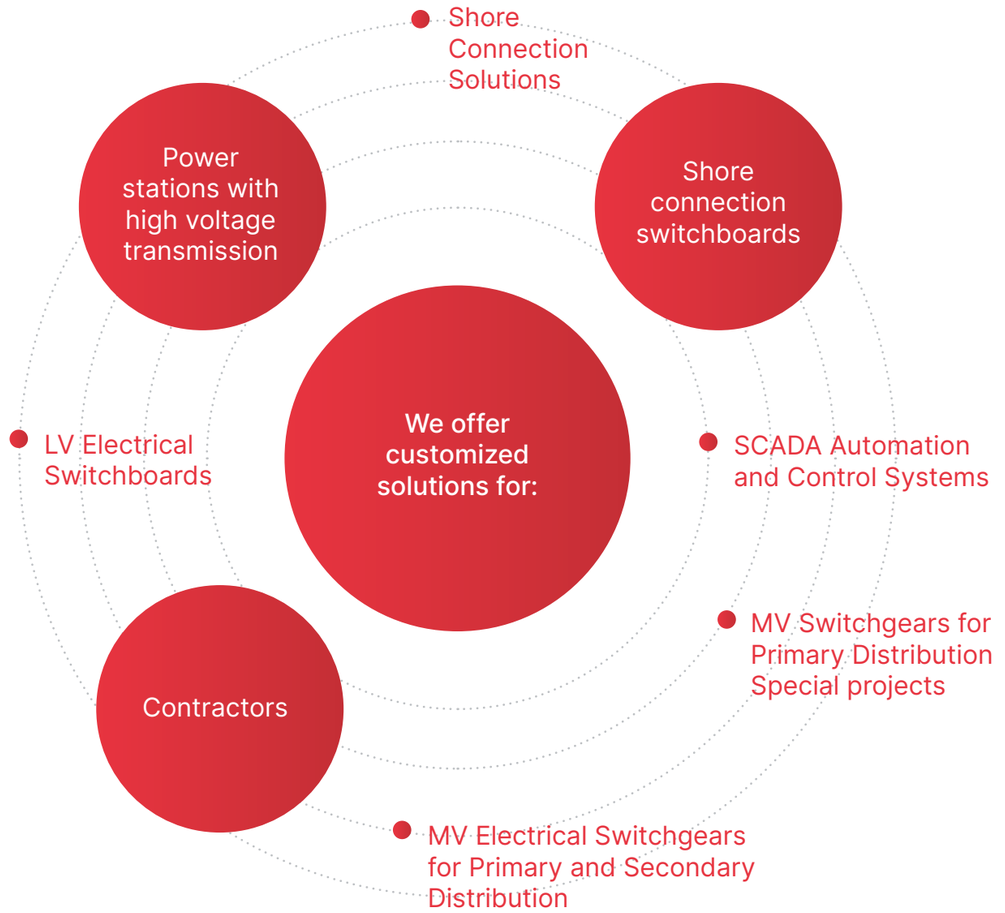


Connecting experience and responsibility

Our products

Innovation

We are a trusted name in power distribution and generation, delivering high-quality electrical switchgears and advanced digital solutions for over 50 years. Our products meet the highest standards, ensuring safety, reliability, and innovation. With a strong focus on sustainability, we provide customized solutions across different sectors, contributing to a greener future while supporting global energy efficiency and development.



MV Switchgears for Primary Distribution

Designed to power primary distribution, our medium voltage electrical switchgears have the particularity of having the main component, the switch, extractable and of being able to be divided into compartments which are metallically segregated from each other. These are two important technical characteristics that allow a complete safe maintenance, so as to allow continuity of service of the switchgears during interventions.

Miniver / C - LSC2B

Rated voltage	kV	7,2	12	17,5	24
Rated power frequency withstand voltage	kV (1 min)	20	28	38	50
Rated lightning impulse withstand voltage	kV	60	75	95	125
Rated frequency	Hz	50-60	50-60	50-60	50-60
Rated short time withstand current	kA (1s)	50	50	50	25
	kA (3s)	50	50	–	–
Peak current	kA	125	125	125	63
Internal arc withstand current	kA (1s)	50	50	50	25
Main busbar rated current	A	4000	4000	4000	2500
Branch connection rated current	A	630	630	630	630
		1250	1250	1250	1250
		1600	1600	1600	1600
		2000	2000	2000	2000
		2500	2500	2500	2500
		3150	3150	3150	–
		3600	3600	3600	2500
		4000	4000	4000	–

Miniver / C Double Deck

Rated voltage	kV	7,2÷17,5
Rated current	A	630÷4000
Short time current	kA	25÷50

The **Double Deck switchgear** allows for a more compact footprint by stacking two circuit breakers within the same panel. This innovative design significantly reduces the overall switchgear length by approximately **30%,** optimizing space utilization in electrical installations.

MV Switchgears for Primary Distribution with Fault Current Limiter (FCL) applications

Fault Current Limiters (FCLs) ensure rapid fault isolation, enhanced system protection, and seamless integration into various power distribution networks. They respond within milliseconds, minimizing disruptions and safeguarding sensitive equipment. With a standard operating voltage of 12kV, extendable up to 24kV, these devices are particularly well-suited for high-tech offshore structures, critical infrastructures and utility substations. Their ultra-fast operation clears faults in less than a millisecond, selectively isolating only the affected circuit sections. This targeted protection reduces thermal and mechanical stress on equipment, preventing potential damage.

Fault Current Limiter

Rated voltage	kV	12	12
Rated current	A	1250 -2000-3000	4000****
Rated power-frequency withstand voltage	kV	28	28
Rated lightning impulse withstand voltage	kV	75	75
Dimension height	kV	2500 (2770*)	2500 (2770*)
Dimension width	mm	1000** (1600***)	1000** (1600***)
Dimension depth	mm	1800 (2000*)	1800 (2000*)

(*) FCL system arranged within MV switchgear in a double deck execution
(**) Dimensions width of the FCL system in with drawable version
(***) Dimensions width of the FCL system in fixed version
(****) With cooling fan

FCLs configurations in the switchgear panel

Fixed-Mounted

- Three FCLs insert holders with current transformers
- Permanently mounted within metal-clad switchgear panel
- Measuring and tripping devices in low-voltage compartment or, whenever occurs, in a separate stand-alone cabinet.
- Handles fault currents exceeding 50kA

Truck-Mounted

- Withdrawable truck design serves as disconnector
- Contains three FCLs insert holders
- Tripping current transformers permanently installed
- Measurement unit located in low-voltage compartment
- Enhanced service ability and maintenance access

MV Switchgears for Primary Distribution - Special projects

The Jeko 32 MV Switchboard is a compact, high-performance, and eco-friendly solution for medium voltage applications. With a sleek and innovative design, it offers rated voltages up to 12kV, currents up to 2500A, and a short-circuit withstand of 31.5kA. Equipped with thermal monitoring, it ensures enhanced safety, reliability, and efficiency.

Jeko 32 - MV Switchgear			
Rated voltage	kV	7,2	12
	kV	7,2	12
Rated power frequency withstand voltage	kV (1 min)	20	28
Rated lightning impulse withstand voltage	kV	60	75
Rated frequency	Hz	50-60	50-60
Rated short time withstand current	kA (3s)	31,5	31,5
Peak current	kA	82	82
Classification internal arc	kA (1s)	AFLR	AFLR
Internal arc withstand current	kA (1s)	31,5	31,5
Main busbars rated current	A	2500	2500

Enel Approved Primary Cabin		GSCM009 17.5 kV	GSCM009 24 kV
Rated voltage	kV	17,5	24
Rated power frequency withstand voltage	kV (1 min)	38	50
Rated lightning impulse withstand voltage	kV	95	125
Rated frequency	Hz	50-60	50-60
Rated short time withstand current	kA (1s)	25	25
Peak current	kA	65	65
Internal arc withstand current	kA (1s)	25	25
Main busbars rated current	A	3150	2500
Classification IAC		AFLR	AFLR
Loss of service continuity category		LSC2B	LSC2B

This **GSCM009** specifications are based on MiniverC projects. This MV Air Insulated Switchgear (AIS) with withdrawable MV Circuit Breaker needs be installed as indoor equipment in the HV/MV and MV/MV substations of the Enel Group Distribution Companies.

Shore connection solutions

For years, Imesa has been a reliable supplier of electrical switchgears that serve as the main distribution point for a ship's electrical system. In the diagram below, you can see how the Main Switchboard distributes power supplied by the generators to various consumers, including the propulsion system. We have now incorporated an additional element into the system: the Shore Connection Panel (SCP). This panel allows the main switchboard of the ship to be directly supplied by the power grid on shore, bypassing the generator sets.

HVSC - Shore Connection Switchgear		
Rated voltage	Ur [kV]	7.2 - 12
Rated power-frequency withstand voltage	Ud [kV]	20 - 28
Rated lighting impulse withstand voltage	Up [kV]	60 - 75
Rated frequency	fr [Hz]	50 - 60
Rated continuous current	Ir [A]	630 - 1250 - 2000
Rated short-time withstand current	Ik [kA]	50 (3 s)
Rated peak withstand current	Ip [kA]	130
Internal arc classification		AFLR
Arc fault current and duration	IA - tA [kA - s]	50 - 1 s

The Shore Connection Panel typically consists of a circuit breaker panel and a connector panel, which can vary in number and size depending on the current requirements and the connection system in place. The electrical characteristics of the SCP can reach values of 12 kV-50kA-2000A. The sockets are installed in the connector panel to ensure easy access while preserving the electrical requirements, and providing protection against potential internal arcs.

LV Switchboards

Thanks to their electrical characteristics, our LV switchboards are ideal for offering solutions designed to guarantee service continuity, staff safety, and the possibility of integrating the electrical switchboard into the supervision and control system.

MCC32		
Rated voltage		up to 690 V
Rated insulation voltage		up to 1000 V
Impulse withstand voltage		6 kV
Rated frequency		50-60 Hz
Rated short-time withstand current (1s)		up to 80 kA
Rated peak current		up to 176 kA
Internal arc withstand current		prevent the internal arc
Busbars rated current		up to 3750 A
Degree of protection	**with opened doors**	IP20
	with closed doors	IP54
	standard structural form	3B, 4A, 4B
	ambient temperature	-5°C + 40°C
Accessibility front and rear accessibility or only with front accessibility		

PC – Power Center		
Rated voltage		up to 690 V
Rated insulation voltage		up to 1000 V
Impulse withstand voltage		6 kV
Rated frequency		50-60 Hz
Rated short-time withstand current (1s)		up to 100 kA
Rated peak current		up to 220 kA
Internal arc withstand current (0,3 s)		up to 100 kA
Busbars rated current		up to 6300 A
Degree of protection	**with opened doors**	IP20
	with closed doors	IP54
	standard structural form	2, 3A, 3B, 4A, 4B
	ambient temperature	-5°C + 40°C
Accessibility front and rear accessibility or only with front accessibility		

MV Switchgears for Secondary Distribution

Our Minifluor represents the ideal solution for all plants that require a modular, or pre-configurable electrical switchgear, such as systems for the production of electricity from renewable, and are also highly suitable for electrical distribution in industrial plants. The flexibility and reliability of our Minifluor allow its use even in particular contexts such as railway systems, ports, and in all MV distribution contexts up to 24 kV.

Minifluor - LSC2A					
Rated voltage		Ur [kV]	12	17,5	24
Value of nominal isolation at operating frequency	***between the phases and to ground***	Ud [kV]	28	38	50
	between open contacts	Ud [kV]	32	45	60
Rated lightning impulse withstand voltage	*between the phases and to ground*	Up [kV]	75	95	125
	between open contacts	Up [kV]	85	110	145
Rated frequency		Hz	50/60		
Nominal thermal current of main busbars		Ir [A]	400 – 630 – 800 – 1250		
Rated short-time current allowed	**for 1 s**	Ik [A]	fino a 20 KA		
	for 3 s	Ik [A]	12,5 – 16		
Rated peak current		Ip [kA]	31,5 – 40 – 50		
Internal arc withstand current 1 s		[kA]	16		
Gas pressure (at 20°) of the switch disconnector/line-side isolator		psw [MPA]	0,13		

Enel Approved Secondary Cabin		GSCM004
Maximum insulation voltage		24 kV
Rated insulation level, sealing tensions	***Lightning impulse to earth and between phases***	125 kV
	Power frequency to earth and between phases	50 kV
	Rated frequency	50 Hz
	Rated current in continuous service for the bars	630 A
	Permissible rated short duration for the bars and the derivations	16,5 kA
	The permissible current peak value of short duration for the bars and the derivations	40 kA
	Rated duration of short circuit	1 s
	Degree of external protection	IP 3X
	Accessibility class (internal arc)	AFLR

Our services

Servitization

We offer PaaS (Product-as-a-Service) services through Servitization, made possible by implementing cyber-secure industrial control and automation systems. Among the various solutions, we provide systems that are compliant with remote intervention and after-sales assistance methods. Our services also include the integration of advanced data analysis systems (Business Intelligence) and solutions focused on the use of Artificial Intelligence for predictive maintenance, all while ensuring the cybersecurity of the entire system.

After-sales assistance

Our products meet the highest standards, ensuring safety, reliability, and innovation. With a focus on sustainability, we provide customized solutions for different sectors, contributing to a greener future while supporting global energy efficiency and development.

Maintenance and retrofit

We provide retrofit solutions and predictive maintenance to reduce breakdown risks, extend apparatus lifespan, and optimize performance.

Core of the plant

Being the electrical switchboard the most important link between power generation and distribution, its performance level become a key factor for the entire electrical plant.

Partner

Imesa and its Service Centers located in strategical areas all over the world are the right partners for the most demanding Customers who need dedicated solutions in a very tight schedule.

SCADA Automation and Control Systems

We offer a complete package that includes SCADA Systems for Supervision and Control, as well as Industrial Automation solutions, all fully compliant with the ISA/IEC 62443 standards, and related regulations concerning data protection, and cyber defense.

The ISA/IEC standards define cybersecurity parameters across all industrial sectors that use advanced industrial control and automation systems. These standards provide a detailed set of technical requirements and management processes that enable their effective implementation.

Our offer includes the application of these regulations to the relevant sector, delivering a package of tailored solutions based on different cybersecurity levels. These solutions are aligned with the specific characteristics of each system, ensuring that we meet the unique needs of our customers.

Industrial Automation
We offer retrofit machines, LV Industrial Automation, and machine switchboards, including hardware design, software development, commissioning, and ongoing support.

Supervision and Control Systems
We provide turn-key supervision and control systems, offering commissioning, training, maintenance, and ongoing support for optimal plant management.

Sustainability

Environment

Environmental protection is a constant commitment that underpins our work at Imesa! Our sustainability objectives outline our ambitions and the strategies we use to achieve them. Regarding environmental aspects linked to our activities, we have implemented company policies and programs aimed at reducing the consumption of energy, water, hazardous substances, and materials. We focus on maximizing waste recycling and improving the management of company assets. Additionally, we collaborate with customers and suppliers who share our commitment to environmental sustainability.

ESG committee

We have established an internal ESG (Environmental, Social, and Governance) Committee, marking a significant step in strengthening our sustainability practices across these key areas. The ESG Committee consists of a dedicated team responsible for guiding the implementation of ESG initiatives within our company. This team is tasked with developing strategies, setting objectives, monitoring progress, and communicating the results to various stakeholders in a transparent and verifiable manner.

As part of our ESG strategy, the Committee has identified 10 SDGs (Sustainable Development Goals) from the United Nations 2030 Agenda that are particularly relevant to our operations. These goals align with the long-term objectives set by our Board of Directors. Through the implementation of clear, sustainable, and ethical practices, we aim to actively contribute to the well-being of the environment, the communities we operate in, and society as a whole.

Our commitment to ESG reflects our dedication to taking social and environmental responsibility for our actions. We aspire to be a company that looks toward the future, consistently working to build a healthier and fairer world for both present and future generations. This starts with building a new corporate culture at all operational levels, one that is oriented toward sustainability and shared social commitment. For us, ESG is not just a way of thinking but a way of being.

Certifications

Imesa has certified its Management System in conformity to international standards UNI EN ISO 9001, UNI EN ISO 14001, OHSAS 18001. Imesa's products are certified by the main shipping registers: RINA (Registro Italiano Navale), Det Norske Veritas, Lloyd's Register of Shipping, American Bureau Shipping, Burea Veritas, Germanischer Lloyd, Russian Maritime Register of Shipping e Nippon Kaiji Kyokai.

Our initiatives for a sustainable world

Our Green Footprint for the Environment

1. We participate in a project that allows us to re-plant trees based on our prints and their ecological disposal. To date, we have contributed with the planting of 2 trees in France, promoting environmental regeneration.
2. Energy Efficiency: our 48 KWp photovoltaic system, which produces a minimum of 60,000 to a maximum of 66,500 KWh annually, plays a significant role in reducing CO2 emissions.

Governance: responsible leadership

1. Employee Engagement: we believe that responsible leadership is the cornerstone of effective governance. It means guiding an organization with integrity, transparency, and accountability, ensuring that decisions are made with the long-term interests of all stakeholders in mind. Our leaders uphold the highest ethical standards, actively engage with employees, and foster a culture of inclusivity and collaboration.

Social Commitment: People and Well-being at the Centre:

1. Corporate Welfare Projects: thanks to internal surveys, we have introduced a fixed and variable Welfare system to reward meritocracy; We have introduced flexitime designed to improve work-life balance.
2. Training Meetings: We have launched training sessions for employees with the aim of raising awareness on environmental, social and governance issues. ESG training is the first step in integrating sustainability into all our business activities.
3. ESG Training (28/05/2024)
This training moment represented an important opportunity to share values and strategies, promoting a conscious approach to sustainability within the company. Subsequent meetings with experts:
Safe Driving Course (28/05/2024)
Course on Alcohol and Drug Addiction (03/07/2024)
Meeting on Food 24/09/2024
4. Skills Enhancement: We promote talents and professional development with targeted and individual courses.

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