



**MANUFACTURE AND
SUPPLY OF MEDIUM
VOLTAGE SWITCHGEAR,
SUBSTATION AND
ELECTRICAL EQUIPMENT**





ABOUT MEDELEC

Medelec Switchgear Ltd. was founded in 1977 as an assembly plant for distribution switchgear and transformers under licence from the General Electric Company (GEC) of England. Throughout these 40 years Medelec has designed, developed, engineered and manufactured an extensive range of products from medium voltage switchgear to compact substations, mobile substations and control and protection panels.

From its main facilities located in the Mediterranean country of Malta, Medelec boasts a long historical tradition of serving as a bridge between Europe and North Africa. Thanks to its team of engineers and highly disciplined workforce, Medelec is now also offering turnkey project services in conjunction with leading European manufacturers of international repute, from whom major components are sourced to offer reliable solutions with the latest technology.

OUR MISSION

Our mission is to deliver value to our clients by providing high-quality, reliable electrical power engineering solutions with a strong emphasis on service and customisation.

OUR VISION

Our commitment to the very best in quality, reliability and service will lead to continuous improvement in our products, services and processes as well as greater client satisfaction and confidence. This will allow us to become the provider of choice in the markets we operate in.

OUR CORE VALUES

PASSIONATE ABOUT QUALITY

We accomplish our work by considering every aspect involved, no matter how small.

COMMITTED TO RELIABILITY

We act with integrity and respect in order to build trust and fulfil our promises to all our stakeholders.

FOCUSED ON SERVICE

We make our clients and their specific needs a primary focus of our actions by developing and sustaining an attitude of service.

We are proud to be

MEDELEC



QUALITY AND CUSTOMER ASSURANCE

Medelec operates a Quality Assurance System certified to ISO 9001. Modern quality procedures and manufacturing techniques ensure reliable as well as cost effective solutions. Customer satisfaction is guaranteed as Medelec operates in cooperation with recognized client appointed inspection companies.



METAL ENCLOSED, INDOOR TYPE, AIR-INSULATED SWITCHGEAR DESIGNED AND TESTED IN ACCORDANCE TO IEC 62271-200 ENSURING:

- Maximum operational reliability
- Easy installation, function and maintenance Operations are within reach of the operator
- Manual and/or electrical operated
- Personnel safety – all operations can be done with all doors closed
- Modular design
- Extensible from both sides
- Optimised for industrial and utility applications
- Accessibility of compartments
- Various substation configurations possible

ELECTRICAL CHARACTERISTICS OF THE SWITCHGEAR

Rated Voltage	kV	12
Test voltage at power frequency	kV for 1 min	28
Rated Impulse Withstand Voltage	kV	75
Rated frequency	Hz	50
Rated short time-withstand current	kA for 3s	31.5
Peak Withstand current	kA	80
Rated current of main busbars	A	2000
Rated current of feeder connections	A	Up to 2000



COMPACT SUBSTATION

The substation is a compact enclosure consisting of MV switchgear, a transformer and an LV switchboard located in three separate compartments which are segregated from each other by means of partitions in order to ensure personnel safety. Accessibility to operate or maintain the equipment is through lockable doors provided for each compartment to maximise security. Assembly of the complete substation is factory ready to minimise site installation time and cost. All equipment is of high quality and tested as a complete unit.



- Factory assembled for quick installation
- Compact with reduced footprint
- Easily operated and maintained
- Segregated compartments MV, Transformer and LV
- SF6 insulated Ring Main Unit
- Transformer up to 1500kVA, 11/0.4kV Dry/Oil Filled Type
- LV MCCB incomer up to 2500A. Outgoing up to 630A
- Current transformers & metering
- Dimensions: 3200 x 2200 x 2500 (mm)
- IP 34D degree of protection for HV & LV compartment
- IP 22D degree of protection for transformer compartment
- Finish of enclosure using polyester electrostatic powder painting





MOBILE SUBSTATION

Mobile substations by their nature offer the flexibility and the opportunity to ensure a reliable energy supply. Mounted on a trailer, their compact and mobile design allows for the substation to be easily transported and provides a quick solution of fast integration to the system.

The end product offers a complete substation assembly and is ready to connect, “plug and play.”

The module contains all of the necessary equipment required for a complete substation: a power transformer bay fitted with a power transformer, GIS or hybrid GIS switchgear, AIS switchgear, protection and control equipment, as well as AC and DC auxiliary supplies.



CUSTOMER BENEFITS

- Maximum operator safety
- Easy interface
- Minimum site work
- Maximum mobility for transportation and relocation
- Resistant to harsh weather conditions
- Limited footprint required
- Fast alternative reliable power supply
- Cost effective





POWER SYSTEM PROTECTION & CONTROL PANELS

- Protection & Control for MV equipment, using latest technology relays from Schneider Electric, Siemens & ABB
- Various applications including Overcurrent, Distance, Differential & Busbar protection
- Substation Automation using programmable logic controllers (PLC)
- Control integration of different switchgear types
- Custom sized panels tailored to suit specific demands
- Full configuration and factory tests reducing commissioning time and site work
- IED communication using standard protocols such as Modbus, IEC 60870-5-103 & IEC 61850
- SCADA implementation using IEC 60870-5-101/104



AUTOMATIC TRANSFER SWITCH CONTROLLER

- Reliable power transfer between sources
- Ensures maximum continuity of service
- 2 or 3 source systems
- Programmable logic to fit customer requirements
- Synchronism check option on source restoration
- Multi-voltage control operation
- Front panel operator interface via mimic
- Interfaces to different MV/LV switchgear types
- Applications: substations, hospitals, desalination plants & data centres



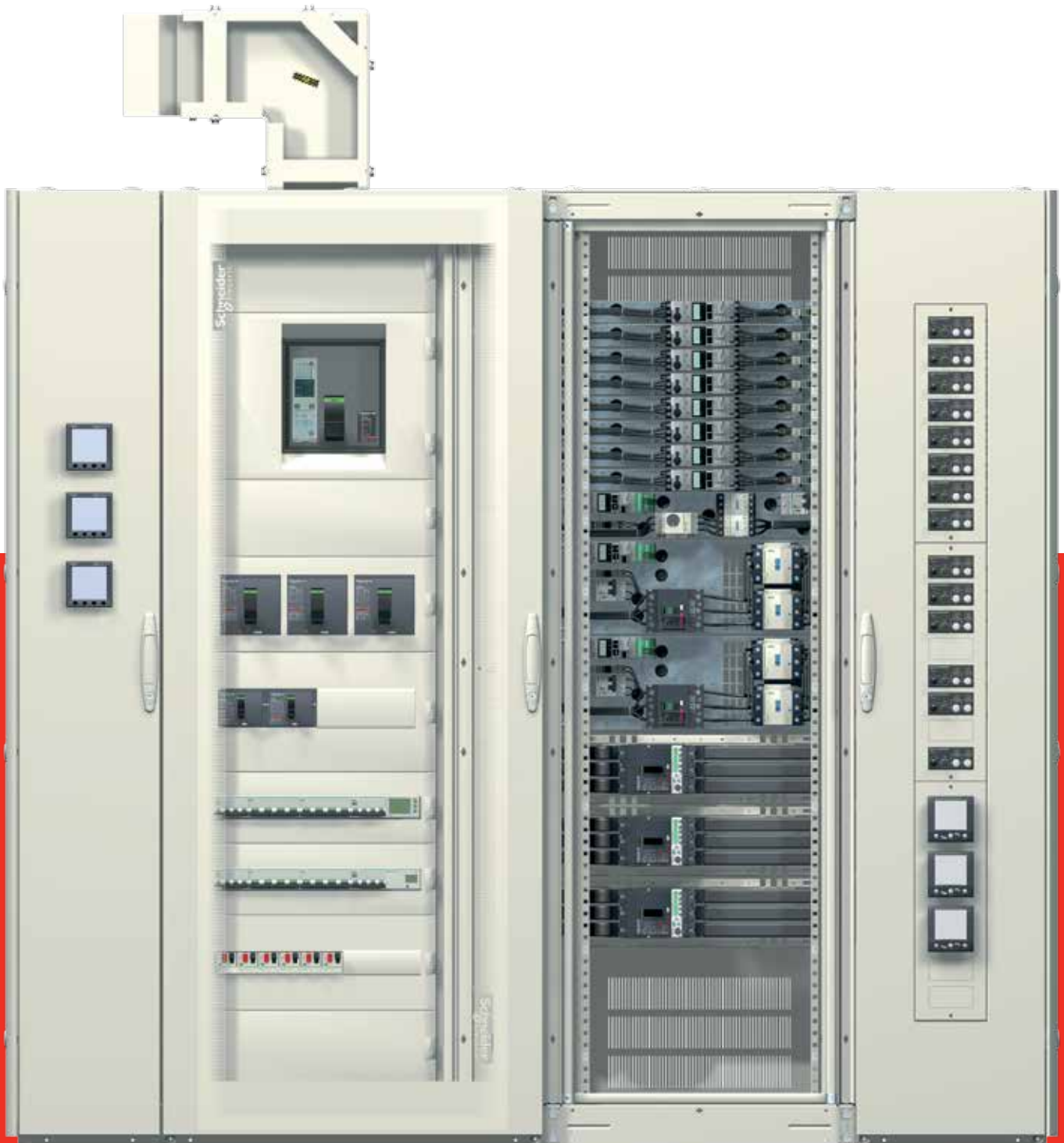
LOW VOLTAGE SOLUTIONS

Our range of products includes ancillary low voltage equipment to complement our medium voltage substations. Medelec is a certified panel builder for Schneider Electric's Prisma range, which includes the Prisma P and Prisma G families of switchboards.

Prisma is famous for its simple, certified, functional systems for safe, upgradeable LV switchboards up to 4000A. This range of products has an universal appeal and can be found all over the world in various applications varying from retail outlets to hospitals, hotels and infrastructural complexes such as airports and train networks.

TECHNICAL DATA

Rated current of main busbars	4000A
Rated short time withstand current	100kA for 1 s
Peak withstand current	220kA
Degree of protection	up to IP55
Dimensions	H 2000mm W 300 to 800 mm D 400 to 600 mm





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