Engineered Products
Prefabricated Transportable Solutions

Today’s decision makers for infrastructure investments face increasing pressures to reduce costs, project lead times and deliver safe and reliable solutions with less manpower.

Our customers can now access more solutions, assembled and pre-commisionned in our factory.

**We do it for you:**
Medium Voltage primary switchgear designed into mobile or transportable Engineered Product Solutions, factory assembled and tested before shipment. That’s it!

Experts in Medium Voltage Switchgear for primary substations, Schneider Electric is your ideal partner for engineering prefabricated solutions for your substation project. Our Medium Voltage Engineered Product Solutions add value for our customers, worldwide.

**Making a difference**
Our customers can benefit from our unique Value Proposition:

- Strong contract management skills and tools
- Solution-oriented engineering & design competence centers
- Complete range of switchgear, backed by experienced application teams
- Proximity to our customers, offering solutions with local or regional equipment and service
- Industrial excellence

Dedicated regional MV Competence Centers close to your projects offer the expertise and industrial facilities to deliver local solutions engineered from our wide range of switchgear:

- Product packages
- Precommissioned assemblies
- Skid-mounted switchgear
- Prefabricated switchrooms
- Powerhouses (E-Houses)
- Mobile substations
Our prefabricated switchroom building solutions can be assembled from a variety of materials and construction methods, including steel, concrete, glass-reinforced cement (GRC) or glass-reinforced polyester (GRP).

The modular design of our buildings allows us to precisely adapt to any equipment type and dimensions. When required, the design allows for transport splits.

Schneider Electric has extensive experience in providing Medium Voltage Engineered Product Solutions for applications in all segments such as:

- Power Distribution
- Power Generation
- Mining, Metals & Industries
- Oil, Gas & Petrochemical
- Infrastructure

**Expert team**
Our Engineered MV Product Solutions professionals are organised into local teams; exchanging expertise, experience and competencies to propose the best Value Solutions to our customers.

Contracts are managed by professional, customer focused project managers using our common project management and design tools to deliver on-time projects while mitigating and controlling risks.

**Industrial process**
Engineered Product Solutions assembled in our factories benefit from our optimized industrial process. Our factories are organized according to the Schneider Electric Production System thus delivering superior quality and lead time to our Customers.

**Quality**
Schneider Electric Quality Standards are extended to the complete factory-assembled solution delivered to the site for your peace of mind.

**ISO 9001/14001 Quality standards** are applied throughout all our design and manufacturing facilities.

**Safety first**
Safety is of the highest importance to Schneider Electric. All our Engineered Solutions ensure the highest industry standards for safety.

**Type testing**
All switchgear used in our packages are type-tested to the latest applicable standards.

A number of designs of Prefabricated Switchrooms have also been subject to type-testing in accordance with IEC62271-202, including Arc-Fault Containment.

**Testing & pre-commissioning**
Extensive testing and pre-commissioning of the complete engineered solution within our factories ensures risks related to site work are reduced to a minimum.
Prefabricated Transportable Solutions

Solutions for power distribution and generation

Your benefits
• Reliable project and time management
• Compliant & fully type-tested switchgear
• Global supplier with local solutions
• Extensive service experience to power distribution and generation companies, as well as infrastructure customers
• Standardized, certified solutions
• Proximity to suppliers for better service

Our Solutions
• Approved switchgear compliant to local specifications
• Internal arc fault designs
• Aesthetic design to blend into the environment
• PIX and PIX MCC family of air-insulated switchgear up to 50 kA
• WS, WI, GHA Gas-insulated Switchgear with compact footprint
• Proximity prefabrication solutions for applications such as windfarms, co-generation plants, gas turbines,
• Standardized engineering and design

Solutions for mining, metal & industry

Your Benefits
• Experienced engineering & design team
• Dedicated Competence Centers project management
• Robust type-tested switchgear with proven field experience in the harshest conditions

Our Solutions
• Delivery of complete switchrooms for your process: including MV & LV, MCCs, VSDs, PLCs, control system and ancillary equipment
• Gas insulated switchgear range with compact footprint: WS, WI, GHA
• Air insulated switchgear range PIX and PIX MCC family
• GEMSTART Intelligent Motor Controller
• Engineering tools & expertise to design specific applications

Solutions for railway projects

Your Benefits
• Proven engineering & design of trackside substations
• Reliable project team & coordination to guarantee time-critical delivery
• Fully type-tested AC & DC switchgear with uncompromising performance, reliability & track records
• The expertise of the supplier of choice for leading Hi-Speed Rail Companies

Our Solutions
• Complete trackside substations
• Substation designs with over 15 years of service in the most extreme conditions
• WS, WI, GHA switchgear range: up-to-date gas- insulated technology - up to 250kV BIL for 27.5kV 1 & 2 pole designs
• VXA/B vacuum circuit-breakers
• PIX DC switchgear & rectifier in prefabricated substations for DC supply of tramways and metros

Solutions for oil, gas & petrochemicals

Your Benefits
• Proven and robust design for powerhouses, located in the world’s most adverse conditions
• Skilled project teams to co-ordinate time-critical delivery schedules
• Compliant and type-tested switchgear for maximum operator safety
• A global partner able to add value to your project anywhere

Our Solutions
• Dedicated Global Oil & Gas Competence Centres
• Partnership with leading suppliers
• Professional O&G project teams
• Switchgear designs approved by major Oil & Gas Companies
• Powerhouses fitted with full Oil & Gas engineering features (blast wave, fire rating, pressurization, ...) for hazardous areas
• Engineering & integration of full services including PLC, supervision, control panels, drives, UPS, HVAC, Fire & Gas systems, ...
Prefabricated Transportable Solutions

Nomad
Stand-alone Emergency Mobile Substation permanently mounted on a semi-trailer with multiple transformer voltage combinations.

The innovative NOMAD mobile substation can be deployed in support of most substations within our customers’ networks within the shortest times, to enable maintenance without power interruption, or to restore power after major climatic events such as cyclones and floods or as emergency support following a plant failure.

Technical
The following specifications are typical, but other ratings are also possible:
- 10MVA 66-33 kV / 22-11 kV Transformer
- Selectable DYN group
- Off-load & on-load tap changers
- Schneider Electric Gas-insulated Switchgear (type may vary)
- Protection, Control and Monitoring panel
- RTU, satellite telecom
- On-board genset, batteries & charger
- On-board cable reels with connectors

When considering the necessity for the customer to be able to deploy the substation in emergency situations, NOMAD was designed to enable trucking on all main roads without a specific escort.

The unit’s trailer is a conventional design with an airbag suspension system to reduce vibrations and shocks.

Weight per axle is carefully calculated to comply with Traffic Authorities’ requirements.

Once on site, a quick substation testing procedure has been defined to ensure the integrity of NOMAD before connecting to the substation. Connection is made easy using the on-board cable reel with appropriate terminations.

Nomad’s advantages
- Rapid deployment: Easy connection to site within 4 hours, with minimal testing and blackstart capacity
- Versatility: Selectable voltages & vector group, pre-set protection configurations
- No disruption of power supply during scheduled substation maintenance
- Reduced network investment
- Fast restoration of failed substation
- Flexibility for planned and corrective maintenance with no interruption of supply.

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