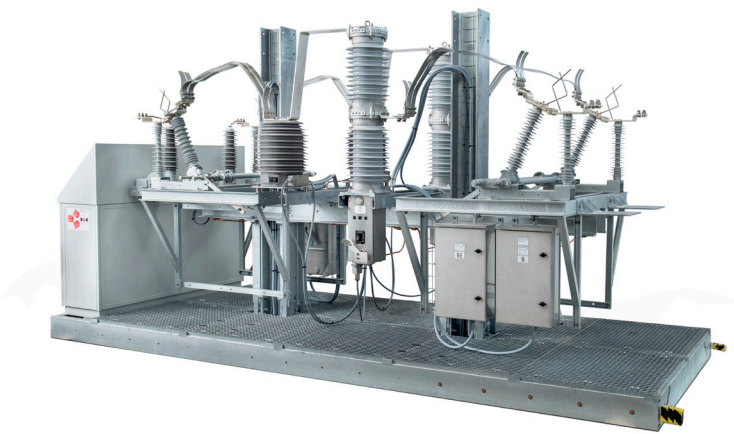


MEDIUM VOLTAGE PRODUCTS

Outdoor compact substation module

Single- or two-phase outdoor module with vacuum breaker for AC railway power supply



ABB's railway outdoor modules provide a highly flexible approach for rail substations based on a complete factory assembled and tested outdoor solution for optimized total cost of ownership.

Key features

- Available in single- (1x25 kV, 1x15 kV) or two-phase (2x25 kV) configurations
- Available for 16.7 (25) Hz and 50 (60) Hz networks
- Complete factory assembled and factory tested modules
- Standardized interfaces
- Standard 20', 30' or 40' transportable units
- Transportable by rail, road, sea and air
- Compact construction
- Including safety interlocking, control and protection functions according to project requirements

Customer benefits and savings

- Simple logistics and low transport costs
- Reduced installation and wiring work on site
- Simple and quick installation and commissioning on site
- Reduction of downtime and minimal disruption of revenue service
- Optimized lead time
- Mitigation of risks due to delays and errors
- Reduced project duration and costs
- Simplified planning for overall project
- Significant land savings and less civil works

Conventional design

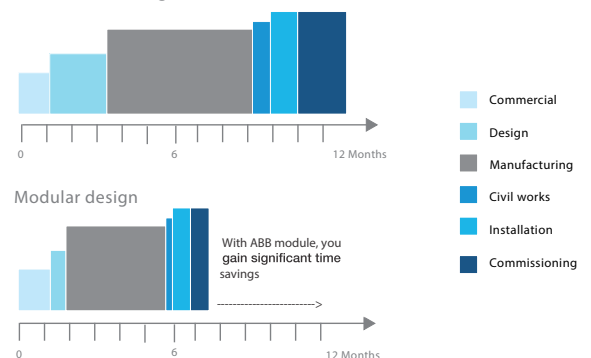


ABB as your competitive edge

- More than 100 years of expertise in rail best practices
- Dedicated team of rail professionals
- Global supplier with global footprint
- Proven track record with many customer references worldwide
- All equipment manufactured internally by ABB with full monitoring and control of the entire design, production and delivery process
- Unrivalled level of engineering support and after-sales service



01

01 A module is suitable for all standard transport gauges and is delivered fully assembled, wired and tested, ready for service.

02 An outdoor compact substation module at a Moutier site in Switzerland.



02

Technical data

Rated operation voltage	kV	17.5	27.5
Number of phases		1	1/ 2
Rated continuous current	A	...2500	...2000
Rated frequency	Hz	16.7	50/60
Rated short time withstand current (1 s)	kA	31.5	25
Rated power frequency withstand voltage (50 Hz, 1 min)	Phase to ground	kV	70
	Phase to phase	kV	-
Rated impulse withstand voltage (1.2/50 µs)	Phase to ground	kV	170
	Phase to phase	kV	-
Clearance	Phase to ground	mm	≥ 310
	Phase to phase	mm	-
	Vertical clearance to ground	mm	≥ 2450*
Creepage			≥ 25 mm/kV*
Service conditions	Temperature	°C	-25/+50°C
	Wind speed		< 40 m/sec
	Seismic withstand		Eurocode 8
Standard applied		IEC 62271-1, IEC 62271-100, EN 50163, EN 50124-1, EN 50152	

* Other values on request

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