

MEDIUM VOLTAGE PRODUCTS

UniGear R medium voltage switchgear

Single-phase air-insulated medium voltage switchgear for railway power supply



UniGear R, part of ABB's well-proven UniGear family, offers maximum flexibility for railway AC systems by providing a cost effective and reliable power supply. It ensures a high level of operator and system safety combined with ease of servicing.

Key features of the product

- Modern design adapted from three-phase standard panels UniGear Panel
- Metal clad arc-proof construction and withdrawable design
- Arc resistant design classified IAC AFLR 25 kA, 1 second (50 Hz), and IAC AFLR 40 kA, 0.5 second (16.7 Hz) according to IEC 62271-200
- Single busbar system for single-phase 25 kV/50 Hz and 15 kV/16.7 Hz
- Vacuum breaker type-tested according to EN 50152-1
- Every cubicle divided into various compartments both for power equipment (Busbar, circuit breaker, cable compartment) and for auxiliaries (low voltage compartment), which are segregated by metal partitions
- Metal shutters automatically operated by the movement of the circuit breaker truck
- Make-proof earthing switch
- Fit for advanced control & protection terminals as well as „classic“ protection relays

Customer benefits and savings

- Easy to adapt and integrate to suit various customer requirements
- Highest level of protection for personnel as well as equipment
- No SF6 gas, reducing the risk of human error, easy installation and limited HV testing required during the commissioning phase
- Maintenance free components
- Highest reliability of supply
- Long lasting and durable
- Maintenance and service of circuit breakers without shut down

ABB as your competitive edge

- More than 100 years of expertise in rail best practices
- Dedicated rail professionals
- Global supplier with global footprint
- Proven track record with many customer references worldwide
- 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

Technical data					
Rated voltage		kV	36	40.5	
Number of phases			1	1	
Rated frequency		Hz	16.7	50	
Operating voltage		kV	17.5	27.5	
Rated lightning impulse withstand voltage		kV	170	200	
Rated power frequency withstand voltage		kV	70	95	
Rated short withstand current, 1 s		kA	40	25	
Rated peak withstand current		kA	100	63	
Rated nominal current	Busbar	A	...2500	...2000	
	Tee-off	A	...2500	...2000	
Internal arc fault withstand		kA	40, 0.5 s	25, 1 s	
Altitude		m	≤ 1000	≤ 1000	
Ambient temperature	Maximum	°C	40	40	
	24 hour average, Maximum	°C	35	35	
	Minimum	°C	-5	-5	
Dimensions	Height	with standard LV compartment	mm	2400	2400
		with extended LV compartment	mm	2600	2600
	Depth		mm	2600	2600
	Width		mm	1000	1000
Standard applied			IEC 62271-100, IEC 62271-200, IEC 60694, IEC 60298		

ABB Sécheron Ltd
Rue des Sablières 4-6/ Voie 11A
Industrial Zone Meyrin-Satigny
1217 Meyrin, Switzerland
Phone: +41 58 586 22 11
Fax: +41 58 586 23 05
E-Mail: info.abbsecheron@ch.abb.

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