

# Gerapid

## DC high-speed circuit breaker



Gerapid is a single pole, high-speed, DC air circuit breaker designed for use in DC traction power substations. The combination of high interruption capacity and current limiting characteristics makes Gerapid a reliable protection solution for high-power DC power distribution systems.

The **Gerapid** breaker is designed to provide maximum safety of operation, highest ratings coverage, easy maintenance, easy integration in panels and high customization levels. Gerapid is a universal power DC circuit breaker, equally good for use at traction power substations, as well as in most demanding industry and power generation applications.

### Gerapid product range

- Rated operational voltage from 800 V up to 3600 V
- Rated currents from 2500 A up to 8000 A

### Key benefits

- 22,000 installed units provide strong references for investor decision making
- Embedded control cards provide savings on panel and make installation easier
- Reduced preventive maintenance time
- Compatible replacement for other circuit breakers on the market
- Access to ABB service network and trainings programs

### Key features

- Full line with highest ratings for railway and industrial applications
- Same footprint and outlook for up to 6000 A
- Mechanical latching provides high reliability and sustained performance over time
- Enclosed construction significantly limits risk of a flashover in the switchgear
- Functional modular design requires no adjustments during lifetime
- RoHS compliance
- High EMI immunity

Technical data tables: EN 50123-2, IEC 61992-2

Railway applications, fixed instalations, DC switchgear, DC circuit breakers

Breaker type	Gerapid 2607					Gerapid 4207					Gerapid 6007				Gerapid 8007	
Arc chute type	1x2	1x2H	1x4	2x2	2x4	1x2	1x2H	1x4	2x2	2x4	1x2	1x2H	1x4	2x2	1x2	2x2
Rated voltage	1000	900	1800	1800	3600	1000	900	1800	1800	3600	1000	900	1800	2000	1000	2000
Rated insulation voltage [V]	1800	1800	3000	3000	4800	1800	1800	3000	3000	4800	1800	1800	3000	3000	2000	2000
Rated current [A]	2.600					4.200					6.000				8.000	
Withstand voltage RMS [kV]	10	10	12	12	17	10	10	12	12	17	10	10	12	12	10	12
Impulse withstand voltage [kV]	18	18	24	24	36	18	18	24	24	36	18	18	24	24	18	24
Maximum arcing voltage [kV]	2	2	4	4	7	2	2	4	4	7	2	2	4	4	2	4

Technical data tables: IEC/EN 60947-2

Low-voltage switchgear and controlgear

Breaker type	Gerapid 2607					Gerapid 4207					Gerapid 6007				Gerapid 8007		
Arc chute type	1x2	1x4	2x2	2x3	2x4	1x2	1x4	2x2	2x3	2x4	1x2	1x4	2x2	2x3	1x2	2x2	2x3
Rated voltage	1000	2000	2000	3000	3600	1000	2000	2000	3000	3600	1000	2000	2000	3000	1000	2000	3000
Rated insulation voltage [V]	2000	2000	2000	3000	4000	2000	2000	2000	3000	4000	1000	2000	2000	3000	1000	2000	3000
50 Hz withstand voltage [kV]	10	10	10	15	15	10	10	10	15	15	7	10	10	15	7	10	15
Impulse withstand voltage [kV]	18	18	18	30	30	18	18	18	30	30	12	18	18	30	12	18	30
Maximum arcing voltage [kV]	2	4	4	5,6	7	2	4	4	5,6	7	2	4	4	5,6	2	4	5,6

Technical data tables: IEEE/ANSI C37.14

IEEE standard for low-voltage DC power circuit breakers used in enclosures

Breaker type	Gerapid 2508/4008/5008/6008				Gerapid 8007R		Gerapid 10007R	
Arc chute type	1x2				1x2	1x3	1x2	1x3
Rated voltage	800				800	1200	800	1200
Rated current [A]	2500	4000	5000	6000	6000		8000	
Rated SC current [kA]	120				120	80	120	80
Rated SC peak current [kA]	200				200	132	200	132
Rated withstand peak current [kA]	-				149	100	149	100
Rated withstand 250 ms current [kA]	-				90	60	90	60
Withstand voltage RMS [V]	3.700				10.000		10.000	
Maximum arcing voltage [V]	1.500				1.500	2.000	1.500	2.000