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AEG Low Voltage
A GE Power Controls Company



Gerapid

A new name for a
new range of
High Speed DC Breaker

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AEG Low Voltage
A GE Power Controls Company

Gerapid 2607/8007

- Same dimensions from 2,600A up to 8,000A (10,000A version under preparation)
- Rates Voltage 1000V up to 3900V
- Compact modular design
- 2-stage contact system
- Drive - mechanical latch mechanism
no auxiliary power source required
- Solenoid drive with integrated control unit
- Termination variable
- Fixed and drawout version
- extensive offer on accessories



Gerapid - Modules



Arc chute

Arc chute
adaptor

Insulated side plates
(optional)

Instantaneous trip - mechanical operated
adjustable (optional)

Electronic control unit

Basic breaker with drive mechanism
and contact system

Solenoid drive - short time operated

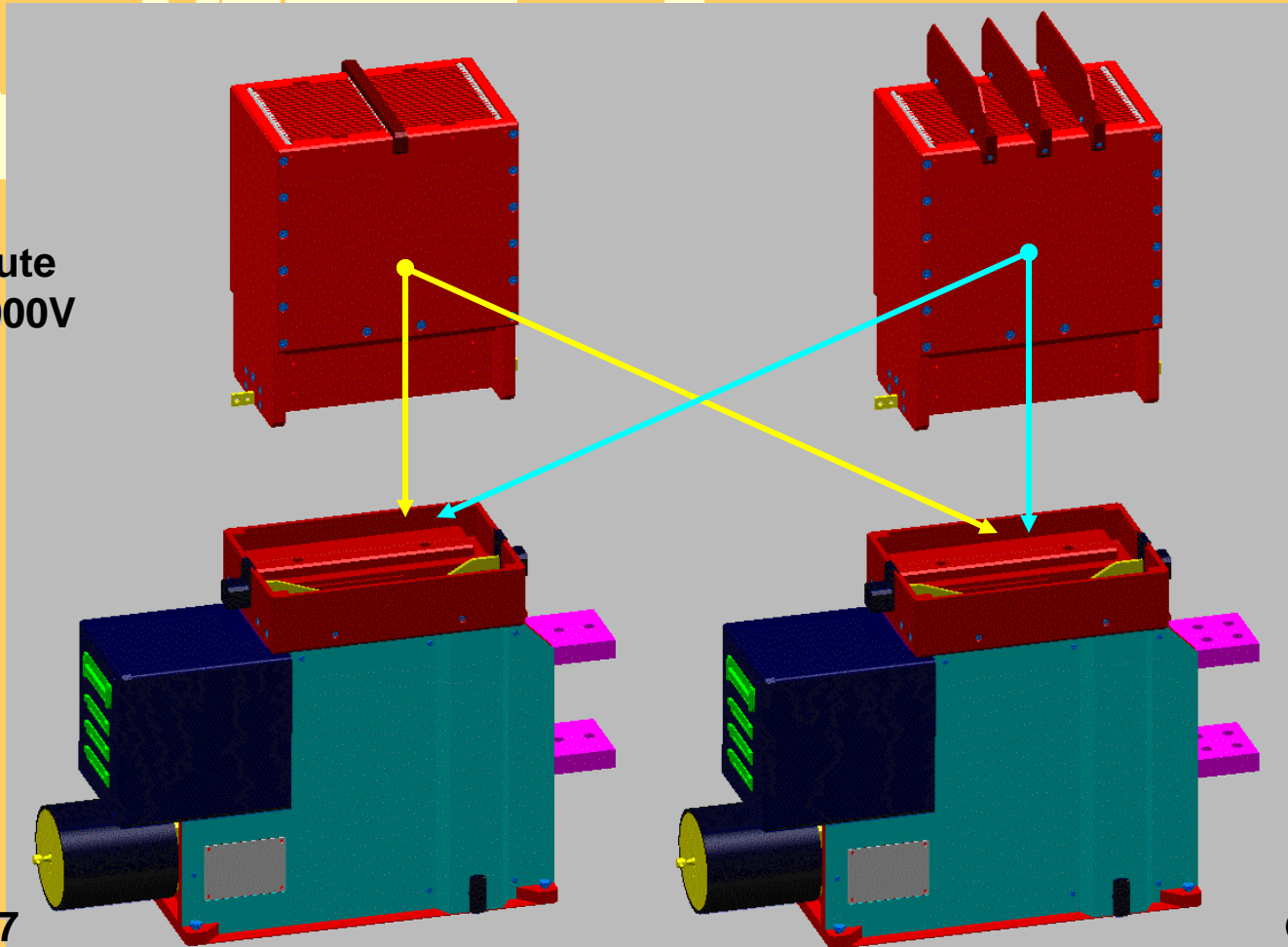
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Gerapid - Arc chutes variations

Arc chute
1X2 - 1000V

Arc chute
1X4 - 2000V



Gerapid 2607/4207

Gerapid 6307/8007

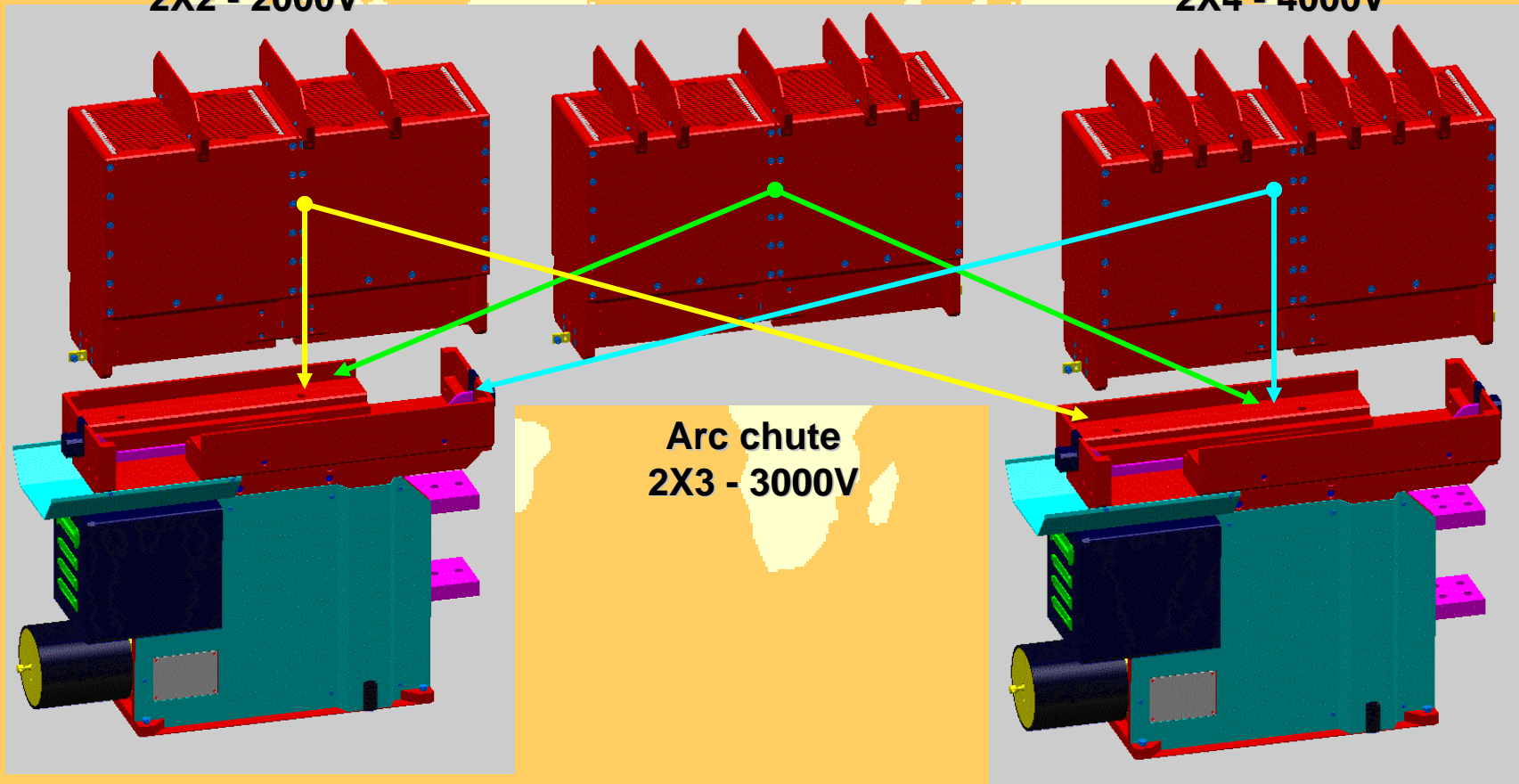
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Gerapid - Arc chutes variations

Arc chute
2X2 - 2000V

Arc chute
2X4 - 4000V



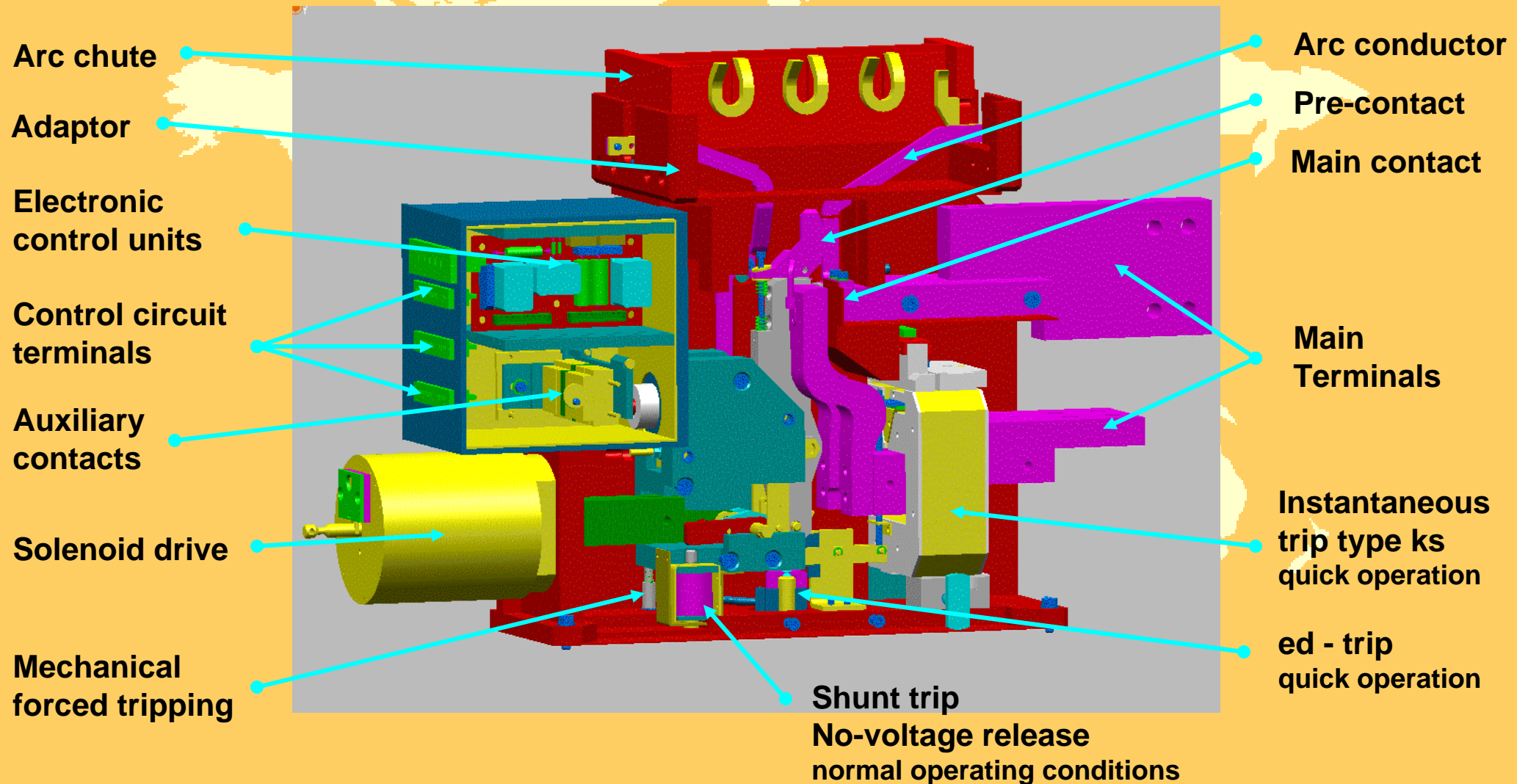
Gerapid 2607/4207

Gerapid 6307/8007

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Gerapid - Components



Gerapid 2607/10007 - Technical Data

Gerapid		2607	4207	6007	8007	10007 ¹⁾
(physical size)		I	I	I	II	III
Rated current	acc. IEC 947-2	2.600A	4.200A	6.000A	8.000A	10.000A
Rated current	acc. EN 50123-2	2.600A	4.200A	6.000A	8.000A	10.000A
Rated current	acc. ANSI C37.14	2.600A	4.200A	5.500A	6.000A	8.000A

Maximum breaking capacity in kA

Arc chute						
1000 V DC	1x2	244	244	200	200	200 ¹⁾
Arc chute						
2000 V DC	1x4	120	120	120	120	120 ¹⁾
Arc chute						
2000 V DC	2x2	100	110	100	100 ¹⁾	100 ¹⁾
Arc chute						
3000 V DC	2x3	50	50	50 ¹⁾	50 ¹⁾	50 ¹⁾
Arc chute						
4000 V DC	2x4	52	52	52 ¹⁾	52 ¹⁾	52 ¹⁾
Arc chute						
4000 VDC	EF4-12	76	76	-	-	-
Mechanical endurance (minimal maintenance)		50.000	50.000	50.000	30.000	30.000

¹⁾ Delivery time on request

Equipment and Accessories



Solenoid drive with integrated control unit

- **Make-time approx. 150ms**
- Short time operated with a min. actuation time of ca. 100ms
- Automatic shut down after approx. ca. 400ms - no auxiliary power source required, anti-pumping feature
- Available for all permissible standard voltages



Overload trip type ks

- **Break-time approx. 3...5ms**
- Operation independent from current direction
- Fixed or adjustable (optional)
- Different current setting ranges available
- Trip indication optional

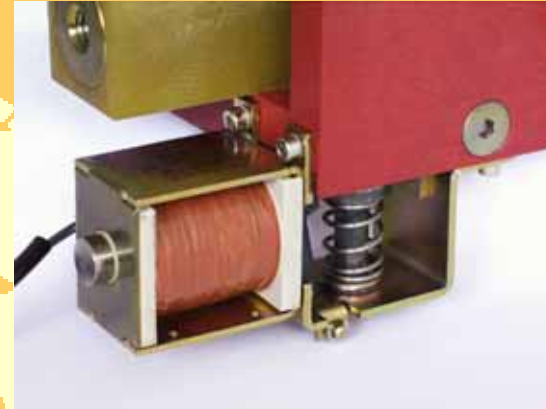


Equipment and Accessories



Releases

- Shunt trip type a
- No-voltage release type r
- No-voltage release type r with voltage control feature
- Break-time approx. 20...40ms



Releases

- Electro-dynamic release type ed
- Electro-dynamic release type ed with capacitor and charging unit
- Break-time approx. 3...5ms

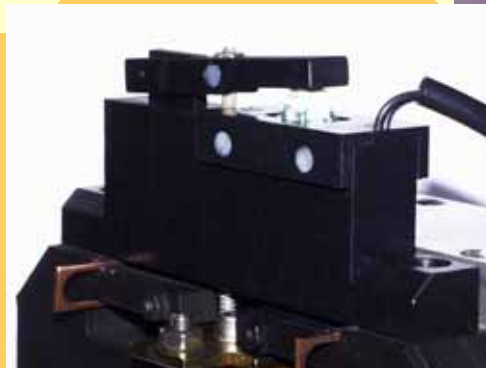
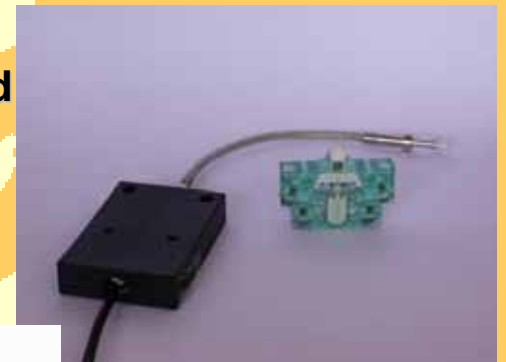
Equipment and Accessories

➔ Auxiliary supply

- external 24 V DC
- internal supply - all permissible standard voltages available

➔ Auxiliary and indication contacts

- Auxiliary contacts 6 contacts (change-over) standard
4 additional contacts optional
- Indication contacts Overload tripping
Indication - arc chute installed



Equipment and Accessories



Terminals

- mains
- control circuits

top - horizontal/vertical
bottom - horizontal/vertical
screw terminals
plug-in connectors



Miscellaneous

- Position indication
- Insulated side plates with insulated toggle for setting instantaneous trip type ks
- Mechanical forced tripping
- Hand lever for manual actuation from front side (for maintenance purpose only)

Gerapid - Current Measurement System Type SEL



Advantages:

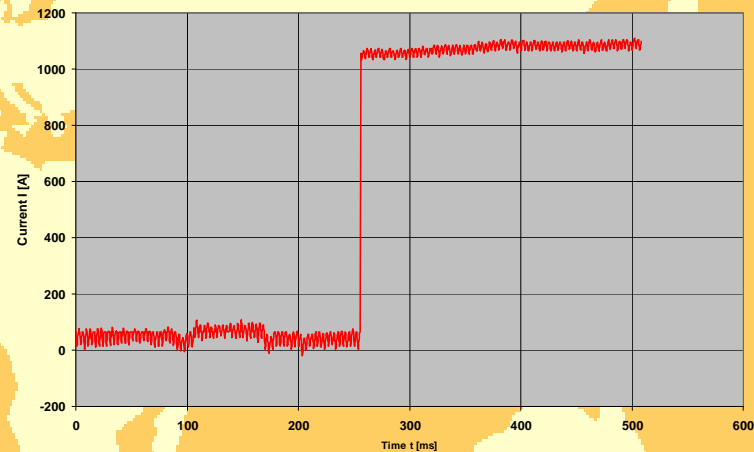
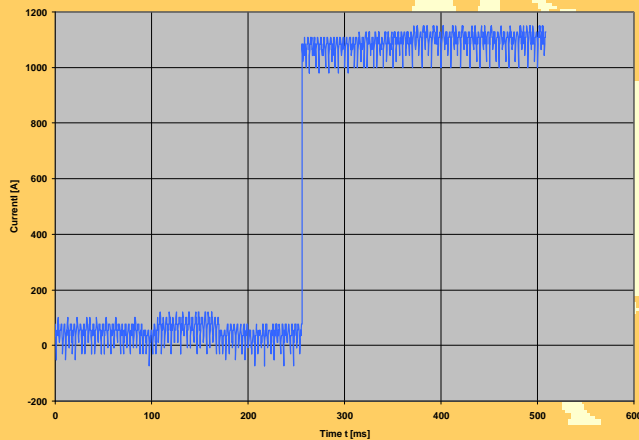
- Integrated in the Gerapid
- no additional assembly work and mounting space
- low noise measuring without any filtering
- ranges 6kA and 12kA
- applicable up to 4000V



Gerapid - Current Measurement System Type SEL

Current Measurement System Type SEL

Conventional Method - Shunt - Buffer Amplifier



Signal output via 3 interfaces

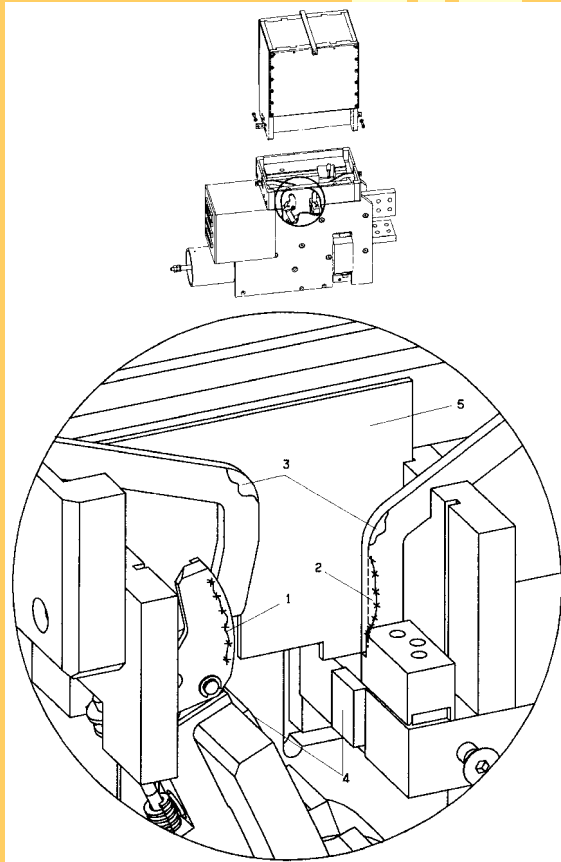
- 4...20mA
- +/- 20mA
- +/- 10V

Watch dog function standard

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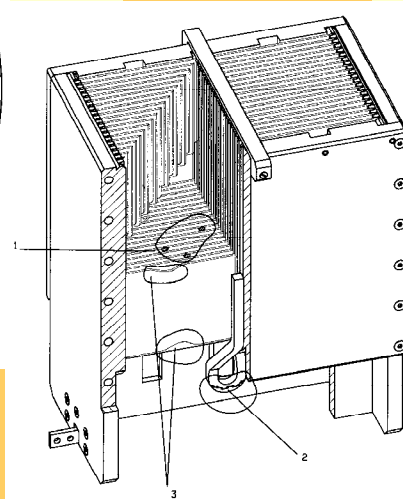
Inspection and Maintenance



Inspection of the contact system and the removable arc chute easy to perform



Exchange of arcing contacts, probes and protective walls possible without removal of the circuit breaker



Application

- 
- ➔ High Speed DC breaker for use as a feeder-breaker in all fixed installations e.g. industrial plant protection and tractionary substations

Conformity

- ➔ All circuit breaker configurations comply with the valid standards
- IEC 947-2
 - EN 50123-2
 - ANSI C37.14

Summary

- ➔ **Same dimensions for 2600A and 8000A at rated voltages from 1000V up to 3900V**
- ➔ **Compact, modular design**
- ➔ **Drive - mechanical latch mechanism
no auxiliary power source required**
- ➔ **Solenoid drive with integrated control unit
short time operated**
- ➔ **Extensive offer on accessories**