

# Automotive Circuit Breakers

## Safety in Transit



# Technical information

## Type 1160, 1610, 1620 and 1170

The extremely small sized thermal automotive circuit breakers 1610 and 1620 as well as the powerful type 1170 are mainly used in commercial vehicles where reliability and continuous availability are paramount. Types 1616, 1626 and 1176 are of the same design, but feature faster trip curves.

E-T-A automotive circuit breakers are interchangeable with blade type fuses or MINI type fuses. They will plug into the same holders, thereby providing an easy retrofit capability. When a protective element has to be placed in non-accessible areas, a

blade fuse cannot be used. Autoreset circuit breakers such as types 1610-92 and 1620-1 are the ideal choice under such conditions. They keep on resetting every few seconds until the failure will be remedied and the overload removed.

Types 1160 and 1620-2 offer automatic modified reset, i.e. the contacts remain open until voltage was removed for a short period of time.

Type 1170/1176 has particularly been designed for trucks, buses and construction machinery. Its robust design with tease-free

and snap-acting mechanism and a rupture capacity of 400 A provide safety and reliability.

The snap-acting mechanism ensures switch-on operation without detrimental arcing while the tease-free mechanism ensures reliable tripping even with the manual release button blocked. In addition its retaining clips provide a tight fit in the event of shock and vibration.

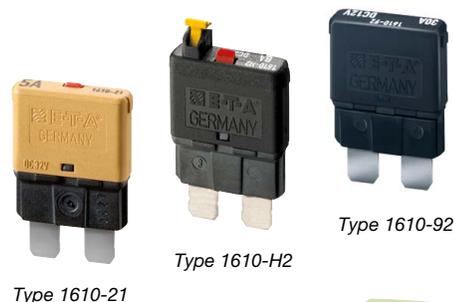
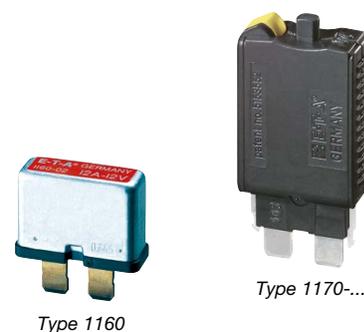
### Technical data

| Type                               | 1160             | 1170/1176          |
|------------------------------------|------------------|--------------------|
| SAE J553                           | type 2           | type 3H            |
| Rated voltage                      | DC 12 V          | 12 V/24 V/48 V     |
| Current ratings                    | 12, 15, 20, 30 A | 3...25 A           |
| Rupture capacity                   | 200 A            | 400 A              |
| Typical life (2 x I <sub>N</sub> ) | 300              | 3,000/1,000 (25 A) |

| Type                     | 1610/1616        | 1620/1626                    |
|--------------------------|------------------|------------------------------|
| SAE J553                 | type 1, 3 and 3H | type 1, 2, 3 and 3H          |
| Rated voltage            | DC 12/24 V       | DC 12/24 V                   |
| Current ratings          | 5...30 A         | 5...30 A                     |
| Rupture capacity (≥ 3 x) | 150 A            | 150 A                        |
| Typical life             | 300 (< 50 A)     | 300 (at 2 x I <sub>N</sub> ) |

### Features and benefits

- No spare fuses required
- Reduced downtimes after tripping
- Clear colour-coded identification of ratings
- Interchangeable with fuses
- Reliable performance in all kinds of vehicles
- SAE J553 types 3 and 3H also for DC 24 V electrical systems
- Standard (1610, 1620, 1170) and fast (1616, 1626, 1176) trip curves



E-T-A mini circuit breaker type 1620/1626



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