Description

Single pole, thermal miniaturised circuit breaker designed for automotive applications. Fits into fuse blocks designed to ISO 8820-3, Type F.

Automatic reset (for DC 12 V only) and open circuit (modified reset to SAE) version optional. Open circuit version ensures contacts staying open as long as power is on. The circuit breaker will reset after the load is removed. Particularly suitable for installation in inaccessible locations.

Current ratings correspond to those of blade fuses. Clear colour coding of the ratings: blade fuse and circuit breaker of the same colour have the same rating.

Breakers rated 7.5 A through 30 A have a fast characteristic curve and only hold 70 % of their rated current continuously.

US patent number: US 8,576,042,B2

Typical applications

Protection of electrical systems of passenger cars, trucks, buses, watercraft, extra low voltage wiring systems.

Ordering information

Type No. 1626 - single pole thermal Mini-CBE with standard characteristic curve

Version, according to SAE J553
- 1 type 1, DC 12 V automatic reset
- 2 type 2, DC 12 V modified reset
- 3 type 3, DC 24 V with reset button
- 3H type 3*, DC 24 V with reset button and manual release facility

Current ratings

<table>
<thead>
<tr>
<th>Current (A)</th>
<th>Voltage drop (mV)</th>
<th>Housing cap colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>&lt; 150</td>
<td>light brown</td>
</tr>
<tr>
<td>7.5</td>
<td>&lt; 150</td>
<td>brown</td>
</tr>
<tr>
<td>10</td>
<td>&lt; 150</td>
<td>red</td>
</tr>
<tr>
<td>15</td>
<td>&lt; 150</td>
<td>blue</td>
</tr>
<tr>
<td>20</td>
<td>&lt; 150</td>
<td>yellow</td>
</tr>
<tr>
<td>25</td>
<td>&lt; 150</td>
<td>white</td>
</tr>
<tr>
<td>30</td>
<td>&lt; 150</td>
<td>light green</td>
</tr>
</tbody>
</table>

Please be informed that we have a minimum ordering quantities to be observed.

Technical data

For further details please see: www.e-t-a.de/ti_e

Voltage rating
- 1626-1/-2: DC 12 V
- 1626-3/-3H: DC 12 V, DC 24 V

Max. voltage rating
- 1626-1/-2: DC 14.5 V
- 1626-3/-3H: DC 29.0 V

Current ratings
- 5...30 A

Service short-circuit breaking capacity

<table>
<thead>
<tr>
<th>Operation</th>
<th>300 operations at 2 x I N</th>
</tr>
</thead>
</table>

Ambient temperature
- -40...+85 °C (-40...+185 °F)

Reset period for 1626-1
- ≤ 15 s (at 23 °C)

Reset period for 1626-2
- < 35 s (after 5 sec at rated voltage)

Degree of protection
- operating area IP40 (-3)
- operating area IP50 (-1, -2)
- terminal area IP00

Ultimate short-circuit breaking capacity
- ≥ 3 break operations at 150 A, or
- ≥ 1 break operation at 2,000 A

Vibration
- 10 g (57-500 Hz), ± 0.38 mm (10-57 Hz)

Shock
- 50 g (11 ms)

Corrosion
- 48 hrs in 5 % salt mist,
- to IEC 60068-2-11, test Ka

Humidity
- 240 hrs in 95 % RH,
- to IEC 60068-2-78, test Cab

Mass
- approx. 3 g

Caution:
It is good practice to switch off the vehicle’s ignition system before manually releasing or re-setting the circuit breaker. Free travel of the reset button must be ensured! Please ensure to push in the actuator smoothly and completely.

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.
The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping, please multiply the circuit breaker current ratings by the derating factor shown below. See also section Technical information.

### Derating factor

<table>
<thead>
<tr>
<th>Ambient temperature °F</th>
<th>-40</th>
<th>-22</th>
<th>-4</th>
<th>+14</th>
<th>+32</th>
<th>+50</th>
<th>+10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derating factor</td>
<td>0.73</td>
<td>0.78</td>
<td>0.82</td>
<td>0.86</td>
<td>0.91</td>
<td>0.95</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ambient temperature °C</th>
<th>-40</th>
<th>-22</th>
<th>-4</th>
<th>+14</th>
<th>+32</th>
<th>+50</th>
<th>+10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derating factor</td>
<td>+73.4</td>
<td>+104</td>
<td>+122</td>
<td>+140</td>
<td>+158</td>
<td>+185</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ambient temperature °F</th>
<th>+23</th>
<th>+40</th>
<th>+50</th>
<th>+60</th>
<th>+70</th>
<th>+85</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Derating factor</td>
<td>1</td>
<td>1.09</td>
<td>1.16</td>
<td>1.25</td>
<td>1.33</td>
<td>1.43</td>
<td></td>
</tr>
</tbody>
</table>

This is a metric design and millimeter dimensions take precedence (mm / inch)