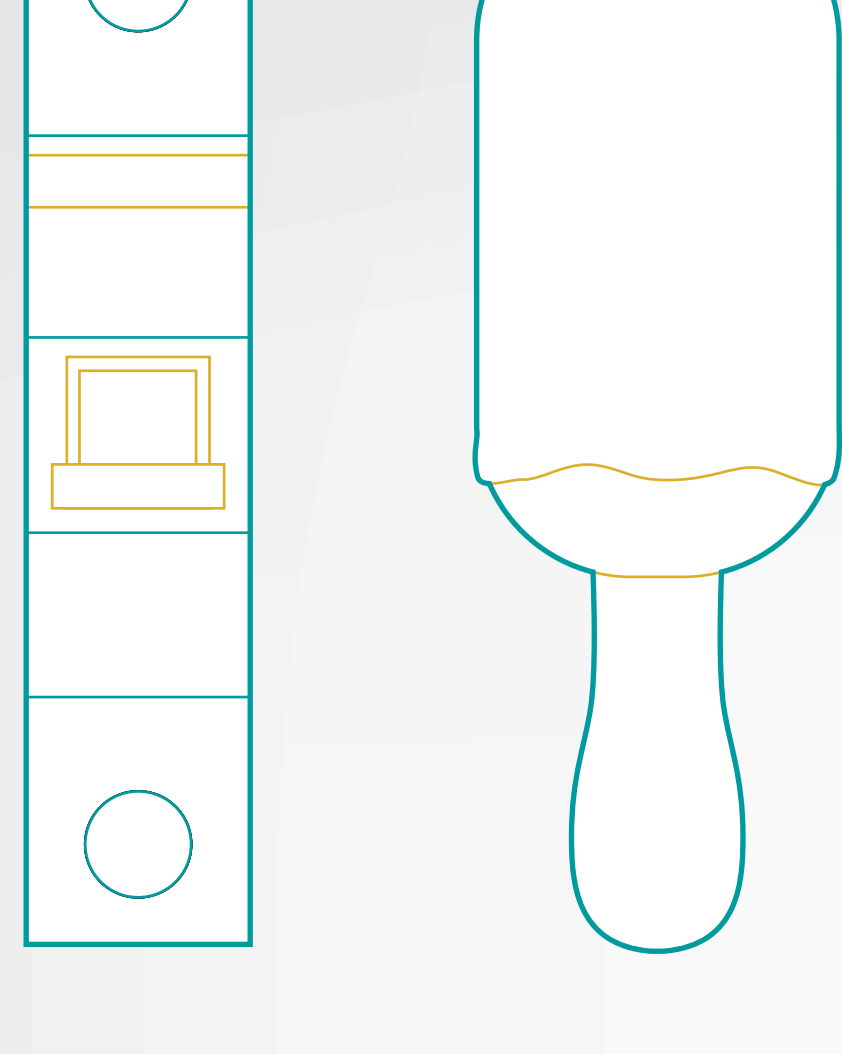


Miniature circuit breaker High demands in small spaces

Everyone knows him and everyone has one at home – a miniature circuit breaker. Without this circuit breaker, we would find our daily activities unpleasantly interrupted. After all, there is a lot of high-tech in this small device.



1923 Invention

In 1923, **Hugo Stotz** invented the first miniature circuit breaker.

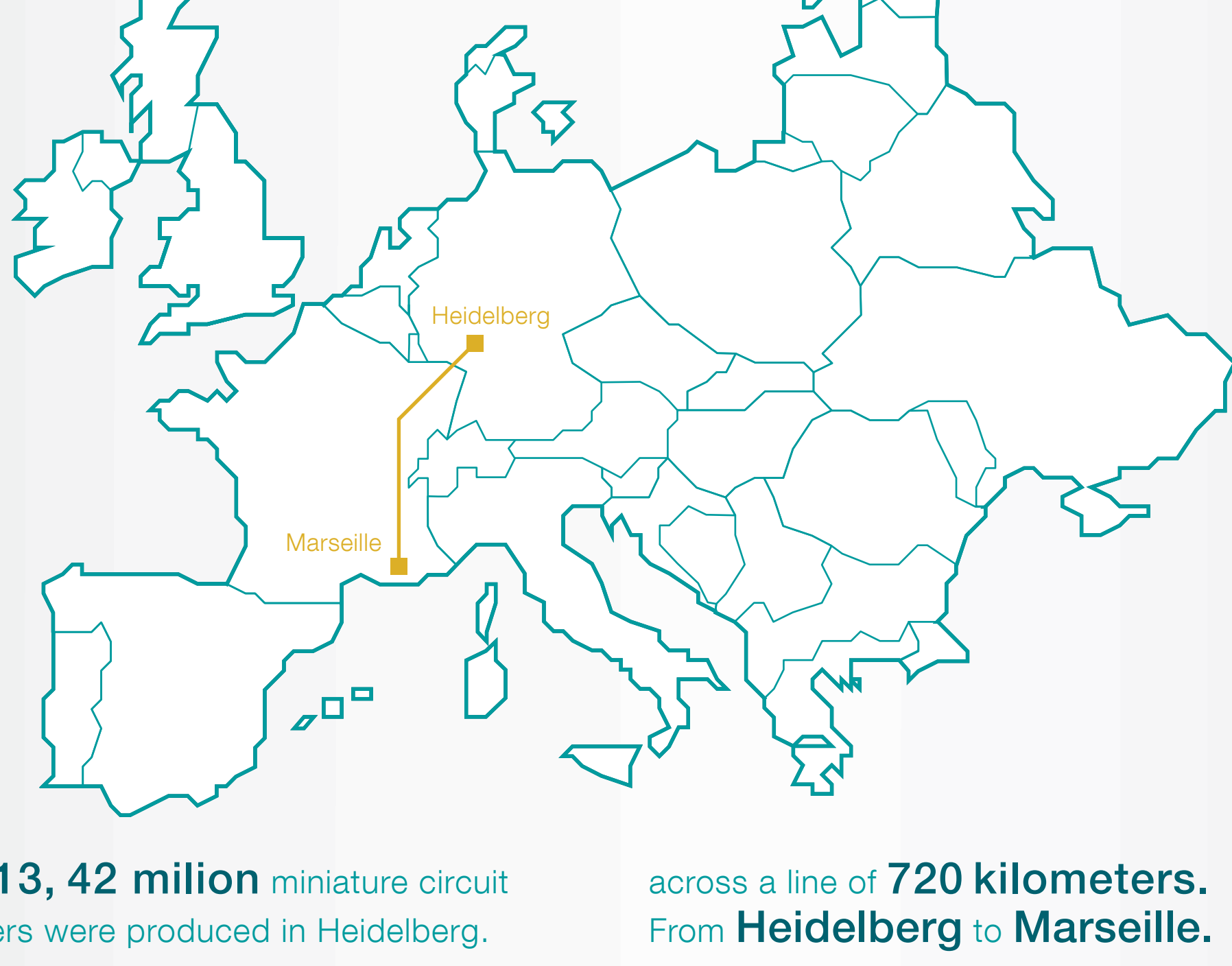
The same year **ice cream on the stick** was invented. **And one year later** a **patent** was awarded for the first miniature circuit breaker.

More than 40 million miniature circuit breakers every year



Production plant
Germany

Stretching across 720 kilometers

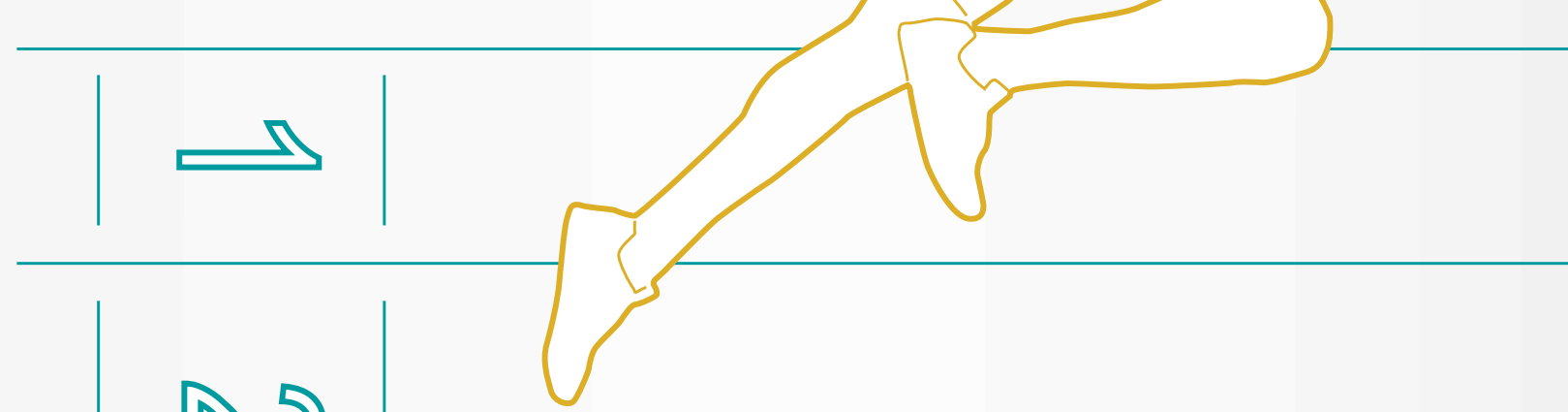


In 2013, **42 million** miniature circuit breakers were produced in Heidelberg. Lining them up in a row would stretch

across a line of **720 kilometers**. From **Heidelberg to Marseille**.

16 pieces in 9.58 seconds

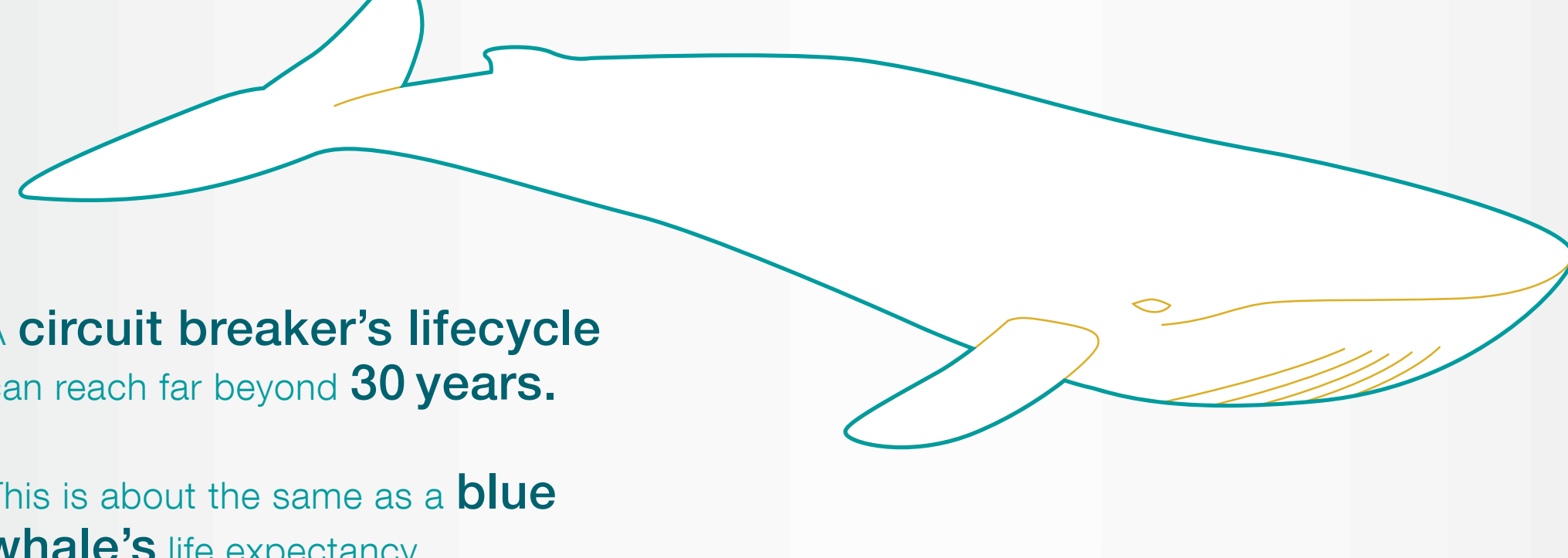
During the time it would take **Usain Bolt** to run **100 meters**, **16 miniature circuit breakers** come off the production line in Heidelberg.



Lifespan over 30 years

A **circuit breaker's lifecycle** can reach far beyond **30 years**.

This is about the same as a **blue whale's** life expectancy.

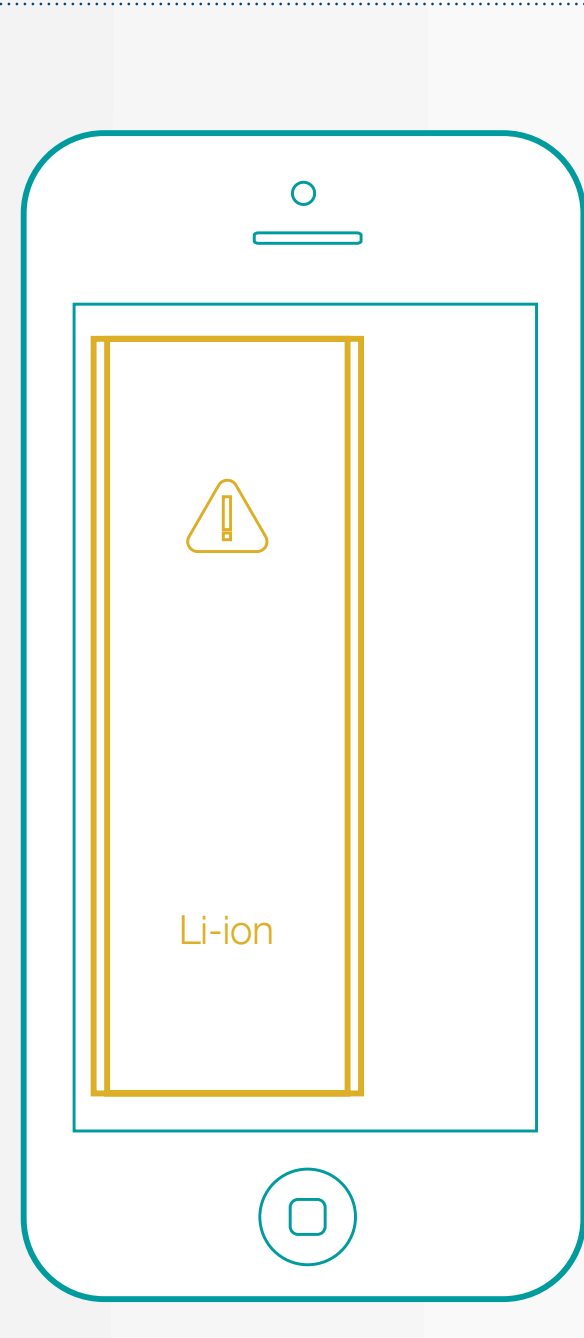
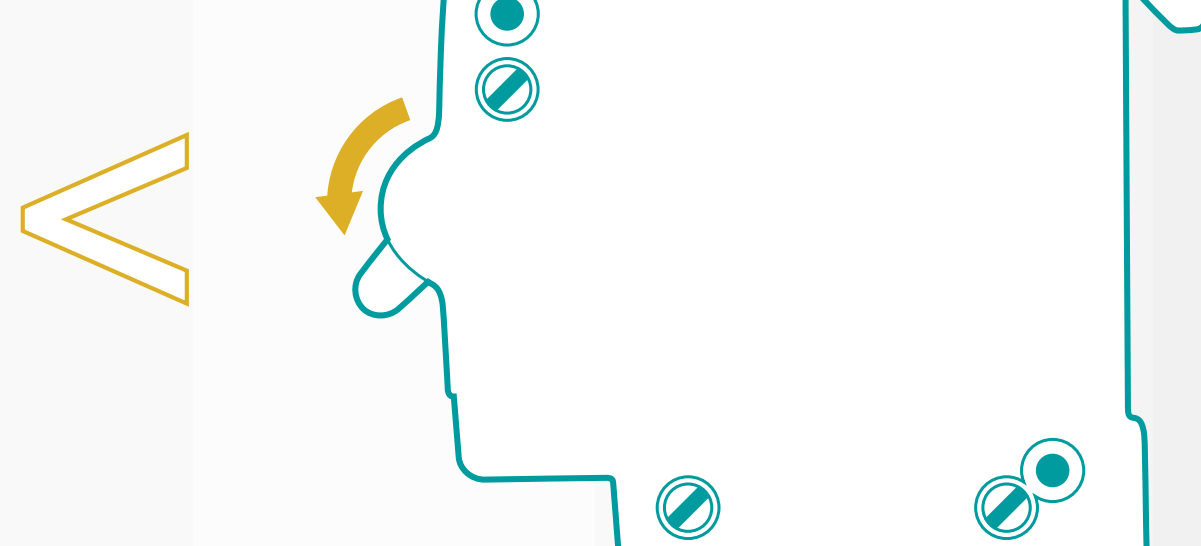


10 times faster



The **speed to trigger** it takes **10 milliseconds**.

This is **10 times faster** than a **human eye can blink**.



50,000 smartphone batteries

A miniature circuit breaker can **disconnect up to 50 kA** short circuit current.

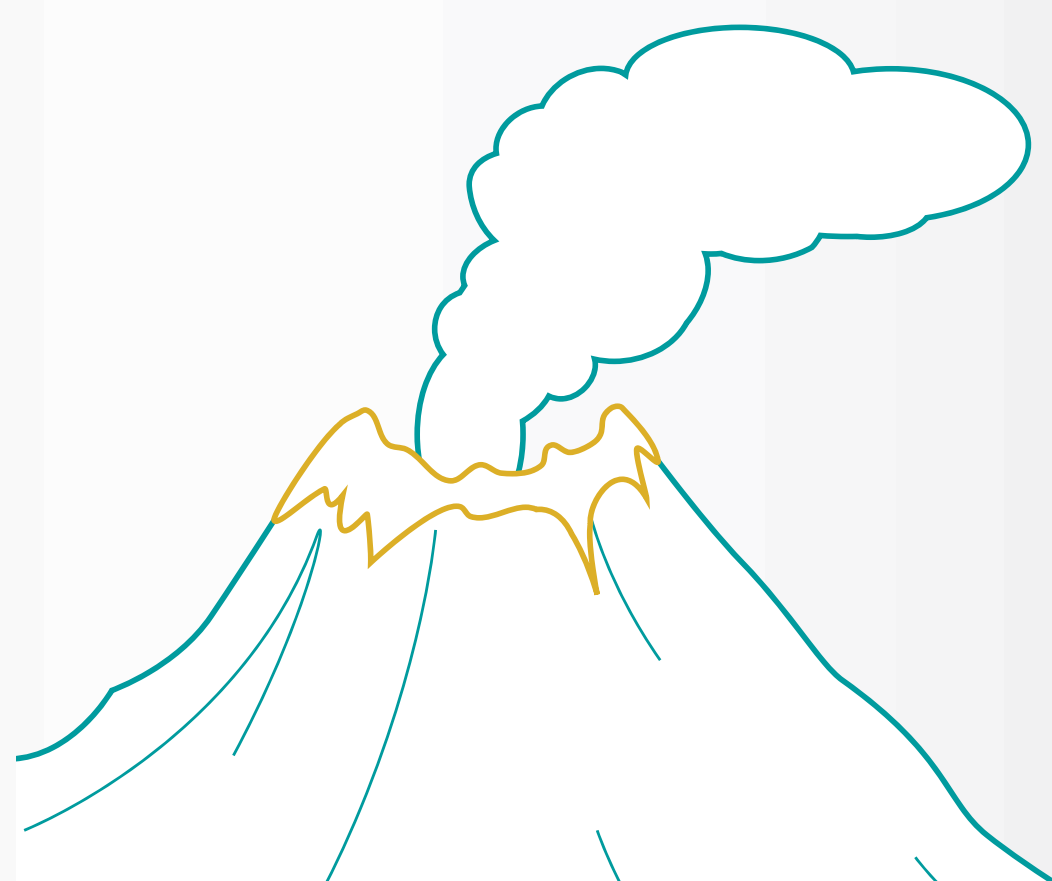
The same amount of current from **50,000 smartphone batteries**.

5,000 - 6,000 °C

When a miniature circuit breaker trips, the inside of **its body** can reach temperatures between **5,000 to 6,000 degrees Celsius**.

Even rocks can melt at that temperature.

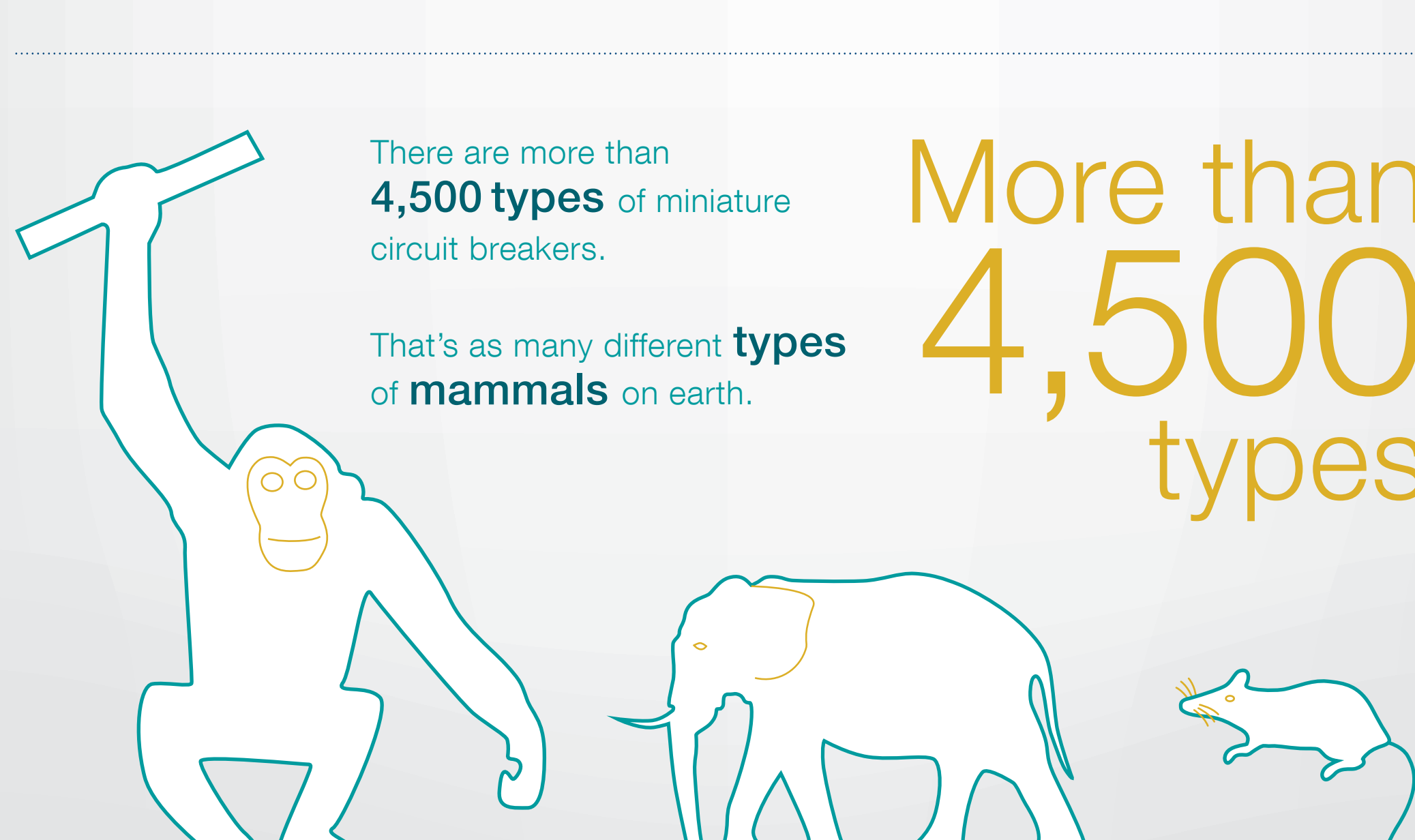
Nonetheless, the miniature circuit breaker trips **reliably** and **safely** without any danger.



There are more than **4,500 types** of miniature circuit breakers.

That's as many different **types** of **mammals** on earth.

More than 4,500 types



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