

## **World Lightning Protection Day: When Do Cars Offer Protection Against Lightning Strikes?**

**During a thunderstorm, many people seek shelter in their cars—and rightly so. But does this also apply to electric cars? The VDE explains what to keep in mind on World Lightning Protection Day on June 28.**

(Frankfurt am Main, June 25, 2026) Exactly 99,930 lightning strikes were recorded in Germany last year. Thunderstorms occur more frequently in the summer—and are often more intense. The electrical discharge from a lightning strike can generate temperatures of over 30,000 degrees Celsius, setting entire buildings on fire and, in the worst cases, claiming lives. For several years now, World Lightning Protection Day on June 28 has been raising awareness of these dangers. The day has its origins in a tragedy: In 2011, 18 schoolchildren lost their lives in Uganda when lightning struck their classroom. Since then, the motto for this day in Germany has been “Lightning Protection SAVES Lives.”

But what are the most important rules and tips? “When a thunderstorm strikes, you should seek shelter,” says Thomas Raphael of the VDE Committee for Lightning Protection and Lightning Research (VDE ABB). “This could be, for example, buildings or cars with a metal body.” Buildings with lightning protection systems are certainly safer than those without. “But for private buildings, such systems are generally not necessary; they provide sufficient protection on their own,” says Thomas Raphael.

### **When does a car provide protection against lightning strikes?**

With cars, the situation is a bit more complicated. For decades, they’ve been considered a particularly safe shelter during thunderstorms. This is because their metal body acts as a so-called “Faraday cage,” which diverts the lightning current to the ground via the metal outer shell. “Of course, this only works if the body is actually made of metal,” says Thomas Raphael.

Motorhomes and convertibles without a metal roof frame or roll bar therefore do not provide reliable protection against a lightning strike—not even with the top down.

In principle, however, the vehicle's drive system makes no difference. "Electric cars also function as Faraday cages," says Thomas Raphael. Even while charging, personal injury is extremely unlikely. "Public charging stations and charging parks can be effectively equipped with lightning and surge protection," adds Thomas Raphael. This makes them even safer.

Nevertheless, a direct lightning strike can damage the electric mobility infrastructure—and the same applies to general traffic infrastructure such as traffic lights. As a general rule, the VDE ABB therefore advises staying in the car during severe thunderstorms, but not driving.

"Lightning, thunder, and rain can lead to driving errors and accidents due to limited visibility and sudden startle reactions," explains Thomas Raphael. "In the event of a direct lightning strike, the heat generated can also damage the tires—and the vehicle's electronics can be damaged by the lightning's electromagnetic field." He therefore advises checking the vehicle's electronic systems after a lightning strike before continuing your journey.

*Those interested can find additional tips and information on lightning protection on the website [www.vor-blitzen-schuetzen.eu](http://www.vor-blitzen-schuetzen.eu) (in German).*

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