

Summary: DIN VDE V 0126-95

September 2026

The [product standard](#) is, alongside the connection standard (DIN VDE V 0100-551-1) and the registration standard (VDE-AR-N 4105), the final central pillar of standardization for plug-in solar devices. For the first time, it now defines specific criteria for safe devices, providing guidance for both users and suppliers.

Power limits:

For the first time, the product standard also formally stipulates an increase in the **inverter power limit from 600 to 800 watts (VA)**. Until now, this had only been attempted through the Renewable Energy Sources Act (EEG), which, however, has no technical relevance. In order to take into account neutral studies that had plausibly demonstrated that, in exceptional cases, the simultaneous full consumption of electricity from the grid and full feed-in from a plug-in solar device over several hours could potentially overload electrical wiring, the standard also limits PV capacity. This means that maximum feed-in is only possible for a limited period, thereby ensuring that even in these exceptional cases the wiring cannot be overloaded.

While **module capacities of up to 960 Wp** (equivalent to two high-performance modules) can be used without any additional requirements, a different type of plug must be used for capacities **between 960 Wp and 2,000 Wp**. The standard does not specify exactly what form this plug must take. In principle, the use of a modified Schuko plug is also conceivable. At these power levels, however, it is always advisable to have a qualified electrician inspect the electrical wiring.

Devices with **more than 2,000 Wp** of module capacity are therefore, in accordance with the legal provisions of the EEG, **not considered plug-in solar devices** within the meaning of the product standard either.

Plug:

For connecting a plug-in solar device to the household electrical system, the use of a standard household plug—the Schuko plug—is the market standard. A corresponding [clarification by the German Federal Network Agency \(Bundesnetzagentur\)](#), as well as a [VDE statement confirming its acceptance](#), officially approved this standard several years ago. The product standard now establishes this explicitly in a valid standard for the first time. There are several options:

1. A Schuko plug with contact-protection covers on the plug pins that **cannot be manually pushed back**.
2. A Schuko plug with mechanical or electromechanical disconnection of both pins.
3. A Schuko plug without additional protective measures, but only in combination with an inverter that, in particular, ensures the following:

- rapid discharge of the capacitors to a residual voltage of **34 V within 1 second**;
- testing and confirmation for each individual device (e.g. by the manufacturer) that this voltage level is reached within the required time;
- rapid shutdown through **single-fault-safe disconnection of the relays within 0.1 seconds**; and
- compliance with a strict design layout that ensures consistently safe insulation.

The **Wieland plug** also remains permissible, provided that it is ensured that there are no other connectors on the device that could accidentally be coupled with it. This was an issue in the past, particularly with the mechanically compatible but electrically differently polarized Betteri plug.

For the connectors between the solar module and the inverter, i.e. on the **DC side**, the product standard imposes stricter requirements on the connection. More specifically, the plug and socket must come from the **same manufacturer and the same product line**. This ensures that the connectors fit each other precisely. In the past, particularly in rooftop PV systems, there were repeated instances of overheating and even fires caused by connectors advertised as compatible but which were not actually a precise fit. For plug-in solar devices, the product standard rules this out.

Mounting system:

For the first time, the product standard requires that all mounting systems declared by the supplier as suitable for the plug-in solar device must be accompanied by a **structural calculation demonstrating suitability for the specific application clearly defined in each case**.

For example: Is the mounting system suitable for tiled roofs in **wind zone 2**, at a maximum installation height of **20 metres**, and in **snow load zone 3**? The structural calculation must specifically cover this application.

Can the mounting system also be installed on the façade of a free-standing high-rise building in **wind zone 3**? A corresponding structural calculation must be available.

This ensures that users receive a suitable system for their specific application and that landlords and condominium owners' associations can also be provided with clear evidence of the system's suitability.

Product information:

For the first time, not only the individual components but also the **complete system** must be provided with information identifying the manufacturer and contact details, as well as clear product identification and performance data. This allows users to contact a responsible party with questions or in the event of a warranty claim and to obtain information relating specifically to their product.

The plug must also be clearly and legibly marked with a warning that **multiple socket outlets and unauthorized extension cables must not be used** for the connection and that **only one device per household is permitted**. Both points are important to prevent delayed shutdown or discharge times or the circumvention of protective measures at the plug.

The operating instructions must contain clear information on **assembly, commissioning, use, and disposal**. They must also specify where the device may be used, so that it is clear what the structural calculation referred to above must cover. Instructions concerning the keeping clear of escape and rescue routes (including access for firefighters' ladders) and the procedure to follow in the event of defects must also be included.

Testing:

The product standard also provides clear instructions on how to **test the conformity of devices**. This enables manufacturers either to carry out or commission the required tests and confirm the conformity of the plug-in solar device through a declaration of conformity, or to commission an independent testing institute to carry out certification.

Exception: Devices with an integrated battery storage system are not covered by the standard. We are already working within VDE on a successor standard that will cover these devices and is also intended to include plug-in battery storage systems without PV, so that such devices can also be equipped with conformity confirmations in the future.

For users, however, this is currently less urgent, because battery storage systems themselves do not require permission from landlords or condominium owners' associations—prohibitions are not permissible in the first place—and they are often not covered by subsidy programmes either.

Note: Compliance with the standard is **not a mandatory requirement for selling devices**. Products currently on the market may continue to be sold. However, it can be expected that certain groups, such as landlords' associations or municipalities, will require a **confirmation of conformity** when it comes to permission agreements or subsidy programmes.