



innovative Solarsysteme für Schule und Ausbildung
innovative solar- systems for school, college, technical education

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- solar toys

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ILS ISFH cooperation
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DC- DC converter SUSE 4.44

For 9V- 12V- 15 V- off-grid systems or for the operation of 9V- 12V- 15V devices
Input for a connection to solar modules with 36 solar cells
Output depending on layout: 9V DC, 12 V DC, 15 V DC

Professional solar modules for 12 V off-grid systems with 36 solar cells in series connection (e.g. SUSE 4.41, 4.42) have an open circuit voltage of approx. 22 V, that decreases with load to 15-17 V. These modules are generally connected to a 12 V rechargeable battery via a charge controller, the connected device is operated by the buffer battery.

For the **operation without battery and charge controller** the module voltage is too high and to unstable for 12 V devices (or optionally 9 V, 15 V), the devices can be damaged. For this purpose the DC-DC converter SUSE 4.44 was developed by NILS-ISFH/SUNdidactics, it allows for the direct connection of a device (e.g. radio-recorder etc...) to the solar module over SUSE 4.44 **without battery and charge controller**.

Example: SUSE 4.44 for 9V DC output



Left: Input 14...22 V DC (red- silver jack pair) red LED as operation display

Right: Output 9V DC (green- silver jack pair) green LED as operation display

Max. output current: 1 A, short-circuit proof and temperature stabilized, stable metal casing, also acts as cooling surface. Casing is negative pole for input and output.