

Learning situation

"Planning, installation and commissioning of a solar thermal system"



Source: fobizz AI-generated

Main module: Planning the solar thermal system

Initial scenario

You have been commissioned to ensure the hot water supply of a residential building in a remote location with a solar thermal system. A plant mechanic and an electrician are sent to the project site for the installation.

A photovoltaic system has already been installed on the building, providing a reliable power supply. Drinking water is drawn from a domestic well that is fed with spring water.

Their task is to plan the installation of the solar thermal system and to commission it after installation.

Order 1.1)

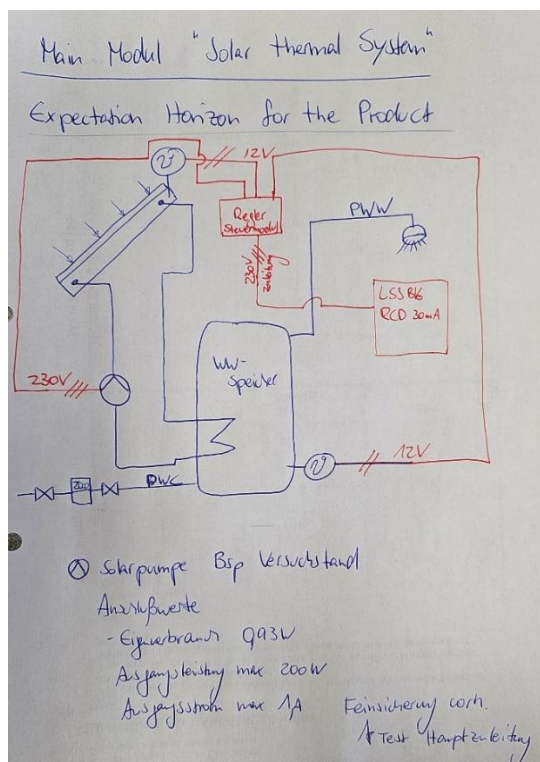
Find out about the components and their structure and function of the solar thermal system. Use the product documentation of the (common) manufacturers for this.

Order 1.2)

In preparation for planning the installation of the solar thermal system, create a professional diagram in which the following points are to be shown:

- the most important components of the solar thermal system.
- Labelling of the electrical connection data, such as power, voltage and amperage as well as the number of electrical conductors required

Possible solution of the students / expectation horizon:



Order 1.3)

Select suitable components for the main power distribution of the holiday home for electrical protection.

Possible solution: Circuit breaker B10A or B16A depending on the cross-section of the connecting cable; RCD with 30mA