The diagrams show three common solar thermal systems. Each system includes a solar thermal installation, a backup system, and a control system.

Solar Thermal Installation:
- Solar Thermal Collectors:
  - Absorbs energy from the sun, transferring it to the heat transfer fluid.
  - The heat transfer fluid is freeze-proof for cold nights.
- Heat Transfer Fluid:
  - Pharmaceutically-grade fluid that is used in all Stiebel Eltron systems.
- Heat Exchanger:
  - External or internal, transfers heat from the heat transfer fluid to the domestic hot water.
- Solar Water Heating Solutions Components & SOLkits
  - Solar Thermal Water Heating Packages & Components 40 Years Of German Technology
  - Technical Data
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Backup System:
- Electric Water Heater or Existing Mechanical Situation
- A backup system is used to add additional heat to the household hot water if necessary. This situation can happen, for instance, on a cloudy day if the solar system can not make enough hot water to satisfy the demand or make hot enough.

Control System:
- An electronic device that controls the operation of the pump and the safety of the system.

System to Meet Any Needs:
- The internal heat exchanger transfers the heat from the heat transfer fluid to the domestic hot water the tank holds. A backup heating element keeps the tank hot when the sun isn’t shining.

Technical Data:

- **Backup Heating Element**:
  - Stiebel Eltron Tempra® tankless electric water heaters or existing site-specific backup systems.
- **Heat Exchanger**:
  - External or internal, transfers heat from the heat transfer fluid to the domestic hot water.
- **Controller**:
  - SOM 6 Plus
  - Inputs: 4 Pt1000 temp. sensors
  - Outputs: 1 semi-conductor relay for pump station control
  - Power supply: 100–240 V
  - Power consumption: < 1 W (standby)

Components & SOLkits:
- **SOLkit 1**
  - SB 300 E Storage Tank
  - SOL 27 Premium W Collectors
  - SE Flowstar Kit 2
  - Pump Station
- **SOLkit 2**
  - SB 400 E Storage Tank
  - SOL 27 Premium S Collectors
  - SE Flowstar Kit 2
  - Pump Station
- **SOLkit 3**
  - SOL 27 Premium W Collectors
  - SE Flowstar Kit 2
  - Pump Station
- **SOLkit 2W**
  - SB 300 E (80 gal) Storage Tank
  - SOL 27 Premium W Collectors
  - SE Flowstar Kit 2
  - Pump Station
- **SOLkit 3W**
  - SB 400 E (105 gal) Storage Tank
  - SOL 27 Premium S Collectors
  - SE Flowstar Kit 2
  - Pump Station

For full warranty information on all SOLkits and individual components, please visit our website.

Solar Water Heating Solutions

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