

# Thermal Response Test Equipment Data

Country: Germany

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## General TRT data

|   |   |  |
|---|---|--|
| Type: <i>Heat injection</i>   | No TRTs: 6; 10 exported                   | Size, weight: 1100x800x550, ca. 70 kg (only box)   |
| Aim: <i>commercial</i>  | Pump: $\sim 2m^3/h$                       |  |
| Powered by: <i>Electricity</i>                                      | Heater: <i>electrical, 9 kW step less</i> |  |
| Built on/in: <i>Caterpillar</i>                                     | HP/Cooler: <i>without</i>                 |  |
|   |   | Temperature measurements:<br>inside box, at heat exchanger head, double PT 500 & PT 1000, direct installation and immersion sleeves $\pm 0,05^\circ C$ |
| Flow rate measurements:<br>direct installation as IDM or mechanical |   |  |
| Voltage stabilization: optional                                     |   |  |
| Electricity measurement: Yes, $\pm 0,1 \text{ kWh}$                 |   |  |
| GPS: No   |   |  |
| Remote Control: optional  |   |  |
| Remote Data Collection: optional                                    |   |  |
| Logger: automatic   |   |  |

## TRT Experience

Years of operation: 10

Number of performed measurements: ~ 400 commercial

Typical borehole depths: tested up to 300m

Applications: *BHE*

Typical collector type: *2U, sometimes U1 and coaxial pipe, any types of filling*

Typical fluid type: *water*

Typical groundwater temperature:  $\varnothing 12,5^\circ C, \text{min. } 8,8 - \text{max. } 19,8^\circ C$

Geographical area: *Europe*

Analysis Method: *Numerical / Line source + parameter estimation (own software) / continuous temperature depth profiling (optional)*