## Thermal Response Test Equipment Data

Country: Germany

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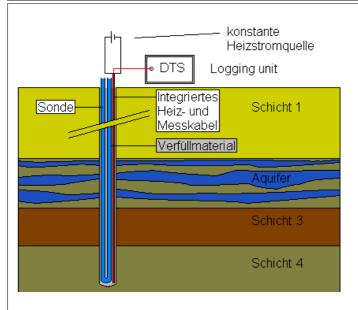
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## General TRT data

Type: Heat Pulse	No TRTs: 4	<b>Size, weight:</b> 108*36*25 cm, 30 kg
Aim: commercial		Pump: -
Powered by: Electricity, (400 V or 230 V)		Heater: electric, 16 or 32 A
Built on/in: portable box, container		HP/Cooler: -



## Temperature measurements:

faser optics,  $\Delta x$ =0.5 m,  $\Delta T$ =0.1 °C -> full temperature-, thermal conductivity- and borehole resistance–depth profiles

Flow rate measurements: -

Voltage stabilization: compensated

Electricity measurement: Yes

GPS: No

Remote Control: Yes

Remote Data Collection: Yes

Logger: Laptop or SD-Card

## **TRT Experience**

Years of operation: since 2002

Number of performed measurements: ~ 40

Typical borehole depths: 10 - 700 m

**Applications**: BHE, energy piles

Typical collector type: 1U, 2U, coaxial pipe,

Typical fluid type:

Typical groundwater temperature: 10-20 °C

Geographical area: Europe

Analysis Method: Numerical / Line-, Cylinder source of heating and relaxation