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# Data Sheet

## Surge and Test Generator STG 600

The Surge and Test Generator STG 600 is a multifunctional cable fault locating set especially designed for low voltage networks. The Surge and Test Generator is used for cable testing and for pin-pointing of high-resistance and intermittent faults in low voltage cables.
On request, a SIM coupling filter can be integrated into the STG 600 enabling the use of the high sophisticated and efficient pre-locating method: the **S**econdary **I**mpulse **M**ethod (SIM-MIM).

The multifunctional STG 600 replaces the following functions of individual instruments:

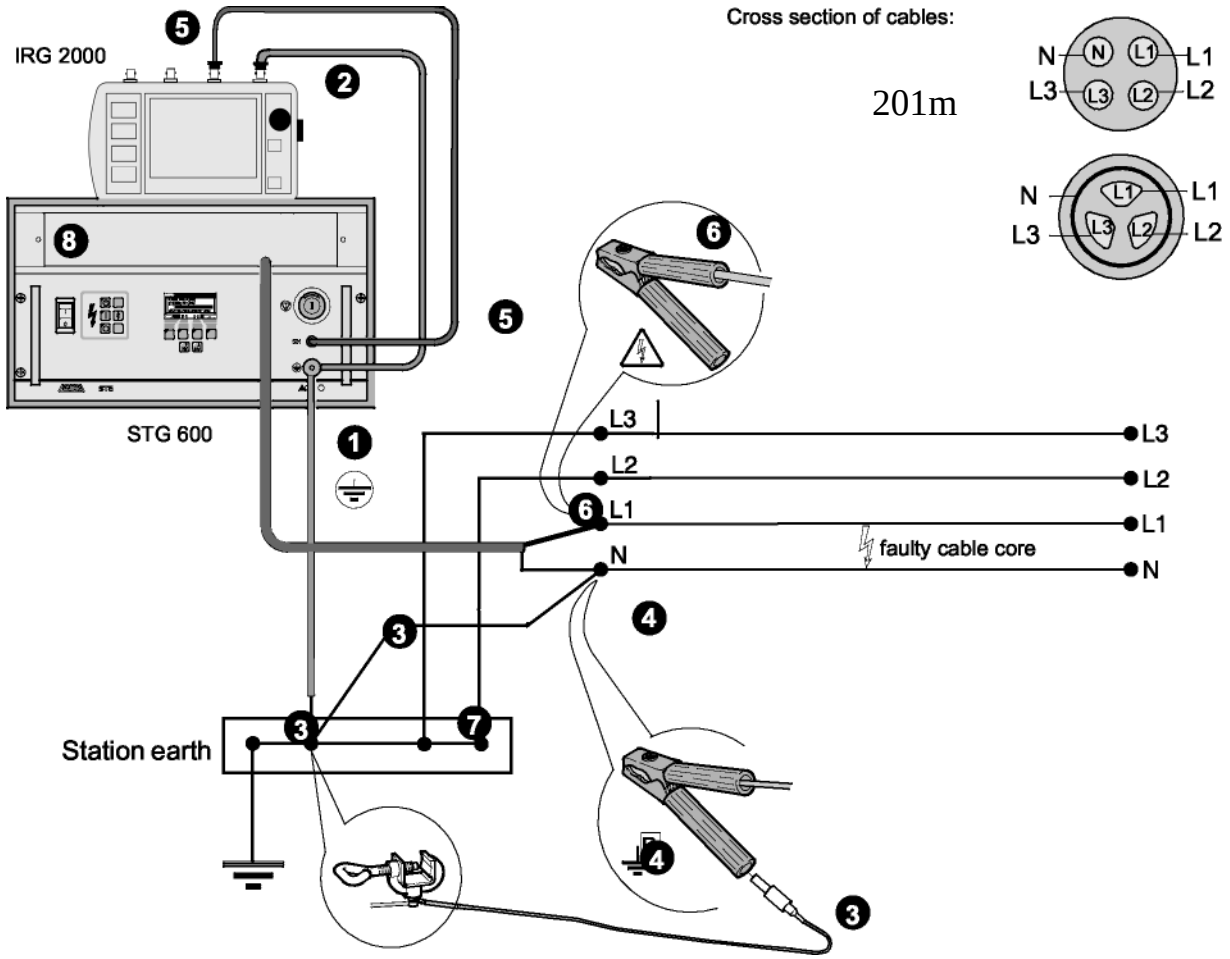
- **DC cable test set** by menu CABLE TESTING
- **Low voltage surge generator** by menu SURGE MODE
- **SIM coupling filter** by menu SIM (option)
- **Cable sheath fault location test set** by menu SHEATH FAULT LOCATION

**Features:**

- optimized unique fault location system for low voltage networks
- low weight, portable
- high surge energy 600 Ws (optional 1000 Ws)
- output voltage adjustable in 0.1 kV steps

- easy operation and self-explaining menu guiding
- automatic menu operated HV-switch
- backlit graphics LC display
- identification and display of short-circuit and breakdown faults in DC test mode
- integrated cable compartment
- protective cover for control panel
- designed for highest safety
- EMERGENCY OFF push-button, lockable
- 2 separated discharge devices for cable and internal surge capacitor
- integrated coupling filter for SIM-MIM application (option)
- return voltage protected high voltage output (option)
- insulation resistance measurement (option)

**Connection and Operation**
highest safety and very user-friendly
After connecting the STG to the test object all required settings can be performed on the control panel.



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## Technical Data

| | STG 600 |
|---|---|
| Display<br>Selectable languages | backlit, 160 x 80 dot-matrix, LCD (graphics)<br>German, English, French, Dutch, Spanish, Italian<br>other languages on request |
| **Cable Testing**<br>Output voltage<br>Max. output current<br>Adjustable timer | <br>0.2 - 5 kV DC (neg.)<br>300 mA (neg.)<br>0.5 - 60 min or continuous operation |
| Identification of short-circuit and breakdown | |
| **Surge Mode**<br>Output voltage<br>Max. surge energy<br>Surge sequence | <br>0.2 - 4 kV DC (neg.)<br>600 Ws (1000 Ws)<br>20 pulses / min<br>or adjustable setting from 1 - 30 pulses/min;<br>(1 – 20 pulses / min with option 1000 Ws)<br>additionally single pulse or DC output selectable |
| **Sheath Fault Location**<br>Output voltage<br>Max. output current<br>Pulse coding for Sheath Fault Location<br>Adjustable timer | <br>0.2 - 5 kV DC (neg.)<br>700 mA (neg.)<br>5 pulse code programs selectable<br>0.5 - 60 min or continuous operation |
| **Option: SIM** (**S**econdary **I**mpulse **M**ethod) | HV coupling filter for Echometer IRG 2000, IRG 3000 |
| **Option: Insulation resistance measurement** | 0,1 k OHM ÷ > 100 M OHM |
| **Option: Return voltage protected high voltage output** | return voltage protected 0 - 400 V AC<br>in all operating modes |
| Power supply<br><br>Power consumption | 220 V - 240 V, 110 - 120 V with external autotransformer,<br>50 Hz - 60 Hz<br>max. 800 VA (with option 1000 Ws max. 1200 VA) |
| Operating conditions:<br>Relative humidity<br>Ambient temperature | <br>≤ 85 %, non-condensing<br>Operation:0 ° C... + 50 ° C<br>Storage: - 20 ° C... + 60 ° C |
| Dimensions<br>Weight<br>Length of HV-test lead | 19", 6 U, 680 mm depth<br>approx. 44 kg<br>5 m |
| Designed and built<br>acc. to following standards<br><br>CE conform | Low voltage directive 73 / 23 / EWG, EN 61010 - 1,<br>VDE 0104; EMC directive 89 / 336 / EWG<br>with modification 91 / 263 / EWG, 92 / 31 / EWG<br>VDE 0843 part 2, IEC 801-2 / VDE 0843 part 4,<br>IEC 801-4, VDE 0875 part 11, EN 55 011 |

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**Surge and Test Generator STG 600**
**Delivery includes:**

- Surge and test generator STG 600 without accessories
- Ground line with ground terminal and N connection line, 4 m long
- Protection cover for front panel
- Mains connection cable
- User manual

**Options:**

- Surge Energy 1000 Ws
- Option package SIM coupling filter, including BNC connection cable and protective ground cable for IRG 2000
- Fixing device for quick fastening of IRG 2000 to STG 600
- Insulation resistance measurement:
- Software "insulation resistance"
- During cable testing additionally the insulation of the test sample is displayed (measuring range 0,1 kΩ up to > 100 MΩ)
- Return voltage proof high voltage output
  0 to 400 V ~
  Damage to the STG 600 due to accidentally switched on mains voltage is avoided.

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**Recommended additional instruments:**

Pre-location of faults:

- Echometer IRG 2000, voltage proof echometer for application of:
  - Pulse Reflection Method
  - Secondary Impulse Method (SIM)
- Pulse Reflection Test Set IRG 300 (alternative to IRG 2000)

Pin-pointing of faults:

- Audio frequency receiver UL 7
- Inductive pick-up for UL 7; for coincidence measurement IP 8
- Audio frequency receiver UL 30 (alternative to UL 7)
- Ground microphone BM 30 (suppresses ambient noise)
- Headphone KH 8 S (suppresses ambient noise)
- Cable Sheath Fault Receiver with ground sticks and connection cable KMF 1

Tracing:

- Locator-Set with UL 7 and powerful audio frequency transmitter TG 20/50
- Locator-Set with UL 30 and powerful audio frequency transmitter TG 20/50

For complete fault location systems, test van installations and special accessories please contact your local BAUR representative.

CERTIFIED IQNet MANAGEMENT SYSTEM
qualityaustria SYSTEM CERTIFIED
ISO 9001:2000 no.00465/0