# GAS-FILLED MOBILE TEST INSTALLATION UIPG-440-I



Gas-filled mobile test installation UIPG-440-I is designed for testing SF6 circuit-breakers, switchgears and control gears of 110 and 220kV power frequency voltage, including tests with measuring partial dischargers (PD) intensity.

Distinctive features of installation UIPG-440-I are relatively small overall dimensions and mass, minimum time and capital expenditures for its technical maintenance and preparation for work, comfort conditions for maintenance staff while tests performing by means of the installation.

Exterior and make-up of the equipment of the test installation are shown on photo and in Figure 1.

The installation comprises 440kV step-up transformer (ST-440), current-limiting reactor, control unit with built-in voltage regulator, HV bus, drums with earthing wires, drum with feeding cable, high voltage measuring device, PD measuring device. Control unit has a set of safety and blocking devices, switching equipment and indicating instruments for safe performance of tests. HV measuring device of the installation consists of voltage-dividing capacitor integrated into 440 kV test transformer (ST-440); coaxial cable and digital peak voltmeter, depicting test voltage directly in kilovolts. PD measuring device is connected to the HV capacitor, built-in into ST-440.

## TECHNICAL CHARACTERISTICS

| Designation of parameter, characteristic | Value |
|---|---|
| Rated primary voltage at the test installation input | 380 V |
| Range of secondary voltages of the test installation | from 30 to 40 kV |
| Range of operating frequencies | 50±5 HZ |
| Maximum short-term capacity | 134 kVA |
| Time of continuous operation of the test installation at the maximum capacity | 1 min. |
| Accuracy class of HV measuring device, not less than | 3 |
| Level of intrinsic partial discharges in the step-up transformer and HV capacitor t voltages up to 350kV, max. | 5 pC |
| Capacitance of HV gas-filled capacitor | 30 pF |
| Rated division ratio for voltage-dividing capacitor, integrated into ST-440 | 4400 |
| Operating pressure of $SF_6$ (excessive), in ST-440 at t = 20°C | $0,3^{+0,03}$ MPa |
| Mass | 1950 kg |

Parameters, characteristics and also completeness of the test installation indicated in the Table can be altered by agreement between the Manufacturer and the Customer.

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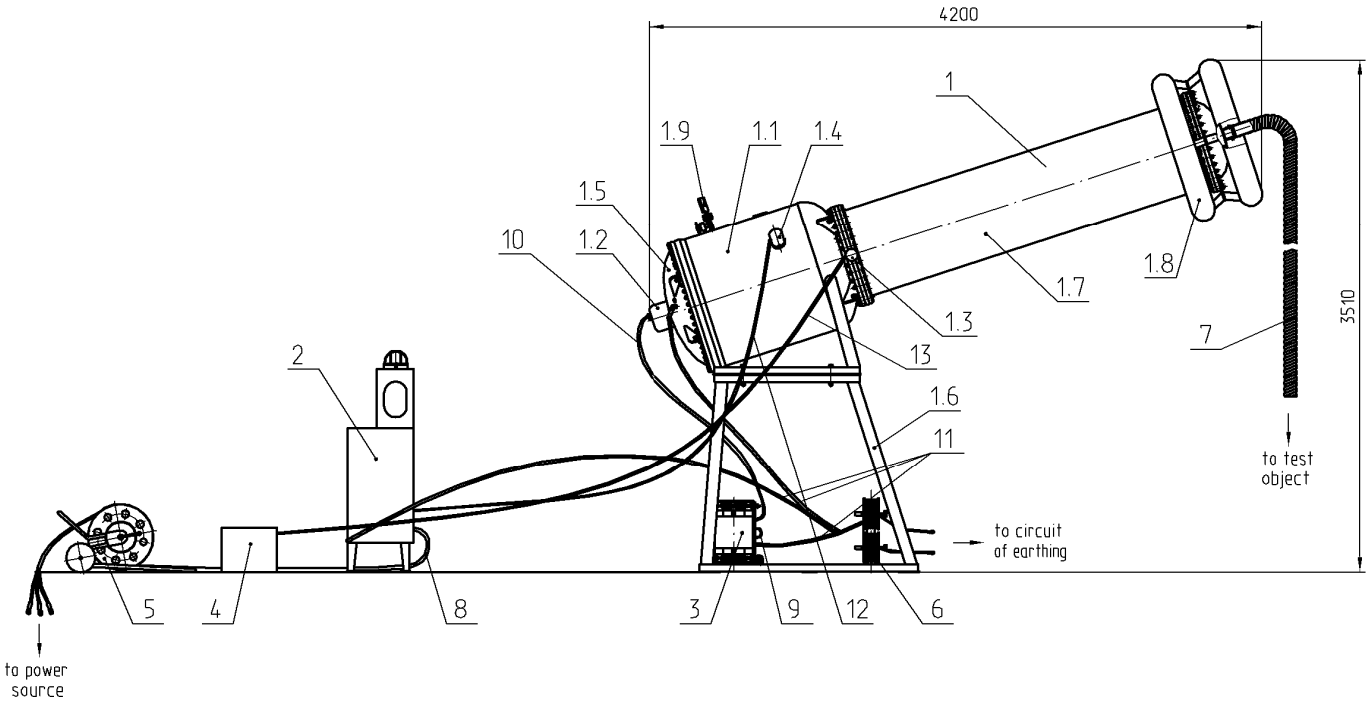
# GAS-FILLED MOBILE TEST INSTALLATION UIPG-440-I

The installation is supplied fully assembled, accompanied by the following technical documentation: passport; operating manual; passport on a vessel operating under pressure; outline drawing; certificate; certificate of the state metrological certification of the high voltage measuring device.




1 – 440 kV step-up transformer:
1.1 – casing + active part, 1.2 – cover, 1.3 –cover, 1.4 – cover, 1.5 – bottom, 1.6 – support, 1.7 – cylinder, 1.8 – shield, 1.9 – vacuum manometer;
2 – control unit, 3 – reactor, 4 – partial discharge measuring device, 5 – drum with feeding cable, 6 – post with drums with wires of operating and protective earthing, 7 – spiral wrap hose, 8 – feeding cable, 9 – conductor, 10 – cable, 11 – conductor, 12 – cable of HV measuring device, 13 – cable of PD measuring device.

**Figure 1 – Gas-filled mobile test installation UIPG-440-I.**

VIT
ISO 9001 BUREAU VERITAS Certification
№ UA227992

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