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# High Voltage Testing Microlaboratory MILYA-10

**MILYA-10 intended for carrying out of following works:**

- Testing of power cable lines with paper-oil isolation and operating voltage under 15kV;
- Testing of power cable lines with isolation from the cross-linked polyethylene and operating voltage up to 25кV;


**MILYA-10 offers the following services**:

1. *Cable testing with High-voltage AC 40 kV VLF 0,1Hz;*
2. *Rectified overvoltage 70 kV test with control of the leakage test;*
3. *Cable insulation resistance test.*

The equipment of laboratory is mounted on the open mobile wheel platform. The platform conditionally divided on the two parts: the high-voltage part with located there equipment and control part – the part where taking place the management of testing. The Microlaboratory can be moved on a wheel platform, carry by road and also lift up and down by the hoisting device on various marks in power stations for electrical equipment test, etc. For lifting the Microlaboratory on the height has provided special cabling devices.



**High -Voltage Testing Microlab MILYA-10 ( frontal projection )**

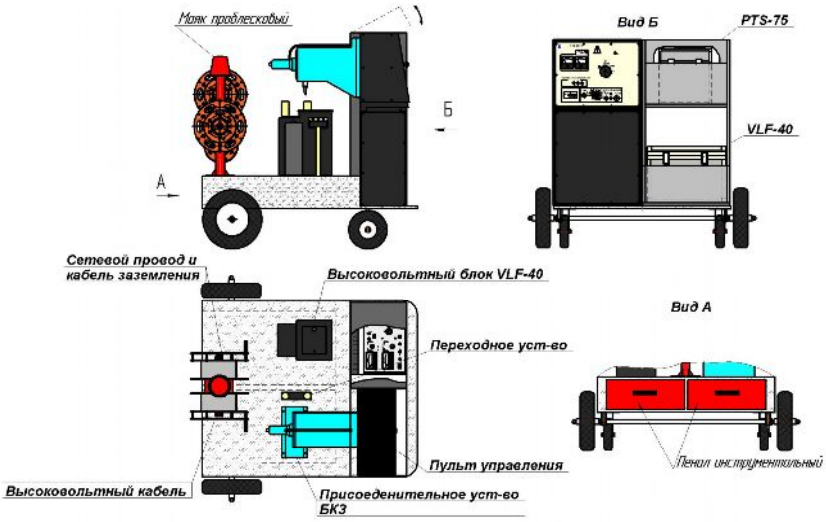


**Рис.1 Planning of Microlaboratory MILYA-10** **Main View**

**Technical specification**:

| Parameters | Level |
|---|---|
| Supply voltage frequency 50(60)Hz, V | 230V, 50(60)Hz |
| Power-supply voltage, kVA | 3 |
| Peak value of AC testing voltage 0,1 Hz, kV<br>Cable test conditions with below mentioned parameters 0.1 Гц:<br>0,05 Гц 0.02Гц:<br>Center-zero kilovoltmeter<br>Electrical current measurement mA , AC<br>Capacitance test μF | Sinusoidal wave 40<br>1.1nf or 3,048 m cable<br>2.2\|xf or 6,096 m cable<br>5.5 **p.**f or 15,240 m cable;<br>40 -0- 40<br>0-100<br>0 - 6 |
| Fundamental error of AC voltage measurement, %, no more | 2,5 |
| Peak value of rectified testing voltage,DC kV<br>Installation have a built- in megaohmmeter, which allow to measure resistance under 100 000 MOhm and a high-sensitivity leakage measuring with the lower bound 1μkA | 75 |
| Fundamental error of rectified voltage, %, no more | 2,5 |
| Measuring range of leakage, μkA:<br>- during rectified voltage<br>Fundamental error of leakage measuring range, %, no less | 0…1mcA, ranges ×1, ×10, ×100, ×1000, ×10000<br>2,5 |
| Dimensional specifications, L ×W× H, mm | 1750x1200x1460 |
| Weight, kg | 300 |

**1. Equipment configuration**:

- Control panel;
- High-voltage switch HVS-60/1;
- AC testing source 40 kV fraquency 0,1Hz, 0,05Hz and 0,02Hz;
- Rectified voltage of testing source 75 кВ;
- Grounding control model MKZ;
- High-voltage shielded cable reel;
- Power cable reel;
- Protective earth cable reel;

**2. Microlab personnel safety maintenance system**

– Potential monitoring on the platform (Disconnection during potential occurrence from above 24V);
– Monitoring of grounding resistance (disconnection during resistance occurrence more than 25 Ohm);
– Manual emergency disconnect;
– Automatic compulsory grounding of high-voltage testing Units and connected to them objects after test ending and in emergency cases;
– There is device of visual break of decreasing voltage;
– Emission of light and sound signals during turn-on the laboratory.

**The laboratory is completed with protection equipment, safety symbols and signs according to the instruction of the protection equipment, traffic rules and the operational documentation which using in the electroinstallations**

**Advantages of Microlaboratory**:

**Universality** – Supposes transportation on the self platform and also on the car or trailer body with corresponding dimensions;

**Mobility** - Provided short range entrance to the testing objects;

**Simplicity of operation and service** – Microlaboratory have easy and safety control; there is good access to all equipment elements;

**Functionality** – Allows to the testing not only AC voltage cross-linked polyethylene cables but also wide range of electrical equipment.

**Safety** - Microlaboratory meet standard safety requirements of Standards;

**Availability** – testing during the AC and DC connection of high-voltage sources and measuring devices (for example, megaohmmeter) to the object is carried out distant with the aid of main switch; connecting cables are reeled on the special reels.

**Low cost** – The user pays only equipment cost.

**Cost effectiveness** – cumulative cost of the Microlaboratory equipment is lower than the Microlaboratory equipment which you can purchase separately.

**Fast recoupment** – provided at the expense of essential decrease in initial capital investments during the rate factor of utility and use

**3. Warranty period 12 months.**

**Please send your requests by e-mail: sales@emzlvi.ru ; lvi@emzlvi.ru**

**or tel/fax: (4852) 32-69-25; (4852) 32-60-15**