



- digital meters
- adjustable voltage output 0 ... 5000V
- burden **500VA**
- accuracy class 0,5
- programmable leakage current threshold
- programmable timer with count down
- 3 tests: strenght test, impulsive test, destructive test
- tested using calibration instruments EAL-SIT certifiedT

The portable **ESAM AT 5005-P** bench, designed with the most advanced microprocessor technology, allows to test all the electric devices, making insulation tests and dielectric strength tests, in order to guarantee the safety condition.

AT 5005-P provides an a.c. voltage output, continuously adjustable between 0 and 5000V by means of a variable transformer, located on the front panel.

The output voltage is displayed by a 3 digit voltmeter, full scale 5.00 KV - accuracy class 0.5. This voltmeter, in order to guarantee the best possible accuracy, is connected to a dedicated winding of the step-up transformer.

AT 5005-P can make the following tests (selectable from the **BLACK** key located on the main display):

STRENGTH TEST (the display shows: **norMAL**.)

DESTRUCTIVE TEST (the display shows: **dEStr**.)

IMPULSIVE TEST (the display shows: **IMPULS**.)

STRENGTH TEST:

In this test it is possible to set the limit of the maximum leakage current. If the measured current is greater than the limit, there will be the automatic disconnection of the test voltage in a very short time (some milliseconds), in order not to damage the equipment under test.

The leakage current threshold is programmable from 1 mA to 29 mA in step of 1 mA, in the following way:

- press **RED** key with the bench in stop condition (red key **STOP** lighted on) to start programming;
- the display shows the label **Curr.** (leakage current) with the first digit blinking; press more than once the **WHITE** key to change it until you obtain the digit wanted;
- confirm the choosen digit with **BLACK** key;
- repeat the same operation for the second digit and confirm with **BLACK** key.

The test lenght time is programmable from 0 to 99 sec.:

- the display shows the label **tIME** with the first digit blinking; press more than once the **→** key to change it until you obtain the digit wanted and confirm with **BLACK** key;
- repeat the same operation for the second digit and confirm with **BLACK** key.

During the test the leakage current value and the time (which decreases during the to until 0) are shown on the main display.

NOTE: The leakage current threshold setting concerns the strength test only (**norMAL**).

Setting 00 mA the bench does not start.

Setting a 00 sec. time (**tIME**), the timer is excluded; the test can be stopped with **STOP** key.

The leakage current, mesured directly at the output of the step-up transformer with an high insulation CT, is displayed on a 3 digit milliampermeter, full scale 99.9 mA - accuracy class 0.5 - located on the main display (example. **10.2 nA**).

If the measured leakage current is greater than the limit, there will be the automatic disconnection of the test voltage, the label **HELP** will be displayed and acoustic signals will be emitted.

Contacts on the rear are available for additional signals (see below table).

The alarm signal lasts 15 sec., pressing **STOP** key it stops.

DESTRUCTIVE TEST (burning test):

It is useful to verify the localization and the entity of a discharge; in this case it is available instantaneously all the transformer power (succesively it is reduced by a particular electronic circuit).

During this test, the milliampermeter is excluded.

IMPULSIVE TEST:

During this test the bench generates voltage impulses with a frequency of 1.6Hz; the voltage value must be set by the variable transformer, selecting momentarily one of the other two tests, because the voltmeter inertia does not permit to follow the voltage impulses.

The impulsive test is a destructive test (without any current protection).

Start and stop for each test, are controlled by the respective keys: **START** (green light signal) and **STOP** (red light signal). These commands, included the **BLACK** key (change test), are duplicated on the connector CN1 (put on the back) and may be used at a distance with a REMOTE CONTROL (optional).

The voltage step-up transformer, has a burden higher than **500 VA** in accordance with **CEI61-50, EN60335-1** ...

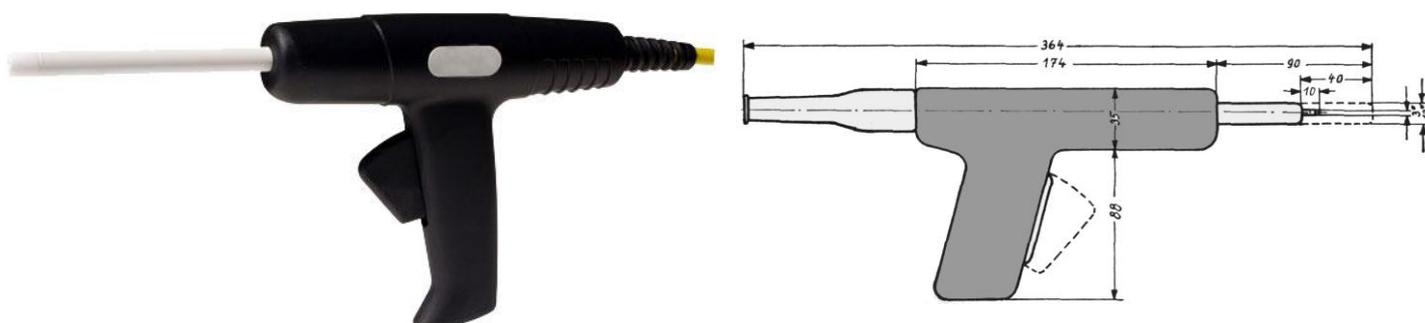
Both high voltage connectors are earth insulated for safety reasons.

AT 5005-P is housed in a metal case (dim. mm. 165x365x300) and it is provided with a couple of safety probes with retractable tip, in accordance with EN50191, and 2 meters of cable.

Auxiliary power: 230 V $\pm 10\%$ - 50Hz, the power on switch, the power connector, the auxiliary connectors and the protection fuse (3.15A) are on the back of the device.

AUX. CONNECTORS CONNEXIONS (the numbering is written on the connectors)		
Terminals	CN1 (command repetition)	CN2 (alarm repetition)
1	common light (red - green, 24Vcc)	common alarm relay
2	start light (green)	N.C. alarm relay (max. 5A, 230V, $\cos\phi 1$)
3	stop light (red)	not connected
4	common buttons (START-STOP-BLACK KEY)	
5	START button (green)	
6	BLACK BUTTON	
7	STOP button (red)	

HIGH VOLTAGE PROBES in accordance with EN 50191



 **WARNING HAZARDOUS VOLTAGE** Can cause electrical shock and burns. This equipment must be installed by qualified persons only. Disconnect power before proceeding with any work and observe the operating instructions (see www.esam.biz for other possible info).