

EPT5011
Transformer Oil BDV Tester

user manual

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I. summary

Transformer Oil BDV Tester is a scientific and technical staff of our company. According to the relevant provisions of national standard GB507-1986 and industrial standard DL/T846.7-2004, Transformer Oil BDV Tester has been carefully researching and developing high-precision and all-digital industrial equipment through a large number of field tests and long-term unremitting efforts by exerting its advantages. In order to meet the needs of different users, this series of instruments can be divided into single cup, three cup, cup type, etc. The instrument is simple in structure and elegant in shape. Due to the use of automatic digital computer control, so high measuring accuracy, strong anti-interference ability, safe and reliable.

II. the instrument characteristics

1. The instrument USES large capacity single-chip microcomputer control, stable and reliable in work.
2. The device has wide scope of the watchdog circuit to prevent the death machine;
3. Various operation options, the instrument program has IEC156, GB507-2002 two national standard methods and custom operation, can adapt to different user's various choices;
4. The instrument oil cup is cast in a special glass, which eliminates the interference phenomenon such as oil leakage;
5. The unique high voltage end sampling design of the instrument allows the test value to go directly into A/D converter, avoiding the error caused by the simulation circuit and making the measurement results more accurate;
6. The instrument has the function of flow, overpressure, short circuit, etc., and has the strong anti-interference ability and electromagnetic compatibility;
7. Portable structure, easy to move, indoor and outdoor use is very convenient.

III. technical indicators

1. Booster capacity: 1.5kVA
2. Booster speed: 2.0kv/s, 3.0kv/s, optional Poor miss: 0.2kV/s
3. Output voltage: 0 ~ 80kv

4. Power distortion factor: $< 1\%$
5. Display mode: Large screen LCD character display
6. The electrode spacing: Standard 2.5 mm
7. Overall dimensions: 430 mm long;350 mm wide;370 mm high
8. Instrument weight: 26 kg

IV. conditions of use

1. The environment temperature: $0\sim 40^{\circ}\text{C}$
2. Relative humidity: $\leq 85\%$
3. Working power supply: $\text{AC } 220\text{V} \pm 20\%$
4. Power frequency: $50 \text{ Hz} \pm 5 \text{ Hz}$
5. Power consumption: $< 200 \text{ W}$

V. Description of chassis and panel parts





1. The LCD panel: Display date, time, operating parameters, test results, operation menu tips, etc;
2. The function keys: Select set operation parameters;
3. The printer: Print test results;
4. Toggle switch: Choose a different rate of pressure rise;
5. Indicator light: The light indicates that the relevant operation steps are in progress;
6. Oil cup lid: After opening, place or remove the oil cup, and test it after closing;
7. Temperature and humidity sensor: The temperature and relative humidity are measured and converted to digital signals;
8. Ground column: Reliable ground connection column;
9. The power outlet is on the switch: Good connection of AC220V 50Hz power cord;
10. Press the switch: Press to open or close the lid;
11. High pressure mark: A triangle sign of high voltage danger.

VI. diagram of operation steps

1. Plug the power cord, turn on the power switch, and LCD screen displays the boot page (figure 1)

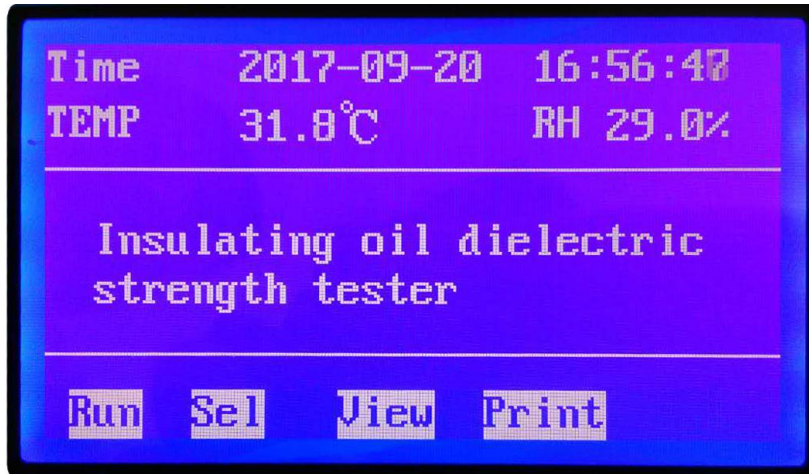


Figure 1. On the page

2. Under the page of figure 1, press the set key to enter the next level page (figure 2).



Figure 2. Choose the child pages

3. In figure 2 page, press the select key to move the cursor) IEC156, press the ok button to enter IEC156 set child pages (figure 3).



Figure 3. IEC156 child pages

Under the page of figure 3, the stop - rise voltage is set by + or - key, and the default value is 80 kV, and the range of optional range is 10 kV ~ 80 kV (the gear increment of 10 kV).After selecting, press the confirmation key to return the boot page and press the start button to test.The device will reset all Settings after each shutdown.

If there is no reliable grounding, instrument displays grounding, please!And send out alarm.Should turn off the power at this moment, good earthed again after operation;

Note: Figure 3 page selection key is reserved for multi-cup selections!

4. In figure 2 page, press the select key to move the cursor) GB2002, press the ok button to enter national standard 2002 set child pages (figure 4).

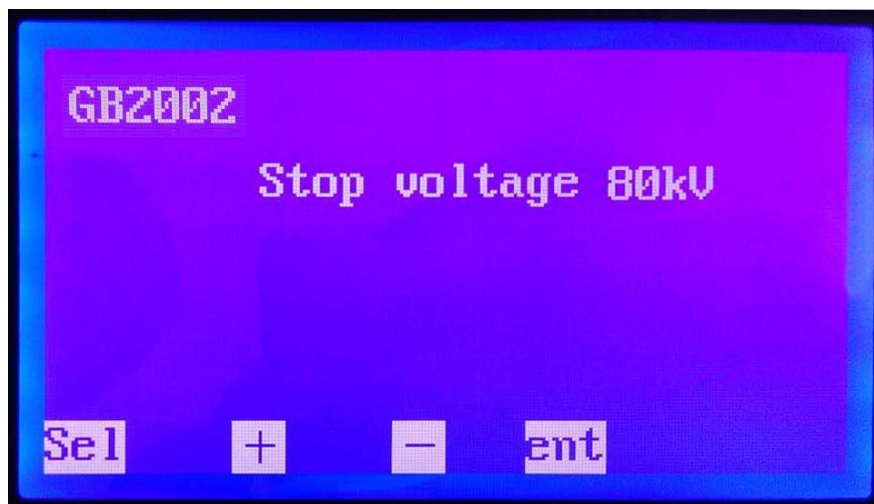


Figure 4. GB2002 child pages

In figure 4 pages, press the + or - button setting up voltage, its default value is 80 kV, optional scope of 10 kV ~ 80 kV (gear increment 10 kV).Choose good after press the confirmation key to return to boot page, press the start key for testing.

If there is no reliable grounding, instrument displays grounding, please!And send out alarm.Should turn off the power at this moment, good earthed again after operation;

Note: Figure 4 page selection key is reserved for multi-cup selections!

5. In figure 2 page, press the select key to move the cursor) time Settings, press the ok button to enter time set child pages (figure 5).

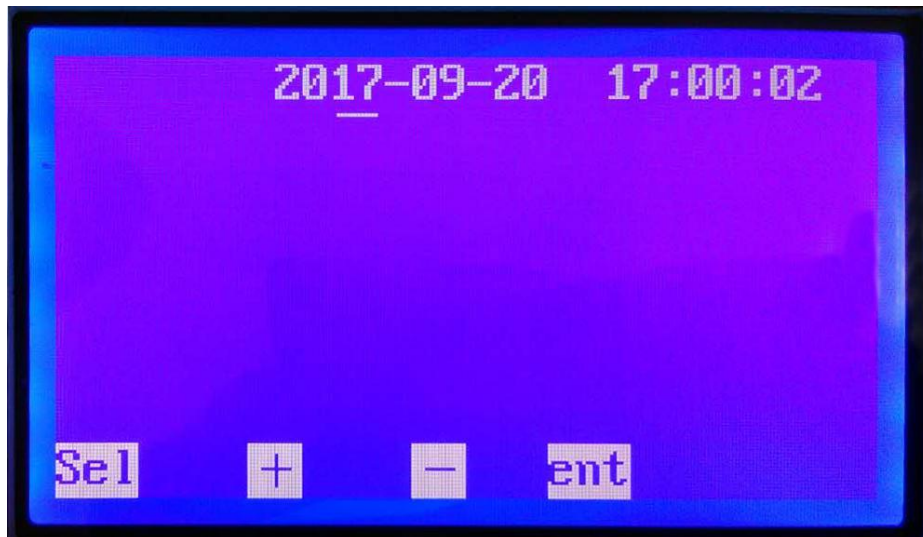


Figure 5. Time Settings page

Press select key to move the cursor - to year, month, day, hour, minute, press + or - button to select the specific number, press the confirmation key, and return the boot page;

6. In figure 2 page, press the select key to move the cursor) Settings, press the ok button to enter the custom set child pages (figure 6);

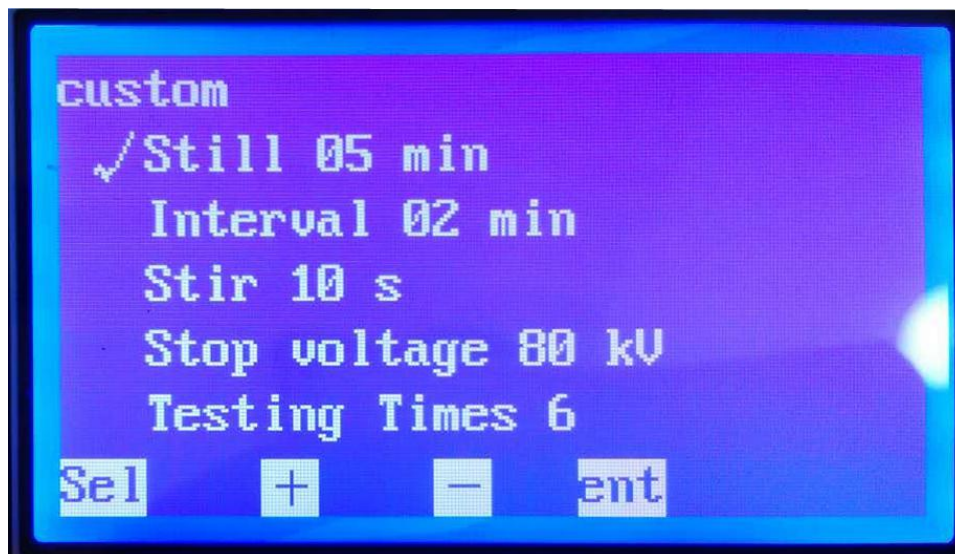


Figure 6. A custom Settings page

In figure 6 pages, press the select key move the cursor to the corresponding option, then press the + or - key parameters can be set.Among them:

Let stand time: Let stand for 15 min, the default value is optional range 1 ~ 15 min (gear increment 1 min);

Interval time: Time interval defaults to 5 min, optional range 1 ~ 10 min (gear increment 1 min);

Mixing time: Stir the default value is 10 s, optional range 5 ~ 90 s (gear incremental 5 s);
 Stop up the voltage: Stop up the default value is 80 kV voltage, the optional range of 10 ~ 80 kV (gear increment 10 kV).When the instrument booster to stop rising voltage Time will cease to step up and into the state.If no breakdown for 15 s, the instrument will default to the current stop up voltage of insulating oil breakdown voltage;

On number : On the default value is 6, optional range 1 ~ 6 times (gear increases 1 times);Set after press ok button to return to the start page, press the start key for testing.

7. Every time the breakdown voltage and the number of cycle of automatic storage, and after the measurement shows that the test finished, then press the ok button to return to the start page (figure 1), press to print or display into the oil cup each average value and the breakdown voltage of storage record (figure 7).

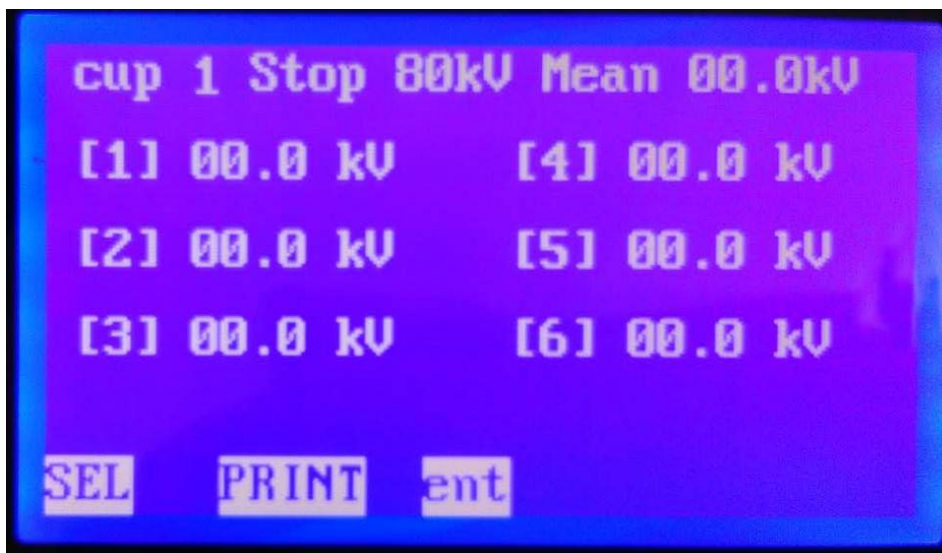


Figure 7 shows the page

Press print to print the test results, according to the confirm button to return to boot page (figure 1).

VII. matters needing attention

1. Before using this instrument, be sure to read this operation manual;
2. The instrument operators should be familiar with electrical equipment or analysis instrument of general use common sense;
3. The instrument inside and outside all can use, but should avoid the rain, corrosive gas, high dust, high temperatures or direct sunlight and other places use;

4. The oil cup should be kept clean. During the outage, should add enough dry qualified insulating oil immersion, keep oil cup will not be affected with damp be affected with damp;
5. Continuous use electrodes in after a month, should be a check, inspection electrode gap with and without change, use a magnifying glass to observe electrode surface had dark phenomenon, if has this phenomenon, application of silk cloth to wipe the electrode surface, and readjust the electrode gap and make it conform to the requirements;
6. The maintenance and commissioning of the instrument shall be completed by the professional;
7. After turning on the power, the operator is forbidden to touch the oil cup box cover to avoid the danger of electric shock!
8. Before turning on the power supply, should check carefully whether the cable is firm, instrument shell must be reliable grounding.
9. The instrument is in use process, if discovery is unusual should immediately cut off power supply.

VII. simple troubleshooting

1. Boot no reaction : Check whether the power cord is plugged in properly and check whether the safety tube is intact;
2. No booster: Check whether the cap of the oil cup box is covered;
3. Normal wear without breakdown: Check if the setting limits the boost speed;
4. No display after breakdown: Check the oil cup for dirt;
5. The printer is out of paper: Check if the printer has any paper;
6. Replace the printer paper : The printer has been installed with printer paper. If the printing paper is used, new printing paper will be installed. The installation method opens the printer to put the paper bin, put the paper into the paper, extend a part. The printing paper light faces the direction of heat - sensitive tooth.

VIII. After-sales service:

Instruments within two year from the date of purchase, the product quality problem free warranty, life-long maintenance and technical services. If it is found that the instrument is not normal or defective, please contact with our company, in order to arrange the most

convenient and effective processing scheme for you.

IX. Packing List

No.	Item	Qty
1	Main engine	1
2	Grease cup	1
3	Elbow	2
4	Impeller	2
5	Standard gauge	1
6	Tweezers	1
7	Protective tube	2
8	Ground wire	1
9	Power line	1