

## RDTR-CB -7000A Fully Automatic Temperature Rise Test Device



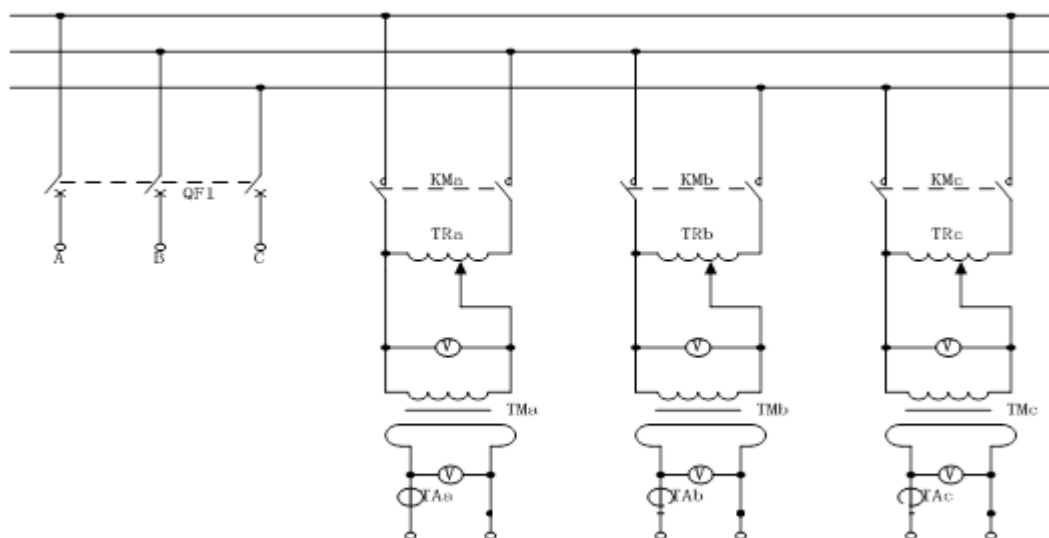
RDTR-CB-7000A fully automatic temperature rise test device is mainly composed of a fully automatic temperature rise test system , a flow-up transformer , an induction voltage regulator and a temperature control inspection system. It is a necessary equipment for all walks of life in places that require large currents in electrical debugging. It is also a universal equipment for temperature rise testing of various types of high-voltage switches and bus ducts . It is widely used in power plants, transformation and distribution stations, switch cabinet production and testing, electrical appliance manufacturing plants, scientific research, laboratories and other units, and belongs to short-time or intermittent working systems.

### Product features

1. It has zero starting protection function.
2. The test time can be set independently and has a reminder function.
3. After the current is set, deviations can be automatically adjusted separately.
4. The power supply and output current are displayed by computer software with an accuracy of 0.5.
5. Electrically control the voltage rise and fall to achieve output current control, with optional control accuracy.

6. Industrial grade industrial computer control. Fully automatic intelligent control system, no manual intervention is required for testing.
7. The system comes with input voltage value and displays active power in real time.
8. After setting the temperature rise range and parameters, the device automatically maintains the output current value. And it has the function of adjusting the current error.

### Device main circuit schematic diagram



### Product specifications and technical parameters

1. Device parameters
  - Rated voltage: 380V;
  - Rated frequency: 50Hz;
  - Wire system: three-phase four-wire insulation system;
  - Total system power: 210 kW ;
  - Total system current: 552.6A;
  - System power factor:  $\cos\Phi=0.8$ ;
  - The system comes with a compensation device.
2. Oil-immersed induction voltage regulator
  - Rated capacity: 70kVA;
  - Output voltage adjustable range: 0-420 V;
  - Output current adjustable range: 0-166.6 A;

- Voltage regulating mode: electric /manual;
- Waveform distortion rate:  $\leq 3\%$ ;
- Starting voltage:  $\leq 1\%$ ;
- Short circuit impedance:  $\leq 7\%$  (within the voltage regulation range of 50% to 100%);
- The power loss is less than 1% and the efficiency is greater than 98%.

### 3. Dry-type converter transformer

- Rated capacity: 70kVA;
- Output line voltage: 10V;
- Output current: 0-7000A;
- No-load loss:  $<4\%$ ;
- Rated input voltage: 380V;
- Rated input current: 184.2A;
- Rated output voltage: 10V;
- Rated output current: 7000A;
- Short circuit impedance:  $\leq 5\%$  at 0-7000A;
- Output mode: independent output for each phase;
- Cooling method: dry, air cooling;
- Running time: long-term operation at rated voltage and rated current.

### 4. Console

- With zero starting protection function;
- The test time can be set independently and has a reminder function;
- After the current is set, deviations can be automatically adjusted separately;
- The power supply and output current are displayed by computer software with an accuracy of 0.5 levels;
- Electrically control the voltage rise and fall to achieve output current control, with optional control accuracy ;
- Industrial grade industrial computer control. Fully automatic intelligent control system, no manual intervention required for testing ;
- The system comes with input voltage value and displays active power in real time;

- After setting the temperature rise range and parameters, the device automatically maintains the output current value. And it has the function of adjusting the current error;
- It has 40 channels of temperature monitoring, measurement and recording functions, and can automatically test the ambient temperature, compare the temperature of the test point to form a temperature rise, and automatically alarm when the set temperature is exceeded. The temperature and temperature rise value at any point can be retrieved, with a measurement error of  $\pm 1\%$ ;
- The console shell is made of 2mm cold-rolled steel plate, the bottom plate is thickened, and the whole is solid and solid. Both the inside and outside have been rust-removed and anti-rust treated, electrostatically sprayed, and the color is blue and camel gray;
- The console sets power, start, and zero indicator lights in yellow, red, and green colors respectively;
- The accuracy level of current transformer is 0.5;
- The console is equipped with a cabinet door for easy opening and equipment maintenance.

#### 5. Insulating properties

- The insulation resistance between the live parts of different poles of the fully automatic temperature rise test device circuit, and between the live parts of each circuit and the ground, when the ambient temperature is  $+25^{\circ}\text{C}$  and the humidity is 45% to 75%, is  $\geq 100\text{M}\Omega$ .

#### 6. Environmental conditions

- Ambient temperature:  $-15^{\circ}\text{C} \sim +50^{\circ}\text{C}$
- Relative humidity:  $\leq 90\%$
- Altitude:  $\leq 1000\text{m}$

### Main components of the device

Serial number	Device name	Model specifications	Unit	Quantity	Remark
1	Oil-immersed induction voltage regulator	70kVA/420V	unit	3	

2	Dry-type converter transformer	RDSL- 7000A/10V	set	1	Three phases
3	Current wire	1000mm2 * 2m	root	18	
4	Temperature control inspection system	RD 9000	set	1	
5	Power supply cabinet	RDDY -7000	unit	1	
6	Thermocouple	40*10	meter	400	
7	Matching test leads	/	set	1	