



上海昌吉地质仪器有限公司  
Shanghai Changji Geological Instruments Co.,Ltd



## XRY-1C Automatic Oxygen Bomb Calorimeter

### Summary

The instrument is designed and made as per the National Standard of People' s Republic of China GB/T213-2008 and ASTM D240 Test Method for Calorific Value of coal, GB/T384-1988 Test Method for Calorific Value of Petroleum Products and Calibration Regulation of People' s Republic of China JJG672-2001 Oxygen Bomb Calorimeter, as well as Shanghai enterprise standard Q/VCZK 10 “ XRY Series Oxygen Bomb Calorimeter”.



### I. Main technical features

1. Adopting semiconductor refrigeration to decide the refrigerating capacity according to the calorific value,the instrument can automatically adjust water temperature and keep water in a relative constant temperature range,realize the continuously and long time test requirement,and make sure the test result is correct.
2. Using USB port,convenient to connect.One computer can control many sets of Oxygen Bomb Calorimeter.
3. With a electronic measuring cup itself,no need to weigh the water by manual,it can measure the water volume automatically,the repetitive error<0.4g
4. Automatically detecting the resistance of ignition filament,automatically checking the installing condition of ignition filament before test.
5. Standard pipeline design,vastly shortening the pipeline,and more reasonable pipeline design to ensure more precision of test results.
6. Adopting professional discharge water ports,more convenient and fast when the instrument drains away water or change the water.
7. The electronic balance with communication function to share the data by the internet.



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## II. Main technical specifications

1. Power supply: AC 220V  $\pm$ 10V, 50 Hz
2. Total power consumption:  $\leq$ 0.2kW
3. Measuring temperature range: 5 $^{\circ}$ C $\sim$ 40 $^{\circ}$ C
4. Temperature resolution: 0.0001 $^{\circ}$ C
5. RSD(Relative standard deviation):  $\leq$ 0.1%
6. Test time period: main period: about 8mins
7. Measuring range: 5MJ/kg $\sim$ 40MJ/kg
8. Measuring error:  $\pm$ 60J/g (Benzoic acid)
9. Accuracy: Better than GB/T213-2008 “The determination method of coal calorific value”
10. Pressure endurance of oxygen bomb: 20 MPa
11. Suitable environment:
  - Ambient temp.: (15 $\sim$ 35) $^{\circ}$ C
  - Relative humidity:  $\leq$ 85%
12. Outline dimension: 650mm $\times$ 450mm $\times$ 450mm (L $\times$ W $\times$ H)
13. Net weight: 55kg