



# SOLAR 500TC

Visible Spectrophotometer



LABORATORY



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## Visible Spectrophotometer



### Description

SOLAR 500TC visible spectrophotometer based on STM32 embedded computer. This series uses advanced color touch screen technology and keyboard parallel dual input methods, which is easier to operate and more reliable.

Excellent optical system design, high-quality optical components and the selection of long-life deuterium and tungsten lamps make the instrument stable and reliable for a long time. Leading ARM chip control and fast data processing; with 4.3-inch color touch screen display and user-friendly navigation menu design, convenient map display and data viewing; large-capacity memory, can store massive test data; U disk data export, USB connection to computer, etc. A variety of data output methods.

Easy-to-use photometric measurement, quantitative measurement, qualitative measurement, time measurement, multi-wavelength measurement, GLP and other general-purpose special functions. In addition, there are auxiliary functions such as automatic switching between Chinese and English of the instrument interface, lamp life monitoring, clock management, and automatic wavelength calibration. Strict manufacturing process and 32 key quality control points make each instrument very durable. Long product warranty and installation and use training, as well as the supply of affordable consumables and accessories, allow you to buy with confidence, use peace of mind, and after-sales worry. The products are widely used in the fields of medicine, food safety, biochemistry, daily chemicals, environmental monitoring, agriculture, forestry, animal husbandry, optical materials, petrochemical and other fields, and are general analytical instruments commonly used in laboratories.

## Features

- Easy to use 4.3-inch color touch screen technology and keyboard parallel dual input methods, easier to operate. Navigation menu design makes testing easier and easier to use. Built-in photometric measurement, quantitative measurement, qualitative measurement, time measurement, multi-wavelength measurement, GLP special program; U disk data export, USB connection to computer
- A variety of accessories optional 5-10cm optical path cuvette rack, automatic sample rack, peristaltic pump automatic sampler, water temperature sample rack, Peltier constant temperature sample rack and other accessories.

## Product

- Photometric measurement: In the range of 320-1100nm, you can select the single-point test wavelength and test method you need to measure the absorbance or transmittance of the sample. The concentration of the sample can also be read directly by entering the standard concentration or concentration factor.
- Quantitative measurement: measure the sample solution of unknown concentration through the curve of the known parameter factor or automatically establish the standard solution curve; with first-order, first-order zero-crossing, second-order, third-order curve fitting, and single-wavelength calibration, dual Wavelength isoabsorption correction, optional three-point method; standard curve can be stored and recalled;
- Qualitative measurement: Set a wavelength range, scan interval, and then measure absorbance, transmittance, reflectivity and energy at intervals for solid or liquid samples. It can also zoom, smooth, filter, detect peaks and valleys, save, print, etc.
- Time measurement: Time measurement is also called kinetic measurement. The sample is scanned according to the time range interval of absorbance or transmittance at the set wavelength point, and the absorbance can also be converted into concentration or reaction rate calculation by inputting a concentration factor. Enzyme kinetic reaction rate calculation. A variety of graph processing methods such as scaling, smoothing, filtering, peak and valley detection, and derivation are available for you to choose from;
- Multi-wavelength measurement: You can set up to 30 wavelength points to measure the absorbance or transmittance of the sample solution.
- Auxiliary functions: cumulative time of tungsten lamp lighting, independent turn off and on of tungsten lamp, operation language selection (Chinese, English) and automatic wavelength calibration.



## Main parameters

Optical system	Self-aligned 1200 lines/mm cholographic grating
Wavelength Range	320~1100nm
Spectral Bandwidth	2nm
Wavelength accuracy	±0.5nm
Wavelength repeatability	±0.2nm
Transmittance accuracy	±0.5%T
Transmittance repeatability	±0.1%T
Stray light	≤0.05%T
Drift	±0.002Abs (warm up for more than 1 hour)
Baseline flatness	±0.002Abs (warm up for more than 1 hour)
Luminosity range	0~200%T, -0.301~3A, 0~9999C(0-9999F)
Test mode	Absorbance, Transmittance, Energy
Light source	Tungsten lamp
Display	4.3 inch 56K capacitive touch screen
Data output	USB, U disk
Power supply range	AC90~250V/ 50~60Hz
Dimensions (L×W×H)	460×310×180 mm
Weight	11kg

## Product standard configuration

Visible spectrophotometer	1 pc
1cm-4 slot sample holder	1 pc
Power cord	1 pc
1cm glass cuvettes	1 box (4 pieces)
Dust cover	1 pc
User Manual	1 pc



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