

## AE-SP3000 Series UV-Visible Spectrophotometer ISO/CE

### Product Features:

- \* High - resolution C - T structure monochromator, excellent stability, reproducibility, and accuracy.
- \* Advanced ARM microcomputer technology, superior electronic circuits and signal processing, ensuring stable and reliable data. Data stored in the instrument can be exported via USB drive, and the software supports one - click upgrades and Bluetooth printing, among other data output options.
- \* Integrated aviation - grade aluminum alloy baseplate and precision - machined mirror holder to ensure long - term optical stability.
- \* Seven-inch color LCD touchscreen display with a user - friendly navigation menu interface. The interface offers clear operating commands and special features to prevent user errors, eliminating the need to consult the user manual. The instrument can be operated via both touchscreen and buttons, even while wearing gloves. Stringent manufacturing processes with 32 key quality control points ensure durability and robustness in every unit. Large internal memory for storing extensive test data.
- Key components such as deuterium lamp, tungsten lamp, photodetectors, precision lead screws, etc., are sourced from reputable international brands to guarantee instrument reliability.
- Four - slot adjustable manual sample rack with a range of 10 - 50mm path length, accommodating various cuvette sizes for testing requirements.
- Independently designed deuterium lamp and tungsten lamp replacement windows with a flange - style positioning structure for easy replacement.



### Product Functions:

- ◆ Absorbance Measurement: You can perform absorbance or transmittance measurements of samples within the range of 190 - 1100 nm, selecting single - point test wavelengths and methods as needed. Alternatively, you can directly read sample concentrations by inputting standard sample concentrations or concentration factors.
- ◆ Quantitative Measurement: Measure the concentration of unknown sample solutions using known parameters or by automatically creating standard curves. The instrument supports first - order zero - crossing, second - order, and third - order curve fitting, as well as single - wavelength correction, dual - wavelength correction, and the three - point method. Standard curves can be stored and retrieved.
- ◆ Qualitative Measurement: Define a wavelength range, scan intervals, and measure absorbance, transmittance, reflectance, and energy of solid or liquid samples at intervals. You can also overlay, zoom, smooth, filter, detect peaks and valleys, save, print, and perform other actions on previously measured spectra.
- ◆ Time Measurement: Time - related measurements at specified wavelengths. Various speeds are also supported.
- ◆ DNA/Protein Measurement: Calculate DNA and protein concentrations and ratios using predefined formulas.
- ◆ Multi - wavelength Measurement: Set N test wavelengths.
- ◆ GLP General Laboratory Practice: Store, export, and print GLP data.
- ◆ Additional Features: Accumulate operating time for UV and visible light measurement, multi - wavelength measurement, and more.
- ◆ Optional PC Control Software: Available for extended functionality.

### Specifications:

Mode	AE-SP3000 (VIS)	AE-SP3000 (UV)
Optical System	Single beam; with 1200line/mm grating	
Wavelength range (nm)	320 - 1100	190 - 1100
Spectral Bandwidth (nm)	2	
Wavelength Accuracy (nm)	±0.5	
Wavelength Repeatability (nm)	≤0.2	
Transmittance Accuracy (%T)	≤0.5	
Transmittance Repeatability (%T)	≤0.2	
Stray Light (%T)	≤0.1@360nm	≤0.1@220nm@360nm
Noise (%T)	0%≤0.1; 100%≤0.2	
Draft (Abs)	≤0.002	
Baseline fitness (Abs)	±0.002	
Spectral Range	0 - 200%T, -0.301 - 3A, 0 - 9999C(0 - 9999F)	
Test Mode	Abs Trans Reflectance Energy	
Light Source	Tungsten lamp & Deuterium lamp	
Monitor	7" LCD with touch panel	
Language	Chinese, English, Russia, Spanish	
Data Output	U Disk, Upload to PC by USB port	
Data Format	CSV	
Sample Holder	5 - 50mm adjustable	
Power Supply	AC90 - 250V/50 - 60Hz	
Size (L×W×H) mm	460×310×180	
Weight (kg)	11	12