

## Fully Automatic Laser Dust Particle Counter AST-283 Series



2.83L diagram



28.3L diagram

### Overview:

Laser particle counters are used to measure the particle size distribution and number of dust particles per unit volume in a clean environment, and can also detect cleanliness levels. They are widely used in manufacturing enterprises and research departments in industries such as electronics, pharmaceuticals, semiconductors, optics, precision machining, food manufacturing, cosmetics manufacturing, medicine and health, biological products, hospitals, environmental protection, testing laboratories, and aerospace, as well as authoritative institutions such as epidemic prevention stations, disease control centers, blood centers, and quality supervision institutes.

## Instrument Features:

1. All-metal body, Chinese/English switching, large high-definition touchscreen
2. Automatic monitoring, simple operation, no training required
3. Automatic alarm, automatic determination of purification level, automatic storage of sampling data
4. Multi-level access control with audit trail function
5. AC/DC dual-use, built-in battery, easy to move
6. Built-in high-speed thermal printer, selectable printing methods, automatic instant printing, manual printing selection function

## Standards:

Reference Standards: JJF1190-2008, JJG846-2015, GB/T6167-2007 Cleanliness Assessment Standards: National Standard, ISO, 209E, GMP (Dynamic/Static)

Parameters and Models	AST-283C	AST-283B	AST-283D	AST-283T	AST-283Y
Automatic alarm	√	√	√	√	√
Alarm level assessment	√	√	√	√	√
Level 100 - Level 1,000,000	√	√	√	√	√
AC/DC dual-use	※	√	√	√	√

Storage Functionality	※	√	√	√	√
Audit Trace	※	√	√	√	√
Access Control	※	√	√	※	√
Temperature and Humidity	※	※	√	※	√
Communication Interface	※	※	※	RJ45, USB flash drive RS485	RJ45, USB flash drive RS485
Sampling flow rate	2.83L/min			28.3L/min	
Screen display method	5-inch color touchscreen			7 寸彩色触摸屏	
Battery capacity	Built-in 4000mAh			35000mAh	
Average power consumption	7.5W			90W	
Dimensions	220*230*150 (W*L*H) mm			300*300*300mm	
Weight	2.8Kg			8.5Kg	
Particle size channel	Six channels, with apertures of 0.3, 0.5, 1.0, 3.0, 5.0, and 10 μm respectively.				
Light source	Semiconductor laser source (lifetime greater than 30,000 hours)				
Particle size distribution error	0.5um、5um ≤±30%				
Particle concentration indication	0.5um ≤±30%				
Detection range	Class 100 to Class 1,000,000				
UCL report	Compliant with Chinese GMP standards, FS-209E				
Sampling cycle	1s - 9,999,999s customizable				
Sampling delay	1s - 9,999,999s customizable				
Number of sampling points	2 - 50 points arbitrary customizable				
Number of samplings	2 - 50 times arbitrary customizable				

Sampling area	As needed, any combination of letters and numbers or individual settings can be used.
Sampling Unit	Choose from three units: particles, particles/m <sup>3</sup> , and particles/FT <sup>3</sup> .
Self-Cleaning Time	≤10min
Working Environment	Temperature 10°C—35°C, relative humidity ≤75%, atmospheric pressure 86kPa—106kPa
Sampling Conditions	The sampled gas must not contain corrosive gases such as acids, alkalis, or high-temperature gases.
Data Printing	Built-in high-speed thermal printer
Attachments	Main unit, power adapter, printer paper, instruction manual, certificate of conformity