XRD Diffractometer LD-LXRD-B10

Labodam Equipment Ltd.

info@labodam.com | www.labodam.com

XRD Diffractometer LD-LXRD-B10

Overview

XRD Diffractometer LD-LXRD-B10 is comprised with perfect combination of hardware and software systems, features high-precision diffraction angle measuring system with 0.0012° to 50°/min of scanning speed and -6 to 160° of 2? scanning range. Integrated design with metal ceramic tube with multiple target material, and sample level (? to ?) goniometer structure, has PC or SC, SDD and high-speed 1D semiconductor array detector. Equipped with different counting fashion and scanning fashion, X-ray generator control system and high frequency high voltage control technology, offers programmable operation and can perform different test using functional accessories.

Features:

- A multifunctional unit with perfect combination of hardware and software systems
- High-precision diffraction angle measuring system, accurate measurement results
- 0.0012° to 50°/min of scanning speed and -6 to 160° of 2? scanning range
- Integrated design with metal ceramic tube and sample level (? to ?) goniometer structure
- PC or SC, SDD and high-speed 1D semiconductor array detector, fast operation
- Different counting fashion and scanning fashion, meets different requirement
- X-ray generator control system and high frequency high voltage control technology
- Programmable operation, ensures convenient and easy-to-use operation
- Can perform different test using functional accessories, superior analytical capability
- High-efficient and stable unit for conventional analysis and different measurements

Applications:

XRD diffractometer is used to analyze natural or synthetic inorganic or organic materials, widely used in clay minerals, cement building materials, environmental dust, chemical products, drugs, asbestos, rock minerals, polymers and other research fields.

Specifications:

Detector	Proportional counters (PC) or scintillation counter (SC), Silicon drift detector (SDD), High speed one-dimensional semiconductor array detector
Stability	?0.005%
Focus size	1×10 mm, 0.4×14 mm or 2×12 mm
Net weight	340 kg
X-ray tube	Metal ceramic tube: Cu, Fe, Co, Cr, Mo, etc.; Power: 2.4 kW
Rated power	3 kV (HV, HF control technology)
Tube current	5 to 50 mA

Tube voltage	10 to 60 kV
Scanning speed	0.0012° to 50°/min
Counting fashion	Differential coefficient or integral, PHA automatically, dead time regulate
Scanning fashion	?s/?d linkage / single action; continuous, stepping and Omg
2? Scanning range	-6 to 160°
Diffraction radius	225 mm
Scattered ray dose	1uSv/h
01 Box Gross weight	350 kg
02 Box Gross weight	240 kg
Angle locating speed	1500°/min
Goniometer structure	Sample level (? to ?)
2? Angular linearity	International standard sample (Si, Al203), the angle deviation of all peak in full spectrum are not more than ±0.022
Minimal stepping angle	1/10000°
Energy resolution ratio	?25%?PC, one-dimensional array), ?50%(SC), ?200 eV (SDD)
System measure stability	?0.01%
Angle repeatable accuracy	1/10000°
Maximum linear count rate	>5×105 cps (PC, SC with the compensate function of miss counting), 15×104 (SSD), 9×102 (1D array)
Machine dimension (L×W×H)	1000×800×1600 mm
01 Box Package dimension (L×W×H)	1190×1020×2000 mm
02 Box Package dimension (L×W×H)	1250×1035×1050 mm