

universal electrophoresis power supply with constant voltage

Universal electrophoresis power supply is a multifunctional intelligent power supply system designed for electrophoretic separation experiments of nucleic acids, proteins and other samples, which is widely used in all kinds of scientific research, teaching and biotechnology applications.

Universal electrophoresis power supply adopts microprocessor precise control, with a variety of output modes and safety protection mechanism, is one of the core instruments in the molecular biology laboratory.

Main Features of Universal Electrophoresis Power Supply

1. the overall injection molding case: a molding shell, durable, with good electromagnetic shielding ability and anti-chemical corrosion performance.
2. Intelligent control interface: using touch keys and high-definition LCD display, can simultaneously display the set value and real-time output parameters, intuitive and convenient operation.
3. Multi-functional operation modes: Support three electrophoresis operation modes of constant voltage, constant current and constant power, which can be automatically switched and prompted according to different experimental requirements.



4. Method memory system: built-in 10 groups of commonly used program storage function, convenient for quick recall, adapt to the needs of repetitive experiments.
5. Multiple protection mechanisms: overload protection, no-load detection, leakage protection and other safety functions to ensure the safety of personnel and samples.
6. additional optional functions: can be added according to the needs of power failure recovery, electric field proliferation and other additional functions to improve the stability and repeatability of the experiment.

Core Advantages

1. high degree of automation: no need for repeated manual monitoring, the instrument can realize self-regulation in operation, automatic end and memory parameters.
2. strong adaptability: compatible with a variety of electrophoresis tanks and a variety of application scenarios, such as agarose gel electrophoresis, polyacrylamide gel electrophoresis and so on.
3. High reliability: Built-in industrial-grade control chip ensures long-term running stability and output precision.
4. perfect safety and security: in line with the electrical safety code for laboratory equipment, suitable for teaching and multi-user experimental environment.

Working Principle

electrophoresis instrument power supply provides an electric field for the electrodes in the electrophoresis tank by converting the AC power into a stable DC output with adjustable voltage or current. Under the action of this electric field, charged biomolecules, such as DNA, RNA or protein migrate in the gel medium according to the molecular size and the nature of the charge, thus realizing the separation. The microprocessor intelligently adjusts the output parameters according to the preset mode so that the electrophoresis process operates under constant voltage, current or power to improve the controllability and reproducibility of the separation effect.

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| Model | EP20 |
|------------------|--|
| Output type | Constant voltage, constant current, constant power output, continuously adjustable |
| Output range | 5 to 300Vdc, 1 to 1500mA, 1 to 450W |
| Resolution | 1Vdc, 1mA, 1W |
| Timer | 1 minute to 99 hours 59 minutes |
| Display | Backlit LCD screen, 128x64 pixels |
| Output terminals | 4 pairs |

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| Model | EP20 |
| Safety | overload, no-load, leakage, and multiple protection functions |
| Dimensions | 280x237x118mm |
| Weight | 3.1 kg |