azure biosystems

Azure Aqua™ Power Supply 600V

User Manual

Part Number AC4203

UM-0003 R2

Table of Contents

1. Features 2
2. Display 2
3. Safety Instructions 2
4. Operation 3
   - Keyboard 3
   - Display 3
5. Safety 4
   - Specifications 4

1. Features

The Azure Aqua Power Supply 600V offers several features beyond a traditional electrophoresis power supply. These include stable voltage output, short circuit protection, and load-oriented voltage output. The Azure Aqua Power Supply 600V can operate at constant voltage, constant current or constant power. It is suitable for powering gel electrophoresis and transfer tanks.

Azure Aqua Power Supply 600V features:

- Constant voltage output, constant current output, constant power output
- Time-set function, automatic switch between constant voltage and constant current
- Automatic no-load detection
- Automatic short circuit protection
- Run history recall
- 192x64 LCD screen
- Skid-resistant legs

2. Display

Azure Aqua Power Supply 600V displays the voltage, current, and power simultaneously for real-time monitoring. Watch for any of the following error indicators:

- “NO LOAD” indicates no load detected, and the system will not run.
- “SHORT ”indicates a short circuit.

3. Safety Instructions

- Do not touch the outlet during operation.
- Always shut off the power before adjusting the cell.
- Do not touch any wires or other electrical components during operation to avoid harming oneself or the unit.

4. Operation

Keyboard

- There are five buttons on the Azure Aqua Power Supply 600V:
  - Left/Right arrows (toggle keys)
  - Up/Down arrows (data adjusting keys)
  - One order implementing key
- Display mode: voltage, current and power.
- Time set: 0–99 hours 59 minutes.
- Fixed Voltage Range: 10-600V
- Fixed Current Range: 10-1200mA
- Fixed Power Range: 1-500W

Display

1. Setting up a run with constant voltage output:

Figure 1. Power Supply main screen, including a Mute button to mute the alarm when the timer has finished, a History tab to view recent runs, a Run button, a Protein button for setting specific experiments, and an Edit button to edit the current experiment.

   A. From the main screen, press the Edit key ▶ to enter Program Edit Mode. Use the Up/Down arrow keys ▲▼ to select which constant you want to set.

   B. While the voltage (V) value is displayed on screen, press the right arrow key ▶ to move the cursor to the specific voltage value in the middle of the screen. Then press the toggle keys ▲▼ to adjust the constant voltage value.

   C. Continue to press the key ▶ to move the cursor until you see the time 00:00. Press the keys ▲▼ to set the time.

   D. After the constant voltage and time are set, and press the OK (Run) key ▶| in the middle to start the power supply.

2. Setting up a run with constant current or power output
   - Repeat steps A-D, selecting Amps or Watts as the constant value in Step A.
3. When the run is over, a timer will go off. Hit the Mute button ▲ to silence the alarm.
4. Review Run History
   - To review the run history, press the History key ▼ on the screen to enter the History page, and press the keys▲▼ to scroll through the previously run protocols. Press OK button ▶| to run a specific experiment in the History tab.

5. Safety

Azure Biosystems is not responsible for any harm to the user caused by improper use or repair.

Specifications

1. Power
    - Input Power: 100-220VAC, 50/60Hz
    - Fuse: 3A / 250VAC
    - Maximum power: 700W
2. Output
    - Four terminals with 3.5mm diameter
    - Output voltage ripple is less than 1%
    - Output voltage drift is less than 1% (after 10 minutes)
    - Output voltage regulation factor is less than 1%
    - Output time set range: 0–99 hours 59 minutes, 1-minute adjusting unit
    - Output constant voltage range: 10–600 V, 1 V adjusting unit
    - Output constant current range: 10–1200 mA , 1mA adjusting unit
    - Output constant power range: 1–500W, 1W adjusting unit.
3. Safety Features
    - No-load detection
    - Short circuit/overload protection
4. Working environment
    - Operating temperature: 0–40 degrees C
    - Humidity: 0–90 %
5. Dimensions: 24cm x 30.5cm x 10cm
6. Weight: 5.6 pounds

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