

Choice of power supply

Consort has a wide range of power supplies suitable for creating the electrical field in the electrophoresis process. Since there are many different electrophoresis techniques, it is required to choose the most optimum power supply for the technique(s) to execute. Another criterium is the Voltage, Current and Power the device can deliver.

Technique

Here's an application guide as first help to find the correct power supply:

Technique\Power Supply	EV0220	EV1450	EV2310	EV2650	EV2230	EV2320	EV3020	EV3610	EV3150	EV3330	EV3620
DNA SEQUENCING	-	-	-	-	-	-	-	-	-	✓	✓
FLAT BED ISOELECTRIC FOCUSING	-	-	-	-	-	-	-	-	✓	✓	✓
HORIZONTAL GEL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
LONG VERTICAL GEL	-	-	-	-	-	-	-	-	-	-	✓
VERTICAL GEL	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
ELECTRO-ELUTION	-	✓	-	✓	✓	✓	-	✓	✓	-	-
WESTERN BLOTTING	-	-	-	-	-	-	✓	-	-	-	-
SEMI-DRY BLOTTING	-	-	-	-	-	-	✓	-	-	-	-
MINI WESTERN BLOTTING	-	-	✓	-	-	-	-	-	-	-	-
MINI SEMI-DRY BLOTTING	-	-	✓	-	-	-	-	-	-	-	-

Voltage/Current/Power

Each device has certain maximum limits for Voltage, Current and Power. Depending on the technique, the choice of the **maximum Voltage** is important, it determines the strength of the electrical field. The choice is also determined by the **size of the gel/tank** that will be connected.

The maximum current is important especially for blotting techniques. It is also important when required to connect multiple tanks to the same power supply. It is recommended to connect tanks of the same size and requiring the same Voltage when using only one power supply for them. Each tank requires a certain **amount of current and power** (law of Ohm, see further). This amount has to be multiplied with the amount of tanks that are to be connected. This way is it possible that the device limits of the current or the power are tresspassed and prevent a correct execution of the process. It is recommended to check the power supplies maximum limits in comparison to the required voltage, current and power for the technique, tank size and **amount of tanks**.

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