

ECM[®] 399 Specifications Sheet



Product Description

The ECM 399 is an electroporation system specifically designed to produce the precise field strengths and pulse lengths required for the transfection of mammalian and transformation of bacterial and yeast cells. The ECM 399 utilizes the new BTX Power Platform Technology design and novel digital user interface. The single-dial encoder simplifies the operation of ECM 399. Portable, convenient, and user-friendly are major features of this unit.

Product Application

Bacteria/Yeast Transformation

In the High Voltage (HV) Mode, the ECM 399 is optimized to electroporate *E. coli* and other bacteria and yeast for construction of cDNA libraries or mutagenesis.

Mammalian Cell Transfection

In the Low Voltage (LV) Mode, the ECM 399 is designed to deliver a pulse length of approximately 26 msec using the 4mm gap cuvette, at a volume of 400µl using conductive media such as PBS. This protocol has been found to be ideal for transfection of lymphoid, myeloid, glial, fibroblast and Cos 7 cells.¹

Protocols for these and other mammalian cells can be optimized by varying the voltage and/or the pulse length. Adjusting the voltage adjustment knob varies the voltage, while the pulse length may be changed by varying the sample volume or buffer composition.

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Standard Capabilities

Operational Status: Internal Self Test Upon Start-up
 Interface: Digital User Interface
 Charge Time: 5 sec maximum
 Voltage Range: 2-500 V LV Mode/ 2 V resolution
 10-2,500 V HV Mode/10 V resolution
 Capacitance: 1050 µF LV Mode
 36 µF in HV Mode
 Resistance: 150 ohms both LV and HV Modes
 Safety: Short circuit and arc proof

Physical Characteristics

Footprint: 9.1"x7.7"x4.3"(WxDxH)
 Weight: 7 pounds
 Display: 16-character LCD backlit
 Controls: Single rotary encoder for voltage selection. Additional on/off power and start switches

Monitoring: Monitoring and display of Vp and RC time constant

Ordering Information

System

<u>Model No</u>	<u>DESCRIPTION</u>
399S	<i>ECM 399 Electroporation System</i> ECM 399 Generator with Power Supply, one PEP™ (Personal Electroporation Pak), 20 Disposable "Universal" cuvettes (10: 1mm; 10: 4mm)

Accessories

<u>Model No</u>	<u>Description</u>
PEP	Personal Electroporation Pak (PEP) - "plug-in" cuvette module
610	<i>Cuvettes Plus™ (1mm Gap)</i> - sterile package of 50
620	<i>Cuvettes Plus (2 mm Gap)</i> - sterile package of 50
640	<i>Cuvettes Plus (4 mm Gap)</i> - sterile package of 50

References

REFERENCE

C. Baum et al., "An Optimized Electroporation Protocol Applicable to a Wide Range of Cell Lines", BioTechniques vol. 17(6): 1058-1062, (1994).

This product meets the requirements of the European Communities (EC),
 and complies with EMC Directive 89/336/EEC and 73/23/EEC for product safety.