



ECM™ 630

Exponential Decay Wave Electroporation System



The ECM™ 630 offers full flexibility in selection of exponential decay wave voltage, resistance, and capacitance values. This flexibility is the key to achieving the optimal time constants and field strengths needed for efficient transformation of prokaryotes and transfection of eukaryotes. This system is an outstanding value for researchers working with bacteria, yeast, stem cell transfection, plant transformation and insect transfection.

Multi-Well Electroporation

Transitioning from standard cuvette work in a safety dome or safety stand to multi-well electroporation is quick and simple with the addition of a high throughput (HT) plate handler and multi-well plates. High throughput electroporation permits large numbers of samples to be quickly processed. Electroporation conditions are more easily optimized, providing the highest possible efficiency.

Monitoring Option

The addition of Enhancer 3000 allows the researcher to monitor and track key electrical parameters used in electroporation applications. The electrical pulse data is captured as both a graphic display of the waveform and electrical output values following each experiment. This data can be stored on a memory stick or downloaded to a computer easily by using the USB port for potential analysis, documentation and validation purposes. For more information, please visit www.btxonline.com.

Applications

- Transformation of bacteria and yeast
- Transfection of mammalian cells
- Transfection of plant cells and plant protoplasts
- High throughput electroporation in 25- and 96-well formats

Features

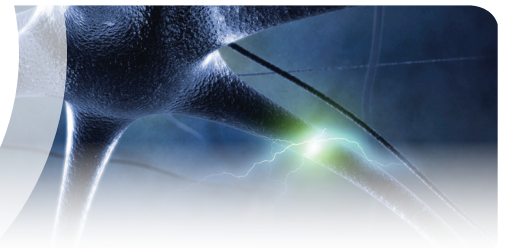
- Wide and accurate exponential decay voltage, internal resistance, and capacitance ranges
- Preset protocols — including most common bacteria and microorganism cell types, as well as CRISPR applications
- User-defined protocols — unlimited ability to add and modify protocols
- Safety — displays sample resistance measurements for each pulse with three layers of arc protection
- Data management — stores logs of every pulse delivered for QC and troubleshooting
- Ease of use — touch screen operation

The ECM™ 630 is intended For Research Use Only. Not for use in diagnostic, pre-clinical, or clinical procedures.



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ECM™ 630 Specifications

Operational Status	Internal self-test upon start-up
Interface	7 inch color touchscreen
Input	100 to 240 VAC
Charge Time	LV <7 s, HV <4 s
Arc Control	Yes
Voltage Range	
LV Mode	5 to 500 V in 1 V steps
HV Mode	505 to 3,000 V in 5 V steps
Capacitance	
LV Mode	25 to 3275 μ F in 25 μ F steps
HV Mode	10, 25, 35, 50, 60, 75, 85 μ F
Internal Resistance	
LV Mode	25 to 1,575 Ω in 25 Ω steps
HV Mode	50 to 1,575 Ω in 25 Ω steps
Maximum Time Constant	5 s at 500 V peak or 133 ms at 3,000 V peak
Programmability	Storage over 1,000 Protocols
Safety	Pre-Pulse Sample Resistance Check, Pulse Over-Current Protection

Ordering Information

Order No.	Description
45-2051	ECM 630 Electroporation System with Safety Dome Includes: ECM 630 Generator, Safety Dome, Cuvettes 1 mm, 2 mm, 4 mm pkg. of 30 (10 each), and Cuvette Rack 660
45-0651	ECM 630 Electroporation System with Safety Stand Includes: ECM 630 Generator, 630B Safety Stand, Cuvettes 1 mm, 2 mm, 4 mm pkg. of 30 (10 each) and Cuvette Rack 660
45-0652	ECM 630 Generator only
45-0655	ECM 630 System with Monitoring Includes: ECM 630 Generator, 630 B Safety Stand, Cuvettes 1 mm, 2 mm, 4 mm, pkg of 30 (10 each), Cuvette rack 660, Enhancer 3000 probe, Enhancer interface box, Oscilloscope and cables
45-0653	ECM 630 High Throughput System, 25-well with HT-100 Includes: ECM 630 Generator, 25-Well Plates (2 mm gap, 6X), Plate Seals, HT-100 Plate Handler and a plate adaptor
45-0654	ECM 630 High Throughput System, 96-well with HT-100 Includes: ECM 630 Generator, 96-Well Plates (2 mm gap, 2X), Plate Seals, HT-100 Plate Handler and a plate adaptor
45-0656	ECM 630 High Throughput System with Monitoring Includes: ECM 630 Generator, 630B Safety Stand, Cuvettes 1 mm, 2 mm, 4 mm pkg. of 30 (10 each), Cuvette Rack 660, Enhancer 3000 Probe, Enhancer Interface Box, Oscilloscope, Cables, 25-Well Plates (2 mm gap, 6X), HT-200 Plate Handler and a plate adaptor