

Cleaver omniPAC Power Supply Series

Features

omniPAC-300 Mini Power Supply

- enhanced in-built safety features
- a conspicuous 3-digit LED
- alarm function
- new wipe-clean polycarbonate housing

Now superseding the MINI150V and MINI300V as the omniPAC MINI power supply of choice, the new nanoPAC-300 offers many of the benefits attributable to omniPAC MIDI power supplies for the price of an omniPAC MINI unit. With enhanced features, such as a maximum constant current output of 400 mA, in addition to constant voltage up to 300 V, the nanoPAC-300 is capable of running all Cleaver Scientific horizontal multiSUB™ systems and vertical omniPAGE mini gels, either on a continuous run or timed setting up to 999 minutes. The nanoPAC-300's user-friendly interface is easily adjustable in 1 V and 1 mA increments, making it perfect for separations where precise settings are required, while its ultra compact size and two pairs of parallel power terminals, which can run two electrophoresis units simultaneously, save time and bench space. A dual voltage rating ensures full portability, and allows easy transportation between laboratories irrespective of their geographical location, to make these power supplies ideally suited to today's researcher.



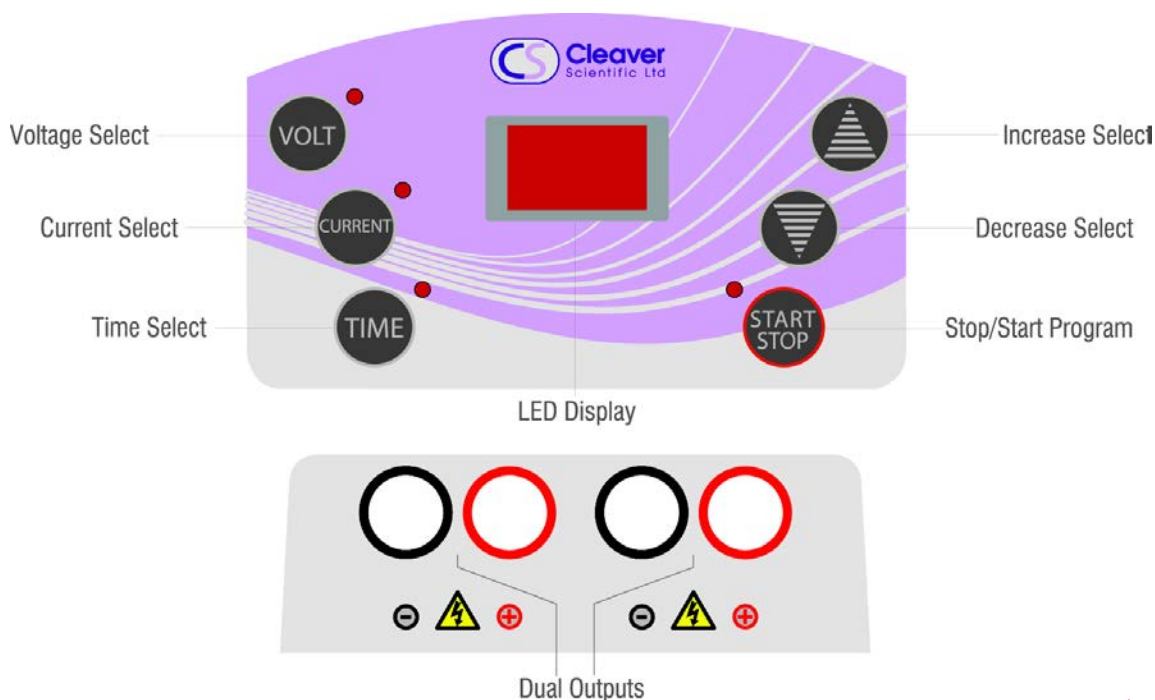
Available Models

Product Code	Voltage	Current	Power
CLEOMNIPAC-300	10 – 300 V	10 – 400 mA	60 W max.

Included with Purchase

- 1 x omniPAC Power Supply Unit
- 1 x Power Cord & Instruction Manual

Control Panel



Cleaver omniPAC Power Supply Series (Continued)

Features (Continued)

omniPAC MIDI CLECS-300V Power Supply

- a stackable design;
- rigorous in-built safety mechanisms;
- automatic crossover;
- dual voltage compatibility.

With nearly twice the current and power of the market leader's equivalent unit, at 700 mA and 150 W, the CLECS-300V offers a specification comparable to any midi power supply presently available on the market. The CLECS-300V is perfectly suited to use with all Cleaver Scientific horizontal multiSUB™ systems and omniPAGE mini vertical gel units, and may also be adapted for specialist techniques including the Comet Assay, and clinical and high throughput horizontal electrophoresis. Microprocessor control with four sets of power terminals allow simultaneous operation of as many electrophoresis units either at a constant voltage or current setting, while the timer function may be set continuously or up to a maximum 999 minutes when an alarm sounds to signify termination of the run. A user-friendly interface houses a conspicuous 3-digit LED to aid set up, as well as a convenient 'pause/resume' key, a particularly useful feature during extended runs when it is necessary to access the gel tank to monitor buffer levels and sample migration. Given its high specification and remarkable versatility the CLECS-300V is relatively inexpensive.



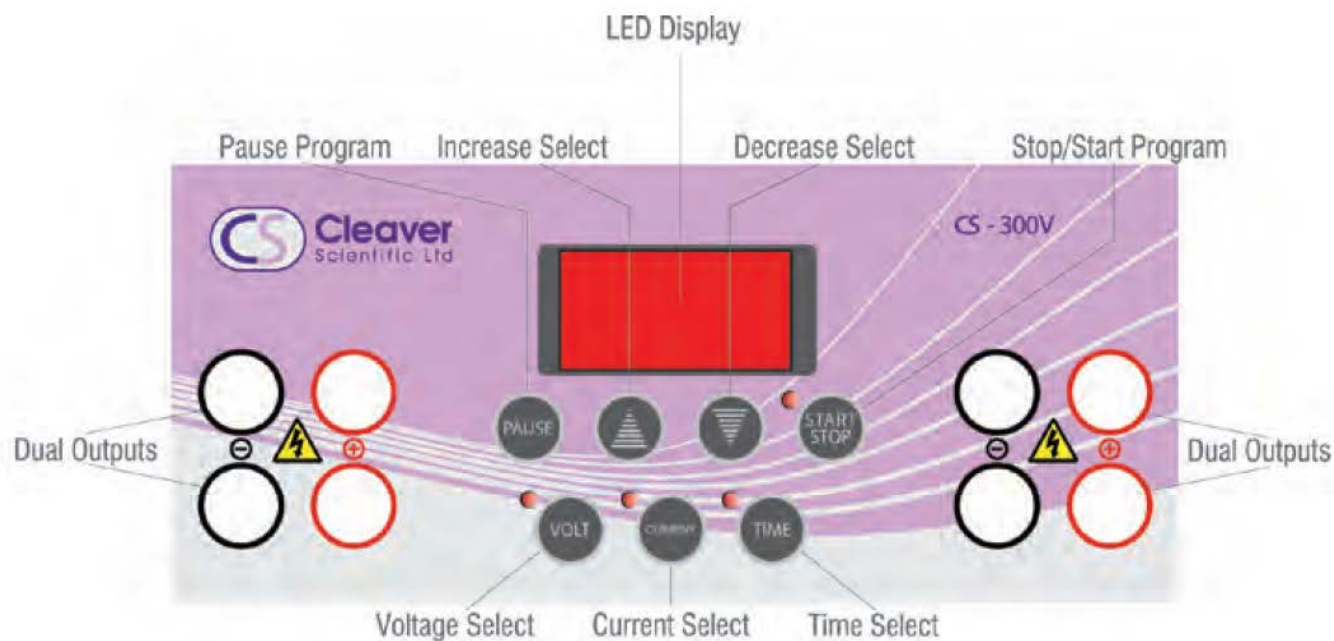
Available Models

Product Code	Voltage	Current	Power
CLECS-300V	2 – 300 V	1 – 700 mA	150 W max.

Included with Purchase

- 1 x omniPAC MIDI CLECS-300V power Supply Unit
- 1 x Power Cord & Instruction Manual

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Cleaver omniPAC Power Supply Series (Continued)

Features (Continued)

omniPAC MAXI CLECS-500V Power Supply

With a maximum 500 V, 800 mA and 300W voltage, current and power output, the omniPAC CLECS-500V MAXI is an excellent general purpose power supply that fits the broadest range of electrophoresis applications, and can run as many as four units under a constant or programmable setting. Its capacity to store up to 30 programmed files, each with 6 steps, makes the CLECS-500V perfect for techniques that benefit from subtle and gradual stepwise changes in the electrical parameters as the run progresses, such as DGGE and large format vertical PAGE using Cleaver Scientific's VS20-DGGE and WAVE systems. A large 2.6" LCD screen shows within 2 lines the real-time values of the electrical parameters during the run, along with the program file and individual step in operation, enabling the user to appraise the entire run at a single glance. The CLECS-500V MAXI is also equipped as standard with many features associated with the omniPAC MIDI, including timer and alarm, 'pause / resume' functionality, a stackable design and enhanced in-built safety features.



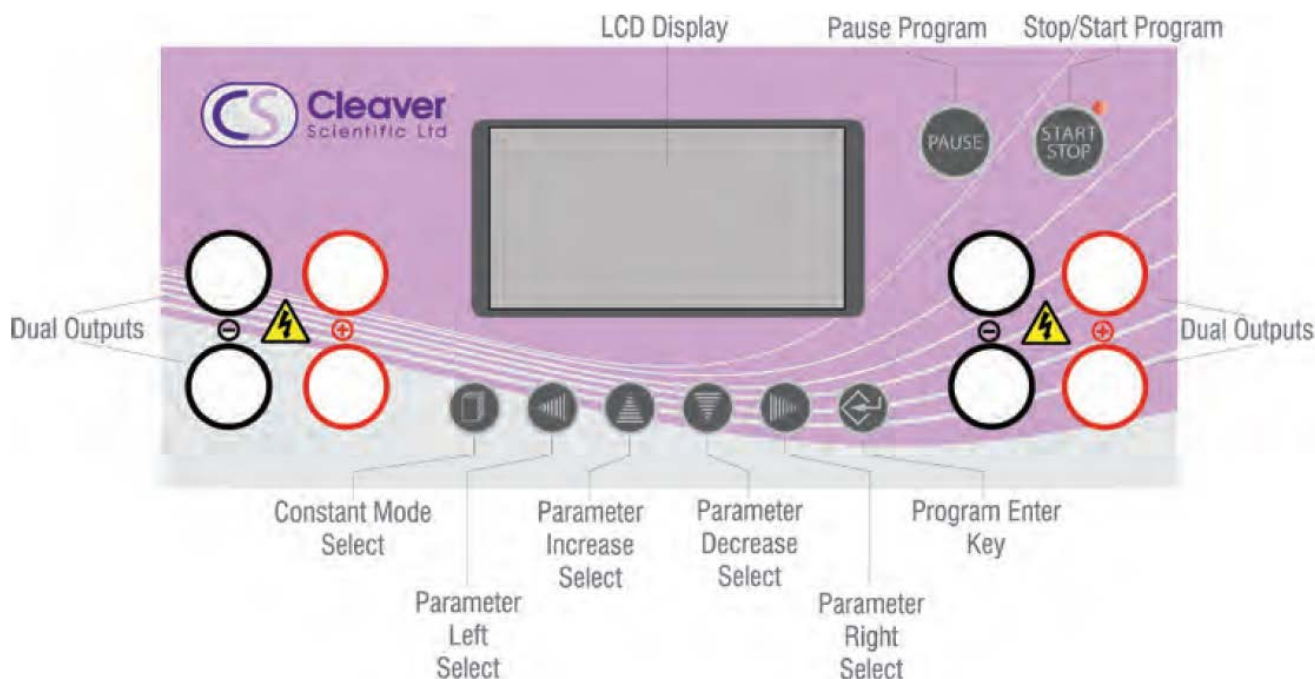
Available Models

Product Code	Voltage	Current	Power
CLECS-500V	5 – 500 V	1 – 800 mA	300 W max.

Included with Purchase

- 1 x omniPAC MAXI CLECS-500V power Supply Unit
- 1 x Power Cord & Instruction Manual

Control Panel





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Cleaver omniPAC Power Supply Series (Continued)

Features (Continued)

omniPAC MAXI CLECS-3AMP Power Supply

At 300 V, 3000 mA, 300 W, the omniPAC MAXI CLECS-3AMP is designed for virtually all high current electrophoresis applications. The CLECS-3AMP's higher current output capability is perfect for electroblotting units with high-intensity plate electrodes, particularly Cleaver Scientific's omniBLOT maxi, VS20 WAVE and semi dry blotting systems. Electrotransfers may be performed as timed runs in constant or programmable mode to prevent overheating and buffer depletion, although a run time extendable to a maximum 9999 minutes in constant mode also favours overnight transfers undertaken at constant low current in wire electrode systems. The two-line 2.6" LCD screen allows the experimental parameters, program file and step to be viewed within a single screen during each run, while the CLECS-3AMP's four power terminals and robust current and power outputs make it suitable for high throughput SDS-PAGE using multiple vertical systems. The CLECS-3AMP shares the same standard features as the omniPAGE MAXI CLECS-500V.



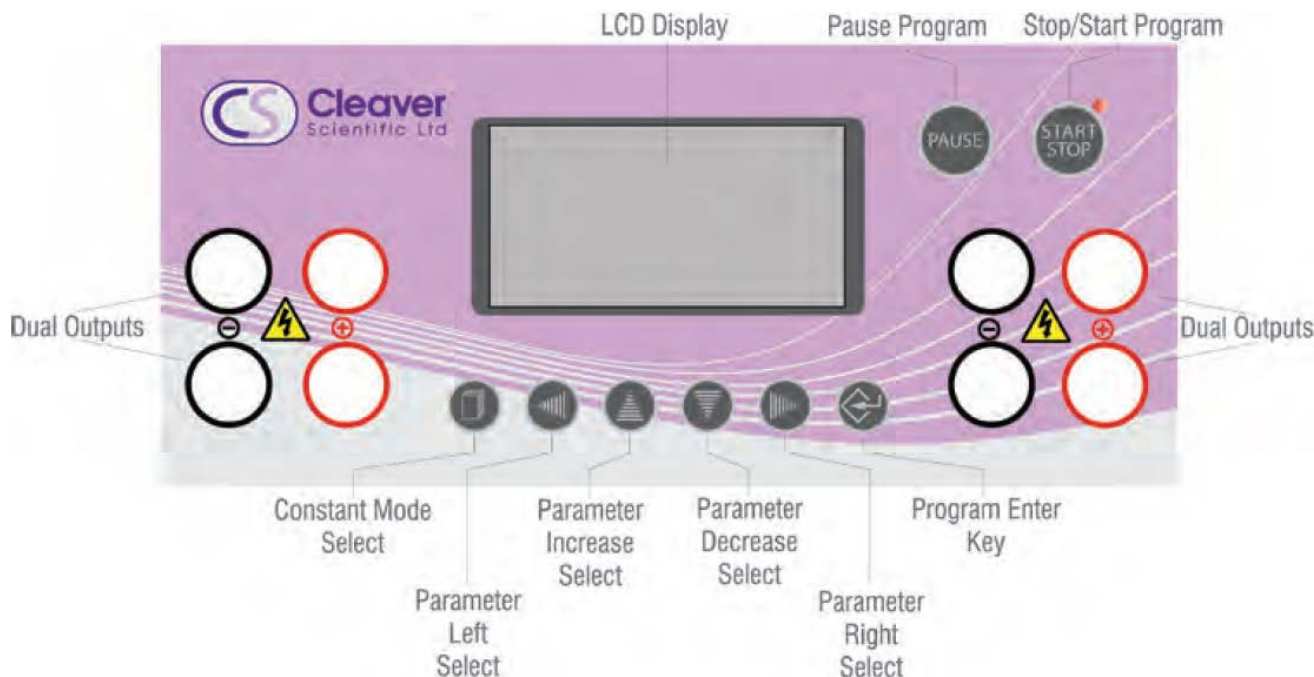
Available Models

Product Code	Voltage	Current	Power
CLECS-3AMP	5 – 300 V	10 – 3000 mA	300 W max.

Included with Purchase

- 1 x omniPAC MAXI CLECS-3AMP power Supply Unit
- 1 x Power Cord & Instruction Manual

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Cleaver omniPAC Power Supply Series *(Continued)*

Accessories

Cleaver Scientific provides three types of power supply adaptor to ensure full compatibility between Cleaver Scientific gel tanks and power supplies from different manufacturers. These are as follows:

- CLECSL-4-4 – extends the length of the standard electrode cables (CLECSL-CAB) of Cleaver Scientific multiSUB™ or omniPAGE systems to fit within the deeply recessed power outputs of IEC 1010-1 compliant power supplies.
- CLECSL-4-2 – allows Cleaver Scientific multiSUB™ and omniPAGE systems to be run from high voltage power supplies with 2 mm outputs.
- CLECSL-2-4 – connects the CLECSL-CAB2 cables supplied with the CLECSL-IEF and large format CSQ verticals to low-to-medium voltage power supplies – e.g. CLECS-500V.

Code	Description
CLECSL-CAB	Standard Replacement Cable, 4 mm, 2/pk
CLECSL-CAB2	Replacement CSQ and CLECSL-IEF unit Cables, 2/pk
CLECSL-4-4	Power Supply Adaptors, 4 to 4 mm, 2/pk
CLECSL-4-2	Power Supply Adaptors, 4 to 2 mm, 2/pk
CLECSL-2-4	Power Supply Adaptors, 2 to 4 mm, 2/pk



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Cleaver omniPAC Power Supply Series (Continued)

Specifications

	MINI nanoPAC-300	MIDI CLECS-300V	MAXI CLECS-500V	MAXI CLECS-3AMP
Output Range (<i>programmable</i>)				
Volts	10 – 300 V	2 – 300 V	5 – 500 V	5 – 300 V
Current	10 – 400 mA	1 – 700 mA	1 – 800 mA	10 – 3000 mA
Power	60 W Max.	150 W Max.	300 W Max.	300 W Max.
Resolution	1 V/ 1 mA		1 V/ 1 mA/1 W	
Type of Output	Constant voltage or constant current		Constant voltage or constant current or constant power	
Automatic Crossover	N/A	Yes	Yes	Yes
Timer	1 -999 minutes with alarm; Continuous		Constant Mode: 1 – 9999 minutes with alarm; Continuous Programmable Mode: 1 – 999 minutes with alarm; Continuous	
Pause/Resume Function	N/A	Yes	Yes	Yes
Display	3 Digit LED		2.6 inch LCD, 2-Line	
Automatic Recovery after Power Failure	Yes	Yes	Yes	Yes
Safety Features	No load Detection; over-voltage, current & temperature protection; maximum power output detection; shrouded plugs & sockets	No load Detection; sudden load change detection; over load detection; ground-leak detection; over-voltage, current & temperature protection; maximum power output detection; shrouded plugs & sockets		
Operating Conditions	Ambient to 40° C; 95 % RH		Ambient to 40° C; 95 % RH	
Stackable	N/A	Yes	Yes	Yes
Number of Output Jacks	2 sets in parallel	4 sets in parallel	4 sets in parallel	4 sets in parallel
Regulatory Conformity	EN-61010-1;CE	EN-61010-1;CE	EN-61010-1;CE	EN-61010-1;CE
Dual Voltage	100 – 240 V AC	100 – 240 V AC	100 – 240 V AC	100 – 240 V AC
Construction	Polycarbonate Housing with Aluminum Base	Flame Retardant ABS-plate design with Aluminum Base		
Dimensions (W x D x H)	14.0 x 19.1 x 8.4 cm	19.0 x 30.5 x 9.5 cm	19.0 x 30.5 x 9.5 cm	19.0 x 30.5 x 9.5 cm
Weight	1 kg	2.5 kg	2.5 kg	2.5 kg
Warranty	1 Year	1 Year	1 Year	1 Year

Cleaver omniPAC Power Supply Series (Continued)

Electrophoresis Power Supplies

Whether you require a power supply for routine horizontal DNA agarose gel electrophoresis or techniques as technically demanding as SSCP analysis within a large format vertical, or first dimension IEF using IPG strips, Cleaver Scientific can meet your requirements with its comprehensive range of omniPAC power supplies. Each power supply benefits from a small footprint area and compact design, while explanatory self-prompting menus facilitate easy set up. Furthermore, these power supplies adhere to IEC 61010 – one of the world's most stringent electrical safety standards. Use the menu below to choose the power supply most suitable for your electrophoresis application.

Power Supply Selection Menu
SDS-PAGE, second dimension (2-D)

Technique & Apparatus Format	Gel or Tube Size*, Quantity (W x L x T)	Starting Voltage (V)	Starting Current (mA)	Ending Voltage (V)	Ending Current (mA)	Run Time	Recommended Model
CLEVS30DSYS	280 x 200 x 1 mm, 2 gels	100	35 (Constant)	350	35 (Constant)	5.5 – 6 hour max.	CLECS-500V
CLEVS20WAVE	160 x 175 x 1 mm, 2 – 4 gels					5 hour max.	
CLEVS20DSYS	160 x 175 x 1 mm, 2 gels					5 hour max.	
CLE10WDSYS	160 x 85 x 1 mm, 2 gels	200 (constant)	200	200 (Constant)	80	60 – 80 min.	CLECS-300V or CLENANOPAC-300V
CLECVS10DSYS or CLECVS10TETRAD	80 x 85 x 1 mm, 2 – 4 gels		120 - 240			120	

IEF, first dimension (2-D)

Technique & Apparatus Format	Gel or Tube Size*, Quantity (W x L x T)	Starting Voltage (V)	Starting Current (mA)	Ending Voltage (V)	Ending Current (mA)	Run Time	Recommended Model
Flat-bed (ex CLECSL-IEF)	3 x 240 x 1 mm, max. 12 strips	300 (Constant)	3	3000 (Constant)	< 1	16 hour max.	CLEEV232 or CLEEV233
Maxi Tube Gel (ex VS20DC, VS20C2DS, WAVEC2DS)	180 x 1/1.5 mm tubes, 10 max.	800 (Constant)	4	800 (Constant)	< 1	8 hour max.	CLEEV215
Mini-Wide Tube Gel (ex VS10WDC, VS10WC2DS)	80 x 1/1.5 mm tubes	700 - 800 (Constant)	1	700 - 800 (Constant)	< 1	4 hour max.	
Mini Tube Gel (ex VS10DC, CVS10CC2DS)	80 x 1/1.5 mm tubes	700 - 800 (Constant)	1	700 - 800 (Constant)	< 1	4 hour max.	

Cleaver omniPAC Power Supply Series (Continued)**Power Supply Selection Menu** (Continued)

DNA Restriction Analysis (Horizontal)

Technique & Apparatus Format	Gel or Tube Size*, Quantity (W x L x T)	Starting Voltage (V)	Starting Current (mA)	Ending Voltage (V)	Ending Current (mA)	Run Time	Recommended Model
MSMINIDUO	70 x 100 x 5 mm, max.	80 (Constant)	40	80 (Constant)	45	45 - 60 min.	CLEANOPAC-300V or CLECS-300V
MSMIDIDUO	100 x 100 x 5 mm, max.	90 (Constant)	50	90 (Constant)	55	45 - 60 min.	
FMMS10a	100 x 80 x 5 mm	50 (Constant)	25	50 (Constant)	55	30 - 60 min.	
MSCHOICETRIO	150 x 150 x 5 mm, max.	90 - 150 (Constant)	50 - 80	90 - 150 (Constant)	55 - 90	60 - 90 min.	
MSMAXIDUO	260 x 320 x 5 mm, max.	100 - 150 (Constant)	50 - 80	100 - 150 (Constant)	55 - 90	60 - 90 min.	

High Throughput DNA Electrophoresis (Horizontal)

Technique & Apparatus Format	Gel or Tube Size*, Quantity (W x L x T)	Starting Voltage (V)	Starting Current (mA)	Ending Voltage (V)	Ending Current (mA)	Run Time	Recommended Model
MSMIDI96	100 x 120 x 5 mm	70 (Constant)	40	80 (Constant)	45	45 - 60 min.	CLEANOPAC-300V or CLECS-300V
MSMIDI96ST	100 x 240 x 5 mm	90 (Constant)	50	95 (Constant)	55	45 - 60 min.	
MULTISUB4	80 x 240 x 5 mm, max.	90 (Constant)	50	95 (Constant)	55	30 - 60 min.	
MSCHOICEST	150 x 250 x 5 mm, max.	90 - 150 (Constant)	50 - 80	90 - 150 (Constant)	55 - 90	60 - 90 min.	
MSSCREENTRIO	260 x 320 x 5 mm, max.	100 - 150 (Constant)	50 - 80	100 - 150 (Constant)	55 - 90	60 - 90 min.	

Comet Assay, SCGE (Horizontal)

Technique & Apparatus Format	Gel or Tube Size*, Quantity (W x L x T)	Starting Voltage (V)	Starting Current (mA)	Ending Voltage (V)	Ending Current (mA)	Run Time	Recommended Model
CSL-COM10	25 x 75 mm, 10, 20, 40 & 80 Slides respectively	25 (Constant)	300 max.	25 (Constant)	300 max.	1 hour max.	CLEANOPAC-300V or CLECS-300V
CSL-COM20							
CSL-COM40							
CSL-COM80							

Cleaver omniPAC Power Supply Series (Continued)**Power Supply Selection Menu** (Continued)

Clinical Electrophoresis (Horizontal)

Technique & Apparatus Format	Gel or Tube Size*, Quantity (W x L x T)	Starting Voltage (V)	Starting Current (mA)	Ending Voltage (V)	Ending Current (mA)	Run Time	Recommended Model
CSL-CELLAS	25 x 140 mm – 170 x 170 mm, Cellagel strips max. 250 µm thickness	200 (Constant)	7.5	200 (Constant)	7.5 max.	30 – 90 min.	CLENANOPAC-300V or CLECS-300V

DNA Sequencing, SSCP Analysis & Microsatellite Mapping (Large Format Vertical)

Technique & Apparatus Format	Gel or Tube Size*, Quantity (W x L x T)	Starting Power (W)	Starting Voltage (V)	Starting Current (mA)	Ending Power (W)	Ending Voltage (V)	Ending Current (mA)	Run Time	Recommended Model
CSQ20	160 x 500 x 0.35 mm	45 – 55 (Constant)	1500 max.	20 – 30	45 – 55 (Constant)	1500	20 – 30	4 – 5 hours	CLEEV232 or CLEEV233
CSQ33	290 x 410 x 0.35 mm	45 – 55 (Constant)	1500 max.	20 - 30	45 – 55 (Constant)	1500	20 - 30	4 – 5 hours	CLEEV232 or CLEEV233

Mutation Detection

Technique & Apparatus Format	Gel or Tube Size*, Quantity (W x L x T)	Starting Voltage (V)	Ending Voltage (V)	Run Time	Recommended Model
VS20-DGGE	160 x 175 x 1 mm, 2 gels	120 -150 (Constant)	120 -150 (Constant)	2 – 2.5 hours	CLECS-500V

Semi-Dry Blotting (Protein/Nucleic Acids)

Technique & Apparatus Format	Gel or Tube Size*, Quantity (W x L x T)	Starting Voltage (V)	Starting Current (mA)	Ending Voltage (V)	Ending Current (mA)	Run Time	Recommended Model
SD10 Mini	100 x 100 2/5 mm, 1 gel	75 (Constant)	550	75 (Constant)	550	15 – 30 min.	CLECS-3AMP
SD20 Maxi	200 x 200 x 2/5 mm, 1 gel; 4x Mini Gels	75 (Constant)	1200	75 (Constant)	1200	15 – 30 min.	CLECS-3AMP
SD33 Maxi-Plus	330 x 450 x 2/5 mm, 1 gel; 14x Mini Gels; 3x Maxi Gels	75 (Constant)	2000	75 (Constant)	2000	15 – 30 min.	CLECS-3AMP
SD50 Maxi-Long	200 x 500 x 2/5 mm, 1 gel; 10x Mini Gels; 2x Maxi Gels	75 (Constant)	2000	75 (Constant)	2000	15 – 30 min.	CLECS-3AMP

Cleaver omniPAC Power Supply Series (Continued)**Power Supply Selection Menu** (Continued)

Western Blotting

Technique & Apparatus Format	Gel or Tube Size*, Quantity (W x L x T)	Starting Voltage (V)	Starting Current (mA)	Ending Voltage (V)	Ending Current (mA)	Run Time	Recommended Model
omniBLOT Mini (ex SB10)	80 x 85 x 1 mm, 4 gels	100 (Constant)	250	100 (Constant)	400	1 – 2 hours	CLECS-300V or CLECS-3AMP
Modular System (ex CVS10CBS)	80 x 85 x 1 mm, 4 gels	100 (Constant)	250/550 Wire/Plate Electrodes (Constant)	100 (Constant)	400/1500 Wire/Plate Electrodes (Constant)	2 hours/30 – 60 min. Wire/Plate Electrodes	CLECS-300V/CLECS-3AMP Wire/Plate Electrode
Standalone (ex EBM10)	80 x 85 x 1 mm, 4 gels	100 (Constant)	250	100 (Constant)	400	1 – 2 hours	CLECS-300V or CLECS-3AMP
omniBLOT Mini Wide (ex SB10W)	160 x 85 x 1 mm, 3 gels	100 (Constant)	250	100 (Constant)	250	1 – 2 hours	CLECS-300V, CLECS-500V or CLECS-3AMP
Modular System (ex VS10WCBS)	160 x 85 x 1 mm, 3 gels	100 (Constant)	250	100 (Constant)	250	1 – 2 hours	CLECS-300V, CLECS-500V or CLECS-3AMP
WAVE Maxi (ex WAVECBS)	160 x 175 x 1 mm, 4 gels	50/100 Wire/Plate Electrodes (Constant)	150 - 250/1000 - 1600 Wire/Plate Electrodes (Constant)	50/100 Wire/Plate Electrodes (Constant)	150 - 250/1000 - 1600	5 – 20 hour max./1 - 5 hour max.	CLECS-3AMP
omniBLOT Maxi (ex SB20)	160 x 175 x 1 mm, 3 gels	50 (Constant)	250	50 (Constant)	250	5 – 20 hour max.	CLECS-3AMP
Modular System (ex VS20CBS)	160 x 175 x 1 mm, 4 gels	50 (Constant)	250	50 (Constant)	250	5 – 20 hour max.	CLECS-3AMP