

# EC series

2ch output. Rack mount Reversible type  $\pm 1kV$  to  $\pm 10kV/200W$



## SUMMARY

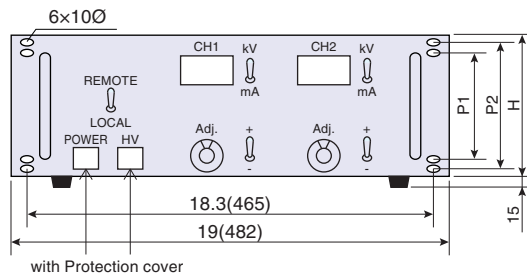
This is a high voltage power supply developed especially for electrostatic chuck application. Chuck ON/OFF is possible by DC ON/OFF. Smooth release of wafer is also possible by reversing the polarity. This is an useful power supply suitable both for uni-polar systems(2ch) or bi-polar systems.

## FEATURES

- Specially designed for Electrostatic Chuck application
- It has 2 output channels and suitable for bi-polar system with just 1 unit
- Reversible output
- Smooth release of wafer with polarity reverse function
- Compact and high power

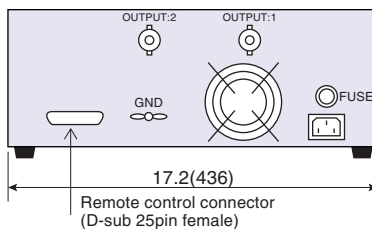
## DIMENSIONS inch(mm)

### Front



MODEL	Height(H)	EIA(P1)	JIS(P2)	Depth(D)	Weight(lb)
EC- 1 R200 x 2	7"(177)	4"(101.6)	5.9"(150)	21.6"(550)	44.1
EC- 3 R 67 x 2	7"(177)	4"(101.6)	5.9"(150)	21.6"(550)	
EC- 5 R 40 x 2	7"(177)	4"(101.6)	5.9"(150)	21.6"(550)	
EC- 6 R 33 x 2	7"(177)	4"(101.6)	5.9"(150)	21.6"(550)	
EC-10R 20 x 2	8.7"(222)	5.7"(146.1)	7.8"(200)	24"(610)	

### Rear



## SPECIFICATIONS

- Input voltage/current** 115VAC  $\pm 10\%$  50/60Hz 1 $\emptyset$  7A max
- Chuck ON/OFF**
- HV switch on the front panel ON/OFF(for 2ch)---Local mode
  - Remote switch ON/OFF(for each channel)---Remote mode
  - Output voltage control with potentiometer on the front panel (for each channel)
  - Output voltage control with external voltage source (for each channel)
  - AC input voltage ON/OFF (for 2ch)
- Output voltage control**
- Local : 10-turn potentiometer on the front panel (for each channel)  
 Remote : external control voltage source (for each channel)  
 Vcon-in = 0 to 10V  
 Input impedance greater than 10k $\Omega$
- Polarity Change**
- Local : Toggle switch(for each channel)  
 Remote : contact input(for each channel)
- Ripple** 0.1%rms
- Digital Panel Meter** 3-digit digital meter for each channel (voltage  $\leftrightarrow$  current select)
- Output Monitor**
- Voltage : 0 to  $\pm 10V$ (for each channel)  
 Current : 0 to  $\pm 10V$ (for each channel)  
 Output Impedance 1k $\Omega$
- Protection**
- Over current with automatic crossover,  
 Over voltage(limited at 110%),  
 Output short circuit, arc protection and interlock
- Forced Discharge** Function to ground output compulsory for quick discharge by remote control(individual ground terminal for each channel)
- Temperature** 0 $^{\circ}C$  to 40 $^{\circ}C$  (Operation) -40 $^{\circ}C$  to +85 $^{\circ}C$  (Storage)
- Accessories**
- Input AC cable (with 3pin plug) 2.5meters (1)  
 Output HV cable with HV-BNC connector on both end 5 meters (2)  
 (for 6kV, 10kV model CN-15-MHVP 5meters (2))  
 Instruction Manual (1)
- Power ON Status** Power ON(AC115V supply and power switch ON)  
 status by signal at point of contact
- Local/Remote Status** Local/Remote status by TTL level signal
- Over Current Status** Over current status (when short circuit) by TTL level signal

## LINE UP

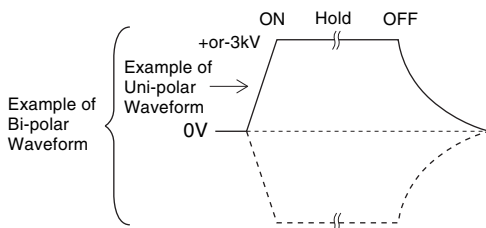
MODEL	Output Voltage (each channel)	Output Current (each channel)
EC- 1 R200 $\times$ 2	-1kV to +1kV	200mA
EC- 3 R 67 $\times$ 2	-3kV to +3kV	67mA
EC- 5 R 40 $\times$ 2	-5kV to +5kV	40mA
EC- 6 R 33 $\times$ 2	-6kV to +6kV	33mA
EC-10R 20 $\times$ 2	-10kV to +10kV	20mA

## OPTION

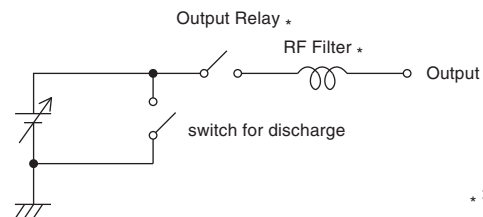
- LRy** Output relay : Function to separate PS and load electrically by remote control
- LRf(13.56M)** RF filter : 13.56MHz
- LRf(500k)** RF filter : 500kHz
- L(220V)** 200VAC to 240VAC 1 $\emptyset$  input
- L(230V)** 210VAC to 250VAC 1 $\emptyset$  input

\* Wide range filter frequency is available optionally. Please consult to sales staff.  
 \* When ordering, suffix L mark(option mark) to the model number.  
 <e.g.> EC-1R200 $\times$ 2-LRf(13.56M)Ry(220V)  
 EC-1R200 $\times$ 2-LRf(500k)(220V)

## Example of waveform



## Example of forced discharge • Output relay



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