

E-Chuck HV power supply

ECU Series $\pm 500\text{V}$ to $\pm 4\text{kV}$ / 3W to 8W

01.121.02|02-1



■ Features

- Designed for Electro Static Chuck (E-chuck)
- + and -, 2 outputs type
- Output reversible and forced discharge function for smooth release.
- RF filter integrated
- Local, Remote or RS-232C control

■ Summary

ECU Series is designed particularly for E-Chuck application. Smooth chuck and de-chuck is possible with output ON/OFF or polarity reverse function.

■ Line up

Please contact the nearest sales office for higher voltage model.

MODEL	Output voltage	Output current
ECU-0.5PN10	+500V, -500V	10mA
ECU-1PN3	+1kV, -1kV	3mA
ECU-1.5PN2	+1.5kV, -1.5kV	2mA
ECU-2PN4*	+2kV, -2kV	4mA
ECU-4PN1*	+4kV, -4kV	1mA

*Fixed polarity type only

■ Specifications

Input voltage /current + 24VDC, 1A

Chuck ON/OFF

- Local: Front panel HV switch ON/OFF
- Remote: External signal input(+24V) ON/OFF
- RS-232C: By command ON/OFF

Output voltage connector

- + Output: MHV(HV-BNC) Connector, 0-(+) rated output voltage
- - Output: MHV(HV-BNC) Connector, 0-(-) rated output voltage
- Center tap output BNC connector $\pm 500\text{V}$ max

Output voltage control See Output voltage control character for voltage change

- Local: By front panel rotary encoder
Set output V 0 to (+)(-) output voltage
- Remote: By external voltage source
Vcon-in=0-10V / 0 to (+)(-) output voltage
Input impedance is over 200k Ω
- RS-232C: By command setting
Set output V 0 to (+)(-) output voltage

+ -output voltage balance 0.5%(at same load condition for + and -)

Ripple 0.2% p-p

Digital panel meter

Voltage between (+) and (-)	V	3 digit display
Center-tap voltage	VCT	3 digit display
(+) output current	I+	3 digit display
(-) output current	I-	3 digit display

Output monitor

- **Analog output**
- Monitor between (+)(-) output 0 to 10V / 0 to (+)(-)rated output voltage
- Monitor for center tap 0 to 5V / -500V to +500V
- Monitor for (+) output current 0 to 10V / 0 to (+) rated output current
- Monitor for (-) output current 0 to 10V / 0 to (-) rated output current

- **RS-232C**
- Monitor between (+)(-) output 0 to (+)(-)rated output voltage
- Monitor for center tap -500V to +500V
- Monitor for (+) output current 0 to (+) rated output current
- Monitor for (-) output current 0 to (-) rated output current

Protection Over current with automatic crossover, variable from rated output current for local, remote or RS-232C control. Output short circuit and arc protection.

Forced discharge

- Local: Setting of forced discharge function by ON/OFF(When ON, forced discharge function be on when HV turns off)
- Remote: By ON/OFF setting with external signal (+24V)
- RS-232C: Setting of forced discharge function by ON/OFF(When ON, forced discharge function be on when HV turns off)

Input output isolation resistor over 500M Ω

Polarity Reverse Function

- Local: Setting of polarity change function by ON/OFF(When ON, the polarity get reversed every time HV turns on)
- Remote: By ON/OFF setting with external signal (+24V)
- RS-232C: Setting of polarity change function by ON/OFF(When ON, the polarity get reversed every time HV turns on)

Temperature 0°C to +45°C (in operation), -40°C to +85°C (in storage)

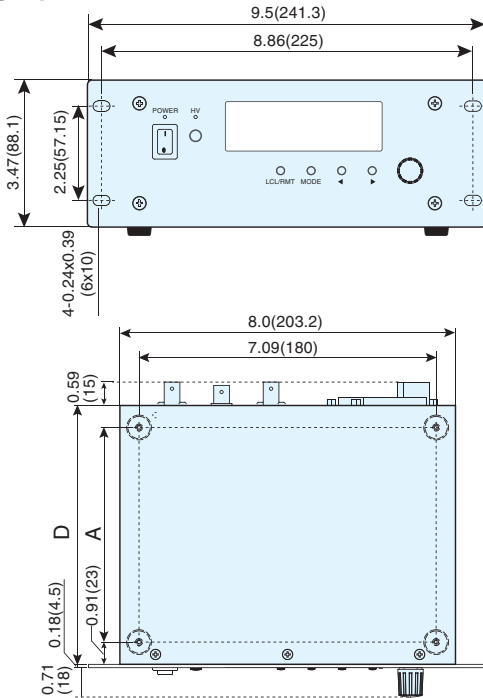
Humidity 20% to 80%RH(no condensation)

Accessories

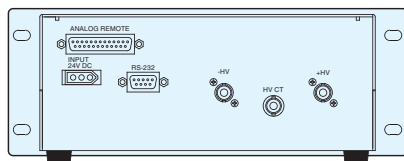
- Input AC cable (1)
- Output HV cable with HV-BNC connector on both ends 5 meters (2)
- D-sub connector 25pin
- Instruction Manual

■ Dimensions inch(mm)

Front

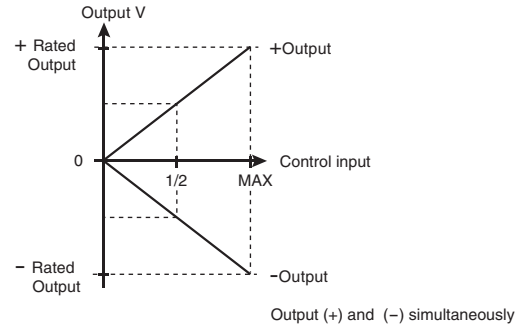


Rear

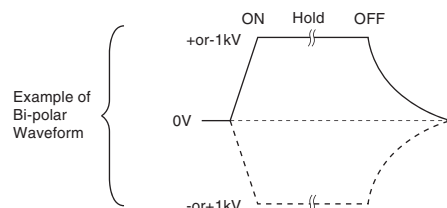


MODEL	D	A
ECU-0.5PN10	6.0(152.5)	4.53(115)
ECU-1PN3		
ECU-1.5PN2		
ECU-2PN4	10.77(273.5)	9.29(236)
ECU-4PN1	13.72(348.5)	12.24(311)

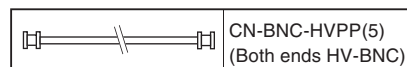
■ Character of output Voltage Setting



■ Example of waveform



■ Output cable(Accessory)



Warranty

We warrant that products contained in this catalog (hereinafter, the "Products") are free from defects in material and workmanship under normal use for a period of one (1) year from the date of shipment thereof. However, the warranty period for X-ray detectors and X-ray source shall be either one (1) year from the date of shipment or 1,000 hours, whichever shorter. The above warranty shall not apply to any Product which, at our sole judgment, has been: i) Repaired or altered by persons unauthorized by us; or ii) Connected, installed, adjusted or used otherwise than in accordance with the instructions furnished by us (including being used in an inappropriate installation environment, such as in corrosive gas, high temperature and humidity). We are not liable for any loss, damage or failure of the Products after the shipment thereof caused by external factors such as disasters. If any Product is shown to be defective as satisfactory to us, we, at our sole discretion, repair or replace such defective Products at no cost to the purchaser. We assume no liability to the purchaser or any third party for special, incidental, consequential, or other damages resulting from a breach of the foregoing warranty. This warranty excludes any and all other warranties not set forth herein, express or implied, including without limitation the implied warranties of merchantability or fitness for a particular purpose. The Products are not designed and produced for such applications as requiring extremely high reliability and safety, or involving human lives (such as nuclear power, aerospace, social infrastructure facility, medical equipment, etc.). The use under such environment is not covered by this warranty and may require additional design and manufacturing processes.