

Constant Voltage and Constant Current HV Amplifier



COR-10B2 is a bi-polar high-speed HV amplifier developed with our long experience and expertise in HV power supply field. High performance and reliability is achieved by all-solid-state configuration.

FEATURES

- 3 functions of CC, CV and HV amplifier in one unit
- Four-quadrants output $\pm 10\text{kV}$, $\pm 2\text{mA}$
- Fast response of slew rate $30\text{V}/\mu\text{s}$
- Return current terminal is standard and best for corona current control

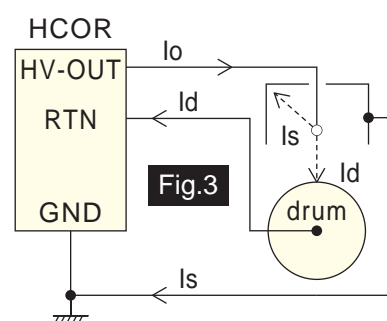
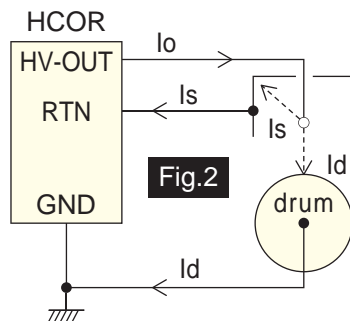
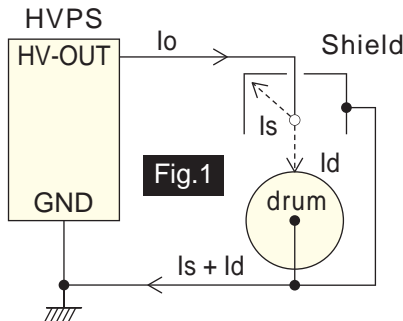
APPLICATIONS

- Photosensitive drum testing
- Experiment of corona discharge
- Research and Development of electro photographic process

Corona current control (return current control)

When a HV power supply is used to charge the photo sensitive drum, in most case the purpose is to control the drum current (I_d). Normal power supply can only control the drum current (I_d) and lead current to shield. (fig 1.)

Using the RTN terminal COR enable you to control the drum current (I_d) precisely even if the drum is grounded or not. (fig2. and 3.)

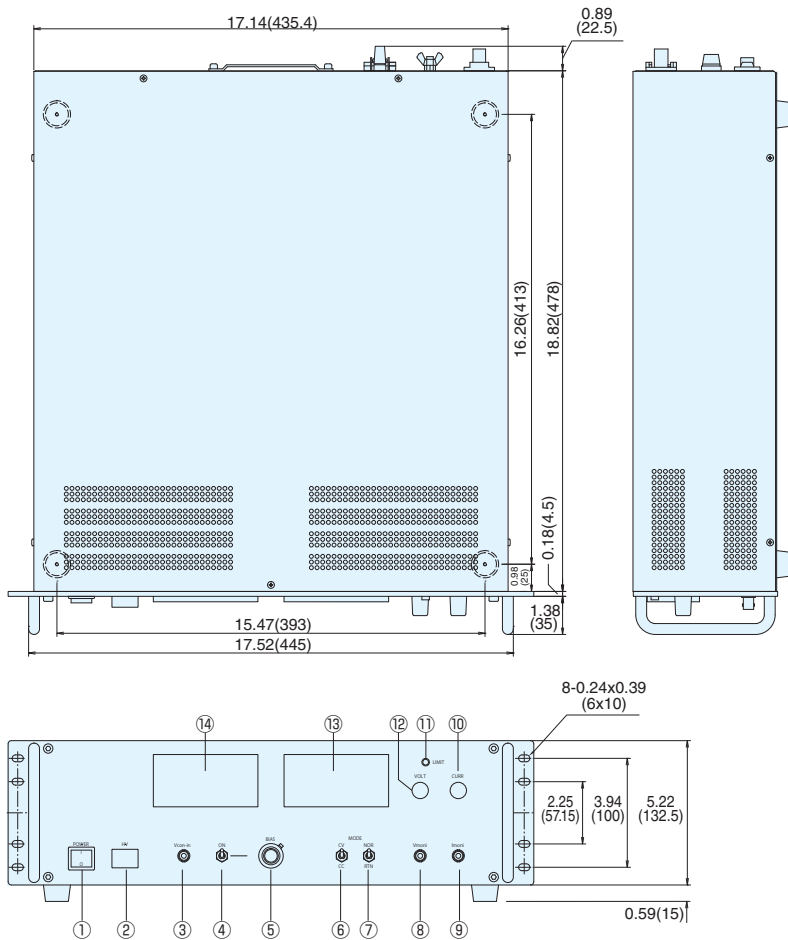


SPECIFICATIONS

Input Voltage	115VAC $\pm 10\%$ 50/60Hz single phase
Output Voltage	-10kV to +10kV
Output Current	-2mA to +2mA
Output Voltage Control (Vcon-in)	-10V to +10V (input impedance : $\geq 10\text{k}\Omega$)
Constant Voltage mode	Output voltage(V) = $V_{\text{con-in}} \times 1000 \pm 0.05\%$
Constant Current mode	Output current(mA) = $V_{\text{con-in}} \times 0.2$
DC Bias	Front panel 10-turn potentiometer enables setting between -100% and +100%
Return Current Control	Enable to control corona discharge current by using return terminal
Regulation(DC)	Line : $\pm 0.1\%$ ($\pm 10\%$ line change) Load : 0.1% (full load change)
Ripple	$\leq 0.1\%$ p-p
Remote ON/OFF	Enable to output ON/OFF by external contact signal (short:ON, open:OFF)

Stability	0.016%/Hr typ.
DC Output Display	Output Voltage 3.5 digits digital meter Output Current 3.5 digits digital meter
Slew Rate	30V/ μs
Output Monitor	Output Voltage : -10V to +10V Output Current : -10V to +10V (Output current monitor is tuned with detect current switch)
Protection	Output short circuit and arc protection, over voltage and over current protection. Blackout protection
Operation Temp.	0°C to +40°C
Storage Temp.	-20°C to +60°C
Humidity	20 to 80%RH(no condensation)
Accessories	Input AC cable 2.5meters (1) Output HV cable flying lead 1.5m (1) Instruction Manual (1)

DIMENSIONS inch(mm)



- ① POWER ON/OFF switch
- ② HV ON/OFF switch
- ③ Vcon-in connector
- ④ Bias ON/OFF switch
- ⑤ Bias setting dial
- ⑥ CC/CV mode change switch
- ⑦ CC mode NOR/RTN select switch
- ⑧ Output voltage monitor
- ⑨ Output current monitor
- ⑩ Current limit setting dial
- ⑪ Limit indication LED
- ⑫ Voltage limit setting dial
- ⑬ Digital current meter
- ⑭ Digital voltage meter

OPTION

-L(230V) Input Voltage AC230V ±10% single phase

*When ordering, please suffix L Mark(option mark) to the model number.

INPUT / OUTPUT CABLE

Input cable

Input : 115V model

Input : 230V model

➔ CABLE TYPE1

➔ CABLE TYPE3

Length is 2.5m for both.(see CABLE series catalog for details)

Output cable

CN-40-AHVP Output HV cable 1.5m length

Length is 1.5m only.

In case different length is required, contact to nearby sales office.

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 showed 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.



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