



# GAMMA

## REGULATED DC/DC HIGH VOLTAGE POWER SUPPLIES

### SERIES RC

**7 Models Covering the range of  
0-3 KV to 0-30 KV at up to 10 Watts**

#### FEATURES:

- Voltage Programmable
- Excellent Dynamic Regulation
- Arc-Over Protected
- Compact/Fully Encapsulated

#### APPLICATIONS:

- CRT Displays
- Photomultipliers
- X-Ray Tubes



RC10-15P & RC10-30P

#### MODEL GUIDE

MODEL	OUTPUT VOLTAGE	OUTPUT CURRENT
RC5-3	0 to 3KV	1.5mA
RC5-5	0 to 5KV	1mA
RC5-10	0 to 10KV	0.5mA
RC5-15	0 to 15KV	0.33mA
RC5-20	0 to 20KV	0.25mA
RC5-25	0 to 25KV	0.2mA
RC5-30	0 to 30KV	0.16mA
RC10-3	0 to 3KV	3.3mA
RC10-5	0 to 5KV	2mA
RC10-10	0 to 10KV	1mA
RC10-15	0 to 15KV	660uA
RC10-20	0 to 20KV	500uA
RC10-25	0 to 25KV	400uA
RC10-30	0 to 30KV	333uA

All units are available in Positive or Negative polarity. Add P or N as suffix to Model number to indicate polarity desired.

#### DESCRIPTION:

The GAMMA "RC" series of high voltage power supplies provides a compact well regulated high voltage source. Utilization of a self-excited ultra-sonic power oscillator insures low RFI and low stored energy.

All models include current limiting circuitry augmented by surge limiting resistors to limit the output current to 20% above maximum rated value under arc-overs, short circuits and overloads.

Output voltage may be programmed from 0 to maximum voltage from either an external 5K ohm potentiometer or a 0 to +10V low voltage ground referenced source.

All high voltage components are vacuum encapsulated to insure corona free, reliable operation.



## GAMMA HIGH VOLTAGE RESEARCH INC.

*Designers/Manufacturers-High Voltage Power Supplies*

1096 NORTH U.S. #1, ORMOND BEACH, FL 32174 \* TEL. 386-677-7070, FAX 386-677-3039



# GAMMA

# SERIES RC

## ELECTRICAL CHARACTERISTICS:

**Input Voltage:** +28VDC  $\pm 10\%$  \*  
 \*24VDC available - specify when ordering

**Output Voltage** Programmable from zero to maximum rated voltage from either an external 5K potentiometer or a zero to +10V low voltage ground referenced source

**Output Current:** 5 or 10 watts Maximum (according to model)

**Regulation:** Line: 0.01% Maximum  
 Load: 0.01%

**Ripple:** 0.05% Maximum

**Temp. Coefficient:** 0.01% per  $^{\circ}\text{C}$

**Stability:** 0.01% per 8 hours.

**Monitor Outputs:** 1) Voltage Monitor (Optional)  
 2) Current Monitor (Optional)

**Programming:**

**Method 1:** Resistance External 5K ohm potentiometer  
**Method 2:** Voltage: Zero to +10 Volts

## PHYSICAL CHARACTERISTICS:

**Dimensions:** 3 1/2" x 5 1/8" x 1 9/16" (up to 15KV)  
 3 3/4" x 6" x 2 3/4" (20 & 30KV)

**Weight:** 2.5 lbs (up to 15KV)  
 3.5 lbs (20 & 30KV)

**Input Connector:** Terminal Strip  
 See Outline Drawing

**Output Termination:** 12" Flying Lead

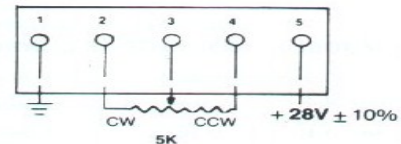
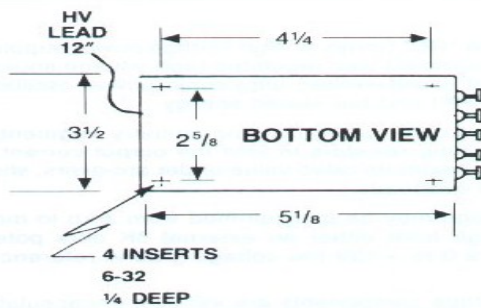
## ENVIRONMENTAL CHARACTERISTICS

**Temperature Range:** 0 to 50 $^{\circ}\text{C}$

## INSTALLATION:

- Four #6-32 x 1/4 screws are provided for mounting purposes. If screws are replaced, the depth into the inserts should not exceed 1/4".
- Solder two 16 gauge leads to the (+) and (-) input terminals for connection to the external power supply source.
- Solder the programming potentiometer to the appropriate terminals.
- Ground the (-) input either at the source supply or at the module terminal.

## OUTLINE DRAWING & PROGRAMMING INFORMATION



Method 1: Connect Potentiometer per drawing.  
 Method 2: Via External Voltage Source  
 Apply 0 to 10V between terminals 4 (-) and 3 (+).  
 Note: Program source may be either floated or grounded.



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