

# Reversible Polarity & High Stability

**NEW**

**KA-R** ■■■■

—  $\pm 10\text{kV}$  to  $\pm 30\text{kV}$   
Reversible Polarity —

- > Designed for SEM.MASS applications
- > High Stability 0.001%/5min
- > Ultra Low ripple noise
- > Output polarity change by external signal
- > Output voltage, current monitor



APPLICATIONS
* SEM
* MASS Spectrometry

## SUMMARY

KA-R series is an ultra low ripple, highly stable HV power supply. It is the perfect choice for SEM and MASS applications. The output polarity can be controlled with an external signal.

## LINEUP

Output Voltage (kV)	Output Current	Output Power (W)	Model	Ripple (mVp-p)	Input Current (A typ.)
0 to $\pm 10$	1mA	10	KA-10R1	30mV	1
	10mA	100	KA-10R10	500mV	6
0 to $\pm 20$	400 $\mu\text{A}$	8	KA-20R0.4	70mV	1
	1.5mA	30	KA-20R1.5	150mV	2
	5mA	100	KA-20R5	1V	6
0 to $\pm 30$	250 $\mu\text{A}$	7.5	KA-30R0.25	100mV	1
	3.3mA	100	KA-30R3.3	2V	6

## SPECIFICATION

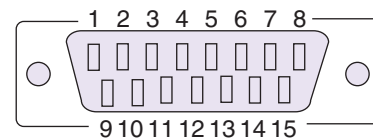
<b>Input Voltage</b>	+24Vdc $\pm 1\text{V}$
<b>Output Voltage Control</b>	External control voltage 0 to 10V(Vcon-in)
<b>Reverse Polarity</b>	TTL(Reversing time 90% to 90% 1.2sec typ.)
<b>Line regulation</b>	$\pm 0.001\%$ of F.S. for $\pm 1\text{V}$ input change
<b>Load regulation</b>	$\pm 0.001\%$ of F.S. for 100 $\mu\text{A}$ to 100% load change
<b>Stability</b>	10ppm/5min, 50ppm/Hr(After 3Hr warm-up) 100ppm/Hr(After 1/2Hr warm-up)
<b>Temperature coef</b>	25ppm/ $^{\circ}\text{C}$
<b>Output monitor</b>	Voltage: 0 to 10Vdc Current: 0 to 10Vdc
<b>HV Output cable</b>	HV shielded cable 1m
<b>Protection</b>	Overvoltage and short circuit protection
<b>Temperature Range</b>	Operating: 0 to 50 $^{\circ}\text{C}$ Storage: -20 to 60 $^{\circ}\text{C}$
<b>Humidity</b>	20 to 80%RH(no condensation)
<b>Accessory</b>	Control connector

## OPTION

<b>-LTc10</b>	Temperature coef	10ppm/ $^{\circ}\text{C}$
<b>-LX</b>	Control connector	Molex 12-pin
	Base plate	200W x 240L(mm) (20kV, 30kV) 200W x 155L(mm) (10kV)

\*Add "-LTc10" "-LX" to the Model number at time of order.(i.e. KA-10R1-LTc10X)

## D-Sub CONNECTOR ASSIGNMENT

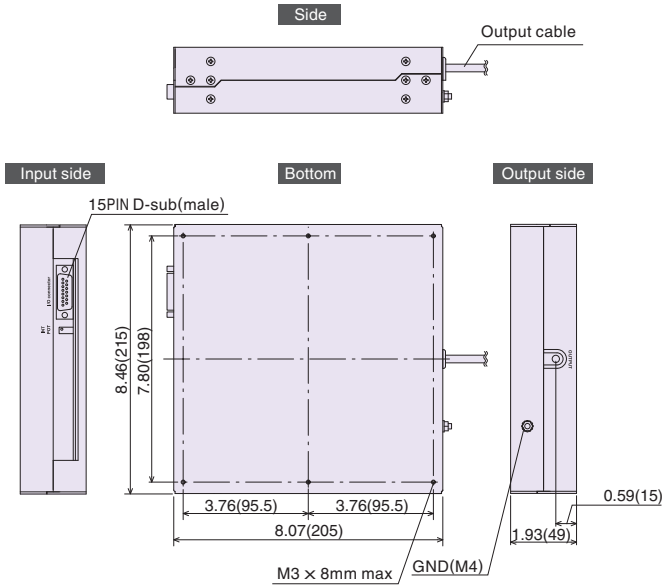


- 1 Ref. +10V
- 2 Output Voltage Control 0 to 10V
- 3 Internal Potentiometer\*
- 4 Internal Potentiometer\*
- 5 Output Voltage Monitor 0 to 10V
- 6 Reverse Polarity  
TTL"Hi" is Negative  
TTL"Lo" is Positive
- 7 COM
- 8 + 24Vdc input return
- 9 COM
- 10 Polarity status (+)
- 11 Polarity status (-)
- 12 HV ON/OFF(GND=ON, OPEN=OFF)
- 13 Output Current Monitor 0 to 10V
- 14 COM
- 15 + 24Vdc input

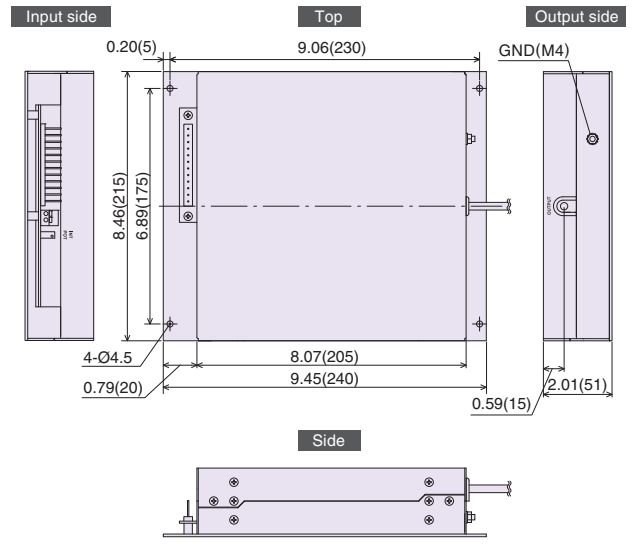
\*Switch to internal potentiometer by shorting Pin 3 and Pin4

## DIMENSIONS inch(mm)

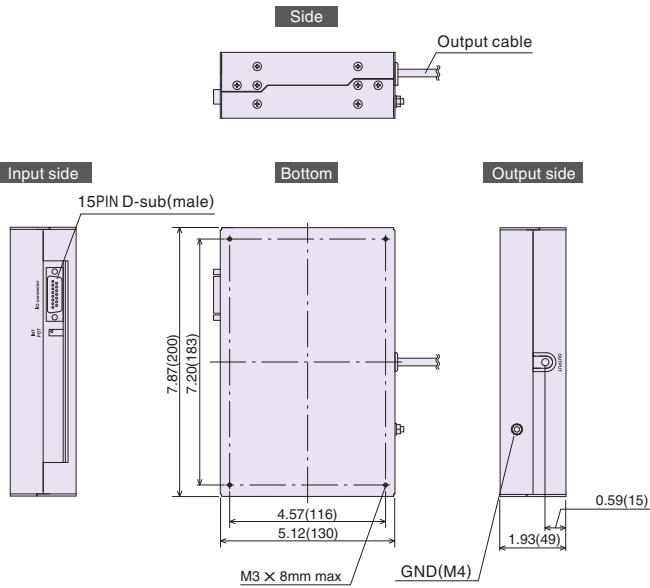
10kV 100W(standard)  
20kV,30kV (standard)



10kV 100W(-LX)  
20kV,30kV (-LX)



10kV 10W (standard)



10kV 10W (-LX)

