



i n s t r u c t i o n m a n u a l

H i g h v o l t a g e p o w e r s u p p l y u n i t

Model: ESG5-30K01PSK1



Element Co., Ltd.

5-13-3Onodai,Minami-ku,Sagamihara shi,
KanagawaPrefecture,252-0331

Tel 042-786-5063

Fax 042-786-5065

Website: <http://www.kocho.jp>

Precautions for use when using this unit, be sure to refer to the instruction manual for your safety. Please observe the following notes.

1. This product is intended for general electronic equipment. This product Medical equipment and transportation equipment whose damage may affect the human body and facilities Please do not use in applications such as or in environments subject to vibration. Please contact us when using other than general electronic equipment.
2. This product is equipped with an overcurrent and short circuit protection circuit, Avoid using a short circuit state, as it may cause a failure.
3. Do not use this product under nonstandard electrical and environmental conditions. It may break down under excessive input voltage or high temperature.
4. Avoid using this product in a place with much dust or where corrosive gas is generated.
5. This product generates high voltage. Do not touch the high voltage output directly. Touching may cause electric shock, injury or death.
6. When touching this product, shut off the input power and leave it for a sufficient time Make sure that the high voltage accumulated inside is discharged and touch it.
7. This product sucks dust and dust. Sufficient creepage a distance when used with consideration for insulation distance, wiring treatment, etc.
8. If a failure or abnormality occurs during use, immediately shut off the input and start operation. Please stop and contact us.
9. This product is a power supply designed and manufactured for equipment integration, equipment and research. Be sure to attach a warning label because high voltage is generated.
10. Since this product generates high voltage, a grounding of 3rd class or more make sure to secure the ground wire with the shortest possible wire. Please contact us if you have any problems with wiring.

<Features>

It is a small high voltage power supply unit that was manufactured for electrospinning.
The output part uses a crocodile so that the needle can be inserted.
The crocodile clip itself is not a high voltage specification, so please handle it please be careful.

<Specification>

Input voltage: AC100V \pm 10%

Output voltage: 0 to +30 kV 100 μ A

Output voltage fluctuation rate

Input fluctuation: \pm 0.01% (when changing \pm 10%)

Output fluctuation: \pm 0.01% (0 to full load)

Ripple: 0.05%

Operating temperature range: 0 to + 50 ° C

Output adjustment: 1 front panel VRCV (voltage)

Output monitor-2 3.5 digit digital panel meters

Voltage monitor: 30.0 kV Current monitor: 100.0 μ A

Output part: One withstand voltage DC35kV high voltage connector Cable tip
crocodile clip with a high-voltage connector 2m 1 piece :

Protection circuit: Overload, short circuit

External dimensions: W250 x H145 x D310 mm

<Operation method>

1. Connect the ground terminal E to three or more types of ground.
2. Securely connect the high voltage output line to the load. (Attached high voltage output line) Also firmly connect the return line from the load. (Attached ground wire)
3. After checking the rating of the input power supply, connect (AC100V).Set the INT / EXT switch to INT.
4. 8P and 9P on the rear 16P terminal block are interlocked with door switches, etc. please connect to. * A short bar is installed at the time of shipment. : The required PIN from the rear terminal block 10P, 11P, 12P, etc. Please connect to a safety device.
5. Turn on the HV ON switch and gradually turn the CV in the CW direction.
6. Display monitor 3.5 digit digital panel meter 2 units
Output voltage value monitor 30.0 kV Output current monitor 100.0 μ A
7. To stop high voltage output, turn off the HV ON switch Turn off the input power.

* If the INT / EXT switch is set to EXT, an external signal will be sent. you can control the output voltage,

* Voltage and current monitor signals can be taken out from the rear terminal block.

* Connect the interlock input and status output from the rear terminal block.

Rear terminal block 16P (NC after 13P)

A short bar is mounted on 8P9P when shipped.

1P REF (+ 10VDC)

2P 0V (Signal common)

3P EXT CV (0 to + 10VDC)

4P NC

5P VM (0- + 3VDC at 0- + 30kV)

6P CM (0 to +10 VDC at 0 to 100 μ A)

7P 0V (monitor common)

8P HV ON1 (no-voltage contact input DC30V 100mA or more)

9P HV ON2 ((//)) 8P 9P High voltage output ON at short circuit

10P STATUS COM (contact specification DC30V 1A)

11P STATUS NO

12P STATUS NC

13P~16P NC