

## CORONA AEROSOL CHARGER: CC-8020

The IONER CC-8020 is a non-radioactive, unipolar, reversible particle charger designed to charge the particles by diffusion of the ionized air species adsorb onto particle surface.



This unipolar charging system is highly efficient in the low-nm range and its charging laws have been fully characterized (1), so sizing in the range 5-35 nm can be performed.

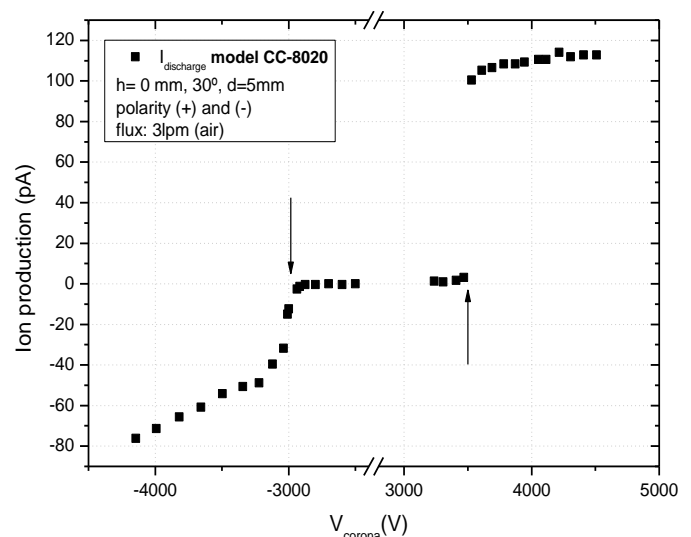
The CC-8020 can be set by the user on both, positive and negative polarities. It has been designed to prevent filamentary discharge, avoiding electrode erosion and generation of vapours.

The CC-8020 has been characterized for different operating conditions. Useful for most of the charging needs for aerosol and volatile measurements. (1)

### SPECIFICATIONS

Maximum air flow	10 l/min
High voltage generator	5 kV
Weight	5 Kg.
Dimensions	300 x 130 x 210 mm
Frequency	50 – 60 Hz
Nominal Voltage	100 -240 VAC
Max. Consumption	100 W
Working Temperature range	5 – 40 °C
Humidity working range*	5 – 80 %
Air inlet connection	Fast connection 6 mm
Air outlet connection	¼ Compression fitting

\* Non-condensing



1.- M. Alonso, M.I. Martin, F.J. Alguacil "The measurement of charging efficiencies and losses of aerosol nanoparticles in a corona charger" Journal of Electrostatics 64 (2006) 203–214

# CC-8020 CORONA CHARGER

## APPLICATIONS

- Aerosol sizing in the 5-35 nm range. With an ion current higher than 100 pA and a stability around 1%, the efficiency of the CC-8020 makes it the best option to charge particles under 35 nm.
- Nanoaerosol charging for particle collection.

## CHARGE DISTRIBUTION (1)

The optimal corona voltage for the CC-8020 has been studied to be between 3.0 and 3.2 kV with air as carrier gas at a flow rate of 2 slpm.

