HCTM CO., LTD.

XRC
Soft X-Ray Charger (XRC-05)



HCTM's Soft X-ray Charger (XRC) neutralizes the irregular charged particles of the atmosphere to Ion balance ±0V. The XRC-05 is a Bipolar charger that provides Soft X-rays instead of a radioactive source such as Am241 (Americium-241), Kr85 (Krypton-85), Po210 (Polonium-210).

Soft X-rays are easily absorbed even by a thin layer of air and have low permeability. The energy of Soft X-ray is approximately 1/3,000 lower than X-ray and is absorbed by the surrounding air.

Other radioactive materials such as Am241, Kr85 and Po210 adversely affect human health and surrounding environment and require close supervision and more strict licensing policies. Soft X-ray's are currently widely used for anti-static applications.

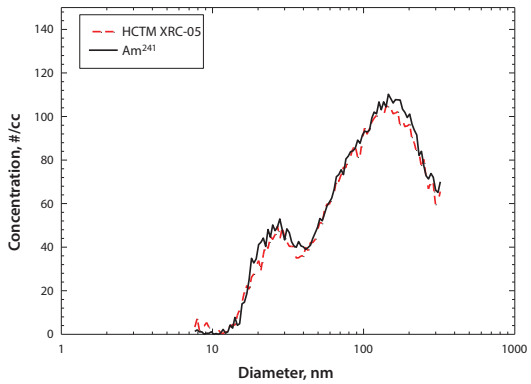
The XRC-05 is safe, easy to use, requires low maintenance, and has user-friendly data export features for scientific applications such as aerosol research.



Features and Benefits

- Easy to Operate, Safe, and Simple
- No particle, electromagnetic wave, or ozone generation
- Environmentally safe and non-radioactive source
- Low maintenance
- Compressed air not required
- Imbedded Controller, Simplified handling due to no transportation restrictions

SNPS distribution data, atmospheric aerosol



Applications

- Particle charging investigations
- Particle generation
- Sub-Micron particle sizing
- Laboratory and in Field Applications

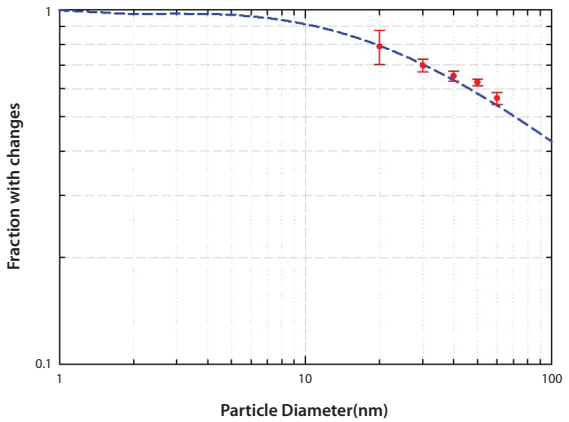
Specifications

Model	XRC-05
Ion Generation Method	Soft X-ray <11 keV
Source	Soft X-ray tube
Flow Rate Range	0.3 - 5 L/min
Equivalent X-ray Dose	< 0.13 μSv/h at 10 cm distance
Particle Production	<0.1 particles/cm^3
Maximum Particle Concentration	10^7 particles/cm^3
Aerosol Medium	Air or N2 only
Power Consumptions	8.4W
Cooling Method	Natural cooling
Aerosol ports	¼ in O.D.
Communication Modes	RS-485
Dimension (LWH)	27.3 x 7.2 x 19.1 cm (10.8 x 2.8 x 7.5 in)
Weight	1.11 kg / 2.45 (lbs)
Input Power	Adapter(100 ~ 240 V, 50/60 Hz Output: 12 VDC, 2.0 A)
Warranty	1 year (8,000 hrs.)

- **ACCESSORIES** DC 12V Adapter / Power cable / Safety Key

- The XRC-05 is qualified as a "Fully Protective Type" according to the Safety Act. Thus, it can be safely used since a separate radiation shield is not required.
- The XRC-05 has a useable lifetime of 8,000 hours. To maximize the lifetime of the unit, turn off the power when not in use. When the lifetime of the XRC-05 expires, the LED will turn yellow. Return the XRC-05 to HCTM or its authorized representative for repair and calibration.

XRC-05 Performance Test According tp Particle Size



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