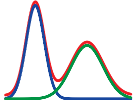


CAMBUSTION ESP



Electrostatic Precipitator

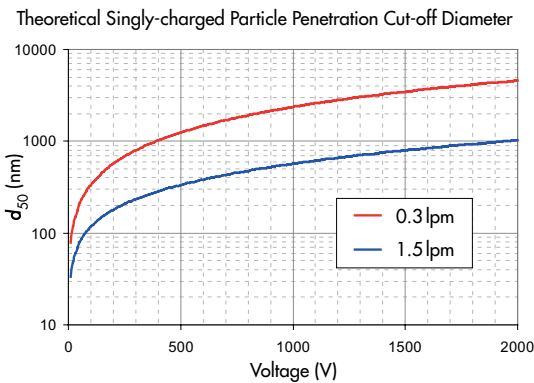


- Selectively removes pre-charged particles from an aerosol flow.
- Allows quantification of the uncharged particle population for the CPMA-Electrometer mass standard.

Introduction

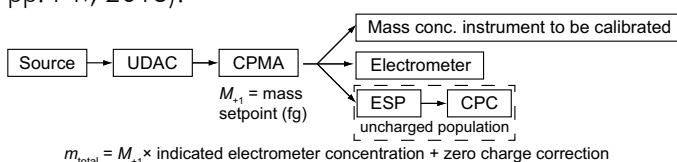
The Cambustion Electrostatic Precipitator selectively removes pre-charged particles from a nanoparticle aerosol stream. With a precipitation voltage of up to 2 kV, the d_{50} cutpoint of the precipitator can be varied to up to 1 μm at 1.5 lpm flow, or 4.5 μm at 0.3 lpm flow. With a built-in high voltage power supply and LCD voltage indicator, the voltage can be varied from a front panel control, or via an analogue input channel.

Performance



Use as part of a CPMA-Electrometer Mass Standard

The Centrifugal Particle Mass Analyzer (CPMA, Cambustion) can be used with a Unipolar Diffusion Aerosol Charger (UDAC, Cambustion) and an aerosol electrometer to form a suspended particle mass concentration standard for calibration of other mass concentration instrumentation (Symonds *et al.*, Aerosol Science and Technology **47**(8), pp. i-iv, 2013):



This method requires the concentration of uncharged particles passing through the CPMA to be quantified. The Cambustion ESP placed in series with a Condensation Particle Counter is an ideal tool for this application.

Specifications

Design flow rates	0.3–1.5 lpm
Precipitation voltage range	0–2 kV
Maximum d_{50} for singly charged particles	~4.5 μm at 0.3 lpm ~1.0 μm at 1.5 lpm
Electrode diameters	22.0 / 28.8 mm
Classification length	250 mm
Voltage display	Backlit LCD
Status indicator	OK / overcurrent / voltage not achieved
Voltage selection	Local control or by remote analogue voltage
Remote control voltage input	2–10 VDC, BNC connector
Sample inlet / outlet	6 mm o.d. stub
Power requirements	90–240 VAC, 50/60 Hz, 100 W Max
Max dimensions (w × d × h)	420 × 300 × 150 mm
Weight	3.5 kg

For more information, please contact:

sales@cambustion.com Tel: +44 1223 210250
N. America Tel: 1-800-416-9304

www.cambustion.com/products/precipitator

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All specifications subject to change without notice

