

## APPLICATION NOTE

# HIGH VOLTAGE POWER SUPPLIES FOR PARTICLE FILTER



Electrostatic precipitators or electrostatic particle filters are used to clean waste gases, especially in processes that emit a large quantity of waste gas particles. The high-voltage supplies required for this must be easy to integrate into the specific set-up. As a supplier of HV solutions, iseg has many years of expertise in this field, and all the experience gained from customer applications is incorporated into the design of our systems. Electrostatic particle filters operate on the basis of positive ionisation. The particles in the polluted air are charged using positive ions and they collect on a negatively charged collector plate.

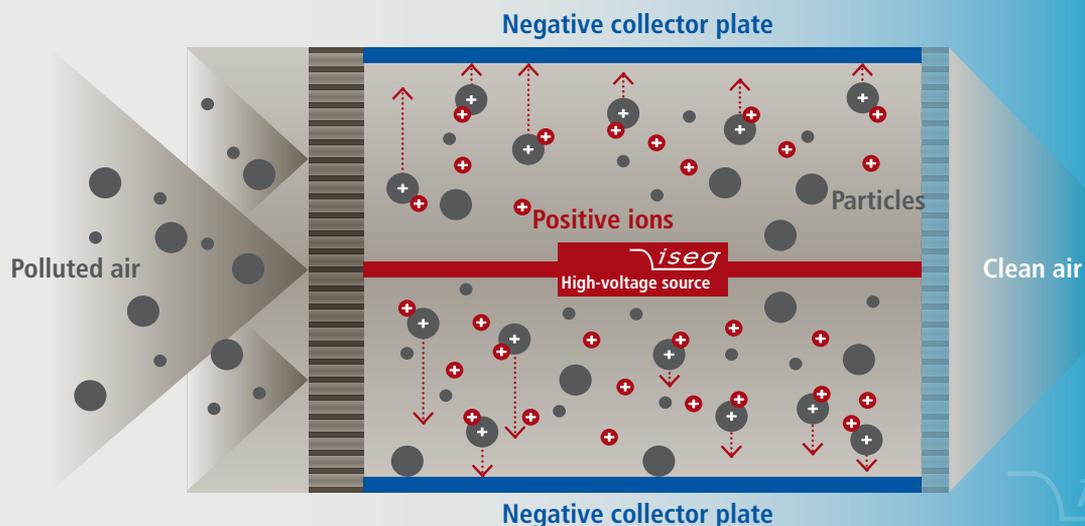


## PARTICLE FILTER WITH ISEG HIGH-VOLTAGE SUPPLIES

- ▶ Short-circuit-proof
- ▶ Flashover-proof
- ▶ Can be operated in idle mode (no load)
- ▶ High efficiency of the high-voltage supply of up to 93%
- ▶ Can be operated at up to 50°C (122°F) ambient temperature
- ▶ Customisable with short development times
- ▶ Also suitable for mobile applications, e.g. cleaning machines and street sweeping vehicles



## HOW ELECTROSTATIC FILTERS WORK



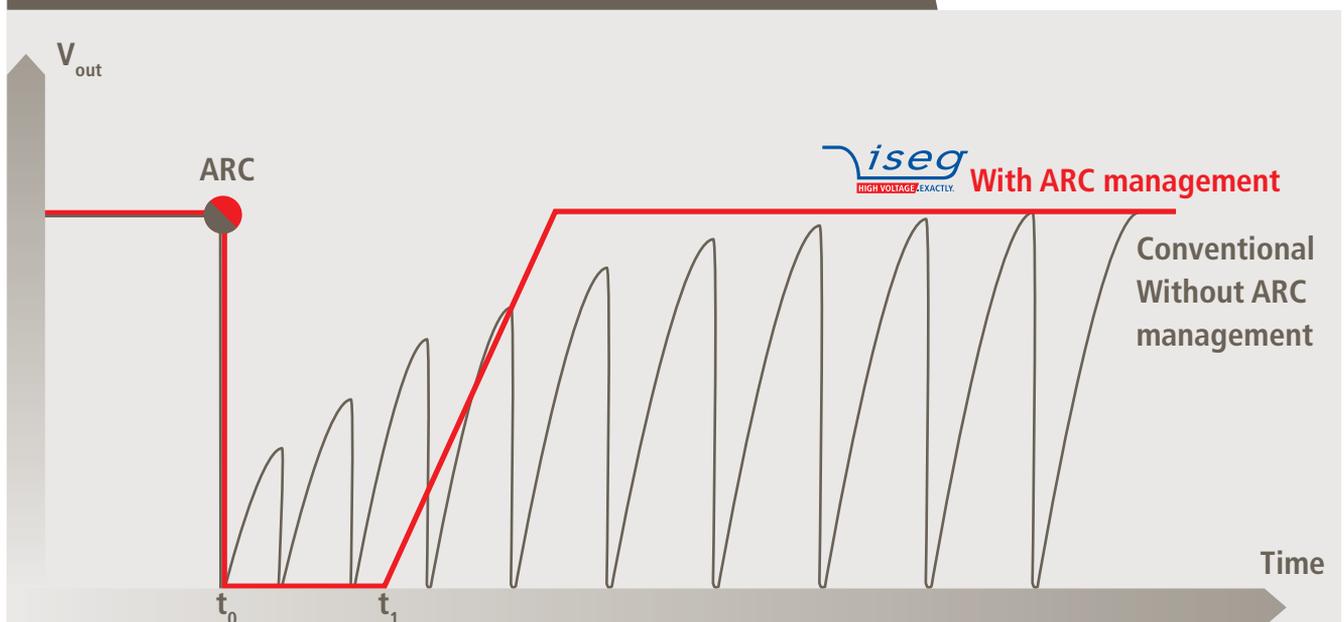
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### PARTICLE FILTER



iseg high-voltage supplies are equipped with ARC management tailored to individual requirements. This allows very fast ARC detection, enabling the high-voltage supply to react immediately and precisely to ARCs. When an ARC is detected, HV generation is deactivated for a few milliseconds. Afterwards, the specified output voltage is restored with a defined voltage ramp. In units from the iseg HPS series, various ARC management parameters can be set, such as the switch-off time, the interval between individual ARCs or the voltage ramp.

#### STABLE PROCESS ENABLED BY ARC MANAGEMENT



#### ISEG HIGH-VOLTAGE SUPPLIES FOR PARTICLE FILTER

**EPS**  
SERIES



**GPS**  
SERIES



**HPS**  
SERIES



#### Get in touch.

We'll be happy to give you advice, and together we'll find the best solution for your high-voltage supply.

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