## Diesel generator emission control has never been easier!

Diesel generators are an excellent power source, with the exception of their emissions. Particulate Matter (PM)/soot is a significant contributor to air pollution causing negative environmental and health impacts worldwide.

The GreenTRAP<sup>TM</sup> VOLT 300 is a passive/active PM control system that consists of a diesel particulate filter (DPF) integrated with a set of electrical heaters and can automatically perform self-cleaning (regeneration) without relying on engine exhaust temperature. It is designed to control emissions of PM from medium and heavy duty diesel engines in stationary applications. The GreenTRAP<sup>TM</sup> VOLT 300 system uses a proprietary catalyst on the inner surfaces of the filter walls which reduces the regeneration temperature and therefore allows the system to passively regenerate in favorable engine exhaust operating temperatures leading to a less frequent active regeneration requirement. When temperature is not sufficient for passive regeneration, a set of electric heater coils are used to increase the exhaust temperature for active regeneration. An electronic control unit (ECU) evaluates the system parameters such as temperature, pressure and exhaust mass flow rate in real time and uses these values to predict and activate the regeneration cycle.

The GreenTRAP™ VOLT 300 ECU continuously monitors and measures the performance of all system sensors and components. In the event of malfunction, the ECU will indicate the existence of a problem to the operator via the system display.

The GreenTRAP™ VOLT 300 system can reduce 95-99% PM out of the engine exhaust. In addition, the system provides a reduction in Carbon Monoxide (CO) and Hydrocarbons (HC) emissions greater than 90% and 95% respectively.





Sold and supported globally, Nett Technologies Inc., develops and manufactures proprietary catalytic solutions that use the latest in diesel oxidation catalyst (DOC), diesel particulate filter (DPF), selective catalytic reduction (SCR), engine electronics, stationary engine silencer, exhaust system and exhaust gas dilution technologies. Our reliable and real-world emission solutions will extend the usable life of existing equipment while allowing you to avoid costly future replacements. We manufacture emission control solutions that are California Air Resources Board (ARB) and the U.S. Environmental Protection Agency (EPA) verified. As the emission control authority, we are here to help you navigate through the hassles and complexities of emission control compliance.



## **GreenTRAP™ VOLT 300 PRODUCT OVERVIEW**

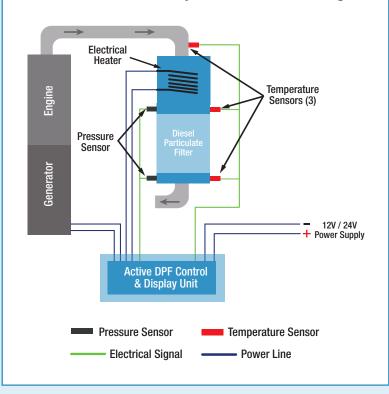
## How does the GreenTRAP™ VOLT 300 Active DPF work?

Nett Technologies' GreenTRAP™ VOLT 300 is a passive/active DPF system which is designed to control emissins of Particulate Matter (PM) from medium and heavy-duty diesel engines in stationary applications. The system contains a set of electric heater coils that are used to increase the temperature of the exhaust for active regeneration allowing the system to run without relying on engine exhaust temperature.

The wall-flow DPF traps PM emissions emitted by the diesel engines. The cylindrical filter element of the device consists of many square parallel channels running in axial direction, separated by thin porous walls. A proprietary catalyst is wash-coated on the inner surfaces of the monolith channels. The catalyst lowers the PM oxidation temperature allowing filter to passively regenerate at lower temperatures.

When the exhaust temperature is not sufficient for passive regeneration, an active regeneration will be automatically triggered. During active regeneration, the electrical control unit utilizes excess power from your generator in a controlled manner to increase the exhaust temperature to levels that can safely oxidize collected soot in the DPF.

## **GreenTRAP™ VOLT 300 System Schematic Drawing**



### **PRODUCT FEATURES**

- Active system (electrically regenerated)
- Computerized controller with 3 customizable alarms
- Maintenance intervals of 2000 to 6000 hours
- Programmable regeneration profile with data logging capabilities
- Colour display informing of system operational conditions and status
- Load measurement feature to prioritize generator demand
- Energy efficient
- Compact to fit any space restrictions

# EMISSIONS REDUCTION PERFORMANCE Typical GreenTRAP™ VOLT 300 Emissions Reduction Performance >90% reduction Carbon Monoxide (CO) Hydrocarbons (HC) Particulate Matter (PM)

