



Retrofit Emission Control Device (RECD)

**A REVOLUTIONARY
CLEAN AIR SOLUTION**



Cummins introduces a revolutionary clean air solution for all our Diesel Genset Customers. The Retrofit Emission Control Device (RECD) is designed based on filter-less technology by utilizing Electrostatic Precipitation fundamentals. It is highly efficient in improving air quality and can capture Particulate Matter Carbon from polluting the air with more than 70% efficiency. These RECDs custom designed for Cummins Gensets are compliant with the National Green Tribunal order O.A 681/2018. **So get your RECD today and join Cummins in making a positive impact on the environment!**



No Manual Cleaning



No Choking



Low Maintenance



No Filter Replacement



No Water Usage



No Chemical Usage



No Solvent Usage

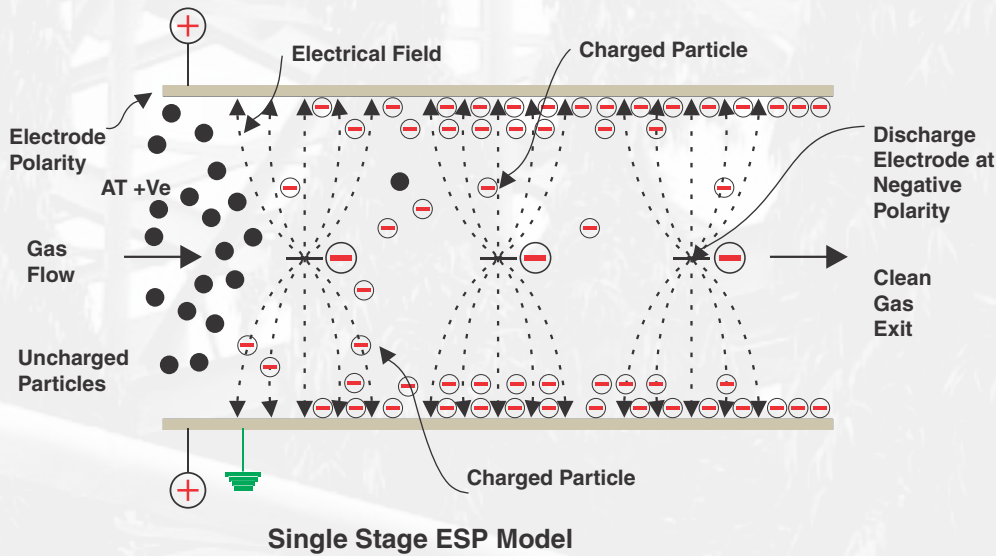
Salient Features:

- Energy efficient as requires no active regeneration. No dependency on exhaust temperature.
- Robustness to wide variety and conditions of in-use DG sets. Remote installation possible
- Unmatched and minimal flow restriction compared to conventional filter based technologies.
- No impact on DG operational efficiency.
- On board diagnostics and telematics solution (IoT) with cloud based push notifications for users
- Separated particulate matter can be collected and used as a high value raw material in paint, dye and plastics industry hence no disposal requirements or secondary pollution
- Simple, efficient and robust design that gives consistent performance and long operational life.
- All weather proof and low maintenance designs

Technological Advantages

Technology	PM Capture Efficiency	Initial Cost	Operational Cost	Prominent Failure Mode	Impact on Engine	Ease of maintenance	Robustness to exhaust challenges
Diesel Oxidation Catalyst (DOC)	20-40%	Low	Negligible	Face plugging	Negligible	Not serviceable	No
DOC + Partial Flow Filters or Partial Oxidation Catalyst (PFF/POC)	60-75%	Moderate to high	Moderate (additional fuel consumption due to back pressure)	Soot load & thermal event	Variable back pressure	Not serviceable	No
DOC + Diesel Particulate Filter (DPF)	>90%	High	High (additional fuel consumption due to back pressure)	Soot load & thermal event	Variable back pressure	Periodic Filter Cleaning (Ash / Soot Removal)	No
Water/ Solvent Based Exhaust Scrubbers Solution	NA	High	Moderate to high (wash fluid and chemical replenishment)	Fouling and engine hydro-lock	Back pressure due to HE	Complex and frequent service	Probably Yes
Electrostatic Precipitator Technology	80%-90%	Moderate	Negligible	None	Negligible & control parameter	Easy service	Yes

Working Principle



- The RECD is installed after the DG exhaust (muffler/silencer). No modification to the exhaust is required.
- Flue gas enters the RECD and is confronted with Corona discharge.
- Passing through high voltage field, surface of particulate matter acquires electrical charge and it gets attracted to electrodes of opposite charge.
- The PM gets agglomerated and the size of the PM increases beyond PM10 (10 microns).
- This agglomerated PM is collected in powder form and is available for environmentally safe disposal/reuse.

Specification Table

CUMMINS PART NUMBER	AX1016671	AX1016672	AX1016673	AX1016674	AX1016675
APPLICABLE TO DG RATING (KVa)	1010	1250	1500	1750	2000
ENVELOPE ^s - L x W x H (mm)	2895 x 2100 x 2871	2895 x 2100 x 3219	2895 x 2970 x 2871	2895 x 2970 x 3219	2895 x 3840 x 2871
APPROXIMATE GROSS WEIGHT (kg)	2600	2900	3700	4000	4850
OPERATIONAL POWER CONSUMPTION (kWe)	1.5	2	2	2	3
ENVIRONMENTAL PROTECTION	CANOPY	CANOPY	CANOPY	CANOPY	CANOPY
SOOT COLLECTION FREQUENCY*	500 Hrs/Yearly	500 Hrs/Yearly	500 Hrs/Yearly	500 Hrs/Yearly	500 Hrs/Yearly
IoT CAPABILITY	Yes	Yes	Yes	Yes	Yes

^s Excludes pipe projections and anchor brackets

* Operation dependent parameter

The product can be subject to any future changes in above specifications as continuous improvement efforts and compliances

Note: While RECDs are compliant to NGT order O.A 681/2018, the RECDs for DGs greater 800 KW are not certified by any CPCB approved labs since the S&P for RECDs catering to DGs greater than 800 KW is not notified by CPCB



This product is marketed and distributed by Cummins India Limited
Toll free No.: 1-800-210-2525

Product manufactured by Pi Green Innovations Private Limited

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