ELECTRONIC ANTI-CORROSION SYSTEMS

Detailed Product Information

Introduction

The CATIII is a unique system that can replace or supplement traditional coating methods to control rust. CAT Systems has been the innovator in high performance Electronic Rust Protection products for over 30 years. The CATIII Electronic Rust Protection System is the very latest in technology, designed to stop rust in the harshest environmental conditions.

We thank you for your interest in the CAT Electronic Anti-Corrosion System.

"Our goal is to ensure that our products and service are the benchmark by which the competition is measured!"

Technical & Design Summary

The CAT System leverages an optimal combination of voltage and frequency to provide maximum corrosion suppression in "free air" steel structures such as automobiles, mobile plant, machinery, and suitable fixed structures. The **Modular Design** can easily be expanded - The Main Generator Module has 2 output circuits. Each output circuit can supply up to 6 coupler pads linked in series (or a total of 12 Coupler Pads for both circuits). Additional coupler pads can be added at any time to boost the operation of the system.

How does it work?

Controlling rust or corrosion electronically is not a new technology. Cathodic protection systems have been used to control corrosion in ships, jetties, land based fixed structures like bridges, tanks and subterranean metal structures for over 100 years. Traditional Cathodic Protection systems require sacrificial anodes which were totally separated from the steel being protected. This technology relies on soil or water surrounding the metal structure and the anode. With the aid of an electrical charge the sacrificial anode would corrode because the anode was made of a "softer" metal compared to the metal it was protecting.

Free air structures such as motor vehicles or mobile plant and machinery however are not submerged in water or buried in soil so a different approach was required. The original inventor of the CAT System discovered that by "impressing" or "forcing" an alternating current (AC) with a specific waveform and frequency into the metallic body of a motor vehicle the rusting process could be interrupted (slowed) and in some cases stopped all together. This new technology was thoroughly tested in the UK and proven to be effective before it was released onto the market in 1989. The CAT technology has been continually tested and refined ever since and many improvements have been made along the way. It should be noted that laboratory and real-life testing has proven the CAT technology interrupts the rusting process however the exact reason why is still often debated amongst physicists, electrical engineers, and metallurgists. It is widely believed that "stray currents" produced by the myriad of electrical connections and electronic devices in modern motor vehicles are what promote corrosion; and the CAT technology simply causes these stray currents to behave in an orderly manner instead of just randomly moving through the metal of the vehicle. This theory is supported by salt fog chamber testing; the most recent conducted independently by SGS Laboratories in April 2015. (Report available on request)

Advantages of CAT Rust Protection

There are many great reasons to choose a CAT.

- Almost all the metal on the vehicle or structure is reached, both inside and out. All the places where traditional (spray) coatings may be missing or not typically applied.
- The process is good for a lifetime.
- The rust suppression is an ongoing process 24/7.
- There is no danger to the environment.
- There is no electronic interference – CAT is certified to comply Australian, US and European *EMC regulations*.
- CAT is easily installed - no drilling or fixing with screws.
- CAT is designed tough for the harshest conditions.
- CAT can help avoid costly rust repairs.
- CAT is both 12VDC and 24VDC compatible. (or 240VAC with a converter)
- CAT will not send your battery flat – active low voltage cut off is standard.
- CAT slows paint oxidation.

The Importance of Paint.

The overall effectiveness of the CAT system is dependent on a dielectric coating. In most cases this will be paint. Where metal surfaces are left bare, a thin layer of ferric oxide may form. A good quality coating is essential to maximise the protection offered by the CAT System. Where the paint becomes thin and porous due to age or oxidation there is a risk that salt, acid and moisture may penetrate to the metal beneath. To avoid this, it is recommended the paint be sealed for maximum performance. Rust repairs can be eliminated, and maintenance costs reduced, but it is not simply a matter of installing a CAT unit and expecting miracles. A system must be applied, not just a device.

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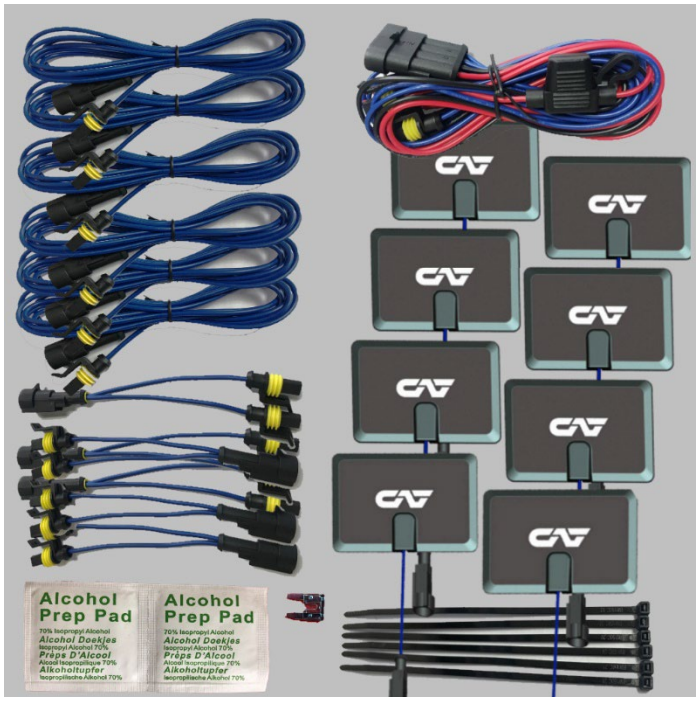
CAT 8 Pad System
(CATIII-8)

Specifications

Input Voltage	12V/24VDC
Operating Voltage	9V-32VDC
Operating Temperature	-30°C~85°C
Ground	- Negative
Current Draw	25ma +/-
Low Voltage Cut Off	11.9V/23.9V
High Voltage Cut Off	15.1V/28.1V
Dimensions (mm)	Main Module – 75 x 75 x 35 Induction Pads – 70 x 70 x 5



LED Status

Flashing or Solid GREEN	Normal Operation
Flashing AMBER	Battery voltage or temperature too high or too low
Flashing RED	Pad/s not mounted correctly
Solid RED	Extremely low or high voltage or internal fault condition
No Light	Power not connected - Blown Fuse – internal fault

Certifications

C-Tick (Australia)
Application of the C-Tick mark signifies compliance with appropriate Australian EMC standard.

FCC (United States)
The United States requires products tested by FCC and certified by the FCC for EMC compliance.

CE Mark (Europe)
The CE marking confirms EMC compliance.

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