

MARINE ISOLATION TRANSFORMERS

What are the benefits of installing a Charles Industries' Marine Isolation Transformer on my boat?

Corrects and resolves dockside AC power issues, allowing continued power to your boat's electrical system.

- Eliminates the need for reverse polarity sensing circuit breakers and indicators by correctly polarizing the onboard AC power which resolves reverse polarity
- Eliminates the hazard of connecting to an unknown and/or foreign shore power sources
- Eliminates stray current galvanic corrosion which prevents damage to through hull fittings, outdrives, drive shafts, struts, propeller and trim tabs
- Eliminates the need for a galvanic isolator and a status monitor
- Eliminates the need for AC ELCI/RCD sensing breakers
- Fully isolates the boat from potential electrical shore-side hazards
- Iso Boost Transformers are even able to increase low dockside AC voltage power by 15% enabling the AC systems to run properly and not struggle with low voltage that can lead to poor performance and premature failure of equipment

Inherently suppresses various interference/harmonics from the marina's AC power system with a type of barrier called the "static shield."

- Suppresses voltage spikes and fluctuations that can damage air conditioners, refrigeration systems, computers, TVs, audio/video equipment and electronics; protecting your valuable equipment
(Transient spikes from the marina's AC power system and nearby lighting strikes can be suppressed by transformers as well, again by utilizing the "static shield")
- Helps protect onboard electrical systems from interfering emissions, municipal power fluctuations, even nearby boats that have poor electrical systems which could cause radio static and TV or display screen interference
(Without a Charles Marine Isolation Transformer, your boat is electrically connected to everyone else's boat at the marina - their potentially hazardous issues could become yours as well)
- Designed, engineered and constructed in the USA
- Marine UL listed, meets all ABYC and USCG standards, and built to last!

Note: Many drowning incidents in or near marinas and private docks are believed to be electrically related due to poor or broken grounding connections on boats and within the marina.



ISOLATION TRANSFORMERS

Fully isolates the boat from potential shore-side hazards. Protects onboard electrical equipment and electronics. Eliminates the need for galvanic isolators and corrects reverse polarity deleting the need for alarms. Meets all ABYC and USCG Standards. Marine UL listed. Models from 3.6 kVA to 24 kVA.



ISO-BOOSTS WITH SOFTSTART™

Units combine all the functions of an isolation transformer with a voltage sensing and switching circuit, providing the ability to automatically boost low shore power voltage by increasing voltage up to 15%. Remote monitoring panel with diagnostic LEDs available. 12 kVA and 24 kVA models available.

Please visit www.charlesindustries.com for product specifications, warranties and ordering information.



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Have you encountered any of the warning signs that your boat has experienced poor and potentially hazardous shore power conditions?

Does your boat's AC panel indicate reverse polarity?

Does your boat's main AC breaker automatically trip, cutting off power due to reverse polarity?

Does your boat have an ELCI or RCD breaker that trips and shutdowns down power for nuisance reasons?

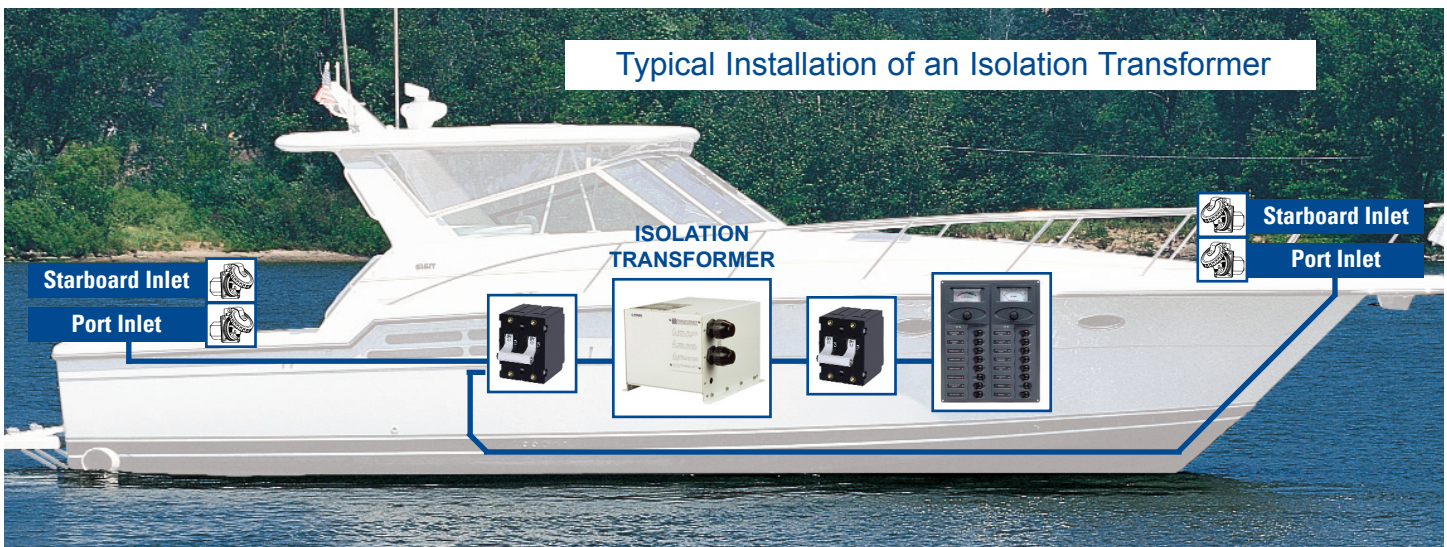
Does your boat have galvanic corrosion pitting of the underwater components (through hull fittings, out drives, drive shafts, struts, propeller, trim tabs, etc.)?

Does your boat have radio static or TV/systems display screen monitor interference when attached to AC shore power?

Do you replace your sacrificial anodes more than once a year?

Are you aware of in-water shock hazards?

Your boat may be fine but other boats at the marina may have electrical issues that cause galvanic corrosion, electrical interference (EMI), and in-water shock hazards – potentially harmful situations that can become your shared problem.



Marine Isolation Transformers: The answer to safe shore power!

Marine Isolation Transformers correct the issues outlined above. They eliminate all physical electrical connections between your boat's wiring and the shore power wiring, providing continuous corrected power to your vessel.

Products like AC polarity alarms only inform you there is an issue, while AC reverse polarity sensing breakers and AC ELCI/RCD sensing breakers detect an issue and then shut down your AC system, leaving you powerless. A Charles Industries' Marine Isolation Transformer corrects these issues and allows the safe use of your AC system, even if the shore power issues continue to exist. Additionally, they isolate your boat from any voltage leakage into the water, making them a great safety devise. By eliminating galvanic corrosion due to electrical leakage, they also prolong the service life of underwater components, saving you money.

Please visit www.charlesindustries.com for specific model information, product specifications and ordering information, or call 847-806-6300.

