# **Marine Isolating Transformers**



## Туре LS-LI

Isolating transformer - for safe and correct connection of AC shore power to your boats AC system. An isolating transformer eliminates any electrical continuity between shore power and the boat. Shore power is fed to the primary side of the transformer and the boat is connected to the secondary, this completely isolates the boat from the shore ground and will prevent any unsafe situation, and at the same time avoid galvanic corrosion. A soft start feature prevents the shore power fuse from blowing due to the inrush current of the transformer, which would otherwise occur.

#### **Technical specifications**

- Input voltage: 230 V
- Frequency: 47-63 Hz
- Output voltage: 230V
- According to: EN61558-2-4
- Test/insulating voltage: 2,3 kV AC RMS

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- Construction class:
- Insulation class: B (130°C)
- Max ambient temp.  $(t_a)$ : 40°C
- Degree of protection: IP20

#### Wiring diagram



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LSI6LI

#### Dimensions



Туре	Voltage Pri. (V)	Voltage Sec. (V)	Current Sec. (A)	Power (VA)	Dimensions AxBxC (mm)	Weight (Kg)	Art. no.
230 / 230 V							
LS16LI-230	230	230	16	3600	400x368x130	35	3-080-000786



### Noratel marine isolation transformers

In order to eliminate galvanic corrosion a isolating transformer separating the shore AC power from the boats 230 Volts (or 115 volts) should be installed.

An Isolating transformer eliminates the galvanic currents, and thus protect propellers and propeller shafts from corrosion.

Noratel LS transformers is double insulated and the ground wire from the shore side supply should NOT be connected to the transformer.

LS transformer has "softstart" feature which prevents the shore power fuse from blowing due to the inrush current of the transformer - connection to most shore power system is possible without fusetripping problems.

#### Installation: Type LS16LI-230 (art. nr. 3-080-000786)

The LS10-230 and LS16-230 transformers are equipped with overload and short-circuit protection (circuit breaker) on each phase for maximum security on board.

Noratel recommend that the boat's grounding wire connects to the transformers centertap (M) on the secondary side.

Alternative:

If the boat has a "floating" ground system similar to the IT-net on shore - no ground connection should be made to the transformer. Point M is not connected.



- Shore side AC power connects to NI and LI
- Do NOT connect shore side ground wire
- The boats AC power system connects to L2 and N2
- The boats ground system connects to the transformers centertap (M)

Alternativte

If the boat has a "floating" ground system similar to the IT-net on shore side - no ground connection should be made to the transformer. Point M is not connected.

