

## ECOLUTION — NO LIMIT SHIPS



**Builder:** NO LIMIT SHIPS

**Year Built:** 2007

**Model:** Cruising Sailboat

**Price:** PRICE ON APPLICATION

**Location:** Dutch Caribbean

**LOA:** 84' 0" (25.60m)

**Beam:** 19' 5" (5.90m)

**Min Draft:** 6' 7" (2.00m)

Our experienced yacht broker, Andrey Shestakov, will help you choose and buy a yacht that best suits your needs **ECOLUTION — NO LIMIT SHIPS** from our catalogue. Presently, at Shestakov Yacht Sales Inc., we have a wide variety of yachts available on our sale's list. We also work in close contact with all the big yacht manufacturers from all over the world.

If you would like to buy a yacht **ECOLUTION — NO LIMIT SHIPS** or would like help answering any questions concerning purchasing, selling or chartering a yacht, please call **+1(954)274-4435**

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# SPECIFICATIONS

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## Overview

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*Ecolution*, is the brainchild of owner Wubbo Ockels, well known in Holland for being the first Dutchman in space in 1985. After his career as an astronaut, Mr. Ockels was continuously a forerunner in the development of alternative energies and sustainable development.

Ecolution's motto and guiding principle is: Autonomy.

Ecolution demonstrates the possibilities of sustainable development on Earth and as such serves as an (educational) example to spread the interest and acceptance of that development. Future energy problems require us to focus on renewable energy, also in the recreational sector of water sports.

Ecolution achieves autonomy by generating energy during sailing, storing it in batteries. Three to five days of sailing ensures comfortable living on board for three weeks!

Ecolution was designed by the famous naval architect Gerard Dykstra. Dykstra Naval Architects brings over 40 years of experience in the design redesign, naval architecture and marine engineering of classic and modern performance yachts.

Ecolution is a steel ship with a retractable keel and a swimming platform on port side. The hull was constructed under Lloyd's certification.

Autonomy is achieved by generating a substantial amount of energy during sailing, especially close to the hull speed of 10 knots.

The thrust during sailing generates energy through the in-line configuration of diesel engine – clutch – electric motor – clutch – propeller. The electric motor and propeller have a dual function: propulsion and generating energy. Innovative Aerorig sail system, whereby the boom can rotate in respect of the mast, with a maximum of 35 degrees.

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## Basic Information

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**Category:** Cruising Sailboat

**Sub Category:** Deck Saloon

**Model Year:** 2007

**Year Built:** 2007

**Country:** Dutch Caribbean

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## Dimensions

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**LOA:** 84' 0" (25.60m)

**LWL:** 65' 8" (20.00m)

**Beam:** 19' 5" (5.90m)

**Min Draft:** 6' 7" (2.00m)

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## Speed, Capacities and Weight

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**Gross Tonnage:** 67 Pounds

**Water Capacity:** 749.984455628 Gallons

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## Accommodations

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**Total Cabins:** 3

**Sleeps:** 6

**Total Heads:** 3

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## Hull and Deck Information

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**Hull Material:** Steel

**Hull Color:** Grey

**Hull Designer:** Wubbo Ockels and Gerry Dykstra

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## Engine Information

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**Engines:** 4

**Manufacturer:** Yanmar

**Model:** 4JH4-TE

**Engine Type:** Inboard

**Fuel Type:** Diesel/Electric

# DETAILED INFORMATION

## General

Ecolution- 84....energy-efficient and designed for people who want to sail year round and world wide, summer and winter, throughout the world, with the least worries.

- Safe and easy to handle.
- Enough energy to be able to anchor for extended periods.
- Energy and resource efficient and almost independent of fossil fuels.
- A warm and comfortable home for 6-8 people.

Ecolution-84 is an energy-autonomous sailboat designed by the Dutch naval architect Gerard Dijkstra – classic in character but at the same time very innovative in its way of generating energy and in her rigging.

Ecolution will awaken the interest and acceptance of the necessity of a sustainable future and stimulates the thought that we need to change our perspective of conventional use of energy in generations to come. It's an educational example and demonstration of interest and acceptance of sustainable development on earth. A ship to minimize the use of fossil fuel. For extra power and safety two diesel engines of 55 kW each (on bio-diesel) are available.

Autonomy is reached when sailing. Ecolution will generate substantial energy in such a way that 3-5 sailing days are needed for three weeks living comfortably aboard. All energy is stored in batteries which is also the ballast of the boat.

**Hull Design** The hull design of the Ecolution was based on an existing hull shape developed by Dijkstra & Partners Naval Architects, which is rapidly becoming a household name in eco-friendly yachts and ships. The final design has been a cooperation of Wubbo Ockels and Gerry Dijkstra, leading to a somewhat longer hull of 25.6 m and a large deck/pilot house. The revolutionary twin-bladed propellers on Ecolution are Contur-F propellers from Voith Turbo. These propellers, claimed to be the first "intelligent" propellers, can adjust their pitch without additional mechanical components. This is achieved by an elastic material mix, which envelopes the carbon cores of the propellers, resulting in a modifiable profile, a technology known as camber-adaptive Propulsion. The drive train setup is comparable with the one found on Ethereal. Two diesel engines are in line with the propellers, but between engine and propeller, a clutchable electric motor is mounted on the shaft. The electric motor can be used both for propulsion and power generation. **Battery bank** The space under the floor of the boat is reserved for the batteries, in which the energy is stored. Because of their weight (10,000 kg), these batteries replace the conventionally used lead ballast. Ecolution has maintenance-free 'gel lead-acid batteries': 128 industrial OP2V 800 cells (EnerSys). Ecolution collects energy with E-traction units directly on the two propellers. The propellers provide both the thrust and generation of energy. Their blades are highly efficient and designed to generate a maximum of 2×10 kW. **Safety through redundancy** Safety through redundancy is achieved by duplicating the essential

systems: one for the starboard and one for the port side. These systems can be used simultaneously and separately. Ecolution is equipped with two engine rooms, two navigation systems, two masts, two rudders and two separate battery banks. Accommodations Ecolution has a spacious living area of 60 m<sup>2</sup>. In addition to the main cabin there are two guest cabins, each with its own bathroom. The interior has a contemporary style, with sleek forms and an atmosphere of 'living in an apartment on board a ship'. This illustrates the philosophy of Wubbo Ockels: "Sustainable living doesn't mean less, but different! It's all about how energy is generated and since Ecolution does this without using fossil fuels, you can enjoy all comforts in an environment-friendly manner." "Happy Energy"! Aerorigs The two Aerorigs are each made up of a mast, a main boom and a fore-boom. The masts are unstayed and mounted in two bearings: one on the hull and one in the deck. These allow the mast, and therefore the whole rig, to rotate freely. The jib is completely self-tacking and mounted on a traveler on the mast. The innovative aspect of the Aerorigs on Ecolution is that the boom can rotate in respect of the mast, with a maximum of 35 degrees. The result is an optimal airflow to the mainsail. The two carbon fiber masts (Lorima), each 26 meters high, are constructed very stiff. For added security during extreme conditions, diamond-shaped stays are applied. The masts of Ecolution have a wing profile and rotate 180 degrees. Each of the booms measures 7 meters behind the mast and 3 meters before the mast. The sails on Ecolution are fully battened and have a sail area of 290 m<sup>2</sup>. The jibs are equipped with furling. All functions for lifting, transfer and trimming are 'single-handed' electrically operated. The concept of short-handed circumnavigation with-out additional crew led to the choice for a dual Aero-rig, consisting of two freely rotating masts with booms attached to it fore and aft. The angle of attack of the four sails can be controlled with just two outhauls on electrically powered winches. Sail handling is thus reduced to a minimum and tacking or gybing involves no manpower at all.

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## Exclusions

Owner's personal belongings.

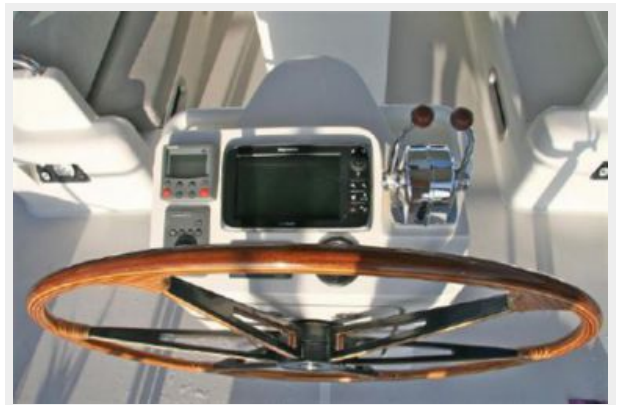
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## Disclaimer

The Company offers the details of this vessel or yacht in good faith but cannot guarantee or warrant the accuracy of this information nor warrant the condition of the vessel. A buyer should instruct his representatives, agents, or his surveyors, to investigate such details as the buyer desires validated. This vessel or yacht is offered subject to prior sale, price change, or withdrawal without notice.

# PHOTOS









# CONTACTS

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Andrey Shestakov, leading yacht broker of the sales department of Shestakov Yacht Sales Inc. Shestakov Yacht Sales Inc., the official representative of the Miami/Fort Lauderdale FL headquarters.

## Contact details

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## Telephones

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## Office hours

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Sunday: **closed**

## Address

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