



NEXT GENERATION YACHTING

## VIATOR EXPLORER 42 DS



### General Description



[www.viatormarine.com](http://www.viatormarine.com)

## I. Introduction

The Viator Explorer 42 DS (VE42DS) is the first yacht model that follows the design principles of NEXT GENERATION YACHTING. It focusses on four main topics:

- *Safety*
- *Performance*
- *Sustainability*
- *Economy*

Our innovative design was honored by the nomination in high level competitions:

- Nominated "European Yacht of the Year 2021", category bluewater cruisers
- Finalist "Gustave Trouve Award", category electric sailboats
- Finalist "Dutch Yacht of the Year 2021"

The VE42DS has a fast and modern hull that allows fast ocean sailing for a small crew or even single handed in total safety. The cockpit layout optimizes the workflow for all sailing maneuvers and allows easy handling of the boat in all weather conditions.

**Safety** is the main issue on a long cruise with a small crew, as even a light injury can cause a major threat for the boat or the crew. The VE42DS design includes therefore several active and passive safety measurements.

It starts with the hull construction using strong aluminium alloy and a hull that can withstand even open pack ice, three watertight bulkheads that protect the living area, a fully watertight rudder compartment to protect the boat in case of a rudder failure or loss, five strong bilge pumps and a watertight cockpit door that can seal the living area even in a worst case scenario at sea. All three sea valves are above the water line, so they can't cause a leak and they can't freeze in cold water.

The ergonomic cockpit design is another safety feature, as it reduces the risk of an injury during maneuvers. All winches can be handled while standing, no climbing over cockpit benches needed. Accessing the sidedecks is easy with two steps from the cockpit. Lifelines are installed midships to allow a safe access to the mast or the bow.

The hydraulic lifting keel with just 1.10m draft allows access to shallow bays or harbours - which doesn't only make cruising more enjoyable, but adds again safety, because you can much easier find a safe spot to hide from a storm. With the keel down at 2.80m the VE42DS can show the high speed potential. The sail plan and the carbon mast is fully optimized for maximum **performance**. A distance of 250 nm or even more during a nautical day is feasible. Speed is again also safety, because it offers more options to avoid bad weather or to reach a safe harbour.

The extensive navigation electronics makes the cruise more comfortable and safer. The 4G radar consumes little power and can run 24/7. The autopilot system includes a sophisticated GPS compass that enables navigation in high latitudes, where magnetic compasses would fail. The forward looking sonar allows safe passages through reefs or the exploration of uncharted bays.

When designing a new boat today, then **sustainability** is a main concern. As sailors, we want to preserve the ocean as the environment we all love so much. We responded to this demand by introducing an electric hybrid propulsion system that allows about two hours full electric propulsion and about 1000 nm range of diesel electric propulsion. This also adds safety, as the electric motors can't fail due to diesel oil pest. All waste water from toilette, sinks, shower or even washing machine

is collected in a large blackwater tank, so nothing goes over board in a nice anchorage or in protected areas. As soon as there is a reliable solution available to replace the biocide antifouling, we will be among the first to apply it on our yachts. Unfortunately, the industry is still working on that topic.

A boat that is build by highest standards using high quality components also keeps it's value over time and significantly reduces running costs from maintenance and repairs. On a long cruise it offers a very **economic solution** with minimum impact on the cruising budget.

As a sailing crew you won't even notice all those features, that make your cruise so exceptional comfortable and safe. But you might appreciate the "comfort features" of our design, like the extraordinary deck salon with a true 360 degrees view when seated on the salon cushions or standing in the galley. At anchorage you will be connected to the beautiful landscape around you and when at sea, you will have a perfect view at watch without leaving the safety and comfort of the salon.

You might also appreciate the balance of living space in the cockpit and the salon. Both are very spacious for a 42ft boat. In warm climate the cockpit would be your favorite living area, well protected from sun and rain with a large bimini. In cold weather or high latitudes you might enjoy the large salon with a powerful heating, that will easily keep a cozy temperature due to the thick insulation of the hull. You will hang your wet sailing clothes into the hugh heated wet locker and make a cup of hot coffee.

There are a lot more details build in, from waste management to our hugh storage space, that make this boat a real home for many years at sea. The Viator Explorer 42 DS is a boat designed by sailors for sailors. It is the essence of a full lifetime experience cruising the oceans on many different boats.

This document is a general description of the standard features that are all included in the VE42DS performance version. We have no endless option list. Everything you will need is included. But also everything can be customized. Please contact us to discuss your requirements.

Berlin, July 2019

Hendrik Heimer  
CEO & Founder

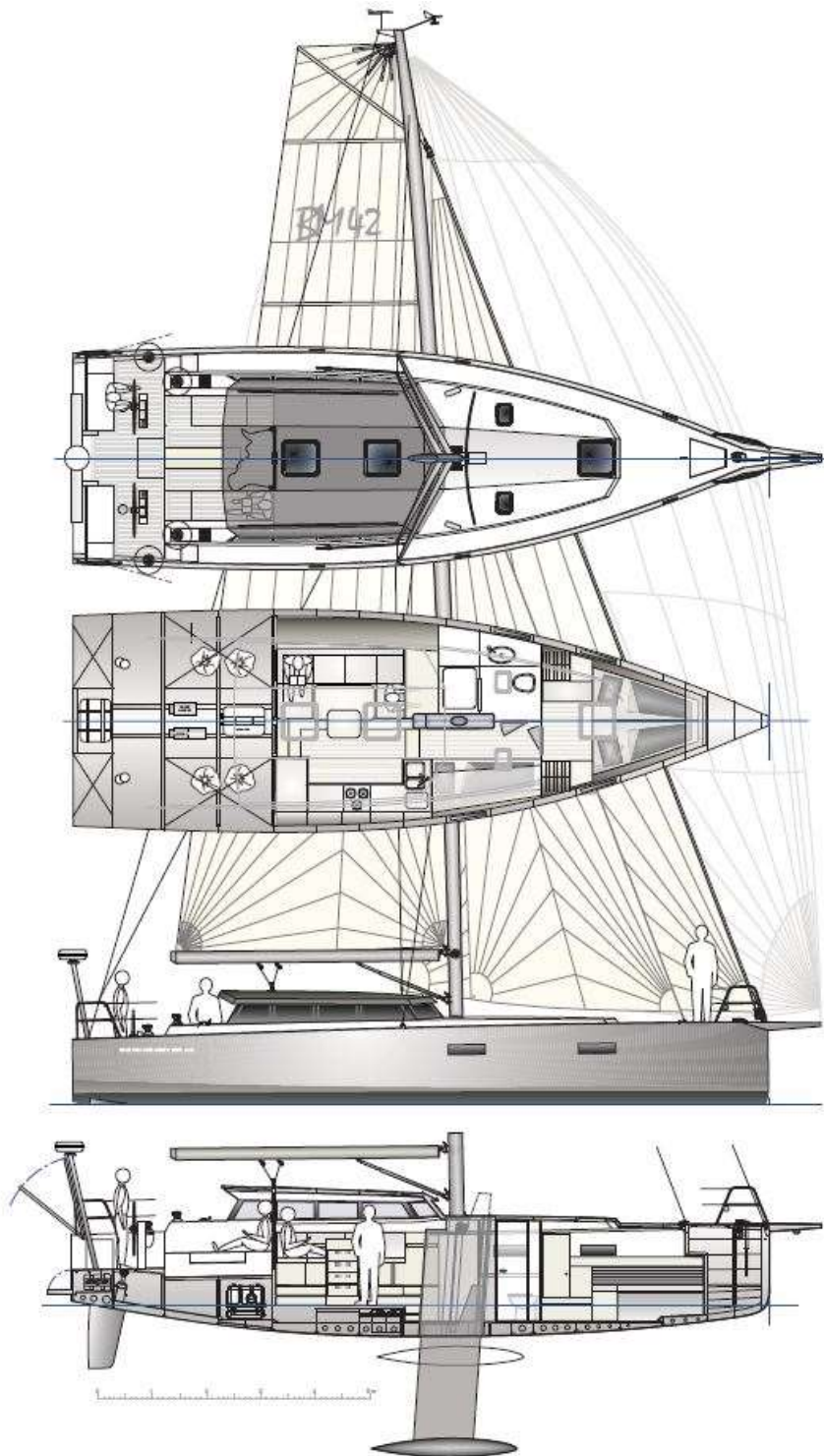
Viator Marine

*All Oceans, Any Weather - One Yacht*



## II. Layout

General layout of the Viator Explorer 42 DS.



### III. Technical Specification

We offer three different versions of the Viator Explorer 42 DS. The **Performance Version** is the fully equipped vessel with optimized performance. The **Standard Version** includes the minimum equipment for cruising and can be upgraded regarding to the client's specification. Both versions are "ready-to-sail", means that after delivery you could set sail and use the boat without further upgrades. Then we have a simple basic configuration if you need more customization.

This document describes the **Performance Version**, but we provide a comparison table to easily compare all three versions.

LOA	12,85 m	Mast/Boom	Axxon (Carbon)
LWL	12,40 m	Rigging	Axxon (Rod)
Beam	4,10 m	Winches	Andersen
Draft (Lifting Keel)	1,10 - 2,80 m	Deck Hardware	Ronstan
Displacement	11.6 t	Steering	Jefa (torque tubes / gearboxes)
Main	60,0 m <sup>2</sup>	Engine	2 x 10KW Electric Motors
Genua	51,9 m <sup>2</sup>	Generator	MASE 10KW
Jib	19,4 m <sup>2</sup>	Fuel	2 x 250 l
Code 0	86,2 m <sup>2</sup>	Water	2 x 170 l
Gennaker	168,6 m <sup>2</sup>	Boatyard	Viator Marine
Hull & Deck	Aluminium alloy	Design	Berckemeyer Yacht Design
Rudder	Twin Rudders	Interior	Viator Art
Ballast	3,3 t (2,5 t Lead Bulb)	Builder	Viator Marine

The Viator Explorer 42 DS has a **category A CE certification**.

## IV. Construction Features

### Hull, deck and superstructure

All plating of the hull, deck and superstructure are build from a strong aluminium alloy (AlMg4,5Mn) that is resistant against seawater.

Hull plating at keel and bow: 12 mm

Hull plating below waterline: 6 mm

Hull plating above waterline: 5 mm

Deck and coachroof plating: 4 mm

### Keel and ballast

Fully retractable hydraulic lifting keel with a 2.5 t lead bulb. The draft is fully variable between 1.10m and 2.80m.

*Note: sailing is possible at any draft, but the sail area has to be reduced accordingly to avoid risks.*

### Insulation

Thermal and acoustic insulation above the waterline by PU foam with a thickness between 40 to 70mm. All floorboards are insulated with 32mm Armaflex.

### Surfaces

All surfaces (down to the waterline) are fine sanded to provide a perfect look of the yacht. We do not use any varnish or coating, as it often causes corrosion problems with aluminium and just increases maintenance work. "Naked" aluminium is the best choice.

If a different color or design is wanted, then we recommend a high quality foil.

Sidedecks, cockpit floor and transom are covered with an anti slip foil or painting.

Lower hull below waterline is protected by epoxy primer and hard antifouling.

### Cathodic protection

Sacrificial anodes are placed on the hull, lifting keel and propeller.

## V. Rigging and Sails

### Mast and boom

- Carbon double spreader mast (Axxon) with a protective coating (RAL 9005)
- Mast foot with turning blocks
- LED navigation lights, steaming light, anchor light and foredeck light
- Carbon boom
- Bamar boom vang
- 2x Andersen 40ST mast winches
- Antal halyard slider (secure locking of the genua halyard)
- 5 spinlock stopper
- Retractable mast steps below winches (2x) and at mast top (2x)

### Standing rigging and furling system

- Rod rigging
- Running backstays (Kevlar)
- Facnor Flatdeck Furler for genua
- Facnor Flatdeck Furler for self-tacking jib

### Running rigging

All running rigging Gottifredi Maffioli DSK78 Powersprint, all halyards 10mm

1x Main Halyard

1x Main Spare Halyard

1x Genua Halyard

1x Stay Jib Halyard

1x Storm Jib Halyard

1x Spi Halyard

1x Code 0 Halyard

### Sails

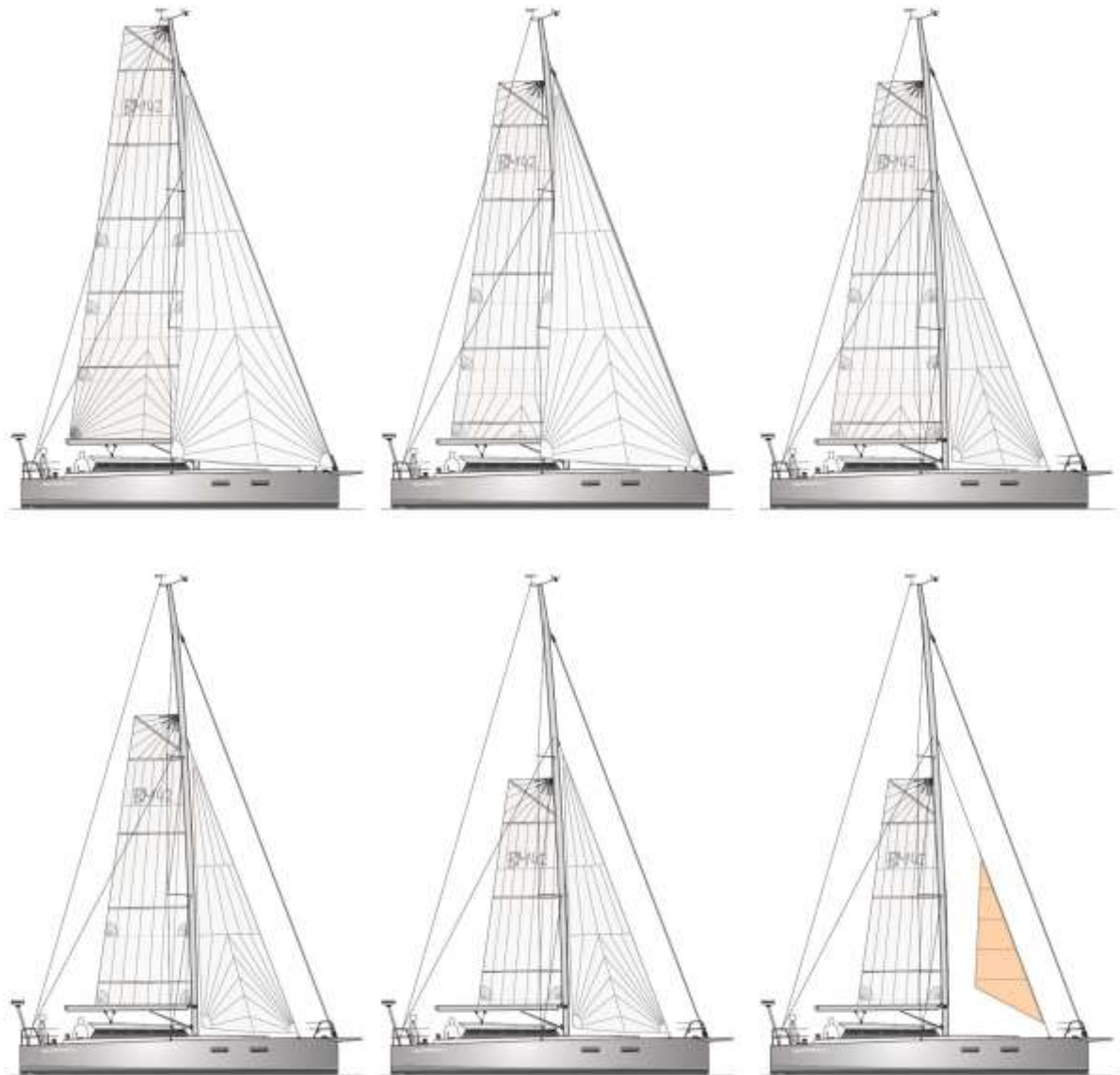
All sails (except lightwind sails) are made from long lasting cruising laminates (Mylar) for best performance. We consider the sails as the "main propulsion system" for the VE42DS.

- UK Sails X-Drive Endumax Squaretop Batmain (60 m<sup>2</sup>), 3 reefs  
(incl. Lazyjacks and Lazybag and 2m mainsheet traveller)
- UK Sails X-Drive Endumax furling Genua (51,9 m<sup>2</sup>), UV protection  
(inkl. Genua tracks on sidedecks)
- UK Sails X-Drive Endumax self-tacking furling Jib (19,4 m<sup>2</sup>), UV protection  
(incl. self tacking track on foredeck)



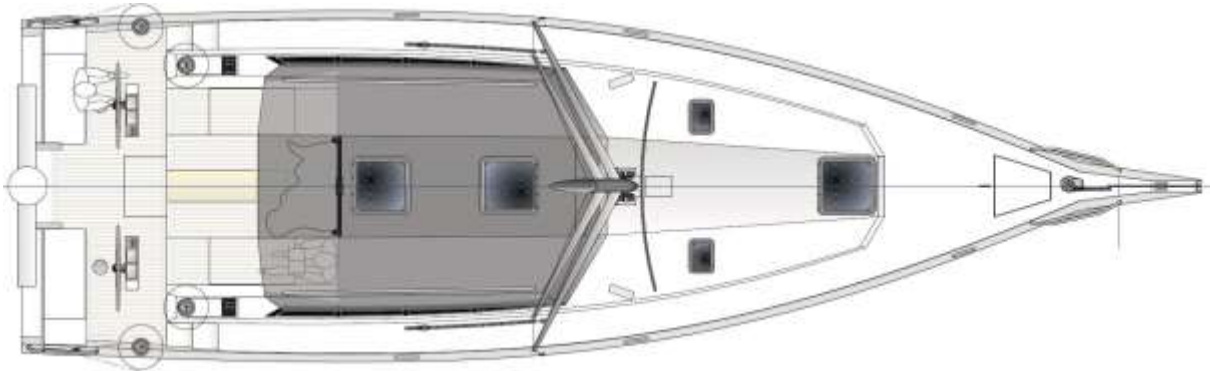
- UK-Sails Asymetric Spinnaker (168,6 m<sup>2</sup>) with sock (snuffer)
- UK-Sails Cruising Code 0 (86,2 m<sup>2</sup>) from Mylar/Kevlar with Facnor furler

A storm jib is a possible option, but we consider it not essential, as the jib can easily be reefed and used as a storm jib as well. Especially single handed in bad weather conditions that would make it difficult and risky to setup the storm jib. The sailplan below shows this option with a standard jib (non-furling) and a storm jib.





## VI. External Fittings



### Windows, hatches, portholes and deck fillers

- All windows from 10mm Plexiglas with protective foil
- Blinds for all windows
- 2 Openings to the front, 1 opening portside (salon), 1 opening above galley, 2 openings to the cockpit for optimum ventilation (Goiot flush portlights)
- Watertight aluminium door to the cockpit
- Aluminium hatch with lock for the sail locker (with access to the anchor chain)
- Aluminium hatch with lock for the rudder compartment
- 2 large aluminium hatches with locks to access the storage area below the cockpit
- 2 aluminium hatches with locks at the rear benches
- 2 GEBO deck hatches above the deck salon size 620x620 mm
- 1 GEBO deck hatch above the front cabin size 620x620 mm
- 1 GEBO deck hatch above the bathroom size 450x320 mm
- 1 GEBO deck hatch above the sea berth size 450x320 mm
- Blinds and mosquito nets on all hatches
- 2 portlights in front cabin
- 1 portlight in bathroom
- 1 portlight at sea berth
- Blinds for portlights
- 2 Rutgerson deck fillers for fresh water
- 2 Rutgerson deck fillers for diesel
- 1 Rutgerson deck outlet for black water
- Large bimini for sun and rain protection that covers both steering positions and the entire cockpit; removable sides for additional weather protection at anchorage or in marinas

### Sailing Hardware

The layout of the cockpit is optimized for single handed sailing or a small crew. All winches can be handled in an excellent ergonomic position, standing with best view to the sails.

- 4x Andersen 52 FS (full steel) winches in the cockpit
- 2x Andersen 40 FS winches at the mast
- 2x6 Spinlock jammers for all running rigging going to the cockpit

- 2 Spinlock jammers for the running backstays
- 2 Genua tracks on the sidedecks
- 1 Main sheet track on the decksalon roof
- 1 track for the self-tacking jib on the foredeck

Two cockpit winches can be optionally changed to electric winches, if needed.



*Pic.: Andersen 52 stainless steel cockpit winches*

### **Mooring and Anchoring**

The flexible combination of anchors, mooring lines or landlines offers a suitable solution for all situations and an easy setup. The windlass can be controlled from the helm at starboard or radio controlled with the Dockmate remote control (see "Electronics").

- Double bow roller for main anchor and secondary anchor (or "snubbing line")
- Lofrans 1500W electric windlass
- Ultra stainless steel main anchor (27kg)
- 80m Cromox Duplex stainless steel chain, 8mm
- Stern roller for secondary anchor at transom (removable)
- Kobra secondary anchor (10kg)
- 20m chain 8mm + 40m anchor lead line
- Drum at starboard for anchor chain / anchor line or 100m landline 16mm in the transom locker (use depending on requirements; easy switch between stern anchor and landline)
- Drum at portside for 100m landline 16mm in the transom locker
- 2x 100m floating line 16mm for the drums at starboard / portside
- 6 aluminium 300 mm mooring cleats welded onto deck

- 2 aluminium 300 mm mooring cleats welded on each side of the transom
- Mooring lines and fender

### **Safety and Protection**

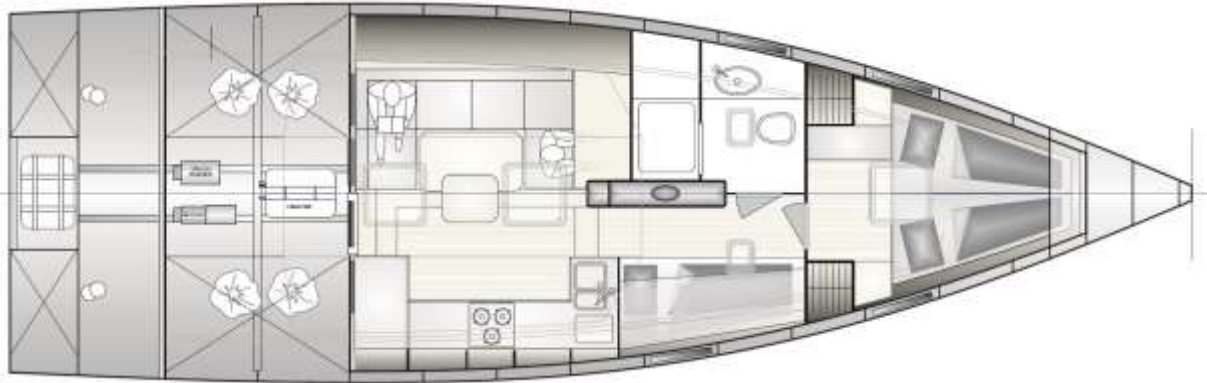
Safety is our main priority at sea, but most important is to avoid going overboard. There is always a handrail in reach when moving in the cockpit or at the sidedecks. All lifelines are midships, so falling overboard when attached to a lifeline is impossible.

- Self-draining cockpit
- 2 pushpits, 2 pulpits, 8 stanchions (stainless steel)
- 2 boarding gates for port and starboard side access (stainless steel)
- Lopolight LED navigation lights on pushpits and transom
- Cockpit handrails at deckhouse and helm
- Handrails along the deckhouse to safely move on the sidedecks
- Anti slip surface on all walking areas (cockpit, sidedecks, foredeck)
- 4 safety harness eyes in the cockpit
- 2 lifelines fixed on the cockpit roof midships
- 2 lifelines fixed on the foredeck midships
- Welded aluminium toerail
- Easy access to the sidedecks from the cockpit with 2 steps
- Large number of courtesy lights (blue) in the cockpit and at deck for safety at anchor or in the marina when moving around at night
- 2 strong LED spotlights at the transom arc that can be used at night as search lights or when accessing an anchorage or marina
- Lee cloths or lee boards for sea berth
- Key lock safety box for documents or valuables on board
- 3x 2 kg foam ABF fire extinguishers
- 1x 1 kg 3M Novec 1230 fire extinguisher (residue-free, no contamination of electronics like with powder extinguishers; perfect to extinguish small electric fires without "collateral damage")
- Fire and smoke detectors with automatic alarm throughout the boat
- Fire blanket

### **Deck Hardware and Stowage**

- Transom arc for electronics and use as davits
- Swimming ladder and shower on the transom
- Life raft stowage in locker accessed from transom
- Bow sail locker with access to the anchor chain
- Large locker in rudder compartment used to store fender and waste
- Large storage room below the cockpit used as engine room for generator, heating and watermaker. Storage for supplies, spare parts, water toys and bicycle. Access through both cockpit benches.
- 2 transom lockers at the helm seats
- Cockpit table with locker

## VII. Interior Fittings



### General Characteristics

For a good performance it is important to keep the weight down. For the interior we are therefore using plywood with a foam core or plywood from poplar. This allows a very stable but also lightweighted interior.

All surfaces are from Resopal or Marlan in order to reduce later maintenance. Resopal also offers hundreds of different colors and surfaces, so customization is very easy. We are using "real wood" only as a design element and to create a cozy atmosphere on board. This especially applies to the salon table from 40mm american walnut, which has an incredible look & feel.

All hardware is marine grade and built for a maintenance free use over many years. All installations can be accessed easily through floor openings in case of repairs. All floor openings are secured and cannot open accidentally in case of a capsize.

We consider lighting also an important design element on board, as LED lighting has a very low energy consumption. We are using high quality lamps and LED strips from Prebit throughout the boat. The crew can enjoy different lighting profiles, from "bright light to work in the kitchen / chart table / salon" up to "cozy atmosphere with indirect lighting and a glass of wine" or "reading a book before sleeping" or "red light nightwatch at sea".

Our goal was to create a comfortable and safe home at sea, that makes it desirable to live on board for many years without compromising on life quality.

### Companion Way

Due to the low cockpit there are just 2 small steps down the companion way into the salon.

- Watertight aluminium door (completely seals the living area)
- Handrail
- Courtesy lights in the stairs

### Deck Salon

- Located on portside of the boat on an elevated platform with 360 degrees panoramic view

- U-shaped bench to portside with comfortable upholstery, backrests, large storage area under bench, 4 large drawers
- Bench can be used as seaberth when on watch
- 1 fixed large central table 40mm thick from american walnut (can be customized)
- 1 central cupboard with several drawers and a large waste bin
- 2x4 white LED spotlights (dimmable; two rows above salon and galley)
- 1 red/white LED spotlight (dimmable)
- 1 LED strip along the deck salon windows (dimmable)
- 1 reading light with USB charger (dimmable)
- 1x 230V socket

### Chart Table

- 1 forward facing chart table with 360 degrees panoramic view
- U-bench from salon table is also used for the chart table (reverse seating)
- All control panels for main switches, instruments, board PC, monitor, Wifi router
- Storage area inside chart table for notebook, maps, etc.
- 1 Red/white LED lamp at the chart table
- 2 x 5V (USB), 1x 12V and 1 x 230V sockets

### Galley

- Kitchen unit located to starboard along the hull
- 1 stainless steel sink integrated into Marlan worktop with pressurised hot and cold mixer tap
- Induction stove (3 burner) with electric oven on gimbals
- 1 vertical 70 liters vertical refrigerator unit with Marlan worktop above (1 additional freezer is located in the storage room)
- 2 storage units with 3 drawers each and with Marlan worktop
- 1 storage unit with door below sink
- Storage units behind worktop along the hull
- Opposite to galley 1 central cupboard with several drawers and a large waste bin
- 1 locker with DeLonghi fully automatic coffee machine
- 1 large wet locker next to companion way with hot air heating or your sailing clothes
- LED lamp above sink
- LED strip above the worktop
- Indirect LED lighting at the skirting board
- 2x 5V (USB), 1x 12V, 3x 230V sockets



*Pic.: The most important equipment on board*

### **Sea Berth**

The 2 "Pullman" sea berths are located between the galley and the forward cabin in the passageway on starboard. The location is perfect for a good sleep in a rough sea, as the head is located near the center of gravity with the least motion on board. It is also the best place for someone to recover from seasickness.

- Comfortable 120mm mattress
- Upper berth with portlight with blinds
- 1 GEBO deck hatch above the sea berth size 450x320 mm with blinds and mosquito net
- 1 flexible reading light for each berth with USB charger (dimmable)
- 1 red/white LED spotlight + 1 white spotlight (dimmable) at the ceiling
- Indirect LED lighting at the skirting board
- Courtesy lights in the stairs of the passageway
- Lee cloths or lee boards for sea berth
- Shelves for storage of personal items

### **Bathroom**

We took especially care to design a comfortable and large bathroom for a boat of this size, including a large shower cabinet. Your crew will love this bathroom.

- 1 vanity unit with Marlan worktop, mixer tap and storage
- 1 electric marine toilet with freshwater flushing
- 1 include shower cabinet with mixer tap, shower and handrail
- 1 cosmetic mirror with LED lighting (230V)
- 1 LED strip above the vanity unit



- 1 red/white LED spotlight (dimmable) at the ceiling
- 2 LED strips in the shower
- Indirect LED lighting at the skirting board
- 1 heated towel rail (230V)
- 1 socket (230V) for hair dryer, shaver, etc.
- 1 washing machine (3kg volume)
- 1 large collection bag for used clothes (below the washing machine)
- 1 blackwater tank (100 l) with sea valve above waterline
- 1 GEBO deck hatch size 450x320 mm with blinds and mosquito net
- 1 Portlight with blinds

All wastewater from toilet, sinks, shower or washing machine is collected in the large blackwater tank. That means, you can seal off the boat completely. As we expect more strict environmental laws in the near future, this is an important feature – especially when accessing more sensitive natural habitats.

*Note: we are not using seawater for flushing the toilet for some obvious reasons. Seawater in combination with urin causes sediments in the tubes that can close the tubes within a few years. Freshwater flushing keeps the tubes clear. Seawater is include and causes corrosion, especially on all electric and metal parts. Your toilet will last longer when using freshwater. Last but not least we don't need another sea valve.*

## Forward Cabin

The forward cabin offers a comfortable space with abundant storage for clothes at sea. As a good sleep is very important, we are using extra thick mattresses on all berths. However, on large ocean passages going up-wind and "banging" into the waves, the forward cabin is less favorable on most boats. Then we would recommend to use the sea berths instead.

- 1 V-form double bed with comfortable 160mm mattress
- 2 large horizontal non-opening hull portlights on each side with blinds
- 1 GEBO deck hatch size 620x620 mm with blinds and mosquito nets
- Large ventilated storage space under the bed
- Shelves on each side along the hull
- 2 large drawers under the bed
- 1 cabinet with shelves and a hanging locker with mirror to starboard
- 1 cabinet with shelves and a hanging locker to portside
- 1 settee with upholstery on portside and with storage space inside
- 3 white LED spotlights (dimmable) at the ceiling
- 2 LED strips (dimmable) under each shelf
- Indirect LED lighting at the skirting board
- 2 flexible LED reading lamps (dimmable) with USB charger
- 2x 230V sockets

### Storage & Technical Room

We sacrificed the usual two aft cabins for the benefit of a 360 degree deck salon and a better cockpit layout with optimized ergonomics. On the other side we did win more safety through another watertight bulkhead and a large storage and technical room below the cockpit. We put also all the technical equipment into this room to reduce noise in the living area.

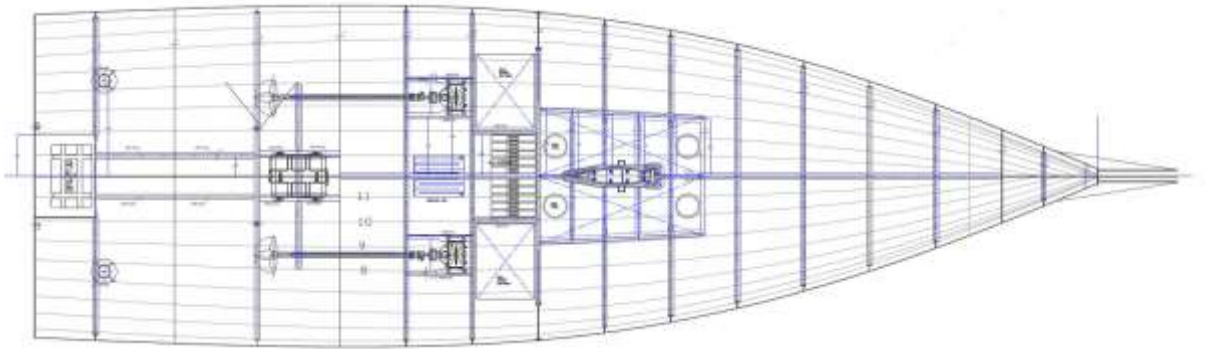
- Huge storage space on starboard with 4 Euroboxes 400x600mm, 2 small boxes for vegetables or fruits and a Dometic freezer (28 l)
- Storage on portside for water toys, bicycles, etc. (not included with the boat)
- Generator 10KW in the center with an access hatch in the cockpit floor in case of repairs or replacement
- Strong diesel heating Planar 44D
- Schenker 24V watermaker with 60 l/h capacity (runs from solar power / batteries)
- 2 LED lamps at the ceiling
- All diesel or water filters are easily accessible
- 1 sea valve above waterline as cooling water intake for the generator
- 1 sea valve above waterline as intake for the watermaker

### Rudder Compartment Locker

The huge space of the separated rudder compartment can be used to store fenders and to collect waste during long ocean passages (large collection bag included). 1 LED lamp installed.



## VIII. Systems



### Motorisation

The Viator Explorer 42 DS is using a sophisticated hybrid propulsion system that combines the benefits of electric motors with the range of diesel propulsion. Electric motors are perfect to maneuver in marinas, as they provide high torque even at low rpm. Also you can switch between forward and reverse without compromising a gear box – there is no gear box. There is also no maintenance or winterization of the motors. You just switch them on and they are ready.

The lithium batteries provide about 1 hour full electric propulsion at cruising speed. This is sufficient range to access any marina, for docking or undocking manouvers or for anchoring. If the batteries are at 20% the generator will kick in and will provide about 1000 nm range with the 500 liters diesel on board.

The use of electric motors with their small size allows us to introduce a twin propulsion system. This adds safety with a redundant propulsion, but also allows a much better maneuverability. As with a catamaran, we can turn "on the spot". Therefore we could skip the bow thruster. When docking with lines, we have a "prop walk" in both directions, when going in reverse: with the starboard motor towards portside and with the portside motore towards starboard. This makes maneuvers extremely easy and efficient.

This maneuverability with the motors only and without rudders allows to use a remote control to steer the boat. The remote control with a joystick is perfect for single handed docking, as it replaces a second crew member at the helm. You can even control the boat from the pier or the dinghy up to a distance of 50 meters. The remote control is also used for the anchor winch and the horn.

- 2x 10KW Bellmarine DriveMaster Ultimate 10 shaft drive
- 2x Aluminium stern tube
- 2x Stainless steel propeller shaft and shaft seal
- 2x 2 blade 17x10 Flexofold folding propeller
- Cooling of the electric motors via closed circuit with a keel cooler
- Double control lever at the helm
- Generator MASE VS 10.5 with 10KW
- Diesel fuel filter (1 for each tank)
- Cooling of generator via sea water intake with filter
- 2x250 liters fuel tanks (welded into aluminium structure) with individual fillers and vents

### Rudder and Steering Gear

- 2 white fiberglass steering wheels (JEFA)
- Ruder steering using torque tubes and gearboxes (the best system you can get for your money; no friction or play, any rudder pressure is reproduced at the helm, similar to a tiller)
- 2 profiled rudders mounted on self-aligning JEFA roller bearings directly welded to the hull structure; the rudders will support the boat when it falls dry
- 2 solid aluminium rudder stocks
- Strong autopilot electric motor unit with 200 Nm

### Ventilation

- Natural ventilation via multiple hatches, portholes and air vents under protected areas
- 4 vents that can be closed from the inside (1 located in the bathroom, 1 in passageway, 2 in deck salon)
- 2 vents in storage room

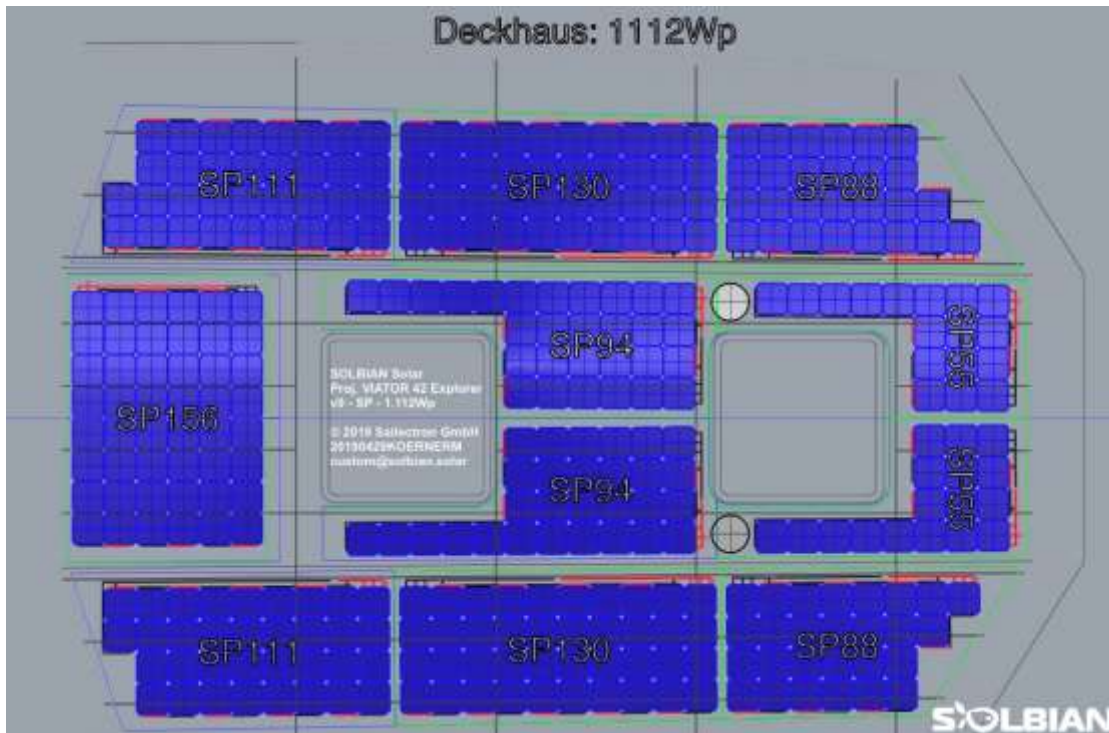
### Electricity

The layout of the electric system is especially important on an aluminium yacht, as mistakes can cause severe damage due to electrolysis or galvanic corrosion. Also the 2x 10KW electric motors put some unusual strain on the electric system, so everything has to be made stronger than usually on a standard yacht. On the other hand, the high loads and battery capacity offers the opportunity to use appliances like induction stove, that are difficult to use on a standard yacht. Electricity is an abundant source on board of the Viator Explorer 42 DS, so we make best use of it.

This also supports the idea of self-sufficiency, which is most important for an exploration yacht in very remote locations. We are reducing the usually needed resources of water, food, diesel, fuel, gas (propane) and electricity to just food and occasionally diesel. Electricity is made on-board (solar panels, hydrogenerators or diesel generator) and also generates water through the watermaker. This makes long cruises a lot easier to manage.

- 1x 230 V 16A / 115V 32A shore power socket (SmartPlug) with 25 meter cable
- Victron isolation transformer 3600W with automatic adaption to 115/ 230V
- Victron Quattro 48/10000/200 Inverter/Charger with 10KW power for 230V
- Control panel for Victron Quattro incl. max. shore power adjustment
- MG 48V lithium main battery bank 11.5kWh (240Ah at 48V) with closed cooling circuit (capacity will increase with new battery technology, update 2021: 30kWh is feasible now)
- Victron 24V VRLA Deep Cycle GEL service battery bank 4kWh (165Ah) that is also working as a buffer battery for all 12V/24V systems to keep navigation instruments running if main battery fails
- Victron 12V AGM starter battery 1.3kWh (110Ah) for generator
- Victron Venus GX System Controller to monitor all data on B&G chart plotter
- Digital displays for tanks, temperature, battery banks, etc.
- SOLBIAN high quality solar panels on deckhouse with 1112Wp (about 1KW)
- 2x hydro generator with about 1KW power each at 10kn speed (electric motors can be used to generate energy when sailing)
- Main switchboard with 2-pole circuit breakers for all electric equipment on board
- Electrical leak detector (important to detect "bad currents")

- Control panels for heating, generator, watermaker, etc.
- USB (5V) / 12V / 230V sockets as written in the corresponding chapters
- All lighting is using LED lamps



*Pic.: Solar panels on deckhouse*

## Freshwater and Wastewater System

### Fresh water circuits

- 2x 170 liters polyethylene fresh water tanks with individual fillers, vents, and level gauges
- Pressurised water system with electronic pump 18 l/min, 3 bar
- 1 x 50 liter hot water boiler 230V
- 1 hot/cold water circuit to galley
- 1 hot/cold water circuit to bathroom
- 1 hot/cold water circuit to shower on aft platform
- 1 cold water circuit to toilet
- 1 cold water circuit to washing machine
- 1 cold water circuit with high pressure pump Marco UP10/E 18l/min, 6 bar, with 2 outlets at the sail locker and at the aft platform for deck washing with standard Gardena connector
- Gauge sensors in both freshwater tanks with displays at the chart table
- Fresh water disinfection through UV lamp

### Black and grey water circuits

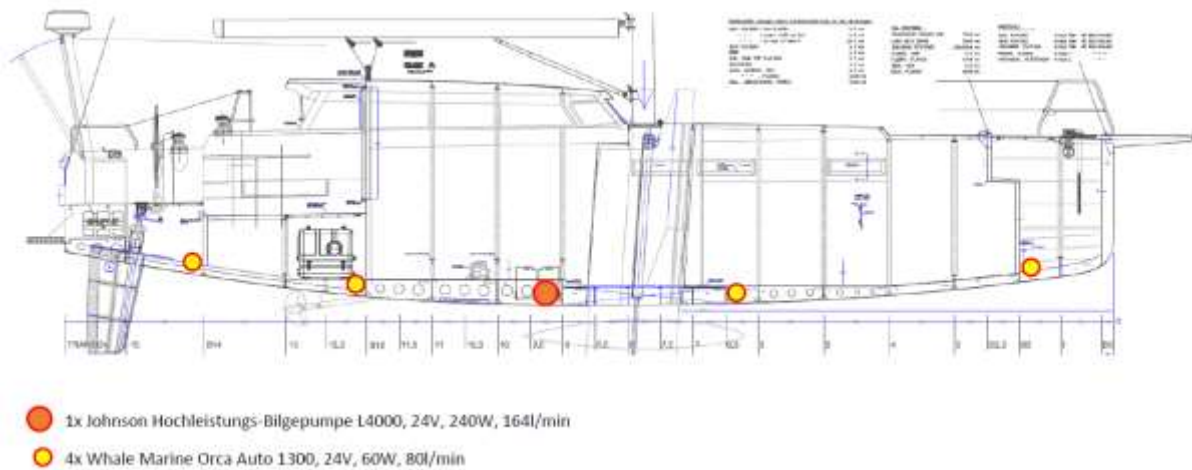
- Central black water tank with 100 liters volume on portside
- Grey water from galley is pumped into grey water collector
- Grey water from bathroom shower / washbasin is pumped into grey water collector
- Grey water from washing machine sinks into grey water collector by gravity



- Grey water collector is pumped into central black water tank (sensor controlled)
- Black water from toilet is pumped into central black water tank
- Black water tank emptied via deck outlet or by sea valve
- Gauge sensor in black water tank with display at the chart table

#### Bilge pumps

- 1x 24 V primary automatic electric bilge pump Johnson L4000 (252 l/min at 0 m) in the bilge behind the keel
- 1x 24 V automatic electric bilge pump Whale Orca 1300 IC (80 l/min at 0 m) in the bilge in front of the keel
- 1x 24 V automatic electric bilge pump Whale Orca 1300 IC (80 l/min) in the sail locker
- 1x 24 V automatic electric bilge pump Whale Orca 1300 IC (80 l/min) in the storage room
- 1x 24 V automatic electric bilge pump Whale Orca 1300 IC (80 l/min) in the rudder compartment





## IX. Electronics

We are using highly sophisticated navigation electronics for added safety and comfort. When sailing single handed, the autopilot is an important companion. The NAC-3 in combination with the HS60 GPS compass offers an extremely reliable combination, even in high latitudes, where magnetic compasses often fail (which causes sudden turns of the autopilot). The Jefa autopilot drive is one size bigger than needed for a light boat of this size. It will do the job even under extreme conditions and loads. The drive can be changed within a few minutes, if necessary.

Another unique feature is the **Dockmate** remote control for the motors, anchorwinch and horn. This dramatically improves the comfort when sailing single handed or with a small crew. With the two motors we can easily manoeuvre in marinas just using the motors (like with a catamaran) and even turn the boat on the spot. Line handling is much easier, as you can hand over a line at the pier while at the same time control the motors and stop the boat. You can even control the boat from the pier, for example when adjusting the lines.

- B&G Zeus<sup>3</sup>-9 at chart table, incl. world basemap
- 2x B&G Zeus<sup>3</sup>-7 at helm starboard and portside
- B&G 4G broadband radar on a pole at the transom arc
- B&G Triton<sup>2</sup> Pilot at helm
- B&G NAC-3 Autopilot Computer
- Jefa 3600 Nm (375 KgM) autopilot direct drive unit type DD2 (stronger than needed)
- Navico RF25 N rudder sensor
- Navico HS60 GPS compass (GPS, Heading, Pitch, Roll,) on transom arc (essential for high latitude sailing or at any place with magnetic anomalies; greatly improves autopilot performance due to much better data input)
- B&G WS310 wind sensor on mast top
- B&G DST800-12° depth / speed / temperature sensor in hull
- B&G ForwardScan forward looking sonar in hull
- B&G V60 VHF System at chart table
- B&G H60 manual VHF (for cockpit)
- Navico NAIS-500 with NSPL Splitter AIS receiver and class B transponder
- B&G ZG100 GPS antenna at the transom arc; backup for the HS60
- B.I.S. Multiband antenna MAR 10 LTE / WLAN at transom arc for internet access and "wifi booster"; up to 10nm range for LTE signals
- B.I.S. Yachtrouter 2 LTE for internet on board; 2 SIM card slots; integration with B&G Zeus<sup>3</sup>-9 for access to plotter data on tablets or smartphones
- Dockmate wireless remote control for 2 motors, anchorwinch and horn (50m range)
- Dockmate induction loading pad at the helm



## X. Documentation

- Owners manual with a detailed description of all systems
- Technical documentation of the electric system
- All manuals from manufacturers of the installed equipment
- Equipment guarantees (note: registration at manufacturers website or by mail might be necessary to obtain a guarantee)
- CE compliance certification documents
- Invoice with "VAT paid" confirmation for EU registered vessels
- Support for boat registration, if additional documents are requested

## XI. Delivery

- Hull preparation and antifouling
- Craning and launching next to the boatyard (NL)
- 100 liters of fuel
- Commissioning and detailed test of all systems
- Owners training on the boat (3 full days)

Optional (separate offer will be calculated):

- More training days with individual training plan
- Transport to any harbour worldwide by truck or as cargo

## XII. Customization

Your boat should fit to your personal requirements like a perfect tailor-made suit. Maybe you are looking for a bluewater circumnavigation following the tradewinds. Or you are going for the high latitudes – Svalbard, Greenland or even Antarctica. Every cruising ground has it's special requirements. We will discuss this during the design process and adapt the plans and the equipment accordingly. So don't worry in case you missed something from our standard equipment list.

It is our promise that at the commissioning date we will hand over a boat that is well tested and ready to sail.

### XIII. Contact

For any further information please contact us directly via E-Mail.

Viator Marine GmbH  
Friedrichstrasse 231  
10969 Berlin  
(Germany)

E-Mail: [info@viatormarine.com](mailto:info@viatormarine.com)

Homepage: [www.viatormarine.com](http://www.viatormarine.com)

More photos: [www.instagram.com/viator\\_marine/](https://www.instagram.com/viator_marine/)

