

# 50 Catamaran

*Full technical  
specifications*



# 50 Catamaran

## *Setting a Standard in the World of Multihulls*

Discovery Yachts are creators of the world's most inspired blue-water cruising yachts designed to take two people on the ultimate journey of discovery. In addition to the 55 and 67 monohulls we have added a state-of-the-art, Bill Dixon designed catamaran for luxury blue-water cruising on the level.



The Discovery 50 Cat is designed for performance, built for safety, equipped for luxury and defined by quality: the hallmarks of every Discovery Yacht. She is a blue-water thoroughbred for exhilarating sailing across oceans, yet has all the quality and comforts to give real pleasure when living on board.

### **Effortless Handling**

This imposing 50 foot cat can be handled by just two people with ease. Her comfort at sea is enhanced by her sculptured hull shape, good bridge deck clearance and load-carrying capacity. These features, coupled with the well-balanced rig, offer fine performance for long-range cruising.

All sail trimming can be done single-handedly – without any physical effort. Lines are led back to two powerful electric winches at the well-protected cockpit helm position. Even the anchor windlass can be controlled from here.

### **Luxury Living**

In the past, catamarans have been designed principally for the charter market – practical but not luxurious. With the Discovery 50 Catamaran, you have a sumptuous home afloat. You can specify cabin configurations and semi-customise the interior throughout.

The owner's stateroom, with its super-king size bed, spans the full width of the boat and has 'his' and 'hers' bathrooms. The talents of interior designer, Ken Freivokh are very apparent in the light and airy saloon with its contemporary styling and luxury feel. Deep, restful armchairs and a large dining sofa provide comfortable places to relax.

The navigation station faces forward with great visibility all round. Out of the elements, you can sit here in real comfort and control the boat while maintaining a good watch.

# 50 Catamaran

## *Setting a Standard in the World of Multihulls*



### *Key features*

- **A home from home to take you anywhere in any weather**
- **A comfortable long distance cruising yacht, combining performance and safety**
- **Designed by professionals with a proven track record**
- **Configured for easy sailing as a couple or family**

The superb and spacious galley is practical and easy to use, whether you are out at sea or in harbour. It has extensive work surfaces, plenty of stowage, and generous fridge and freezer capacity. By having the galley on the bridgedeck, the chef stays a part of life on board.

The cockpit area of the Discovery 50 Cat is really convivial. The generous dining area is properly angled for real comfort. Two magnificent sun beds flank the main cockpit, where you can lie or sit sheltered from the wind – watching the wake disappear behind you. The transom decks provide another recreation area for lounging and barbecuing, with steps to the water for swimming and diving.

The two-seater helm position has the benefit of being part of the cockpit, which allows the helmsmen to be in touch with the rest of the crew at all times; yet it is raised to give clear visibility and all sailing controls fall to hand.

The foredeck is all about your pleasure; relaxing and sunbathing around the trampolines, enjoying the vista, watching dolphins from the bow seats... or soaking in the ultimate luxury of the splash pool/hot-tub – great for cooling down on tropical passages or just lying back in the hot water under the stars!

### **Top Design**

The Discovery 50 Cat has a prestigious pedigree. The power, sail and superyachts of Dixon Yacht Designs are famous the world over. This stunning yacht is a product of the 25 years experience of this design studio. The structural engineering is by High Modulus – the company behind many of the world's greatest racing multi-hulls. By embracing the talents of designer Ken Freivokh, the Discovery Cat has a luxury, cohesive and practical interior that looks stunning, yet feels like home.

### **Customisation options**

Each Discovery yacht is bespoke. The Discovery 50 Catamaran comes with a choice of sail plan options and alternative interior layouts. In addition, we offer you as much choice and flexibility with the joinery, finish and onboard equipment as possible to provide you with a semi-custom yacht to fulfil your dreams.

*The Discovery 50 Catamaran –  
Inspired cruising on the level*



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## Catamaran

### *Design specifications*



#### Design Dimensions

Length	15.4m	50'
Beam	7.86m	25.9'
Displacement (Lt)	14,500 kgs	31,967 lbs
Draft	1.3m	4'6"
Fuel capacity	780 litres	206 US gals
Water capacity	550 litres	145 US gals
Engines	2 x 54hp	
Optional long range fuel tanks	1000 litres	264 US gals

I =	18.52m
J =	5.29m
P =	19.05 m
E =	7.25m

#### Sail Areas

Main:	75.0m <sup>2</sup>	807 sq ft
Jib:	44.0m <sup>2</sup>	474 sq ft
Genoa:	63.0m <sup>2</sup>	678 sq ft

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## Catamaran

### Hull



### Key features

- **Composite hull and deck provides acoustic and thermal insulation maximising your comfort**
- **Semi balanced rudders make for easy manoeuvring**
- **Very strong and stiff construction – perfect for offshore cruising**
- **Watertight bulkheads provide safety and peace of mind**

#### Hull Construction

The hull is laid up in female moulds. The immensely strong lay up specified by the Designer and Structural Engineers meets or exceeds the highest level of the European Recreational Craft Directive – Category 'A' (Ocean). The hull has two coats of isothalic gelcoat. This is non-pigmented below the waterline. This is followed by powder-bound mat. Both the quality of the gelcoat and the use of non-pigmented gelcoat below the waterline make for an impervious hull surface that is highly resistant to osmosis. The hull carries a 5-year written guarantee against osmosis.

Vinylester resin is used throughout the hull, which gives superior strength over more traditional polyester resins and a far higher resistance to water ingress again helping to prevent osmosis. The lay-up incorporates a high density foam core, which provides exceptional stiffness and insulation. This is laid-up with e-glass and locally reinforced with Carbon fibre and consolidated using vacuum technology to ensure complete structural integrity. Woven mat is used extensively for optimum strength to weight ratio, and this is further stiffened by a layer of woven Kevlar throughout the forward part of the hulls.

Extensive stringers and bulkheads give massive stiffness and strength.

Both hulls and the central bridge are moulded as one complete unit. The deck is also moulded as one complete unit, which means when the deck is secured to the hull the whole structure is very strong and stiff providing you with security and safety, especially when sailing offshore.

There are watertight bulkheads forward of the forward cabins. In the section forward of these bulkheads there is a horizontal watertight bulkhead to protect the boat in the unfortunate event of severe bow damage below the water line. The engine rooms aft are contained in their own watertight compartments.

The hull below the waterline is epoxy painted and given two coats of anti-fouling before the boat is launched. A double boot top line is sprayed or moulded in.

#### Saloon Windows

All windows are constructed of toughened safety glass and are lightly tinted. They have been designed to minimise heat gain making it more comfortable when inside.

#### Hull to Deck Join

The deck moulding is laid into a matching hull flange recess with an epoxy bonding paste, and the two are then fastened with stainless bolts at high load points. The wood toe rail is then fastened onto the flange.

#### Hull Interior Finishes

All accommodation surfaces are lined. Bilge areas are flow-coated in grey or white and hatches are edge sealed and varnished or painted on both sides. All wood surfaces are varnished, lacquered or painted as appropriate to best boat building practices.

#### Steering Gear

A 700mm leather covered stainless steel wheel controls the steering system to the rudder quadrants. The rudders are GRP with Kevlar reinforcement and are semi-balanced. This means that the steering is light, powerful but positive. An emergency tiller can be fitted directly onto the top of either rudder shaft, which is accessed via stainless deck plates. There is a friction brake on the wheel.

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## Catamaran

### *Deck and superstructure*



### *Key features*

- **Laid out for easy handling**
- **Comfortable corners for relaxing and sunbathing**
- **Strong and stiff for performance and safety**

#### **Deck**

The deck is moulded in GRP with a foam core to provide strength and insulation. Wherever there are load bearing areas plywood replaces the foam core. All high load bearing fittings have reinforced backing plates. The deck incorporates 2 massive stowage lockers forward accessed by large hatches. There is a large self-draining gas locker by the helm position, and a liferaft stowage position amidships on the aft face of the bridgedeck.

Since anchoring easily is a major consideration when cruising, there is a self-draining chain and anchor locker in the central pod. Here the anchor is deployed from a self launching roller system by the electric windlass.

The port transom is fitted with a bathing ladder, with option for a second one to starboard. A useful grab handle is provided when coming alongside in a dinghy. A bathing shower with hot and cold supply is standard.

The engine rooms and the forward deck accessible compartments are fitted with lights.

The transom steps and main cockpit sole are teak laid as standard, using finest quarter sawn teak, with no visible fastenings. As an alternative, synthetic teak options are available

or a textured non-slip finish can be applied to the GRP. Full Teak decking is available as an options.

#### **Cockpit**

The cockpit is self-draining with large cockpit drains. All drains have slotted stainless covers to prevent small items being lost overboard.

The port side of the cockpit provides a spacious, comfortable seating area, with carefully sculptured seat bases and well angled, deep seat backs for maximum comfort and safety. A substantial table provides for great outdoor living.

The starboard part of the cockpit gives additional seating/sunbathing areas, whilst the helmsman station provides a complete control area. The comfortable helm seat folds away if you prefer to stand at the wheel. The custom designed instrument panel gives clear instrument visibility.

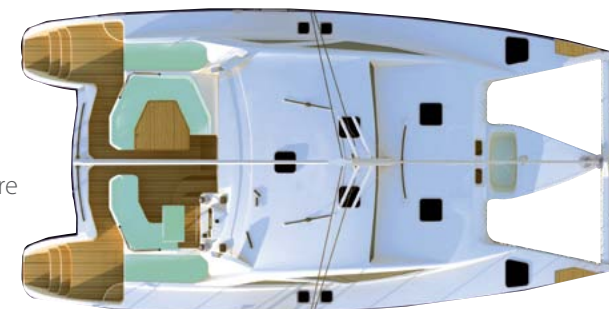
The leather covered wheel is mounted on the fascia, with instruments, controls and single-lever throttles immediately to hand.

A pair of water-resistant cockpit speakers are fitted. There is cockpit lighting positioned on the underside of the boom or fixed Bimini option for evening dining.

#### **(Optional) Bimini Tops**

Two alternative Bimini Tops are offered as an optional extra - either fixed or soft-top and folding. Both styles of Bimini extend over the main cockpit and provide good shade for the whole cockpit. Both variants can have optional roll down side panels for when the sun is low on the horizon.

A full sun awning to cover half or all of the boat is also available as an option. This not only provides shade, but also shields open hatches.



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## Catamaran

### Deck Equipment



### Key features

- **Electric winches provide effortless sail control**
- **No need to leave the safety of the cockpit**
- **Extra tall stanchions for added safety on deck**

#### Winches

Harken winches are provided as standard. (Andersen or Lewmar winches are optional)

- 1 x Harken 64 STEC and one 48 STEC electric self-tailing winches are provided as standard primary winches at the helm position
- 1 x Harken 64 STEC electric self-tailing winch is fitted for the mainsheet control
- 2 x Harken 44 ST self-tailing winches provides control of the main traveller
- 1 x Harken 44 ST on the mast for headsail halyards
- 2 x winch handles
- 2 x winch handle pockets

#### Stainless Steel

All stainless steel fabrications are in finest marine 316-grade stainless steel, mirror polished. Amidships there are opening side gates to port and starboard. An optional side boarding ladder is designed to fit here to provide easy access when alongside. At each bow, there is a 'dolphin watching' seat laid with teak.

High stainless steel stanchions – 715 mm (28") – are set on the deck edge, providing clear, uncluttered side decks and additional safety. Double stainless guard wires are fitted.

There are 8 stainless steel mooring cleats set on the side decks, with anti-chafe rails as appropriate.

Stainless grab handles run along the deck saloon roof.

Three stainless steel U-bolts are fitted in the cockpit for safety harness attachment, and webbing jackstay (safety lines) run up each side deck from right aft to the bows.

#### Sail Handling Equipment

Harken equipment is standard (Lewmar equipment is optional).

The headsails are set on Furler or Profurl headsail roller reefing as standard (Electric control is available as an option). These control lines come back to an electric winch at the helm position.

The self-tacking Solent jib runs on a curved Harken track set on an integral GRP moulding. This jib sheet is led via Harken blocks to the cockpit control clutches. The reefing control

lines are run aft via turning blocks to the electric control winch at the helm position.

Genoa sheets are led to a Harken genoa sheet track with Harken genoa cars, port and starboard. They are then led via Harken turning footblocks to the primary electric winch.

Electric in-mast reefing is standard, controlled from the helm position. Other control lines are led aft from the mast area to the main electric control winches at the helm position. The lines are led neatly over the coachroof via a bank of organisers with complete and immediate access to lines if required. Everything is accessible. A bank of Spinlock rope clutches forward of the winch control the lines. Rope clutches are also provided for the staysail and genoa reefing lines on the coachroof.

As standard the main sheet is controlled by a Harken mainsheet car system, leading to an electric winch on the aft bridge deck. As an option the mainsheet can alternatively be led forward along the boom, returning to the helm position. The mainsheet traveller control lines are led to stoppers and their own Harken winch on the main aft cross beam.

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## Catamaran

### *Anchoring*



#### **Anchoring**

A Lewmar vertical electric windlass with chain and rope gypsies is positioned in the central pod. The chain fall leads directly into the self-draining anchor well, which is also accessible from on deck. The windlass has a two-way control switch forward. To add to the easy handling, a remote control is fitted in the cockpit as standard. Great attention to detail has been given to the design of the anchor stowage and rollers, since easy anchoring is so important to shorthanded, long-term cruisers. There is a second roller on the forward crossbeam. The anchor system incorporates two large diameter delrin rollers for easy chain flow, and to allow self launching of the anchor. An anchor bridle is fitted as standard.

An oversize 40kg (88 lbs) Delta anchor self stows in the stemhead fitting, and this comes with 60m of 10mm calibrated galvanised chain fitted. The bitter end is securely fastened high in the anchor well.

The stern is also fitted with a stainless steel anchor roller for mooring bows-to.

### *Key features*

- **Oversized anchor for safety and peace of mind**
- **Drop or raise the anchor easily from the cockpit**
- **Effortless anchoring with the powered windlass**





# 50 Catamaran

## Interior



## Key features

- **A wide range of design options to reflect your style of living and sailing**
- **Designed for maximum comfort**
- **Easy living – your home from home**

### Interior Layout Options

There are several interior layouts available, with a number of variations possible within those. The main difference in the layouts is in the Owner's cabin versions. The standard layout is with the full width owner's cabin forward and a double in each aft cabin.

#### Standard – Three Cabin Layout with Owner's Stateroom Forward

This owner's stateroom is extraordinarily light, airy and spacious. It utilises the full width of the boat and is nearly 25 feet (7.7m) wide. The king size double berth is 7'2" long by 6'6" wide (2.2 m x 2 m). The high quality split mattress is set on special battens for maximum comfort and to allow it to 'breathe'. There are drawers under the bed and on each side there is a bedside table. Outboard there are vanity desks and stool or a sofa. There is generous locker and wardrobe stowage. Two large hatches are positioned over the berth, with two additional forward facing ports for light and ventilation. On each side there are two large vertical windows in the hull, which give a wonderful feeling of space and light. There are 'His and Her' bathrooms, one in each hull, each with a separate shower. All the bathrooms are fitted with electric operation WCs.

### Four Cabin Layout Option

In the four cabin layout the forward area is split to provide 2 spacious cabins. There is a choice of 3 layout options for each cabin, and the two cabins don't have to be the same. You can choose either a 2m x 1.8m wide double bed laid out fore/aft, a 2m x 1.5m wide island berth athwart ships (across the boat), or 2 single berths athwart ships that can convert to a double. The options are priced slightly differently. Each cabin has its own spacious bathroom and separate shower. The standard fit in all the bathrooms is a Tecma electric WC which can be fed by fresh or salt water.

### Custom Layouts

We realise that everyone is different and that you may have specific requirements to meet your sailing and living plans. We are happy to discuss specific layout preferences you may have.

### Aft Cabins

Each hull contains a huge cabin aft. Again you have the option to design your own layout with either a full-size centreline double bed (2m x 1.65m) in each cabin, or twin berths that can convert to a double. All the cabins contain wardrobe and stowage space. Each of the

aft cabins has a large overhead hatch, and a vertical aft facing hatch (that can be left open when it rains) and magnificent vertical profile windows in the hull for maximum light and air.

### Interior Finishes

The standard joinery finish is in cherry, with options in maple or light oak. We will be pleased to discuss the characteristics of each wood, and show samples of finish. There is also a wide choice of soft furnishings available.

The standard flooring throughout is Amtico with a wide choice of wood colours. This provides a homely feel to suit your tastes. Carpet can be added as an option.

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## Catamaran

### *Interior*



### *Key features*

- **Hold watches from the safety of the saloon**
- **Hull insulation extends the sailing season**

#### **Main Saloon**

The standard saloon layout is designed to allow panoramic views whether standing or seated. The saloon can dine six to eight people in comfort around the generous saloon table. There is a drinks locker under the navigator's seat. To starboard there is a comfortable corner sofa. Three opening deck hatches, together with two forward facing hatches in the forward window provide lots of through ventilation. The main door slides to starboard and the adjacent window slides to port which really opens up the saloon to the cockpit to become one vast living area.

There are grab handles and sturdy fiddles positioned throughout, to allow easy movement around the boat.

#### **Navigation Area**

The slightly raised navigator's station affords good visibility outwards. Reflecting the way that most people now navigate, the chart table has been designed to incorporate the plotter/radar screen, but still leave desk space for logs and desk work. Storage for other navigation aids, almanacs, etc are conveniently to hand. There is provision of both white and red night lighting in this area. The large navigator's seat is well shaped for maximum comfort.

#### **Galley**

The galley has been designed for easy use both at sea and in harbour. The general layout is as shown on the plan. There is a double stainless steel sink. Since water from washing up and food preparation seems to have a mind of its own at sea, the whole of this worktop is a lightweight Corian with matching fiddles to contain any spillages and protect the cherry fiddle trim. Hot and cold pressured water is fed to a mixer tap. There is a separate foot-operated fresh water pump.

A saltwater tap is available as an option. A large draining sink is built in beside the sinks, so that dishes can be left to dry securely. This is also a useful place to put things down and know that they will be secure. A handy chute leads to a pull-out garbage container under the worktop. There is ample stowage in lockers and drawers and there are fiddles and grab handles throughout.

Halogen down lights provide good working light. LED lights are available as an option. Side windows and an opening port in the coachroof provide light and ventilation. The sliding door giving total access to the cockpit. An extractor fan is fitted over the cooker.

There is a three or four burner cooker. It is fitted with fiddles/pan holders and has flame failure devices. The oven and grill are set under the worktop. A safety switch is provided to the remote gas supply solenoid shut off valve. A 230v (110v) microwave oven is also fitted as standard, and there is enough space for an optional front-loading dishwasher.

#### **Refrigeration**

The main fridge of 290 litres (9 cu ft) capacity has two front opening doors. It is fitted with shelves and an internal light. There is a large, well insulated deep freeze of 170 litres (6.0 cu ft) capacity, front opening and accessed from the port corridor. The freezer can also be used as a fridge should an extra chill cabinet be required.

The standard refrigeration and freezer are Frigomatic systems, with sea-water keel cooled heat exchangers. Both the fridge boxes and freezer are constructed with 80mm to 120 mm closed cell insulation to provide maximum efficiency which saves on power consumption. Vapour barriers are fitted around the doors which prevents the door from freezing and condensation building up on the outside. Both fridge and freezer are specified for full tropical use.

# 50 Catamaran

## Interior



### Lighting

Halogen lights are provided throughout the boat. LED lights are an option. In addition, each berth is equipped with a bedside reading light. Red night courtesy lights are provided at strategic points throughout the boat.

### Heating

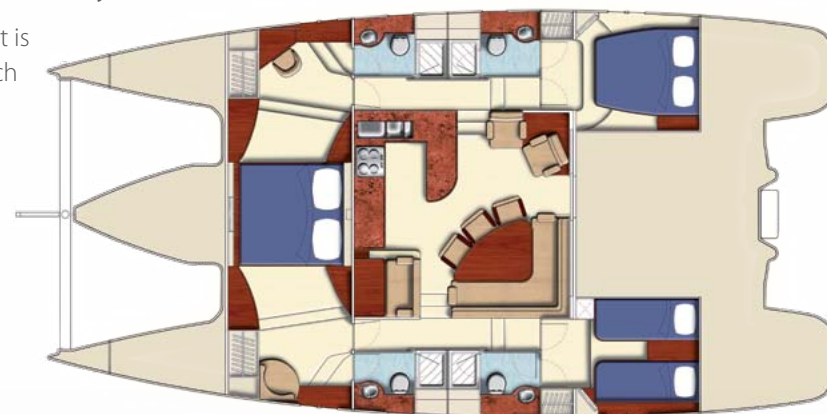
Heating to all parts of the boat is provided by an Eberspacher D10W hot water central heating system (or comparable).

## Key features

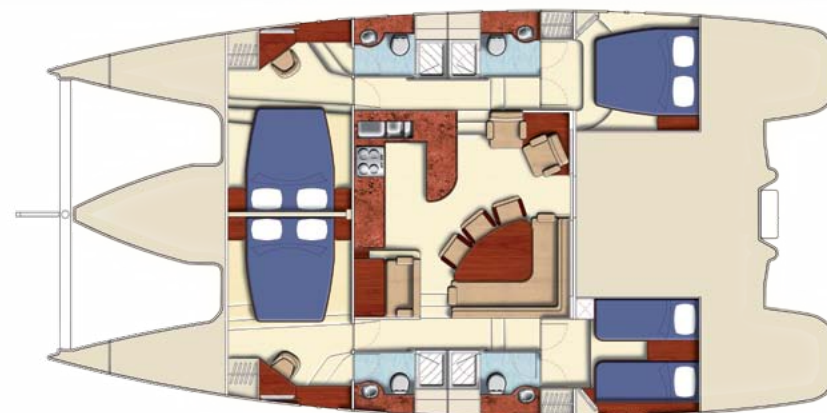
- LED lighting available to reduce power consumption and increase reliability
- Custom layouts to suit your family and guests
- Heating is standard

### Forward Stateroom Layout

Standard layout is a double in each aft cabin.



### Four Cabin Layout



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## Catamaran

### Spars and rigging



### Key features

- **Configured for single-handed sailing**
- **High quality equipment provides reliability and peace of mind**
- **Powered controls makes sailing effortless**
- **Thoughtfully laid out to make control easy**

#### Mast and Rig Options

The standard oval section mast is deck stepped, with swept back spreaders.

The standard finish is extruded silver anodised aluminium alloy. White finish spars are available as an option. The standard rig is electric in-mast reefing. Push button control from the cockpit allows one person to reef and furl away the sail. There is a manual over-ride of the electric motor. The mast is fitted with internal halyards. A conventional horizontal battened main is available as an option. Spars are from Selden or comparable.

The standard sail plan arrangement offers a vertical battened mainsail with a 130% rolling reefing genoa. (A) – see illustration or Sail Plan (B) offers a vertical battened mainsail with a 100% blade self-tacking roller furling jib.

This is often then supplemented by an optional furling screacher or gennaker sail if desired Sail Plan (C) (optional) offers the deck gear fitted to fly either a self tacking jib or the larger genoa, with either sail set to the forestay furler.

Each of these rigs has its own advantages. We would be delighted to talk through your own preferences.

#### Running Rigging (According to Sailplan Chosen)

Main, and headsail Halyards	12mm Vectran
2 Genoa Sheets, or	16mm Polyester Braid
Self-tacking Jib Sheet	14mm Vectran
Main Sheet	14mm Polyester Braid
Outhaul	14mm Dyneema
Mainsheet Traveller Lines	10mm Polyester Braid
Jackstay (safety) Lines	25mm Jackstay Webbing

#### Mast Electrics

The mast is fitted with a masthead VHF antenna and cable, masthead tricolour and anchor lights, steaming and deck lights. Raymarine ST60 wind instruments. Windex wind indicator. Cabling for radar antenna fitted when the optional radar is ordered.

#### Boom

The oval section boom is designed for use with the electric in-mast reefing.

#### Standing Rigging

All standing rigging is of 1 x 19 stainless steel wire terminating in Norseman Gibb or swaged terminals with chromed bronze rigging screws and stainless steel toggles at the lower ends.

#### Sails (According to Rig)

Sails by Hood Sails (or comparable).

Mainsail cut for in-mast reefing in Hood's Vektron material for better strength and wear.

Furling crosscut Blade Jib in Dacron – with luff pad and UV protective strip, or

Furling crosscut Genoa in Dacron (130%) – with luff pad and UV protective strip.

Vektron cloth or laminate sails are available as an option.



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## Catamaran

### *Spars and rigging*



### *Key features*

- In mast reefing makes sail handling easy
- Traditional slab reefing is available
- Twin forestays available providing a variety of sail configurations

#### Sail Plan

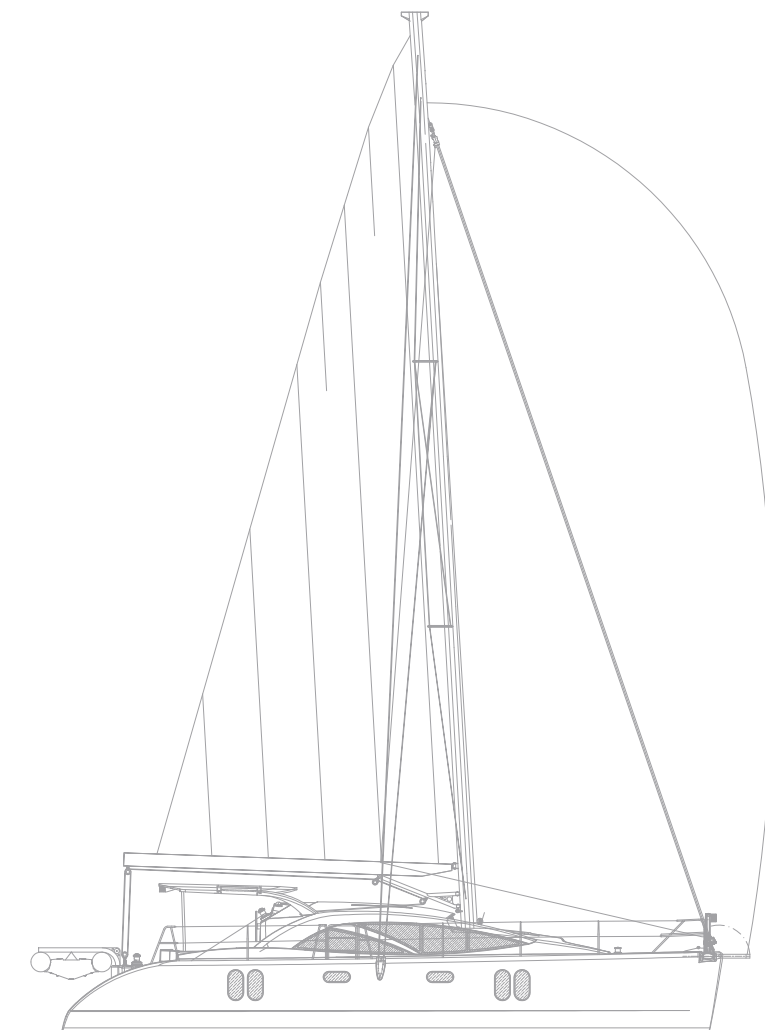
Standard rig is electric in mast reefing. Standard headsail arrangement (with appropriate deck gear) offers either a 130% roller reefing Genoa or a 100% roller reefing self-tacking blade Jib (Solent Jib).

#### Discovery 50 Cat Sail Areas

Mainsail (slab reef)	75.0sq m	807sq ft
Blade Jib	44.0sq m	474sq ft
Genoa	63.0sq m	678sq ft

#### Sail Plan

I =	18.52m
J =	5.29m
P =	19.05m
E =	7.25m



# 50 Catamaran

## *Engine and machinery*



## *Key features*

- **Spacious engine rooms for easy and accessible maintenance**
- **Folding propellers enhance performance**
- **Watertight engine rooms for added safety**

### **Engine Rooms**

The Discovery 50 Cat has large watertight engine rooms, with good access to each engine and ancillary equipment. There is lighting and fan ventilation in each engine room area and automatic fire extinguishers are fitted as standard.

### **Insulation**

The forward bulkhead of the engine room is lined with fire retardant insulation that is faced to prevent any contamination by diesel or inflammable substances. All access panels have rubber sealing strips. All ancillary pumps and motors are rubber mounted for quietness.

### **Engine**

We offer a choice of two engines. The standard is the YANMAR 54hp. This is a 4-cylinder, turbo charged engine, which develops 54hp (40kW) at 3,300 RPM. It is fitted with a Saildrive unit and folding prop. The alternative engine is the same engine turbocharged with intercooler. This offers 75hp (56kW). Each of the 75hp engines is 20Kg heavier. Yanmar provide a good worldwide service network. We would be pleased to discuss the merits of each engine with prospective owners.

### **Propeller**

A folding two-bladed 18" diameter propeller is fitted as standard. The 75 hp engines are fitted with three-bladed 18". The propeller folds automatically to maximise sailing performance. It gives excellent handling performance, ahead or astern.

### **Fuel Tanks**

Fuel is provided from two rigid tanks made of special composite construction and fitted with baffles for protection. Total capacity of these tanks is 780 litres. We have fitted these because we believe them to be far superior to stainless steel or aluminium tanks, as they minimise condensation and are much less likely to suffer from stress cracks. Each tank has its own deck filler and breather. The main fuel feed is then led to a Racor (or equivalent) fuel filter and water separator for each engine. This is in addition to the engines' own filters. There are fuel contents gauges for both tanks.

### **Long Range Fuel Tanks**

Additional long range fuel tanks are available as an option. To maximise performance in any catamaran, owners will want to keep weight down. However, for longer ocean crossings or independence from land there are times when it is good to have extended range. With this option two additional fuel tanks can be fitted under the aft berths giving another 1000 litre capacity. This gives a total of 1780 litres. These come with their own fillers and appropriate fuel management manifolds to allow fuel to be transferred between tanks.

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## Catamaran

### Plumbing



### Key features

- **Filtered fresh water**
- **Colour coded plumbing for easy maintenance**
- **Electric toilets provide luxury on board**

#### Fresh Water System

Fresh water is stored in two separate food grade composite tanks which are positioned centrally under the chart table area and outboard side of the galley. These are fitted with baffles. They are taint free and do not suffer from the corrosion that can affect stainless steel tanks in some parts of the world. Total water capacity is 550 litres. Each of these tanks has its own deck filler and breather. Each tank is fitted with a contents gauge. A water maker is available as an option.

Hot water is fed from 2 x 30 litres insulated calorifiers fitted in each hull taking heat from the engine's heat exchanger. Each is also fitted with a thermostatically controlled immersion heater (230v or 110v as specified) for use when alongside.

Hot and cold pressurised water is fed throughout the yacht by an automatic water pump system. There are outlets in the galley, in all hand basins and showers, in the cockpit and at the aft deck shower. There is also a foot-operated freshwater pump in the galley. Hot and cold fresh water, together with salt water can be supplied to the 'Hot Tub' as an option.

#### Toilets and Holding Tanks

The Discovery 50 is designed to meet all the current international regulations on discharge overboard and holding tanks.

The yacht is fitted with Tecma electric WCs in all heads. The WCs discharge overboard when at sea. There are holding tanks in each hull, each having a capacity of approximately 80 litres. The holding tanks are positioned in such a way that they are discharged overboard by gravity. They can also be emptied by shore side facilities. All pipe work is reinforced sanitation grade hose designed for use with marine heads, and is double clamped.

#### Grey Water

Waste water can be diverted from the showers (grey water) into the holding tanks when appropriate.

#### Bilge Pumps

Each hull is fitted with a centrally positioned electric bilge pump located in the sump. Each engine room is also fitted with its own electric bilge pump.

There are access panels in the forward sail lockers to allow the use of a manual bilge pump if needed. All four electric pumps are fitted with automatic float switches, and a two-position switch (On/Auto) at the control panel. Two manually operated bilge pumps, one located in each hull and fitted with a strum box, can be operated from the cockpit.

#### Deck Wash System

A salt water pressure pump is fitted, with an outlet at the anchor well. The supply terminates with a snap-on connection, and comes complete with 15m of hose and a hose gun allowing easy anchor and deck cleaning. A fresh water outlet is provided in the cockpit for fresh water deck rinsing.

#### Through Hull Fittings

All through-hull fittings near or below the waterline are fitted with shut-off valves, and double stainless steel clamps.

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## Catamaran

### *Electrical*



### *Key features*

- **Tinned wiring throughout provides reliability and longevity**
- **Easy to understand electrical system gives simple maintenance and reliability**
- **Worldwide compatible electrical systems**
- **High capacity batteries as standard**

#### **D.C. Electrics**

The engines are 12v start. The main engine is fitted with a 80amp hour 12v alternator. Both the main engine and the generator have their own 120amp hour start batteries.

The domestic batteries are industrial heavy duty, deep cycle, batteries totalling 1000amp hour capacity at 12v. These batteries, under normal use, should have a ten year plus operational life, and are the best conventional marine batteries available. They are almost maintenance free and are fully secured.

All wiring is tinned multi-strand marine grade cable, sized to ABS voltage loss regulations.

Heavy-duty battery switches isolate all circuits except bilge pumps which are independent. The boat uses control systems for reliability and ease of use with all circuits protected by circuit breakers. There are manual override controls available. All wiring is clearly labelled and numbered or colour coded throughout. Wiring is fed in conduits wherever appropriate.

The control panel provides full power management information (both D.C. and A.C.).

The chain plates, skin fittings and mast are grounded to an external earthing plate for lightning protection.

The Saildrive and rudder are electrically bonded and linked to a common earth system.

#### **A.C. Electrical System**

An A.C. panel controls a 30amp 230v (110v option) ring main, with power sockets in the galley, main saloon and cabins. A.C. power is provided by the Victron Energy Quattro 5kW static inverter, or dockside supply. A 1kW immersion heater is fitted in each hot water tank for use when using dockside supply. The Static inverter is powerful enough to power all normal AC loads including the optional washer/dryer.

Onboard power generation can be done either by a small generator (standard) or high capacity alternators fitted to the main engines. We are happy to discuss the options on power generation and merits of each system.

A 3 core double insulated 32amp PVC dockside power cable (20m) with appropriate sockets is provided.

#### **Battery Charging**

Engine start batteries are charged by 12v 80amp alternators. This provides secure starting back up with the two separate batteries. These have an emergency link facility, which would also allow charging from either alternator. The main domestic battery bank is charged from both engines, or by the Victron battery charger which charges at 120amp hours from the shore power.



# 50 Catamaran

## *Instruments and electronics*



## *Key features*

- **Our Owner Care Team support you in your travels – world wide**
- **Sail away package as standard**
- **Designed to get you there, quickly, safely and in comfort**

### **Instruments**

Instruments by Raymarine. ST60+ boat speed, wind speed and direction, and depth systems. Instruments are mounted at the forward end of the cockpit by the helmsman. A multi-function repeater is incorporated in the optional plotter.

### **GPS**

A Garmin 128 GPS is fitted at the chart table with antenna on the stern rail.

### **Plotter/Radar**

A Raymarine C90 chart plotter with integral 4kW Digital Radar is fitted as standard at either the Navigation station or the helm position.

### **Autopilot**

Raymarine 6002+ automatic pilot, with control at the steering pedestal. A second cordless handheld autopilot control is fitted at the chart table.

### **VHF**

ICOM M505 VHF complete with DSC is standard. A second handset for the cockpit for VHF is optional. Masthead antenna.

### **Stereo**

Sony or Clarion stereo FM radio with CD player. Twin speakers in the main saloon. A pair of water resistant speakers in the cockpit. There are many options available for the Audio Visual system.

## **Additional Loose Equipment**

### **Equipment**

- 6 x Fenders
- 2 x 15m nylon mooring warps
- 2 x 10m nylon mooring warps
- 2 x Locking winch handles
- 1 x Emergency tiller
- 1 x Emergency handle for in mast reefing
- 2 x Bilge pump handle
- 1 x Portable manual bilge pump
- 3 x Dry powder fire extinguishers
- 1 x Ensign staff
- 1 x Boathook
- 1 x 13kg Propane gas bottle and regulator

### **Full Owner's Manual**

The Owners Manual includes drawings and specification of the engines and generator, sails and rigging, A.C. and D.C. wiring circuits and equipment, seacock and plumbing circuits, refrigeration systems, black systems, etc. In addition, we keep a full record of the manufacturer, type, and serial number of all significant components on each boat. We will also supply the same information, printed and on disk, to each owner to ensure that any spares that are needed can be rapidly dispatched, wherever you may be.

## **Warranty**

The hull is guaranteed against osmosis for a period of five years from the completion of the boat. A one year warranty is given against any manufacturing or materials defects, and all installed equipment is covered by the manufacturers' warranties in accordance with their conditions.

### **Insurance**

The builder's insurance covers the boat and its equipment during the period of construction. This shall apply to all equipment, whether supplied by the builder or the owner.

### **CE Certification**

The Discovery 50 Cat is designed to meet or exceed the highest level of the European Recreational Craft Directive – Category 'A' (Ocean) for CE marking, based on international standards (ISO's) ruling at the time.

### **Yacht Familiarisation**

If desired, we offer up to three days of free boat handling and systems familiarisation for a new owner and/or crew, so that you can feel fully confident with your boat and its equipment. This would normally be in the Solent/English Channel area.

# 50 Catamaran

## Specification summary



## Key features

- **5 year hull warranty**
- **High quality equipment provides reliability and peace of mind**

### General

- Supplied with CE certification to conform with RCD category A – Ocean
- The hull is guaranteed against osmosis for 5 years

### Hull Construction

- Composite construction with a high density foam core providing exceptional stiffness and insulation. Laid up with vacuum technology for complete structural integrity. Weight is also kept to a minimum.
- Laid up with e-glass and locally reinforced with carbon fibre for additional strength and rigidity
- Non pigmented gel is used below the waterline which attracts less moisture providing increased resistance to osmosis
- Vinylester resins are used throughout for added strength and protection against osmosis
- 5 year guarantee against osmosis
- Watertight bulkheads in engine compartments
- Epoxy coated as a barrier against moisture ingress
- Two coats of anti-foul in colour of your choice
- White Gel coat with boot line
- 1 bathing ladder

### Deck

- Composite construction with foam core providing strength, insulation and light weight
- Marine ply is used in all load bearing areas for added strength
- White gel coat
- Teak capping rail & cockpit area
- Large self draining gas locker
- Large storage lockers forward
- Hot & cold shower on aft deck
- Lights in all deck lockers
- Self draining chain locker
- Sea water deck wash (with 15m hose)
- Fresh water deck wash

### Deck Fittings

- Stainless pulpit with teak seats for dolphin watching – one on each hull
- Stainless stanchions with higher than standard guard rail for added safety around deck
- 8 stainless steel mooring cleats
- Harken winches & deck fittings as standard
- Stainless grab rails along coach roof
- Strong webbing Jackstays for safety

### Keel

- Integral stub keels (one on each hull)

- Electric bilge pump in each keel sump

### Engines & Generator

- 2 x Yanmar 54HP (40kW) – fresh water cooled
- 2 x Saildrive
- 2 x Racor or equivalent fuel filter & water separator
- Full height engine rooms
- 80 Amp/hr alternators on each engine
- Single lever controls at cockpit steering position
- 2 x 18" folding propeller
- 5kW generator installed in its own quiet housing

### Tanks

- Fuel: 780 litres (206 US Gallons) fuel in two composite constructed baffled tanks
- Fresh Water: 2 x composite tanks totalling 550 litres (145 US Gallons)
- 2 x 30 litre hot water calorifiers with immersion heater
- 2 x Black Water holding tanks approx. 80 litres each (21 US gallons)

### Electrics

- Marine grade tinned cabling is used throughout. This reduces corrosion and provides longevity

- 2 wire LAN-Bus system provides reliability, ease of use and easy maintenance
- 5kW Inverter/charger providing 230v/50Hz
- 230v/50Hz Shore power (110v/60Hz pack available as option)
- 32 Amp shore power cable
- Halogen down lighters throughout
- Night lights throughout the boat

### Batteries

- 1000 Amp/hr at 12v industrial, heavy duty, deep cycle
- 1 x 120Amp/hr start battery for each engine
- House battery charging via shore power or 80 Amp/hour alternators on each engine

### Instruments

- Raymarine ST60 speed, wind & depth
- Garmin GPS
- Raymarine Autopilot ST6002+
- ICOM M505 multi-channel VHF with DSC and masthead antenna
- Raymarine C90 Chartplotter
- Raymarine 4kW Digital Radar
- Passive Radar reflector
- Remote Autohelm/pilot control at Nav station

# 50

## Catamaran

### Specification summary



#### Entertainment

- Stereo FM tuner/CD/DVD player

#### Plumbing & Heating

- Pressurized hot and cold fresh water
- Pressurized sea water for deck wash, electric toilets and hot tub
- 2 x 30 Litre calorifiers
- Fresh water foot pump for back up
- Eberspacher (or comparable) heating throughout

#### Steering

- Stainless steel leather bound wheel
- Semi balanced large Kevlar reinforced rudders provide light but powerful steerage
- Raymarine 6002+ Autopilot for shorthanded sailing
- Emergency steering tiller

#### Spars & Rigging

- Anodised aluminium mast and boom (White powder coated as option)
- Harken manual mast winches x 2
- Harken mainsheet traveller track
- Harken traveller for self tacking Jib
- Electric in-mast furling for mainsail,
- Manual furling for Jib or Genoa (electric is an option)
- Harken turning blocks
- Standing rigging – 1 x 19 stainless steel wire in swaged terminals

#### Sails

- Sails by Hood or other in Dacron
- Fully vertical battened in-mast furlled mainsail with UV protection at clew in Hood's Vektron material for longevity
- Either 130% genoa or 100% blade jib sheeted on self tacking track with UV protection on leach

#### Anchoring

- Lewmar vertical electric windlass
- 60m of 10mm calibrated chain
- 40Kg Delta anchor stows in stemhead fitting
- Kedge anchor roller fitted to transom

#### Cockpit

- Self draining with large cockpit drains to remove water quickly with steel grating to stop smaller items being lost
- Deep seat backs for maximum comfort and safety
- Substantial folding cockpit table
- Water resistant cockpit speakers
- Single steering position – leather covered wheel
- 2 x Bimini options (extra)
- Freshwater hose outlet in cockpit
- Spray Hood Option

#### Windows Hatches & Ventilation

- Toughened safety glass with slight tint
- Lewmar and Gebo opening and fixed hatches around the boat

#### Internal Joinery

- Cherry, Maple or Oak as standard

#### Galley

- U-shaped galley makes working here easy whether at sea or anchor
- Large and efficient front & back opening fridge for easy access. (290 Litres/9 cubic feet)
- Large and efficient front opening freezer (170 Litres/6 cubic feet)
- 3 or 4 burner gas cooker
- Double sink for ease of use
- 230v(110v) Microwave

#### Saloon

- Raised seating providing panoramic vision
- Corner sofa
- Large saloon table
- Drinks locker
- Sliding door to cockpit
- Sliding window to cockpit opens up the space even further
- 3 deck hatches

#### Navigation Area

- Raised navigation seat providing panoramic vision
- Red night light

#### Aft Cabins

- Full size double island berth with mattress
- Wardrobe and drawer stowage
- 2 opening hatches

#### En-suite Heads

- All cabins have en-suite heads with separate shower
- Electric heads x 4 that use either fresh or salt water to flush
- Pressurized hot and cold water
- Electric shower and sink sump pump
- GRP moulded units for easy cleaning

#### Full width Main Forward Cabin

- King size bed with split mattress
- Wardrobe, shelves and drawers

#### 4 cabin layout – Optional

- Two double or twin cabins forward
- Separate heads for each cabin
- Wardrobe and drawer storage space
- Opening portlights

# 50 Catamaran

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*For further information please contact:*



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**E&OE**

NOTE: Following a policy of continuous improvement, Discovery Yachts reserve the right to alter and improve specifications further.

A full specification will be agreed with the owner of each boat before construction begins.

This document is known as **Cat 50 Specification V3** and was issued November 2011.

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**Builder**

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