

# Linssen Grand Sturdy 450 AC Variotop®

ltem De	escription	Page 1
BASIC DATA		
01010.05	Type code Construction Bottom/hull/decks/superstructure Weight/displacement	: 27C : SPH®(patent pending) (Softchine Prestressed Hu : 6/5/4/5-4 mm. : ±22.500 kg / ±22,5 m <sup>3</sup>
01020.05	LOA x beam x draft Length hull Length over deck Length waterline Minimum air draft Air draft with lowered mast to top parking fra Variotop® Headroom FC/saloon/AC/Wheelhouse	: $\pm$ 13.75 x 4.65 x 1.20 m. : $\pm$ 12.80 m. : $\pm$ 12.70 m. : $\pm$ 11.75 m. : $\pm$ 3.49 m. ame : $\pm$ 4,20 m : $\pm$ 2.00/1.98/1.98/2.00 m.
01030.03	CE-classification Number of max. recommended persons	: B (sea) : 10
13020.20	Engines Alternator	: 2x 4 cyl. Mercury Diesel, type MD2.0L ZF 25-H / 2,8 : 1 2x 84 kW (115 HP), 3000 rpm : 2x 110A-12V
03040.01	Fuel tank capacity Water tank capacity Holding tank capacity	: ± 2x 750 ltr. : ± 720 ltr. : ± 400 ltr.
41001.01	Aft cabin with a free-standing double berth, SB-Side, shower compartment connected to and SB-side.	•
42001.01	Spacious U-shaped galley at SB-side, cupboa separate dinete	rds. L-settee at SB-side, at Port side a
43001.01 44001.01	Forward cabin with double berth and cupboa Wheelhouse with luxury steering position an	ards, separate toilet and shower compartment. Id helmseat at SB-side, settee at Port side
1. HULL		
1.1 EXTE	RIOR	

- Hull constructed in accordance with the Linssen Yachts SPH® (patent pending) construction 11015.01 method Integrated aft deck dodgers 11030.02 Integrated deck-boxes, aft bench including lockable teak tops with gas-pressure struts, incl. 11040.01 joint. 11050.01 "Linssen Variotop®: hydraulically-operated, double-lined and insulated convertible roof. Watertight wheelhouse enclosure through a unique, patented, closing system 11055.01 Hydraulically-controlled collapsible parking frame for the Variotop<sup>®</sup>. The hydraulically controlled parking frame can be lowered to reduce the maximum air draft to approx. 342 cm.
- Integrated stern door to bathing platform 11080.01

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1.2 ST/	AINLESS STEEL		
12010.01			
12010.01		ard)	
12030.02		un dij	
12050.02			
12055.01			
12075.01		teps	
12080.01	Stainless steel handrails on saloon deck		
12112.01	Polished stainless steel handrails at aft side wheelhouse		
12120.01	Centerline traffic stairs on heart ship with teak deck parts, with comfortable wide steps and ergonomic handrail for safe traffic from deck to bathing platform.		
12125.01	Teak step in side decks		
12130.01	Polished stainless steel foldable bathing ladder at bathing platform (incl. solid teak s with anti-slip profiles)	teps	
12145.02	Robust, stainless steel coated bathing platform, with solid teak parts (including Heav Duty Linssen PVC fendering from bathing platform to 1/3 of the hull length)	/y	
1.3 TE	CHNICAL		
13029.02	Air suction vents engine compartment with anodised aluminium grill at Port and Starboard side		
13040.01	Linssen "FIS" system (patent Floor Integrated System <sup>®</sup> ) for integral protected loop-u cables and ductings in the engine compartment	p of	
13110.01	Outside shower at bathing platform, with warm and cold water tap		
13135.01	Preparation for extractor hood in galley by roof fan on saloon deck for discharge outside.		
13150.02	Integrated bow fitting with fixed anchor roller and stainless steel anchor holder		
13155.01	Mooring facility at bow through stainless steel hawse and stainless steel protection	strips	
2. COATIN	NG		

#### 2.1 COATING & DECK FINISH

- 21010.01 Linssen 2 component Exterior Coating system
- 21020.01 Saloon and cabin deck in anti-slip coating
- 21030.01 Fore-deck and side decks in anti-slip coating
- 21060.01 Non-toxic antifouling suitable for fresh and salt water (Black colour)
- 21070.01 Additional 2-component easy-to-clean protective coating in engine compartment

21090.19	Original Linssen Sand Beige colour scheme:		
	Superstructure and hull	: Sand Beige	
	Waterline	: Dark Green	
	Antifouling	: Black	
	Rope fender	: Beige	
	Cabriolet canvas	: Sonnenland Java	
	Glass windows saloon, wheelhouse,		
	ventilation-/escape hatches	: "summer green" tinted	

## 2.2 TEAK DECKS

22020.01 Original LINSSEN teak deck on aft deck, steps on stern and ventilation/escape hatch.

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#### **3. ENGINE COMPARTMENT**

#### **3.1 TECHNICAL**

- 31011.23 Linssen Yachts "hydrolubricated" propeller shaft installation 31021.21 Engine/shaft connection through homokinetic coupling and thrust bearing 31025.22 Low noise propellers Bow thruster 400V/7,5 kW. Powered by the generator, long switching time possible, incl. 31034.02 soft start. Bow thruster can deliver a permanent power of 7.5KW and a peak power of 11KW. 31054.02 Stern thruster thruster 400V/7,5kW. Powered by the generator, long switching time possible, incl. soft start. Stern thruster can deliver a permanent power of 7.5KW and a peak power of 11KW. 31080.03 Twin electronic engine controls at steering position 31090.03 Hydraulic steering 31096.02 Stainless steel steering wheel with teak rim at steering position Fuel tanks of advanced design with inspection/cleaning hatch 31145.21 31161.03 Magnetic level gauge in fuel tanks for direct volume indication 31180.05 Separate second (1 x on engine) fuel filter with water separator, per engine 31210.02 Remote fuel supply cut-off to engines from dinette settee 31300.01 Linssen Yachts per cabin thermostatically controlled warm water heating with radiators in the forward cabin, dinette/saloon, aft cabin and wheelhouse. 31307.01 Radiator in front cabin toilet compartment. Thermostatically controlled. Radiator in aft cabin toilet compartment. Thermostatically controlled. 31307.21 31310.02 LED Engine room lighting with switch and indicator in switch panel 31331.01 Entrance engine compartment by folding ladder between the engines. 31700.03 Automatic fire extinguishing in engine compartment 31750.01 Linssen super sound insulation package consisting of a sound absorbent insulation and a non vibration package. **3.2 ON-BOARD WATER SYSTEMS** 32010.13 Automatic pressurized water system (incl. solid PVC water tank with inspection/cleaning hatch), incl. level indicator 32020.01 2 Automatic pumps including expansion reservoir for water system 32050.04 Hot water system (60 litre calorifier)
- 32060.01 230 V./800W immersion heater in calorifier
- 32080.06 Holding tank toilet including Dockside-Discharge connection and level indicator
- 32095.01 All grey water outlets (sinks and shower-drainage) discharge directly overboard Drain pump(s) shower(s) finished with switch-off delay
- 32110.02 Holding tank waste pump-out unit for Direct Discharge, equipped with timer, so pump switches off automatically after 10 min.
- 32150.04 Deck-wash pump, including hose and trigger nozzle with connection at bathing platform
- 32190.01 Electric bilge pump installations placed in bilges of aft cabin, forward cabin and engine room. Equipped with float switch & alarm (3x 100L/min. pumps)
- 32200.01 Additional loose electric bilge pump provided, with discharge tube and supply cable

#### **3.3 ELECTRICAL & ELECTRONICS**

33020.01 Electric domestic 12 V. with automatic main fuse and separate fuses for all users

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Item	<b>Description</b> Page	4
33022.0	1 Linssen Yachts ICCESS main switchboards, 1x in saloon and 1x at steering position, for control of key functions and reading of fluid levels	
33030.0	1 230V. /16Amp shore power connection, incl. galvanic insulator, earth leakage circuit breake and automatic fuse protected end groups with indication and shore power cable (25 metres)	r
33082.0	4 Domestic: 12V. with 4 maintenance free "Super Cycle" AGM-batteries 170 Ah.	
33140.0	2 x additional maintenance-free domestic Gel-batteries 166 Ah., including wiring & fitting	
33180.0	2 Starting circuit 12V. with 2 x maintenance free "Super Cycle" AGM-battery.	
33225.0	Service-net 12 V with 1 x maintenance free "Super Cycle" AGM battery 170 Ah. for anchor winch, mooring winches and hydraulic sinking bathing platform.	
33229.0	1 Domestic net equipped with remote-controlled main switch	
33271.0	3 Automatic battery charger/invertor type Victron Quattro 12/3000 with battery monitor. The battery charger has a maximum charging current of 120A, the maximum output power of the inverter is 3000W.	5
33295.0	2 Generator ONAN 400 V/17,5 kW. Priority switch shore power/generator and reverse. Start/stop on steering position.	
3.4 IN	ISTRUMENTS & NAVIGATION	
34010.0	2 x engine instrument panels with rev.counter, engine hour meter and multifunction meter with voltmeter with alarm, temperature gauge with alarm and oil pressure gauge with alarm	
34030.0	2 Compressor horn with control at steering position	
34050.0	2 Government approved LED navigation lights: Starboard and Port side on superstructure, stern light, top light in mast and anchor light	
3.4.1	NAVIGATION INSTRUMENTS	
34110.1	0 Raymarine autopilot with p70RS display at steering position (incl. course computer/rudder indicator/compass transducer) with protection in mast which disengages autopilot during AUTO operation if mast is folded.	
34125.0	7 Raymarine Axiom+12RV, 12" multifunctional colour display with touchscreen and Wi-Fi at steering position. Including read out from echosounder, log and outside water temperature	2.
34132.8	0 Raymarine RMK-10 remote keypad for complete touch control for Axiom displays	
34140.0	3 Navionics Gold XL9 marine chart type 46XG, West Europe	
3.5 E>	KTERIOR EQUIPMENT HULL	
35010.0	0 Magnesium or zinc anodes (depending on cruising area)	
35030.0	1 Original Linssen synthetic-fibre rope fender, with stainless steel stretcher (Beige colour)	
35040.0	Ships name on bow and stern. Port of Registry and Registration number on stern in colour of the waterline Bow letter type; Snell Roundhand. Stern letter type; VAG	
35090.0	4 Lewmar VX-series, type VX3 Heavy Duty electric anchor winch, with integrated stainless steel anchor rolls, anchor rail and deck switches.	
35120.0	2 20 kg. galvanized Bruce-anchor	
35140.0	50m. x 10mm. anchor chain, according DIN 766	
3.7 E>	KTERIOR EQUIPMENT SUPERSTRUCTURE	
37020.0	Stainless steel windscreen wiper installation in wheelhouse SB, middle and port, with touch control suitable for 2 speeds, self-parking, 3- positions interval on 25, 50 and 75% and wish-wash. Incl. integrated choice for synchronise the windscreen wipers at low speed	

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#### Item Description Page 5 37050.03 Window spray-installation wheelhouse for 3 windscreen wipers 37070.02 Original Linssen Design mast, with double yard, on saloon deck powder coated in superstructure colour, finished with "eyes" and cleats between the yards for flag lines 37075.02 Stainless steel mast stays with quick release system 37245.01 Teak deck box joint table model 37271.11 Entrance doors, varnished in superstructure colour 3.8 WINDOWS Double-glazed "Summer Green" tinted windows in the saloon with thermal insulated 38030.01 profile (Thermic Line). 38040.06 Stbd front hinged window in saloon with (Thermic Line) double glass, fitted in thermal insulated aluminium profiles. Incl. mosquito screen, fitted on the outside with magnets 38230.01 Double-glazed "Summer Green" tinted windows in the wheelhouse with thermal insulated profile (Thermic Line). Front windows in plain glass. 4x opening port-holes in the forward cabin, with plain acrylate, aluminium anodised with 38300.02 rain protection covers and mosquito screens 5x opening 1x fixed port-holes in the aft cabin, with plain acrylate, aluminium 38320.01 anodised with rain protection covers and mosquito screens Aluminium ventilation/escape hatch, with "Summer Green" tinted acrylate in the forward 38400.01 cabin, incl. blind rouleau/curtain with integrated screen Aluminium ventilation/escape hatch, with "Summer Green" tinted glass in the shower and 38410.01 head, incl. blind rouleau/curtain with integrated screen 38420.01 Aluminium ventilation/escape hatch with tinted glass in aft cabin, incl. blind rouleau/curtain with integrated screen Fixed aluminium deck window integrated in saloon deck as engine hatch, profile coated 38440.03 in colour superstructure (Linsen Sand Beige)

# **4. INTERIOR**

#### GENERAL

40010.01	Linssen panels FPS <sup>®</sup> (Floating Panel System, Patented)
40020.01	Interior constructed of high-end okoumé panelling with cherry veneer
40025.14	Interior and exterior style "Classic Traditional": Classic modesty. Stylish elegance through soft beige shades.
40030.02	Deck-head lining in elegant vinyl finish panels
40040.01	Original Linssen maintenance friendly ship's floor, teak color with light striping
40050.02	High gloss stainless steel fittings in all compartments
40060.02	High gloss stainless steel door and locker furniture, with push-button catches
4.1 AFT CABIN	

- 41010.01 Stylish/high quality floor covering in rear cabin on second floor level next to bed.
- 41021.01 Double berth, with slatted base and sprung mattress including spacious drawers underneath bed
- 41031.01 Bedside table at Port side
- 41041.01 Bedside table at Starboard side
- 41141.01 Cupboard at SB- and Port side in the aft cabin
- 41161.01 Cabinets in hall Port side with cupboards of 45 and 60 cm wide, suitable for any built-in equipment.

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#### Description Item Page 6 Cabinet hallway Starboard side with multifunctional hanging/cupboards and drawers 41171.01 4.1.2 SHOWER AND HEADS COMPARTMENTS 41062.02 Toilet compartment in the aft cabin in high quality Formica wall finishing 41071.13 Integrated washbasin surface mounted in aft toilet-compartment vanity unit. Worktop finished in original corian® 41092.02 Shower in the AC finished in high quality Formica wall finishing 41092.91 Shower tray aft cabin in corian designed with grooves for water drainage **4.2 SALOON & GALLEY** 42011.90 Hatch above engine room for easy access and inspection of this room. 42021.01 Comfortable L-shaped saloon settee with integrated storage space 42035.03 Elegant saloon table, low model 42037.01 Saloon and dinette table top with flush leather panels 42041.01 Grab rail at saloon stairs, in high gloss stainless steel 42071.03 L-shaped dinette with integrated drawers 42081.01 U-shaped galley with cupboards and drawers 42092.03 U-shaped galley worktop finished with original Corian® 4.3.1 FRONT CABIN A 43010.01 Stylish/high quality flooring in front cabin on second floor level next to bed. 43021.01 Double berth with slatted base and 2 drawers 43031.01 ? 43041.01 ? **4.3.2 SHOWER AND HEADS COMPARTMENTS** 43062.02 Toilet/shower walls FC in high quality Formica wall finishing 43071.13 Integrated washbasin surface mounted in front toilet-compartment vanity unit. Worktop finished in original Corian® Shower in the FC finished in high quality HPL wall finishing 43082.02 43081.11 Storage space in the toilet compartment FC 43082.91 Shower tray front cabin in corian designed with grooves for water drainage **4.4 WHEELHOUSE**

- 44021.01 Bench on the Port side including drawer
- 44031.01 Helmseat with integrated pull-out table
- 44101.01 Wetbar at SB-side incl. Corian wash basin and hot and cold mixer tap
- 44081.01 Walnut wood dashboard finished in real leather, at SB side
- 44091.02 Comfortable electric adjustable Linssen Design helm seat, in height adjustable, with matching leather upholstery. Horizontally electric adjustable

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#### Item Description

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## 5. FINISH

## 5.1 LIGHTING & SOCKETS

- 51010.05 LED interior lighting with wall switches and/or switch on light point in the compartments. Dimmable LED lighting in front cabin, guest cabin, saloon, aft cabin and wheelhouse.
- 51070.11 Luxurious LED reading lights (2x) in the aft cabin
- 51080.11 Luxurious LED reading lights (2x) in the front cabin
- 51100.02 Attractive indirect lighting in the FC and AC heads
- 51400.11 USB-connection in saloon, wheelhouse, FC and AC for charging mobil equipment.
- 51500.00 1 x 12 V. socket in the saloon on Port-side, aft
- 51601.01 230 V. sockets in the FC (2x), toilet FC (1x), dinette (1x), saloon (2x), galley (1x double), toilet AC (1x), AC (3x) and in the wheelhouse (2x)

#### 5.2 GALLEY

- 52015.01 Bar cupboard/drawer in saloon, incl. set of Linssen Yachts glasses (comprising: 6 shot glasses, 6 highball glasses, 5 whisky glasses, 6 wine glasses and 6 champagne glasses)
- 52020.01 Integrated waste bucket in cupboard
- 52025.01 Plate holders and anti-skid mats in galley drawers
- 52030.01 Cutlery tray
- 52035.02 "Magic Corner" cupboard incl. basket set in the galley
- 52040.02 110 l. refrigerator with freezer compartment in the galley
- 52062.02 Provision for cooling drawer 30 ltr. in saloon settee, with blind panel
- 52100.02 230V. washer/dryer combination, fitted in the forward cabin shower compartment
- 52140.02 230V. induction hob, stainless steel, with touch control. 1 x 1200 W. cooking zone, 2 x 1800 W. cooking zone, 1 x 2200 W. cooking zone
- 52180.01 Stainless steel/corian sink
- 53020.03 Mixer tap in galley type Grohe Essence
- 52220.02 230V. stainless steel 42 l. microwave/oven/grill combination. Temperature range 30-250 degrees. 90-1000W microwave power

# **5.3 SANITARY FITTINGS**

- 53010.01 Selected bathroom fittings (mirror, toilet paper holder, etc.), in the forward cabin head
- 53015.01 Selected bathroom fittings (mirror, toilet paper holder, etc.), in the aft cabin
- 53030.04 Build in wall mixer tap in toilet compartment FC, chrome, type Grohe Talis
- 53040.04 Build in wall mixer tap in toilet compartment AC, chrome, type Grohe Talis
- 53050.06 Build in wall mixer tap in forward shower type Grohe (Thermostatically adjustable) incl. shower rail
- 53060.06 Build in wall mixer tap in aft shower type Grohe (Thermostatically adjustable) incl. shower rail
- 53090.01 Shower door in aft cabin shower
- 53130.02 Electric toilet in forward cabin, with fresh water rinsing
- 53140.02 Electrical toilet in the aft cabin, with fresh water rinsing

# 5.4 AUDIO / VIDEO / INTERNET

54010.02 Stereo radio/MP3-player Fusion Apollo Apollo RA770 with bluetooth and touch screen, including Subwoofer and 2 speakers in the saloon and amplified radio-antenna in the mast, connected to Raymarine display. Radio can be controlled via Fusion app on smart phone or tablet

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# ItemDescriptionPage854035.04Set speakers in wheelhouseSet speakers in wheelhouse54200.01Primary TV connection at saloon under steering position, incl. extra 230V. socket

- 54250.01 Glomex TV-antenna on mast, suitable for analogue & digital reception. Suitable for DVBT-T2 network.
- 54400.04 49" (123cm) LED TV with integrated DVB-T & DVB-S tuner in saloon integrated on AC wall

# **5.6 INTERIOR UPHOLSTERY**

- 56021.02 Dinette settees, finished in genuine leather
- 56031.02 L-shaped saloon settee, finished in genuine leather
- 56050.02 Dashboard finished in genuine leather
- 56095.02 Steering settee in wheelhouse finished in genuine leather
- 56101.11 Mattrass 1x 2 pers. in front cabin type coldfoam 14 cm. with layer in foam in two hardness grades.
- 56131.02 Mattrass 2x 1 pers. in aft cabin type Combispring 14 cm.
- 56300.01 Beautiful pleated window covering manually operated for windows and port holes throughout the ship

#### **5.7 EXTERIOR UPHOLSTERY**

57015.00 Cushions for aft deck settee in water-repellent fabric, color depending on choosen interior package

## **5.8 EQUIPMENT**

- 58010.01 Spares kit including tool-kit, impeller, fuses, paint-tips and various maintenance parts
- 58020.01 Complete inventory including 6 fenders, 4 mooring ropes (16 meters), boathook, life buoy, bucket, scrubbing brush, national flag, yard burgee, safety rope for anchor chain and anchor ball
- 58030.01 First-aid box in saloon according to DIN13157
- 58040.01 ABC fire class compliant fire extinguishers (3 x 2 kg)
- 58045.01 Optical smoke detector with fixed built-in lithium battery (life span 10 years) in all sleeping compartments.

#### 5.9 CANVAS & COVERS

59150.01 Linssen Variotop<sup>®</sup> insulated cabriolet of high-grade Sonnenland Java canvas including bright inside lining