



KABOLA ALWAYS A WARM WELCOME

KABOLA HEATING SYSTEMS

Clean, economical and quiet on-board central-heating systems

Kabola, a manufacturer of oil-fired and hybrid central-heating boilers, is a household name in the shipping industry.

We develop central-heating systems in-house.

Also public- and horse transport, the mobile leisure market, as well as locations in remote areas have experienced the advantages of the trustfull Kabola heating systems.

Quality

Our continual development and improvement process guarantees Kabola's high quality.

Customisation

Kabola offers quality customised central-heating boilers. Based on the preferences of the client and the requirements of the ship, we create practical solutions and specific applications.

Sustainability and comfort

Sustainability and comfort are Kabola's spearheads. The clean, quiet and economical systems are fully automatic, ensuring optimal user-friendliness.

Service

An international network of specialists and fitters guarantees excellent service, making Kabola Heating Systems a safe and reliable choice.



Smart technology

On-board heating is becoming an increasingly important issue. Boat owners want maximum comfort and luxury. Blue-flame burners ensure constantly cleaner emissions for diesel-fired central-heating boilers.

For the Kabola KB-Series "Ecoline", this resulted in 0% soot emission.

Smart technology, such as Hybrid boilers, an FG switch to turn off the hot water, saves Kabola users hundreds of euros every year. New intelligent Zone Control increases the level of user-friendliness. You don't need to be on board to regulate the temperature.

Capacity is key

We already offer a high-quality heating system for 7-metres ships and above.

To realise an optimal system and select an appropriate boiler, it is important to calculate the capacity. The amount of hot water required also plays an important role in determining the right boiler.

Minimum costs, maximum comfort

Kabolas are used for both recreational yachting and professional shipping.

The high quality of all Kabolas makes them suitable for continual usage. Fuel economy is one of the main reasons to choose a Kabola boiler. Kabola is famous for its long lifespan (15 years on average) and all systems are low maintenance. A clean and well adjusted burner ensures reduced pollution whilst maintaining the same high efficiency.

If you're looking to make a good investment, then you can't do better than a central-heating system that will give you a warm feeling for years on end!



KB ECOLINE HYBRID: DIESELECTRIC

Advantages of the most energy efficient and economical **Kabola KB Ecoline HYBRID**:

On the touchscreen of this hybride system you can select the required function:

1: INDIVIDUAL OPERATION ELECTRICAL SYSTEM OR DIESEL CONTROLLED SYSTEM

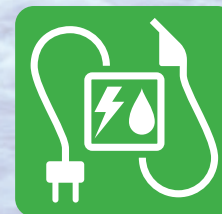
- Frost protection (electrical)
- Preheating to 10 ° C (electric)
- Start / stop system (stop of circulation pump and electric element automatically when desired temperature is reached)
- As a result -> less energy consumption
- Normal heating of the system (diesel fired)
- Select on panel for electrical system only (frost-free): Burner is switched off

2: FULLY AUTOMATIC HYBRID OPERATION

- Fast heating up time due to the electrical preheating
- Low power consumption and diesel use
- Start / stop system
- Very environmentally friendly
- Extension of the lifespan through cooperation
- Reduces CO2 emissions
- Only applicable to KB models
- Select the full system on the display. Burner switches on



Separately available:
extra control panel
for your KB Ecoline Hybrid



Why choose the KABOLA KB ECOLINE HYBRID?

Oil and electricity powered
Fully automatic or manual control
Low co2 emission
Up to 30% less energy consumption oil fueled
Up to 30% fuel savings in hybrid mode
94% efficiency
100% soot-free
Environmentally friendly
Earn back your investment in 3 years!
TÜV certification
Capacity 7-38kW, Power 3kW



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 791466

Benefits of all Kabola KB Ecoline models:

1. Low-temperature exhaust gas

The KB Ecoline uses Blue Efficiency® technology (blue-flame technology) and has a very high core temperature of at least 1450°C. In comparison, yellow-flame burners produce temperatures of around 800°C. The optimised design of the boilers in the KB series enables exhaust-gas temperatures of under 220°C, much less than yellow-flame burners. The high efficiency ensures optimal heat utilisation.

2. 100% soot-free

The KB Ecoline is 100% soot-free thanks to the complete combustion achieved by the blue-flame technology. In addition, usage is permitted in boat houses, 'clean' cities and harbours (no restrictions in environmental zones!)

Lower maintenance costs as the boiler remains clean inside.

The components are also easy to replace.

3. 94% efficiency with low fuel consumption

Thanks to the sustainable Blue Efficiency® technology in combination with the fully soot-free combustion, the KB Ecoline achieves continual efficiency of 94%, which permanently guarantees the efficiency of the boiler. As a result, it uses less fuel.

The KB Ecoline saves you between 200 and 500 litres of diesel oil per year.

4. 30% reduction in electricity consumption

On boats, the goal is to use as little energy as possible, both on board and ashore. The blue-flame technology works with a dual-block system, which means that the air and oil intake is powered by separate motors.

Due to the reduced electricity consumption, the battery also has a longer lifespan.

5. Less noise

The Blue Efficiency® burners are extremely quiet. They have been specially optimised to reduce the noise levels of the boiler itself. The solid aluminium casing helps to further reduce noise emissions. The boiler's speciality is the burner's silent start.

6. External fresh-air intake

The possibility of an external fresh-air intake in combination with a direct connection to the burner enables safe installation of the KB Ecoline in the engine room next to other air consumers.

Air-pressure fluctuations caused by engines, generators etc. have no effect on the KB Ecoline's burning process.

7. Small dimensions, large capacity

The KB Ecoline has a large capacity and extremely small dimensions. For example, it has small chimney dimensions (from around 50mm) that enables reuse.



KABOLA KB ECOLINE ELEKTRIC ELEMENT

Manually operated hybrid system runs two options:

1. INDEPENDENT ELECTRICAL SYSTEM OR DIESEL OPERATION

- Keep system frost-free (electrical). The burner is switched off.
- Preheat to 10 ° C. (electric). The burner is switched off
- Start / stop system (Circulation pump and electric element stop automatically, once the desired temperature is reached)
- As a result less power consumption
- Complete installation normal heating (oil fired)

2. COOPERATION ELECTRICAL SYSTEM AND DIESEL

- Fast heating time due to electrical preheating
- Economical in power and oil use
- Start / stop system
- Very environmentally friendly
- Extending lifespan through collaboration
- Reduced Co2 emissions
- Reliable system
- Applicable only to the KB series

KABOLA KB ECOLINE SERIES

Capacity

Available as central-heating boiler

Available with calorifier control

Available as a combi boiler

Dimensions

Smallest (H/W/D)

Largest (H/W/D)

Voltage

Fuel

Efficiency

Soot emission

SPECIFICATIONS

8 - 38kW

REGULAR

CALORIFIER

COMBI

Available in a variety of dimensions

435 x 455 x 520mm* (KB 20)

570 x 580 x 740mm* (KB 75 combi)

230 volts

Diesel or GTL

94%

0%

*Dimensions include fitted central-heating pump and oil burner.

Electric element

Position 1 -> 1000W

Position 2 -> 2000W

Position 3 -> 3000W

Position 0 -> Rest



"No soot emissions, lower fuel consumption and lower electricity consumption.

The KB EcoLine is an extremely sustainable investment!"

In order to assemble an optimal heating system and select an appropriate boiler, it is important to calculate the exact capacity. The capacity is determined by the volume of the spaces or cabins on board, applied insulation and the user's preferences. The sailing season and / or the operation area are as important equally. Contact a Kabola specialist to ensure optimal advice.

If you are interested in our boilers or would like more information, feel free to contact us at:

Kabola Heating Systems

Tel: +31(0)347 320 030

info@kabola.nl

www.kabola.nl



*Clean, quiet
and powerful*



KABOLA KB ECOLINE SERIES



The KB Ecoline uses Blue Efficiency® technology (blue-flame technology) and has a very high core temperature of at least 1450°C. In comparison, yellow-flame burners produce temperatures of around 800°C. The optimised design of the boilers in the KB series enables exhaust-gas temperatures of under 220°C, much less than yellow-flame burners. The high efficiency ensures optimal heat utilisation.

The KB Ecoline is 100% soot-free thanks to the complete combustion achieved by the blue-flame technology. In addition, usage is permitted in boat houses, 'clean' cities and harbours (no restrictions in environmental zones!) Lower maintenance costs as the boiler remains clean inside. The components are also easy to replace. The KB Ecoline achieves continual efficiency of 94%, which permanently guarantees the efficiency of the boiler. So it uses less fuel and saves you between 200 and 500 litres of diesel oil per year.

KABOLA KB ECOLINE SERIES

	SPECIFICATIONS
Capacity	8 - 100kW
Available as central-heating boiler	REGULAR
Available with calorifier control	CALORIFIER
Available as a combi boiler	COMBI
Dimensions	Available in a variety of dimensions
Smallest (H/W/D)	435 x 455 x 520mm* (KB 20)
Largest (H/W/D)	570 x 580 x 740mm* (KB 75 combi)
Voltage	230 volts
Fuel	Diesel or GTL
Efficiency	94%
Soot emission	0%

*Dimensions include fitted central-heating pump and oil burner.

"The most energy-efficient and economical."



KABOLA HR SERIES



The Kabola HR series consists of reliable oil-fired boilers providing 10, 14 and 20kW. The HR series is available as a central-heating boiler, with a calorifier control, or as a combi boiler.

Its broad applicability and whisper-quiet, fully automatic operation makes this boiler suitable for the vast majority of sailing and motor yachts. The HR series is particularly used for long-term or permanent habitation on board. The HR series can heat a central-heating system with radiators, underfloor heating, hot-air heating and existing air-conditioning systems.

KABOLA HR SERIES

Capacity	8 - 20kW
Available as central-heating boiler	REGULAR
Available with calorifier control	CALORIFIER
Available as a combi boiler	COMBI
Dimensions	Available in a variety of dimensions
Smallest (H/W/D)	435 x 445 x 580mm* (HR 300)
Largest (H/W/D)	500 x 500 x 660mm* (HR 500 combi)
Voltage	230 volts
Fuel	Diesel
Efficiency	90%

SPECIFICATIONS

Capacity	8 - 20kW
Available as central-heating boiler	REGULAR
Available with calorifier control	CALORIFIER
Available as a combi boiler	COMBI
Dimensions	Available in a variety of dimensions
Smallest (H/W/D)	435 x 445 x 580mm* (HR 300)
Largest (H/W/D)	500 x 500 x 660mm* (HR 500 combi)
Voltage	230 volts
Fuel	Diesel
Efficiency	90%

*Dimensions include fitted central-heating pump and oil burner.

"Always the right temperature."



KABOLA COMPACT 7 SERIES

The Kabola COMPACT 7 is the smallest diesel-fired boiler in the world that provides 7kW. The COMPACT 7 is available as a central-heating boiler, with a calorifier control, or as a combi boiler. Thanks to its small dimensions and its whisper-quiet, fully automatic operation, this boiler is suitable for small or large sailing boats, motor yachts, holiday homes and camper vans. It is suitable for permanent habitation and even for provision of hot tap water. It is ideal for central heating with radiators and/or combined with Kabola hot-air heating. It is extremely efficient, quiet and powerful.

KABOLA COMPACT 7 SERIES

	SPECIFICATIONS
Capacity	7kW
Available as central-heating boiler	REGULAR
Available with calorifier control	CALORIFIER
Available as a combi boiler	COMBI
Dimensions (H/W/D)	340 x 330 x 570mm*
Dimensions of combi boiler (H/W/D)	445 x 330 x 620mm*
Voltage	230 volts
Fuel	Diesel
Efficiency	>90%

*Dimensions include fitted central-heating pump and oil burner.

"The smallest diesel-fired central-heating boiler in the world."



KABOLA B SERIES

The Kabola B series consists of oil-fired boilers that provide 29 to 116kW. The B series is available as a central-heating boiler, a combi boiler, and on request, it is also available with a calorifier control. Naturally, the B series can also be connected to a central-heating system, hot-air-heating system, air-conditioning system and an underfloor-heating system. For use on everything from commercial ships to industrial applications.

KABOLA B SERIES

	SPECIFICATIONS
Capacity	29 - 116kW
Available as central-heating boiler	REGULAR
Available with calorifier control	CALORIFIER (on request)
Available as a combi boiler	COMBI
Dimensions	Available in a variety of dimensions
Smallest (H/W/D)	970 x 455 x 388mm*
Largest (H/W/D)	1165 x 488 x 1050mm* (B100 combi)
Voltage	230 volts
Fuel	Diesel
Efficiency	90%

*Dimensions include fitted central-heating pump and oil burner.

"Strong, sustainable and suitable for serious work."

INSTALLATION ZONE-CONTROL SYSTEM

- 1 KB Ecoline Hybrid combi heater
- 2 Damper
- 3 Stainless steel flexible
- 4 Stainless steel skin lead-through
- 5 Fuel tank
- 6 Fuel line
- 7 CH supply
- 8 CH return
- 9 Towel radiator
- 10 Hot water shower
- 11 Radiator
- 12 Air heating
- 13 Underfloor heating
- 14 Distribution unit underfloor heating
- 15 7 inch control panel
- 16 Kabola temperature controller
- 17 On-board power supply 230Vac 320 Watt
- 18 Power supply electric element 3000 Watt 230 Vac
16ah shore power, generator or solar panel

- zone 1**
- 19 Ambient sensor
 - 20 Servomotor 24 volt
- } kitchen

- zone 2**
- 21 Servomotor 24 volt
 - 22 Ambient sensor
- } salon

- zone 3**
- 23 Servomotor 24 volt
 - 24 Ambient sensor
- } owners cabin

- zone 4**
- 25 Servomotor 24 volt
 - 26 Ambient sensor
- } bathroom

- zone 5 (second heating controller needed)**
- 27 Servomotor 24 volt
 - 28 Ambient sensor
- } rear deck

- zone 6 (second heating controller needed)**
- 29 Water sensor
 - 30 Ambient sensor
- } guest cabin

- zone 6**
guest cabin
- 30 Ambient sensor
 - 29 Water sensor

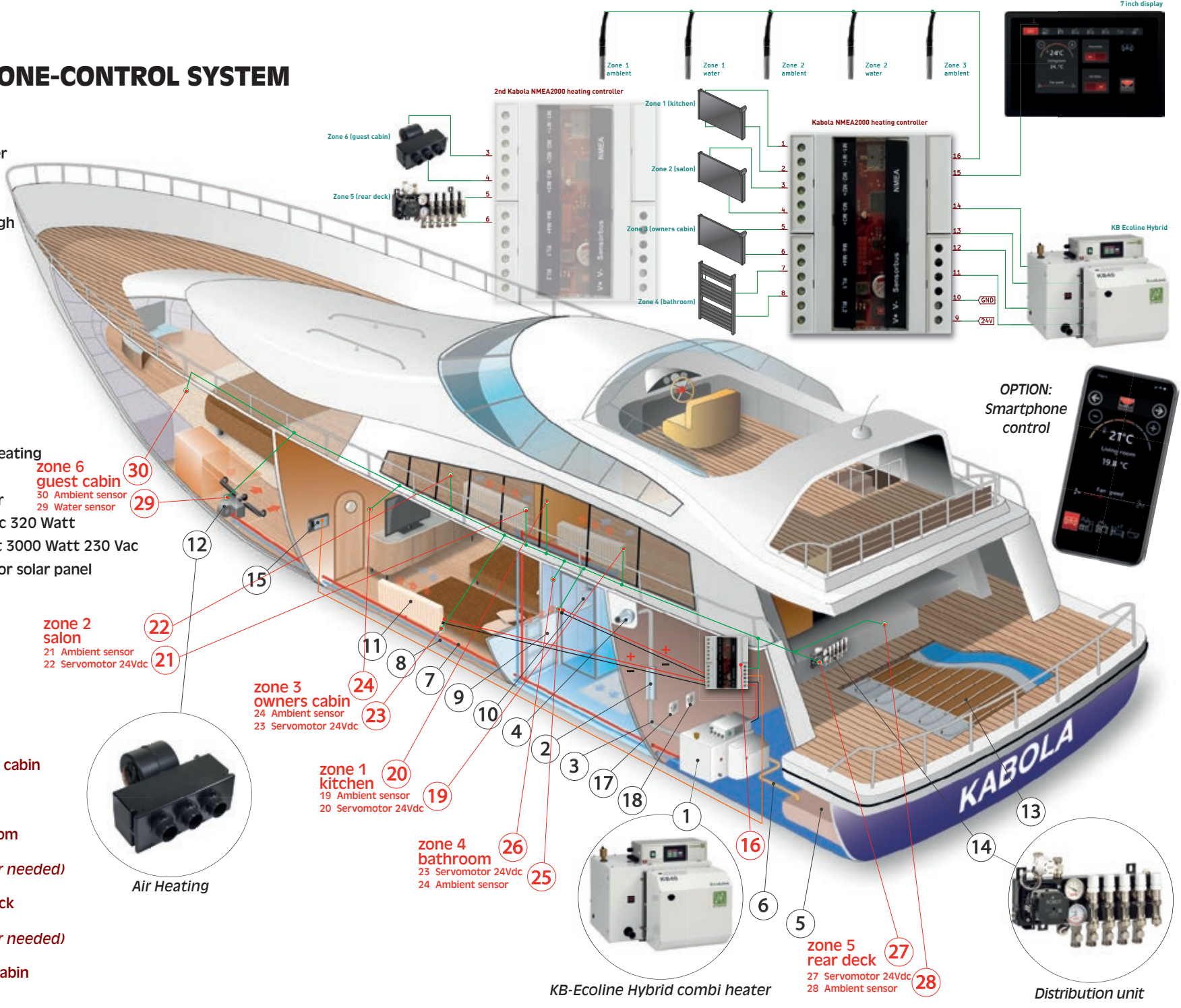
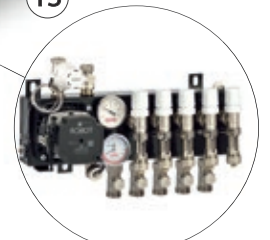
- zone 2**
salon
- 21 Ambient sensor
 - 22 Servomotor 24Vdc

- zone 3**
owners cabin
- 24 Ambient sensor
 - 23 Servomotor 24Vdc

- zone 1**
kitchen
- 20 Ambient sensor
 - 19 Servomotor 24Vdc

- zone 4**
bathroom
- 26 Servomotor 24Vdc
 - 24 Ambient sensor

- zone 5**
rear deck
- 27 Servomotor 24Vdc
 - 28 Ambient sensor



7 inch display



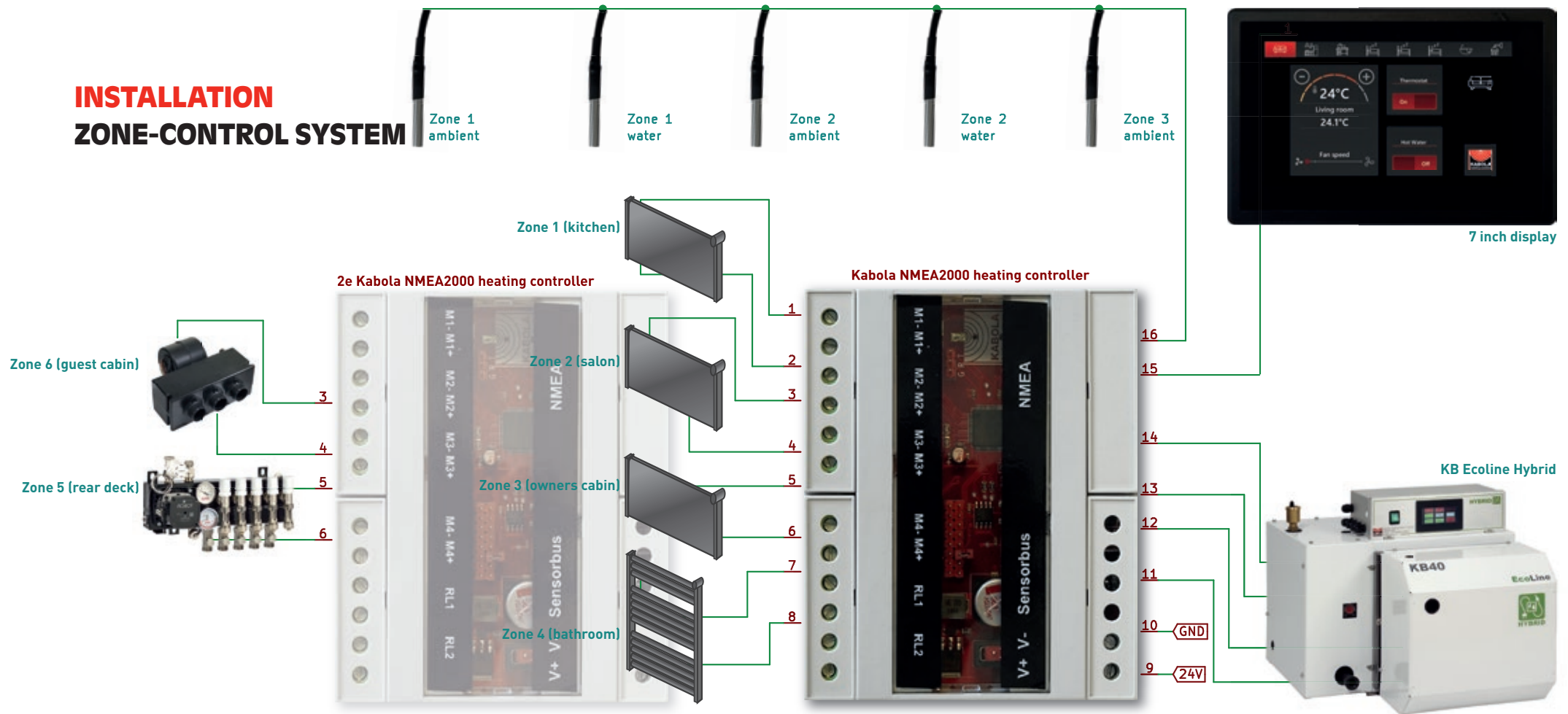
KB Ecoline Hybrid

OPTION:
Smartphone
control



INSTALLATION

ZONE-CONTROL SYSTEM



The Kabola zone control is the key to a successful, comfortable and energy-saving climate control for ship, sailboat, camper, motorhome and living environment. Dividing rooms into zones and being able to regulate these on the basis of temperature / comfort requirements, ensures that energy is not unnecessarily used for rooms where no one is present.

The Kabola zone control gives the freedom to adjust the temperature setting for each zone at any desired time. The living spaces at "comfort" temperature, when used, the bedrooms at "minimal" or not heating in absence and a desirable temperature at bedtime. And the study or shower on "comfort" whenever you want. In short, it is all possible and is super easy to operate.

Home earlier? No problem! With a simple handling, the zone which must be heated quickly is selected directly via the central control panel. There are many functions that are quick, easy and user-friendly to select. Of course you can also operate remotely via tablet or smartphone. The system can control

Kabola hot air blowers in a modulating way and open and close special radiator knobs. Because these knobs can be applied to both radiators and underfloor heating, almost anything is possible.

The Kabola zone control system is based on 1 touchscreen, on which the room can be selected and also the temperature. Each room gets its own room temperature sensor via the one-line system (so no tangled cables). The hot air blowers also have a hot water sensor. In this way, the blower will not run until really warm air can be blown out and there is no unnecessary energy loss. The blower has a modulating effect, which means that when there is little temperature difference, the blower runs very softly and produces very little noise. If there is a little more heat demand, the blower will turn a little faster. If it has to warm up quickly, it will start working at full speed. Do you also want to be able to control the temperature in your bedroom? That is possible. The system can be expanded modularly with a separate compact operating display.

INSTALLATION OF ZONE-CONTROL SYSTEM

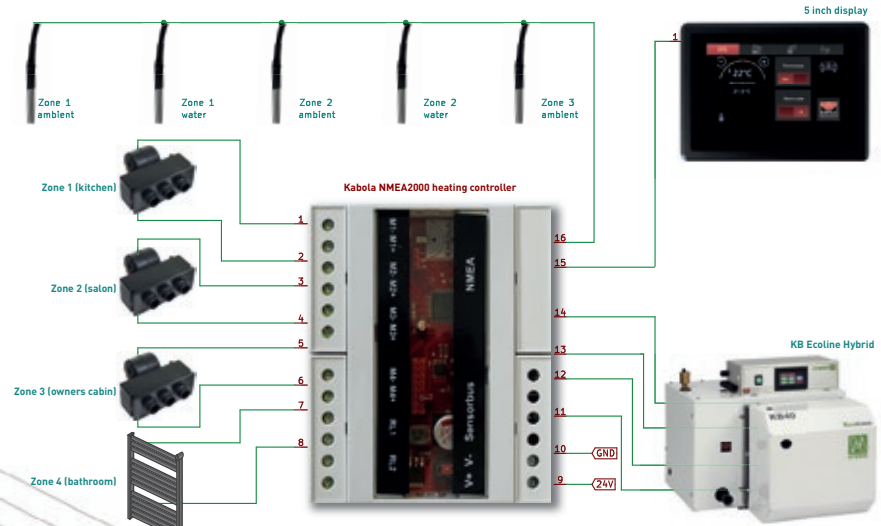
- 1 KB-Ecoline Hybrid combi boiler
 - 2 Power electric element 3000 Watt
230Vac 16ah shore power, generator
or solar panel
 - 3 Board net 230Vac 320 Watt
 - 4 Fuel line
 - 5 Fuel tank
 - 6 Stainless steel outlet
 - 7 CH supply
 - 8 CH return
 - 9 Air heater
 - 10 Air hoze isolated Ø45mm
 - 11 Air outlets
 - 12 5 inch control panel
 - 13 Towel radiator
 - 14 Hot-water douche
- zone 1**
- 15 Water sensor } kitchen
 - 16 Ambient sensor } kitchen
- zone 2**
- 17 Water sensor } salon
 - 18 Ambient sensor } salon
- zone 3**
- 19 Ambient sensor } owners cabin
 - 20 Water sensor } owners cabin
- zone 4**
- 21 Ambient sensor } bathroom
 - 22 Servomotor 24Vdc } bathroom
 - 23 Heating Controller

**zone 3
owners cabin**
19 Ambient sensor
20 Water sensor

**zone 4
bathroom**
21 Ambient sensor
22 Servomotor 24Vdc

**zone 2
salon**
18 Ambient sensor
17 Water sensor

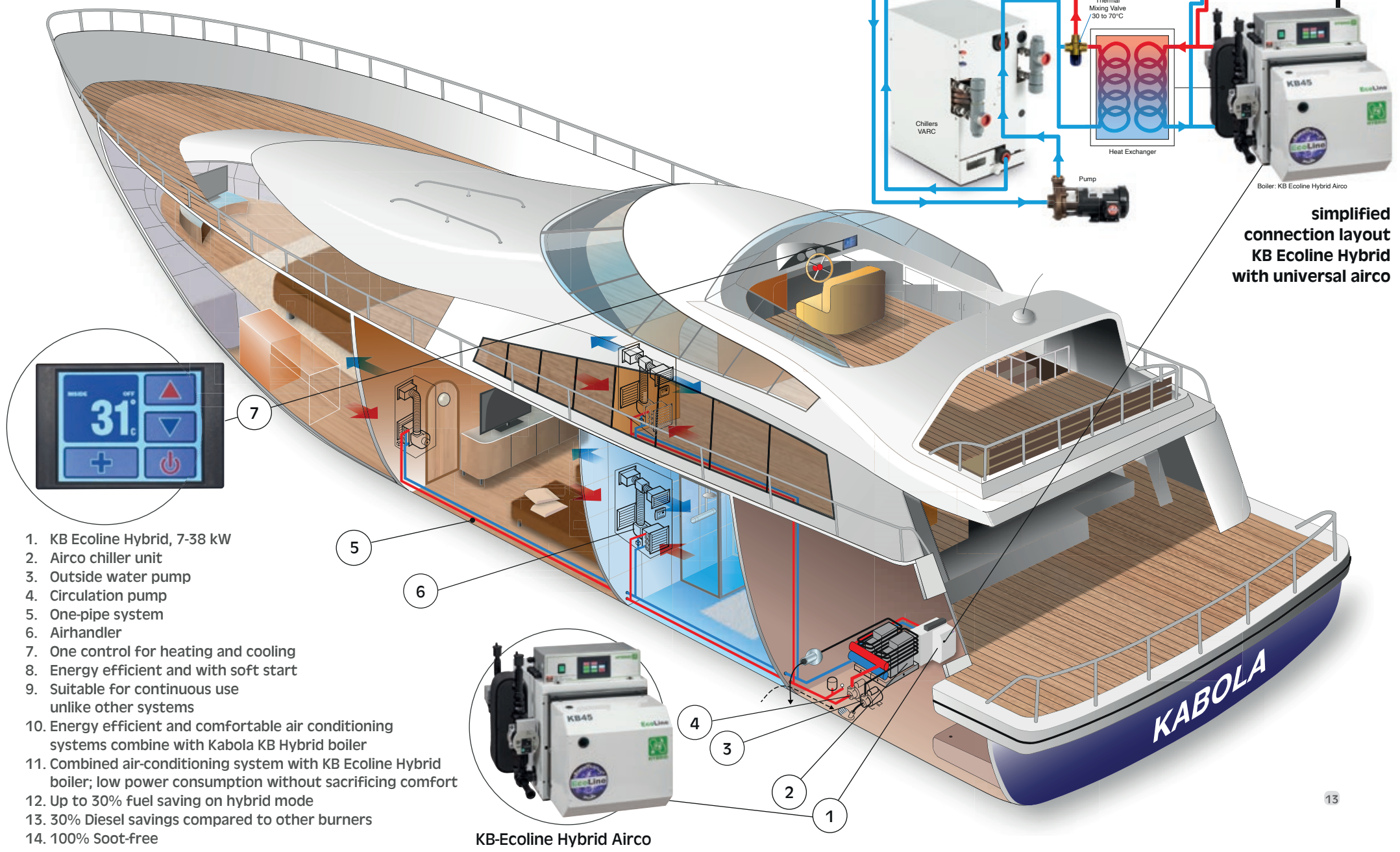
**zone 1
kitchen**
16 Ambient sensor
15 Water sensor



OPTION:
Smartphone
control



ALWAYS AND EVERYWHERE A COMFORTABLE CLIMATE



1. KB Ecoline Hybrid, 7-38 kW
2. Airco chiller unit
3. Outside water pump
4. Circulation pump
5. One-pipe system
6. Airhandler
7. One control for heating and cooling
8. Energy efficient and with soft start
9. Suitable for continuous use unlike other systems
10. Energy efficient and comfortable air conditioning systems combine with Kabola KB Hybrid boiler
11. Combined air-conditioning system with KB Ecoline Hybrid boiler; low power consumption without sacrificing comfort
12. Up to 30% fuel saving on hybrid mode
13. 30% Diesel savings compared to other burners
14. 100% Soot-free

KB-Ecoline Hybrid Airco

simplified connection layout
KB Ecoline Hybrid with universal airco

INSTALLATION OF A HOT AIR HEATER

Kabola has developed a system without the need of heating with radiators, but by means of hot air. In addition to the simple and space-saving installation options, our system is unique.

Unique because:

- The system is filled with water; this makes it possible to combine it with radiators.
- Air heater will only blow when the water temperature is above 60 ° C on position 2B and 3.
- Unique functions of the control panel:

1. Manual heating:

Control the fan speed yourself

2B. Semi-automatic:

When the desired temperature is reached, the hot air fans switch to the lowest setting, but continue to run.

The boiler switches on and off at the boiler temperature.

3. Fully automatic, modulating mode:

Heating with automatic fan speed.

When the desired temperature is reached, the hot air fans and the Kabola switch off.

Modulating effect:

The fan speed is built up slowly when there is a heat demand.

When the desired temperature is reached, the speed decreases and turns off.

At the desired temperature, the fan will operate at a very low speed.

This gives you a pleasant climate quickly and quietly.

TECHNICAL FACTS AND PARTS

Our system works in a unique way, making it very efficient and taking up little space, so it is possible to choose the most suitable solution for any space.

- | | |
|----------------------------|------------------------------|
| - Modulating control panel | - Quickly a pleasant climate |
| - Whisper quiet | - Ease of use |
| - Powerful | - Ease of installation |
| - Super efficient | - Long service life |
| - Lightweight | - Sustainable investment |
| - Space-saving | - Water-filled |
| - Fully automatic | |

Our hot air heating is extremely suitable for continuous use.

Extend your sailing season with Kabola!

Air outlet nozzles

The various connection angles of the outlet nozzles make installation even easier and prevent the air hose from being bended too sharp, when connecting to the outlet nozzle.



Recommended sawing size between 75.9 and 76.8 mm. Preferably use a hole saw 76 mm.

Air Outlet straight Fixed grille 62-106

Air Outlet straight 62-006

Air Outlet 45° 62-007

Air Outlet 90° 62-008



air heater



Control panel 62-004

KABOLA MODULATING HOT AIR HEATING

The control knob has the following functions:

- **Rotate;** This adjusts the temperature or fan speed
- **Short press;** switches from manual (A) to automatic (B) or vice versa
- **Long press;** switches from menu to menu

ATTENTION!

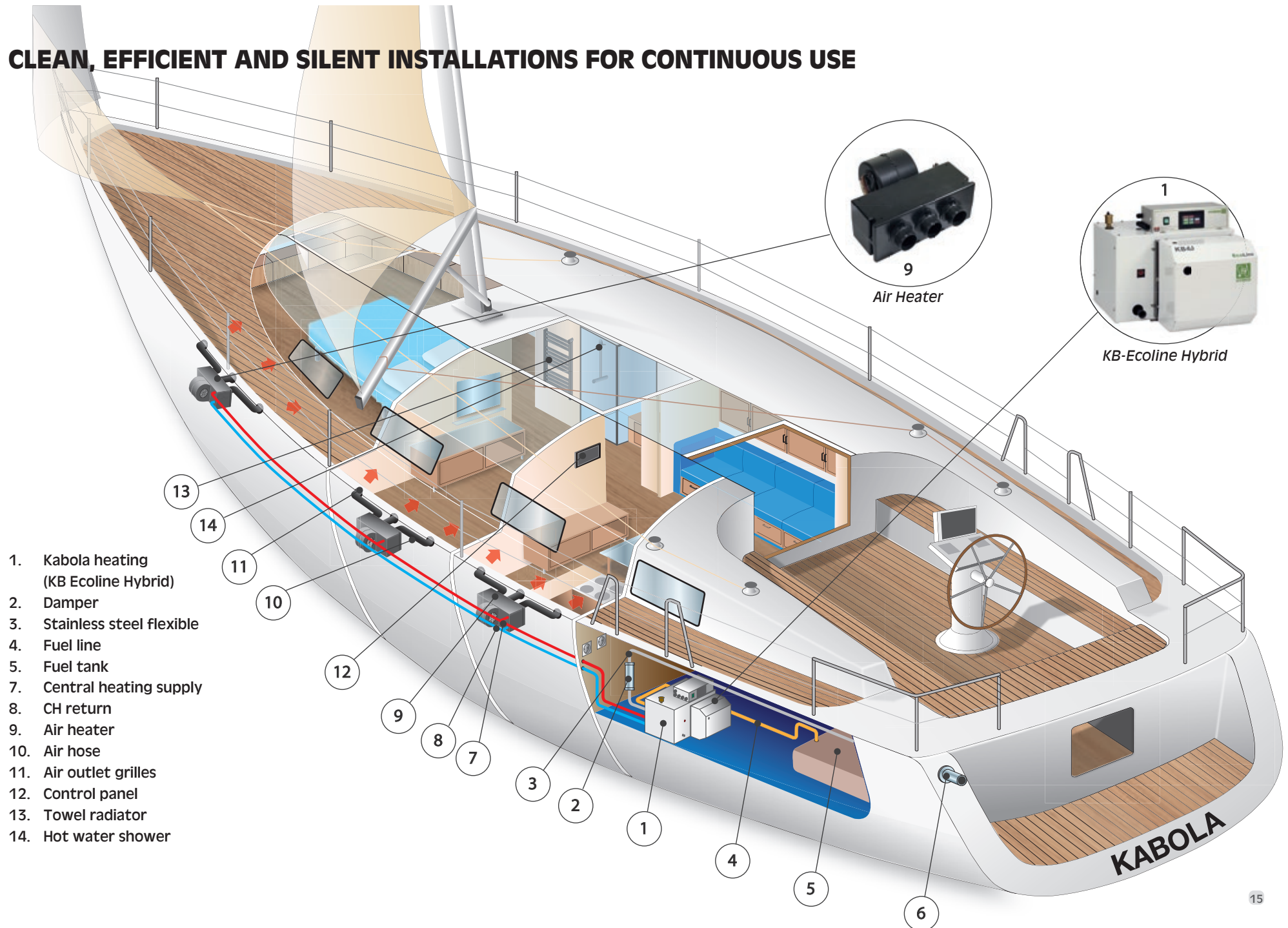
To activate menu 3, long press the button from menu 2B. Therefore you must navigate first to menu 2B, to be able to access menu 3 afterwards.

The lowest temperature of the hot air is 16° C and the LOW position is 6° C frost-free.

Description

Description		
1-A	Manual ventilation Manually adapt the speed of the blower	
1-B	Ventilation with temperature control Automatic ventilation based on temperature setting	
2-A	Manual heating Self control over the fan speed	
2-B	Half automatic When the desired temperature is reached, the hot air fans switch to the lowest setting, but keep running (it can get warmer). The boiler switches on and off on the boiler thermostat.	
3	Full automatic modulating position Heating with automatic fan speed. When the desired temperature is reached, the hot air fans and Kabola switch off, if necessary. It stays at the desired temperature.	

CLEAN, EFFICIENT AND SILENT INSTALLATIONS FOR CONTINUOUS USE



- 1. Kabola heating (KB Ecoline Hybrid)
- 2. Damper
- 3. Stainless steel flexible
- 4. Fuel line
- 5. Fuel tank
- 7. Central heating supply
- 8. CH return
- 9. Air heater
- 10. Air hose
- 11. Air outlet grilles
- 12. Control panel
- 13. Towel radiator
- 14. Hot water shower

9
Air Heater

1
KB-Ecoline Hybrid

Kabola offers tailor-made solutions for all applications!



Motorhomes or Campers



Catamarans or Trimarans



Fishing boats



Pilot boats



Sailboats



Yachts



Horse trucks



Tug boats



Houseboats



Lighthouses



Dutch barge



Chalets and caravans

Whether you are a professional transporter or for recreational use, a pleasant indoor climate is an important condition for on-board an inhouse comfort.

Kabola Heating Systems has been a household name in the shipping industry for more than half a century. Kabola's heating systems, developed fully in-house, are the epitome of high quality and sustainability. In addition, efficient production planning and effective stock management enables rapid delivery, usually from stock.

More information or tailor-made advice?
Feel free to call us +31 (0)347 320 030.

www.kabola.nl

KABOLA ON-BOARD HEATING SYSTEMS

- Modern oil-fired and hybrid boilers
- Hot water (combi boiler or via calorifier control)
- For sailing boats and motor yachts
- Motorhomes and horse trucks
- Caravans and (remote) chalets
- Continual usage
- Top quality and saves on costs
- Sustainable and with low emissions
- Quiet and economical operation

**"Our central-heating boilers are perfectly suited for continual use.
Extend your sailing season with Kabola!"**



KABOLA HEATING SYSTEMS B.V.

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HOT-AIR HEATING

UNDERFLOOR HEATING

HOT WATER

AIR CONDITIONING

HYBRID SYSTEMS

KABOLA DEALERS (INTERNATIONAL)

MarineTec US, Anacortes WA	United States
Sea Power Marine Centre Ltd, Sidney	Canada
Kuranda, Whaley Bridge	United Kingdom
Marineworks w, Gdansk	Poland
Standarte, Moscow	Russia
LLC Ship Building Ship Repair, Nizhny Novgorod	Russia
Thermoprodukter Kalmar	Sweden
Johs Thornam A/S, Albertslund	Denmark
Farco AS, Oslo	Norway
Nautikulma Oy, Turku	Finland
Nassau scheepsbenodigdheden BVBA, Antwerp	Belgium
Service Fluvial Rénovation, Vigneux sur seine	France
Baltic Marine Group AS, Tallinn	Estonia
Stal Mar, Ljubljana	Slovakia
Torden Marine d.o.o., Sveta Nedelja	Croatia
Norse Çelik, Gebze	Turkey
Dometic Italy Marine S.R.L., Forli	Italy
Scheer, Wöhrden	Germany, Switzerland and Austria
Shanghai Ocean AC Techn. Co Ltd.	China
Kabola á Íslandi ehf, Gardabaer	Iceland
Autoklime Pavicevic d.o.o., Tivat	Montenegro
PE Group Climate & Design S.R.L., Galati	Romania

For an up-to-date list of dealers, visit our website.

In addition to Kabola's own sales and customer-service team, Kabola also works together with many certified installation and maintenance professionals.

For an up-to-date overview of these professionals, visit our website.

WWW.KABOLA.NL