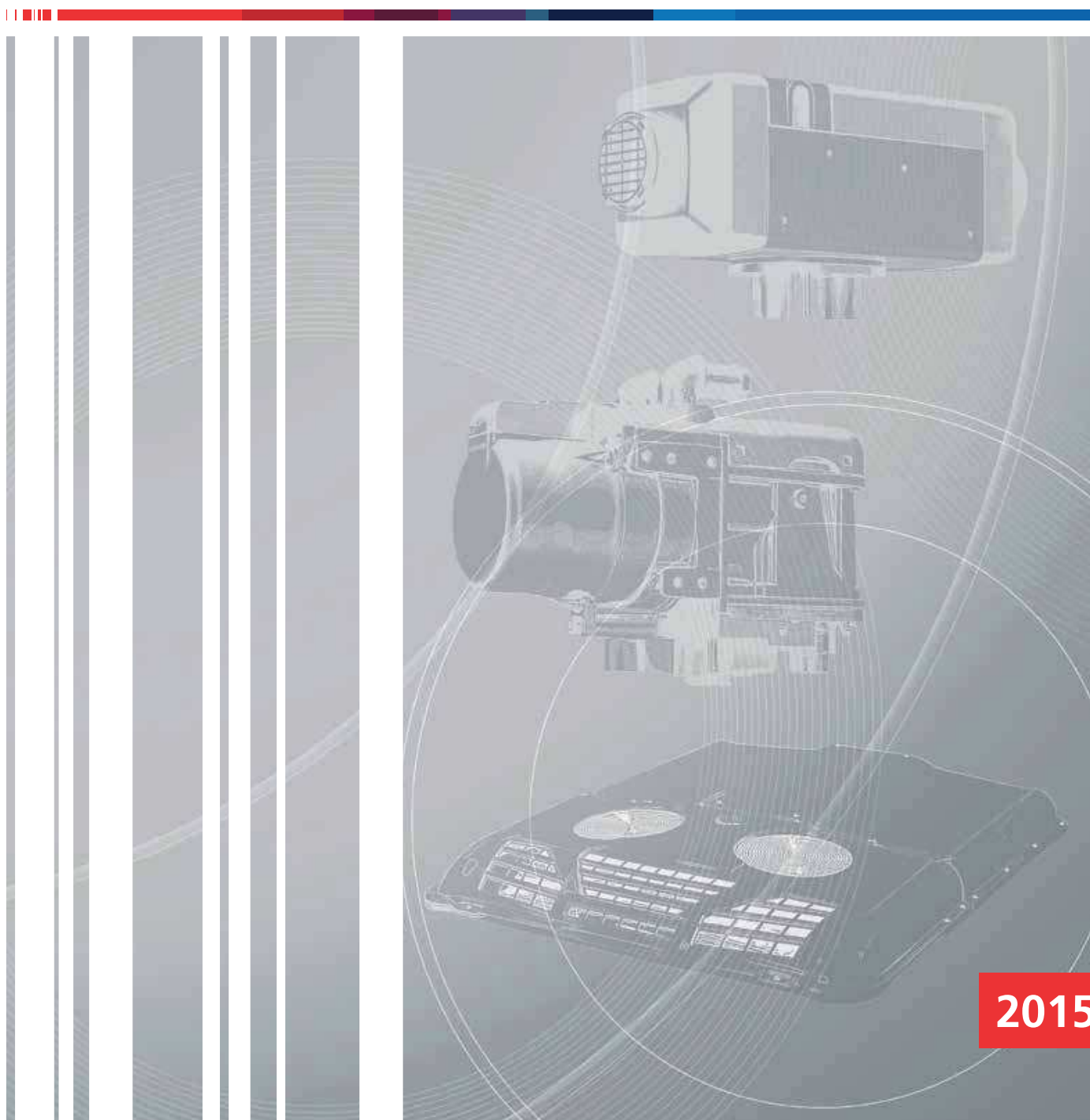


Product Catalog

Heating and Air-Conditioning Solutions

For Cars, Trucks, Light-duty Vehicles, Special Vehicles and Rail





Dear Customers, dear Webasto Partners,

With this product catalog, Webasto offers you a comprehensive overview of the latest products for heating and cooling. In combination with our two accessories catalogs, you are ideally equipped for your work with our air-conditioning solutions. The catalog is intended to help you prepare quotations quickly and easily, and to put you in a position to give professional advice at any time.

Furthermore, it gives you an overview of the special Webasto services for individual system solutions that you can expect from us as your business partner. Take up these offers and contact us at any time – we will be happy to assist you!

We wish you great success with our products,
Your Webasto Team

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Air heaters

Water heaters

Integrated heat exchangers

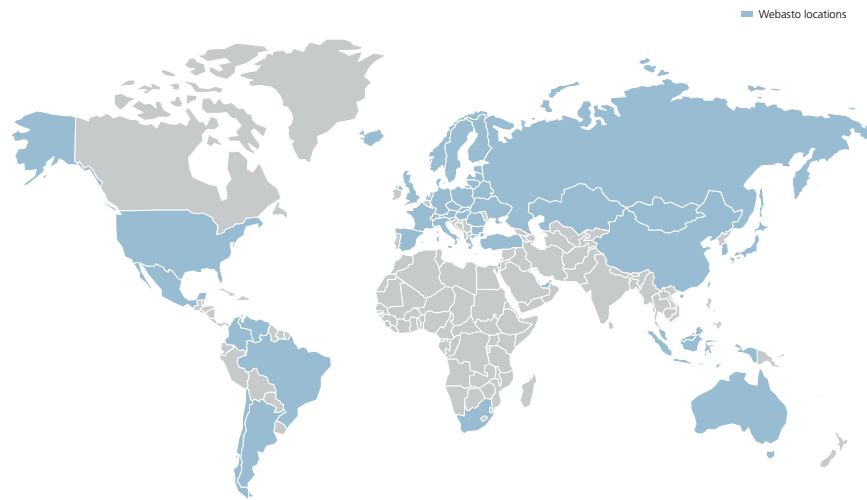
Rooftop AC systems

Integrated AC systems

Transport refrigeration systems

Webasto Network

Expect comprehensive support from Webasto in all areas.
Before, during and after the installation of your Webasto solution!



Webasto Services

Engineering Services

Apart from a wide range of standard products, we offer you individually optimized system solutions. Whether installation position, operating temperature, operation at high altitudes, interface connection or the installation situation in the vehicle: we can work out an optimum solution for all your requirements. In this context, you can rely on our many years of experience in original equipment and the aftermarket. You profit from our high process and quality level, and our know-how in system integration, mechatronics and software development.

The development process of a customized system solution:

- Identification of the existing boundary conditions and requirements
- Calculation of the necessary heating or cooling capacity
- Elaboration of an application solution or complete development of an individual system
- Proof of the customer's specific requirements
- System or application acceptance in the customer's works



Technical Services

From the various parts of your application to extensive series of tests, Webasto offers you everything to ensure your solution functions perfectly. Our service is also at your disposal after installation for maintenance and spare parts.

- Efficient spare part management
- Secure login to the dealer portal (e.g. product documentation, installation instructions)
- Professional quality management
- Broad spectrum of test possibilities (e.g. climatic chamber, acoustic chamber, environmental tests)
- Technical support/online training

Marketing Services

We ensure our global brand awareness and image branding through a wide range of measures.

- High-quality, target group-specific marketing tools for all media
- Support for our partners on customized marketing measures
- Advertising and mailing templates for customer activation and customer loyalty
- Point-of-sale marketing materials
- Product-specific selling argument lists
- Professional participation in trade fairs
- Broad array of sponsoring activities

Market Segments



Webasto develops innovative heating and air-conditioning solutions for the following markets:



Cars
Page 8



Trucks
Page 10



Light-duty vehicles
Page 12



Buses
Page 14



Rail
Page 16



Off-highway
Page 18

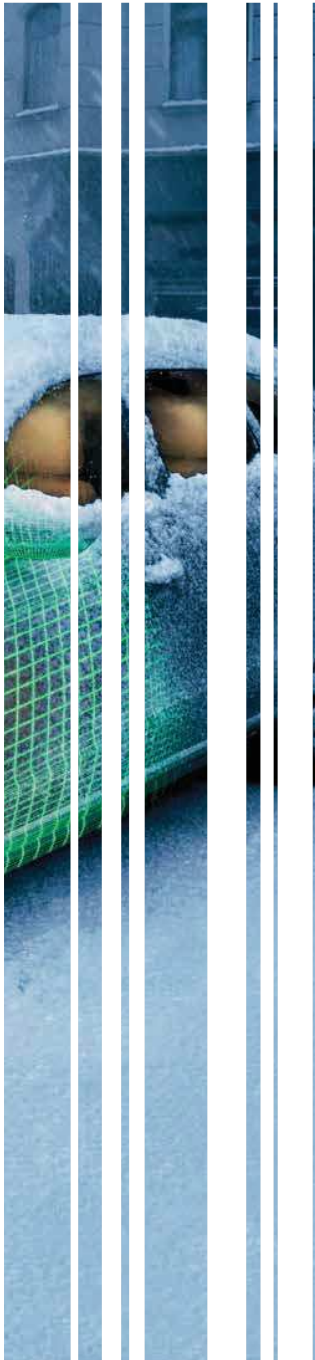
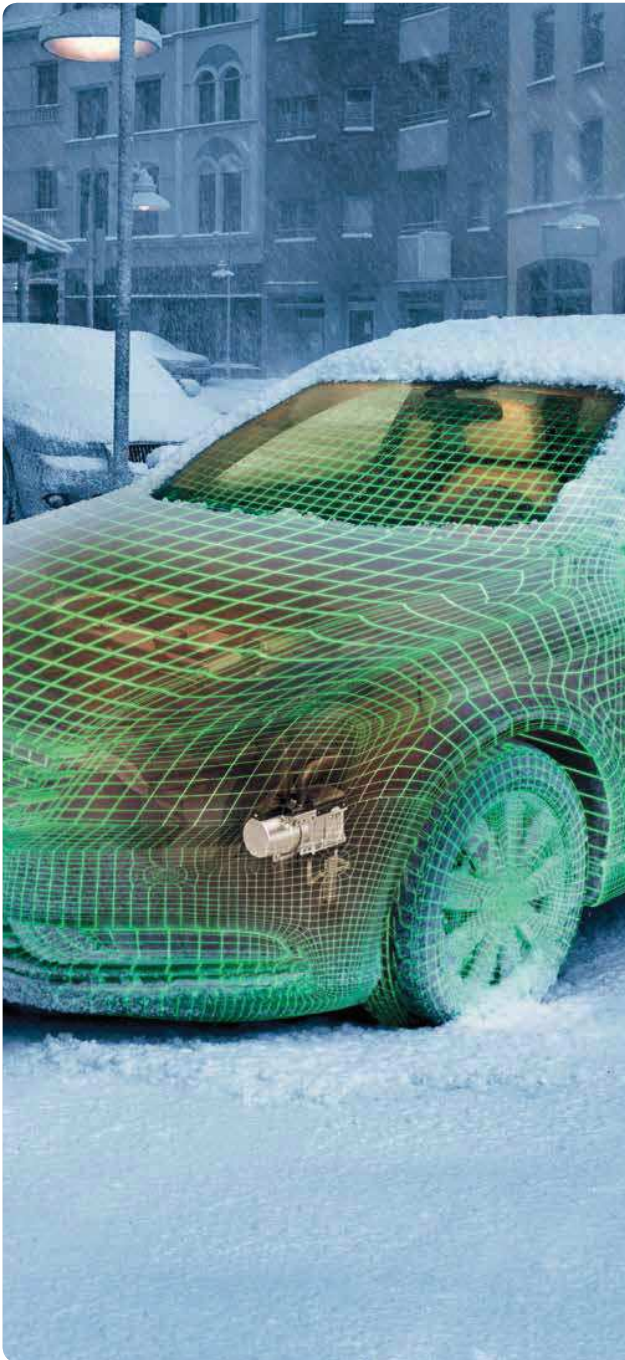


Defense
Page 20



Special vehicles
Page 22

Webasto also offers heating and air-conditioning solutions for recreational vehicles and boats.
Please ask for our separate product catalogs.



Cars

The right water heater for each vehicle class

No matter whether for compact, mid-size or luxury cars: Webasto offers heating solutions for every class that impress with stable heating performance and reliable, efficient operation.

The new generation of parking heaters, Thermo Top Evo, was specially developed for new car models and those with limited installation space. With different heating classes, the Thermo Top Evo offers the perfect heating solution for every car size. The most powerful heater in its class, the Thermo Top Evo 5+, easily heats vehicles with particularly large interiors and offers even faster and more efficient heating.

Benefits of the Webasto solutions for cars:

- Extremely small, space-saving design
- At only 2.1 kg the lightest heater in its class
- Efficient and stable heating capacity
- Low fuel consumption and minimized emissions during operation
- Can be combined with all control elements
- Installation kits for the most common vehicle models

Heating/Air-conditioning solution	Heating/Cooling capacity (kW)
Water heaters	
Thermo Top C/E	4.2 – 5.2
Thermo Top Evo 4/5/5+	4.0 – 5.0



Water heater



Trucks

A pleasant cabin climate at all times – independant of the engine

Engine idling is not only costly in the longer term, it is actually forbidden in many countries. Our Webasto non-idling solutions bring the cabin to a pleasant temperature – fully independently of the engine. That reduces fuel consumption and – as a positive side-effect – also the emission of pollutants. This comfort benefits the driver, too, both while driving and during his breaks.

An idling truck engine consumes on average three liters of fuel per hour. Added to that is the increased wear on the engine and other components. The reliable heating solutions and air-conditioning systems from Webasto ensure comfortable temperatures without incurring these costs.

Benefits of the Webasto solutions for trucks:

- No unnecessary running of the engine in idle
- Reduced fuel costs
- Optimum cabin temperature at all times without the engine running
- Efficient use of the residual engine heat

Heating/Air-conditioning solution	Heating/Cooling capacity (kW)
Air heaters	
Air Top 2000 STC	2.0
Air Top Evo 40/55	4.0 – 5.5
Water heaters	
Thermo Pro 50 Eco	5.0
Thermo Pro 90	9.1
DBW 2010/2016	11.6 – 16.0
AC systems	
Rooftop AC systems	3.5 – 8.5



Air heater



Water heater



Air-conditioning system



Light-duty Vehicles

From front to back: The perfect temperature all around

Light-duty vehicles have to transport goods and people safely to their destination. Reliable and efficient heating, air-conditioning and transport refrigeration systems play a central role here.

Webasto offers a wide range of powerful heating, air-conditioning and refrigeration solutions to meet every specialized transport demand. Whether temperature-sensitive medicines or other perishable goods have to be transported – we have a tailor-made solution available for every vehicle type and form of use.

Benefits of the Webasto solutions for light-duty vehicles:

- Engine and environment-friendly pre-heating and heating
- Installation kits for common vehicle models
- Reduction in operating costs thanks to fuel saving and lower wear

Heating/Air-conditioning solution	Heating/Cooling capacity (kW)
Air heaters	
Air Top 2000 STC	2.0
Air Top Evo 40/55	4.0 – 5.5
Water heaters	
Thermo Top C/E	4.2 – 5.2
Thermo Pro 50 Eco	5.0
Thermo Top Evo 4/5/5+	4.0 – 5.0
Thermo Pro 90	9.1
Heat exchangers	
Integrated heat exchangers	3.8 – 13.0
AC systems	
Rooftop AC systems	3.5 – 8.5
Integrated AC systems	4.0 – 9.6
Transport refrigeration systems	
Direct drive	0.7 – 3.6
Battery operation	1.2 – 1.3
Integrated	1.2 – 5.0



Air heater

Water heater

Air-conditioning system

Transport refrigeration system



Buses

Reliable climate comfort for a safe journey

In order to ensure a safe journey, buses must be air-conditioned and ready for operation right from the beginning of the journey. For their climate control equipment, Webasto can draw on a vast product portfolio ranging from standard heaters through various heating solutions up to air-conditioning systems.

With this product range we can equip buses and offer a tailor-made climate solution for every specialized application.

Benefits of the Webasto solutions for buses:

- Comfort for drivers and passengers throughout the year
- Comprehensive range of products with parking heaters and various heating/air-conditioning solutions
- Effective interior air-conditioning for every installation and application situation
- Branded quality for every application

Heating/Air-conditioning solution	Heating/Cooling capacity (kW)
Air heaters	
Air Top 2000 STC	2.0
Air Top Evo 40/55	4.0 – 5.5
Water heaters	
Thermo Pro 90	9.1
DBW 2010/2016	11.6 – 16.0
Thermo 230/300/350	23.0 – 35.0
Thermo S 230/300/350/400	23.0 – 40.0
Heat exchangers	
Integrated heat exchangers	3.8 – 13.0
AC systems	
Rooftop AC systems	3.5 – 18.0
Bus AC systems	23.0 – 50.0
Integrated systems	4.0 – 16.0



Air heater



Water heater



Air-conditioning system



Rail

Individual climate control solutions for every outdoor temperature

For more than 40 years, Webasto has been developing heating, ventilation and air-conditioning technologies for rail. This climate control know-how benefits your customers - in high-quality standard products and in individual climate control solutions. In combination with innovative control systems, we guarantee a pleasant room climate for drivers and passengers – whether it's cold down to -40 °C or hot up to +45 °C.

Even before the start of operation, the diesel-powered heating systems bring the engines of the trains to the optimum operating temperature. During the journey the intelligent control element of the air-conditioning systems regulates the optimum heating or cooling components, depending on the outdoor temperature. We develop individual solutions in close and flexible cooperation with the customer. In addition we also offer refurbishment solutions and the maintenance of the systems.

Benefits of the Webasto solutions for rail vehicles:

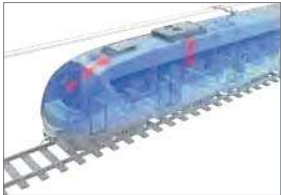
- Pleasant temperatures in passenger compartment and driver's cabin
- Cost efficiency thanks to preheating of diesel engine and fuel
- Use of eco-friendly materials

Heating/Air-conditioning solution	Heating/Cooling capacity (kW)
Water heaters	
DBW 2016	16.0
Thermo 230/300/350	23.0 – 35.0

We are at your disposal for the development of individual air-conditioning systems.



Water heater



Air-conditioning system



Off-highway

- Benefits of the Webasto solutions for agricultural and off-highway machines:**
- Fuel saving thanks to reduced engine idling
 - Reduced operating hours of the engines
 - Safe working conditions throughout the year
 - Comfortable climate for the operator

Heating/Air-conditioning solution	Heating/Cooling capacity (kW)
Air heaters	
Air Top 2000 STC	2.0
Air Top Evo 40/55	4.0 – 5.5
Water heaters	
Thermo Top C/E	4.2 – 5.2
Thermo Top Evo 4/5/5+	4.0 – 5.0
Thermo Pro 50 Eco	5.0
Thermo Pro 90	9.1
DBW 2010/2016	11.6 – 16.0
Thermo 230/300/350	23.0 – 35.0
Thermo S 230/300/350/400	23.0 – 40.0
Heat exchangers	
Integrated heat exchangers	3.8 – 13.0
AC systems	
Rooftop AC systems	3.5 – 8.5
Integrated AC systems	4.0 – 9.6

We are at your disposal for the development of individual air conditioning systems and heat exchangers.



Air heater



Water heater



Air-conditioning system



Defense

High operational readiness under the most extreme conditions

Defense vehicles have to function perfectly wherever they are in the world, and have to withstand extreme climatic conditions irrespective of their form and size. Webasto helps to meet these demands with proven and tailor-made solutions.

Our air-conditioning and heating systems make the vehicles not only ready for operation at any time and under any circumstances, but also help to save costs. They help to keep hydraulic fluids and equipment at the optimum temperature even when the engine is switched off and even at outdoor temperatures down to -46°C . Of particular note here are also our solutions for container refrigeration with cooling capacities from 5 to 24 kW.

Benefits of the Webasto solutions for defense vehicles:

- Operational readiness of vehicles and equipment under all climatic conditions
- Cost-efficient heating systems
- Optimum temperature for vehicle equipment and occupants even with the engine switched off
- Reduced fuel consumption and wear

Heating/Air-conditioning solution	Heating/Cooling capacity (kW)
Air heaters	
Air Top 2000 STC*	2.0
Air Top Evo 40/55**	4.0 – 5.5
Water heaters	
Thermo Pro 50 Eco*	5.0
Thermo Pro 90	9.1
DBW 2010/2016	11.6 – 16.0
Thermo 230/300/350	23.0 – 35.0
Thermo S 230/300/350/400	23.0 – 40.0

* Optional: Satisfies various military standards. List of approved military fuels, see auf www.webasto.com

** Satisfies various military standards.

We are at your disposal for the development of individual air conditioning systems.



Air heater



Water heater



Air-conditioning system



Special Vehicles

Benefits of the Webasto solutions for special vehicles:

- Comfort for drivers and passengers throughout the year
- Clear visibility at all times, even in snow and ice
- Efficient interior air-conditioning for every installation and application situation
- Branded quality for every application

* Webasto also offers air-conditioning solutions for the new refrigerant R1234yf.

Heating/Air-conditioning solution	Heating/Cooling capacity (kW)
Air heaters	
Air Top 2000 STC	2.0
Air Top Evo 40/55	4.0 – 5.5
Water heaters	
Thermo Top C/E	4.2 – 5.2
Thermo Pro 50 Eco	5.0
Thermo Top Evo 4/5/5+	4.0 – 5.0
Thermo Pro 90	9.1
DBW 2010/2016	11.6 – 16.0
Thermo 230/300/350	23.0 – 35.0
Thermo S 230/300/350/400	23.0 – 40.0
Heat exchangers	
Integrated heat exchangers	3.8 – 13.0
AC systems	
Rooftop AC systems	3.5 – 8.5
Integrated AC systems	4.0 – 9.6



Air heater



Water heater



Air-conditioning system



Heating Systems

Webasto air and water heaters offer your customers a wide variety of advantages.

Worthwhile investment

- High operational readiness and availability of the commercial vehicle
- High quality products available on a long-term basis
- Optimum coordination of space and application requirements thanks to customized application solutions
- Lower operating costs thanks to reduction in engine idling times
- Predictable maintenance costs thanks to diagnosis functionality









More safety and greater comfort

- Perfect view through ice-free and defogged windows right from the start of the journey
- Relaxing break times thanks to low-noise operation
- Constant temperature in the passenger compartment thanks to intelligent temperature management
- Precise and continuously adjustable temperature control

Environment-friendly operation

- Reduced engine idling during pauses and rest periods
- Reduced energy consumption thanks to efficient and high-efficiency combustion technology

The tailor-made Webasto heating solution for every area

	Heating capacity (kW)								
Air heaters									
Air Top 2000 STC	2.0		■	■	■		■	■	■
Air Top Evo 40 / 55	4.0 – 5.5		■	■	■		■	■	■
Water heaters									
Thermo Top C/E	4.2 – 5.2	■		■			■		■
Thermo Pro 50 Eco	5.0		■	■			■	■	■
Thermo Top Evo 4 / 5 / 5+	4.0 – 5.0	■		■			■		■
Thermo Pro 90	9.1		■	■	■		■	■	■
DBW 2010 / 2016	11.6 – 16.0		■		■	■	■	■	■
Thermo 230 / 300 / 350	23.0 – 35.0				■	■	■	■	■
Thermo S 230 / 300 / 350 / 400	23.0 – 40.0				■		■	■	■
Heat exchangers									
Integrated heat exchangers	3.8 – 13.0			■	■		■		

Air heaters

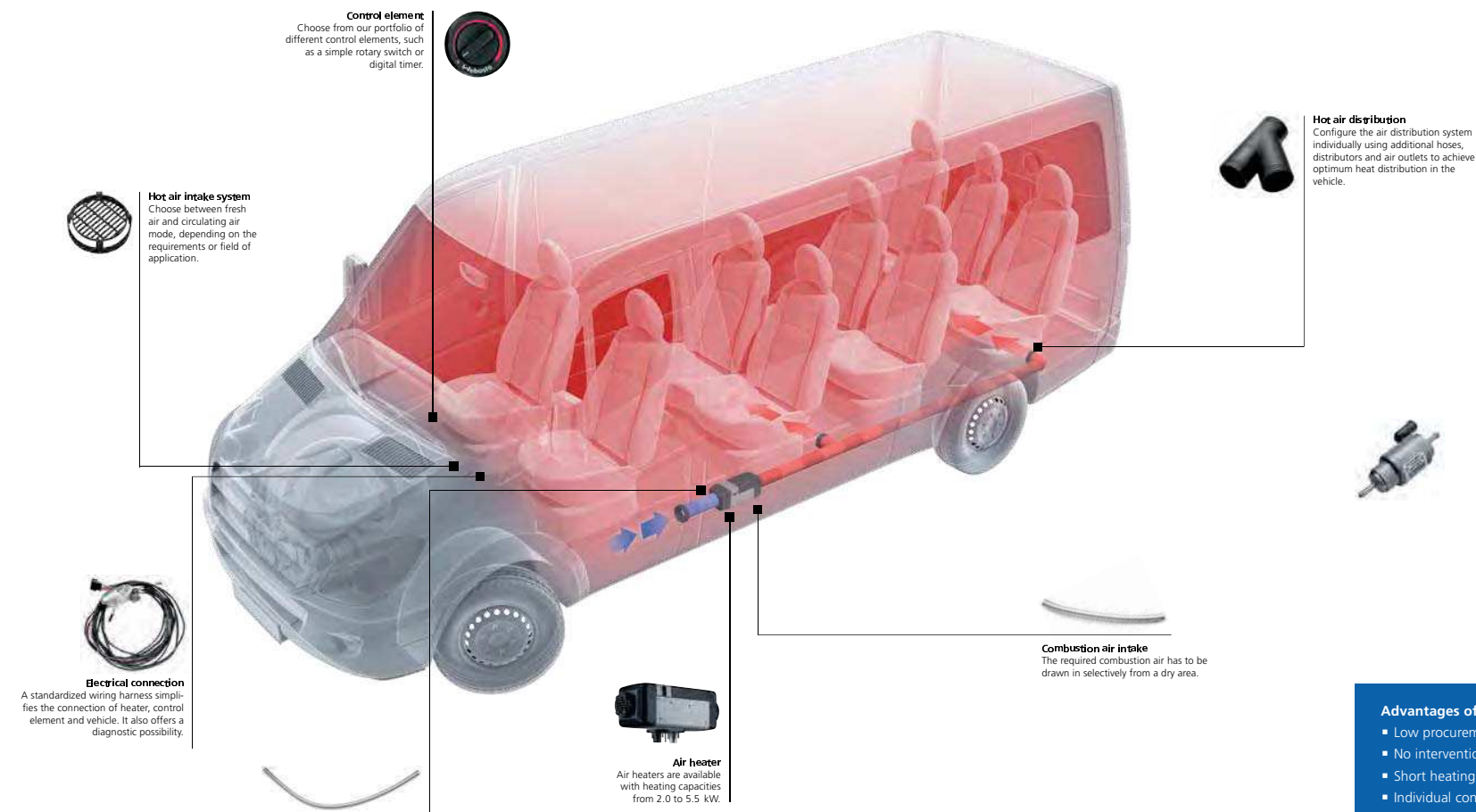
Water heaters

Integrated heat exchangers

Application of an air heating system

Webasto air heating systems can be ordered in diverse delivery scopes. The standard components are combined into a basic delivery scope and an installation kit. You may need additional application material, depending on the requirements for use and the installation location. You can find these in our extensive accessories program.

The functionality of an air heating system can be found on page 130.



Advantages of air heating systems

- Low procurement and installation costs
- No intervention in the original vehicle system
- Short heating times
- Individual configuration of the air distribution
- Circulating air or fresh air mode

Air Top 2000 STC

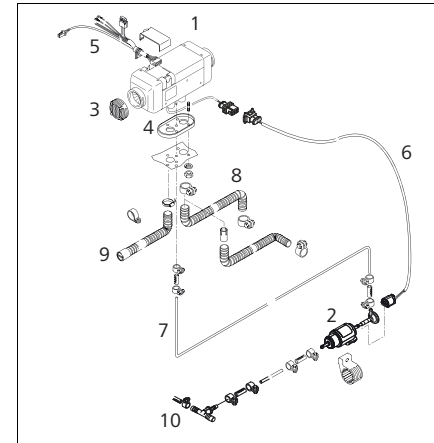


The simple and cost-effective solution

The compact Air To Go 2000 STC air heater is an impressive performer thanks to its versatility and low fuel consumption. Its compact construction means that it can be installed quickly. It can be installed either inside or outside the vehicle. This heater heats the air in the interior or cargo space quickly and quietly and keeps it constant at the chosen working temperature. Users can choose between recirculation and fresh-air modes.

It's easy to service and repair design and low fuel consumption make the Air Top 2000 STC economical to maintain.

- 2 kW heating capacity
- Heats up quickly, more even and quiet heating procedure by use of fuel pump 42
- Sturdy heater with compact dimensions and low fuel consumption
- Easy to service and maintain, diagnostic capability
- Suitable for use in vehicles for transporting hazardous materials (ADR)
- Full W-bus compatibility of the heater
- Unlimited operation with the new Smart and MultiControl HD control elements
- Use of Unibox no longer necessary



Contents	Scope of delivery/Installation kit
1.1	1.1.1
1.2	1.2.1
1.3	1.3.1
1.4	1.4.1
1.5	1.5.1
1.6	1.6.1
1.7	1.7.1
1.8	1.8.1
1.9	1.9.1
1.10	1.10.1
1.11	1.11.1
1.12	1.12.1
1.13	1.13.1
1.14	1.14.1
1.15	1.15.1
1.16	1.16.1
1.17	1.17.1
1.18	1.18.1
1.19	1.19.1
1.20	1.20.1
1.21	1.21.1
1.22	1.22.1
1.23	1.23.1
1.24	1.24.1
1.25	1.25.1
1.26	1.26.1
1.27	1.27.1
1.28	1.28.1
1.29	1.29.1
1.30	1.30.1
1.31	1.31.1
1.32	1.32.1
1.33	1.33.1
1.34	1.34.1
1.35	1.35.1
1.36	1.36.1
1.37	1.37.1
1.38	1.38.1
1.39	1.39.1
1.40	1.40.1
1.41	1.41.1
1.42	1.42.1
1.43	1.43.1
1.44	1.44.1
1.45	1.45.1
1.46	1.46.1
1.47	1.47.1
1.48	1.48.1
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1.50	1.50.1
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1.52	1.52.1
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1.62	1.62.1
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1.64	1.64.1
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1.68	1.68.1
1.69	1.69.1
1.70	1.70.1
1.71	1.71.1
1.72	1.72.1
1.73	1.73.1
1.74	1.74.1
1.75	1.75.1
1.76	1.76.1
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1.82	1.82.1
1.83	1.83.1
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1.92	1.92.1
1.93	1.93.1
1.94	1.94.1
1.95	1.95.1
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1.97	1.97.1
1.98	1.98.1
1.99	1.99.1
1.100	1.100.1

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Technical data

[illegible]

Air Top 2000 STC

Scope of delivery, heater	Order number
Installation kit	Order number
	9032244

Control element not included. Separate order required.
Changeover of Air Top 2000 ST to Air Top 2000 STC version in second quarter of 2015

Air Top Evo 40/55

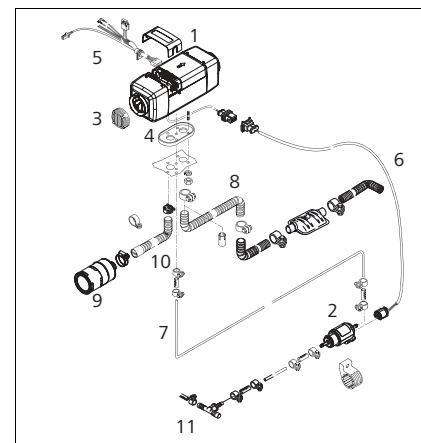


Evolution with more power and versatility

If required, two units can be combined in a modular fashion to allow for heating larger cargo spaces.

- 4.0/5.5 kW heating capacity
- Low energy consumption and exceptionally quiet operation thanks to efficient control
- A wide range of safety and comfort functions
- Automatic altitude compensation as standard
- Continuous heating capacity thanks to low power consumption

Technical data

[illegible]

Contents	Scope of delivery/Installation kit
1.1	1.1.1
1.2	1.2.1
1.3	1.3.1
1.4	1.4.1
1.5	1.5.1
1.6	1.6.1
1.7	1.7.1
1.8	1.8.1
1.9	1.9.1
1.10	1.10.1
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1.18	1.18.1
1.19	1.19.1
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1.27	1.27.1
1.28	1.28.1
1.29	1.29.1
1.30	1.30.1
1.31	1.31.1
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1.39	1.39.1
1.40	1.40.1
1.41	1.41.1
1.42	1.42.1
1.43	1.43.1
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1.89	1.89.1
1.90	1.90.1
1.91	1.91.1
1.92	1.92.1
1.93	1.93.1
1.94	1.94.1
1.95	1.95.1
1.96	1.96.1
1.97	1.97.1
1.98	1.98.1
1.99	1.99.1
1.100	1.100.1

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Air Top Evo 40

Scope of delivery, heater	Order number

Air Top Evo 55

Scope of delivery, heater	Order number

Installation kit	Order number
------------------	--------------

Note: when using installation kit 9027987A with MC 04 control element the heater wiring harness with order no. 1321865A is to be ordered additionally

Air Top Evo System

Up to 11 kW heating capacity by combining two Air Top Evo units.

Installation kit	Order number



Air heaters

Control elements

		Air Top 2000 STC	Air Top Evo 40/55	Order number
	MultiControl HD			
	SmartControl			
	MC 04			
	Combination digital timer			
	24 V	■	■	88205A
	Small component kit for standard/combination timer			
	Rotary selector switch Standard			
	Rotary selector switch Camping			

		Air Top 2000 STC	Air Top Evo 40/55	Order number
	Installation cover panel			
	Installation cover panel with changeover switch for heating and air-conditioning mode			
	Rotary switch with function indicator			
	24 V	■	■	109999
	Switch position plate			
	Printed rocker switch			
	Installation frame kit, short			
	Installation kit, long			
	Installation housing kit			

Air heaters

Control elements

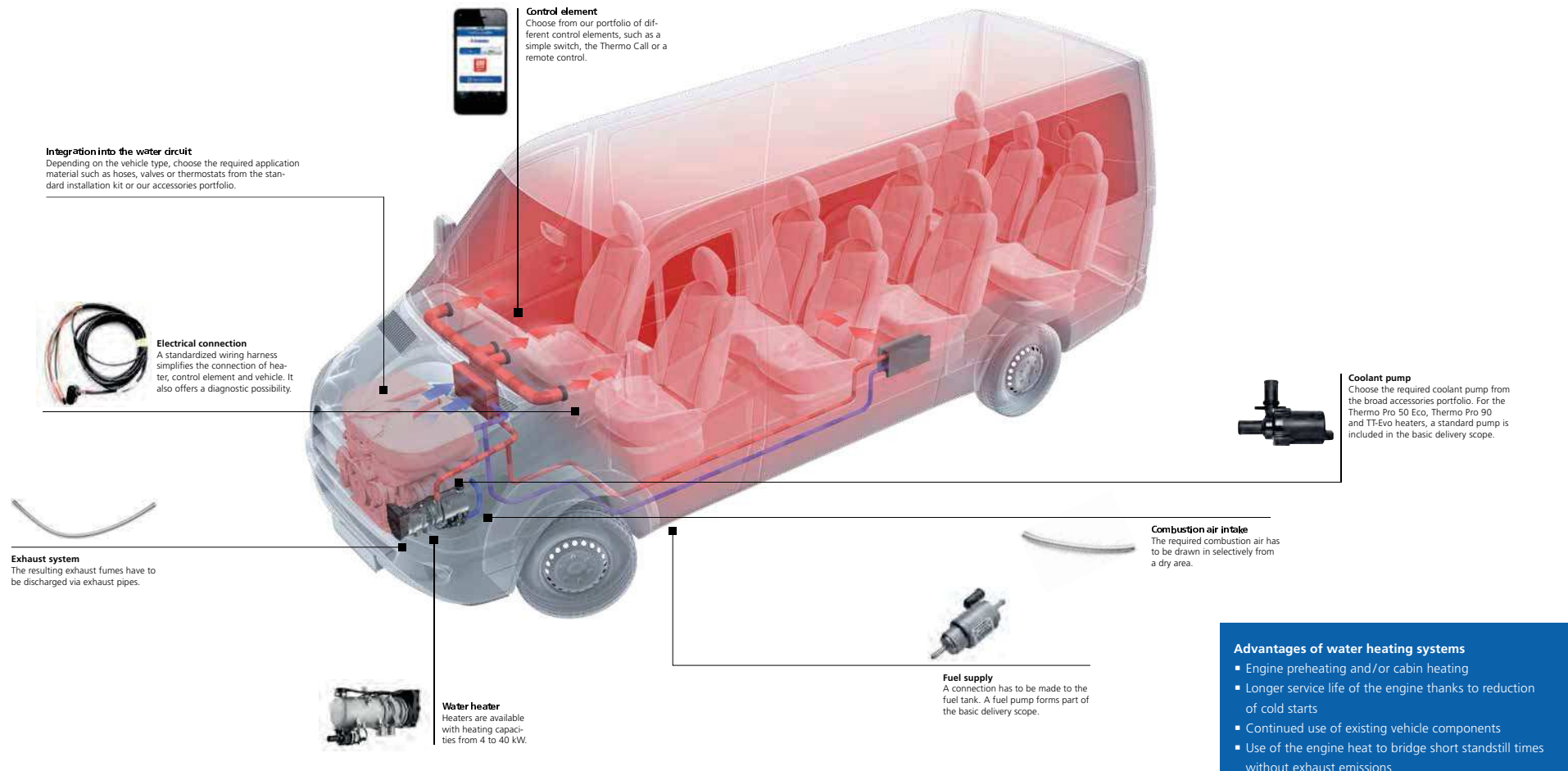
		Air Top 2000 STC	Air Top Evo 40/55	Order number
	Remote control by phone Thermo Call TC3			
	Remote control Telestart T91			
	Hand-held transmitter T91			
	Remote control Telestart T91 Holiday with continuous heating function			
	Battery for hand-held transmitter T91			
	Battery compartment cover for hand-held transmitter T91			
	Receiver T91			

		Air Top 2000 STC	Air Top Evo 40/55	Order number
	Remote control Telestart T100 HTM			
	Hand-held transmitter T100 HTM			
	Self-adhesive window antenna			
	ESV adapter cable harness for T91 and T100 HTM			
	Battery for hand-held transmitter T100 HTM			
	Battery compartment cover for hand-held transmitter T100 HTM			
	Receiver T100 HTM			
	Temperature sensor T100 HTM			

Application of a water heating system

Webasto water heating systems can be ordered in diverse delivery scopes. The standard components are combined into a basic delivery scope and an installation kit. You may need additional application material, depending on the desired application and the installation location. You can find these in our extensive accessories program.

The functionality of a water heating system can be found on page 131.



Water heaters

Thermo Top Evo



Quick and reliable starting in winter

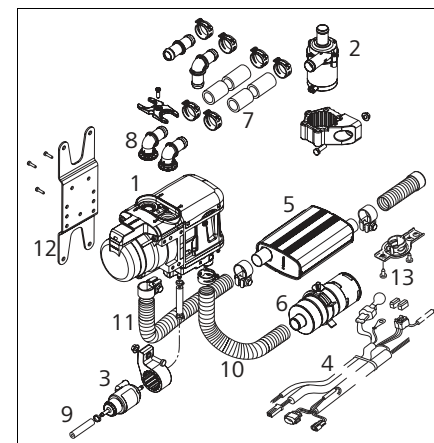
The new Thermo Top Evo parking heater generation has been developed especially for new vehicles and those with restricted installation space. This means that the vehicle is ready to start quickly and reliably. Icy windows can be defrosted within a very short time and the cabin heats up very quickly

There is a choice of three heating capacities, depending on the size of the vehicle. Thanks to its innovative control system, the Thermo Top Evo 5+ can be used to heat up very large interiors.

- Extremely small and a great space saver
- Weighing 2.1 kg, this is the lightest heater in its class
- Efficient and stable heating capacity
- Low fuel consumption and minimal emissions in operation
- Available in various heating capacity options
- Vehicle-specific installation kits for the most common models
- Available for retrofit and as original equipment

Technical data

Model overview	Thermo Top Evo 4		Thermo Top Evo 5		Thermo Top Evo 5+*	
	Diesel	Gasoline	Diesel	Gasoline	Diesel	Gasoline
Coolant pump U4847 Econ						
Volume flow against 0,14 bar (l/h)				500		
Dimensions L x W x H (mm)				96 x 75 x 80		
Weight (kg)				0.3		



Contents Scope of delivery/Installation kit

Part	SOD	IK	Description

Thermo Top Evo 4

Scope of delivery, heater	Order number

Thermo Top Evo 5

Scope of delivery, heater	Order number

Thermo Top Evo 5+

Scope of delivery, heater	Order number

Installation kit	Order number

Control element not included. Separate order required.

DBW 2010/2016

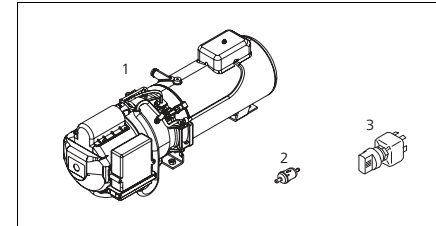


Gentle on the engine, environmentally friendly and cost-effective

Thanks to its robust construction and engineering, the DBW is the best option in the high-power category up to 16 kW for heating large-volume cabins and cargo spaces. In the case of medium- to large-engined vehicles, the engine and the cabin can be heated simultaneously.

The reduction in costs due to lower fuel consumption and the avoidance of engine idling times increases the economic benefit provided by the vehicle and makes a contribution to reducing the burden on the environment. The long service life of the heater and of its components and the very low maintenance and repair costs ensure maximum vehicle utilization and operating times. For use in the rail sector, there is a special, powerful complete system with approval by the German Federal Office for Railroads.

- Quick and reliable readiness for operation, even at low temperatures
- Robust technology with low repair and maintenance costs
- Saves fuel by avoiding engine idling times
- Available for retrofit and as original equipment



Contents Scope of delivery

Part	SOD	Description

Technical data

Model overview	DBW 2010	DBW 2016*
	Diesel	
Coolant pump U4840		
Volume flow against 0.31 bar (l/h)	700	
Dimensions L x W x H (mm)	134 x 53 x 90 (incl. connections)	
Weight (kg)	0.4	
Coolant pump U4814/AquaVent 5000		
Volume flow against 0.2 bar (l/h)	5,000	
Dimensions L x W x H (mm)	229 x 100 x 105	
Weight (kg)	2.1	

DBW 2010

Scope of delivery, heater	Order number

DBW 2016

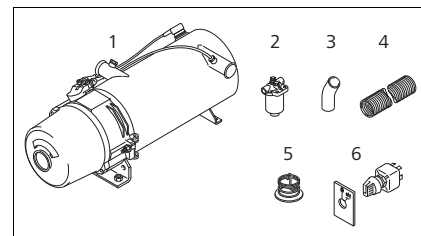
Scope of delivery, heater	Order number

Spheros, Thermo 230/300/350



These powerful water heaters raise high-power engines to their operating temperature before starting. In public or tourist buses, they quickly establish a comfortable temperature level in the passenger areas without the engine running. In the case of railcars or locomotives, engines are preheated before starting. Apart from considerations of readiness for operation, these water heaters thereby also ensure that the engine has a longer life expectancy. The supplementary heating function during operation ensures a comfortable interior temperature, even when outside temperatures are very low. These water heating systems go beyond the legal requirements to meet the high standards of bus manufacturers as well.

- Water heaters with 20/30/35 kW heating capacity
- Optional preheating of fuel
- Quick installation thanks to complete preconfigured systems



Part	SOD	Description

Part	SOD	Description

Model overview	Thermo 230	Thermo 300	Thermo 350
	Diesel		
Coolant pump U4814/Aquavent 5000			
Volume flow against 0,2 bar (l/h)	5000		
Dimensions L x W x H (mm)	229 x 100 x 105		
Weight (kg)	2.1		
Coolant pump U4854/Aquavent 5000S			
Volume flow against 0,2 bar (l/h)	5000		
Dimensions L x W x H (mm)	249 x 100 x 105		
Weight (kg)	2.2		
Coolant pump U4856/Aquavent 6000SC			
Volume flow against 0,4 bar (l/h)	6000		
Dimensions L x W x H (mm)	229 x 110 x 115		
Weight (kg)	2.5		

Scope of delivery, heater	Order number
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Scope of delivery, heater	Order number
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Scope of delivery, heater	Order number
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Water heaters

Spheros, Thermo S230/300/350/400



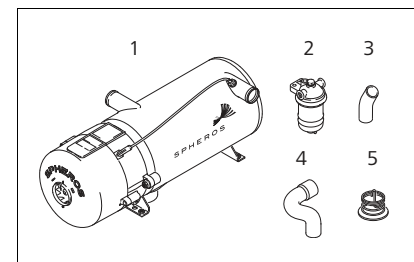
Powerful and kind to the environment

The powerful water heaters of the Thermo S series raise high-power engines to their operating temperature before starting. In public or tourist buses, they quickly establish a comfortable temperature level in the passenger areas without the engine running. Apart from considerations of readiness for operation, preheating the engine also ensures that the engine has a longer life expectancy. A modified sensor system significantly reduces exhaust and noise emissions. The supplementary heating function during operation ensures a comfortable interior temperature, even when outside temperatures are very low. These water heating systems go beyond the legal requirements to meet the high standards of bus manufacturers as well.

- Operational even at very low outside temperatures
- A comfortable interior temperature right from the start and while driving
- Preconfigured complete systems for less installation work
- An integrated diagnostic function reduces out-of-service and down times of the vehicle.
- Optional preheating of the fuel

Technical data

Model overview	Thermo S230	Thermo S300	Thermo S350	Thermo S400
	Diesel			
Coolant pump U4814/Aquaavent 5000				
Volume flow against 0,2 bar (l/h)		5000		
Dimensions L x W x H (mm)		229 x 100 x 105		
Weight (kg)		2.1		
Coolant pump U4854/Aquaavent 5000S				
Volume flow against 0,2 bar (l/h)		5000		
Dimensions L x W x H (mm)		249 x 100 x 105		
Weight (kg)		2.2		
Coolant pump U4856/Aquaavent 6000SC				
Volume flow against 0,4 bar (l/h)		6000		
Dimensions L x W x H (mm)		229 x 110 x 115		
Weight (kg)		2.5		



Contents Scope of delivery

Part	SOD	Description

Thermo S230

Scope of delivery, heater	Order number

Thermo S300

Scope of delivery, heater	Order number

Thermo S350





Scope of delivery, heater	Order number










Thermo S400

Scope of delivery, heater	Order number

Water heaters

Control elements








		Thermo Top C/E	Thermo Pro 50 Eco	Thermo Top Evo	Thermo Pro 90	DBW 2010/2016	Thermo 230/300/350	Dual Top Evo	Order number
	MultiControl HD								
	SmartControl								
	MultiControl Car								
	MultiControl holding frame								
	Standard digital timer								
	Small component kit for standard/combination timer								

		Thermo Top C/E	Thermo Pro 50 Eco	Thermo Top Evo	Thermo Pro 90	DBW 2010/2016	Thermo 230/300/350	Dual Top Evo	Order number
	Space thermostat, 3 position controller								
	Digital timer 1533								
	Rotary switch with function indicator								
	24 V	■	■	■	■				109999
	Switch position plate								
	Printed rocker switch								
	Rocker switch								
	Installation frame kit, short								
	Installation kit, long								
	Installation housing kit								

Water heaters

Control elements

		Thermo Top C/E	Thermo Pro 50 Eco	Thermo Top Evo	Thermo Pro 90	DBW 2010/2016	Thermo 230/300/350	Dual Top Evo	Order number
	Remote control Telestart T91								
	Hand-held transmitter T91								
	Remote control Telestart T91 Holiday with continuous heating function								
	Battery for hand-held transmitter T91								
	Battery compartment cover for hand-held transmitter T91								
	Receiver T91								
	Self-adhesive window antenna								
	Cable harness for ventilation mode								

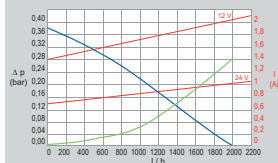
		Thermo Top C/E	Thermo Pro 50 Eco	Thermo Top Evo	Thermo Pro 90	DBW 2010/2016	Thermo 230/300/350	Dual Top Evo	Order number
	Remote control Telestart T100 HTM								
	Hand-held transmitter T100 HTM								
	Battery for hand-held transmitter T100 HTM								
	Battery compartment cover for hand-held transmitter T100 HTM								
	Receiver T100 HTM								
	ESV adapter cable harness for T91 and T100 HTM								
	Temperature sensor T 100 HTM								
	Remote control by phone Thermo Call TC3								

Water heaters

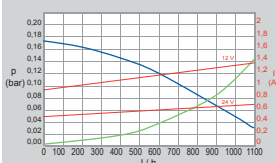
Coolant pumps



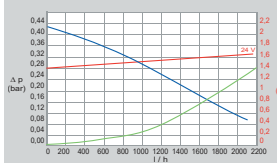
U4846



U4847 Econ



U4840



U4846

Model overview	Order number

U4847 Econ

Model overview	Order number

U4840

Model overview	Order number

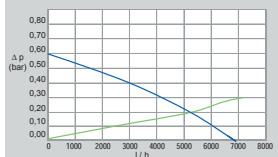
Aquavent 5000/5000 S

Model overview	Order number

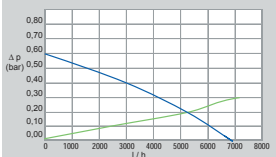
Aquavent 6000 C/6000 SC

Model overview	Order number

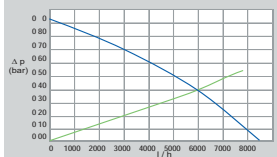
Aquavent 5000



Aquavent 5000 S



Aquavent 6000 SC



Volume flow with water/glycol mixture (50:50) 20°C

Flow resistance when the pump is stationary







Rated power consumption







Technical data

Model overview	U4846	U4847 Econ	U4840	Aquavent		
				5000	5000 S	6000 S/6000 SC

Heating Systems

Vehicle-specific installation kits for light-duty vehicles

Model	From model year	Heater	Fuel	Order number		Control elements					
				Heater scope of supply	Installation kit						
						Rotary controller	Digital timer	Combi timer	T91	T100HTM	Thermo Call app
Citroën											
Nemo	2008	Thermo Top C	Diesel, gasoline	Diesel: 9003168C Gasoline: 9003167C	1313749C	–	1301122D	–	1314635A	1314637A	7100350C
Berlingo	2008	Thermo Top C	Diesel	9003168C	AC: 1313672C ACC: 1313673C	–	1301122D	–	1314635A	1314637A	7100350C
Berlingo	2008	Thermo Top C	Gasoline	9003167C	AC: 1313670D ACC: 1313671D	–	1301122D	–	1314635A	1314637A	7100350C
Jumpy	2007	Thermo Top C	Diesel	9003168C	AC: 1313563C ACC: 1313585E	–	1301122D	–	1314635A	1314637A	7100350C
Jumpy	2007	Auxiliary heater	Diesel	–	Upgrade kit AC: 1313104E ACC: 1313103E	–	1301122D	–	1314635A	1314637A	7100350C
Jumper	2006	Thermo Top C	Diesel	9003168C	1311342D + ACC: 1314416A	–	1301122D	–	1314635A	1314637A	7100350C
Jumper	2009	Air Top 2000 STC	Diesel	9022047A + 9022050B	1315904A	82819B	–	9010385A	1314635A + 1311194A	1314637A + 1311194A	7100350C
Fiat											
Fiorino	2008	Thermo Top C	Diesel, gasoline	Diesel: 9003168C Gasoline: 9003167C	1313749C	not possible	1301122D	–	1314635A	1314637A	7100350C
Doblo	2007	Thermo Top C	Diesel, gasoline	Diesel: 9003168C Gasoline: 9003167C	1300633D	not possible	1301122D	–	1314635A	1314637A	7100350C
Doblo	2010	Thermo Top Evo 5	Diesel	1314815A	1315993C	not possible	1301122D	–	1314635A	1314637A	7100350C
Scudo	2007	Thermo Top C	Diesel (RHK – 88 kW)	9003168C	AC: 1313563C ACC: 1313585E	not possible	1301122D	–	1314635A	1314637A	7100350C
Scudo	2007	Auxiliary heater	Diesel (9HU, RHK, RHR)	–	Upgrade kit AC: 1313104C ACC: 1313103E	not possible	1301122D	–	1314635A	1314637A	7100350C
Ducato	2006	Thermo Top C	Diesel	9003168C	1311342D + ACC: 1314416A	not possible	1301122D	–	1314635A	1314637A	7100350C
Ducato	2006	Air Top 2000 STC	Diesel	9022047A + 9022050B	1315904A	82819B	–	9010385A	1314635A + 1311194A	1314637A + 1311194A	7100350C







Model				Order number		Control elements					
				Heater scope of supply	Installation kit						
						Rotary controller	Digital timer	Combi timer	T91	T100HTM	Thermo Call app ¹⁾
Ford											
Connect	2003	Thermo Top C	Diesel, gasoline	Diesel: 9003168C Gasoline: 9003167C	1312556A	not possible	1301122D	–	1314635A	1314637A	7100350C
Transit	2007	Thermo Top C	Diesel, gasoline	Diesel: 9003168C Gasoline: 9003167C	1311724A	not possible	1301122D	–	1314635A	1314637A	7100350C
Transit	2007	Air Top 2000 STC	Diesel	9022047A + 9022050B	1311683B	82819B	–	9010385A	1314635A + 1311194A	1314637A + 1311194A	7100350C
Transit	2008	Thermo Top C	Diesel	9003168C	1314798A	not possible	1301122D		1314635A	1314637A	7100350C
Mercedes											
Vito	2009	Air Top 2000 STC	Diesel	9022047A	1315777A	82819B	–	9010385A	1314635A + 1311194A	1314637A + 1311194A	7100350C
Sprinter	2009	Air Top 2000 STC	Diesel	9022047A	1315775A	82819B	–	9010385A	1314635A + 1311194A	1314637A + 1311194A	7100350C
Sprinter	2009	Air Top Evo 3900 ¹⁾	Diesel	9019198B	1315776A	82819B	–	9010385A	1314635A + 1311194A	1314637A + 1311194A	7100350C
Nissan											
Primastar	2007	Thermo Top C	Diesel	9003168C	1303346B	not possible	1301122D	–	1314635A	1314637A	7100350C
Primastar	2007	Air Top 2000 STC	Diesel	9022047A + 9022050B	1312231A	82819B	–	9010385A	1314635A + 1311194A	1314637A + 1311194A	7100350C
Interstar	2007	Thermo Top C	Diesel	9003168C	1303350A	not possible	1301122D	–	1314635A	1314637A	7100350C
Interstar	2007	Air Top Evo 3900 ¹⁾	Diesel	9019198B + 9019428A	without partition wall: 1312622C with partition wall: 1311959C	82819B	–	9010385A	1314635A + 1311194A	1314637A + 1311194A	7100350C







Air heaters

Water heaters

Heating Systems

Vehicle-specific installation kits for light-duty vehicles

Model	From model year	Heater	Fuel	Order number		Control elements					
				Heater scope of supply	Installation kit						
						Rotary controller	Digital timer	Combi timer	T91	T100HTM	Thermo Call/Thermo Call app ¹⁾
Opel											
Vivaro	2007	Thermo Top C	Diesel	83344D	9002568H	–	1301122D	–	1314635A	1311328A (with Opel logo)	7100350C
Vivaro	2001 Passenger compartment installation	Air Top 2000 STC	Diesel	1311064A	1312245A + with partition wall: 1312246A	82819B	–	included in kit	1314635A + 1311194A	1311328A (with Opel logo)	7100350C
Vivaro	2001 Underfloor installation for passengers	Air Top 2000 STC	Diesel	1311064A	1311322C	82819B	–	included in kit	1314635A + 1311194A	1311328A (with Opel logo)	7100350C
Movano	2004	Thermo Top C	Diesel	83344D	9009282D	–	1301122D	–	1314635A	1303704C (with Opel logo)	7100350C
Movano	2007	Air Top Evo 3900 ²⁾	Diesel	1311388B	1311389C	82819B	–	included in kit	1314635A + 1311194A + 70813B	1311328A (with Opel logo)	7100350C
Movano	2009	Thermo Top Evo 5	Diesel	1314815A	1316166B	–	1301122D	–	1314635A	1303704C (with Opel logo)	7100350C
Movano	2010	Air Top Evo 3900 ²⁾	Diesel	9019198B	1316147B (with partition wall)	82819B	–	9010385A	1314635A + 1311194A + 70813B	1311328A (with Opel logo)	7100350C
Peugeot											
Bipper	2008	Thermo Top C	Diesel, gasoline	Diesel: 9003168C Gasoline: 9003167C	1313749C	not possible	1301122D	–	1314635A	1314637A	7100350C
Partner	2008	Thermo Top C	Diesel	9003168C	AC: 1313672C ACC: 1313673C	not possible	1301122D	–	1314635A	1314637A	7100350C
Partner	2008	Thermo Top C	Gasoline	9003167C	AC: 1313670D ACC: 1313671D	not possible	1301122D	–	1314635A	1314637A	7100350C
Expert	2007	Thermo Top C	Diesel	9003168C	AC: 1313563C ACC: 1313585E	not possible	1301122D	–	1314635A	1314637A	7100350C
Expert	2007	Auxiliary heater	Diesel	–	Upgrade kit: AC: 1313104B ACC: 1313103C	not possible	1301122D	–	1314635A	1314637A	7100350C
Boxer	2006	Thermo Top C	Diesel	9003168C	1311342D + ACC: 1314416A	not possible	1301122D	–	1314635A	1314637A	7100350C
Boxer	2009	Air Top 2000 STC	Diesel	9022047A + 9022050B	1315904A	82819B	–	9010385A	1314635A + 1311194A	1314637A + 1311194A	7100350C

Model	From model year	Heater	Fuel	Order number		Control elements					
				Heater scope of supply	Installation kit						
						Rotary controller	Digital timer	Combi timer	T91	T100HTM	Thermo Call/Thermo Call app ¹⁾
Renault											
Kangoo	2008	Thermo Top C	Diesel	9003168C	1313682B	not possible	1301122D	–	1314635A	1314637A	7100350C
Kangoo	2008	Thermo Top C	Gasoline	9003167C	1313591B	not possible	1301122D	–	1314635A	1314637A	7100350C
Trafic	2007	Thermo Top C	Diesel	9003168C	1303346B	not possible	1301122D	–	1314635A	1314637A	7100350C
Trafic	2007	Air Top 2000 STC	Diesel	9022047A + 9022050B	1312232A + 1312231B	82819B	–	9010385A	1314635A + 1311194A	1314637A + 1311194A	7100350C
Master	2007	Thermo Top C	Diesel	9003168C	1303350A	–	1301122D	–	1314635A	1314637A	7100350C
Master	2007	Air Top Evo 3900 ²⁾	Diesel	9019198B + 9019428A	without partition wall: 1312622C with partition wall: 1311959C	82819B	–	9010385A	1314635A + 1311194A + 70813B	1314637A + 1311194A + 70813B	7100350C
Master	2009	Thermo Top Evo 5	Diesel	1314815A	1316166B	–	1301122D	–	1314635A	1314637A	7100350C
Master	2010	Air Top Evo 3900 ²⁾	Diesel	9019198B + 9019428A	1316147B (with partition wall)	82819B	–	9010385A	1314635A + 1311194A + 70813B	1314637A + 1311194A + 70813B	7100350C
VW											
T5	2004	Auxiliary heater	Diesel	–	AC upgrade kit: 9012103D ACC: 9012104E	not possible	1301122D	–	1314635A	1314637A	7100350C
T5	2003	Thermo Top C	Diesel	9003168C	9014130A + with AC: 9014133A	not possible	1301122D	–	1314635A	1314637A	7100350C
T5	2010	Thermo Top C	Diesel	9003168C	1315558A	not possible	1301122D	–	1314635A	1314637A	7100350C
T5	2003	Air Top 2000 STC	Diesel, gasoline	Diesel: 9022047A Gasoline: 9022048A + 9022050B	9014156A + for model without auxiliary heater: 1300823C	82819B	–	9010385A	1314635A + 1311194A	1314637A + 1311194A	7100350C

1)Thermo Call app only in connection with Thermo Call, the app needs to be ordered separately.

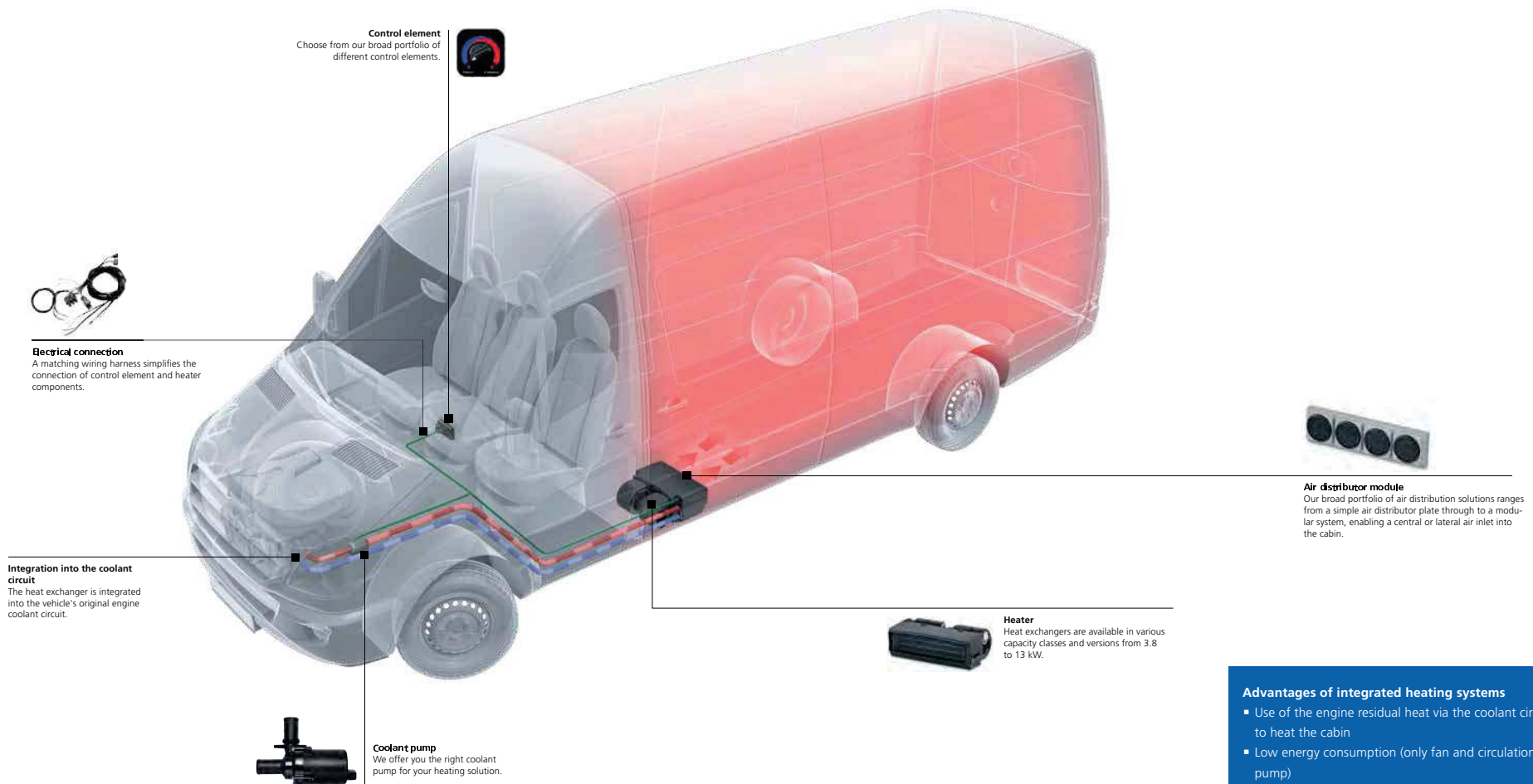
2)Delivery scopes with Air Top Evo 3900 heater will be gradually converted to successor Air Top Evo 40.

Air heaters

Water heaters

Application of an integrated heat exchanger

The integrated Webasto heating systems use the engine residual heat to heat the vehicle. They are available in different capacity variants (3.8 to 13 kW) and are integrated into the coolant circuit. An extensive range of accessories is available for the installation.



Advantages of integrated heating systems

- Use of the engine residual heat via the coolant circuit to heat the cabin
- Low energy consumption (only fan and circulation pump)
- Individual choice of heat exchanger installation position

Integrated heat exchangers

3.8 to 13.0 kW heating capacity



Pleasantly warm in commercial vehicles and minibuses

The integrated heat exchangers are versatile and are the ideal solution for heating the interiors of minibuses and commercial vehicles. In these systems, the waste heat from the engine is used for heating, being transferred via the coolant circuit. These products can be installed under the dashboard or under the roof, for example. In addition to high reliability, these heat exchanger are also distinguished by a long service life.

A large range of accessories, such as control elements and air ducts, offer high flexibility.

- Heating solutions with a heating capacity from 3.8 to 13.0 kW
- Optimum integration into various vehicle structures thanks to versatile installation options
- Low energy consumption
- High-quality reliable components from proven series-production processes

Technical data

Model overview	Sydney	Stoccolma	Houston	Toronto	Phoenix	Cyprus



Sydney

Model overview	Scope of delivery	Order number

Stoccolma

Model overview	Scope of delivery	Order number

Houston

Model overview	Scope of delivery	Order number

Toronto

Model overview	Scope of delivery	Order number

Phoenix



Model overview	Scope of delivery	Order number

Cyprus

Model overview	Scope of delivery	Order number

Integrated heat exchangers

Control elements

		Sydney	Stoccolma	Houston	Toronto	Phoenix	Cyprus	Order number
	Heating control switch							
	With electric water valve, controller and signal cable, 12 V	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	620282129A
	3-position blower switch							