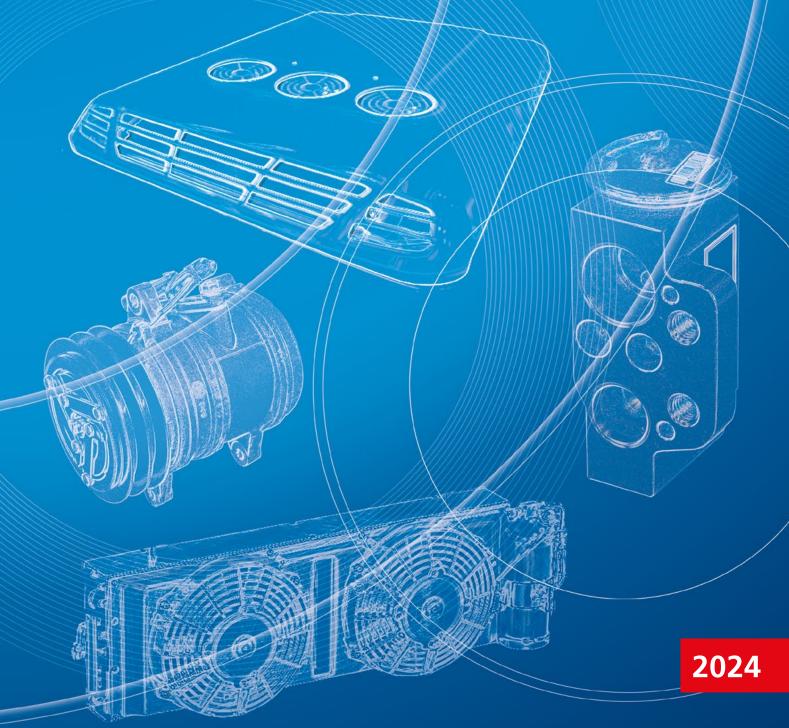


# Product Catalog Air-Conditioning Solutions

For trucks, light-duty vehicles, buses, off-highway and special vehicles





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### Webasto network

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



Our service partners actively support you in your day-to-day business – worldwide. Whether with effective training measures on new products or with practical tips and tools to make your work easier. This unique service network helps not only to fulfil the Webasto quality promise around the globe, but also supports you in your sales efforts. You can rely on the consistently high quality of products from Webasto: All our solutions meet the highest international quality standards and offer the latest technology.

A further benefit for you: We are never far away and can therefore identify ourselves with your needs on the spot and take your suggestions into consideration in the further development of our products and services.

### 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



# Our value promise

Webasto air-conditioning systems offer your customers a wide variety of advantages:

- High-quality and reliable components from proven series production
- All components for air-conditioning systems available from a broad product range
- Individual combination of the system components for specific application solutions
- Vehicle-specific installation kits for optimum integration

- Optimum temperature and humidity at all times
- High efficiency in all temperature ranges
- Greater concentration and thus greater safety
- Quiet operation thanks to high-quality fans
- Constant temperature in the interior thanks to intelligent temperature management
- Uniform air distribution thanks to modular air system components

#### Optimum transport of perishable goods

- Constant temperature in the refrigerated compartment thanks to automatic temperature control
- All air-conditioning components can be individually integrated into the vehicle
- Coverage of different temperature ranges through the use of different refrigerants

### **Market segments**

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



Trucks



Light-duty



Buses





Off-highway

**Special vehicles** 

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

#### The tailor-made Webasto air-conditioning solution for every area

	Cooling capacity (kW)		66	
Rooftop AC systems	3.5 – 22.0			
Integrated AC systems	4.0 – 16.0			
Transport refrigeration systems	1.0 – 3.8	•		

Apart from our wide range of standard products, we also offer you individual system solutions.



### **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 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
- Optimized cabin temperature at all times without the engine running

Air-conditioning solution	Cooling capacity (kW)	
Parking air-conditioning system		
Cool Top RTE	1.6 – 2.5	



Parking air-conditioning system



# **Light-duty vehicles**

#### Reliable climate comfort for a safe journey

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

Webasto offers a wide range of powerful 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:

- Installation kits for a wide variety of vehicles available
- Reduction in operating costs thanks to fuel saving and lower wear

Air-conditioning solution	
Heat exchangers	Heating capacity (kW)
Integrated heat exchangers	3.3 – 13.0
AC systems	Cooling capacity (kW)
Rooftop AC systems	3.5 – 8.5
Integrated AC systems*	4.0 – 9.6
Transport refrigeration system	Cooling capacity (kW)
Rooftop systems	1.0 – 5.6
Integrated systems	1.0 – 3.7

 $<sup>\</sup>mbox{\ensuremath{\star}}$  Webasto also offers air-conditioning solutions for the new refrigerant R1234yf.



Integrated air-conditioning system



Integrated transport refrigiration system



Rooftop transport refrigiration 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 various integrated heating solutions up to air-conditioning systems and a wide range of accessories.

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

#### Benefits of the Webasto solutions for buses:

- Comfort for drivers and passengers in all climate conditions
- Comprehensive range of various integrated heating and air-conditioning solutions

Air-conditioning solution	
Heat exchangers	Heating capacity (kW)
Integrated heat exchangers	3.3 – 13.0
AC systems	Cooling capacity (kW)
Rooftop AC systems	3.5 – 8.5
Integrated AC systems*	4.0 – 9.6

<sup>\*</sup> Webasto also offers air-conditioning solutions for the new refrigerant R1234yf.



Integrated air-conditioning system



Rooftop air-conditioning



# Off-highway

#### Do your job more efficiently

Irrespective of the climatic situation, off-highway machines have to be sturdy and ready for operation at any time. Not only the vehicles, but also the operators are subjected to extreme working conditions.

In order to meet the high demands on man and machine, Webasto has developed intelligent air-conditioning solutions. These systems combine comfort and efficiency – and save fuel.

# Benefits of the Webasto solutions for agricultural and off-highway machines:

- Safe working conditions in all climate conditions
- Comfortable climate for the operator

Air-conditioning solution	
Heat exchangers	Heating capacity (kW)
Integrated heat exchangers	3.3 – 13.0
AC systems	Cooling capacity (kW)
Rooftop AC systems	3.5 – 8.5
Integrated AC systems*	4.0 – 9.6

<sup>\*</sup> Webasto also offers air-conditioning solutions for the new refrigerant R1234yf.



Air-conditioning system



# **Special vehicles**

Including fire trucks, ambulances, security vehicles, vocational work trucks

#### Perfect environmental conditions – when every second counts

In rescue service, disaster control or firefighting you need to be focused from the very beginning on your operation. With the Webasto air-conditioning systems, special vehicles are ideally tempered which increase the safety, comfort and staying power for driver and crew. Parking heaters ensure de-iced and de-fogged windows even before the start of your special operation and offer a comfortable temperature within the vehicle. Thanks to the engine preheating, they also reduce wear and fuel costs.

# Benefits of the Webasto solutions for special vehicles:

- Ideal climate conditions for drivers, crew and passengers
- Wide product portfolio available to find the ideal solution for your demand
- High quality and reliability for the most challenging missions

Air-conditioning solution	
Heat exchangers	Heating capacity (kW)
Integrated heat exchangers	3.3 – 13.0
AC systems	Cooling capacity (kW)
Rooftop AC systems	3.5 – 8.5
Integrated AC systems*	4.0 – 9.6

 $<sup>\</sup>mbox{\ensuremath{^{\star}}}$  Webasto also offers air-conditioning solutions for the new refrigerant R1234yf.



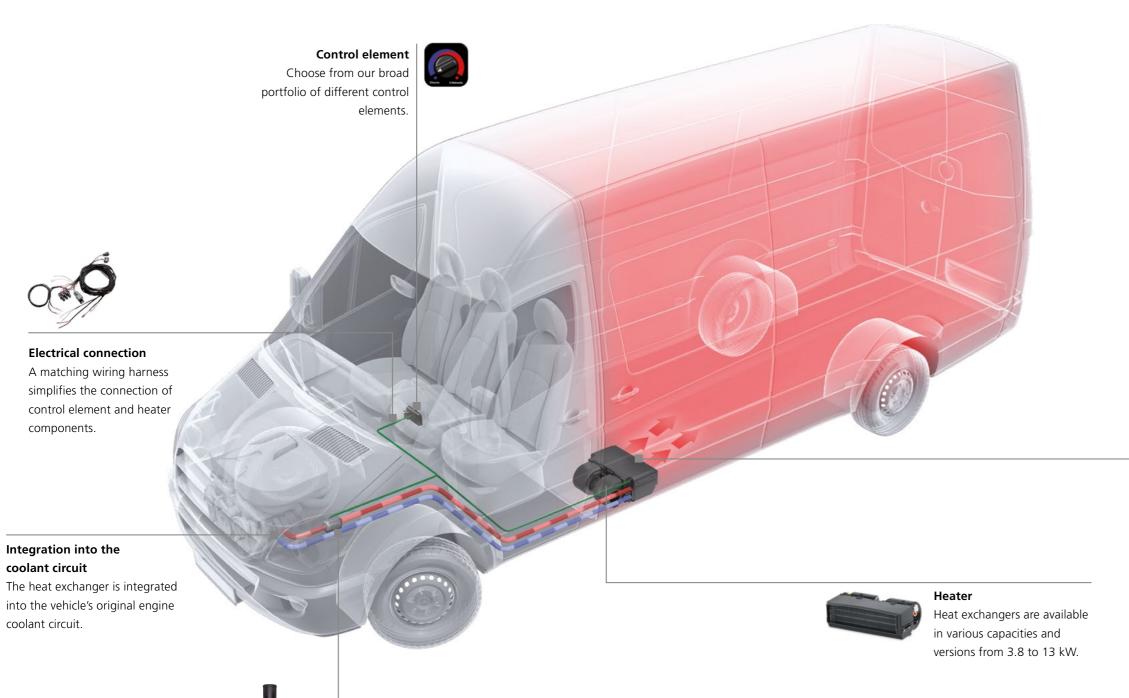
Integrated air-conditioning system



Rooftop air-conditioning

# 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 capacities variants (3.8 to 13 kW) and are integrated into the coolant circuit. An comprehensive range of accessories is available for the installation.





#### Air distributor module

Our broad portfolio of air distribution solutions ranges from a simple air distributor plate through to a modular system, enabling a central or lateral air inlet into the cabin.

#### 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

Coolant pump

We offer you the right coolant pump for your heating solution.

### 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

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





Model overview	Scope of delivery	Order number
Sydney 12 V	Heating system	62U003CC048B*
Sydney 24 V		62U003CC049B*

\* Blower motor with only two speeds.



#### Stoccolma

Model overview	Scope of delivery	Order number
Stoccolma 12 V	Heating system with control element	62U003CC051A



#### Houston

Model overview	Scope of delivery	Order number
Houston 12 V	Heating system	62U003CC017A
Houston 24 V		62U003CC018A



#### Toronto

Model overview	Scope of delivery	Order number
Toronto 12 V	Heating system with control element	62U003CC012A



#### Phoenix

Model overview	Scope of delivery	Order number
Phoenix 12 V	Heating system	62U003CC019C
Phoenix 24 V		62U003CC020C



#### Cyprus

Model overview	Scope of delivery	Order number
Cyprus 12 V	Heating system	62U003CC052A
Cyprus 24 V		62U003CC053A

#### Technical data

Model overview	Sydney	Stoccolma	Houston	Toronto	Phoenix	Cyprus
Nominal heating capacity (kW)	3.	8	6.5	7.0	8.6	13.0
Nominal voltage (V)	12/24	12	12/24	12	12/24	12/24
Max. total current absorption at 12 V (A)	4.2	3.5	14.0	8.6	8.4	24.0
Max. blower volume flow (m³/h)	17	70	420	450	450	800
Dimensions L x W x H (mm)	260 x 177 x 130	276 x 183 x 191	230 x 220 x 175	590 x 380 x 160	385 x 233 x 128	545 x 300 x 175
Weight (kg)	1.3	2.5	2.8	4.2	3.0	4.0
Water connection, Ø (mm)			16	5		

The performance data for your application may differ from the nominal values. These depend on various conditions, such as the air ducts and the climate. Products are supplied together with product documentation. Unless stated otherwise, the control element is not included.

### Integrated heat exchanger

### HTX S - HTX S HD - HTX M - HTX M HD













#### Maximum flexibility between comfort and ease of installation

The new HTX heat exchanger product line has been designed with the focus on easy integration in recreational, special vehicles and marine. Considering various customer requirements, the HTX series offers versatile installation capabilities, such as in the dashboard or under the ceiling.

With four heating performance classes, starting from 3.3 kW and up to 6.6 kW, it is guaranteed that every customer will find the best suited solution for their individual vehicle project. Durable, highly efficient fans and blowers deliver powerful and constant airflow and thus provide optimal distribution of air within the vehicle. High quality, automotivegrade components have been selected to guarantee reliability and long service life. Additionally, versatility of HTX series is underlined by the variety of available accessories and installation kits, including control units, air vents and ducts.

- Heating solutions deliver high performance heating from 3.3 kW to 6.6 kW
- Versatile installation options under dash or roof allow for optimum integration in diverse vehicle designs
- Durable, highest quality components from proven series production
- No maintenance needed
- Versatility through optimal combination of power and noise



#### HTX S

Model overview	Scope of delivery	Order number
HTX S 12 V	Heating system	8410215B
HTX S 24 V		8410216B



#### HTX S HD

Model overview	Scope of delivery	Order number
HTX S HD 12 V	Heating system	8410213B
HTX S HD 24 V		8410214B



#### HTX M

Model overview	Scope of delivery	Order number
HTX M 12 V	Heating system	8410219B
HTX M 24 V		8410220B



#### HTX M HD

Model overview	Scope of delivery	Order number
HTX M 12 V	Heating system	8410219B
HTX M 24 V		8410220B

#### Technical data

Model overview	HTX S	HTX S HD	нтх м	HTX M HD			
Nominal heating capacity (kW)	3.3	4.7	4.9	6.6			
Nominal voltage (V)		12/	24				
Max total current absorbition 12 – 24 V (A)	1.2/0.6	8.5/4.2	2.4/1.2	13.5/6.8			
Max . blower volume flow (m³/ h)	161	276	320	605			
Dimensions L x W x H (mm)	128 x 241 x 161	215 x 241 x 166	126 x 341 x 146	195 x 411 x 146			
Water connection Ø (mm)	18						

# Integrated heat exchanger

# Accessories

		Sydney	Stoccolma	Housten	Toronto	Phoenix	Cyprus	Order number
	Heating control switch							
	Without electric water valve, controller and signal cable, 12/24 V	•		•		•	-	62A03998A
Diania I-lebasto	With electric water valve, controller and signal cable, 12 V	•		-		•	•	620282129A
	With electric water valve, controller and signal cable, 24 V	•		-		•	•	620282102A
	$-50 \times 50 \times 5 \text{ mm}$ (W x H x D) - Mechanical control of the water valve for the heater							
	3-position blower switch							
CFF 1 2 3	<ul> <li>12/24 V</li> <li>53 x 50 x 5 mm (W x H x D)</li> <li>Mechanical control of fan speed</li> </ul>			•			•	62A04001A

	HTX S	HTX S HD	HTX M	HTX M HD	Order number
On/off switch					0440220
					8410230 8410231
3-position rotary switch					
				•	8410229

		HTX S	HTX S HD	HTX M	HTX M HD	Order number
	Air duct  89 x 416 x 147.8 mm  Black				-	8410225A
Think .	Air duct  89 x 346 x 147.8 mm  Black			-		8410226A
Pe <sup>9</sup> e <sup>9</sup>	Air duct  115 x 346 x 147.8 mm Ø 60 Black			-		8410227A
	Air duct  22.5 x 400 x 182 mm  Black			•		8410228A
	Air duct  118 x 245 x 163.1 mm Ø 58 mm Black	•	-			8410221A
	Air duct 92 x 246 X 163.1 mm Black	•				8410222A
	Air duct  22.5 x 290 x 195 mm  Black	•	•			8410223A
Pels?	Air duct  115 x 416 x 145.8 mm Ø 60 mm Black				•	8410224A

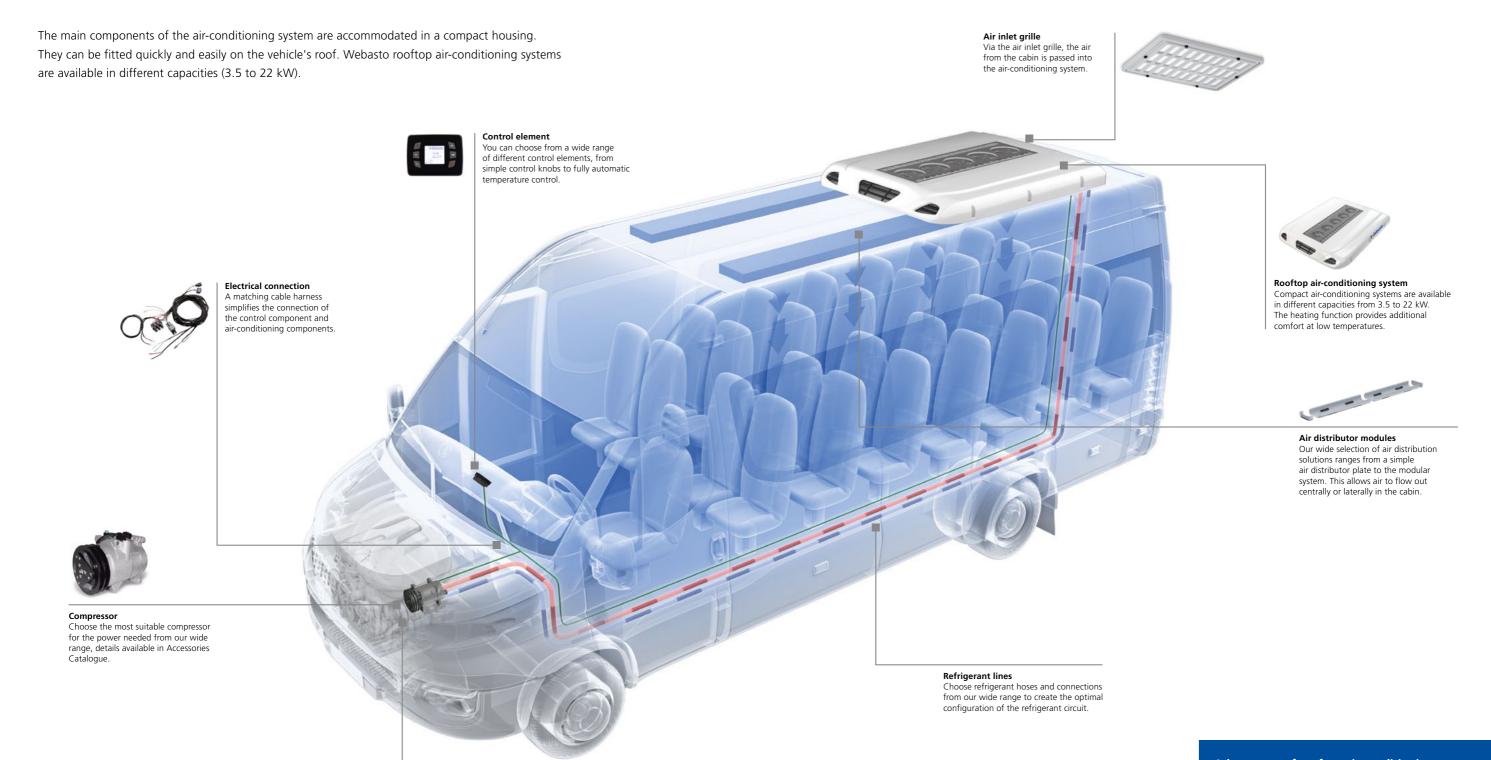
# Application of a rooftop air-conditioning system

Installation kit for compressor

the compressor.

easy fitting and reliable operation of

The functionality of an air-conditioning system can be found on page 92.



Advantages of rooftop air-conditioning systems

- Compact design
- Optimum harmonization of air-conditioning components
- Quick and easy installation
- Additional comfort options (heating or fresh air)
- Proven, high-quality, standard component



# From 3.5 kW to 6.2 kW cooling capacity

**Rooftop air-conditioning systems** 













#### First-class air-conditioning in commercial vehicles and in construction and agricultural machinery

These rooftop air-conditioning systems are versatile, and can be used for the mini buses, ambulances and fire fighting vehicles and for construction and agricultural machinery. These units are very reliable and have a long service life. There is a wide range of accessories, such as control elements, air ducts and installation sets, available for these air-conditioning systems. The housings of these air-conditioning systems can be painted to match the color of the vehicle.

For complete air-conditioning solutions, the Portofino model has an optional heating function.

- Air-conditioning systems with a cooling capacity of 3.5 kW to 6.2 kW
- Compact construction and aerodynamic design
- High efficiency in relation to the dimensions
- High-quality and reliable components from proven series production processes
- Easy installation and low maintenance





Model overview	Scope of delivery	Order number
Compact Cooler 4E 24 V	Air-conditioning system with control element, air distributor plate, standard installation kit	9023838C
Compact Cooler 4E 24 V	Air-conditioning system with control element, air distributor plate, electric thermostat, standard installation	9023839C



#### Portofino

Model overview	Scope of delivery	Order number
Portofino 12 V	Air-conditioning system	62U003FF081EB
Portofino 24 V		62U003FF082EB
Accessories		
Mounting kit		62U003AA130A
Heating kit		62A031064A



#### Minsk

Model overview	Scope of delivery	Order number
Minsk 12 V	Evaporator unit	62U003FF083ED
Minsk 24 V		62U003FF124EC
Accessories		
External connection kit	For external refrigerant connection	62A031024A



#### **Compact Cooler 5**

Model overview	Scope of delivery	Order number
Compact Cooler 5 12 V	Air-conditioning system with control element,	9023843C
Compact Cooler 5 24 V	air distributor plate	9023842C
Compact Cooler 5 12 V	Air-conditioning system with control element,	9023841C
Compact Cooler 5 24 V	air distributor plate, standard installation kit with 6 m hoses	9023840C
Compact Cooler 5 24 V	Air-conditioning system with control element, air distributor plate, electronic thermostat, external refrigerant lines	9023846C
Compact Cooler 5 24 V	Air-conditioning system, external refrigerant line	629022993E
Compact Cooler 5 24 V – (R1234yf)	Air-conditioning system, external refrigerant line	6246573A
Accessories		
E-Unit	With electric motor and compressor	9004866D



Model overview	Compact Cooler 4 E	Portofino	Minsk	Compact Rimi Cooler 5				
Nominal cooling capacity (kW)	3.5	4.0	5.0	5.0	6.2			
Heating capacity (optional) (kW)	-	5.0		-				
Refrigerant		R134a		R134a/R1234yf	R134a			
Nominal voltage (V)	24		12.	/24				
Max. operating temperature (°C)	-		4	5				
Max. total current absorption at 12 V (A)	-	20.0	9.0	15.0	20.0			
Max. total current absorption at 24 V (A)	68.0	-	_	-	-			
Max. volume flow of evaporator blower (m³/h)	550	400	450	630	550			
Dimensions L x W x H (mm)	774 x 1,110 x 215	600 x 900 x 190	505 x 462 x 145	760 x 750 x 165	605 x 800 x 165			
Weight (kg)	52.0	15.5	6.0	23.0	23.5			
Inlet connection	-	3/4"-16 UNF-2A	_	3/4"-16	UNF-2A			
Outlet connection	-	7/8"-14 UNF-2A	_	7/8"-14 UNF-2A				
Expansion valve	-	Block valve	Angle valve	Block valve				
Additional information		Mounting Kit Heating kit	external connection kit	for variants see table	-			
	use table for part No			use table for part No				



#### Rimini

Model overview	Scope of delivery	Order number
Rimini 12 V	Air-conditioning system	62U003FF052EG
Rimini 24 V		62U003FF053EG

The performance data for your application may differ from the nominal values. These depend on various conditions, such as the compressors, the air ducts and the climate. Products are supplied together with product documentation Unless stated otherwise, the control element is not included.





### **+**

#### Perfect air-conditioning in mini and midi bus

The rooftop air-conditioning systems are designed especially for air-conditioning mini and medium-sized buses with up to 35 seats. These units are very reliable and have a long service life. There is a wide range of accessories, such as control elements, air ducts and installation sets, available for these air-conditioning systems. The housings of these air-conditioning systems can be painted to match the color of the vehicle.

Rooftop air-conditioning systems

From 8.5 kW to 15.5 kW cooling capacity

For complete air-conditioning solutions, the Compact Cooler 8, Cool Top 110/140 RT-C and Madrid models have an optional heating function.

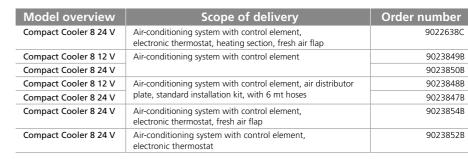
- Air-conditioning systems with a cooling capacity of 8.5 kW to 15.5 kW
- Compact construction and aerodynamic design
- High efficiency in relation to the dimensions
- High-quality and reliable components from proven series production processes
- Air distribution via a central duct or two side ducts
- Choose between fresh air and recirculated air (optional)
- Easy installation and low maintenance



Model overview			Smirne	Madrid				
	Cooler 8	110 RT-C	140 RT-C					
Cooling performance nominal (kW)	8.5	11.0	14.0	11.7	15	.5		
Heating performance (kW)	7.5	12	1.0	-	20	.0		
Refrigerant			R13	4a				
Nominal voltage (V)	12/24	12		12/	/24			
Max. current absorption (A) at 12 V (with forced fresh air)	30.0	50.0	80.0	35.0	58.0	/90*		
Max. current absorption (A) at 24 V (with forced fresh air)	_	25	40	_	_	-		
Max. air flow evaporator blower (m³/h) (free blowing)	1,300	1,500 (1,800)	2,000 (2,300)	1,100	2,100	2,500		
Dimensions L x W x H (mm)	970 x 1,025 x 197	1,150 x 1,	600 x 204	930 x 1,045 x 170	1,280 x 1,	790 x 185		
Weight (kg)	32.0	48.0	50.0	33.5	59	.0		
Nominal roof radius (mm)	_	5,2	200	-	7,0	00		
Inlet connection	3/4" – 16 UNF-2A	7/8" – 14	4 UNF-2A	3/4" – 16 UNF-2A	7/8" – 14	4 UNF-2A		
Outlet connection	7/8" – 14 UNF-2A	1-1/16" –	14 UNF-2A	7/8" – 14 UNF-2A	1-1/16" –	14 UNF-2A		
Water connection, Ø (mm)	20.0	18	3.5	- 16.0				
Expansion valve			Block	valve				
Accessories			for variants	s see table				

#### $^{\star}$ 90A is the absorbtion of the Madrid with the air flow of 2,500 m $^{3}$ /h.

#### Compact Cooler 8





#### Cool Top 110 RT-C/140 RT-C

Model overview	Scope of delivery	Order number
Cool Top 110 RT-C 12 V	Air-conditioning system, manual version (control panel excluded)	6237878D
Cool Top 110 RT-C 12 V	Air-conditioning system, automatic version (control panel excluded)	6238282D
Cool Top 110 RT-C 12 V	Air-conditioning system, automatic version, fresh air (control panel excluded)	6242415B
Cool Top 140 RT-C 12 V	Air-conditioning system, manual version (control panel excluded)	6237944C
Cool Top 140 RT-C 12 V	Air-conditioning system, automatic version (control panel excluded)	6237945D
Cool Top 140 RT-C 24 V	Air-conditioning system, manual version (control panel excluded)	6238286D
Cool Top 140 RT-C 24 V	Air-conditioning system, automatic version (control panel excluded)	6238285D
Cool Top 140 RT-C 12 V	Air-conditioning system, automatic version, fresh air (control panel excluded)	6242974B
Cool Top 140 RT-C 24 V	Air-conditioning system, automatic version, fresh air (control panel excluded)	6242975B
Accessories		
Thermal management control	Control head, operating manual	6243687A
Thermal management control plus	Control head, operating manual	6243617A
Heating kit 12 V	Only for automatic version	6240599B
Heating kit 24 V	Only for automatic version	6240600B
Front box kit		6238406A
Condensate drainage kit		6240595A
Lifting kit		6240617A
Drilling template		6240620C
Wiring harness kit		6243879C
Internal air grid black		62U003AA140A
Internal air grid grey		62U003AA141A





#### **Smirne**

Model overview	Scope of delivery	Order number
Smirne 12 V	Air-conditioning system, fresh air flap	62U003FF072EF
Smirne 24 V		62U003FF073EF

#### Madrid

Model overview	Scope of delivery	Order number
Madrid 12 V	Air-conditioning system with 2,100 m³/h	62U003FF116EG
Madrid 24 V	volume flow	62U003FF117EG
Madrid 12 V	Air-conditioning system with 2,500 m³/h	62U003FF118EG*
Madrid 24 V	volume flow	62U003FF119EH*
Accessories		
Heating kit		62A031033A

 $\star$  90A is the absorbtion of the Madrid with the air flow of 2,500 m $^{3}$ /h.

### **Rooftop air-conditioning systems**

# From 19.0 kW to 22.0 kW cooling capacity





#### Perfect air-conditioning in midi buses

This range of modular rooftop air-conditioning systems is designed for midi buses. The high energy-efficiency and -saving is achieved by an intelligent control of the condenser fans and the compressor. Thanks to the user-friendly maintenance concept, servicing is easier and the life and efficiency of the components are longer. Perfect comfort in all driving conditions is obtained by maintaining a constant supply of fresh air, even at the highest driving speeds. The heating option further increases passenger comfort. Installation is very fast and easy. The housings of these air-conditioning systems can be custom-painted to match the color of the vehicle.

- Air-conditioning systems with a cooling capacity up to 22.0 kW
- Compact and aerodynamic design
- High energy efficiency and innovative concepts
- High-quality and reliable components from proven series production
- Perfect comfort due to constant fresh air supply and optional heating function
- Fast installation and low maintenance concept



#### Cool Top 190 - 220 RT-C/CXL

Model overview	Scope of delivery	Order number
Cool Top 190 RT-C 12 V	Air-conditioning system, automatic version and fresh air (control panel excluded)	6240853C
Cool Top 190 RT-C 24 V	Air-conditioning system, automatic version and fresh air (control panel excluded)	6241905C
Cool Top 190 RT-CXL 12 V	Air-conditioning system, automatic version and fresh air (control panel excluded)	6242069C
Cool Top 190 RT-CXL 24 V	Air-conditioning system, automatic version and fresh air (control panel excluded)	6242070C
Cool Top 220 RT-C 24 V	Air-conditioning system, automatic version and fresh air (control panel excluded)	6241137C
Cool Top 220 RT-C 24 V	Air-conditioning system, automatic version (control panel excluded) with heating kit installed	6244759A
Accessories		
Thermal management control	Control head, operating manual	6243687 <i>A</i>
Thermal management control plus	Control head, operating manual	6243617 <i>A</i>
Heating kit 12 V		6241881 <i>A</i>
Heating kit 24 V		6241882
Front box kit		6238406 <i>A</i>
Condensate drainage kit		62405958
Lifting kit		6242258
Drilling template Cool Top 190 RT-C		6242360/
Drilling template Cool Top 190 RT-CXL/220 RT-C		6241883
Hoses kit Cool Top 220 RT-C	10 mt hoses + 2 x fitting compressor + 2 x fittings units included	6241889
Wiring harness kit 20 pins		62438790
Power circuit 12 V Cool Top 190 ( 35 mmq)		6202825031
Power circuit 24 V Cool Top 190 ( 25 mmq)		620282504
Power circuit 24 V Cool Top 220 ( 35 mmg)		6202825031

#### Technical data

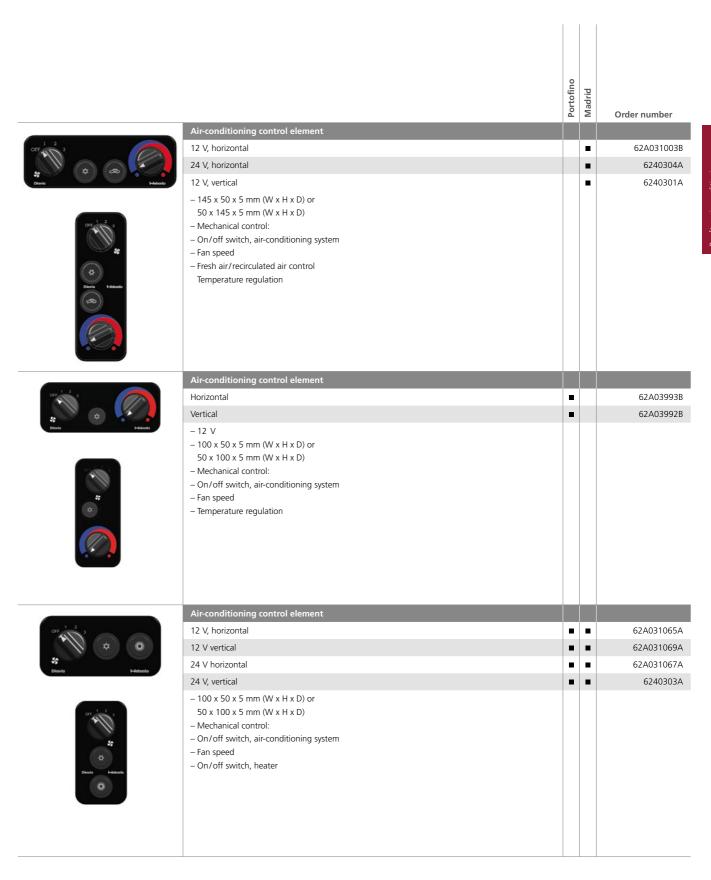
Model overview	Cool Top 190 RT-C	Cool Top 190 RT-CXL	Cool Top 220 RT-C				
Nominal cooling capacity (kW)	19.0	22.0					
Nominal heating capacity (kW)							
Refrigerant	R134a						
Nominal voltage (V)	12/24	24					
Max. current absorption (A) at 12 V							
(with forced fresh air)	92		_				
Max. current absorption (A) at 24 V							
(with forced fresh air)	46		69				
Max. air flow evaporator blower							
(m³/h)/ (free blowing)	3,680	3,680	4,800				
Dimensions L x W x H (mm)	1,600 x 2,150	1,780 x 2,150	1,780 x 2,150				
	x 200	x 200	x 200				
Weight (kg)	75	78	80				
Nominal roof-radius (mm)	6,000	7,50	00				
Connection inlet		Fitting 7/8"-14 UNF-2A					
Connection outlet	Fitting 1-1/16"-14 UNF-2A						
Connection water (mm)	18.5						
Expansion valve	Block va	Block valve TXV					

# **Rooftop air-conditioning systems**

## Control elements

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		Portofino	Rimini	Smirne	Madrid	Cool Top 110 RT-C	Cool Top 140 RT-C	Cool Top 190 RT-C	Cool Top 190 RT-CXL	Cool Top 220 RT-C	Order number
	Automatic control element										
(35)	12 V, VAC	•		•	•	Т	П				62A04003A
	24 V, VAC			-	-						62A04004A
AUTO AIC CO (FIRE	12 V, HVAC			•	•						62A04043A
Diavia (~lebosto	24 V, HVAC			•	•						62A04040A
	- 108 x 60 x 47 mm (W x H x D) - Electric control: - Internal temperature detector - Ice detector - External temperature detector - Water valve (only HVAC version) - On/off switch, air-conditioning system - Fan speed - Fresh air/recirculated air control - Temperature regulation - External air monitoring										
	Manual control element										
O 0/1-25	12 V				•						62A04052A
	24 V				•						62A04053A
Diovis 1 t-lebosts	- 120 x 63 x 43 mm (W x H x D) - Electric control: - Water valve - Signal cable (2 m) - On/off switch, air-conditioning system - Fan speed - Fresh air/recirculated air control - Temperature regulation										
	Manual control element										
1-2	12 V	•									62A04054A
Directo 1 t-heboato	24 V  - 120 x 63 x 43 mm (W x H x D) - Electric control: - Water valve - Signal cable (2 m) - On/off switch, air-conditioning system - Fan speed - Temperature regulation	•									62A04055A
	Automatic control element										
Webosto 23.	12/24 V  - Dimensions 73 x 54 x 23 mm - External air monitoring - Temperature regulation - Internal temperature detector - Extenal temperature detector - On/off switch, air-conditioning system - Water valve (only HVAC version) - Fan speed/automatic and manual - Fresh air/recirculated air control					•		-	•		6243687A
	Automatic control element										
Webasto  O S S S S S S S S S S S S S S S S S S	12/24 V  - Dimensions 135 x 64 x 40 mm  - OLED graphic display  - External air monitoring  - Temperature regulation  - Internal temperature detector  - External temperature detector  - On/off switch, air-conditioning system  - Water valve (only HVAC version)  - Fan speed/automatic and manual  - Fresh air/recirculated air control					•					6243617A



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# **Rooftop air-conditioning systems**

# Control elements

		Portofino	Minsk	Rimini	Smirne	Madrid	Cool Top 110 RT-C	Cool Top 140 RT-C	Order number
	Air-conditioning control element								
or 110,	12 V, horizontal				•	•			62A031063A
# 🚓	24 V, horizontal				•	•			62A031066A
Diavia (~lebasta	12 V, vertical				•	•			6240300A
	24 V, vertical				•	•			6240302A
St. Chereke	<ul> <li>- 100 x 50 x 5 mm (W x H x D) or 50 x 100 x 5 mm (W x H x D)</li> <li>- Mechanical control:</li> <li>- On/off switch, air-conditioning system</li> <li>- Fan speed</li> <li>- Recirculated air control</li> </ul>								
	Air-conditioning control element								
OFF 1 2 3	12 V Horizontal negative version						•	•	6241975A
*	24 V Horizontal negative version		-					-	6241976A
*	12 V Vertical negative version								6241941A
Dravie Internation	24 V Vertical negative version		•						6241974A
Division behaltering	- 12/24 V - 100 x 50 x 5 mm (W x H x D) or 50 x 100 x 5 mm (W x H x D) - Mechanical control: - On/off switch, air-conditioning system - Fan speed								
	Air-conditioning on/off switch								
Disvise 1-Necestra	- 12/24 V - 52 x 50 x 5 mm (W x H x D) - On/off switch, air-conditioning system								62A04000B
	3-position blower switch								
OFF 1 2 2  Stories 1-Inhouse	- 12/24 V - 53 x 50 x 5 mm (W x H x D) - Mechanical control of fan speed								62A04001A

		Compact Cooler 4 E	Compact Cooler 5	Compact Cooler 8	Order number
Aboasto	Thermostat switch  12/24 V  — Mechanical temperature regulation  — Backlight		•	•	60ACKIT649A
*	Air-conditioning on/off switch  – 12/24 V  – On/off switch, compressor	•	-	•	66596A
CHO IN THE PROPERTY OF THE PRO	3-position blower switch  - 12/24 V  - Fan speed		-	-	66595A
Sungaro Constitution of the Constitution of th	Heating control switch  12/24 V  — Mechanical temperature regulation  — Backlight		•	•	67638A
*	Heating control switch  - 12 V  - On/off switch			•	6240086A
THE STATE OF THE S	Fresh air switch  – 12 V  – On/off with light			•	66984B
W. C.	Fresh air switch  – 24 V  – On/off with light			-	6240076A

Different control panels can be suitable for the same unit, please check if all the functions/accessories of the unit are controllable by the selected control panel.

### **Parking coolers**

# Cool Top RTE 16 – Cool Top RTE 23







#### The powerful, flat and lightweight electric parking cooler system for trucks

This powerful rooftop air-conditioning system ensures pleasant temperatures and humidity in truck cabins. Well-rested drivers have demonstrably better concentration and therefore contribute to greater safety on the road. The compressor-driven system is prefilled with refrigerant and is connected to the 24 V vehicle battery. The high performance combined with the lightweight construction and flat design results in one of the best parking coolers.

Installation in the existing roof opening is very simple and saves time. High-quality components set up a high quality standard for parking coolers and ensure a long life with a minimum expenditure on maintenance. The electric parking cooler reduces engine idling times and therefore saves fuel. The low-voltage cutoff ensures that the engine will start.

- Powerful parking cooler system (1.6 – 2.5 kW) with high energy efficiency
- Optimum air distribution and quiet operation
- Lightweight construction
- Flat design enables the installation also on high cabins
- The low-voltage cutoff ensures that the engine will start
- Wide choice of vehicle-specific mounting kits

#### **Control elements**

Control from the control panel with LC display Comfortable adjustment via remote control





#### Technical data

	Cool Top RTE 16	Cool Top RTE 23
Nominal cooling capacity (kW)	1.6	0.9 – 2.5
Refrigerant	R134a	R134a
Nominal voltage (V)	24	24
Max. current absorption (A) at 24 V	23	17.5 – 51
Max. operating temperature (°C)	45	45
Max. air flow evaporator blower (m³/ h) (free blowing)	650	150 – 420
Dimensions condenser L x W x H (mm)	645 x 920 x 140	990 x 730 x 165
Dimensions evaporator L x W x H (mm)	387 x 349 x 165	350 x 355 x 138
Installation height (mm)	142 (depending on cabin type)	163
Weight (kg)	23.4	28

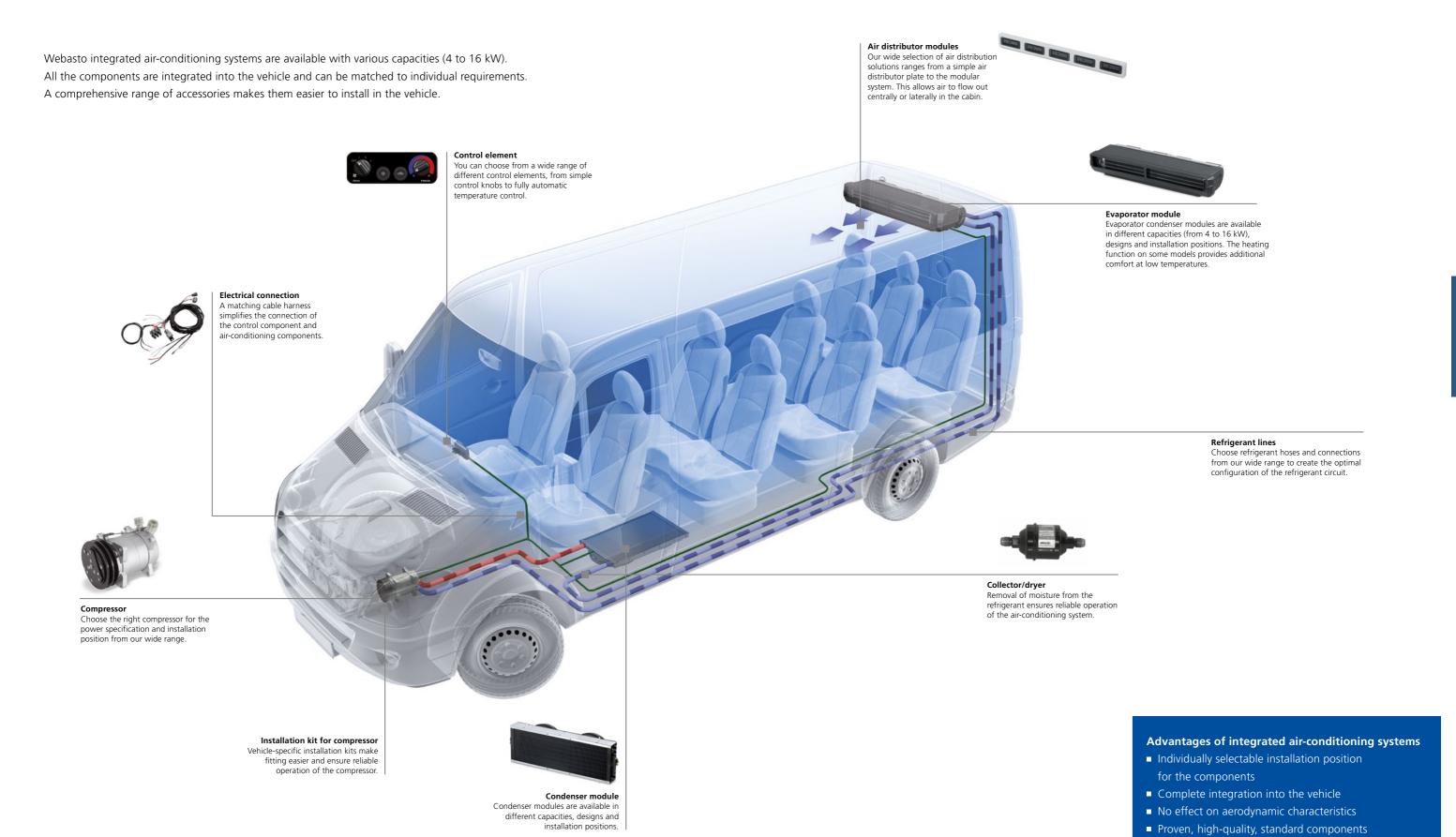
Model overview	Scope of delivery	Order number
Cool Top RTE 16	Air-conditioning system, remote control, technical documentation	IND-CTRTE1600
Cool Top RTE 23	Air-conditioning system, remote control, technical documentation, brackets, wiring, universal internal white plate	4810134A, white 4810135A, red

Used for Installation kit vehicle-specific		Order number
RTE-16	DAF XF 105/106 (Super Space Cab)	IND-2-6-1147-2
RTE-16	Iveco Stralis Cube with additional metal frame	IND-2-6-1119-2
RTE-16	Iveco Stralis AT, AD, AS	IND-2-6-1120-2
RTE-16	Iveco Eurocargo MLL High roof	IND-2-6-1120-2
RTE-16	MAN TGX XXL (with/without deflector) MAN TGX XL	IND-2-6-1143-2
RTE-16	MAN TGX XLX (only without deflector) MAN TGA	IND-2-6-1143-2
RTE-16	MAN TGS M/L, LX MAN TGL L, LX MAN TGM L, LX	IND-2-6-1143-2
RTE-16	MAN TGX, TGA, TGS, TGL, TGM with deflector	IND-2-6-1177-2
RTE-16	Mercedes-Benz Actros MP3	IND-2-6-1121-2
RTE-16	Mercedes-Benz Actros MP4	IND-2-6-1136-2
RTE-16	Renault Premium	IND-2-6-1123-2
RTE-16	Renault T	IND-2-6-1139-2
RTE-16	Scania R, P, G, Top E HL	IND-2-6-1116-2
RTE-16	Scania new R, S N-Cab + HL Cab	IND-2-6-1126-2
RTE-16	Iveco Eurocargo MLL flat roof	IND-2-6-1122-2
RTE-16	Iveco Stralis HI-STREET cab with flat roof	IND-2-6-1122-2
RTE-16	Iveco Eurostar* Renault Magnum (old version)	IND-2-6-1122-2
RTE-16	Renault Magnum Classic E Multipass-Cab	IND-2-6-1122-2
RTE-23	Spare part universal internal white plate	9700010202A

All our kits have been conceived and designed for long-distance cabins equipped with bunks generally from 12 tons up.

# Application of an integrated air-conditioning system

The functionality of an air-conditioning system can be found on page 92.



# **Installation options for** integrated air-conditioning systems

In addition to a large selection of standard products, we offer you individually tailored system solutions. We will implement your chosen modifications according to your requirements, e.g. a particular temperature range or a special position for the air-conditioning components in the vehicle. You can rely on our many years of experience in original equipment and retrofitting.

#### Possible positions for the evaporator

- Under the roof
- Under the dashboard
- Integrated into the roof
- Vertically on the side at the rear
- Vertical
- On the roof

#### Possible positions for the condenser

- On the roof
- On the underbody
- At the front of the vehicle

The evaporator and the condenser, the two main components of our integrated air-conditioning systems, can be fitted separately in the vehicle - depending on space requirements and use. The various positions available are shown below.

#### Condenser mounted on the roof



Evaporator under the roof



Evaporator under the dashboard



Evaporator integrated into the roof



Evaporator vertical on the side at the rear 

Evaporator vertical



#### Condenser mounted on the underbody



Evaporator under the roof



Evaporator under the dashboard



Evaporator integrated into the roof



Evaporator vertical on the side at the rear Evaporator vertical

#### Condenser mounted at the front of the vehicle



Evaporator under the roof



Evaporator under the dashboard



Evaporator integrated into the roof



Evaporator vertical on the side at the rear 

Evaporator vertical



## From 4.0 kW to 5.9 kW cooling capacity









#### Tailor-made air-conditioning solutions for commercial and special vehicles, minibuses, construction machinery and agricultural machinery

The integrated HVAC systems are versatile and can be used for minibuses, ambulances and fire trucks as well as construction and agricultural machinery. Depending on the type of vehicle, these air-conditioning systems can be installed under the dashboard or in the roof liner under the roof or vertically in the rear panel. These air-conditioning systems are very reliable and have a long service life.

The wide range of accessories includes condensers, which can be mounted on the roof or under the chassis, as well as control elements, air ducts and customerspecific installation sets. For a complete air-conditioning solution, the Baltimore, Quebec, Michigan and Milano models have an additional heating function.

- Air-conditioning systems with a cooling capacity of 4.0 to 5.9 kW
- Optimum integration into the vehicle design thanks to versatile installation options
- High efficiency in relation to the dimensions
- High-quality and reliable components from proven series production processes
- Very low maintenance



Technical data

Model overview	Baltimore	Oakland	Osaka	Quebec	Montreal	Michigan	Wyoming	Milano
Nominal cooling capacity (kW)	4.	0	4.6	5	.0	5.5		5.5
Nominal heating capacity (kW)	2.0		-	6.7	_	6.3 –		11.0
Installation position	unde	r the		vertical		ceiling		under the
	dashl	ooard						dashboard
Refrigerant		R134a		R134a –	R1324yf		R134a	
Nominal voltage (V)				1	2/24			
Max. total current absorption at 12 V (A)	7.	4	9.5	9	.5	13.0	12.7	13.0
Max. volume flow of								
evaporator blower (m³/h)	45	60	350			450		
Dimensions L x W x H (mm)	381 x 23	3 x 126	410 x 165	370 x 185	370 x 160	590 x 38	30 x 185	414 x 328
			x 320	x 330	x 350			x 233
Weight (kg)		3.7	5.5	6.5	5.5	8.7	7.5	6.4
Water connection, Ø (mm)	16	-	_	16	_	16	-	16
Expansion valve	Angle	valve			Blo	ck valve		
Additional information	_	_	_	control element included 4 c			4 connections	
								for 60 mm
								air hose
				black and	black and			
				grey color	grey color			





#### **Baltimore**

Model overview	Scope of delivery	Order number
Baltimore 12 V	Air-conditioning system, black,	62U003CF072EC
Baltimore 24 V	heating function	62U003CF088EB
Baltimore 12 V	Air-conditioning system, black, vertical installation heating function	62U003CF073EA



















#### Oakland

Model overview	Scope of delivery	Order number
Oakland 12 V	Air-conditioning system, black	62U003FF084ED
Oakland 24 V		62U003FF085ED

#### Osaka

Model overview	Scope of delivery	Order number
Osaka 12 V	Air-conditioning system, grey	62U003FF069EA
Osaka 24 V	Air-conditioning system, grey	62U003FF070EA

#### Quebec

Model overview	Scope of delivery	Order number
Quebec 12 V	Air-conditioning system, black, with heating function,	62U003CF030EB
Quebec 24 V	without heating valve, with control element	62U003CF031EB
Quebec 12 V	Air-conditioning system, gray, with heating function,	62U003CF043EC
Quebec 12 V – R1234yf	without heating valve, with control element	6244372A
Quebec 24 V		62U003CF044EC
Quebec 24 V – R1234yf		6248170A
Quebec 12 V	Air-conditioning system, black, with adjustable	62U003CF026EB
Quebec 24 V	heating function, with control element	62U003CF027EB
Quebec 12 V	Air-conditioning system, gray, with adjustable	62U003CF045EC
Quebec 24 V	heating function, with control element	62U003CF046EC

#### Montreal

Model overview	Scope of delivery	Order number
Montreal 12 V	Air-conditioning system, black, with control element	62U003FF030EB
Montreal 24 V		62U003FF031EB
Montreal 12 V	Air-conditioning system, gray, with control element	62U003FF058EB
Montreal 12 V – R1234yf*		6244346A
Montreal 24 V		62U003FF059EA
Montreal 24 V – R1234yf		6248173A

\* Dimensions 370 mm x 185 mm x 330 mm

#### Michigan

Model overview	Scope of delivery	Order number
Michigan 12 V	Air-conditioning system, black,	62U003CF057EA
Michigan 24 V	with heating function, with control element	62U003CF058EA

#### Wyoming

Model overview	Scope of delivery	Order number
Wyoming 12 V	Air-conditioning system, black, with control element	62U003FF078EA
Wyoming 24 V		62U003FF079EA

#### Milano

Model overview	Scope of delivery	Order number
Milano 12 V	Air-conditioning system, black, with heating function	62U003CF055EC
Milano 24 V		62U003CF056EC

The performance data for your application may differ from the nominal values. These depend on various conditions, such as the compressors, the air ducts and the climate. Products are supplied together with product documentation. Unless stated otherwise, the control element is not included.

## From 6.0 kW to 8.9 kW cooling capacity









# Optimum air-conditioning solutions for light-duty vehicles, minibuses and special vehicles

The integrated HVAC systems are versatile and can be used for mini-buses, ambulances and fire trucks as well as construction and agricultural machinery, for example. With a wide variety of installation options – under the dashboard or under the roof, in the roof liner or vertically in the rear panel.

The wide range of accessories includes condensers, which can be mounted on the roof or under the chassis, as well as control elements, air ducts and customerspecific installation sets. For a complete air-conditioning solution, the Oslo, Norway and Paris models have an additional heating function.

- Air-conditioning systems with a cooling capacity of 6.0 to 8.9 kW
- Optimum integration into the vehicle design thanks to versatile installation options
- High efficiency in relation to the dimensions
- High-quality and reliable components from proven series production processes
- Very low maintenance



#### Glasgow

Model overview	Scope of delivery	Order number
Glasgow 12 V	Air-conditioning system, black	62U003FF054EC
Glasgow 12 V – R1234yf*		6244460A
Glasgow 24 V		62U003FF055EC
Glasgow 24 V – R1234yf *		6248154A
Glasgow 12 V	Air-conditioning system, black, with thermostat	6245545A

\* Expansion valve sealing plastic hoods included



#### Oslo

Model overview	Scope of delivery	Order number
Oslo 12 V	Air-conditioning system, black, with heating function	62U003CF041EC
Oslo 12 V - R1234yf*		6244496A
Oslo 24 V		62U003CF042EC
Oslo 24 V - R1234yf*		6248161A
Oslo 12 V	Air-conditioning system, black, with thermostat	6241804A

\* Expansion valve TXV sealing plastic hoods included



#### Norway

Model overview	Scope of delivery	Order number
Norway 12 V	Air-conditioning system, gray,	62U003CF049EB
Norway 24 V	with heating function, with control element	62U003CF050EB
Norway 24 V	Air-conditioning system, black, with heating function, with control element	62U003CF021EC



#### Paris

Model overview	Scope of delivery	Order number
Paris 12 V	Air-conditioning system, black, with heating function	62U003CF077EA
Paris 24 V		62U003CF078EA



#### Monaco

Model overview	Scope of delivery	Order number
Monaco 12 V	Air-conditioning system, black	62U003FF129EA
Monaco 24 V		62U003FF130EA

The performance data for your application may differ from the nominal values. These depend on various conditions, such as the compressors, the air ducts and the climate. Products are supplied together with product documentation. Unless stated otherwise, the control element is not included.

#### Technical data

Model overview	Glasgow	Oslo	Norway	Paris	Monaco
Nominal cooling capacity (kW)	6.	2	6.3	7	7.7
Nominal heating capacity (kW)	-	8.5	10.2	6.3	_
Installation position	unde	r the		und	er the
	dashb	ooard	vertical	dash	board
Refrigerant	R134a – R1234yf R134a				
Nominal voltage (V)	12/24				
Max. total current absorption at 12 V (A)	14.8	15.8	16.0	17.6	18.6
Max. volume flow of	650 635		535		
evaporator blower (m³/h)					
Dimensions L x W x H (mm)	400 x 36	60 x 170	425 x 225 x 440	580 x 3	340 x 128
Weight (kg)	4.7	5.3	10.0	5.2	4.7
Water connection, Ø (mm)	_		16		_
Expansion valve	Block valve				
Additional information	-	_	control element included	-	-

# From 9.0 kW to 11.9 kW cooling capacity









#### An ideal climate for minibuses with up to 15 seats

These integrated HVAC systems create pleasant conditions for the driver and passengers in minibuses with up to 15 seats. With installation options under the dashboard or under the roof in the roof liner or vertically in the rear panel, these units offer a high degree of flexibility. These units are very reliable and have a long service life.

The wide range of accessories includes condensers, which can be mounted on the roof or under the chassis, as well as control units, air ducts and customer-specific installation sets. For a complete air-conditioning solution, the Ibiza, London and Oxford models have an additional heating function.

- Air-conditioning systems with a cooling capacity of 9.0 to 11.9 kW
- Optimum integration into the vehicle design thanks to versatile installation options
- High efficiency in relation to the dimensions
- High-quality and reliable components from proven series production processes
- Very low maintenance



#### Marbella

Model overview	Scope of delivery	Order number
Marbella 12 V	Air-conditioning system, black	62U003FF096EB
Marbella 24 V		62U003FF097EB



#### Ibiza

Model overview	Scope of delivery	Order number
Ibiza 12 V	Air-conditioning system, with heating function, black	62U003CF062EC
Ibiza 24 V		62U003CF080EA



#### Vancouver

Model overview	Scope of delivery	Order number
Vancouver 12 V	Air-conditioning system, black	62U003FF060EF
Vancouver 12 V – R1234yf*		6244498A
Vancouver 24 V		62U003FF061EF
Vancouver 24 V – R1234yf*	Air-conditioning system, black	6248168A

<sup>\*</sup> Expansion valve TXV sealing plastic hoods included



#### London

Model overview	Scope of delivery	Order number
London 12 V	Air-conditioning system, black, with heating function	62U003CF047EC
London 12 V – R1234yf*		6244497A
London 24V - R1234yf*		6248166A
London 24 V		62U003CF048EC
London 12 V	Air-conditioning system, black, with thermostat	6245548A
London 24 V	Air-conditioning system, black, with thermostat	6247104A

<sup>\*</sup> Expansion valve TXV sealing plastic hoods included



#### Oxford

Model overview	Scope of delivery	Order number
Oxford 12 V	Air-conditioning system, with heating function	62U003CF085EB
Oxford 24 V		62U003CF082EB

The performance data for your application may differ from the nominal values. These depend on various conditions, such as the compressors, the air ducts and the climate. Products are supplied together with product documentation. Unless stated otherwise, the control element is not included.

#### Technical data

Model overview	Marbella	Ibiza	Vancouver	London	Oxford				
Nominal cooling capacity (kW)	9	.0	9.5						
Nominal heating capacity (kW)	-	12.0	-	13.0					
Installation position	vert	tical	under the	der the dashboard					
Refrigerant	R13	34a	R134a / R	1234yf (*)	R134a				
Nominal voltage (V)			12 / 24						
Max. total current absorption at 12 V (A)	20.5	21.2	22.0	21.0	17.0				
Max. volume flow of evaporator blower (m³/h)			800						
Dimensions L x W x H (mm)	533 x 34	12 x 176	500 x 372 x 170	550 x 400 x 180	175 x 420 x 560				
Weight (kg)	8.0	10.0	6.7	7.7	8.0				
Water connection Ø (mm)	-	16	-	16	16				
Expansion valve			Block valve						
Air duct connection	-	-	-	-	5 / 7 connections for air duct Ø 60 mm				

### Slim Profile for perfect roof integration





Webasto's Slim Profile is the first step Webasto has taken to initiate the revolution of design in the off-highway market and marks the next step on Webasto's innovation road. The use of a reversed curved blade fan and slim-profile evaporators and heat-exchangers are the key elements of the design that allows for achieving a height of only 80 mm for the unit. Due to the fan used and the unique design of internal air-handling, the unit outperforms current similar-size units in airflow as well as cooling and heating performance. The Slim profile is designed to be installed in the roof of both agricultural and construction machinery. Due to the slim package dimensions of the unit (842 x 580 x 111 mm) it enables OEMs and cabin manufacturers to fundamentally innovate the design of their cabins. The new Webasto unit, will make it possible to design slim roofs with increased headroom and greater visibility without any loss of comfort. The results of our stringent in-house testing program have clearly demonstrated the capabilities of the unit in terms of performance, durability and regulation-conformity.

The unit is designed to be combined with the Webasto CECU which allows for complete integration of the air-conditioning system into existing control and electronic infrastructure of OEMs thus enabling a seamless user comfort experience. Of course, integrated diagnostic functionalities are offered as well. This unit is followed by the Ultra-Slim Profile concept which goes so far as decreasing the height of the unit again by 50 % to only 40 mm. More information on this unit is available upon request!

#### Key benefits at a glance:

- New design with clear focus on a slim package with high performance
- 9.5 kW of cooling performance
- 13 kW of heating performance
- Slim design provides for more headroomand increased visibility
- Design can be adapted to individual needs of OEMs and cabin manufacturers



#### SP80

Model overview	Scope of delivery	Order number
SP80 HVAC R12V BRG	Air-conditioning system, black, with heating function	6244242A
SP80 HVM R12 V BR	Heating system	6244244A



#### Control element

Model overview	HVAC with fresh air control	HVAC	HV
Part number	62A04052B	62A04054B	62A04069B
12 V			
– 120 x 63 x 43 mm (W x H x D)			
– Electric control			
– Water valve			
– Signal cable (2m)			
– On/off switch, air-conditioning system			
– Fan speed			
- Temperature regulation			

#### Technical data

Model overview	Slim Profile HVAC	Slime profile HVM					
Nominal cooling capacity (kW)	9.5	-					
Nominal heating capacity (kW)	13						
Installation position	Integrated into the roof						
Refrigerant	R134a	_					
Nominal voltage (V)	1	2					
Operating temperature range (°C)	-20	.+60					
Max. total current absorbtion (A) at 12 V	10	8.2					
Max. air flow evaporator blower (m³/h)	615	650					
Dimensions L x W x H (mm)	580 x 84	12 x 111					
Weight (kg)	7.4	6.5					
Expansion valve	Block Valve						
Water connection (mm) Ø	16						
Addtional information	with manual control						

## From 12.0 kW to 16.0 kW cooling capacity



#### Optimum air-conditioning solutions for minibuses with up to 25 seats

These integrated air-conditioning systems create pleasant conditions for the driver and passengers in minibuses with up to 25 seats. With installation options under the dashboard or roof, in the roof liner or vertically in the rear panel, they offer a high degree of flexibility. These units are very reliable and have a long service life. The wide range of accessories includes condensers, which can be mounted on the roof or under the chassis, as well as control elements, air ducts and customer-specific installation sets.

For a complete air-conditioning solution, the Kiev and Monterrey models have an additional heating function.

- Air-conditioning systems with a cooling capacity of 12.0 to 16.0 kW
- Optimum integration into the vehicle design thanks to versatile installation options
- High efficiency in relation to the dimensions
- High-quality and reliable components from proven series production processes
- Very low maintenance



#### Riga

Model overview	Scope of delivery	Order number
Riga 12 V	Air-conditioning system, 2-ton expansion valve, 1 air duct, front distribution, 2 air ducts, top	62U003FF066EC
Riga 12 V	Air-conditioning system, 2-ton expansion valve, 2 air ducts, front distribution, 1 air duct, top	62U003FF067EC
Riga 12 V	Air-conditioning system, 2-ton expansion valve,	62U003FF065EC
Riga 24 V	3 air duct, front distribution	62U003FF068EC
Riga 12 V	Air-conditioning system, 3-ton expansion valve,	62U003FF132EA
Riga 24 V	3 air duct, front distribution	62U003FF133EA



#### Kiev

Model overview	Scope of delivery	Order number
Kiev 12 V	Air-conditioning system, with heating function	62U003CF051EE
Kiev 24 V		62U003CF052EE



#### Moscow

Model overview	Scope of delivery	Order number
Moscow 12 V	Air-conditioning system	62U003FF064EB
Moscow 24 V		62U003FF071EB



#### Monterrey

Model overview	Scope of delivery	Order number
Monterrey 12 V	Air-conditioning system, 2-ton expansion valve,	62U003CF069EB
Monterrey 24 V	with heating function	62U003CF070EB
Monterrey 12 V	Air-conditioning system, 3-ton expansion valve,	62U003CF075EC
Monterrey 24 V	with heating function	62U003CF076EC



#### Newport

Model overview	Scope of delivery	Order number
Newport 12 V	Air-conditioning system, 2-ton expansion valve	62U003FF104EE
Newport 24 V		62U003FF105EE
Newport 12 V	Air-conditioning system, 3-ton expansion valve	62U003FF127EE
Newport 24 V		62U003FF128EE

The performance data for your application may differ from the nominal values. These depend on various conditions, such as the compressors, the air ducts and the climate. Products are supplied together with product documentation. The control element is not included.

#### Technical data

Model overview	Ri	ga	Kiev	Moscow	Mont	terrey	New	port		
Nominal cooling capacity (kW)	12.0	14.0	13	3.4	14.0	16.0	14.0	16.0		
Nominal heating capacity (kW)		_	11.5	_	14	4.6	_			
Installation position				under dash or u	under roof					
Refrigerant				R134a	Ja					
Nominal voltage (V)				12/24	4					
Max. total current absorption at 12 V (A)	3.	1.0	18.0	19.0	39	9.0	40.0			
Max. volume flow of evaporator blower (m³/h)	1,5	350	1,0	000	1,300					
Dimensions L x W x H (mm)	1,240 x 3	320 x 175	890 x 380 x 170	170 856 x 355 x 170 925 x 390 x			90 x 180			
Weight (kg)	18	3.0	12.5	11.5	13	3.5	12	2.5		
Water connection Ø (mm)	-	-	16	-	2	20	-	-		
Expansion valve	Block valve, 2 tons	Angle valve, 3 tons	Block	valve	Block valve, Angle valve, 2 tons 3 tons		Block valve, 2 tons	Angle valve, 3 tons		
Air duct connection	6 connec				-	1	1	1		

Control elements for air-conditioning systems without heating

		Oakland	Osaka	Glasgow	Monaco	Marbella	Vancouver	Riga	Moscow	Newport	Order number
	Automatic control element										
35	12 VAC	-	-	-	•	-	-	-	•	•	62A04003A
	24 VAC		-	•	-	-	-	•	•	•	62A04004A
Auto Arc (2) (hm) Diavia (Hebasto	<ul> <li>- 108 x 60 x 47 mm (W x H x D)</li> <li>- Electric control:</li> <li>- Internal temperature detector</li> <li>- Ice detector</li> <li>- External temperature detector</li> <li>- Water valve (only HVAC version)</li> <li>- On/Off switch, air-conditioning system</li> <li>- Fan speed</li> <li>- Fresh air/recirculated air control</li> <li>- Temperature regulation</li> <li>- External air monitoring</li> </ul>										
	Air-conditioning control element										
Disories I-intensis	Horizontal  - 12/24 V  - 100 x 50 x 5 mm (W x H x D) or 50 x 100 x 5 mm (W x H x D)  - Mechanical control:  - Air-conditioning system control  - Fan speed  - Length of thermostat cable 1,500 mm		•		•				•	•	62A03995A

		Oakland	Osaka	Glasgow	Monaco	Marbella	Vancouver	Riga	Moscow	Newport	Order number
	Air-conditioning control element										
075	Horizontal	-	-	-	-	•	-	-	-	-	62A03997B
Diorie V-lettonts  Diorie V-lettonts	Vertical  - 12 V  - 100 x 50 x 5 mm (W x H x D) or 50 x 100 x 5 mm (W x H x D)  - Mechanical control:  - On/off switch, air-conditioning system  - Fan speed				•						62A03996B
	Thermostat switch										
Stocks OF Laborate	- 12/24 V - 51 x 50 x 5 mm (W x H x D) - Mechanical control of air-conditioning system - Length of thermostat cable 1,500 mm	-	-	•	-	•			•	-	62A03999A
Storie Falthoris	Air-conditioning on/off switch  – 12 V  – 52 x 50 x 5 mm (W x H x D)  – On/off switch, air-conditioning system	•	•	•	•	•	•	-	•	•	62A04000B
	3-position blower switch										
Orr 1 2 3	<ul> <li>12/24 V</li> <li>53 x 50 x 5 mm (W x H x D)</li> <li>Mechanical control of fan speed</li> </ul>										62A04001A

Different control panels can be suitable for the same unit, please check if all the functions/accessories of the unit are controllable by the selected control panel.

Control elements for air-conditioning systems with heating

*	Automatic control element 12 V, HVAC	Baltimore	Oslo	Milano	Paris	■ Ibiza	London	Oxford	Kiev	Monterrey	Order number 62A04043A
Auto Aic CD (her) Diavia (Hebosta	24 V, HVAC  - 108 x 60 x 47 mm (W x H x D) - Electric control: - Internal temperature detector - Ice detector - External temperature detector - Water valve (only HVAC version) - On/Off switch, air-conditioning system - Fan speed - Fresh air/recirculated air control - Temperature regulation - External air monitoring	•	•	•		•	•	•		•	62A04040A
Dinvis (-hebotis	Manual control element  12 V  24 V  - 120 x 63 x 43 mm (W x H x D)  - Electric control:  - Water valve  - Signal cable (2m)  - On/Off switch, air-conditioning system  - Fan speed  - Temperature regulation										62A04054A 62A04055A
St. Directs Valuedouts	Air-conditioning control element  Horizontal  Vertical  - 12 V  - 100 x 50 x 5 mm (W x H x D) or 50 x 100 x 5 mm (W x H x D)  - Mechanical control:  - On/Off switch, air-conditioning system  - Fan speed  - Temperature regulation										62A03993B 62A03992B

		Baltimore	Oslo	Milano	Paris	Ibiza	London	Oxford	Kiev	Monterrey	Order number
	Air-conditioning control element										
0FF 1 2 3	12 V, horizontal	•	•	-	•	-	•	•	•	•	62A031065A
* * *	12 V, vertical		•	•	•	-	•	•		•	62A031069A
Diavio Interesto	24 V, horizontal		•	-	•	-	•	•		•	62A031067A
	24 V, vertical		-	-	•	-	•	•			6240303A
St. St. Districts	<ul> <li>- 100 x 50 x 5 mm (W x H x D) or 50 x 100 x 5 mm (W x H x D)</li> <li>- Mechanical control:</li> <li>- On/off switch, air-conditioning system</li> <li>- Fan speed</li> <li>- On/off switch, heater</li> </ul>										
	Air-Conditioning control element										
	Without electric water valve, controller and signal cable, 12/24 V	•			-	•	•	•		-	62A03998A
Diavia 6-lebasta	With electric water valve, controller and signal cable, 12 V	-			-	•	•	•		-	620282129A
	With electric water valve, controller and signal cable, 24 V  – 50 x 5 x 50 mm (W x H x D)  – Mechanical control of the water valve of the heater										620282102A
	3-position blower switch										
Diovise V-Heads	- 12/24 V - 53 x 50 x 5 mm (W x H x D) - Mechanical control of fan speed	-			-	•					62A04001A
Different central panels can b	a suitable for the same unit places shock if all the functions/ass	05501	ios of	the c	unit a		ntrol	labla	bu +h		acted control panel

Different control panels can be suitable for the same unit, please check if all the functions/accessories of the unit are controllable by the selected control panel.

# Electroventilated condensers

		υ	<u>بر</u>					<u> </u>
	Model	Performance (kW)	Dimensions L x W x H (mm)	Description	Current consumption (A)	Weight (kg)	Voltage (V)	Order number
	Trieste	5	575 x 480 x 180	T&F, Fin pitch 3.5 mm	13	8	12	62U00025431E
A CONTRACT	Trieste	5	575 x 480 x 180	T&F, Fin pitch 3.5 mm	6	8	24	62U00025433E
	Trieste	6.5	575 x 480 x 180	HTC, Fin pitch 2.5 mm	13	8	12	62U00025455C
	Trieste	6.5	575 x 480 x 180	HTC, Fin pitch 2.5 mm	6	8	24	62U00025457C
	Venezia	2.8	570 x 370 x 150	T&F, Fin pitch 2.5 mm	7	8	12	62U00025322B
	Venezia	2.8	570 x 370 x 150	T&F, Fin pitch 2.5 mm	3	8	24	62U00025386B
	Venezia	5.5	570 x 370 x 150	HTC, Fin pitch 2.5 mm	7	8	12	62U00025315C
	Venezia	5.5	570 x 370 x 150	HTC, Fin pitch 2.5 mm	3	8	24	62U00025327B
9-	Capri	8	815 x 600 x 150	T&F, Fin pitch 3.5 mm	18	12	12	62U00025430F
	Capri	8	815 x 600 x 150	T&F, Fin pitch 3.5 mm	9	12	24	62U00025432F
	Capri	10.5	815 x 600 x 150	HTC, Fin pitch 2.5 mm	18	12	12	62U00025456E
	Capri	10.5	815 x 600 x 150	HTC, Fin pitch 2.5 mm	9	12	24	62U00025458D
	Napoli	6	830 x 485 x 150	T&F, Fin pitch 2.5 mm	18	12	12	62U00025393B
	Napoli	6	830 x 485 x 150	T&F, Fin pitch 2.5 mm	9	12	24	62U00025326B
	Napoli	11.5	830 x 485 x 150	HTC, Fin pitch 2.5 mm	18	12	12	62U00025316B
	Napoli	11.5	830 x 485 x 150	HTC, Fin pitch 2.5 mm	9	12	24	62U00025317C
00	Valencia	12.5	955 x 600 x 150	HTC, Fin pitch 2.82 mm	27	14	12	62U00025437E
THE PARTY OF THE P	Valencia	12.5	955 x 600 x 150	HTC, Fin pitch 2.82 mm	13	14	24	62U00025438D
	Sicilia	5	690 x 157 x 230	T&F, Fin pitch 2.1 mm	13	8	12	62U00025060E
	Sicilia	5	690 x 157 x 230	T&F, Fin pitch 2.1 mm	6	8	24	62U00025439D
	Verona	5	690 x 157 x 230	T&F, Fin pitch 2.1 mm	13	9.5	12	62U00025258G
E.	Verona	5	690 x 157 x 230	T&F, Fin pitch 2.1 mm	6	9.5	24	62U00025444A
	Taormina	5	710 x 165 x 180	T&F, Fin pitch 2.1 mm	13	9.5	12	62U00025441A
	Taormina	5	710 x 165 x 180	T&F, Fin pitch 2.1 mm	6	9.5	24	62U00025442A

	Model	Performance (kW)	Dimensions L x W x H (mm)	Description	Current consumption (A)	Weight (kg)	Voltage (V)	Order number
	нтс	6.5	480 x 110 x 350	HTC, Fin pitch 2.5 mm	13	3.7	12	62U00025453A
	нтс	6.5	480 x 110 x 350	HTC, Fin pitch 2.5 mm	6	3.7	24	62025454A
	нтс	5	606 x 110 x 350	HTC, Fin pitch 3.5 mm	18	4.5	12	62U00025427A
	нтс	7	606 x 110 x 350	HTC, Fin pitch 2.5 mm	18	4.5	12	62U00025460A
A POR	НТС	12	606 x 160 x 350	HTC, Fin pitch 2.5 mm	16	7.5	24	62U00025486A
	НТС	12	606 x 160 x 350	HTC, Fin pitch 2.5 mm	32	7.5	12	62U00025472A
	НТС	12	725 x 105 x 450	HTC, Fin pitch 3.5 mm	18	6	12	62U00025426B
	нтс	14	725 x 105 x 450	HTC, Fin pitch 2.5 mm	25	4.6	12	62U00025459C
	нтс	14	725 x 105 x 450	HTC, Fin pitch 2.5 mm	9	4.6	24	62U00025478A

Air-conditioning kit, including evaporator, for light-duty vehicles

Model	-		ŧ					Order number		Kit characteris	stics
	Emissions standard	Model year	Engine displacement	Horse power	Cylinders	Notes				Control	Notes
Citroën											
Jumper 2.0 HDI – 2.2 HDI	-		1997	84	4	7)	621FI33500EA	62A03898A		Webasto	2)
Jumper 2.0 HDI – 2.2 HDI	-		1997	84	4		621FI33500EA	62A03915A		Original	2)
Jumper 2.0 HDI – 2.2 HDI	-		1997	84	4	8)	621FI33500EA	62A03955A	62A03898A	Webasto	2)
Jumper 2.0 HDI – 2.2 HDI	-		1997	84	4	8)	621FI33500EA	62A03955A	62A03915A	Original	2)
Jumper 2.2 HDI	Euro 4	from 2006	2198	101/120	4	5)	621FI34400EB	62A031020B	62A031017A	Original	
Jumper 2.2 HDI	Euro 4	from 2006	2198	101/120	4	5)	621FI34400EB	62A031020B	62A031018A	Webasto	
Jumper 2.2 HDI	Euro 5	from 2010	2198	100	4		621CI13601EA			Webasto	
Jumper 2.2 HDI	Euro 5	from 2010	2198	100	4		621CI13701EA			Original	
Jumper 2.8 HDI (series 244)	-	from 2001 – 2006	2798	127	4		621FI30400EB	62A03898A		Webasto	2)
Jumper 2.8 HDI (series 244)	_	from 2001 – 2006	2798	127	4		621FI30400EB	62A03915A		Original	2)
Jumper 3.0 HDI	Euro 4	from 2006	2999	157	4	6)	621FI34300EB	62A031019A	62A031017A	Original	
Jumper 3.0 HDI	Euro 4	from 2006	2999	157	4	6)	621FI34300EB	62A031019A	62A031018A	Webasto	
Jumper 3.0 HDI	Euro 4	from 2006	2999	157	4	5)	621FI34300EB	62A031020B	62A031017A	Original	
Jumper 3.0 HDI	Euro 4	from 2006	2999	157	4	5)	621FI34300EB	62A031020B	62A031018A	Webasto	
Jumper 3.0 HDI	Euro 5	to 2010	2998	157	4		621FI36001EA			Webasto	
Jumper 3.0 HDI	Euro 5	to 2010	2998	157	4		621FI36101EA			Original	
Jumper 33-35 2.8 HDI (series 230)	-	from 2000	2798	127	4	9)	621FI30400EB	62A03864B			2)
Fiat											
Ducato 2.3 JTD (series 244)	-	from 2001	2286	110	4		621FI32400EB	62A03898A		Webasto	2)
Ducato 2.3 JTD (series 244)	-	from 2001	2286	110	4	29)	621FI32400EB	62A03915A		Original	2)
Ducato 2.8 JTD (series 244)	-	from 2001	2798	127	4		621FI30400EB	62A03898A		Webasto	2)
Ducato 2.8 JTD (series 244)	-	from 2001	2798	127	4	29)	621FI30400EB	62A03915A		Original	2)
Ducato 10-14 2.8 TD	-	to 03/1999	2800	122	4		621FI285120EA				2)
Ducato 10-14 2.5 D – 2.5 TDI	-	from 1994	2500	85/116	4		621FI223120EC				2)
Ducato 10-14 2.8 D	-		2800	87	4		621FI285120EA				2)
Ducato 10-14 2.8 JTD (series 230)	-	from 2000	2800	122	4	9)	621FI30400EB	62A03864B			2)
Ducato 10-14 2.8 TDI (series 230)	-	from 03/99	2800	122	4	10)	621FI30400EB	62A03865B			2)
Ducato 2.0 JTD	-	from 05/2004	1997	84	4	7)	621FI33500EA	62A03898A		Webasto	2)
Ducato 2.0 JTD	-	from 05/2004	1997	84	4	7)	621FI33500EA	62A03915A		Original	2)
Ducato 2.0 JTD	-	to 05/2004	1997	84	4	8)	621FI33500EA	62A03955A	62A03898A	Webasto	2)
Ducato 2.0 JTD	-	to 05/2004	1997	84	4	8)	621FI33500EA	62A03955A	62A03915A	Original	2)
Ducato X250 2.0 MJT	Euro 5	from 2010	1956	116	4		621FI35601EA			Original	
Ducato X250 2.0 MJT	Euro 5	from 2010	1956	116	4		621FI35701EA			Webasto	

Model	Emissions standard	Model year	Engine displacement	Horse power	Cylinders	Notes		Order number		Kit characteris	Notes
Ducato X250 2.2 MJT	Euro 4	from 2006	2198	101	4	5)	621FI34400EB	62A031020B	62A031017A	Original	
Ducato X250 2.2 MJT	Euro 4	from 2006	2198	101	4	5)	621FI34400EB	62A031020B	62A031018A	Webasto	
Ducato X250 2.3 MJT	Euro 4/5	from 2006	2287	120	4	6)	621FI34200EB	62A031019A	62A031018A	Webasto	
Ducato X250 2.3 MJT	Euro 4/5	from 2006	2287	120	4	6)	621FI34200EB	62A031019A	62A031017A	Original	
Ducato X250 2.3 MJT	Euro 4/5	from 2006	2287	120	4	5)	621FI34200EB	62A031020B	62A031017A	Original	
Ducato X250 2.3 MJT	Euro 4/5	from 2006	2287	120	4	5)	621FI34200EB	62A031020B	62A031018A	Webasto	
Ducato X250 3.0 MJT	Euro 4/5	from 2006	2999	157	4	6)	621FI34300EB	62A031019A	62A031018A	Webasto	
Ducato X250 3.0 MJT	Euro 5	from 2010	2998	157	4		621FI36001EA			Webasto	
Ducato X250 3.0 MJT	Euro 4 / 5	from 2006	2999	157	4	6)	621FI34300EB	62A031019A	62A031017A	Original	
Ducato X250 3.0 MJT	Euro 4 / 5	from 2006	2999	157	4	5)	621FI34300EB	62A031020B	62A031017A	Original	
Ducato X250 3.0 MJT	Euro 4 / 5	from 2006	2999	157	4	5)	621FI34300EB	62A031020B	62A031018A	Webasto	
Ducato X250 3.0 MJT	Euro 5	from 2010	2998	157	4		621FI36101EA			Original	
Isuzu											
NLR-NMR-NLS 85 (small cabin)	Euro 4 / 5	from 2008	2999	150	4		621IS02111EB				2)
NPR 75 5.2 TDI	-	from 2007	5193	190	4		621IS02211EA				2)
NPR85 L gsx (large cabin)	Euro 4 / 5	from 2008	2999	150	4		621IS02011EB				2)
NPR85 (large cabin)	Euro 5 / 6	from 2014	2999	150	4		621IS02611A				2)
NPR85 (narrow cabin)	Euro 5 / 6	from 2014	2999	150	4		621IS02711A				2)
lveco											
ECO Daily 2.3 HPI	_	to 2010	2286	116	4		621IV02218EA			Original	2)
Eurocargo TECTOR E17	_	to 2006	3920	170	4		621IV00908EA				2)
Eurocargo TECTOR E18	-	to 2006	5880	182	6		621IV00908EA				2)
Eurocargo TECTOR E21	-	to 2006	5880	209	6		621IV00908EA				2)
Eurocargo TECTOR E24	-	to 2006	5880	240	6		621IV00908EA				2)
Eurocargo TECTOR E28	_	to 2006	5880	275	6		621IV00908EA				2)
Mercedes-Benz											
Sprinter 2.2 CDI	-	from 2006	2148	150	4	20)	621MB32400EA	62A031028A			2)
Sprinter 2.2 CDI (also for RHD drive)	-	from 2006	2148	150	4	17)	621MB32400EA	62A031029A			2)
Sprinter 208-308 CDI (engine OM 611)	-	from 2000	2150	82	4		621MB311116ED			Original	2)
Sprinter 211-311 CDI (engine OM 611)	-	from 2000	2150	109	4		621MB311116ED			Original	2)
Sprinter 213-313 CDI (engine OM 611)	-	from 2000	2150	129	4		621MB311116ED			Original	2)
Sprinter 216-316-416 (engine OM 612)	-		2686	156	5		621MB311116ED			Original	2)
Sprinter 3.0 DCI	-	from 2006	2987	184	6	17)	621MB32400EA	62A031061A			2)

Air-conditioning kit, including evaporator, for light-duty vehicles

Notes						_						
Sprinter 316 2.2 CDI (Euro S) OM651	Model	Emissions standard	Model year	Engine displacement	Horse power	Cylinders	Notes		Order number			
Vito 108 2.2 CDI   From   2151   REZ   4   16   STIMESIZITATED     Criginal   22   Vito 109-11-115   22 CDI   From   2203   2148   108   4   REZINDEZIZIER     CRIMESIZITATED   CRIGINAL   22   Vito 109-11-115   Cab only)   From   2151   102   4   16   STIMESIZITATED   CRIMESIZITATED   CRIMESIZ	Sprinter 308 CDI (engine OM 611)	_	from 2000	2150	79	4		621MB311116ED			Original	2)
Cengine OM611) (cab only)	Sprinter 316 2.2 CDI (Euro 5) OM651	Euro 5	from 2009	2143	163	4	20)	621MB32400EA	62A031117A			2)
Vito 110 2.2 CDI (engine OM 611)		_		2151	82	4	16)	621MB307114ED			Original	2)
Cab only    1994 - 2000	Vito 109-111-115 2.2CDI	-	from 2003	2148	108	4		621MB322121EA				2)
Nissan   N	=	-		2151	102	4	16)	621MB307114ED			Original	2)
INTERSTAR 2.2/2.5 DCI		_		2151	122	4	16)	621MB307114ED			Original	2)
INTERTAR 2.2/2.5 DCI	Nissan											
Compared		_	from 2004	2500	120	4	20) 33)	621RE20100EA	62A03967A			2)
Rear evaporator for Primastar 2.0 + air duct kit (suitable only with Webasto solution)		_	from 2004	2500	120	4	21) 33)	621RE20100EA	62A03968A			2)
Del	INTERSTAR 2.5 DCI	Euro 4	from 2006	2464	120	4	19)	621RE20200EA	62A031030A			2)
Movano 2.2/2.5 DCI (not prepared)	air duct kit (suitable only with	-						62U003FF058EB	623RE89EA			2)
Movano 2.2/2.5 DCI (not prepared)	Opel											
Movano 2.5 DCI	Movano 2.2/2.5 DCI (not prepared)	-		2500	120	4	20) 33)	621RE20100EA	62A03967A			2)
Note	Movano 2.2/2.5 DCI (not prepared)	-		2500	120	4	21) 33)	621RE20100EA	62A03968A			2)
air duct kit (suitable only with Webasto solution)  Peugeot  Boxer 2.0 HDI (version 244) - from 05/2004 1997 84 4 7) 621Fi33500EA 62A03898A Webasto 2)  Boxer 2.0 HDI (version 244) - from 05/2004 1997 84 4 7) 621Fi33500EA 62A03915A Original 2)  Boxer 2.0 HDI (version 244) - to 05/2004 1997 84 4 8) 621Fi33500EA 62A03915A G2A03898A Webasto 2)  Boxer 2.0 HDI (version 244) - to 05/2004 1997 84 4 8) 621Fi33500EA 62A03955A 62A03898A Webasto 2)  Boxer 2.0 HDI (version 244) - to 05/2004 1997 84 4 29) 621Fi33500EA 62A03955A 62A03898A Webasto 2)  Boxer 2.2 HDI Euro 4 from 2006 2198 101/120 4 5) 621Fi33500EA 62A031020B 62A031017A Original 2)  Boxer 2.2 HDI Euro 4 from 2006 2198 101/120 4 5) 621Fi34400EB 62A031020B 62A031018A Webasto 2  Boxer 2.2 HDI Euro 5 to 2010 2198 100 4 5) 621CI13601EA Webasto 2  Boxer 2.2 HDI Euro 5 from 2006 2999 157 4 6) 621Fi34300EB 62A031019A 62A031017A Original 2  Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621Fi34300EB 62A031019A 62A031017A Original 2  Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621Fi34300EB 62A031019A 62A031017A Original 3  Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621Fi34300EB 62A031019A 62A031018A Webasto 3  Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621Fi34300EB 62A031019A 62A031018A Webasto 3  Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621Fi34300EB 62A031019A 62A031018A Webasto 3  Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621Fi34300EB 62A031019A 62A031018A Webasto 3  Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621Fi34300EB 62A031019A 62A031018A Webasto 3  Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621Fi34300EB 62A031019A 62A031018A Webasto 3  Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621Fi34300EB 62A031019A 62A031018A Webasto 3  Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621Fi34300EB 62A031019A 62A031018A Webasto 3  Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621Fi34300EB 62A031019A 62A031018A Webasto 3  Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621Fi34300EB 62A031019A 62A031018A Webasto 3  Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621Fi34300EB 6	Movano 2.5 DCI	Euro 4	from 2006	2464	120	4	20)	621RE20200EA	62A031030A			2)
Boxer 2.0 HDI (version 244)         -         from 05/2004         1997         84         4         7)         621FI33500EA         62A03898A         Webasto         2)           Boxer 2.0 HDI (version 244)         -         from 05/2004         1997         84         4         7)         621FI33500EA         62A03915A         Original         2)           Boxer 2.0 HDI (version 244)         -         to 05/2004         1997         84         4         29)         621FI33500EA         62A03955A         62A03898A         Webasto         2)           Boxer 2.0 HDI (version 244)         -         to 05/2004         1997         84         4         29)         621FI33500EA         62A03955A         62A03915A         Original         2)           Boxer 2.2 HDI         Euro 4         from 2006         2198         101/120         4         5)         621FI34400EB         62A031020B         62A031018A         Webasto           Boxer 2.2 HDI         Euro 5         to 2010         2198         100         4         5)         621CI13601EA         Webasto           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621FI34300EB         62A031019A         62A031018A         W	air duct kit (suitable only with	-						62U003FF058EB	623RE89EA			
Boxer 2.0 HDI (version 244)         -         from 05/2004         1997         84         4         7)         621Fl33500EA         62A03915A         Original         2)           Boxer 2.0 HDI (version 244)         -         to 05/2004         1997         84         4         8)         621Fl33500EA         62A03955A         62A03898A         Webasto         2)           Boxer 2.0 HDI (version 244)         -         to 05/2004         1997         84         4         29)         621Fl33500EA         62A03955A         62A03915A         Original         2)           Boxer 2.2 HDI         Euro 4         from 2006         2198         101/120         4         5)         621Fl34400EB         62A031020B         62A031018A         Webasto           Boxer 2.2 HDI         Euro 5         to 2010         2198         100         4         5)         621Cl13601EA         Webasto           Boxer 2.2 HDI         Euro 5         to 2010         2198         100         4         5)         621Cl13601EA         Original           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621Fl34300EB         62A031019A         62A031018A         Webasto	Peugeot											
Boxer 2.0 HDI (version 244)         -         to 05/2004         1997         84         4         8)         621Fi33500EA         62A03955A         62A03898A         Webasto         2)           Boxer 2.0 HDI (version 244)         -         to 05/2004         1997         84         4         29)         621Fi33500EA         62A03955A         62A03915A         Original         2)           Boxer 2.2 HDI         Euro 4         from 2006         2198         101/120         4         5)         621Fi34400EB         62A031020B         62A031017A         Original           Boxer 2.2 HDI         Euro 4         from 2006         2198         100/120         4         5)         621Fi34400EB         62A031020B         62A031018A         Webasto           Boxer 2.2 HDI         Euro 5         to 2010         2198         100         4         5)         621Ci13601EA         Webasto           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621Fi34300EB         62A031019A         62A031018A         Webasto           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621Fi34300EB         62A031019A         62A031018A         We	Boxer 2.0 HDI (version 244)	-	from 05/2004	1997	84	4	7)	621FI33500EA	62A03898A		Webasto	2)
Boxer 2.0 HDI (version 244)         -         to 05/2004         1997         84         4         29)         621Fl33500EA         62A03955A         62A03915A         Original         2)           Boxer 2.2 HDI         Euro 4         from 2006         2198         101/120         4         5)         621Fl34400EB         62A031020B         62A031017A         Original           Boxer 2.2 HDI         Euro 4         from 2006         2198         100         4         5)         621Cl13601EA         Webasto           Boxer 2.2 HDI         Euro 5         to 2010         2198         100         4         5)         621Cl13601EA         Webasto           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621Fl34300EB         62A031019A         62A031017A         Original           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621Fl34300EB         62A031019A         62A031018A         Webasto	Boxer 2.0 HDI (version 244)	-	from 05/2004	1997	84	4	7)	621FI33500EA	62A03915A		Original	2)
Boxer 2.2 HDI         Euro 4         from 2006         2198         101/120         4         5)         621Fl34400EB         62A031020B         62A031017A         Original           Boxer 2.2 HDI         Euro 4         from 2006         2198         101/120         4         5)         621Fl34400EB         62A031020B         62A031018A         Webasto           Boxer 2.2 HDI         Euro 5         to 2010         2198         100         4         5)         621Cl13601EA         Webasto           Boxer 2.2 HDI         Euro 5         to 2010         2198         100         4         5)         621Cl13701EA         Original           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621Fl34300EB         62A031019A         62A031017A         Original           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621Fl34300EB         62A031019A         62A031018A         Webasto	Boxer 2.0 HDI (version 244)	-	to 05/2004	1997	84	4	8)	621FI33500EA	62A03955A	62A03898A	Webasto	2)
Boxer 2.2 HDI         Euro 4         from 2006         2198         101/120         4         5)         621FI34400EB         62A031020B         62A031018A         Webasto           Boxer 2.2 HDI         Euro 5         to 2010         2198         100         4         5)         621CI13601EA         Webasto           Boxer 2.2 HDI         Euro 5         to 2010         2198         100         4         5)         621CI13701EA         Original           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621FI34300EB         62A031019A         62A031018A         Webasto           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621FI34300EB         62A031019A         62A031018A         Webasto	Boxer 2.0 HDI (version 244)	-	to 05/2004	1997	84	4	29)	621FI33500EA	62A03955A	62A03915A	Original	2)
Boxer 2.2 HDI         Euro 5         to 2010         2198         100         4         5)         621CI13601EA         Webasto           Boxer 2.2 HDI         Euro 5         to 2010         2198         100         4         5)         621CI13701EA         Original           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621FI34300EB         62A031019A         62A031018A         Webasto           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621FI34300EB         62A031019A         62A031018A         Webasto	Boxer 2.2 HDI	Euro 4	from 2006	2198	101/120	4	5)	621FI34400EB	62A031020B	62A031017A	Original	
Boxer 2.2 HDI         Euro 5         to 2010         2198         100         4         5)         621CI13701EA         Original           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621FI34300EB         62A031019A         62A031017A         Original           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621FI34300EB         62A031019A         62A031018A         Webasto	Boxer 2.2 HDI	Euro 4	from 2006	2198	101/120	4	5)	621FI34400EB	62A031020B	62A031018A	Webasto	
Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621FI34300EB         62A031019A         62A031017A         Original           Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         6)         621FI34300EB         62A031019A         62A031018A         Webasto	Boxer 2.2 HDI	Euro 5	to 2010	2198	100	4	5)	621CI13601EA			Webasto	
Boxer 3.0 HDI Euro 4 from 2006 2999 157 4 6) 621FI34300EB 62A031019A 62A031018A Webasto	Boxer 2.2 HDI	Euro 5	to 2010	2198	100	4	5)	621CI13701EA			Original	
	Boxer 3.0 HDI	Euro 4	from 2006	2999	157	4	6)	621FI34300EB	62A031019A	62A031017A	Original	
Boxer 3.0 HDI         Euro 4         from 2006         2999         157         4         5)         621Fl34300EB         62A031020B         62A031017A         Original	Boxer 3.0 HDI	Euro 4	from 2006	2999	157	4	6)	621FI34300EB	62A031019A	62A031018A	Webasto	
	Boxer 3.0 HDI	Euro 4	from 2006	2999	157	4	5)	621FI34300EB	62A031020B	62A031017A	Original	

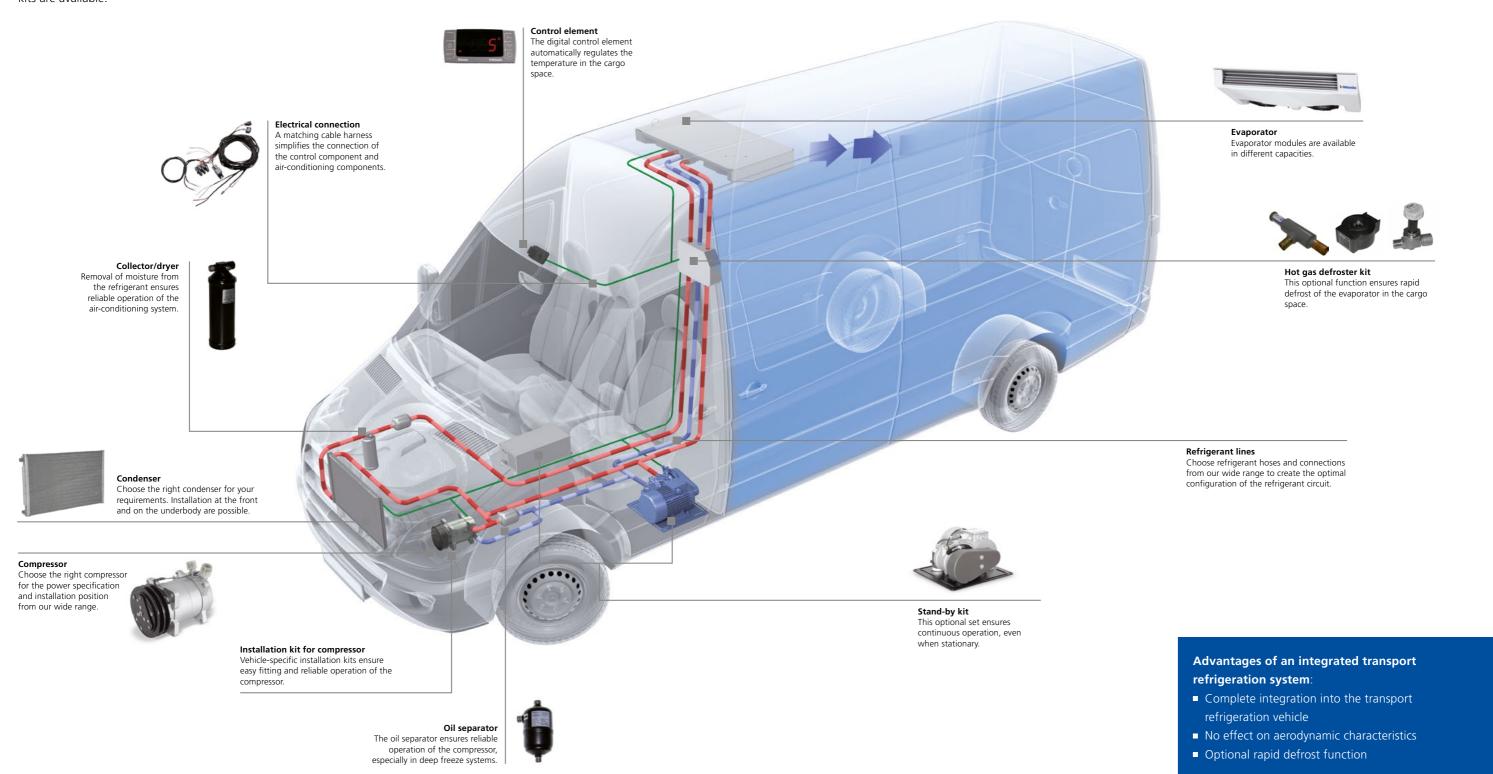
Model		_	٠			_		Order number	_	Kit characteris	stics
	Emissions standard	Model year	Engine displacement	Horse power	Cylinders	Notes				Control	Notes
Boxer 3.0 HDI	Euro 4	from 2006	2999	157	4	5)	621FI34300EB	62A031020B	62A031018A	Webasto	
Boxer 3.0 HDI	Euro 5	to 2010	2998	158	4	5)	621FI36001EA			Webasto	
Boxer 3.0 HDI	Euro 5	to 2010	2998	158	4	5)	621FI36101EA			Original	
Boxer 330-350 2.8 HDI	_		2798	127	4	15)	621FI30400EB	62A03864B			2)
Renault											
Master 2.2/2.5 DCI (not prepared)	-	from 2004	2500	120	4	20) 33)	621RE20100EA	62A03967A			2)
Master 2.2/2.5 DCI (not prepared)	_	from 2004	2500	120	4	30) 33)	621RE20100EA	62A03968A			2)
Master 2.3 DCI with PTO	Euro 5	from 2010	1998	125	4	20) 31) 34)	621RE20501EA				2)
Master 2.5 DCI	Euro 4	from 2006	2464	120	4	20)	621RE20200EA	62A031030A			2)
Master/Mascott 3.0 DCI (transversal engine)	-	from 2004	2953	136	4	33)	621RE20100EA	62A03988A			
Trafic 2.0 rear evaporator + air duct kit (suitable only with Webasto solution)	-						62U003FF058EB	623RE89EA			
Volkswagen								,			
Caddy 1.9/2.0 TDI (engine BKC/BRU/BJB)	_	from 2008	1390	90/ 105/140	4	27)	621VW22800EA	62A031027B			2)
Crafter 2.0 TDI (incl. bipower)	Euro 5	from 2011	1968	109/163	4	20)	621MB32400EA	62A031109B			
Crafter 2.5	Euro 4	from 2006	2461	136	5	20)	621MB32400EA	62A031043A			
Crafter 2.5 TDI	Euro 4	from 2006	2461	136	5	17)	621VW22501EA				2)
Transporter 1.9 TDI T5 (engine AXB, AXC)	_	from 2003	1898	80	4		621VW21956EC				
Transporter 1.9 TDI T5 (engine BRS, BRR)	-	from 2003	1898	80	4	32)	621VW21956EC				
Transporter T5 2.0 TDI	-	from 2010	1968	102	4		621VW22056EA				

- 1) For the Euro 5 version separately belt with code 62013716EA needed
- 2) AC unit with manual control
- 3) Additional control wiring kit for Jumpy 2.0 HDI TD
- 4) Only for cars without prepared oil pump
  5) Wiring harness for not prepared vehicles
  6) Wiring harness for prepared vehicles
- 7) Kit suitable for new engines with back side power steering pump are identified by chassis number from 7431721dd 04.05.2004
- 8) Kit suitable for old engines with front side power steering pump (former 1FI32300E)
- 9) Additional control wiring kit for Jumper 2.8 HDI series 230
  10) Additional control wiring kit for Ducato 2.8 JTD series 230
  11) Vehicles with crankshaft pulley with one groove
- 12) Additional control wiring kit for Scudo 2.0 HDI TD
- 13) Only for cars with prepared oil pump
- 14) Only for cars without prepared oil pump
- 15) Additional control wiring kit for Boxer 2.8 HDI
- 16) Additional kit for cars without REC
- 17) For kit with V5 compressor

- 18) Only vehicles with hydraulic coupling system
- 19) Kit with SP15 (154cc) compressor (included in the 62A031030A)
- 20) Kit with SP15 (154cc) compressor
- 21) Kit with SP10 (110cc) compressor
- 22) Control wiring kit for Expert 2.0 HDI
- 23) Compressor mounting kits for Caddy Gasoline 24) Additional kits for vehicle with one radiator fan
- 25) Kit for vehicle with double radiator fan and with Engine Coolant
- Temperature sensor (G83) situated at the radiator hose 26) Kit for vehicle with double radiator fan and with Engine Coolant
- Temperature sensor (G83) situated behind the alternator
- 27) Unified version (Euro 3, Euro 4)
- 28) Additional kit for vehicles with high original cooling radiator (height 477 mm) 29) Original AC panel kit with A/C switch and rear heater switch
- 30) Is necessary only for cabin application, not necessary with a second compressor
- 31) Power steering, alternator bracket and hoses
- 32) Belt 62013687A must be added
- 33) Only for vehicles with heating BEHR
- 34) Front-Wheel Drive

# Application of an integrated transport refrigeration system

Webasto integrated transport refrigeration systems are suitable for fresh produce delivery (> 0 °C) and for deep frozen cargo (< 0 °C). They are available in various capacities up to 3,660 W. An optional stand-by function allows operation independently of the engine. The system components are fully integrated into the vehicle and can be tailored to the individual application and requirements. Vehicle-specific installation kits are available.



### **Transport refrigeration systems**

## Integrated, battery drive





# Battery-operated transport refrigeration system, fully integrated in vehicles with cargo space volumes up to 5 m³ for transporting perishables.

Transport refrigeration systems ensure that perishables can be transported across long distances at optimum temperatures so they arrive at their destination in perfect condition. Suitable for cold and frozen goods (working range -20/+10 °C), the Frigo Top 10 is Webasto's unique solution for smaller transport vehicles with an air-conditioning system but no space for an additional compressor in the engine compartment. The compressor, motor and condenser of the compact Frigo Top 10 are completely integrated under the chassis so there is no protrusion that changes your vehicle's visual appearance and fuel is saved. It also features an auto switch-off device with low battery voltage. Powered directly by the vehicle battery, installation is easy, with no need to connect engine-driven compressors and no roof drilling. Proven Webasto quality and reliability are built in, so you can look forward to accustomed efficiency and the all-important long life time.

- Cooling capacity up to 1,135 W
- Automatic temperature regulation and defrost function deliver high efficiency cooling in all temperature ranges
- High-quality reliable components from proven series-production processes
- Easy installation and maintenance
- ATP (Accord Transport Perissable) certification

#### **Technical data**

Model overview	Frigo Top 10 I-E	Frigo Top 10 I-ES	Frigo Top 10 I-ESG				
Refrigerant	R40	04A	R452A				
Cooling capacity according to ATP standard, at ambient temperature of +30 °C and compartment temperature of 0 °C, in engine/stand-by operation optional (W)	1,022/-	1,022/1,108	1,119/1,135				
Cooling capacity according to ATP standard, at ambient temperature of +30 °C and compartment temperature of -10 °C, in engine/stand-by operation optional (W)	722/-	722/776	750/748				
Cooling capacity according to ATP standard, at ambient temperature of +30 °C and compartment temperature of -20 °C, in engine/stand-by operation optional (W)	389/-	389/403	352/349				
Nominal Voltage (V)							
Air Flow in m³/h	74	759					
Max. Current absorption (A) Engine operation 12 V	6	5	60				
Max. Current absorption (A) Stand-by operation 230 V	-	1	0				
Dimensions L x W x H (mm) Condenser unit		481 x 265 x 124					
Dimensions L x W x H (mm)  Evaporator unit		660 x 530 x 158					
Dimensions L x W x H (mm)  Motor compressor	465 x 455 x 240						
Weight (kg) Condenser unit	2.8						
Weight (kg) Evaporator unit	11						
Weight (kg) Motor compressor unit	25.0						

The performance data for your application may differ from the nominal value.

#### Frigo Top 10

Model overview	Scope of delivery	Order number
Frigo Top 10 I-E 12 V	Transport refrigeration system with refrigerant R404A, including motor-pulley-compressor module, condenser, evaporator, installation kit, without stand-by module, automatic temperature regulation, defrost kit, product documentation*	6235097B
Frigo Top 10 I-ES 12 V/230 V	Transport refrigeration system with refrigerant R404A, including motor-pulley-compressor module, condenser, evaporator, installation kit, with stand-by module, automatic temperature regulation, defrost kit, product documentation*	6232186B
Frigo Top 10 I-ESG 12 V/230 V R452A	Transport refrigeration system with refrigerant R452A, including motor-pulley-compressor module, condenser, evaporator, installation kit, with stand-by module, automatic temperature regulation, defrost kit, product documentation*	6244178A
Accessories		
Cut off device for battery protection specific for Mercedes vehicles	-	6234421A
Vehicle-specific installation kits	Bracket for condenser and motor/compressor module	On request

<sup>\*</sup> To complete the installation: Compressor, compressor mounting kit, compressor fittings – depending on application.

### **Transport refrigeration systems**

### Integrated solutions, direct drive





#### Transport refrigeration system fully integrated into the vehicle. Optimum component combinations thanks to modular system.

The transport refrigeration systems ensure that perishable goods can be transported over long distances at the optimum temperature and reach their destination in perfect condition. The components of this cooling system, such as evaporators, condensers and compressors as well as a large range of accessories can be combined to give individually tailored solutions. This gives a high degree of flexibility and adaptability to different applications as specified by the customer. With powerful fans, they offer reliability and a long life, important factors in transport refrigeration. Depending on the desired temperature range, the system can be filled with the refrigerant R134a or R404A. An electric motor is available as an option for stand-by operation.

#### Pordoi

Modular system for almost all light-duty vehicles. The fully integrated design ensures that neither the exterior appearance nor the aerodynamics of the vehicle are negatively affected.

#### Stand-by module:

The stand-by module is used to keep the transport refrigeration system working at set temperature when the vehicle is still and connected to the power network. The stand-by module grants the cooling power declared with ATP certification only for the refrigerant R134a.

**Technical data** 

Model overview	Pordo	i 2000	Pordo	i 3000	Pordoi 4000		
			Stand-by น	ınit optional			
Refrigerant	R404A	R134a	R404A	R134a	R404A	R134a	
Cooling capacity according to ATP standard, at ambient temperature of +30 °C and compartment temperature of 0 °C, in engine/stand-by operation optional (W)	2,493/753	1,565/1,233	2,799/890	2,203/1,636	3,660/1,133	2,616/1,858	
Cooling capacity according to ATP standard, at ambient temperature of +30 °C and compartment temperature of -20 °C, in engine/stand-by operation optional (W)	1,206/-	_	1,332/-	_	1,926/-	-	
Cooling capacity according to ATP standard, at ambient temperature of +30 °C and compartment temperature of +5 °C, in engine/stand-by operation optional (W)	_	1,895/1,539	_	2,714/1,994	-	3,101/2,329	
Nominal voltage (V)				12			
Air flow (m³/h)	67	70	1,0	)40	1,5	34	
Max. total current absorption at 12 V, in engine/stand-by operation (A)	(*),	/14	(*)/16				
Dimensions Condenser unit Evaporator unit L x W x H (mm)	(° 660 x 50	,		*) 00 x 157	(*) 1,000 x 500 x 157		
Weight Condenser unit Evaporator unit (kg)	(: 7	*)		*) ).5	(* 12		
Accessories	Stand-by unit (**)						

- Tailor-made refrigeration units for commercial vehicles with cargo spaces up to 18 m<sup>3</sup>
- Cooling capacity up to 3,660 W
- Automatic temperature regulation
- High efficiency in all temperature ranges

■ Integrated system

- High-quality reliable components from proven series production
- ATP (Accord Transport Perissable) certification for all units

#### Pordoi 2000

Model overview	Scope of delivery	Order number
Pordoi 2000	Evaporator unit with refrigerant R404A, product documentation	62U003FF109ED
Pordoi 2000	Evaporator unit with refrigerant R134a, product documentation	62U003FF123EC
Accessories		
Stand-by unit		62U006SB04F

#### Pordoi 3000

Model overview	Scope of delivery	Order number
Pordoi 3000	Evaporator unit with refrigerant R404A, product documentation	62U003FF111ED
Pordoi 3000	Evaporator unit with refrigerant R134a, product documentation	62U003FF110ED
Accessories		
Stand-by unit		62U006SB04F

#### Pordoi 4000

Model overview	Scope of delivery	Order number
Pordoi 4000	Evaporator unit with refrigerant R404A, product documentation	62U003FF112ED
Pordoi 4000	Evaporator unit with refrigerant R134a, product documentation	62U003FF113ED
Accessories		
Stand-by unit		62U006SB04F

The performance data for your application may differ from the nominal values.

The following pages contain an overview of the available vehicle-specific installation kits. These contain a compressor with bracket, condenser with bracket, collector/dryer, pressure switch, cable harness, refrigerant lines and joints.

\* Depending on application \*\* ATP certification is available only for R134a

# **Transport refrigeration systems**

# Transport refrigeration kit for integrated solutions

Model							E	a cle	Evaporator to be added	
	Emissions standard	Model year	Engine displacement	윺	Cylinders	Notes	With original vehicle air-conditioning system	Without original vehicle air-conditioning system	Part no.	Evaporator with valve (R134a) P/N
Citroën										
Berlingo 1.6 HDI	Euro 5		1560	75/92	4			Х	622HDPE002FB	62U003FF108ED
Jumper 2.2 HDI	Euro 4	from 2006	2198	101	4		Х		6231182A	62U003FF110ED
Jumper 2.2 HDI	Euro 4	from 2006	2198	101	4		Х		6231182A	62U003FF113ED
Jumper 2.2 HDI	Euro 4	from 2006 from 2006	2198 2198	101	4			X	622HDFI001FB 622HDFI001FB	62U003FF110ED 62U003FF113ED
Jumper 2.2 HDI Jumper 2.2 HDI	Euro 4	from 2010	2198	100	4			x	622HDCI005FA	62U003FF113ED
Jumper 2.3 MJT	Euro 4	from 2006	2198	120	4		х	^	621HDFI008EC	62U003FF110ED
Jumper 2.3 MJT	Euro 4	from 2006	2287	120	4		X		621HDFI008EC	62U003FF113ED
Jumper 2.8HDI		from 2001	2798	127	4		X		621HDFI002EA	62U003FF110ED
Jumper 3.0 HDI	Euro 4	from 2006	2999	157	4			х	622HDFI003FB	62U003FF113ED
Jumper 3.0 HDI	Euro 4	from 2006	2999	157	4			X	622HDFI003FB	62U003FF110ED
Jumpy 1.6 HDI	Euro 4	from 2007	1560	90	4		х		621HDFI012EA	62U003FF108ED
Jumpy 1.6 HDI	Euro 4	from 2007	1560	90	4		х		621HDFI012EA	62U003FF110ED
Jumpy 1.6 Blue HDI	Euro 6	from 2016	1560	95-115	4			Х	6241866B	62U003FF108ED
Jumpy 1.6 Blue HDI	Euro 6	from 2016	1560	95-115	4			х	6241866B	62U003FF110ED
Jumpy 2.0 HDI	Euro 4	from 2007	1997	120	4		х		621HDFI011EA	62U003FF110ED
Jumpy 2.0 HDI	Euro 4	from 2007	1997	120/136	4			х	622HDFI004FA	62U003FF110ED
Jumpy 2.0 HDI	Euro 5	from 2010	1997	163	4			х	622HDFI011FC	62U003FF110ED
Jumpy 2.0 HDI	Euro 5	from 2010	1997	163	4		х		621HDFI020EA	62U003FF108ED
Jumpy 2.0 HDI	Euro 5	from 2010	1997	163	4		х		621HDFI020EA	62U003FF110ED
Jumpy 2.0 Blue HDI	Euro 6	from 2010	1997	128-163	4			х	6244080A	62U003FF108ED
Jumpy 2.0 Blue HDI	Euro 6	from 2010	1997	128-163	4			х	6244080A	62U003FF110ED
FIAT						ı				
Doblò 1.3 MJT 16 V	Euro 5	from 2010	1248	75	4			х	622HDFI009FA	62U003FF108ED
Doblò 1.3 MJT	Euro 5	from 2010	1248	90	4			х	6240889A	62U003FF108ED
Doblò 1.3 MJ	-	from 2004	1248	69	4		х		621HDFI003EB	62U003FF108ED
Doblò 1.3 MJ	Euro 4	from 2010	1248	90	4		х		621HDFI014EA	62U003FF108ED
Doblò 1.6 MJ	Euro 4	from 2010	1598	105	4		х		621HDFI015EA	62U003FF108ED
Doblò 1.6 MJ	Euro 4	from 2010	1598	105	4		х		621HDFI015EA	62U003FF110ED
Nuovo Doblo' Cargo 1.6 MJT II	Euro 6	from 2016	1598	95-105	4			х	6242084C	62U003FF108ED
Nuovo Doblo' Cargo 1.6 MJT II	Euro 6	from 2016	1598	95-105	4			х	6242084C	62U003FF110ED
Doblò 1.9 JTD	-	from 2003	1910	105	4		х		621HDFI007EB	62U003FF108ED
Doblò Cargo 1.3 (69HP) MJ.	Euro 3/4	from 2004	1248	69	4			х	622HDFI012FA	62U003FF108ED
Doblò Cargo 1.4 (120HP) T-Jet Nat	Euro 5/6	from 2011	1368	120	4			х	622HDFI015FA	62U003FF108ED
Doblò Cargo 1.4 (95HP) Benz.	Euro 4	from 2007	1368	95	4			х	622HDFI008FA	62U003FF108ED
Doblò Cargo 1.6 (105HP) MJT	Euro 5		1598	105	4			х	622HDFI006FA	62U003FF108ED
Doblò Cargo 1.9 (105HP) MJ.	Euro 4	from 2007	1910	105	4			х	622HDFI014FA	62U003FF108ED
Doblò Cargo 2.0 (135HP) MJT	Euro 5		1956	135	4			Х	622HDFI006FA	62U003FF110ED
Nuovo Doblo' Cargo 2.0 MJT II	Euro 6	from 2016	1956	135	4			Х	6242084C	62U003FF108ED
Nuovo Doblo' Cargo 2.0 MJT II	Euro 6	from 2016	1956	135	4			х	6242084C	62U003FF110ED
Ducato 2.0 MJ	Euro 5	from 2007	1956	115	4		х		621HDFI018EA	62U003FF110ED
Ducato 2.0 MJ	Euro 5	from 2008	1956	115	4		х		621HDFI018EA	62U003FF113ED
Ducato 2.0 Mjt (SP15)	Euro 5	from 2011	1956	115	4			Х	622HDFI013FA	62U003FF110ED
Ducato 2.0 Mjt (SP15)	Euro 5	from 2011	1956	115	4			Х	622HDFI013FA	62U003FF113ED
Ducato 2.0 Mjt (TM15)	Euro 5	from 2011	1956	115	4			Х	622HDFI010FA	62U003FF110ED

Model			<u></u>				e H	hicle tem	Evaporator to be added	
	Emissions standard	Model year	Engine displacement	윺	Cylinders	Notes	With original vehicle air-conditioning system	Without original vehicle air-conditioning system	Part no.	Evaporator with valve (R134a) P/N
Ducato 2.0 Mjt (TM15)	Euro 5	from 2011	1956	115	4			x	622HDFI010FA	62U003FF113ED
Ducato 2.2 MJ R134a	Euro 4	from 2006	2198	101	4		х		6231182A	62U003FF110ED
Ducato 2.2 MJ R134	Euro 4	from 2006	2198	101	4		Х		6231182A	62U003FF113ED
Ducato 2.2 MJ	Euro 4	from 2006	2198	101	4			х	622HDFI001FB	62U003FF110ED
Ducato 2.2 MJ	Euro 4	from 2006	2198	101	4			x	622HDFI001FB	62U003FF113ED
Ducato 2.3 MJ	_	from 2006	2287	120	4		Х		621HDFI008EC	62U003FF110ED
Ducato 2.3 MJ	_	from 2006	2287	120	4		х		621HDFI008EC	62U003FF113ED
Ducato 2.8JTD (Serie 244)	-	from 2003	2798	127	4		х		621HDFI002EA	62U003FF110ED
Ducato X 250 2.2 MJT	Euro 4	from 2006	2287	120	4L			х	622HDFI001FB	62U003FF110ED
Ducato X 250 2.2 MJT	Euro 4	from 2006	2287	120	4L			х	622HDFI001FB	62U003FF113ED
Ducato X250 2.3 MJT	Euro 4/5	from 2006	2287	120	4L			х	6243998A	62U003FF110ED
Ducato X250 2.3 MJT	Euro 4/5	from 2006	2287	120	4L			х	6243998A	62U003FF113ED
Ducato X250 3.0 MJT	Euro 4	from 2006	2999	157	4			х	622HDFI003FB	62U003FF110ED
Ducato X250 3.0 MJT	Euro 4	from 2006	2999	157	4			х	622HDFI003FB	62U003FF113ED
Fiorino 1.3 MJT 16 V	Euro 4	from 2008	1248	75	4			х	6240902A	62U003FF108ED
Fiorino 1.3 MJT 16 V	Euro 5	from 2010	1248	75	4			х	622HDFI009FA	62U003FF108ED
Scudo 1.6 MJ	Euro 4	from 2007	1560	90	4		х		621HDFI012EA	62U003FF108ED
Scudo 1.6 MJ	Euro 4	from 2007	1560	90	4		Х		621HDFI012EA	62U003FF110ED
Scudo 1.6 MJ	Euro 4	from 2007	1560	90	4	3)		х	622HDFI007FA	62U003FF108ED
Scudo 1.6 MJ	Euro 4	from 2007	1560	90	4	3)		х	622HDFI007FA	62U003FF110ED
Scudo 2.0 MJ	Euro 4	from 2007	1997	120	4		х		621HDFI011EA	62U003FF110ED
Scudo 2.0 MJ	Euro 4	from 2007	1997	120/136	4			х	622HDFI004FA	62U003FF110ED
Scudo 2.0 MJT/HDI	Euro 5	from 2010	1997	163	4		х		621HDFI020EA	62U003FF108ED
Scudo 2.0 MJT/HDI	Euro 5	from 2010	1997	163	4		х		621HDFI020EA	62U003FF110ED
Ford										
Transit (Custom) 2.2 TDCI	Euro 5	from 2012	2200	100-125	4	10)		x	622HDFO003FA	62U003FF110ED
Transit (Custom) 2.2 TDCI	Euro 5	from 2012	2200	100-125	4	10)		х	622HDFO003FA	62U003FF113ED
Transit (Custom) 2.2 TDCI	Euro 5	from 2012	2200	100-125	4		x		621HDFO006SA	62U003FF110ED
Transit (Custom) 2.2 TDCI	Euro 5	from 2012	2200	100-125	4		X		621HDFO006SA	62U003FF113ED
	Euro 6	from 2016		105/130/170	4	10)	^	X	6243086A	62U003FF110ED
Transit (Custom) 2,0 EcoBlue										
Transit (Custom) 2,0 EcoBlue Transit (Custom) 2,0 EcoBlue	Euro 6	from 2016 from 2016		105/130/170	4	10)		X X	6243086A 6241827A	62U003FF113ED 62U003FF110ED
(Engine YNR6)	Edio 0	110111 2010	1330	1037 1307 170		12)		^	02410277	0200031111020
Transit (Custom) 2,0 EcoBlue (Engine YNR6)	Euro 6	from 2016	1996	105/130/170	4	12)		x	6241827A	62U003FF113ED
Connect 1.5 TDCi (6 gear box)	Euro 6	from 2016	1499	75/100/120	4			х	6241354A	62U003FF108ED
Connect 1.5 TDCi (6 gear box)	Euro 6	from 2016	1499	75/100/120	4			х	6241354A	62U003FF110ED
Transit 2.2 TDCI	Euro 5	from 2012	2198	101	4	4)	х		621HDFO005EB	62U003FF110ED
Transit Connect 1.6 E5 – 6 Speed	Euro 6	from 2014	1560	75 - 95 - 115	4			х	6240604A	62U003FF108ED
lveco										
Daily 2.3 HPI	Euro 4	2003 – 2006	2286	116	4			x	622HDIV004SA	62U003FF110ED
Daily 2.3 HPI	Euro 4	2003 – 2006	2286	116	4			х	622HDIV004SA	62U003FF113ED
Daily 2.3 HPI	Euro 5/5B+/6	to 05-2014	2286	106/126	4	11)		х	622HDIV005SA	62U003FF110ED

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Daily 3.0         Euro 5/5b+         to 05-2014         2998         107/150         4         x         622HDIV006SB           Daily 3.0 HPT         Euro 5         to 05-2014         2998         145/170         4         x         621HDIV007EA	Evaporator with valve (R134a) P/N
Daily 3.0         Euro 5/5b+         to 05-2014         2998         107/150         4         x         622HDIV006SB           Daily 3.0 HPT         Euro 5         to 05-2014         2998         145/170         4         x         621HDIV007EA	62110025511255
Daily 3.0 HPT         Euro 5         to 05-2014         2998         145/170         4         x         621HDIV007EA	62U003FF113ED
	62U003FF110ED
Daily 3.0 HPT         Euro 5         to 05-2014         2998         145/170         4         x         621HDIV007EA	62U003FF110ED
	62U003FF113ED
Daily 3.0 JTD - 2003 - 2006 3000 169/177 4 x 622HDIV001SB	62U003FF110ED
Daily 3.0 JTD         -         2003 - 2006         3000         169/177         4         x         622HDIV001SB	62U003FF113ED
Daily 3.1         Euro 5/5b+         from 2010         2998         107/150         4         x         622HDIV006SB	62U003FF113ED
Mercedes-Benz	
Sprinter 2.2 CDI (MB N63)         Euro 4         from 2010         2143         163         4         x         6243136A	62U003FF110ED
Sprinter 2.2 CDI (MB N63)         Euro 4         from 2010         2143         163         4         x         6243136A	62U003FF113ED
Sprinter 2.2 CDI E4 OM 646 DELA         -         2006 –         2148         150         4         x         622HDMB002SB	62U003FF110ED
Sprinter 2.2 CDI E4 OM 646 DELA         -         2006 –         2148         150         4         x         622HDMB002SB	62U003FF113ED
Sprinter 3.0 CDI (Tend. Orig.)         Euro 4/5/         to 2006         2987         184         6         x         622HDMB009SA           OM 642DELA         5b+/6         x         5b+/6         x         622HDMB009SA	62U003FF110ED
Sprinter 3.0 CDI (Tend. Orig.)         Euro 4/5/         to 2006         2987         184         6         x         622HDMB009SA           OM 642DELA         5b+/6         x         5b+/6         x         622HDMB009SA	62U003FF113ED
Sprinter 316 2.2 CDI OM651         Euro 5         to 2009         2143         163         4         x         622HDMB008SB           DE22LA (not fittable for vehicles BlueEfficiency)         8         9         8         8         8         9         8         8         9         8         9         8         9         8         9         8         9         8         9         8         9         9         8         9         8         9         9         8         9         9         8         9         9         8         9         9         8         9         9         9         8         9 <td>62U003FF110ED</td>	62U003FF110ED
Sprinter 316 2.2 CDI OM651         Euro 5         to 2009         2143         163         4         x         622HDMB008SB           DE22LA (not fittable for vehicles BlueEfficiency)         BlueEfficiency         2143         163         4         x         622HDMB008SB	62U003FF113ED
Sprinter 316 NGT M271 E18 ML (MZ2)         Euro 4         from 2009         2987         115/156         4         x         6240094A	
Vito 111-115 2.2 CDI         not defined         from 2003         2148         110-150         4         x         622HDMB006SA	62U003FF110ED
Vito 111-115 2.2 CDI         not defined         from 2003         2148         110-150         4         x         622HDMB006SA	62U003FF113ED
Vito 2.2 CDI (engine OM 646)         Euro 4         from 2003         2148         109         4         x         621HDMB003EC           OM 651 (Euro 5)         621HDMB003EC         621HDMB003EC         621HDMB003EC         621HDMB003EC         621HDMB003EC	62U003FF110ED
Vito 2.2 CDI (engine OM 646)         Euro 4         from 2003         2148         109         4         x         621HDMB003EC           OM 651 (Euro 5)         621HDMB003EC         621HDMB003EC	62U003FF113ED
Nissan	
Interstar 2.5 DCI         Euro 4         from 2006         2464         120         4         x         622HDRE001SA	62U003FF110ED
Interstar 2.5 DCI         Euro 4         from 2006         2464         120         4         x         622HDRE001SA	62U003FF113ED
NV200 1.5 DCI Euro 5 from 2010 1462 86 4 x 622HDNI003FA	62U003FF108ED
NV300 1.6 DCi Euro from 2016 1598 95-125-145 4 x 6242153A 5B+/6	62U003FF108ED
NV400 2.3 Euro 4/5 from 2010 2298 125 4 x 622HDRE006SA	62U003FF110ED
NV400 2.3 Euro 5B+ from 2010 2298 135-165 4 x x 6235258A	62U003FF110ED
Primastar 2.0 DCI         Euro 5         from 2010         1995         90-114         4         5)         x         622HDRE007SA	62U003FF108ED
Primastar 2.0 DCI         Euro 5         from 2010         1995         90-115         4         x         621HDRE015A	62U003FF108ED
Primastar 2.0 DCI         Euro 4         from 2006         1995         90         4         6)         x         622HDRE009SA	62U003FF108ED
Opel	
Combo 1.4 Metan         Euro 5         from 2011         1368         120         4         x         622HDFI015FA	62U003FF108ED
	62U003FF108ED

Model	Emissions standard	Model year	Engine displacement	두	Cylinders	Notes	With original vehicle air-conditioning system	Without original vehicle air-conditioning system	er o o Evaporator	Evaporator with pp valve (R134a) P/N
Movano 2.3 Twin Turbo	Euro 5B+	from 2010	2298	135-165	4		х	х	6235258A	62U003FF110ED
Movano 2.5 DCI	Euro 4	from 2006	2464	120	4			х	622HDRE001SA	62U003FF110ED
Movano 2.5 DCI	Euro 4	from 2006	2464	120	4			х	622HDRE001SA	62U003FF113ED
Vivaro 1.6 DCi	Euro 5B+/6	from 2016	1598	95-125-145	4			х	6242153A	62U003FF108ED
Vivaro 2.0 DCI	Euro 5	from 2010	1995	90-115	4		х		621HDRE015A	62U003FF110ED
Vivaro 1.6 CDTi Biturbo	Euro 5B+		1598	120-140	4			х	6242153A	62U003FF110ED
Peugeot										
Boxer 2.0 EcoBlue HDI	Euro 6	from 2016	1997		4		х	х	6244132A	62U003FF110ED
Boxer 2.0 EcoBlue HDI	Euro 6	from 2016	1997		4		х	х	6244132A	62U003FF113ED
Boxer 2.2 HDI	Euro 4	from 2006	2198	101	4		х		6231182A	62U003FF110ED
Boxer 2.2 HDI	Euro 4	from 2006	2198	101	4		х		6231182A	62U003FF113ED
Boxer 2.2 HDI	Euro 4	from 2006	2198	101	4			x	622HDFI001FB	62U003FF110ED
Boxer 2.2 HDI	Euro 4	from 2006	2198	101	4			х	622HDFI001FB	62U003FF113ED
Boxer 2.2 HDI	Euro 5	from 2010	2198	100	4			х	622HDCI005FA	62U003FF110ED
Boxer 2.3 MJT	Euro 4	from 2006	2287	120	4		х		621HDFI008EC	62U003FF110ED
Boxer 2.3 MJT	Euro 4	from 2006	2287	120	4		х		621HDFI008EC	62U003FF113ED
Boxer 3.0 HDI	Euro 4	from 2006	2999	157	4			х	622HDFI003FB	62U003FF110ED
Boxer 330-350 2.8HDI	-	from 2003	2798	127	4		х		621HDFI002EA	62U003FF110ED
Expert 1.6 HDI	Euro 4	from 2007	1560	90	4		х		621HDFI012EA	62U003FF108ED
Expert 1.6 HDI	Euro 4	from 2007	1560	90	4		х		621HDFI012EA	62U003FF110ED
Expert 1.6 MJ HDI	Euro 5	from 2011	1560	90	4			х	622HDFI020FA	62U003FF108ED
Expert 1.6 MJ HDI	Euro 5	from 2011	1560	90	4			х	622HDFI020FA	62U003FF110ED
Expert 1.6 Blue HDI	Euro 6	from 2016	1560	95-115	4			х	6241866B	62U003FF108ED
Expert 1.6 Blue HDI	Euro 6	from 2016	1560	95-115	4			х	6241866B	62U003FF110ED
Expert 2.0 HDI	Euro 4	from 2007	1997	120	4		х		621HDFI011EA	62U003FF110ED
Expert 2.0 HDI	Euro 4	from 2007	1997	120/136	4			х	622HDFI004FA	62U003FF110ED
Expert 2.0 MJT/HDI	Euro 5	from 2010	1997	163	4		х		621HDFI020EA	62U003FF108ED
Expert 2.0 MJT/HDI	Euro 5	from 2010	1997	163	4		х		621HDFI020EA	62U003FF110ED
Expert 2.0 HDI	Euro 5	from 2010	1997	163	4			х	622HDFI011FC	62U003FF110ED
Expert 2.0 Blue HDI	Euro 6	from 2010	1997	128-163	4			х	6244080A	62U003FF108ED
Expert 2.0 Blue HDI	Euro 6	from 2010	1997	128-163	4			x	6244080A	62U003FF110ED
Partner 1.6 HDI	Euro 5	110111 2010	1560	75/92	4			x	622HDPE002FB	62U003FF108ED
Renault	Luio 3		1300	73732	4			^	OZZIIDI LOOZI B	02000311100ED
Kangoo 1.5 DCI	Euro 5		1461	75	4		x		621HDRE014EA	62U003FF108ED
		from 2000								
Kangoo 1.5 DCI (engine K9K)	Euro 4	from 2008	1461	68/86/105	4		Х		621HDRE012EA	62U003FF108ED
Kangoo 1.5 DCI (engine K9K)	Euro 5	from 2011	1461	68/86/105	4			X	622HDRE010FA	62U003FF108ED
Master 2.3 DCI Rear-wheel drive	Euro 5	from 2010	2298	125	4			X	622HDRE008SA	62U003FF110ED
Master 2.3 DCl with PTO R134a	Euro 5	from 2010	2298	125	4			Х	622HDRE006SA	62U003FF110ED
Master 2.3 Twin Turbo	Euro 5B+	from 2010	2298	135-165	4		Х	Х	6235258A	62U003FF110ED
Master 2.5 DCI	Euro 4	from 2006	2464	120	4			Х	622HDRE001SA	62U003FF110ED
Trafic 2.0 DCI	Euro 5	from 2010	1995	90-115	4	5)		Х	622HDRE007SA	62U003FF110ED
Trafic 2.0 DCI	Euro 5	from 2010	1995	90-115	4		х		621HDRE015A	62U003FF110ED
Trafic 2.0 DCI (not prepared)	-	from 2006	1995	90	4	6)		х	622HDRE009SA	62U003FF110ED
Trafic 1.6 CDTi Single-/Bi-Turbo	Euro 5B+/6	from 2016	1598	95-125-145	4			x	6242153A	62U003FF110ED

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Model			Ħ				e tem	l vehicle system	Evaporator to be added	
	Emissions standard	Model year	Engine displacement	Đ.	Cylinders	Notes	With original vehicle air-conditioning system	Without original vehicle air-conditioning system	Part no.	Evaporator with valve (R134a) P/N
Volkswagen										
Caddy 1.6 TDI	Euro 4/5	to 09/2015	1598		4			х	6235704A	62U003FF108ED
Caddy 1.9 TDI – 2.0SDI (engine BDJ)	-	from 2004	1968	69	4				62A01001A	
Caddy 2,0 BiFuel	Euro 4/5	to 09/2015	1968		4			х	6235704A	62U003FF108ED
Crafter 2.0 TDI without A/C	Euro 5	from 2009	1968	106/163	4		х		621HDVW005EB	62U003FF110ED
Crafter 2.0 TDI	Euro 5	2006-2011	1968	109-163	4			х	622HDVW004SC	62U003FF110ED
Under chassis condenser kit									62A031023C	
T5 2.0 TDI	Euro 5								6235578A	62U003FF113ED
T5 2.0 TDI 5 gear box	Euro 5	from 2009	1968	82-102	4			х	622HDVW005SA	62U003FF110ED
T5 2.0 TDI Automatic Transmission	Euro 5	from 2009	1968	140-180	4			х	622HDVW007SA	62U003FF110ED

- Only for neg. temp. (R404A) the kit includes oil separator, wiring resistor and defrost
   Hot gas defrost kit -> defrosting of the evaporator fins: For temperature over 5 °C the kit is optional, for temperatures lower than 5 °C the kit is mandatory, for temperatures between 0 °C and 5 °C the kit is strongly recommended above all when there is a long use of the vehicle or when the door is often opened.
   For vehicles to November 2010 with Euro 4 and with original compressor
- 4) Condenser under chassis
- 5) Verify on the fitting manual if the engine block is correct

- No not install on Euro 5 vehicles
   Kit for vehicle with one radiator fan
   Adidtional kit for vehicle with double radiator fan
- 9) Kit under chassis condenser for heavy duty application 62A03966A to be ordered separately
- 11) For Euro 6 installations special care for the positioning of the below chassis condenser must be taken not to interfere with the existing urea filter
- 12) Rear-weel Drive

General components	Refrigerant	Voltage (V)	Order number
Evaporator unit for Pordoi 2000 – prepared for hot gas defrosting function	R134a		62U003FF108ED
Evaporator unit for Pordoi 2000 – prepared for hot gas defrosting function	R404A		62U003FF109ED
Evaporator unit for Pordoi 3000 – prepared for hot gas defrosting function	R134a		62U003FF110ED
Evaporator unit for Pordoi 3000 – prepared for hot gas defrosting function	R404A		62U003FF111ED
Evaporator unit for Pordoi 4000 – prepared for hot gas defrosting function	R404A		62U003FF112ED
Evaporator unit for Pordoi 4000 – prepared for hot gas defrosting function	R134a		62U003FF113ED
Evaporator unit for Pordoi 4000 – prepared for hot gas defrosting function	R404A	24	62U003FF099EE
Hot gas defrost kit		12	62U003AA133A
Hot gas defrost kit		24	62U003AA144A
Hot gas "light" defrost kit for positive temperatures			62U003AA137A
Low pressure switch kit			62U003AA132B
Oil separator kit			62U003AA044A
Sight glass			62U003AA131A
Wiring resistor to defrost the condensate drain for negative temperatures			62U003AA143A
Controller programming tool			620682827A
New stand-by PS 1000 (60 A – 12 V) w/o accessories			62U006SB04F
Accessories for stand-by		<u>'</u>	
Oil separator kit			62U003AA044A
Sight glass			62U003AA131A
Hot gas "light" defrost kit for positive temperatures			62U003AA137A
Low pressure switch kit			62U003AA132B
Extension cable			62A031092A

### Transport refrigeration kit for integrated solutions



#### Defrost kit

Defrost of the evaporator fins: for temperatures above 5 °C, the kit is optional, for temperatures below that it is obligatory; for temperatures between 0 °C and 5 °C, the kit is strongly recommended/necessary especially when the vehicle is in service for long periods.



### De-icing kit

The kit includes a heating wire to keep the evaporator drain hose frost-free allowing a correct drain flow after defrosting.



#### Low pressure switch

Swiches off the compressor when pressure goes below the lowest value.



### Oil separator kit

This additional filter must be installed in R404a applications and is recommended when Set Point is  $< 5\,^{\circ}\text{C}$ .



### Liquid line eyes kit

It is used to check the gas inside the system, when bubbles appear the reasons can be:

- Sub cooling not enough
- Refrigerant quantity not good enough
- Condenser overheating (too small)
- Receiver drier too small
- Receiver drier obstructed

### As indicated by the order numbers, our transport refrigeration kits contain the following:

### Scope of delivery

Transport refrigeration kit 621HD, 622HD...F

- Compressor
- Compressor installation kit
- Condenser with mount for front mounting
- Collector/dryer
- Pressure switch
- Cable harness
- Refrigerant lines and connections

### Please note when ordering

- For above-freezing temperatures: evaporator with refrigerant R134a
- For freezing temperatures: evaporator with refrigerant R404A

### Scope of delivery

Transport refrigeration kit 622HD...S

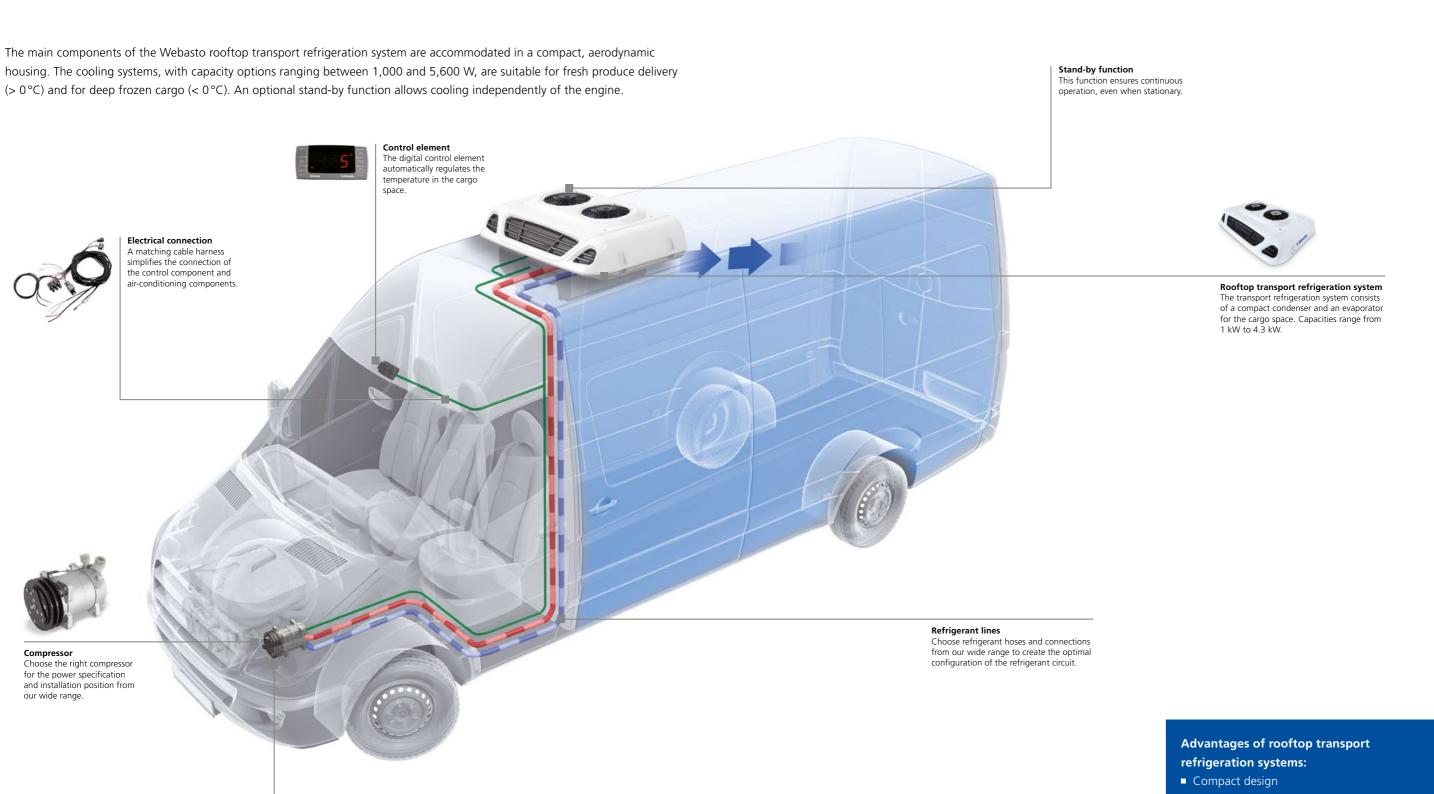
- Compressor
- \_ ' . . ..
- Compressor installation kit
- Condenser with mount for underbody mounting
- Collector/dryer
- Pressure switch
- Cable harness
- Refrigerant lines and connections

# Application of a rooftop transport refrigeration system

Installation kit for compressor

Vehicle-specific installation kits ensure

easy fitting and reliable operation of the



- Integrated compressor in the condenser unit of all battery-operated solutions
- Optimum harmonization of air-conditioning components
- Quick and easy installation

### Rooftop solutions, direct drive





# Transport refrigeration systems for light-duty vehicles transporting perishable goods. Maximum performance, compact, easy to install, for cargo spaces up to 23 m<sup>3</sup>.

The transport refrigeration systems ensure that perishable goods can be transported over long distances at the optimum temperature and reach their destination in perfect condition. In these systems, which have been designed for light-duty vehicles with a cargo space for sensitive products, the compressor is integrated into the vehicle. Thanks to a wide range of installation kits, the compressor can be installed in various different vehicle models. With powerful fans, they offer reliability and a long lifetime, important factors in transport refrigeration. Depending on the desired temperature range, the system can be filled with the refrigerant R134a, R404A or R452A.

#### Frigo Top

The transport refrigeration systems with direct drive, high capacity and very low maintenance requirements for vehicles with cargo spaces up to 23 m<sup>3</sup>. The flexible solutions are suitable for a very wide range of temperatures.

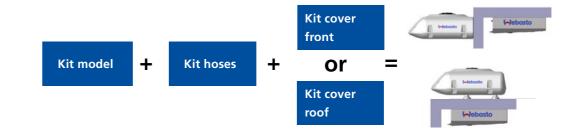
- Transport refrigeration for commercial vehicles with cargo spaces up to 23 m³
- Cooling capacity of up to 4,300 W
- Automatic temperature regulation
- High efficiency in all temperature ranges
- High-quality reliable components from proven series-production processes
- ATP (Accord Transport Perissable) certification for all units with refrigerant R134a and R452A

### Technical data

Cooling performance nominal (according ATP standard) in W at 30°C ambient temperature and compartment temperature o°C - Engine operation  Cooling performance nominal (according ATP standard) in W at 30°C ambient temperature o°C - Engine operation  Cooling performance nominal (according ATP standard) in W at 30°C ambient temperature and compartment temperature and compartment temperature -5°C - Engine operation  Cooling performance nominal (according ATP standard) in W at 30°C ambient temperature -10°C - Engine operation  Cooling performance nominal (according ATP standard) in W at 30°C ambient temperature and compartment temperature -10°C - Engine operation  Cooling performance nominal (according ATP standard) in W at 30°C ambient temperature and compartment temperature -20°C - Engine operation  Cooling performance nominal (according ATP standard) in W at 30°C ambient temperature -20°C	Model overview	Frigo 24 F			36 RT-D		38 RT-D		o Iop RT-D
Seconding ATP standard) in W at 30°C ambient temperature and compartment temperature and compartment temperature and compartment temperature and compartment temperature of Co-Engine operation	Refrigerant	R452A	R134a	R452A	R134a	R404A	R404A	R452A	R404A
(according ATP standard) in W at 30°C ambient temperature and compartment temperature o°C  Engine operation  Cooling performance nominal (according ATP standard) in W at 30°C ambient temperature and compartment temperature and compartment temperature and compartment temperature and (according ATP standard) in W at 30°C ambient temperature and (according ATP standard) in W at 30°C ambient temperature and (according ATP standard) in W at 30°C ambient temperature and (according ATP standard) in W at 30°C ambient temperature and (according ATP standard) in W at 30°C ambient temperature and (according ATP standard) in W at 30°C ambient temperature and compartment and compartment and compartment and compartment and compartmen	(according ATP standard) in W at 30°C ambient temperature and compartment temperature +5°C	_	2528.0	_	3310.0	_	_	_	_
(according ATP standard) in W at 30°C ambient temperature and compartment temperature -5°C — Engine operation — 1571.0 — 2286.0 — — — — — — — — — — — — — — — — — — —	(according ATP standard) in W at 30°C ambient temperature and compartment temperature 0°C	2421.0	2091.0	3674.0	2828.0	3550.0	3800.0	4220.0	4300.0
(according ATP standard) in W at 30°C ambient temperature and compartment temperature 10°C - Engine operation	(according ATP standard) in W at 30°C ambient temperature and compartment temperature -5°C	_	1571.0	_	2286.0	_	_	_	_
(according ATP standard) in W at 30°C ambient temperature and compartment temperature 20°C       1091.0       1512.0       1600.0       2040.0         Nominal Voltage (V)       12       12/24         Installation       Roof       Roof and Front       Roof and Front       Roof and Front         Air Flow in m³/h       984       1,743       1,743       1,743       1,743         Max. current absorption (A) Engine operation 12/24 V       21.5/-       42.0/-       31.0/-       42.0/-       42.0/-       42.0/21.0         Dimensions L x W x H (mm) Condenser unit (Roof)       900 x 496 x 190       1,115 x 663 x 194       900 x 496 x 190       1,115 x 663 x 194       900 x 496 x 190       1,115 x 585 x 194       <	(according ATP standard) in W at 30°C ambient temperature and compartment temperature -10°C	1776.0	_	2766.0	_	_	_	3065.0	_
Installation   Roof   Roof and Front   Air Flow in m³/h   984   1,743   1,743   1,743   1,743   1,743   1,984	(according ATP standard) in W at 30°C ambient temperature and compartment temperature -20°C	1091.0	_	1512.0	_	1600.0	1600.0	2040.0	2050.0
Air Flow in m³/h  Max. current absorption (A) Engine operation 12/24 V  21.5/-  Dimensions L x W x H (mm) Condenser unit (Roof)  Condenser unit (Front) Evaporator unit  Meight (kg) – Condenser  1,743  1,15x  1,663 x 194  1,115x 663 x 194  1,	Nominal Voltage (V)			1	2		'	12	/24
Max. current absorption (A)       Engine operation 12/24 V       21.5/-       42.0/-       31.0/-       42.0/-       42.0/-       42.0/21.0         Dimensions L x W x H (mm)       Condenser unit (Roof)       900 x 496 x 190       1,115 x 663 x 194       900 x 496 x 190       1,115 x 663 x 194       1,115 x 663 x 194       1,115 x 585 x 194       1,115 x 5	Installation	Ro	of	Roof ar	nd Front	Roof	Roof and Front	Roof ar	nd Front
Engine operation 12/24 V       21.5/-       42.0/-       31.0/-       42.0/-       42.0/-       42.0/21.0         Dimensions L x W x H (mm)       Condenser unit (Roof)       900 x 496 x 190       1,115 x 663 x 194       900 x 496 x 190       1,115 x 663 x 194       900 x 496 x 190       1,115 x 663 x 194       1,115 x 585 x 194       -       1,100 x 500 x 157       1,00	Air Flow in m³/h	98	34	1,743		1,743	1,743	1,9	984
Condenser unit (Roof)         900 x 496 x 190         1,115 x 663 x 194         900 x 496 x 190         1,115 x 663 x 194         900 x 496 x 190         1,115 x 663 x 194         1,115 x 663 x 194         1,115 x 585 x 194         1,115 x 663 x 194         1,115 x 585 x 194		21.5	/-	42.0/ –		31.0/-	42.0/-	42.0/	21.0
	Condenser unit (Roof) Condenser unit (Front)	_		1,115 x 585 x 194		_	1,115x585x194	1,115 x 5	85 x 194
Weight (kg) – Evaporator unit 10.0 12.5 18.5	Weight (kg) – Condenser	15.0	12.0	31.0	28.0	15.0	28.0	31	1.0
5 . 5	Weight (kg) – Evaporator unit	10	0.0		12	2.5		18	3.5

Model overview	Scope of delivery	Order number
Kit model Frigo Top 24 RT-D 12 V (R134a)	Condensing unit (with plastic covers) evaporators, accessories box, drilling template, documents	6241858B
Kit model Frigo Top 24 RT-D 12 V (R452A)	Condensing unit (with plastic covers) evaporators, accessories box, drilling template, documents	6241910B
Kit model Frigo Top 36 RT-D 12 V (R134a)	Condensing unit (w/o plastic covers) evaporators, accessories box, drilling template, documents	6242052B
Kit model Frigo Top 36 RT-D 12 V (R452a)	Condensing unit (w/o plastic covers) evaporators, accessories box, drilling template, documents	6242014B
Kit model Frigo Top 36 RT-D 12 V (R404A)	Condensing unit (with plastic covers) evaporators, accessories box, drilling template, documents	6242437B
Kit model Frigo Top 38 RT-D 12 V (R404A)	Condensing unit (w/o plastic covers) evaporators, accessories box, drilling template, documents	6242669B
Kit model Frigo Top 43 RT-D 12 V (R452A)	Condensing unit (w/o plastic covers) evaporators, accessories box, drilling template, documents	6242067B
Kit model Frigo Top 43 RT-D 24 V (R452A)	Condensing unit (w/o plastic covers) evaporators, accessories box, drilling template, documents	6242093B
Kit model Frigo Top 43 RT-D 12 V (R404A)	Condensing unit (w/o plastic covers) evaporators, accessories box, drilling template, documents	6242648B
Kit model Frigo Top 43 RT-D 24 V (R404A)	Condensing unit (w/o plastic covers) evaporators, accessories box, drilling template, documents	6242762B
Kit cover (front mounting) 12/24 V	Upper cover	6242056A
Kit cover (roof mounting) 12/24 V	Upper cover	6242054A
Kit hoses Frigo Top 24 RT-D R134a		6241951B
Kit hoses Frigo Top 24 RT-D R452A		6241947B
Kit hoses Frigo Top 36 RT-D R134a		6242057B
Kit hoses Frigo Top 36 RT-D R404-R452A		6242063B
Kit hoses Frigo Top 38 RT-D R404A		6242063B
Kit hoses Frigo Top 43 RT-D R404A-R452A		6242314B
Accessories		
De-icing kit		
Frigo Top 24		6231058A
Frigo Top 36 – 38		62U003AA143A
Frigo Top 43 12 V		6231060A
Frigo Top 43 24 V		6231061A
Heating kit		1
Frigo Top 24 (R452A) – 36 (R404A)		6242400A
Frigo Top 36 (R452A) – 38 (R404A)		6242401A
Frigo Top 43 12 V		6242401A
Frigo Top 43 24 V		6242455A

### Configuration for Frigo Top 36 RT-D with R452A & R134a, Frigo Top 38 RT-D, Frigo Top 43 RT-D



### Configuration for Frigo Top 24 RT-D, Frigo Top 36 RT-D with R404A



### Rooftop solutions, battery drive





### Compact transport refrigeration systems for light-duty vehicles transporting perishable goods. Reliable solutions for cargo space volumes up to 5 m<sup>3</sup>.

The transport refrigeration systems ensure that perishable goods can be transported over long distances at the optimum temperature and reach their destination in perfect condition. This product series is designed for light transportation vehicles with a cargo space and built-in air-conditioning system. Both the electric motor and the compressor are integrated into the condenser unit. With powerful fans, they offer reliability and a long lifetime, important factors in transport refrigeration.

#### Rolle

Battery-operated transport refrigeration systems for smaller vehicles and cargo spaces up to 5 m<sup>3</sup>. Exceptionally quick and easy to install.

- Transport refrigeration for commercial vehicles with cargo
- Cooling capacity of up to 1,186 W
- The motor and the compressor are integrated into the
- Automatic temperature regulation high efficiency in all
- High-quality reliable components from proven series-production
- ATP (Accord Transport Perissable) certification for all units

## spaces up to 5 m<sup>3</sup>

# condenser unit.

- temperature ranges
- processes

### Technical data

82

Model overview	Rolle	2000	Rolle 2000 HD		
	without stand-by unit	with stand-by unit	without stand-by unit	with stand-by unit	
Refrigerant	R404A				
Cooling capacity according to ATP standard, at ambient temperature of +30°C and compartment temperature of 0°C, in engine/stand-by operation optional (W)	1,011/-	1,011/985	1,186/-	1,186/1,059	
Cooling capacity according to ATP standard, at ambient temperature of +30°C and compartment temperature of -20°C, in engine/stand-by operation optional (W)	424/-	424/447	508/-	508/477	
Nominal voltage (V)		1	12		
Air flow (m³/h)		6	50		
Max. total current absorption at 12 V, in engine/stand-by operation (A)	80/-	80/5	90/-	90/6	
Max. total current absorption, generator (A)	12	25	14	10	
Dimensions L x W x H (mm) Condenser unit Evaporator unit	810 x 540 x 243 660 x 500 x 157 810 x 540 x 258 660 x 500 x 157				
Weight (kg) Condenser unit Evaporator unit	45 7.5	53 7.5	47 7.5	55 7.5	

The performance data for your application may differ from the nominal value.

### Rolle 2000

Model overview	Scope of delivery	Order number
Rolle 2000	Transport refrigeration system for refrigerant R404A, including condenser, evaporator, installation kit, automatic temperature regulation, product documentation	621RLN2K01EH
Rolle 2000 Stand-by	Transport refrigeration system for refrigerant R404A, including condenser, evaporator, installation kit, automatic temperature regulation, stand-by unit, product documentation	621RLN2K01SEH

#### Rolle 2000 HD

Model overview	Scope of delivery	Order number
Rolle 2000 HD	Transport refrigeration system for refrigerant R404A, including condenser, evaporator, installation kit, automatic temperature regulation, product documentation	621RLN2K02EF
Rolle 2000 HD Stand-by	Transport refrigeration system for refrigerant R404A, including condenser, evaporator, installation kit, automatic temperature regulation, stand-by unit, product documentation	621RLN2K02SEF

The performance data for your application may differ from the nominal values.

### Rooftop solutions, direct drive





### Refrigeration systems for light-duty vehicles transporting perishable goods. Highest performance, variable and easy installation for cargo space volumes up to 21 m<sup>3</sup>.

Transport refrigeration systems keep perishables at the perfect temperature so they reach their destination in top condition. Frigo Top is the new generation of transport refrigeration systems with greatly improved functionality. The new model series offers a broad range of variability and thereby meets individual customer requirements. All systems come in 12 V and 24 V versions, with a stand-by operation optionally with 230 V or 400 V and the option of rooftop or front installation. Among other aspects, the optimized product structure features very durable fans and a dual-sided defrosting system. The integrated heat exchanger enhances the unit's cooling capacity. Thus, it ensures powerful cooling even at high outside temperatures. Thanks to the refrigerant R404A, these systems are suitable for both above zero and below zero temperatures and therefore cover a wide range of uses. These systems stand out for their particularly easy and comfortable installation and maintenance. Laterally removable covers facilitate fast and easy access to the components. Moreover, the electronic elements are cost-effectively and easily exchangeable. The compressor is integrated into the engine space.

- Cooling capacity up to 3,836 W
- Automatic temperature regulation
- High efficiency in all temperature ranges
- Stand-by operation optionally with 230 V and 400 V
- Rooftop or front mounting
- Reliable devices with highquality components made in proven series production
- Easy installation and maintenance
- ATP (Accord Transport Perissable) certification for all units

### **Technical data**

Model overview	Frigo Top 25 RT-DS	Frigo Top 35 RT-DS	Frigo Top 35 RT-DSG	Frigo Top 40 RT-DS
Refrigerant	R40	04A	R452A	R404A
Cooling performance nominal (according ATP standard) in W at 30 °C ambient temperature and compartment temperature 0 °C Engine operation/stand-by operation	2,347/1,490	3,509/2,412	3,024/2,240	3,836/2,469
Cooling performance nominal (according ATP standard) in W at 30 °C ambient temperature and compartment temperature -10 °C Engine operation/stand-by operation	1,747/1,105	2,791/1,806	2,319/1,615	2,880/1,836
Cooling performance nominal (according ATP standard) in W at 30°C ambient temperature and compartment temperature -20°C Engine operation/stand-by operation	1,250/730	2,011/1,266	1,626/1,033	2,011/1,283
Nominal voltage (V)	12/230/400	12/24/230/400	12/230/400	12/24/230/400
Air flow in m³/h	850	1,420	1,589	1,960
Max. current absorption (A) Engine operation 12/24 V	15	30/15	30	30/15
Max. current absorption (A) Stand-by operation 230/400 V	8.5/8.5	10.8/10.8	10.8	10.8/10.8
Dimensions L x W x H (mm) Condenser unit	906 x 715 x 262	1,096 x 725 x 278	1,096 x 725 x 278	1,096 x 725 x 278
Dimensions L x W x H (mm) Evaporator unit	660 x 530 x 158	1,130 x 530 x 158	1,130 x 530 x 158	1,130 x 530 x 158
Weight (kg) Condenser unit	55.2	65	65/52.5	66
Weight (kg) Evaporator unit	11.5	18.5	18.5	18.5

<sup>\*</sup> To complete the installation: Compressor, compressor mounting kit, compressor fittings – depending on application.

#### Frigo Top 25 RT-DS

Description	Scope of delivery	Order number
Kit model Frigo Top 25 12 V – 230 V single phase	Condenser unit (w/o plastic covers) evaporator unit, accessories box, drilling template, documents	6234554B
Kit model Frigo Top 25 12 V – 400 V three phase	Condenser unit (w/o plastic covers) evaporator unit, accessories box, drilling template, documents	6234570B
Kit cover roof mounted Frigo Top 25	Condenser unit (w/o plastic covers) evaporator unit, accessories box, drilling template, documents	6234632A
Kit cover front mounted Frigo Top 25	Condenser unit (w/o plastic covers) evaporator unit, accessories box, drilling template, documents	6234633A
Kit hoses Frigo Top 25	Hoses and joints	6234684A
Accessories		
Kit heating		6234860A
Kit de-icing 12 V Frigo Top 25		6231058A

#### Frigo Top 35 RT-DS - DSG

Description	Scope of delivery	Order number
Kit model Frigo Top 35 12 V – 230 V single phase R404A	Condenser unit (w/o plastic covers) evaporator unit, accessories box, drilling template, documents	6234749A
Kit model Frigo Top 35 12 V – 230 V single phase gas R452A	Condenser unit ( w/o plastic covers) evaporator unit, accessories box, drilling template, documents	6244720A
Kit model Frigo Top 35 24 V – 230 V single phase	Condenser unit (w/o plastic covers) evaporator unit, accessories box, drilling template, documents	6234770A
Kit model Frigo Top 35 12 V – 400 V three phase	Condenser unit (w/o plastic covers) evaporator unit, accessories box, drilling template, documents	6234759B
Kit model Frigo Top 35 24 V – 400 V three phase	Condenser unit (w/o plastic covers) evaporator unit, accessories box, drilling template, documents	6234781B
Kit cover roof mounted Frigo Top 35-40 12 V	Upper/lower cover, grid and fans, accessories bag	6234642A
Kit cover roof mounted Frigo Top 35-40 24 V	Upper/lower cover, grid and fans, accessories bag	6234653A
Kit cover front mounted Frigo Top 35-40 12 V	Upper/lower cover, grid and fans, accessories bag	6234647A
Kit cover front mounted Frigo Top 35-40 24 V	Upper/lower cover, grid and fans, accessories bag	6234678A
Kit hoses Frigo Top 35-40	Hoses and joints	6234685A
Accessories		
Kit heating Frigo Top 35 12 V		6234861A
Kit heating Frigo Top 35 24 V		6234862A
Kit de-icing 12 V Frigo Top 35-40		6231060A
Kit de-icing 24 V Frigo Top 35-40		6231061A

### Frigo Top 40 RT-DS

Description	Scope of delivery	Order number
Kit model Frigo Top 40 12 V – 230 V single phase	Condenser unit (w/o plastic covers) evaporator unit, accessories box, drilling template, documents	6234784B
Kit model Frigo Top 40 24 V – 230 V single phase	Condenser unit (w/o plastic covers) evaporator unit, accessories box, drilling template, documents	6234791B
Kit model Frigo Top 40 12 V – 400 V three phase	Condenser unit (w/o plastic covers) evaporator unit, accessories box, drilling template, documents	6234788B
Kit model Frigo Top 40 24 V – 400 V three phase	Condenser unit (w/o plastic covers) evaporator unit, accessories box, drilling template, documents	6234794B
Kit cover roof mounted Frigo Top 35-40 12 V	Upper/lower cover, grid and fans, accessories bag	6234642A
Kit cover roof mounted Frigo Top 35-40 24 V	Upper/lower cover, grid and fans, accessories bag	6234653A
Kit cover front mounted Frigo Top 35-40 12 V	Upper/lower cover, grid and fans, accessories bag	6234647A
Kit cover front mounted Frigo Top 35-40 24 V	Upper/lower cover, grid and fans, accessories bag	6234678A
Kit hoses Frigo Top 35-40	Hoses and joints	6234685A
Accessories		
Kit heating Frigo Top 40 12 V		6234863A
Kit heating Frigo Top 40 24 V		6234864A
Kit de-icing 12 V Frigo Top 35-40		6231060A
Kit de-icing 24 V Frigo Top 35-40		6231061A

Kit hoses



roof







### Rooftop solutions, multi-temperature





Transport refrigeration systems with variable single or multi-temperature application for light-duty commercial vehicles with a cargo space capacity of up to ca. 16 m³. Energy-efficient shipping of perishable goods with different refrigeration requirements.

The requirements for energy efficiency and versatility in transporting refrigerated goods are increasing. Especially the capacity for optimal transport of goods with diverse cooling or refrigeration requirements in one vehicle is becoming ever more important. The Frigo Top 35 RT-DSMT is well-suited for transporting various types of goods at different temperatures. It enables independent, flexible temperature control in separate cargo spaces and can be variably combined with two evaporators (Frigo Top 25 and Frigo Top 35). This ensures perfect, constant refrigeration in the individual cargo spaces. This also applies for light-duty vehicles with removable walls.

The microprocessor control of the compressor and the blowers was enhanced once again in order to boost energy efficiency and extend the lifetime. The extremely flat, space-saving design of the evaporators is also beneficial. The use of standard components that are also used in the Frigo Top 25 and Frigo Top 35 models, ensures very fast availability of spare parts (condensing unit, evaporator, hoses and hose assemblies as well as the fittings). The devices are designed to be very user-friendly and thus allow for easy, fast and cost-effective installation and maintenance.

- Flexible, suitable for single and multi-temperature use
- Cooling capacity of up to
- Automatic temperature control
- Enhanced energy efficiency, longer operating time
- Stand-by operation optionally with 230 V
- Simple, easy installation and maintenance, lower costs
- Fast availability of devices and spare parts
- ATP (Accord Transport Perissable) accreditation for all devices and their combinations

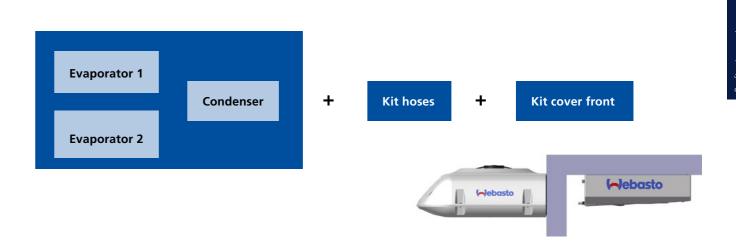
Model overview	Scope of delivery	Order number
Frigo Top 35 RT-DSMT 12 V evap Frigo Top 25 + Frigo Top 25	Condensing unit (w/o plastic covers) 2 evaporators, accessories box, drilling template, documents	6238287B
Frigo Top 35 RT-DSMT 12 V evap Frigo Top 25 + Frigo Top 35	Condensing unit (w/o plastic covers) 2 evaporators, accessories box, drilling template, documents	6238288B
Kit cover (front mounting)	Upper/lower cover, grid and fans	6234647A
Kit hoses Frigo Top 35 RT-DSMT evap Frigo Top 25 + Frigo Top 25	Hoses and joints	6238289A
Kit hoses Frigo Top 35 RT-DSMT evap Frigo Top 25 + Frigo Top 35	Hoses and joints	6238290A
Accessories		
Kit de-icing Frigo Top 35 RT-DSMT 12 V evap Frigo Top 25 + Frigo Top 25		6231058A + 6231058A
Kit de-icing Frigo Top 35 RT-DSMT 12 V evap Frigo Top 25 + Frigo Top 35		6231058A + 6231060A
Extension kit 5-16 L = 4 m		6238213A
Extension kit 5-16 L = 6 m		6238215A
Extension kit 5-8 L = 4 m		6238216A
Extension kit 5-8 L = 6 m		6238218A

<sup>\*</sup> To complete the installation: Compressor, compressor mounting kit, compressor fittings – depending on application.

#### **Technical data**

Model overview	Frigo Top 35 RT-DSMT*	Frigo Top 35 RT-DSMT**		
Refrigerant	R404A			
Cooling performance nominal (according ATP standard) in W at 30°C ambient temperature and compartment temperature 0°C Engine operation/stand-by operation (W)	2,450/1,930	3,070/2,280		
Cooling performance nominal (according ATP standard) in W at 30°C ambient temperature and compartment temperature -20°C Engine operation/stand-by operation (W)	1,314/950	1,570/1,020		
Nominal voltage (V)	12/230	12/230		
Air flow in m³/h	930	1760		
Max. current absorption (A) Engine operation 12 V	30	37.5		
Max. current absorption (A) Stand-by operation 400 V	10.	8/-		
Dimensions L x W x H (mm) Condenser unit	1,096 x 725 x 278			
Dimensions L x W x H (mm) Evaporator unit/Evaporator unit 2	(660 x 530 x 158) + ( 660 x 530 x 158)	(660 x 530 x 158) + (1,130 x 530 x 158)		
Weight (kg) Condenser with stand-by	65.0			
Weight (kg) Evaporator unit/Evaporator unit 2	11.5/11.5	11.5/18.5		

<sup>\*</sup> With two evaporators Frigo Top 25. \*\* With evaporators Frigo Top 25 and Frigo Top 35.



The appropriate refrigeration systems for your commercial transport vehicle

light-duty vehicle light-duty vehicle light-duty vehicle Rolle 2000 Rolle 2000 with stand-by Rolle 2000 HD Rolle 2000 HD with stand-by Frigo Top 10 I-E Frigo Top 10 I-ES – ESG Frigo Top 24 RT-D Pordoi 2000 Pordoi 2000 with stand-by Frigo Top 25 RT-DS Frigo Top 36 RT-D Pordoi 3000 Pordoi 3000 with stand-by Frigo Top 35 RT-DS/DSG Frigo Top 35 RT-DSMT\* Frigo Top 35 RT-DSMT\*\* Frigo Top 38 RT-D Frigo Top 40 RT-DS Frigo Top 43 RT-D Pordoi 4000 Pordoi 4000 with stand-by

Installation options, features and accessories

	Mou	nting	Power supply		supply Use			
	Roof mounting	Intergrated	Direct drive	Electric (battery)	AC stand-by (network) operation	Cool and freeze (0°C and -20°C)	Cool (0°C)	Multi-temperature
Rolle 2000								
Rolle 2000 with stand-by								
Rolle 2000 HD								
Rolle 2000 HD with stand-by								
Frigo Top 10 I-E								
Frigo Top 10 I-ES – ESG								
Frigo Top 24 RT-D								
Pordoi 2000								
Pordoi 2000 with stand-by								
Frigo Top 25 RT-DS								
Frigo Top 36 RT-D								
Pordoi 3000								
Pordoi 3000 with stand-by								
Frigo Top 35 RT-DS/DSG								
Frigo Top 35 RT-DSMT								
Frigo Top 35 RT-DSMT								
Frigo Top 38 RT-D								
Frigo Top 40 RT-DS								
Frigo Top 43 RT-D								
Pordoi 4000								
Pordoi 4000 with stand-by								

Rooftop Integrated Direct Drive Electric

<sup>\*</sup> With two evaporators Frigo Top 25 \*\* With evaporators Frigo Top 25 and Frigo Top 35

### **HEPA** air filtration systems

### Compact, lightweight and easy to retrofit









High-efficiency particulate air filters (HEPA) are critical in the prevention of the spread of airborne bacterial and viral organisms. In conjunction with personal protective equipment, this type of filtration greatly reduces the risk of infection for emergency medical service operators.

Webasto filtration systems HFT 200, HFT 300 and HFT 600 are specifically designed to filter the air in the cabin and in the sanitary compartment of ambulances, removing 99.995 % particulates corresponding to SARS/COVID-19 virus sizes (0.1 micrometers) and effectively reducing the risk of infection.

Webasto HEPA Filter Top combines two main features to reduce viral loads in ambient air: a very high air volume flow for the rapid and complete filtration of the air every single minute and the extremely high removal efficiency of HEPA H14 filters. The unit complies with the International HEPA Filter standards WHO/CDC/ECDC, requiring 60 air changes per hour for infection control ambulances.

It can be easily installed in any existing emergency or passenger transportation vehicles. Moreover Webasto is uniquely able to offer the same level of HEPA-14 filtration used in ambulances also for passenger transport applications.

### Key benefits at a glance:

- Removes 99.995 % of airborne infections and contaminants
- HEPA H14 classified filter
- High air exchange rate
- Up to 10 m³ fresh air every minute
- Ultra compact and lightweight
- Hasslefree installation in less than 30 minutes
- Contamination free exchange of H14 filters
- Available in three versions: 200, 300 and 600 m³/h
- A utomatic filter monitoring feature
- The material and characteristics of the HEPA filter core meet the requirements of European Medical Devices Directive CE 47/2007
- Meets WHO/CDC/ECDC air filtration guidelines
- CE/UL compliant

### Technical data

Heating unit	HFT 300	HFT 600	HFT 200	HFT 200
Nominal voltage (V)	12*	12*	12/24	230
Current consumption@12 V (A)	7.1	14.2	4 (2.1)	na
Max. air flow rate (m³/h)	300	600	190	175
Air filter level	H14	H14	H14	H14
MPPS efficiency (%)	99.995	99.995	99.995	99.995
Sound level (db)	69**	70**	66.5	66.5
Dimensions O-D. x L (mm)	200 x 600	200 x 1200	200 x 600	200 x 600
Weight (kg)	5	10.5	5.5	7.4
Installation position	any	horizontal	any	vertical
Temperature range	-20° to +60°	-20° to +60°	-20° to +60°	-20° to +60°

<sup>\* 24</sup> V available with a DC/DC converter. \*\* Measured at 1 m distance from the air inlet. Compliance: CE 47/2007 (European Medican Device Directive).

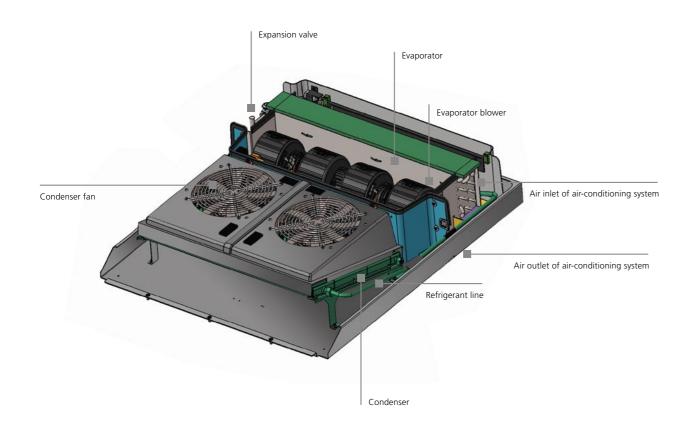
#### Technical data

Model overview	Scope of delivery	Order number
HFT 300 – with rocker switch control	Air filter with connector, instructions	6245612A
HFT 300 – for dashboard control	Air filter with connector, instructions	6246168A
HFT 600 – for dashboard control	Air filter with connector, instructions	6245613A
HFT 200 12 V – for dashboard control	Air filter with connector, instructions	6247077A
HFT 200 24 V – for dashboard control	Air filter with connector, instructions	6247078A
HFT 200 230 V – indoor stationary version	Air filter with on/off switch, instructions, power supply, holder,	
	1.5 A delayed fuse, connecting cable 2 mt long	6246313B

#### Technical data

Accessories	Scope of delivery	Order number
Spare filter kit HFT 300/600		6245615A
Spare filter kit HFT 200		6246659A
Power supply kit 230 – 12 V	Only for HFT 300 and HFT 600	6246252A
Cable plug		6246250A
DC-DC converter 24 – 12 V	Only for HFT 300 and HFT 600	6246336A
On off switch	Only for HFT 300	6246172A
Spare fan 24 V for HFT 200		6246653A
Spare fan 12 V for HFT 200		6246654A
Spare fan 12 V for HFT 300 – 600		6246171A
Additional fixation bracket ring kit	Additional safety bracket for HFT 200-300-600 ceiling installations	6240880A
Fan kit assembly HFT 300 with switch		6246681A
Fan kit assembly HFT 300 – 600 front no switch		6246685A
Fan kit assembly HFT 600 rear		6246683A
Fan kit assembly HFT 200 12 V		6246657A
Fan kit assembly HFT 200 24 V		6246655A
Fan kit assembly HFT 200 230 V		6246661A

### Operation of an air-conditioning system



In the closed circuit of the air-conditioning system, a special refrigerant absorbs the heat from the interior of the vehicle and releases it again to the environment at some other point.

In this arrangement, the compressor draws in the gaseous refrigerant, compresses it and drives it into the condenser. There, it is condensed, releasing heat in the process. Via the expansion valve, the liquid refrigerant enters the evaporator, where it changes to the gaseous state, absorbing heat as it does so. The air passed across the evaporator by the blower cools and is discharged into the interior of the vehicle. Depending on the design of the equipment, recirculated air from the vehicle or fresh air from the environment can be used for this purpose.

The transport refrigeration system also operates on the same principle. In this case, an additional stand-by kit is generally connected and maintains the cooling function when the engine is not running.

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### **Abbreviations**

### Specifications

AC Air-conditioning system
ACC Automatic climate control
ECE Economic Commission for Europe
EMC Electromagnetic compatibility
HDD Heavy Duty Design

HTM Heating time management

HVAC Air-conditioning system with heating function

(Lighting Mentileting Air conditioning)

(Heating, Ventilating, Air-conditioning)

IK Installation kit SOD Scope of delivery

### Units of measurement

D Diameter (mm)
H Height (mm)
kg Kilogram
L Length (mm)
m Meter
mm Millimeter
W Width (mm)

### **Electrical units**

A Ampere kW Kilowatt

rpm Revolutions per minute

V Volt W Watt



As a global innovative systems partner to the mobility industry, Webasto is one of the 100 largest suppliers to the automotive sector worldwide. In development, manufacturing and sales, the company focuses on roof systems on the one hand and on vehicle electrification on the other hand. The product range includes, openable and fixed panoramic roofs, electric high-voltage heaters and batteries, as well as thermo management solutions. Among the customers of Webasto are manufacturers of passenger cars, commercial vehicles, and boats, as well as dealers and end customers. In 2022, the Group generated sales of over 4 billion euros and employed about 16,800 people at more than 50 locations. The headquarters of the company, which was founded in 1901, is located in Stockdorf near Munich (Germany). For more information, please visit www.webasto-group.com