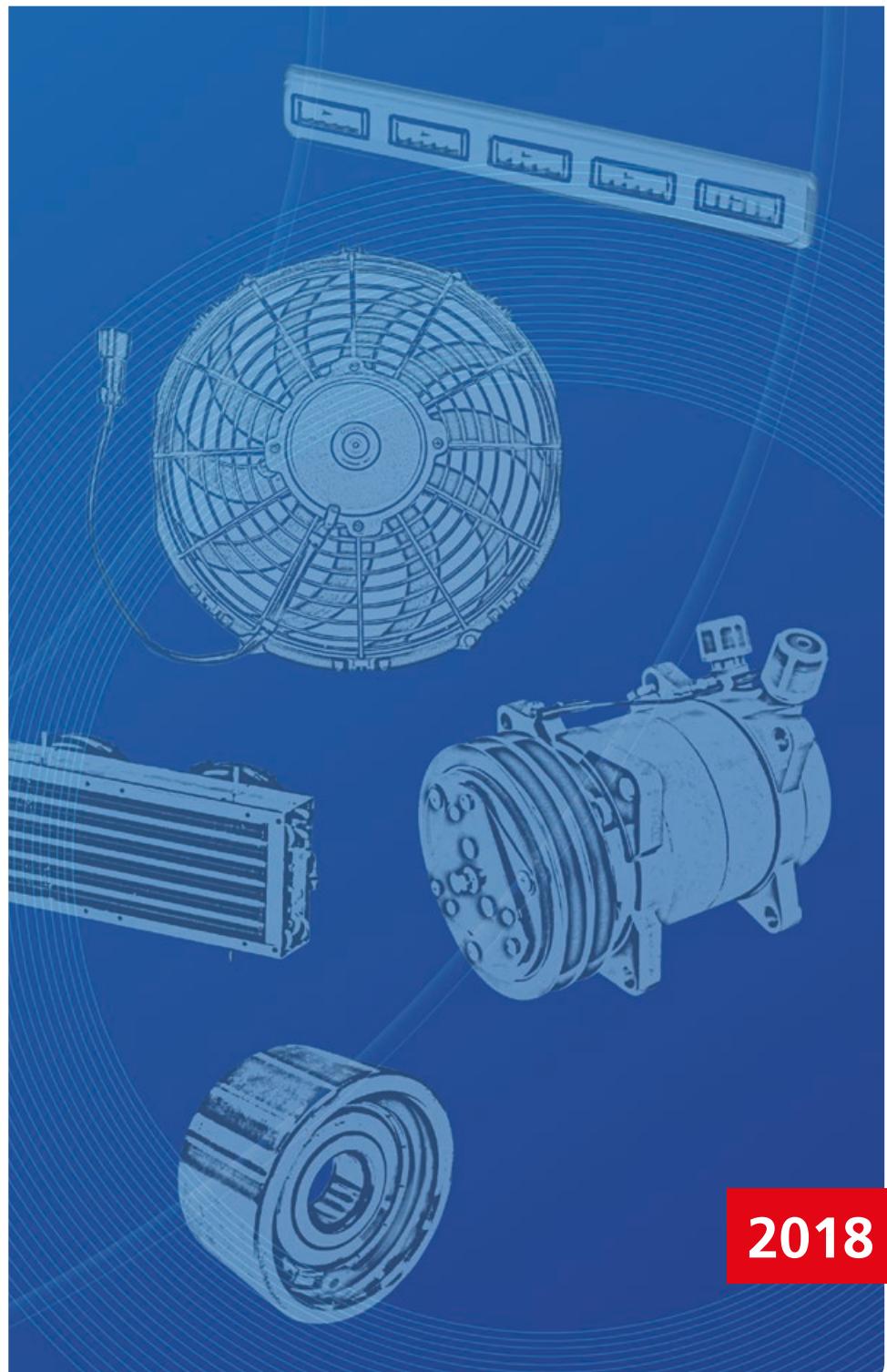


# Accessories Catalog – Air-Conditioning Solutions

For Trucks, Light-duty Vehicles, Mini/Midi Buses and Special Vehicles



**2018**



## Table of Contents

Dear Customers, dear Webasto Partners,

this Webasto catalog will give you an overview of the complete range of accessories for our air-conditioning systems. On the following pages, you will find everything that you need for installing our rooftop, integrated and transport refrigeration systems. The accessories shown here are clearly laid out to enable you to find and order what you need quickly.

Together with the accessory catalog for heating solutions and the product catalog, this catalog will provide a comprehensive source of information so that you can work efficiently with our heating and cooling units.

We wish you great success with our products,

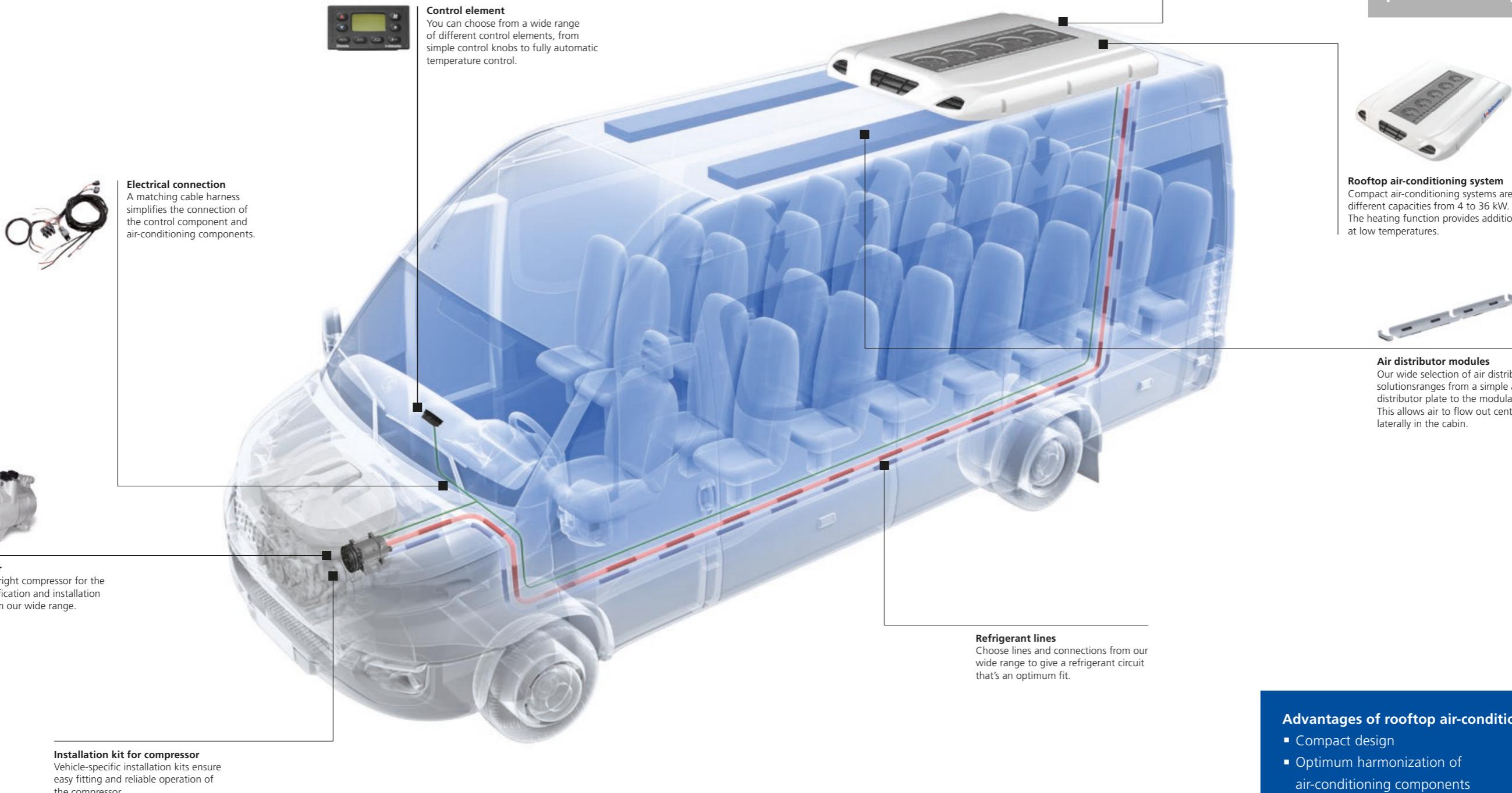
Your Webasto Team

Applications of air-conditioning and transport refrigeration systems	4
Compressors, Tensioning	14
Condensers	68
Evaporators, Heat exchangers	76
Fans, Blowers	88
Air ducts, Louvers	96
Receiver dryers, Expansion valves	112
Fittings	122
Hoses	156
Electrical material	166
Maintenance products, Tools	184

Die mit \* gekennzeichneten Artikel sind mit der angegebenen Mindestbestellmenge oder ein Vielfaches davon zu bestellen.

# Application of a rooftop air-conditioning system

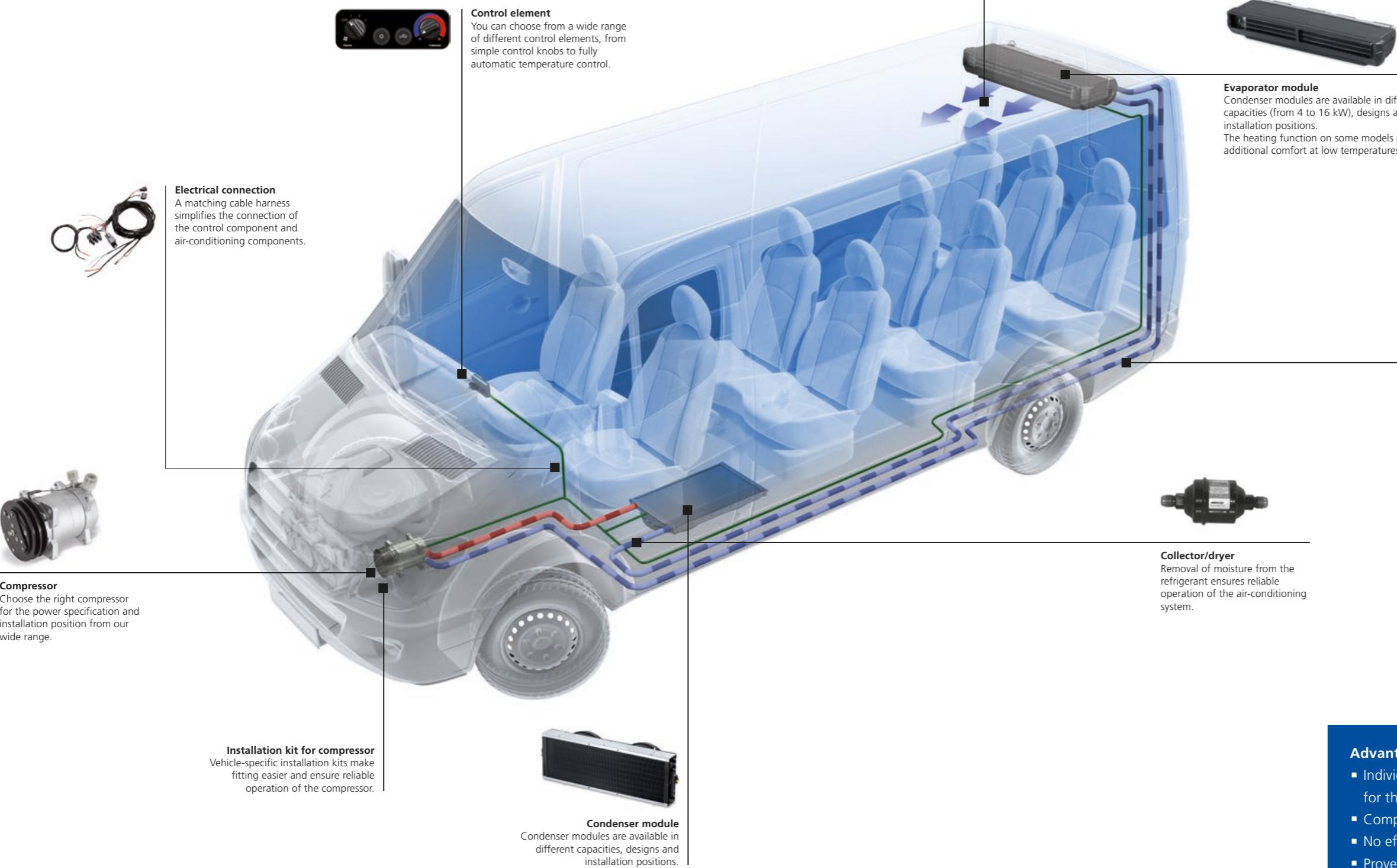
The main components of the air-conditioning system are accommodated in a compact housing. They can be fitted quickly and easily on the vehicle's roof. Webasto rooftop air-conditioning systems are available in different capacities (4 to 36 kW).



- 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

# Application of an integrated air-conditioning system

Webasto integrated air-conditioning systems are available with various capacities (4 to 16 kW). All the components are integrated into the vehicle and can be matched to individual requirements. A comprehensive range of accessories makes them easier to install in the vehicle.



Our integrated air-conditioning systems and control elements can be found in our separate heating and air-conditioning product catalog.

- Advantages of integrated air-conditioning systems**
- Individually selectable installation position for the components
  - Complete integration into the vehicle
  - No effect on aerodynamic characteristics
  - Proven, high-quality, standard components

# 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 underbody



Evaporator under the roof



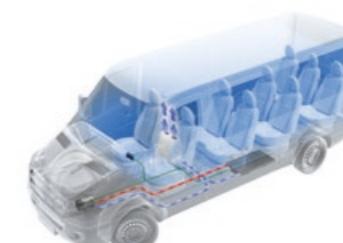
Evaporator under the dashboard



Evaporator integrated into the roof



Evaporator vertical on the side at the rear



Evaporator vertical

## Condenser mounted 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 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

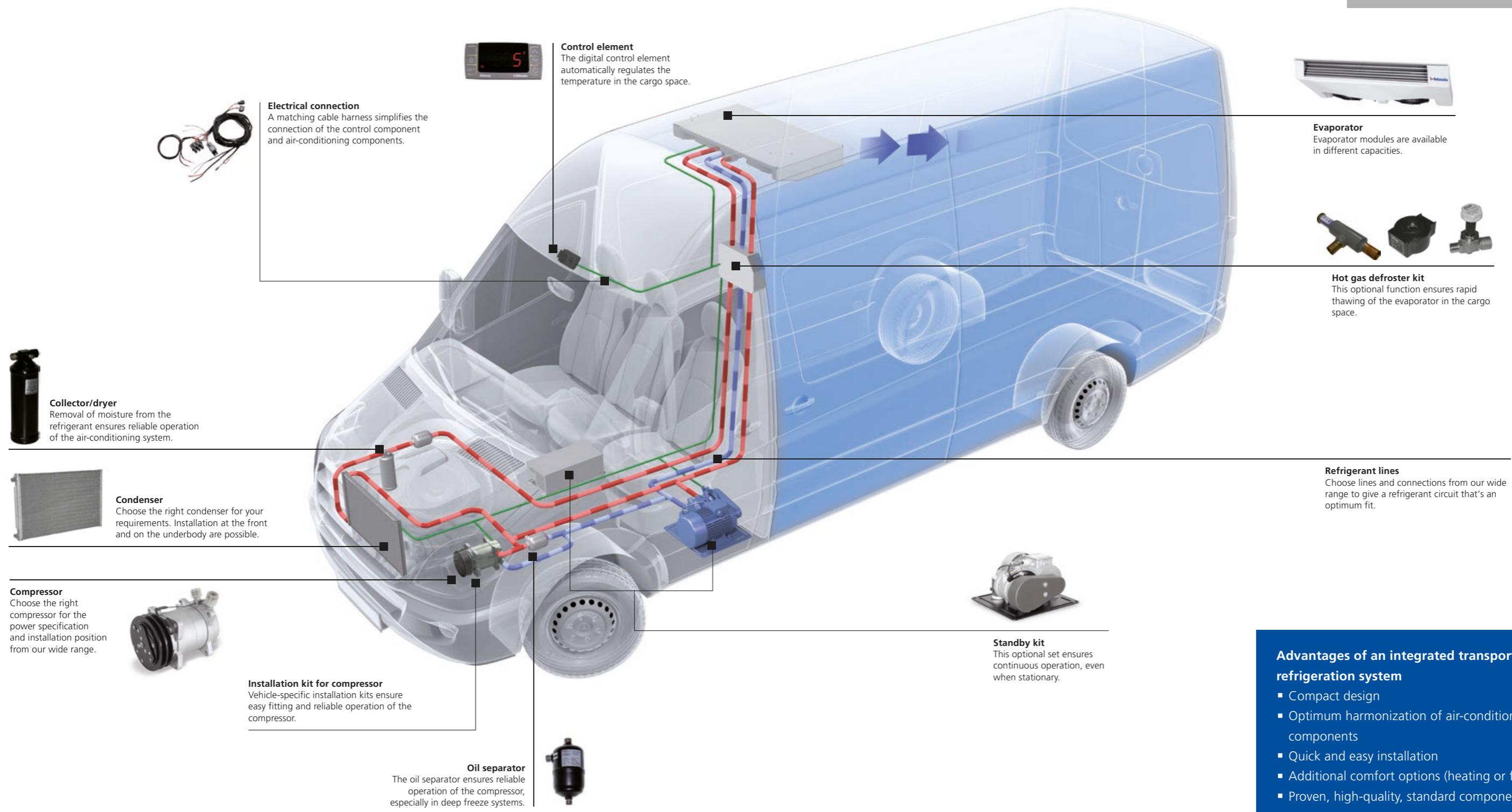


Evaporator vertical

# Application of an integrated transport refrigeration system

Webasto integrated transport refrigeration systems are suitable for fresh produce delivery ( $>0^{\circ}\text{C}$ ) and for deep frozen cargo ( $<0^{\circ}\text{C}$ ). They are available in various capacities up to 3,660 W. An optional standby 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.

Our transport refrigeration systems can be found in our separate heating and air-conditioning product catalog.



## Advantages of an integrated transport refrigeration system

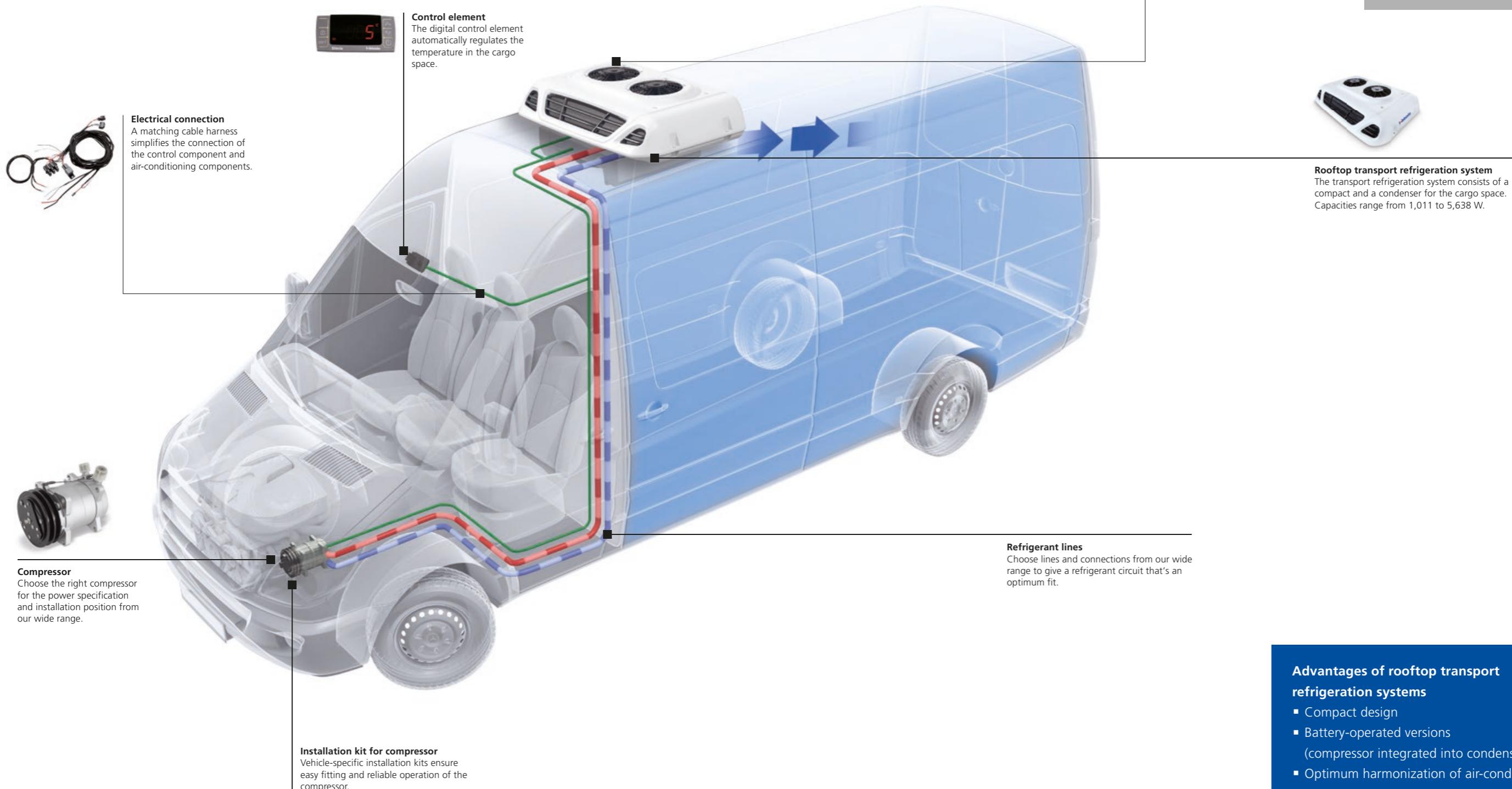
- Compact design
- Optimum harmonization of air-conditioning components
- Quick and easy installation
- Additional comfort options (heating or fresh air)
- Proven, high-quality, standard component

# Application of a rooftop transport refrigeration system

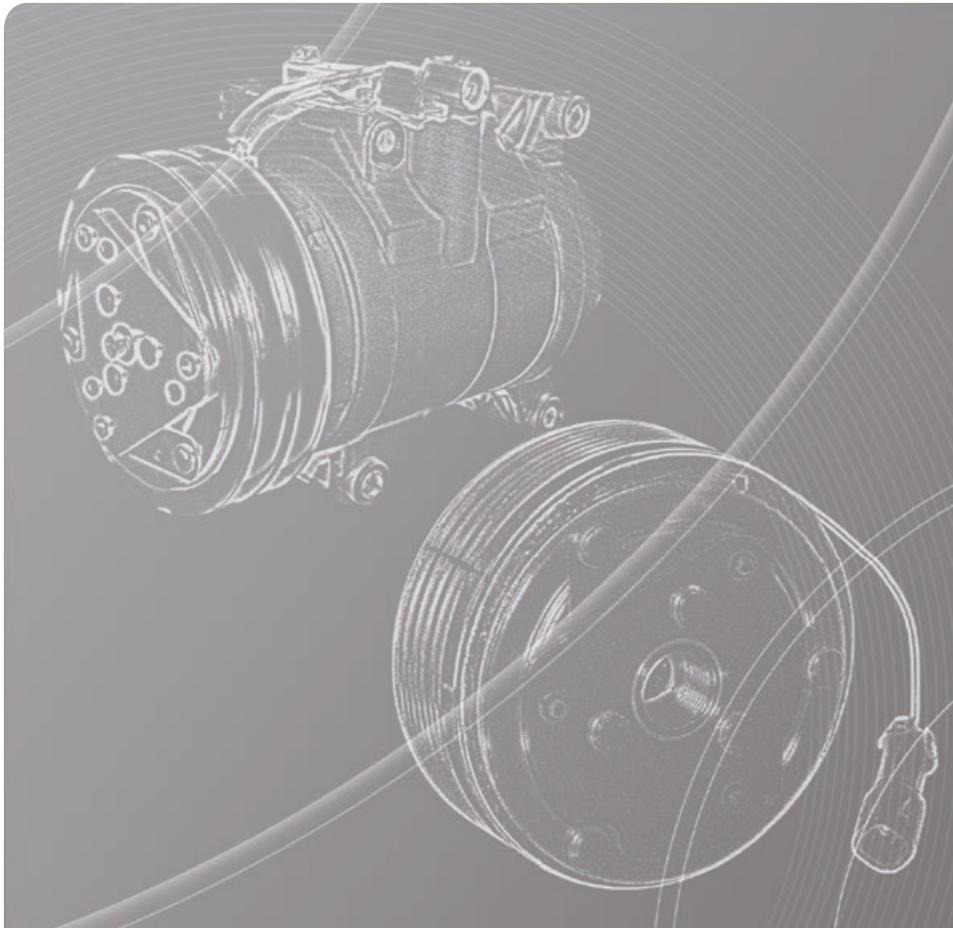
The main components of the Webasto rooftop transport refrigeration system are accommodated in a compact, aerodynamic housing. The cooling systems, with capacity options ranging between 1,011 and 5,638 W, are suitable for fresh produce delivery ( $> 0^\circ\text{C}$ ) and for deep frozen cargo ( $< 0^\circ\text{C}$ ). An optional standby function allows cooling independently of the engine.

**Standby function**  
This function ensures continuous operation, even when stationary.

**Our transport refrigeration systems can be found in our separate heating and air-conditioning product catalog.**



- Advantages of rooftop transport refrigeration systems**
- Compact design
  - Battery-operated versions (compressor integrated into condenser unit)
  - Optimum harmonization of air-conditioning components
  - Quick and easy installation



## Compressors, Tensioning

### Compressors

This is the core of the system. It sucks in the refrigerant coming from the evaporator at a low temperature and at low pressure, compresses it and puts it back into the circuit at high pressure and high temperature. Most of performance of the system depends on proper operation of the compressor.

### Tensioning

Power transmission to the compressor. Transmission of power motion to the compressor, from the motor to the electromagnetic clutch pulley, occurs by means of one or more (trapezoidal or Poly-V) belt. In the belt run, besides the tensioning pulleys (idler pulleys pivots and cams), transmission pulleys for other parts, such as water pump, alternator, etc. may be inserted. Compressor mounting kits allow the integration of the compressor in the specific vehicle.

Please contact your dealer or us for the availability of compressor mounting kits for your vehicle.

### Compressors

#### Electromagnetic clutches

#### Adapters

#### Drag components, Belts

#### Drag components, Cams

#### Drag components, Idler pulleys

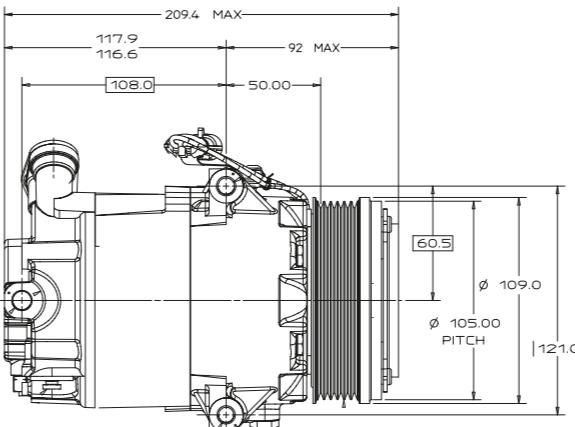
#### Drag components, Pivots

## Compressors, Tensioning

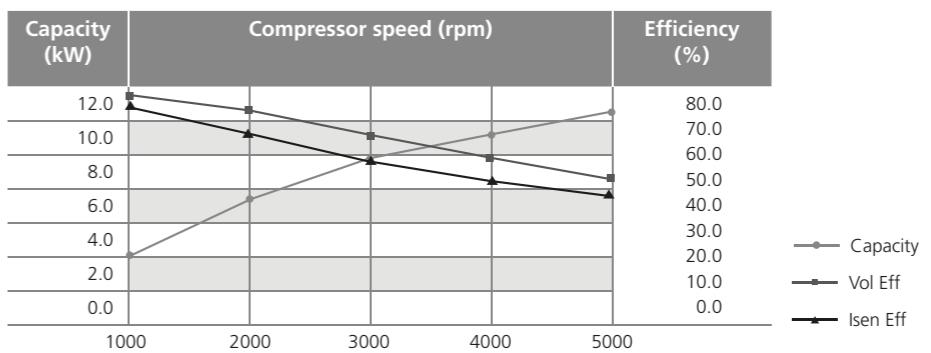
### Delphi CVC

**DELPHI**

The next generation of variable displacement piston compressor technology, Delphi's Compact Variable Compressors (CVC), are based on a swash plate simple harmonic motion mechanism. The enhanced mechanism performance makes the CVC adaptable to both pneumatic and electronic controls. Refrigerant R134a.



#### Performance:



#### Technical specifications:

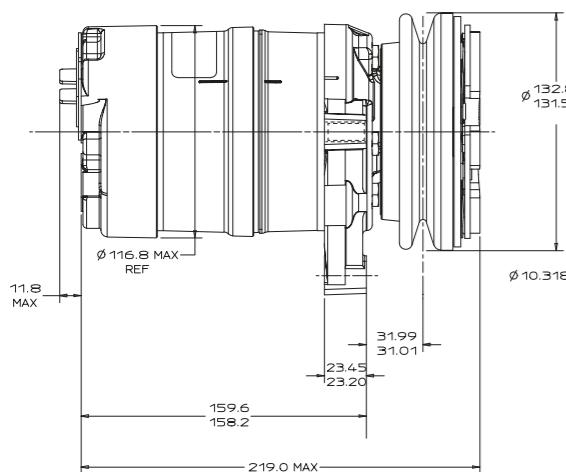
Parameters	Specification
Type	10-cylinder, axial swash plate mechanism
Displacement (cm³)	7 – 125
Dimension (mm)	Length: 195, Diameter: 114
Dry weight (kg)	5.2
Capacity (2,000 rpm)	6,040
Operating speed (rpm)	8,000, maximum continuous 9,200, transient
Refrigerant	R134a

Order number	Type	Quantity (ml)	Color	Description
Oil				
62040595B	PAG ISO 46	250		
Valve				
620425004A			brown	manual valve brown 6582291
620425005A			blue	manual valve blue 6582293

# Compressors, Tensioning

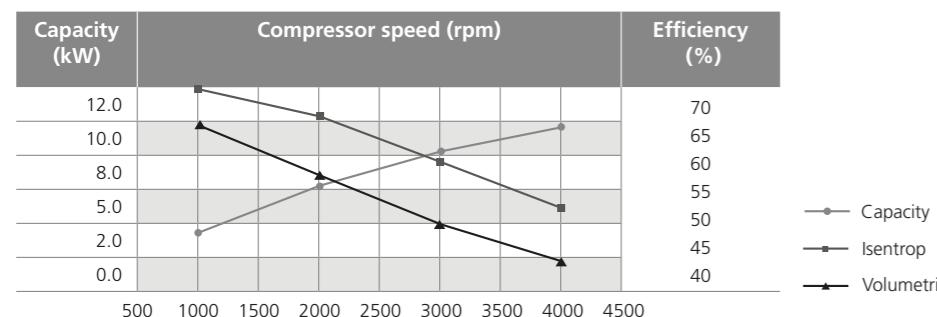
Delphi HD6

**DELPHI**



The HD6 compressor family is a six cylinder, axial-type compressor, 164 cm<sup>3</sup> of fix displacement. Refrigerant R134a.

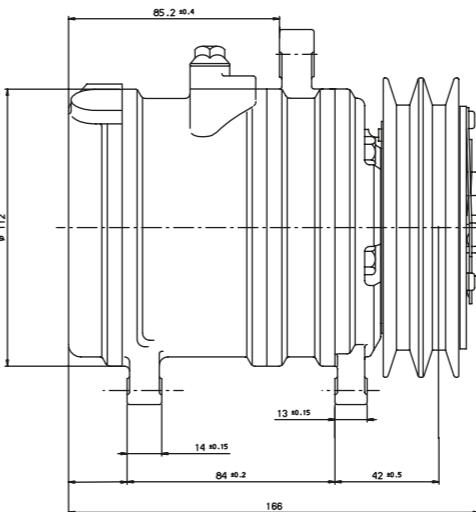
## Performance:



# Compressors, Tensioning

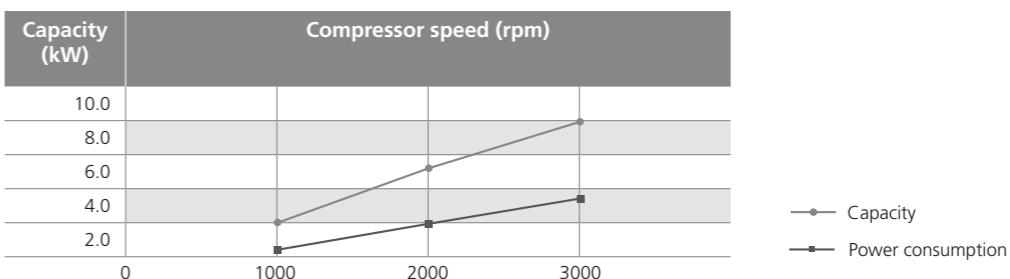
Delphi SP10

**DELPHI**



These SP10 10-cylinder fixed displacement (110 cm<sup>3</sup>) compressors consist of five double-ended pistons moving in the cylinder bores by a swash plate and shaft assembly. The 10 hemispherical shoes connect the pistons to the swash plate and shaft assembly. As the swash plate rotates, the shoes swivel, remaining in constant contact with the piston and the swash plate. The rotary motion of the swash plate is therefore converted to the reciprocating motion of the piston. Refrigerant R134a.

## Performance:



## Technical specifications:

Parameters	Specification
Type	6 cylinder swash plate
Displacement (cm <sup>3</sup> )	164
Oil	MLX 488
Dry weight (kg)	7.38
Body Diameter (mm)	116
Max. lenght w/o pulley (mm)	217
Lenght with pulley (mm)	233
Max. width (mm)	159
Refrigerant	R134a

Order number	Type	Quantity (ml)
Oil	PAG ISO 150	250

## Technical specifications:

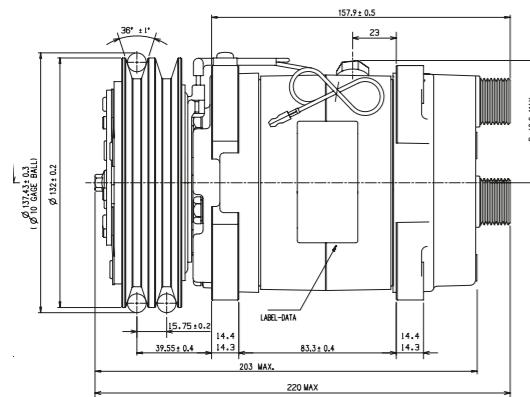
Parameters	Specification
Type	10-cylinder, axial swash plate mechanism
Displacement (cm <sup>3</sup> )	110
Dimension (mm)	Length: 166.0, Diameter: 112
Dry weight (kg)	4.5 (with clutch assembly)
Capacity (2,000 rpm) (W)	6,040
Permissible continuous speed (rpm)	8,000
Rotation	Clockwise
Refrigerant	R134a

Order number Kit	Order number	Type	Quantity (ml)	Dimension
Oil	62040595B	PAG ISO 46	250	
Adapters	620361774A	62043174B		3/4"
	62043173B			7/8"

# Compressors, Tensioning

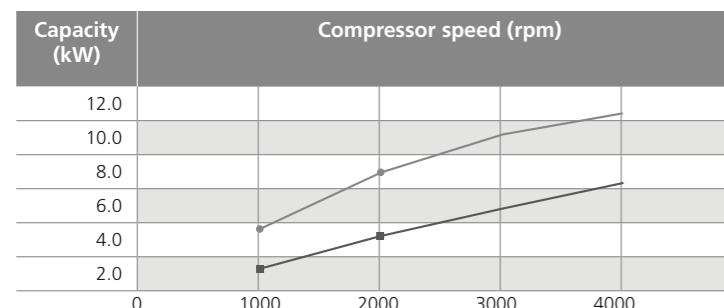
Delphi SP15

**DELPHI**



This compressor is equipped with 10 pistons, and it has 154 cm<sup>3</sup> displacement/revolution. The high number of pistons (10) guarantees a minimum of vibration, while the power consumption and the capacity curves are at a very high level. The compressor body is equipped with 8 "ears"; this feature, along with the mounting angle (+/-90°) allows for excellent mounting options. The compressors are available either with Rotalock ports (1" – 14 UNS), or O-Ring ports (3/4" 16 UNF; 7/8" 14 UNF) – see technical table. The Delphi SP15 is interchangeable with the Sanden SD7H15. Refrigerant R134a.

## Performance:



—●— Capacity  
—■— Power consumption

## Technical specifications:

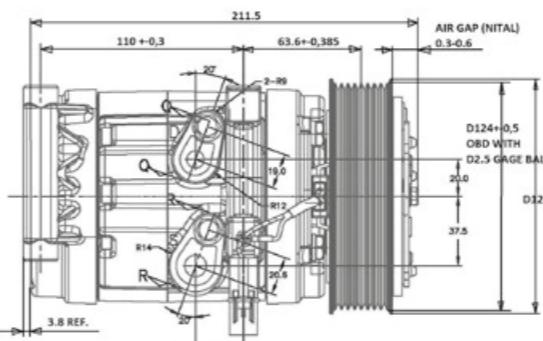
Parameters	Specification
Type	10-cylinder, axial swash plate mechanism
Displacement (cm <sup>3</sup> )	154.1
Number of pistons	10
Lubricant charge (cm <sup>3</sup> )	230 ± 10
Permissible max. speed (rpm)	10,500
Permissible continuous speed (rpm)	800 – 9,000
Rotation	Clockwise
Refrigerant	R134a

Order number	Type	Quantity (ml)
Oil	PAG ISO 46	250

# Compressors, Tensioning

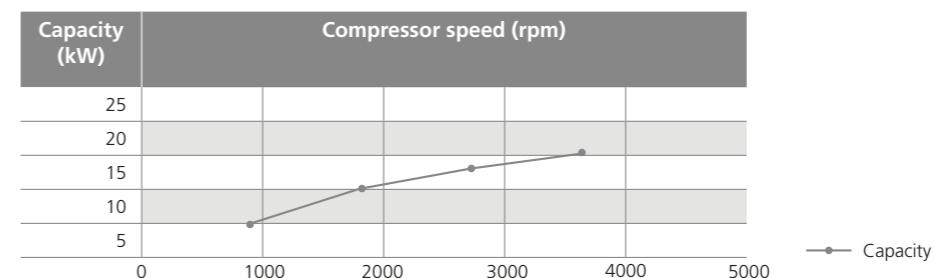
Delphi SP20

**DELPHI**



The SP20 compressor is equipped with 10 pistons, and it has 210 cm<sup>3</sup> displacement/revolution. The compressor is one of the most reliable on the market and its power and robustness are particularly suitable for commercial and industrial vehicles, tractors, etc. The high number of pistons (10) guarantees minimum vibration and the capacity curves are at a very high level. The compressor body is provided with flanged ports, but it's possible to adapt the ports to O-Ring connections (3/4" 16 UNF; 7/8" 14 UNF) by means of two adapters, supplied in the kits 62A03924 and 62A031056. Refrigerant used R134a.

## Performance:



—●— Capacity

## Technical specifications:

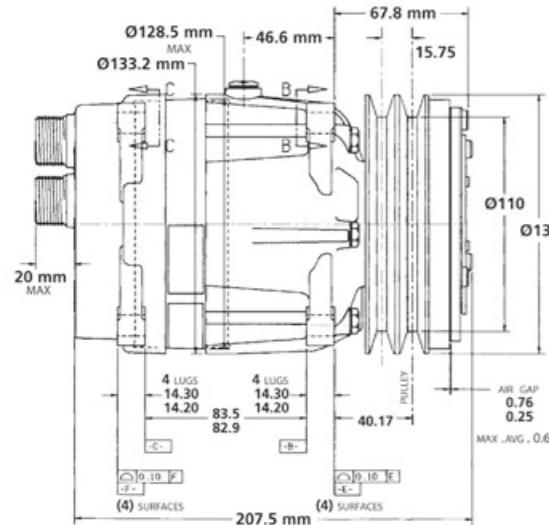
Parameters	Specification
Type	Swash plate
Displacement (cm <sup>3</sup> )	210
Lubricant charge (g)	400 ± 15
Permissible max. speed (rpm)	9,000
Refrigerant	R134a

Order number Kit	Order number	Type	Quantity (ml)	Dimension
Oil	62040595B	PAG ISO 46	250	
Adapters	620231252A	62043584A		3/4"
		62043585A		7/8"
Adapters straight	62A03924A	62043291A		3/4"
		62043290A		7/8"
Adapters 90°	62A031056A	62043392A		7/8"
		62043391A		3/4"

# Compressors, Tensioning

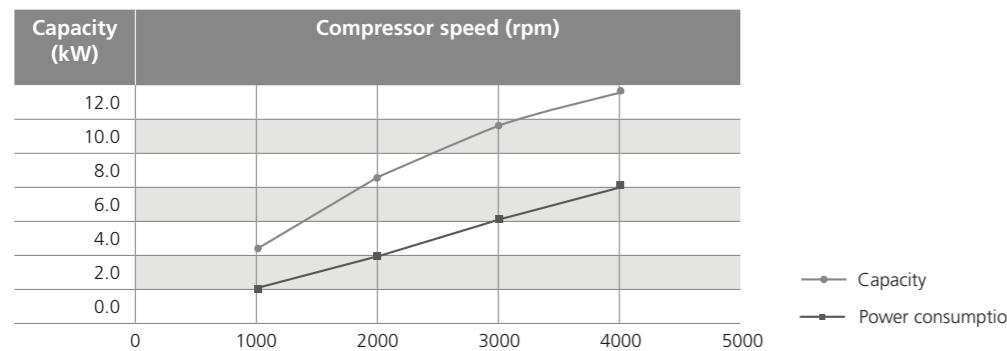
Delphi V5

**DELPHI**



The first volume-produced variable displacement compressor, (98/151 cm<sup>3</sup>) the five-piston V-5 automatically adjusts displacement to match the vehicle's air-conditioning demand. A control valve in the V-5's rear head senses evaporator load, and automatically changes displacement to match that load. Refrigerant R134a

## Performance:



## Technical specifications:

Parameters		Specification				
Type		5 piston wobble plate mechanism continuously variable displacement				
Displacement (cm <sup>3</sup> )		Maximum: 156, Minimum: 10				
Dimensionen (mm)		Length: 205.0, Diameter: 135.0				
Dry weight (kg)		6.3 (with clutch assembly)				
Capacity (2000 rpm) (W)		7,511				
Operating speed (rpm)		standard 6,000, maximum continuous 7,500, transient				
Displacement control		Integrated pneumatic control valve				
High pressure relief valve setting		3171-4137 psf, 3171-4137 kPa				
Rotation		Clockwise				
Refrigerant		R134a				
Order number	Type	Quantity (ml)	Color	Description	200 lb/in <sup>2</sup>	100 lb/in <sup>2</sup>
Oil	PAG ISO 150	250				
62040594B						
Valve						
620425008A			Orange	V5 valve	44.0/46.0	48.8/52.2
620425009A			Red	V5 valve	44.0/46.0	48.8/52.2
620425010A			Brown	V5 valve	42.0/44.0	49.8/50.2
620425011A			Yellow	V5 valve	39.0/41.0	43.8/47.2
620425013A			Blue	V5 valve	41.0/43.0	48.8/49.2
620425014A			Green	V5 valve	37.0/39.0	41.3/44.7

# Compressors, Tensioning

Compressors

**DELPHI**

Compressors, Tensioning

Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Note	Order number
CVC	Vert.	15.7	12.8	105	Poly-V 6	HR145897 1139009	12	R134a	-	62015179A
CVC	Vert.	17.7	11.8	125	Poly-V 6	1139519 1140706 1141021	12	R134a	-	62015189AB
HD6	Horiz.	-	-	132	A-1	1136608 1136612 1140486 1140765	12	R134a	-	62015168B
SP10	Vert.	-	-	105	Poly-V 6	717113 091052	12	R134a	-	62015142B 6233221A (10 pcs.*)
SP10	Vert.	-	-	112	Poly-V 4 + 4	717618 020661	12	R134a	-	62015151A
SP10	Vert.	-	-	121	A-2	717638 090962	12	R134a	-	62015155D
SP15	Horiz.	1" 14 UNS	1" 14 UNS	132	A-2	740351 101062	12	R134a	-	62015200B 6232985A (40 pcs.*) 6233026A (100 pcs.*)
SP15	Horiz.	1" 14 UNS	1" 14 UNS	121	Poly-V 8	740353 090961	12	R134a	-	62015201B 6233219A (10 pcs.*)

# Compressors, Tensioning

## Compressors

**DELPHI**

	Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Note	Order number
	SP15	Vert.	1" 14 UNS	1" 14 UNS	132	A-2	740354 070661	12	R134a	-	62015202B
	SP15	Vert.	1" 14 UNS	1" 14 UNS	121	Poly-V 8	740356 101361	12	R134a	-	62015203B 6233218A (10 pcs.*)
	SP15	Horiz.	1" 14 UNS	1" 14 UNS	132	A-2	740352 031061	24	R134a	-	62015204B
	SP15	Vert.	1" 14 UNS	1" 14 UNS	132	A-2	740355 070661	24	R134a	-	62015205B
	SP15	Horiz.	1" 14 UNS	1" 14 UNS	121	Poly-V 8	740409 060961	24	R134a	-	62015206A
	SP15	Vert.	1" 14 UNS	1" 14 UNS	121	Poly-V 8	740410 011761	24	R134a	-	62015207A
	SP15	Vert.	7/8" 14 UNF	3/4" 16 UNF	121	Poly-V 8	740439 061652	12	R134a	-	62015209A
	SP15	Vert.	7/8" 14 UNF	3/4" 16 UNF	121	Poly-V 8	740440 061352	24	R134a	-	62015210A

# Compressors, Tensioning

## Compressors

**DELPHI**

	Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Note	Order number
	SP15	Vert.	14.87	-	121	Poly-V 10	740477	12	R134a	-	62015213B
	SP15	Vert.	7/8" 14 UNF	3/4" 16 UNF	132	A-2	740001	12	R134a	-	62015245A
	SP15	Vert.	7/8" 14 UNF	3/4" 16 UNF	132	A-2	740133	24	R134a	-	62015246A
	SP15	Vert.	1" 14 UNS	1" 14 UNS	132	A-2	741309	12	R134a	-	62015256A
	SP20	Vert.	-	-	124	Poly-V 8	PV6989	12	R134a	-	62015274A
	SP20	Vert.	-	-	134	A-2	PV7222	12	R134a	-	62015275A
	SP20	Vert.	-	-	123	Poly-V 8	PV7224	24	R134a	-	62015276A
	SP20	Vert.	-	-	134	A-2	PV7223	24	R134a	-	62015277A

# Compressors, Tensioning

## Compressors

**DELPHI**

	Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Note	Order number
	V5	Horiz.	1" 14 UNF	1" 14 UNS	—	—	6553634	—	R134a	—	62015124A
	V5	Vert.	1" 14 UNS	1" 14 UNS	—	—	6553633	—	R134a	—	62015125A
	V5	Horiz.	—	—	—	—	6580332	—	R134a	—	62015144B
	V5	Vert.	—	—	—	—	6581383	—	R134a	—	62015166B
	V5	Vert.	—	—	—	—	6581290	—	R134a	—	62015169C
	V5	Horiz.	—	—	132	Poly-V 6	700634	12	R134a	—	62015196A
	V5	Horiz.	1" 14 UNS	1" 14 UNS	132	A-2	6553634	12	R134a	—	62085015120AC 6233215A (10 pcs.*)
	V5	Horiz.	1" 14 UNS	1" 14 UNS	119	Poly-V 8	6553634	12	R134a	—	62085015121C

# Compressors, Tensioning

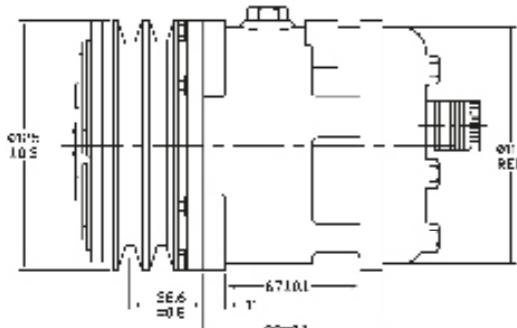
## Compressors

**DELPHI**

	Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Note	Order number
	V5	Vert.	1" 14 UNS	1" 14 UNS	132	A-2	6553633	12	R134a	—	62085015122C 6233220A (10 pcs.*)
	V5	Vert.	1" 14 UNS	1" 14 UNS	119	Poly-V 8	6553633	12	R134a	—	62085015123C 6233197A (10 pcs.*)
	V5	Horiz.	1" 14 UNS	1" 14 UNS	132	A-2	6553634	24	R134a	—	62085015162B
	V5	Vert.	1" 14 UNS	1" 14 UNS	132	A-2	6553633	24	R134a	—	62085015163A
	V5	Horiz.	1" 14 UNS	1" 14 UNS	119	Poly-V 8	6553634	24	R134a	—	62085015164B
	V5	Vert.	16.4	—	132	A-2	6581383 6560385	12	R134a	—	62085015167A
	V5	Vert.	16.4	16.4	122	Poly-V 8	6581383	12	R134a	—	62085015199B

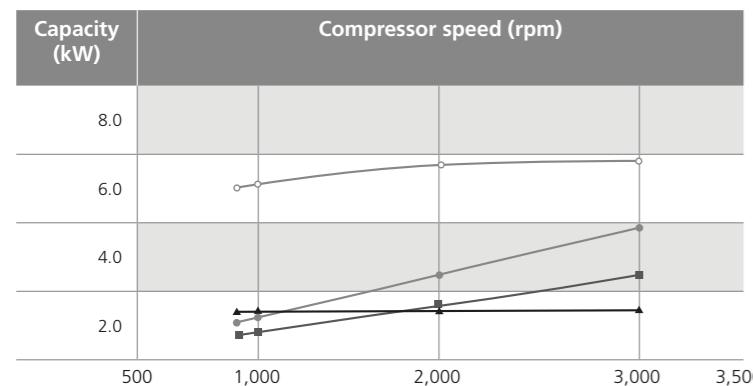
# Compressors, Tensioning

TCCI QP5H09



The swash plate piston compressor is dedicated to the specific requirements of the mobile air conditioning and transport refrigeration applications. By fulfilling highest quality standards the compressor QP5H09 is the 1st choice in the branch.

## Performance:



- Capacity
- Power consumption
- Vol. Eff.
- ▲ COP

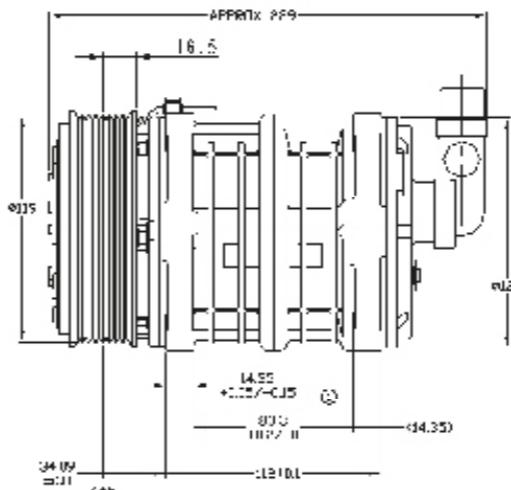
## Technical specifications:

Parameters	Specification
Type	Squash Plate type
Number of cylinders	5
Piston diameter (Ø mm/inch)	35/1.38
Stroke (mm/inch)	18.1/0.71
Displacement (cm³/inch³)	87/3.4
Permissible max. speed (rpm)	7,000
Permissible constant speed (rpm)	6,000
Lubricant (cm³)	PAG 46 (100+15)
Refrigerant	R134a

Order number	Type	Quantity (ml)
Oil		
62040595B	PAG ISO 46	250
6233180A	PAG ISO 46	24 x 250

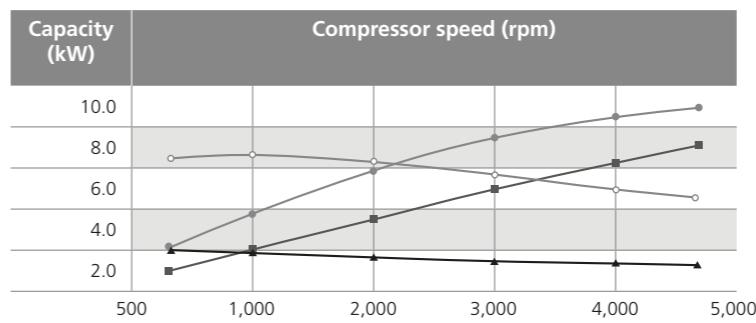
# Compressors, Tensioning

TCCI QP13XD



The swash plate piston compressor is dedicated to the specific requirements of the mobile air conditioning and transport refrigeration applications. By fulfilling highest quality standards the compressor QP13XD is the 1st choice in the branch.

## Performance:



- Capacity
- Power consumption
- Vol. Eff.
- ▲ COP

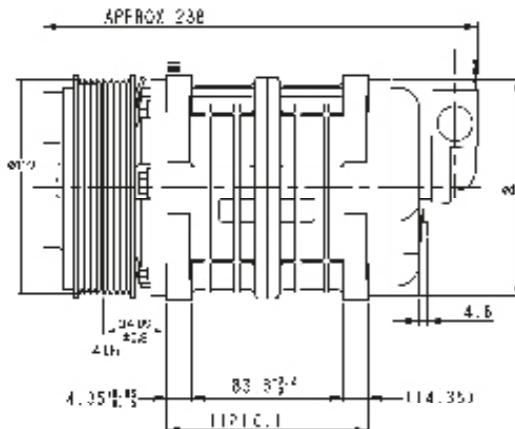
## Technical specifications:

Parameters	Specification
Type	Squash Plate type
Number of cylinders	6
Piston diameter (Ø mm/inch)	36/1.42
Stroke (mm/inch)	21.4/0.84
Displacement (cm³/inch³)	131/5
Permissible max. speed (rpm)	700 – 6,000
Rotation	clockwise/counterclockwise
Lubricant (cm³)	PAG 46 or POE 68 (150+20)
Weight without pulley, dry (kg/lbs)	4.3/9.5
Weight with pulley, dry (kg/lbs)	6.7/14.7
Refrigerant	R134a or R404A

Order number	Type	Quantity (ml)
Oil		
6204059B	POE ISO 68 (R404A)	250
62040595B	PAG ISO 46 (R134a)	250
6233180A	PAG ISO 46 (R134a)	24 x 250

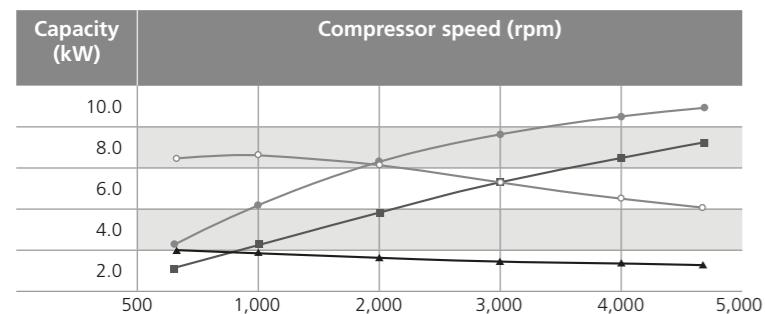
# Compressors, Tensioning

TCCI QP15XD



The swash plate piston compressor is dedicated to the specific requirements of the mobile air conditioning and transport refrigeration applications. By fulfilling highest quality standards the compressor QP15XD is the 1st choice in the branch.

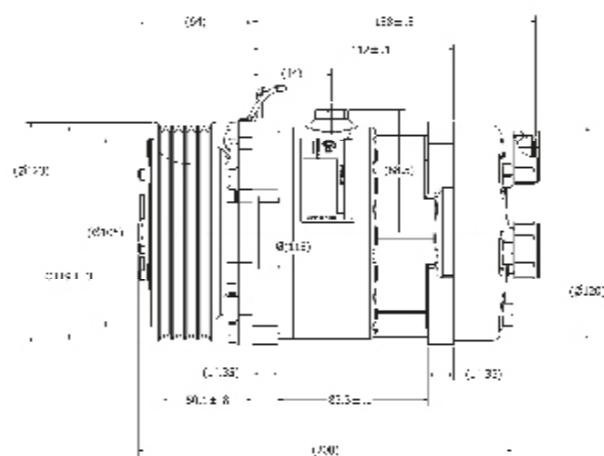
## Performance:



- Capacity
- Power consumption
- Vol. Eff.
- ▲ COP

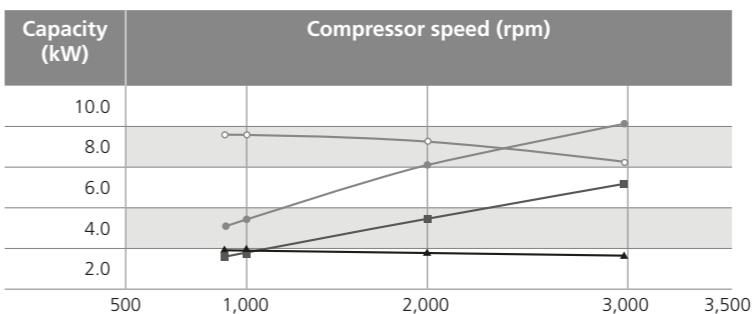
# Compressors, Tensioning

TCCI QP7H15



The swash plate piston compressor is dedicated to the specific requirements of the mobile air conditioning and transport refrigeration applications. By fulfilling highest quality standards the compressor QP7H15 is the 1st choice in the branch.

## Performance:



- Capacity
- Power consumption
- Vol. Eff.
- ▲ COP

## Technical specifications:

Parameters	Specification
Type	Squash Plate type
Number of cylinders	6
Piston diameter (Ø mm/inch)	36/1.42
Stroke (mm/inch)	24/0.94
Displacement (cm³/inch³)	146/8.9
Permissible max. speed (rpm)	700 - 6,000
Rotation	clockwise/counterclockwise
Lubricant (cm³)	PAG 46 or POE 68 (150+20)
Weight without pulley, dry (kg/lbs)	4.3/9.5
Weight with pulley, dry (kg/lbs)	6.7/14.7
Refrigerant	R134a or R404A

Order number	Type	Quantity (ml)
Oil		250
6204059B		250
6204059B		24 x 250
6233180A		24 x 250

## Technical specifications:

Parameters	Specification
Type	Squash Plate type
Number of cylinders	7
Piston diameter (Ø mm/inch)	29.3/1.15
Stroke (mm/inch)	32.8/1.29
Displacement (cm³/inch³)	154.8/6.1
Permissible max. speed (rpm)	8,000
Permissible constant speed (rpm)	6,000
Rotation	clockwise
Lubricant (cm³)	PAG 46 (135+20)
Refrigerant	R134a

Order number	Type	Quantity (ml)
Oil		250
6204059B		24 x 250
6233180A		24 x 250

# Compressors, Tensioning

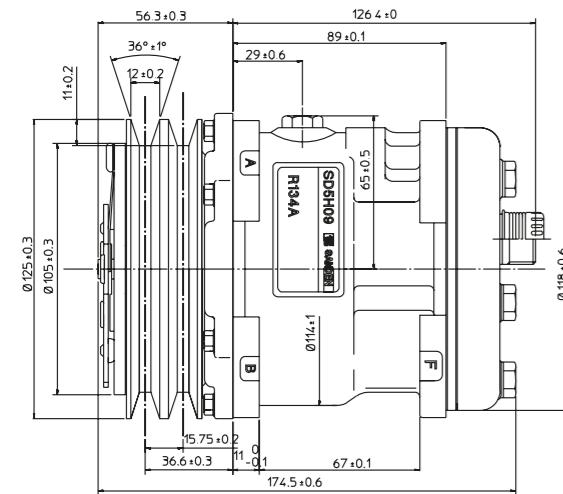
## Compressors



	Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer Code	Voltage (V)	Refrigerant	Order number
	QP5H09	Horiz.	7/8" 14 UNF	3/4" 16 UNF	125	A-2	QP5H09-5077	12	R134a	6242233A
	QP13XD	Vert.	7/8" 14 UNF	3/4" 16 UNF	119	Poly-V 8	QP13XD-1235	12	-	6242240A
	QP15XD	Vert.	7/8" 14 UNF	3/4" 16 UNF	119	Poly-V 8	QP15XD-1241	12	-	6242243A
	QP15XD	Horiz.	7/8" 14 UNF	3/4" 16 UNF	125	A-2	QP15XD-1635	12	-	6242241A
	QP7H15	Vert. Flanged	Pad	Pad	124	Poly-V 8	QP7H15-8203	12	R134a	6242234A
	QP7H15	Horiz. Rotalock	1" 14 UNF	1" 14 UNF	119	Poly-V 8	QP7H15-7830	12	R134a	6242237A

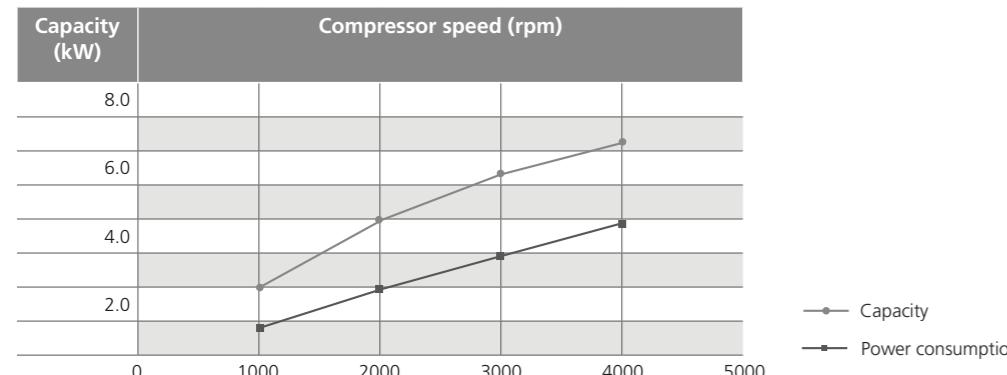
# Compressors, Tensioning

Sanden SD5



This compressor is equipped with 5 pistons, and it has  $(87 \text{ cm}^3)$  displacement/revolution. The reliability of this compressor is among the highest in the market. The compressor body is equipped with 8 "ears"; this feature, along with the mounting angle ( $+/-90^\circ$ ), allows for using the best mounting options. This SD5H09 compressor, is the version for R134a. The SD5L09 compressor is for R404A version. The compressors are available with O-Ring ports (3/4" 16 UNF; 7/8" 14 UNF) – for more details, please see the technical table.

Performance SD5H09 (R134a):



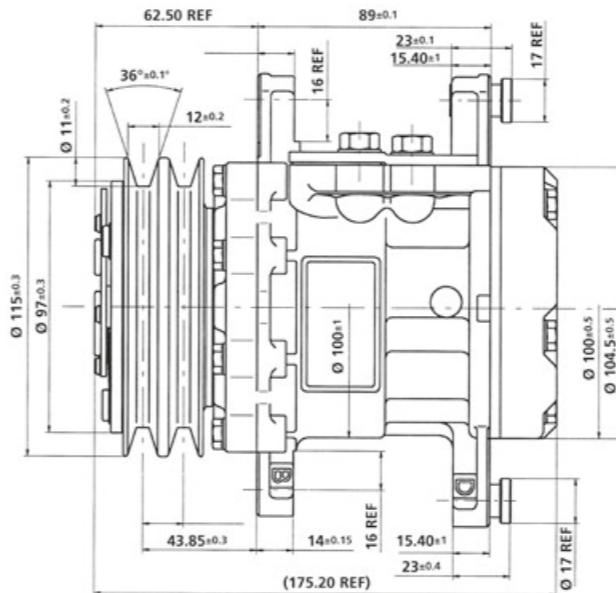
Technical specifications SD5H09 (R134a):

Parameters	Specification
Piston diameter ( $\varnothing$ mm)	35
Stroke (mm)	18.07
Displacement ( $\text{cm}^3$ )	87
Number of cylinders	5
Permissible max. speed (rpm)	7,500
Permissible continuos speed (rpm)	6,500
Lubricant charge ( $\text{cm}^3$ )	100
Rotation	Clockwise
Refrigerant	R134a

Order number	Type	Quantity (ml)
Oil	PAG ISO 100 for SD5H09 (R134a)	250
62040593A	POE ISO 68 for SD5L09 (R404A)	250
62040599B		

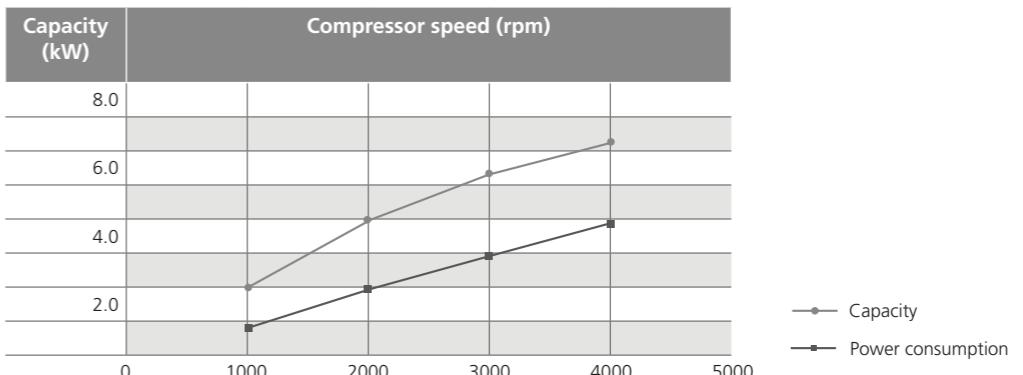
# Compressors, Tensioning

Sanden SD7B10



This compressor is equipped with 7 pistons, and it has  $(99 \text{ cm}^3)$  displacement/revolution. The reliability of this compressor is among the highest in the market. The compressor body is provided with 4 "ears"; this feature, along with the mounting angle ( $+/-90^\circ$ ), allows for taking advantage of the best mounting options. This SD7B10 compressor, is the version for R134a refrigerant, of the old type SD706 (for R12), so its dimensions are small and it is lightweight. The compressors are available with flanged ports.

Performance:



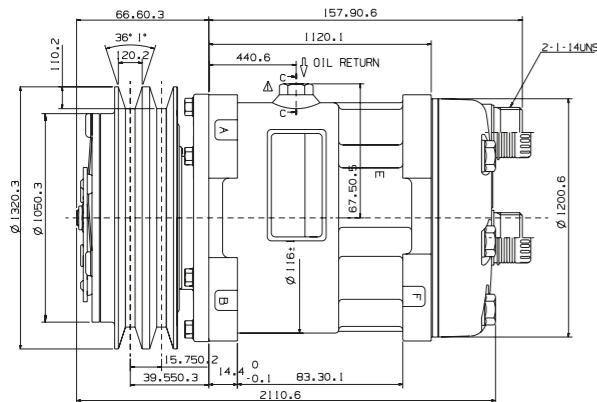
Technical specifications:

Parameters	Specification
Piston diameter ( $\varnothing$ mm/inch)	25.4/1
Stroke (mm/inch)	25.1/1.11
Displacement ( $\text{cm}^3/\text{inch}^3$ )	99.8/6.1
Dry weight (kg/lbs)	2.8/6.2
Number of cylinders	7
Permissible max. speed (rpm)	9,300
Permissible continuos speed (rpm)	6,500
Refrigerant	R134a

Order number	Type	Quantity (ml)
Oil	PAG ISO 46	250
62040595B		

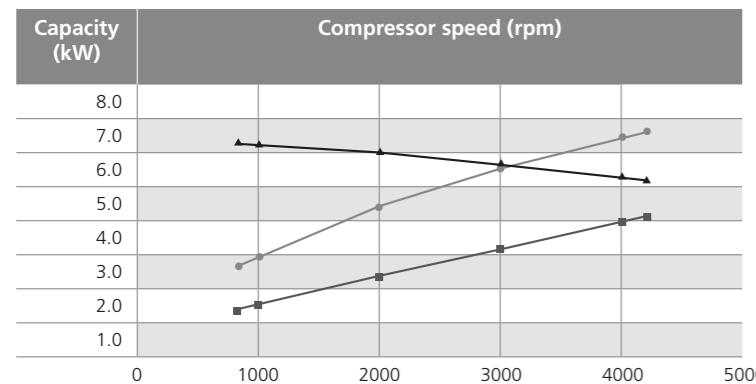
# Compressors, Tensioning

Sanden SD7H15



This compressor is equipped with 7 pistons, and it has 154 cm<sup>3</sup> displacement/revolution. The reliability of this compressor is among the highest in the market. The compressor body is equipped with 8 "ears"; this feature, along with the mounting angle (+/-90°), allows for using the best mounting options. This SD7H15 compressor, is the version for R134a refrigerant, of the old type SD709 (for R12). The compressors are available with Rotalock ports (1" – 14 UNS), but also with O-Ring ports (3/4" 16 UNF; 7/8" 14 UNF).

## Performance:



- Capacity
- Power consumption
- ▲ COP

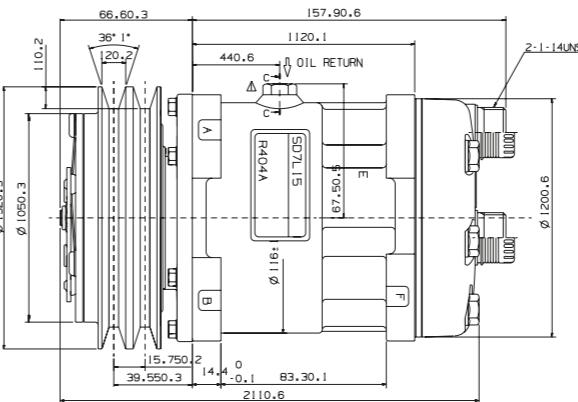
## Technical specifications:

Parameters	Specification
Piston diameter (Ø mm/inch)	29.3/1.15
Stroke (mm/inch)	32.8/1.29
Displacement (cm <sup>3</sup> /inch <sup>3</sup> )	154.9/9.5
Dry weight (kg/lbs)	6.2
Number of cylinders	7
Permissible max. speed (rpm)	7,000
Permissible continuos speed (rpm)	6,000
Refrigerant	R134a

Order number	Type	Quantity (ml)
Oil 62040595B	PAG ISO 46	250

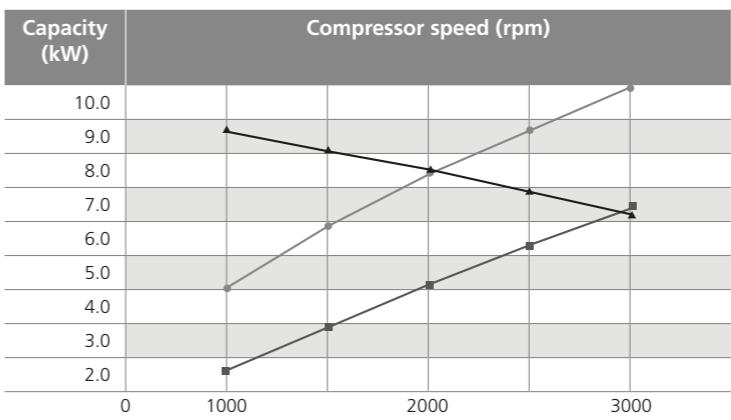
# Compressors, Tensioning

Sanden SD7L15



This compressor is equipped with 7 pistons, and it has (154 cm<sup>3</sup>) displacement/revolution. The reliability of this compressor is among the highest in the market. The compressor body is equipped with 8 "ears"; this feature, along with the mounting angle (+/-90°), allows for using the best mounting options. This SD7L15 compressor, is the version for R404A. The compressors are available with Rotalock ports (1" 14 UNS).

## Performance:



- Capacity
- Power consumption
- ▲ COP

## Technical specifications:

Parameters	Specification
Piston diameter (Ø mm/inch)	29.3/1.15
Stroke (mm/inch)	32.8/1.29
Displacement (cm <sup>3</sup> /inch <sup>3</sup> )	154.9/9.5
Dry weight (kg/lbs)	6.2
Number of cylinders	7
Permissible max. speed (rpm)	7,000
Permissible continuos speed (rpm)	6,000
Refrigerant	R404A

Order number	Type	Quantity (ml)
Oil 62040599B	POE ISO 68	250

# Compressors, Tensioning

## Compressors



	Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Order number
	SD5H09	Horiz.	–	–	125	A-2	5081 5601	12	R134a	62015218A
	SD5H09	Vert.	1" 14 UNS	1" 14 UNS	132	A-2	5076 5600	12	R134a	62015219A
	SD5H09	Horiz.	1" 14 UNS	1" 14 UNS	125	A-2	5099HR	12	R134a	6238222A
	SD5H09	Horiz.	1" 14 UNS	1" 14 UNS	125	Poly-V 4	S5082	24	R134a	629003685A
	SD5L09	Horiz.	1" 14 UNS	1" 14 UNS	125	A-2	S 5650 HT	12	R404A	62015250A
	SD7B10	Vert.	14.8	–	115	A-2	7170	12	R134a	62015116A
	SD7B10	Vert.	14.8	–	112	Poly-V 6	7176	12	R134a	62015117A
	SD7H15	Horiz.	1" 14 UNS	1" 14 UNS	132	A-2	7851	12	R134a	62015106A

# Compressors, Tensioning

## Compressors



	Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Order number
	SD7H15	Horiz.	1" 14 UNS	1" 14 UNS	119	Poly-V 8	7830	12	R134a	62015107A
	SD7H15	Vert.	1" 14 UNS	1" 14 UNS	132	A-2	7849	12	R134a	62015108A
	SD7H15	Vert.	1" 14 UNS	1" 14 UNS	119	Poly-V 8	7850	12	R134a	62015109A
	SD7H15	Horiz.	1" 14 UNS	1" 14 UNS	132	A-2	7871	24	R134a	62015118A
	SD7H15	Vert.	1" 14 UNS	1" 14 UNS	132	A-2	7872	24	R134a	62015128A
	SD7H15	Horiz.	7/8" 14 UNF	3/4" 16 UNF	119	Poly-V 8	8085	24	R134a	62015193A
	SD7H15	Vert.	–	–	124	Poly-V 8	8203	12	R134a	62015224A
	SD7H15	Vert.	7/8" 14 UNF	3/4" 16 UNF	132	A-2	S8239	24	R134a	62015238A

## Compressors, Tensioning

### Compressors



	Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Order number
	SD7L15	Horiz.	1" 14 UNS	1" 14 UNS	132	A-2	S573	12	R404A	62015257A
	SD7L15	Horiz.	1" 14 UNS	1" 14 UNS	119	Poly-V 8	S571	12	R404A	62015258A

## Compressors, Tensioning

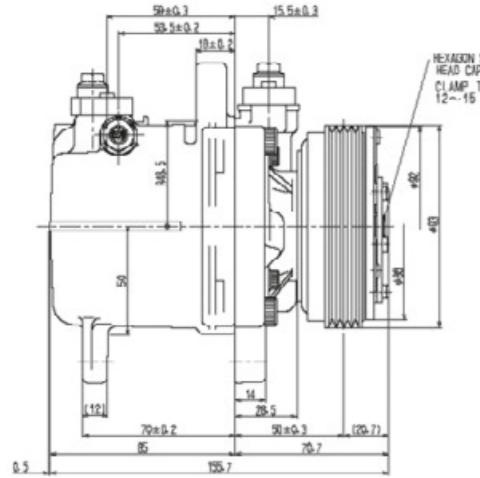
### Compressors



	Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Order number
	SD7L15	Vert.	1" 14 UNS	1" 14 UNS	132	A-2	S572	12	R404A	62015259A
	SD7L15	Vert.	1" 14 UNS	1" 14 UNS	119	Poly-V 8	S485	12	R404A	62015260A

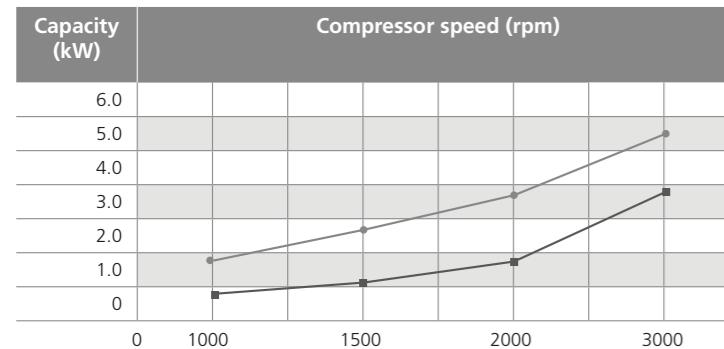
# Compressors, Tensioning

Seiko Seiki



These Seiko Seiki compressors are characterized by a very light structure, compact size and flexible capacity control. They also generate very little noise, which is useful in the cases in which those characteristics are more important than the power. The quantity of oil in the refrigerant is very reduced, so the performances of the heat exchangers are completely used. These compressors use a vane rotary mechanism; the displacement is calculated adding the single refrigerant volumes moved by the vane rotary mechanism during the suction phase – 1 turn of the rotor inside the compressor. This displacement is named "Equivalent displacement". The displacement of SS10 compressor is 96 cm<sup>3</sup>.

## Performance:



—●— Capacity  
—■— Power consumption

## Technical specifications:

Parameters	Specification
Type	Oval type vane rotary
Displacement (cm <sup>3</sup> )	96
Number of vanes	5
Permissible continuous speed (rpm)	800 – 8,000
Permissible max. speed (rpm)	8,400
Dry weight (kg)	1.58
Lubricant charge (cm <sup>3</sup> )	90 +/-10
Acceptable Mounting angle	± 35 deg
Withstand pressure	Low pressure side 4.9 MPa x 5 min. High pressure side 7.4 MPa x 5 min.
Gas leak rate	Maximum 14 g/year at 0.98 MPa
Rotation	Clockwise
Applicable temp. (°C)	-10 to 100
Refrigerant	R134a

Order number	Type	Quantity (ml)
Oil		
62040593B	PAG ISO 100	250
62040598B	POE ISO 150	1,000

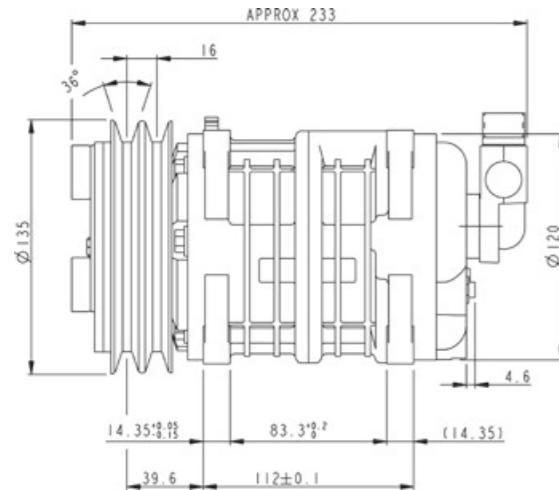
# Compressors, Tensioning

Compressors

Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Order number
	Vert.	18.3	15.5	110	Z-1	JS-72ZO-1	12	R134a	62015272A
	Vert.	—	—	114	Poly-V 4	—	12	R134a	62015141A
	Vert.	—	—	137	Poly-V 6	—	12	R134a	62015129A
	Vert.	—	—	110	Z-1	XD22-F8A201C1	12	R134a	62015225A

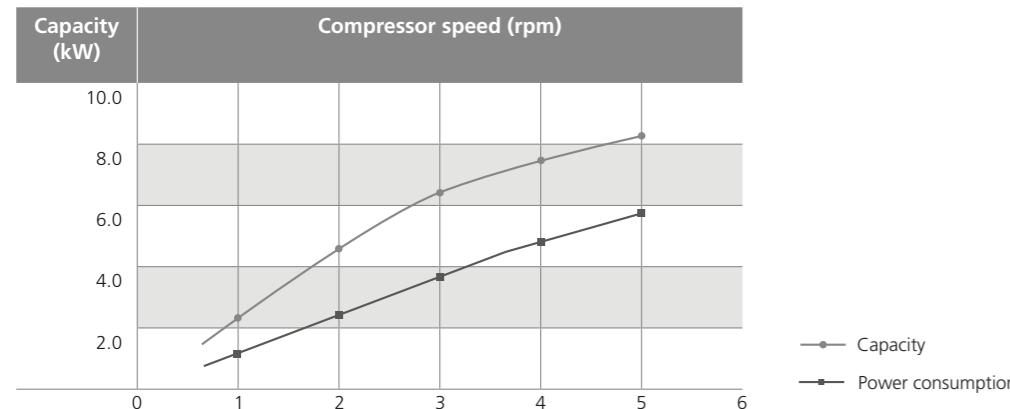
# Compressors, Tensioning

Tama 13



This TM type fixed displacement swash plate piston type compressor is adaptable to any type of field application, from small engine to heavy duty, including mini bus applications.

**Performance:**



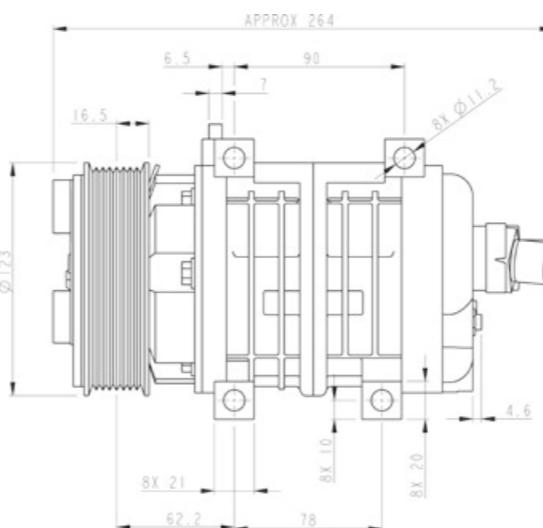
**Technical specifications:**

Parameters	Specification
Type	Swash Plate type
Number of cylinders	6
Piston diameter (Ø mm/inch)	36/1.42
Stroke (mm/inch)	21.4/0.84
Displacement (cm³/inch³)	131/8
Dry weight (kg/lbs)	4.4/9.7
Permissible speed (rpm)	700 – 6,000
Lubricant	ICE Nr. 2560101 (1 L PAG) Oil Charge 150+20 cm³
Refrigerant	R134a

Order number	Type	Quantity (ml)	Suction	Discharge	Application
<b>Oil</b>					
62040593B	PAG ISO 100	250			
62040598B	POE ISO 150	1,000			
62040599B	POE ISO 68	250			
<b>Adapters</b>					
Adapter for horizontal connection					
62043440A			1" 14 UNS	1" 14 UNS	TM 13, TM15, TM16, TM21
Adapter for vertical connection					
62043544A			1" 14 UNS	1" 14 UNS	TM15, TM21

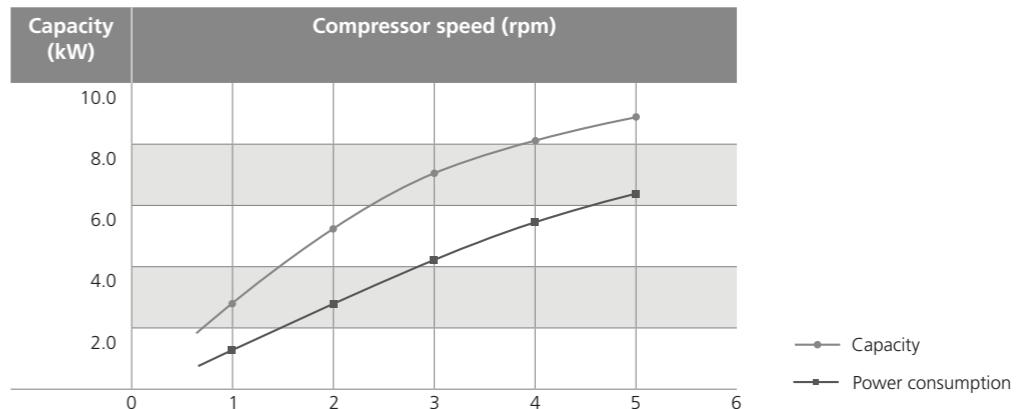
# Compressors, Tensioning

Tama 15



This TM type fixed displacement swash plate piston type compressor is adaptable to any type of field application, from small engine to heavy duty, including mini bus applications.

**Performance:**



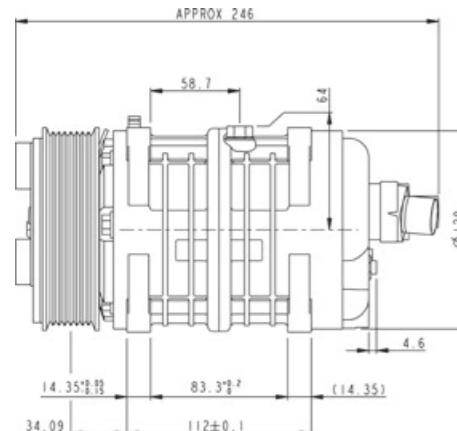
**Technical specifications:**

Parameters	Specification
Type	Swash Plate type
Number of cylinders	6
Piston diameter (Ø mm/inch)	36/1.42
Stroke (mm/inch)	24/0.94
Displacement (cm³/inch³)	146/8.9
Dry weight (kg/lbs)	4.4/9.7
Permissible speed (rpm)	700 – 6,000
Lubricant	ICE Nr. 2560101 (1 L PAG) Oil charge 150 + 20 cm³
Refrigerant	R134a

Order number	Type	Quantity (ml)	Suction	Discharge	Application
<b>Oil</b>					
62040593B	PAG ISO 100	250			
62040598B	POE ISO 150	1,000			
62040599B	POE ISO 68	250			
<b>Adapters</b>					
Adapter for horizontal connection					
62043440A			1" 14 UNS	1" 14 UNS	TM 13, TM15, TM16, TM21
Adapter for vertical connection					
62043544A			1" 14 UNS	1" 14 UNS	TM15, TM21

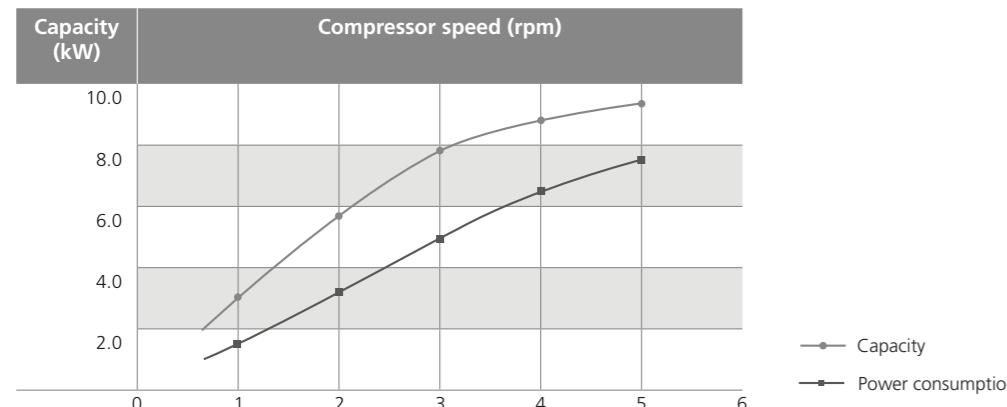
# Compressors, Tensioning

Tama 16



This TM type fixed displacement swash plate piston type compressor is adaptable to any type of field application, from small engine to heavy duty, including mini bus applications.

## Performance:



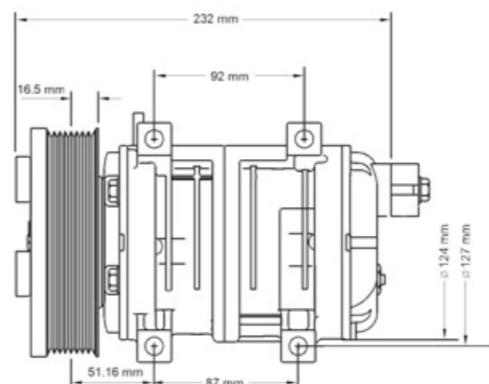
## Technical specifications:

Parameters	Specification
Type	Swash Plate type
Number of cylinders	6
Bore diameter (Ø mm/inch)	36/1.42
Stroke (mm/inch)	26.7/1.05
Displacement (cm³/inch³)	163/9.95
Dry weight (kg/lbs)	4.9/10.8
Permissible speed (rpm)	700 – 6,000
Lubricant charge (cm³)	150
Refrigerant	R134a

Order number	Type	Quantity (ml)	Suction	Discharge	Application
<b>Oil</b>					
62040593B	PAG ISO 100	250			
62040598B	POE ISO 150	1,000			
<b>Adapters</b>					
Adapter for horizontal connection					
62043440A			1" 14 UNS	1" 14 UNS	TM 13, TM15, TM16, TM21
Adapter for vertical connection					
62043544A			1" 14 UNS	1" 14 UNS	TM15, TM21

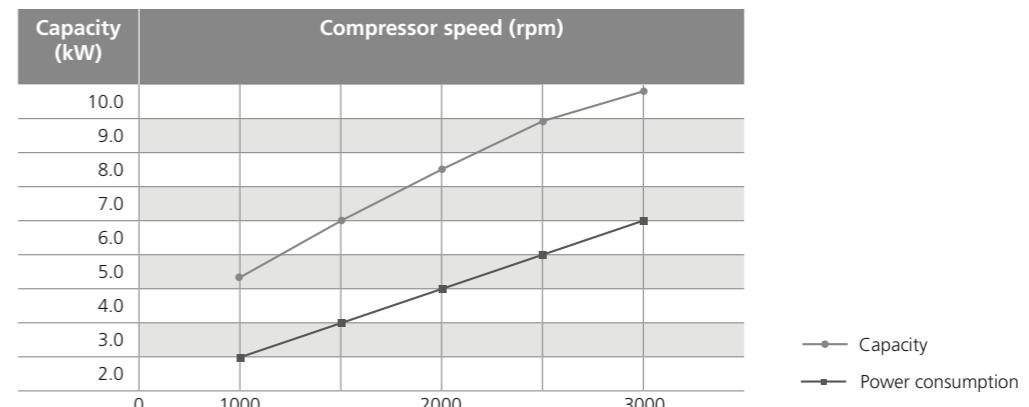
# Compressors, Tensioning

Tama 21



This TM type fixed displacement swash plate piston type compressor is adaptable to any type of field application, from small engine to heavy duty, including mini bus applications.

## Performance:



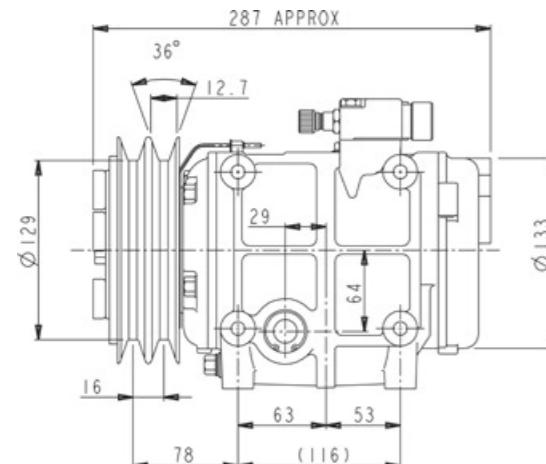
## Technical specifications:

Parameters	Specification
Type	Swash Plate type
Number of cylinders	10
Bore diameter (Ø mm/inch)	32/1.26
Stroke (mm/inch)	26.7/1.05
Displacement (cm³/inch³)	215/13
Dry weight (kg/lbs)	8.1/17.9
Permissible speed (rpm)	700 – 6,000
Lubricant	Depending on application, this compressor can be used with different compressor oils. See unit labels for proper oil specification. The installer is not responsible for proper oil selection.
Refrigerant	R134a

Order number	Type	Quantity (ml)	Suction	Discharge	Application
<b>Oil</b>					
62040593B	PAG ISO 100	250			
62040598B	POE ISO 150	1,000			
<b>Adapters</b>					
Adapter for horizontal connection					
62043440A			1" 14 UNS	1" 14 UNS	TM 13, TM15, TM16, TM21
Adapter for vertical connection					
62043544A			1" 14 UNS	1" 14 UNS	TM15, TM21

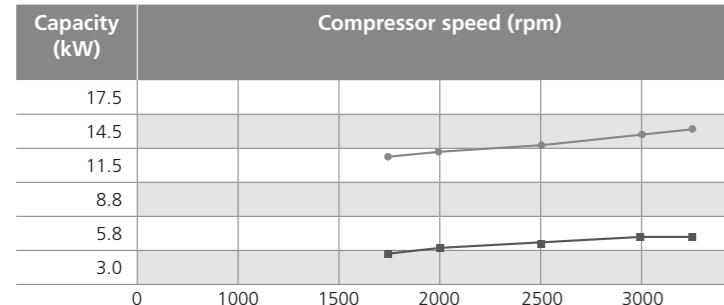
# Compressors, Tensioning

Tama 31



This TM type fixed displacement swash plate piston type compressor is adaptable to any type of field application, from small engine to heavy duty, including bus applications.

## Performance:



—●— Capacity  
—■— Power consumption

## Technical specifications:

Parameters	Specification
Type	Swash Plate type
Number of cylinders	10
Piston diameter (Ø mm/inch)	36/1.42
Stroke (mm/inch)	30.7/1.21
Displacement (cm³/inch³)	313/19.1
Permissible speed (rpm)	700 – 6,000
Dry weight (kg/lbs)	9.5/21
Lubricant charge (cm³)	500
Refrigerant	R134a

Order number	Type	Quantity (ml)	Suction	Discharge	Application
<b>Oil</b>					
62040593A	PAG ISO 100	250			
62040598A	POE ISO 150	1,000			
<b>Adapters</b>					
62A031091A			7/8" 14 UNF	1 1/16" 14 UNF	TM31

# Compressors, Tensioning

Compressors



Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Order number
TM13 HS	Horiz.	7/8" 14 UNF	3/4" 16 UNF	135	A-2	807611	12	R134a	6240152B
TM13 XS	Horiz./Flanged	PAD	PAD	135	A-2	—	12	R404A	6231655A
TM13 HS	Horiz.	7/8" 14 UNF	3/4" 16 UNF	135	A-2	435-54074	24	R134a	6240153B
TM13 XS	Horiz./Flanged	PAD	PAD	135	A-2	—	24	R404A	6231658A
TM13 HS	Vert.	7/8" 14 UNF	3/4" 16 UNF	123	Poly-V 8	435-54120	12	R134a	6267478A
TM13 XS	Horiz./Flanged	PAD	PAD	123	Poly-V 8	—	12	R404A	6231657A
TM13 HS	Vert.	7/8" 14 UNF	3/4" 16 UNF	135	A-2	435-54070	24	R134a	6280700B
TM13 HS	Vert.	7/8" 14 UNF	3/4" 16 UNF	135	A-2	Z0006329A	12	R134a	6280755B

# Compressors, Tensioning

## Compressors



	Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Order number
	TM13 HS	Horiz.	7/8" 14 UNF	3/4" 16 UNF	123	Poly-V 8	435-54123	24	R134a	6288139B
	TM13 XS	Horiz./Flanged	PAD	PAD	123	Poly-V 8	-	24	R404A	6231659A
	TM15	Horiz.	-	-	135	A-2	Z0006351A	12	-	62015263A
	TM15 XS	Horiz.	-	-	123	Poly-V 8	-	12	-	62015273A
	TM15 XS	Horiz.	PAD	PAD	123	Poly-V 8	-	12	R404A	6231660A
	TM15 HS	Horiz.	7/8" 14 UNF	3/4" 16 UNF	135	A-2	Z0006347A	24	R134a	6280739B
	TM15 XS	Horiz./Flanged	PAD	PAD	135	A-2	-	24	R404A	6231661A
	TM15 XS	Horiz./Flanged	PAD	PAD	123	Poly-V 8	-	24	R404A	6231662A
	TM16 HS	Vert.	7/8" 14 UNF	3/4" 16 UNF	135	A-2	435-56011	12	R134a	6264040A

# Compressors, Tensioning

## Compressors



	Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Order number
	TM16 HS	Vert.	7/8" 14 UNF	3/4" 16 UNF	135	A-2	435-56030	12	R134a	6267045A
	TM16 XS	Horiz.	7/8" 14 UNF	3/4" 16 UNF	135	A-2	-	12	R404A	6231663A
	TM16 HS	Horiz.	7/8" 14 UNF	3/4" 16 UNF	135	A-2	435-56017 488-46017	24	R134a	6267046A
	TM16 XS	Horiz./Flanged	PAD	PAD	135	A-2	-	24	R404A	6231665A
	TM16 HS	Horiz.	7/8" 14 UNF	3/4" 16 UNF	123	Poly-V 8	435-56122	12	R134a	629000678A
	TM16 HS	Horiz.	7/8" 14 UNF	3/4" 16 UNF	123	Poly-V 8	435-56122	24	R134a	629000679A
	TM16 XS	Horiz./Flanged	PAD	PAD	123	Poly-V 8	-	12	R404A	6231664A

# Compressors, Tensioning

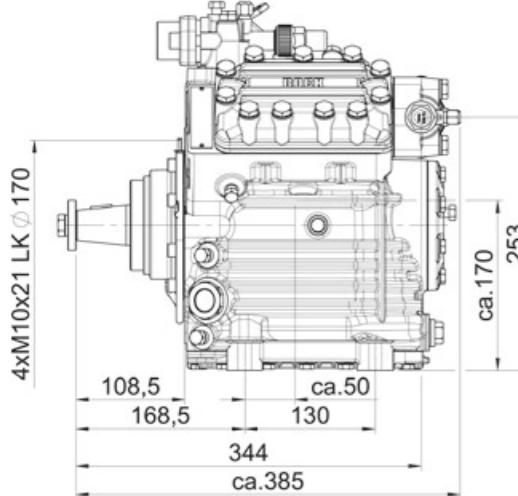
## Compressors



	Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Order number
	TM16 HS	Vert.	7/8" 14 UNF	3/4" 16 UNF	123	Poly-V 8	435-56125	24	R134a	6298561A
	TM16 XS	Vert./Flanged	PAD	PAD	123	Poly-V 8	-	24	R404A	6231666A
	TM21	Horiz.	-	-	140	Poly-V 8	Z0006433A 885D	24	R134a	62015248A
	TM21	Horiz.	16,4	-	140	Poly-V 8	Z0006433A 885D	12	R134a	62015268A
	TMC31	Vert.	1" 1/16	7/8" 14 UNF	154	B-2	-	24	R134a	62015265A

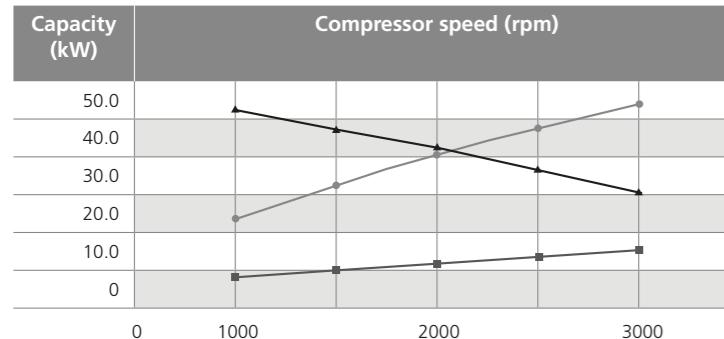
# Compressors, Tensioning

FK 40/470



The FK 40 compressor is designed for bus air-conditioning. It is unsurpassed lightweight, compact and robust and has a large speed range. The K version is equipped with a unique valve plate system for the toughest demands in mobile air-conditioning. The 2 pairs of pistons are arranged in V form. The FKF40/470 has 466 cm<sup>3</sup> displacement. Refrigerant R134a or R407A.

## Performance:

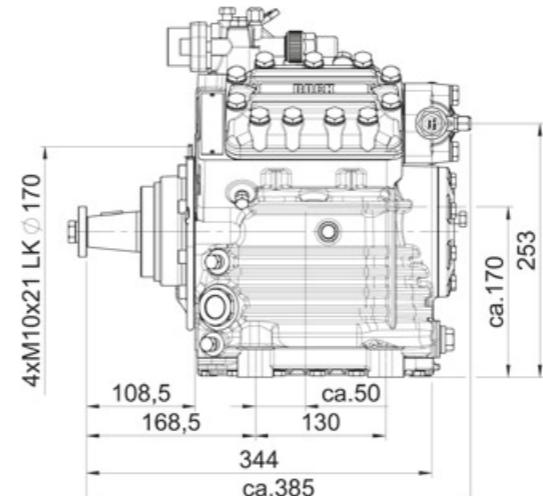


## Technical specifications:

Parameters	Specification
Type	piston
Number of cylinders	4, arrangement in V
Piston diameter (Ø mm/inch)	55/2.16
Stroke (mm/inch)	49/1.93
Displacement (cm <sup>3</sup> )	466
Permissible speed (rpm)	500 – 3,500
Dry weight (kg/lbs)	34/75
Max. permissible pressure LP/HP (bar)	19/28
Lubricant charge (cm <sup>3</sup> )	2,000
Lubricant type	SE 55
Refrigerant	R134a, R407A
Accessories	
Capacity regulator 24 V (up to 50% residual capacity) on request	
Electromagnetic clutch 24 V on request	

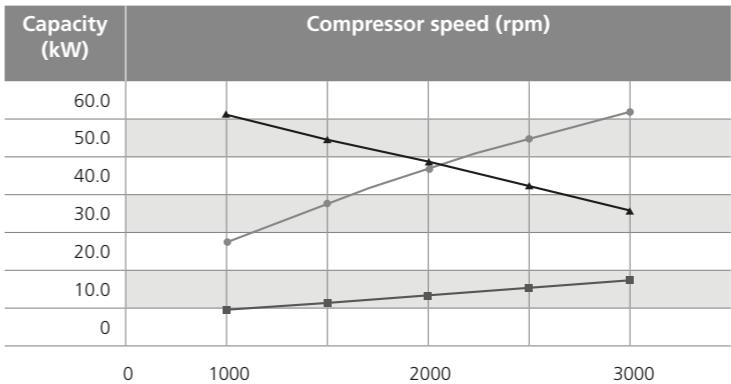
# Compressors, Tensioning

FK 40/560



The FK 40 compressor is designed for bus air-conditioning. It is unsurpassed lightweight, compact and robust and has a large speed range. The K version is equipped with a unique valve plate system for the toughest demands in mobile air-conditioning. The 2 pairs of pistons are arranged in V form. The FKF40/560 has 554 cm<sup>3</sup> displacement. Refrigerant R134a or R407A.

## Performance:



## Technical specifications:

Parameters	Specification
Type	piston
Number of cylinders	4, arrangement in V
Piston diameter (Ø mm/inch)	60/2.36
Stroke (mm/inch)	49/1.93
Displacement (cm <sup>3</sup> )	554
Permissible speed (rpm)	500 – 3,500
Dry weight (kg/lbs)	33/73
Max. permissible pressure LP/HP (bar)	19/28
Lubricant charge (cm <sup>3</sup> )	2,000
Lubricant type	SE 55
Refrigerant	R134a, R407A
Accessories	
Capacity regulator 24 V (up to 50% residual capacity) on request	
Electromagnetic clutch 24 V on request	

# Compressors, Tensioning

## Compressors

	Type	Fittings	Suction (mm/inch)	Discharge (mm/inch)	Ø Pulley (mm)	Groove type	Manufacturer code	Voltage (V)	Refrigerant	Order number
	FK40X/470K	Horiz./-	35/1 3/8"	28/1 1/8"	-	-	-	24	R134a, R407A	6240010A
	FK40X/560K	Horiz./-	35/1 3/8"	28/1 1/8"	-	-	-	24	R134a, R407A	6240011A

# Compressors, Tensioning

## Electromagnetic clutches

	Compressor type	Ø Pulley (mm)	Groove type	Voltage (V)	Magnet part number	Note	Order number
	Delphi CVC	105	Poly-V 6	12	-	-	620165005A
	Seiko SS140	116	A-2	12	-	-	62016018A
	Delphi SP10	105	Poly-V 6	12	-	-	62016163A
	Delphi SP15	121	Poly-V 8	-	-	only pulley	62004085A
	Delphi SP15	-	-	12	620682812A	only magnet	620682812A 6233306A (20 pcs.*)
	Delphi SP15	-	-	24	620682813A	only magnet	620682813A
	Delphi V5	120	Poly-V 10	12	-	-	62016124A
	Delphi V5	121	Poly-V 6	12	-	-	62016144A
	Delphi V5	119	Poly-V 8	12	-	-	62016161A

# Compressors, Tensioning

## Electromagnetic clutches

	Compressor type	Ø Pulley (mm)	Groove type	Voltage (V)	Magnet part number	Note	Order number
	Delphi V5	122	Poly-V 8	12	-	-	62016169A
	Delphi V5	132	A-2	12	-	-	62016182A
	Delphi V5	119	Poly-V 8	12	-	-	62016183B
	Delphi V5	132	A-2	24	-	-	62016184A
	Delphi SP21	124	Poly-V 8	12	62016187S2A	-	62016187A

# Compressors, Tensioning

## Adapters

	Dimension (Inch)	Description	Compressor type	Note	Order number
	3/4"	Thread Adapter	SP10	Suction Min. order quantity 5 pcs.*	6233282A
	7/8"	Thread Adapter	SP10	Discharge Min. order quantity 5 pcs.*	6233267A
	3/4" and 7/8"	Thread Adapter Kit	SP10	Suction (62043174B) and Discharge (62043173B)	620361774A
	3/4"	Thread Adapter	SP21 / SP20	Suction	62043290A
	7/8"	Thread Adapter	SP21 / SP20	Discharge	62043291A
	3/4" and 7/8"	Thread Adapter Kit	SP21 / SP20	Suction (62043174B) and Discharge (62043173B)	62A03924A
	7/8"	90° Adapter	SP21 / SP20	Suction	62043392A
	3/4"	90° Adapter	SP21 / SP20	Discharge	62043391A
	3/4" and 7/8"	90° Adapter Kit	SP21 / SP20	Suction (62043391A) and Discharge (62043392A)	62A031056A

# Compressors, Tensioning

## Adapters

	Dimension (Inch)	Description	Compressor type	Note	Order number
	3/4"	Thread Adapter	SP15 / SD7H15	Suction	62043540A
	7/8"	Thread Adapter	SP15 / SD7H15	Discharge	62043541A
	3/4"	90° Adapter	SP20	Suction	62043584A
	7/8"	90° Adapter	SP20	Discharge	62043585A
	3/4" and 7/8"	Horizontal Flange Kit	TM13 / TM15 / TM16	Suction and Discharge	62043577A
	3/4" and 7/8"	Vertical Flange Kit	TM13 / TM15 / TM16	Suction and Discharge	62043578A
	1" 14 UNF	Horizontal Flange	TM21 / TM15	Suction and Discharge	62043440A
	1" 14 UNF	Vertical Flange	TM21 / TM15	Suction and Discharge	62043544A
	7/8" 14 UNF -HD- and 1 1/16" 14 UNS -ND-	Adapter kit	TM31	Suction and Discharge	62A031091A

# Compressors, Tensioning

## Drag components

Idler pulleys	$\varnothing$ External (mm)	$\varnothing$ Internal (mm)	Thickness (mm)	Groove type	Note	Order number
	50	15	20	N	-	62004013B
	50	15	24	N	-	62004024B
	50	15	25	N	-	62004034B
	50	15	27	N	-	62004090C
	55	15	24	N	-	62004029B
	60	15	24	N	-	62004047B
	60	15	27	N	-	62004072B
	60	15	27	N	-	62004020B
	64	15	27	N	-	62004031B

# Compressors, Tensioning

## Drag components

### Idler pulleys

	$\varnothing$ External (mm)	$\varnothing$ Internal (mm)	Thickness (mm)	Groove type	Note	Order number
	65	10	27	N	-	62004052DVB  6233296A (2 pcs.*)
	65	10	27	N	-	62004084A  6233421A (2 pcs.*)
	65	15	32	N	-	62004079B
	65	12	36	N	-	62004086A
	65	24	-	N	-	62004083A
	70	15	18,2	A	-	62004030B
	70	17	26	A	-	6240305A
	70	17	26	N	-	62004060C
	70	15	21	POLI V 5	-	62004049B

# Compressors, Tensioning

## Drag components

### Idler pulleys

	$\varnothing$ External (mm)	$\varnothing$ Internal (mm)	Thickness (mm)	Groove type	Note	Order number
	74	15	25	POLI V 6	-	62004053B
	75	15	31	N	-	62004088B
	77	15	21	N	-	6239718A
	78	15	16	N	-	62004055C
	78	15	32	N	-	62004080B
	79	17	16.5	A	-	62004096A
	79	15	16.1	A	-	62004114A
	80	15	16	A	-	62004007AC  6233289A (10 pcs.*)
	80	15	16	A	-	62004017C  6233422A (5 pcs.*)

# Compressors, Tensioning

## Drag components

### Idler pulleys

	$\varnothing$ External (mm)	$\varnothing$ Internal (mm)	Thickness (mm)	Groove type	Note	Order number
	80	15	18	A	-	62004025B
	80	17	24	POLI V 6	-	6240312A
	80	15	18	Z	-	62004002C
	83.5	15	27	N	-	62004059B
	85	15	27	N	-	62004032C
	89	15	17	A	-	6240297A
	90	15	16	A	-	62004008AC 6233155A (10 pcs.*)
	90	15	18	A	-	62004026B
	92	15	27	N	-	62004073B

# Compressors, Tensioning

## Drag components

### Idler pulleys

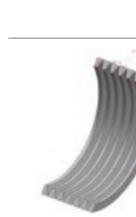
	$\varnothing$ External (mm)	$\varnothing$ Internal (mm)	Thickness (mm)	Groove type	Note	Order number
	100	15	27	N	-	62004066B
	107	15	34	N	-	62004081A
	110	15	41	A-2	-	62004082B
	110	15	44	A-2	-	62004092A

# Compressors, Tensioning

## Drag components

### Belts

Type	Length (mm)	Order number
3 K	560	629004057C
3 K	811	62013721A
4 K	543	62013579S2A
4 K	560	6240327A
4 K	563	62013653A
		6233369A (10 pcs.*)
4 K	575	62013659A
4 K	590	6240335A
4 K	592	62013592A
4 K	602	62013678A
		6233367A (10 pcs.*)
4 K	654	62013701A
4 K	725	6240361A
4 K	788	6240324A
4 K	830	62013560A
		6233287A (10 pcs.*)
4 K	845	62013557S1A
4 K	919	62013722A
4 K	910	62013512A
4 K	954	6239207A
4 K	997	6239606A
4 K	1,085	62013677A
4 K	1,085	6233376A (6 pcs.*)
4 K	1,100	62013596S2A
4 K	1,105	6240345A
4 K	1,125	6240365A
4 K	1,138	6242454A
4 K	1,270	62013676A
4 K	1,470	62013692S1A
		6233390A (5 pcs.*)
5 K	580	6240341A
5 K	625	6240348A
5 K	648	62013611S1A
5 K / 6 K	823 / 827	6240545A
5 K	848	6240359A
5 K	880	6240363A
5 K	954	6240328A
5 K	955	6240347A
5 K	1,015	6231902A
5 K	1,120	6240342A
5 K	1,285	6239208A
5 K	1,300	62013542A
5 K	1,530	6201360551A
5 K	1,590	62013695A
5 K	1,795	62013675A
5 K	866 – 870	6238853A



Type	Length (mm)	Order number
6 K	893	6239943A
6 K	913 – 915	6240370A
6 K	962	62013658A
6 K	976	6234776A
6 K	1,000	62013504A
6 K	1,063	6239605A
6 K	1,125	6240093A
6 K	1,145	62013543A
6 K	1,162	6239609A
6 K	1,170 – 1,173	6242882A
6 K	1,173	62013621A
6 K	1,200	62013665A
6 K	1,215	62013687A
6 K	1,250	6240364A
6 K	1,275	62013696S1A 6233395A (5 pcs.*)
6 K	1,420	62013705A
6 K	1,387	62013545A
6 K	1,415	6240360A
6 K	1,425	62013598S1A
6 K	1,430	62013712A
6 K	1,435	62013726A
6 K	1,440	62013541A
6 K	1,460	62013571A 6233400A (5 pcs.*)
6 K	1,490	62013644A
6 K	1,590	62013639A
6 K	1,640	62013634A
6 K	1,658	62013612S2A
6 K	1,660	62013619A
6 K	1,693	62013537S1A
6 K	1,700	62013704A
6 K	1,710	62013716A
6 K	1,720	6239608A
6 K	1,736	62013635A
6 K	1,755	6239206A
6 K	1,790	62013575A
6 K	1,824	6239607A
6 K	2,210	62013608A
6 K	2,128	62013500A
6 K	2,274	62013536S1A 6233402A (3 pcs.*)
6 K	2,300	62013655S1A 6233414A (3 pcs.*)
6 K	2,315	62013714A 6233409A (3 pcs.*)
6 K	2,585	62013689A

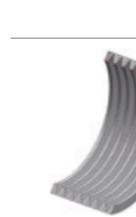


# Compressors, Tensioning

## Drag components

### Belts

Type	Length (mm)	Order number
7 K	615	62013718A
7 K	670	62013723A
7 K	690	62013719A
7 K	730	62013724A
7 K	1,815	62013715A
7 K	1,954	6201361852A
7 K	2,050	6240189A
7 K	2,050	62013710A
7 K	2,440	62013663A
7 K	2,960	62013707A
8 K	1,370	62013682A
8 K	1,688	62013650S1A
A	600	6240322A
A	610	62013004S1A
A	635	6201300551A
A	650	6235997A
A	655	62013006A
A	685	62013007A
A	700	6240266A
A	710	6240323A
A	720	6242326A
A	740	6240339A
A	750	62013011A
A	768	62013117A
A	775	6242327A
A	785	6239688A
A	800	6240337A
A	850	6240366A
A	865	6238833A
A	870	62013021A
A	875	6240326A
A	885 / 890	6240336A 6233228A (6 pcs.*)
A	887	62013022A 6233228A (6 pcs.*)
A	900	62013116A
A	918	62013024B
A	940	6240340A
A	950	62013027A
A	965	62013028A
A	975	62013029A
A	992	62013030B
A	1,000	62013031A
A	1,015	62013032A
A	1,025	62013033A
A	1,040	62013034A 6233202A (5 pcs.*)
Z	688	62012079A
Z	1,125	62013669A
Z	1,525	62012100S1AA



Compressors,  
Tensioning

# Compressors, Tensioning

## Drag components

### Cams

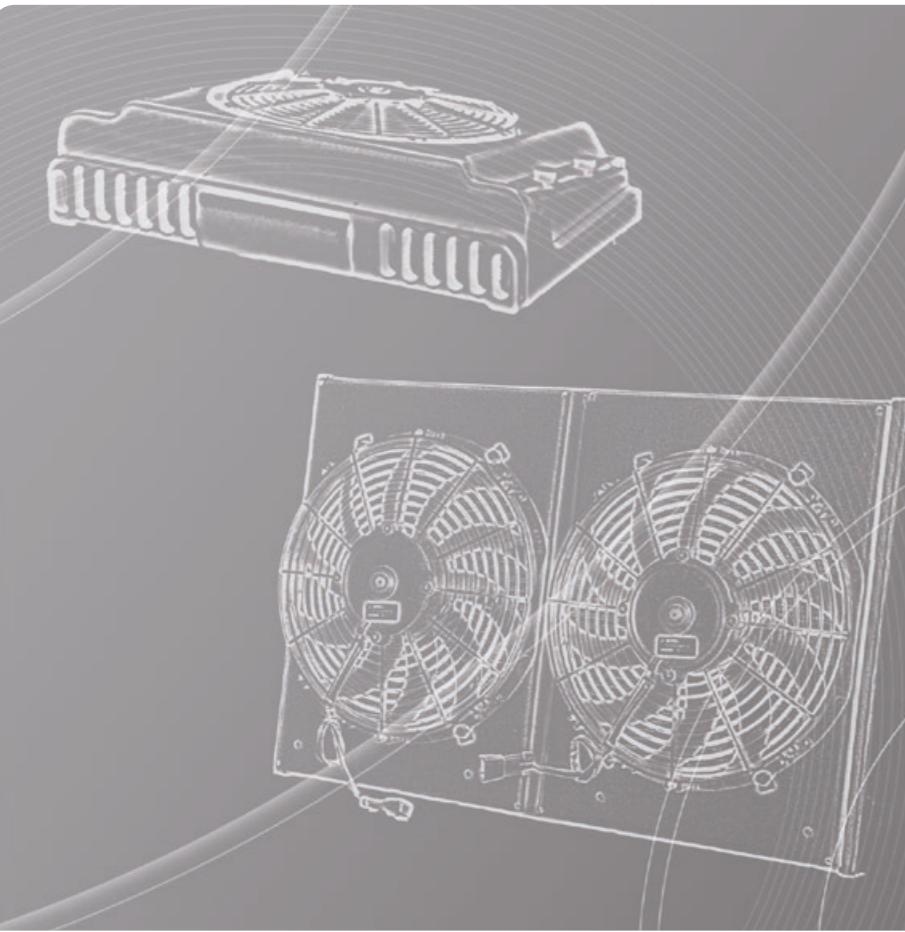
	Thickness (mm)	Distance between the 2 fixing points (mm)		Order number
	8	52.7	62006167A	
	10	75.2	62006128B	
	10	53	62006137A	
	10	52.5	62006138A	
	10	74	62006139A	
	10	74.2	62006178A	
	10	56	62006204A	
	10	65.3	62006222B	
	24	30	62006092A	
	25	30	62006120A	
	45,5	31,5	62006210B	

# Compressors, Tensioning

## Drag components

### Pivots

A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Order number
18	13	8	8	13	14	62005089A
19,5	13,5	10	15	19	6	62005059A
23	18,9	8	7	17	16	62005090A
26	20	8	8	19	16	62005082A
30,5	23,4	10	14,9	19	3,6	62005010ZNA
						6233226A (20 pcs.*)
30,5	23,2	10	15	19	2,8	62005018ZNA
35	25	10	15	19	3,7	62005050A
35	31	10	16	24	10	62005060A
38	23	10	14,9	19	3,6	62005032A
39	28	10	15	19	7	62005095A
40	31	10	16	22	12	62005088A
40,5	31,5	10	14,9	19	3,2	62005014ZNA
42	26	8	15	19	6,2	62005058A
43	28	10	14,9	19	3	62005021ZNA
						6233359A (25 pcs.*)
44,5	31	10	14,9	19	3,8	62005024ZNA
47	36	10	15	19	3,3	62005042A
						6233365A (10 pcs.*)
49	32,4	10	14,9	19	4,3	62005034A
50	20	10	16	24	14	62005078A
52	38,4	10	15	19	7,4	62005023ZNA
						6233374A (10 pcs.*)
54	20	10	16	24	10	62005041A
55	38,2	10	14,9	19	4,2	62005026ZNA
55	40,5	10	14,9	19	4	6238223A
56	30	10	16	24	4	62005019ZNB
57	41	8	15	19	6	62005052A
64	21	10	16	24	4	62005091A
73	37,5	12	15	19	8	62005094A
79,5	40,5	12	15	24	8	62005063A



# Condensers

## Condensers

Webasto offers a full range of condensers from tube and fin to parallel flow design, available in a variety of mounting features and core sizes. The rooftop condenser units with fans with the performance from 2.8 to 12.5 kW are available in 12 V and 24 V version and are equipped with the relevant receiver drier.

The under chassis and front mounted condensers with the performance from 5 to 14 kW are available with fin pitch of 2.5 mm and 3.5 mm, suitable for agricultural applications or if used in particularly dusty environments; they are also available in 12 V and 24 V versions and can be supplied with a vehicle-specific installation kit. The HTC and CTSC condensers deliver up to 45 % higher heat exchange than tube and fin condensers with the same dimensions.

## HTC condensers

### Tube and fin condensers

### Electroventilated condensers

## CTSC condensers

## Performance of Condensers (in kW)

The heat dissipation capacity depend on the size, type and design of the condenser as well as on the air flow through the condenser. The following overview shows the performance depending on the air flow.

Order number	Type	Air flow (m³/h)							
		1000	1500	2000	2500	3000	3500	4000	
62022296ORB	HTC	—	—	6.4	7.1	7.7	8.3	8.9	
62022297ORB	HTC	—	—	6.7	7.5	8.2	8.8	9.6	
62022298ORB	HTC	—	—	7.4	8.2	8.8	9.6	10.3	
62022299ORB	HTC	—	—	7.7	8.4	9.1	9.7	10.3	
62022300ORB	HTC	—	—	7.8	8.8	9.7	10.6	11.5	
62022301ORB	HTC	—	—	8.7	9.8	10.8	11.6	12.5	
62022327ORA	HTC	—	—	8.7	9.8	10.8	11.6	12.5	
62022341ORA	HTC	4.0	5.0	6.5	6.8	7.3	7.8	8.5	
62022368ORC	HTC	—	—	6.0	6.7	7.2	7.8	8.2	
62022379ORA	HTC	—	—	8.1	9.7	10.7	11.8	12.8	
62022381A	HTC	—	—	6.5	7.3	8.2	8.8	9.4	
6240760A	HTC	—	8.9	10.4	13.0	14.8	16.5	17.9	
62022417ORA	HTC	—	—	10.9	12.6	14.0	15.2	16.0	
62022473A	HTC	5.3	7.1	8.6	9.8	11.0	11.7	12.2	
62022446C	HTC	5.8	8.8	10.5	12.1	13.5	15.0	16.0	
6235221A	HTC	5.6	7.3	8.7	10.7	11.9	13.9	13.9	
6240625A	HTC	—	—	—	14.0	18.6	21.5	24.5	
6240626A	HTC	—	—	—	14.0	19.5	22.8	26.3	
6240627A	HTC	—	—	—	4,500 m³/h:25	6,000 m³/h:30	7,500 m³/h:36	9,000 m³/h:41	
62022481A	CTSC	—	—	4.3	5.1	5.6	6.2	6.8	
62022531A	CTSC	—	—	4.3	4.6	5.1	5.7	6.2	
62022535A	CTSC	—	—	5.3	6.0	6.8	7.5	8.0	
6238224A	CTSC	5.3	7.5	9.3	10.8	12.3	13.7	15.1	
6238225A	CTSC	4.5	6.0	7.3	8.5	9.5	10.5	11.4	
62022046ORTA	Tube & Fin	2.6	3.1	3.4	3.7	3.9	4.1	4.3	
62022047ORB	Tube & Fin	2.8	3.4	3.8	4.2	4.5	4.7	4.9	
62022051ORA	Tube & Fin	2.9	3.6	4.2	4.6	5.0	5.4	5.7	
62022053ORB	Tube & Fin	4.0	5.1	5.9	6.6	7.1	7.6	8.0	
62022071ORA	Tube & Fin	2.8	3.5	4.1	4.5	4.9	5.3	5.5	
62022098ORA	Tube & Fin	4.4	5.8	6.8	7.7	8.8	9.1	9.6	
62022148ORB	Tube & Fin	2.9	3.7	4.3	4.8	5.3	5.7	6.1	
62022159ORA	Tube & Fin	4.5	5.9	7.0	7.9	8.7	9.3	9.9	
62022289ORB	Tube & Fin	4.2	5.3	6.1	6.7	7.3	7.7	8.1	
62022331ORA	Tube & Fin	3.1	4.0	4.7	5.2	5.7	6.1	6.5	
62022333ORA	Tube & Fin	2.2	2.8	3.1	3.5	3.7	3.9	4.1	
62022334ORA	Tube & Fin	3.2	4.1	4.8	5.4	5.9	6.4	6.8	
62022354ORA	Tube & Fin	3.2	4.0	4.5	4.9	5.3	5.5	5.7	
62022358ORA	Tube & Fin	3.1	4.0	4.7	5.2	5.7	6.1	6.5	
62022427A	Tube & Fin	3.0	3.6	4.1	4.4	4.7	4.9	5.1	
62022396A	Tube & Fin	3.3	4.3	5.0	5.6	6.1	6.6	7.0	
62022411ORA	Tube & Fin	4.5	5.9	7.0	7.8	8.6	9.2	9.7	
62022414ORA	Tube & Fin	3.9	5.0	5.9	6.7	7.4	8.0	8.6	
62022422ORA	Tube & Fin	2.6	3.2	3.7	4.0	4.3	4.6	4.8	
62022437A	Tube & Fin	2.6	3.2	3.6	4.0	4.3	4.5	4.7	
62022442A	Tube & Fin	2.8	3.4	3.9	4.2	4.5	4.8	5.0	
62022444A	Tube & Fin	2.1	2.5	2.8	3.0	3.2	3.3	3.4	
62022451A	Tube & Fin	3.6	4.5	5.1	5.6	6.0	6.4	6.7	
62022469A	Tube & Fin	2.9	3.7	4.3	4.7	5.1	5.5	5.8	
62022495B	Tube & Fin	4.4	5.5	6.4	7.1	7.6	8.1	8.5	
62022530B	Tube & Fin	3.8	5.0	5.9	6.7	7.3	7.9	8.5	

# Condensers

## HTC condensers

	Length (mm)	Height (mm)	Thickness (mm)	Inlet (mm/inch)	Outlet (mm/inch)	Fin pitch (mm)	Note	Order number
	413	348	19	5/8" 18 UNF	3/4" 16 UNF	3.5	-	62022473A
	415	246,3	21.5	5/8" 18 UNF	3/4" 16 UNF	2.5	-	62022296ORB 6233150A (22 pcs.*)
	415	302	21.5	5/8" 18 UNF 2A	3/4" 16 UNF	2.5	-	62022297ORB 6232963A (22 pcs.*) 6233017A (176 pcs.*)
	415	347	21.5	5/8" 18 UNF	3/4" 16 UNF	3.5	= 62022298ORB with different fin pitch	62022368ORC 6233151A (22 pcs.*)
	415	347	21.5	5/8" 18 UNF	3/4" 16 UNF	2.5	= 62022368ORC with different fin pitch	62022298ORB 6233189A (10 pcs.*)
	415	347	18	5/8" 18 UNF	3/4" 16 UNF	2.5	= 62022368ORC with different fin pitch	62022341ORA 6233133A (17 pcs.*)
	535	383	22.4	5/8" 18 UNF	3/4" 16 UNF	2.6	-	6235221A
	540	246,3	21.5	5/8" 18 UNF	3/4" 16 UNF	2.5	-	62022299ORB
	540	302	21.5	5/8" 18 UNF	3/4" 16 UNF	2.5	-	62022300ORB 6233136A (14 pcs.*)
	540	347	21.5	5/8" 18 UNF	3/4" 16 UNF	2.5	-	62022301ORB 6232964A (14 pcs.*) 6233018A (112 pcs.*)
	540	347	21.5	5/8" 18 UNF	3/4" 16 UNF	2.5	-	62022327ORA

# Condensers

## HTC condensers

	Length (mm)	Height (mm)	Thickness (mm)	Inlet (mm/inch)	Outlet (mm/inch)	Fin pitch (mm)	Note	Order number
	540	348	21.5	5/8" 18 UNF	3/4" 16 UNF	3.5	-	62022381A
	870	383	25	5/8" 18 UNF	3/4" 16 UNF	1.8	-	6240760A
	659	445	21.5	5/8" 18 UNF	3/4" 16 UNF	3.5	-	62022379ORA 6233137A (4 pcs.*)
	659	445	21.5	5/8" 18 UNF	3/4" 16 UNF	2.5	-	62022417ORA 6232961A (78 pcs.*)
	710	375	17	10,15	15,45	2.5	-	620225647A
	796	447	21.5	5/8" 18 UNF	3/4" 16 UNF	2.8	-	62022446C
	1018	471	25	1 1/8" 12 UNF 2A	7/8" 14 UNF 2A	2.8	-	6240625A
	1368	471	25	1 1/8" 12 UNF 2A	7/8" 14 UNF 2A	2.8	-	6240626A
	1718	471	25	1 1/8" 12 UNF 2A	7/8" 14 UNF 2A	2.8	-	6240627A

# Condensers

## CTSC condensers

	Length (mm)	Height (mm)	Thickness (mm)	Inlet (mm/inch)	Outlet (mm/inch)	Fin pitch (mm)	Note	Order number
	400	345	25,4	5/8" 18 UNF	3/4" 16 UNF	5	-	62022481A
	420	638	30	5/8" 18 UNF	3/4" 16 UNF	5	-	62022535A
	431	418	25	5/8" 18 UNF	3/4" 16 UNF	5	Receiver drier 62017072A included	62022531A
	744	167	25	13/16" 16 UN	13/16" 16 UN	3.5	-	6238225A
	760	167	43	13/16" 16 UN	13/16" 16 UN	3.5	-	6238224A

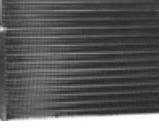
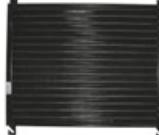
# Condensers

## Tube and fin condensers

	Length (mm)	Height (mm)	Thickness (mm)	Inlet (mm/inch)	Outlet (mm/inch)	Fin pitch (mm)	Note	Order number
	250	250	37.5	5/8" 18 UNF	3/4" 16 UNF	2.5	-	62022444A
	317	300	38	5/8" 18 UNF	3/4" 16 UNF	2.1	-	62022047ORB
	320	300	37.5	5/8" 18 UNF	3/4" 16 UNF	2.1	-	62022442A
	360	300	37.5	3/4" 16 UNF	3/4" 16 UNF	3	-	62022422ORA
	350	336	25.4	5/8" 18 UNF 2A	3/4" 16 UNF 2A	2.0	-	62022340ORA
	400	350	25	5/8" 18 UNF	3/4" 16 UNF	2.5	-	62022333ORA
	417	250	25	5/8" 18 UNF	3/4" 16 UNF	1.6	-	62022046ORTA
	430	450	50	5/8" 18 UNF	3/4" 16 UNF	3.2	-	62022530B
	450	260	70	5/8" 18 UNF	3/4" 16 UNF	2.1	-	62022411ORA
	487	375	50	5/8" 18 UNF 2B	3/4" 16 UNF	3	-	62022331ORA

# Condensers

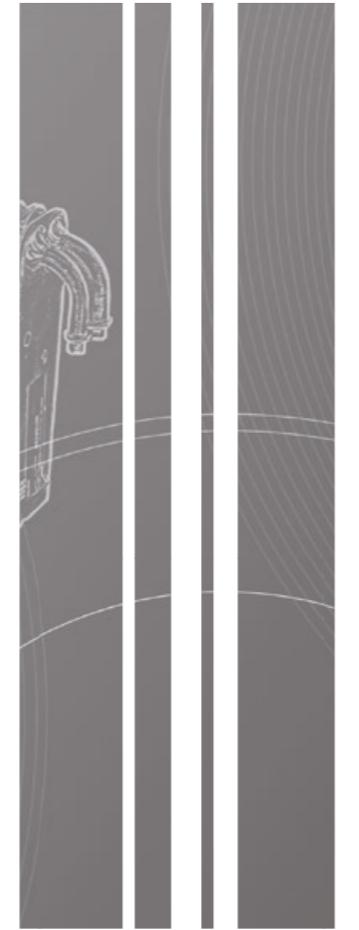
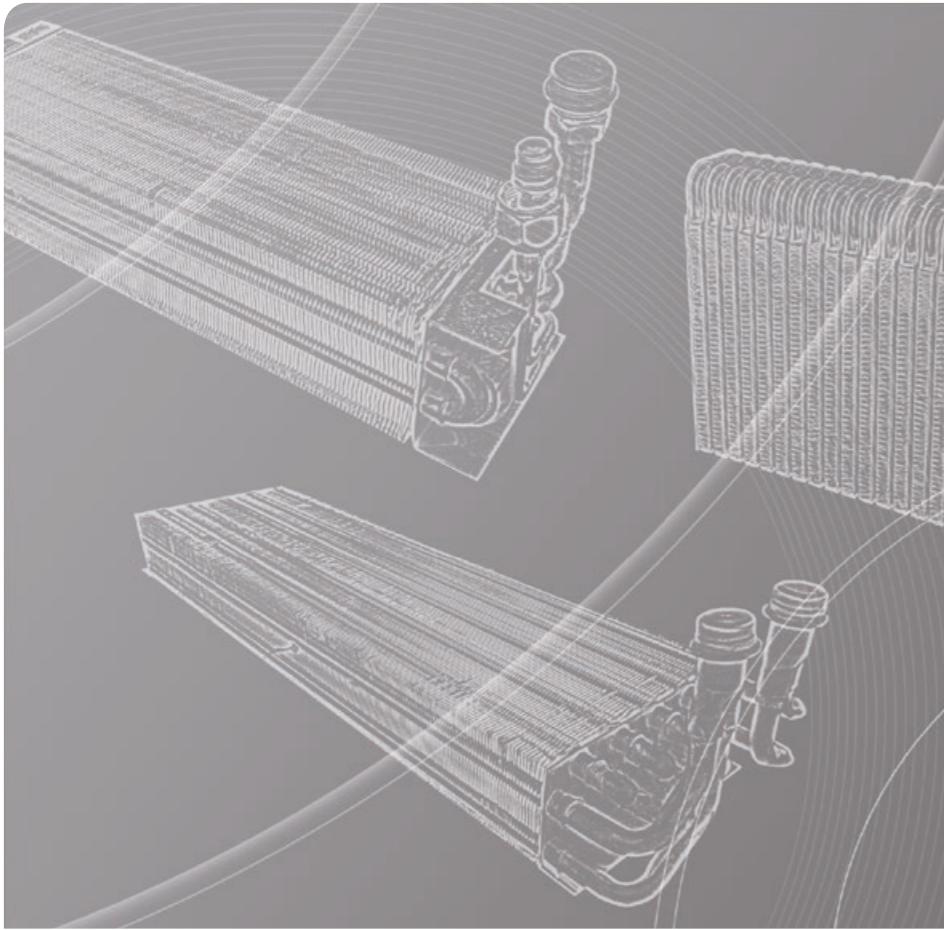
## Tube and fin condensers

	Length (mm)	Height (mm)	Thickness (mm)	Inlet (mm/inch)	Outlet (mm/inch)	Fin pitch (mm)	Note	Order number
	487	400	50	5/8" 18 UNF	3/4" 16 UNF	2.8		62022396A 6233214A (10 pcs.*)
	487	401	50	5/8" 18 UNF	3/4" 16 UNF	4.2	-	62022437A
	485	200	86,6	9.5	10,2	2.5	-	62022495B
	487	375	56	5/8" 18 UNF	3/4" 16 UNF	3	-	62022358ORA
	495	400	50	5/8" 18 UNF	3/4" 16 UNF	2.4	-	62022098ORA
	525	275	37,5	5/8" 18 UNF	3/4" 16 UNF	2.5	-	62022427A
	535	350	25	5/8" 18 UNF	3/4" 16 UNF	2.1	-	62022051ORA
	535	275	37,5	5/8" 18 UNF	3/4" 16 UNF	2.5	-	62022354ORA
	590	525	28	5/8" 18 UNF	3/4" 16 UNF	1.8	-	62022414ORA

# Condensers

## Tube and fin condensers

	Length (mm)	Height (mm)	Thickness (mm)	Inlet (mm/inch)	Outlet (mm/inch)	Fin pitch (mm)	Note	Order number
	600	500	25	5/8" 18 UNF	3/4" 16 UNF	3.1	-	62022148ORB
	615	331	72	5/8" 18 UNF	3/4" 16 UNF	2.3	-	62022159ORA
	615	225	65	5/8" 18 UNF	3/4" 16 UNF	2.1	-	62022053ORB
	633	175	65	5/8" 18 UNF	3/4" 16 UNF	2.1	-	62022451A
	643	450	25	5/8" 18 UNF	3/4" 16 UNF	2.5	-	62022334ORA
	649	275	37,5	5/8" 18 UNF	3/4" 16 UNF	2.5	-	62022298ORB 6233209A (10 pcs.*)
	720	250	25	5/8" 18 UNF	3/4" 16 UNF	2.1	-	62022469A
	725	250	25	5/8" 18 UNF	3/4" 16 UNF	2.1	-	62022071ORA



## Evaporators, Heater cores

### Evaporators

The evaporator is the component of an AC system that has the function of extracting heat from air injected into the compartment. It comprises one or more tubes, going to the same inlet and outlet fittings, bent in a way as to form a package of rectangular shape with parallel pipes where the refrigerant circulates.

### Heater cores

With the same characteristics as the evaporator coil, it includes only the circuit for the heat exchange with the passage of the glycol solution for the heating function.

### Evaporators

### Evaporators and heater cores

### Heater cores

## Evaporators, Heat exchangers

### Evaporators

#### Plaque evaporators

	Length (mm)	Height (mm)	Thickness (mm/number of rows)	Outlet (mm/inch)	Inlet (mm/inch)	Fin pitch (mm/inch)	Note	Order number
	229	204	73	14.4	11.6	—		62052686A
	235	202	60	14.48	11.71	—		62052924A
	242,7	204,5	72,6	14.4	11.6	—	Hose connection valve L 54 mm	62052382ORA
	242,7	204,5	72,6	14.48	11.71	—	Hose connection valve L 40 mm	62052391ORA
	250	265	37	18.2	15.2	—	Adapters for VW Caddy, Golf 5, Audi A3: 62043309A; for Fiat Doblo: 62043311A	62052803A
	258	241	47	—	—	—	including valve	62052811A
	269	240	—	14.48	11.71	—		62052799A
	295	205	72	14.48	11.71	—	including valve 6258027A	62052693A

# Evaporators, Heat exchangers

## Evaporators

### Plaque evaporators

	Length (mm)	Height (mm)	Thickness (mm/number of rows)	Outlet (mm/inch)	Inlet (mm/inch)	Fin pitch (mm)	Note	Order number
	295.9	204	73	14.4	11.6	—	—	62052644A  6233200A (8 pcs.*)
	298.5	254.9	38	14.5	11.6	—	—	62052928A
	309	234	73	16	12	—	—	62052611A

### Tube and fin evaporators

	Length (mm)	Height (mm)	Thickness (mm/number of rows)	Outlet (mm/inch)	Inlet (mm/inch)	Fin pitch (mm)	Note	Order number
	156	200	87/7	16	12	1.9	—	62052384ORA
	208	150	75/6	14.48	11.71	1.9	—	62052555ORA
	210	150	62/5	14.48	11.71	1.4	—	62052626ORA
	226	225	62.5/5	14.48	11.71	1.8	—	62052632A

# Evaporators, Heat exchangers

## Evaporators

### Tube and fin evaporators

	Length (mm)	Height (mm)	Thickness (mm/number of rows)	Outlet (mm/inch)	Inlet (mm/inch)	Fin pitch (mm)	Note	Order number
	264	200	62.5/5	14.48	11.71	1.9	—	62052543ORA
	293	150	62.5/5	14.48	11.71	2.1	—	62052820D
	293	150	75/6	14.48	11.71	1.9	—	62052690A
	298	200	62.5	14.48	11.71	—	—	62052419ORA
	300	100	62.5/5	14.48	11.71	2.1	—	62052773A
	300	150	75/6	14.48	11.71	2.1	—	62052813D
	300	100	75/5	7/8" 14 UNF 2A	3/4" 16 UNF 2B	—	—	62052065ORA
	312	175	75/6	14.48	11.71	1.9	—	62052341ORA
	313	150	75/6	14.48	11.71	1.9	—	62052518ORA

# Evaporators, Heat exchangers

## Evaporators

### Tube and fin evaporators

	Length (mm)	Height (mm)	Thickness (mm/number of rows)	Outlet (mm/inch)	Inlet (mm/inch)	Fin pitch (mm)	Note	Order number
	323	175	75/6	3/4" 18 uns 2A	3/4" 18 uns 2A	2.1	-	62052585ORB
	326	125	75/6	14.48	11.71	1.9	-	62052748A
	327	250	75/6	14.48	11.71	2.1	-	62052414ORC
	330	150	75/6	7/8" 14 UNF 2A	3/4" 16 UNF 2B	-	-	62052476ORA
	334	100	75/6	7/8" 14 UNF 2A	3/4" 16 UNF 2B	1.9	-	62052522ORA
	337	125	75/6	14.48	11.71	1.8	-	62052905ORA
	343	187	50/4	14.29	11.71	2.1	-	62052959ORA
	343	187	75/6	14.48	11.71	2.1	-	62052625ORA

# Evaporators, Heat exchangers

## Evaporators

### Tube and fin evaporators

	Length (mm)	Height (mm)	Thickness (mm/number of rows)	Outlet (mm/inch)	Inlet (mm/inch)	Fin pitch (mm)	Note	Order number
	346	125	50/4	14.48	11.71	2.1	-	62052418ORA
	360	175	75/6	14.5	14.5	2.1	-	62052859A
	365	125	108/5	7/8" 14 UNF 2A	3/4" 16 UNF 2B	1.9	-	62052070ORB
	370	100	75/6	14.48	11.71	2.1	-	62052509ORA
	375	175	75/6	14.48	11.71	2.1	-	62052662B
	377	200	62/5	14.48	11.71	1.9	-	62052482ORA
	380	125	75/6	14.48	11.71	2.1	-	62052506ORA
	380	125	75/6	14.48	11.71	2.1	-	62052739A

# Evaporators, Heat exchangers

## Evaporators

### Tube and fin evaporators

	Length (mm)	Height (mm)	Thickness (mm/number of rows)	Outlet (mm/inch)	Inlet (mm/inch)	Fin pitch (mm)	Note	Order number
	389	150	75/6	14.48	11.71	1.9	–	62052510ORA
	400	100	75/6	7/8" 14 UNF 2A	3/4" 16 UNF 2B	–	–	62052251ORA
	400	100	62.5/5	7/8" 14 UNF 2A	3/4" 16 UNF 2B	2.1	–	62052363ORA
	405	125	62.5/5	14.48	11.71	2.1	–	62052704A
	425	125	100/8	3/4" 18 UNS 2A	3/4" 18 UNS 2A	2.1	–	62052127ORA
	425	125	100/6	14.48	11.71	2.1	–	6238227A
	440	100	75/6	14.48	11.71	2.1	–	62052655A
	440	112	87/7	7/8" 14 UNF 2A	3/4" 16 UNF 2B	–	–	62052147ORA
	445	125	75/6	14.48	11.71	–	–	62052468ORA
	450	125	75/6	7/8" 14 UNF 2A	3/4" 16 UNF 2B	–	–	62052120ORA
	467	125	50/4	3/4" 18 UNS 2A	3/4" 18 UNS 2A	1.9	–	62052544ORA

# Evaporators, Heat exchangers

## Evaporators

### Tube and fin evaporators

	Length (mm)	Height (mm)	Thickness (mm/number of rows)	Outlet (mm/inch)	Inlet (mm/inch)	Fin pitch (mm)	Note	Order number
	500	150	87.5/5	14.48	11.71	–	–	62052638B
	530	125	62.5/5	14.48	11.71	2.1	–	62052680A
	548	125	75/5	7/8" 14 UNF 2A	3/4" 16 UNF 2B	–	–	62052717A
	640	125	75	14.48	11.71	2.5	–	62052821C
	731	125	86.6/4	16	12	1.8	–	62052808A
	745	125	100/8	16	12	2.5	–	6239983A
	988	125	87.5	7/8" 14 UNF 2A	3/4" 16 UNF 2B	2.1	–	62052846B
	1,048	125	75/6	16	12	2.1	–	62052822C
	1,200	175	88/4	16	12	2.3	–	6240008A
	1,500	175	88/4	16	12	2.3	–	6240009A

# Evaporators, Heat exchangers

## Evaporators and Heat exchangers

### Evaporators and heat exchangers tube and fin

	Length (mm)	Height (mm)	Thickness (mm/number of rows)	Evaporator outlet (mm/inch)	Evaporator inlet (mm/inch)	Heater outlet (mm/inch)	Heater inlet (mm/inch)	Fin pitch (mm)	Note	Order number
	152	150	100/6/2	14.48	11.71	16	16	1.9	-	62052614C
	181.5	150	87.5/6/1	14.48	11.71	12	12	-	-	62052645A
	325	152	100/7/1	14.48	11.71	14.48	16	-	-	62052829A
	400	125	100/6/2	14.48	11.71	16	16	2.1	-	62052755B

### Plaque heat exchangers

	Length (mm)	Height (mm)	Thickness (mm/number of rows)	Outlet (mm)	Inlet (mm)	Fin pitch (mm)	Note	Order number
	232	140	42	17	17	1.4	-	62052498A
	340	140	42	17	17	1.25	-	62052520A 6233190A (10 pcs.*)

# Evaporators, Heat exchangers

## Heat exchangers

### Tube and fin heat exchangers

	Length (mm)	Height (mm)	Thickness (mm/number of rows)	Outlet (mm)	Inlet (mm)	Fin pitch (mm)	Note	Order number
	77	150	65	14	16	-	-	62RMA4314
	112	150	43.3/2	14	16	1.8	-	62052789A
	143	100	37.5/3	9,5	9,5	-	-	62052903A
	146	150	37.5/3	16	16	1.6	-	62052553A
	190	200	43.3/2	16	16	2.1	-	62052676A
	190	200	43.3/2	16	16	1.6	-	62052784A
	190	200	65/3	16	16	1.6	-	6205278451A
	194	100	37/3	16	16	1.6	-	62052499A

# Evaporators, Heat exchangers

## Heat exchangers

### Tube and fin heat exchangers

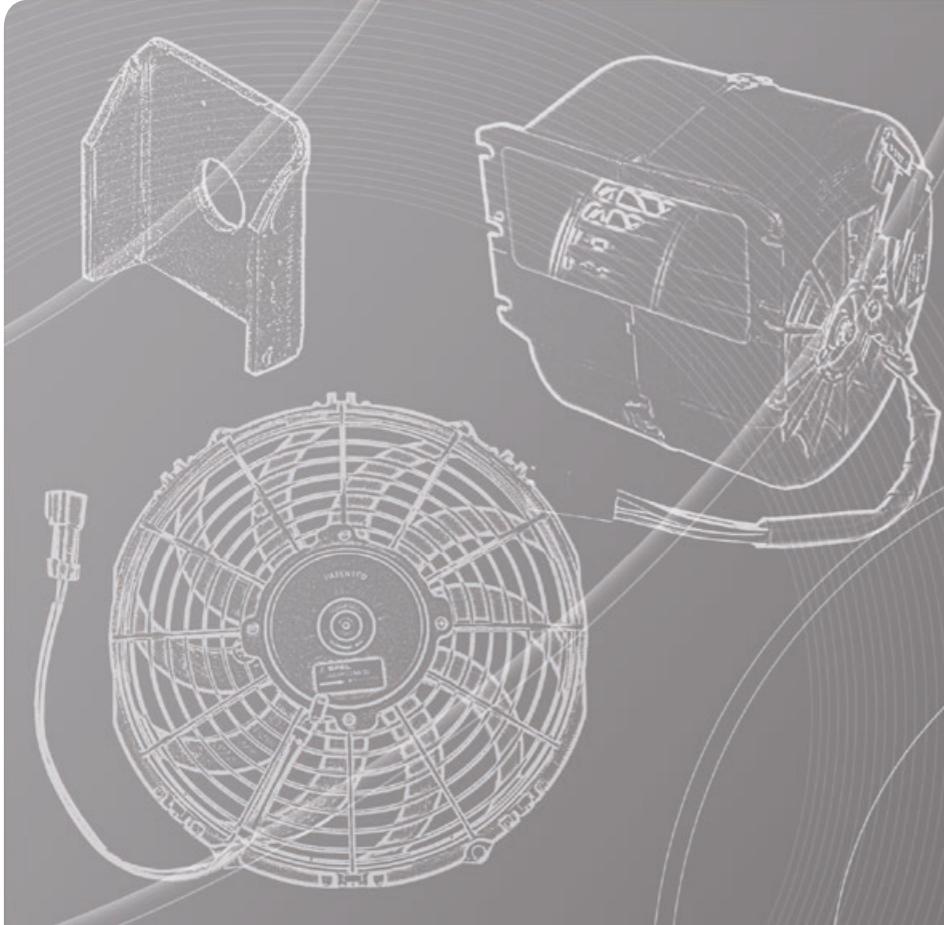
	Length (mm)	Height (mm)	Thickness (mm/number of rows)	Outlet (mm)	Inlet (mm)	Fin pitch (mm)	Note	Order number
	232	140	42	17	17	1.4	–	62052449A
	286	100	25/2	9.5	9.5	1.8	–	62052666A
	287	100	25/2	9.5	9.5	1.8	–	62052563A
	297	102	63/4	16	16	2	–	62052217B 6233212A (5 pcs.*)
	300	150	37.5/3	17	17	2.1	–	62052814C
	367	125	25/2	9.5	9.5	1.6	–	62052250A
	355	100	62.5/4	9.5	16	1.9	–	62052367A
	370	100	25	16	16	1.8	–	62052484A

# Evaporators, Heat exchangers

## Heat exchangers

### Tube and fin heat exchangers

	Length (mm)	Height (mm)	Thickness (mm/number of rows)	Outlet (mm)	Inlet (mm)	Fin pitch (mm)	Note	Order number
	370	100	25/2	9.5	9.5	1.8	–	62052649A
	380	125	25/2	12	12	1.6	–	62052622A
	380	125	25/2	16	16	1.6	–	62052628B
	385	150	37.5/3	16	16	1.6	–	62052642AA
	423	150	25/2	16	16	1.8	–	62052768A
	426	125	50/4	16	16	–	–	62052733A
	505	150	37.5/3	16	16	1.6	–	62052637B
	750	125	25/2	16	16	2.5	–	62052894A



## Fans, Blowers

### Axial fans

The electric fans improve the air flow through the condenser and the radiator, so that both heat exchangers perform in the best possible way.

### Centrifugal blowers

The centrifugal blowers safeguard the contious air flow through the evaporator. Powerful motors guarantee a perfect air distribution.

### Axial fans

### Centrifugal blowers

## Fans, Blowers

### Axial fans

 **SPAL**  
AUTOMOTIVE

	Ø Blades (mm)	Air flow (m³/h)	Current consumption (A)	Voltage (V)	Thickness (mm)	Suction	Blowing	Manufacturer code	Note	Order number
	140	500	2.5	12	98	•		VA21-A37/C-45A		62080161A
	167	385	2.6	12	52		•	VA22-AP8/C-50S		62080147S1A
	167	447	4.4	12	52		•	VA22-AP7/C-50S		62080137S1A
	167	599	3.4	24	59	•		VA22-BP11/C-64A	PKSL	62080185A
	167	540	6	12	59	•		VA22-AP11/C-64A		62080184A
	182	720	1.9	24	58	•		VA75-B101-90A		82D080198MA
	190	620	4.4	12	52	•		VA14-AP7/C-34A		62080099A
	190	590	4.5	12	52		•	VA14-AP7/C-34S	PKSL	62080056S1A
	225	920	5.2	12	52	•		VA07-AP12/C-31A	PKSL 0422	6208009551A
	225	920	5.2	12	52	•		VA07-AP12/C-31A	PKSL 0420	6208003051A
	225	920	5.2	12	52	•		VA07-AP12/C-31A		62080030A
										6233135A (50 pcs.*)
	225	1,030	6.1	12	52		•	VA07-AP12/C-31S	PKSL	6208003251A
	225	1,030	6.1	12	52		•	VA07-AP12/C-31S	PKSL, motor turned	62080110S1A
	225	1,070	3.7	24	52	•		VA07-BP7/C-31A	PKSL	62080186A
	225	1,180	4.1	24	52		•	VA07-BP7/C-31S	PKSL	62080188A
	225	1,060	6.7	12	52	•		VA07-AP12/C-58A		62080149A
	225	1,080	7.2	12	52		•	VA07-AP12/C-58S	PKSL	62080165S1A
										6233198A (12 pcs.)
	255	1,070	5.4	12	52		•	VA11-AP8/C-29S		62080038S1A
	255	1,090	5.8	12	52	•		VA11-AP8/C-29A	PKSL	62080066S1A
										6233205A (50 pcs.*)
	255	1,270	8.6	12	52		•	VA11-AP7/C-29S	PKSL	6208010551A
	255	1,320	4.5	24	52		•	VA11 BP7/C 29S		62080153A
	255	1,340	5.0	24	52	•		VA11 BP7/C 29A		62080159A

Fans,  
Blowers

# Fans, Blowers

## Axial fans



	Ø Blades (mm)	Air flow (m³/h)	Current consumption (A)	Voltage (V)	Thickness (mm)	Suction	Blowing	Manufacturer code	Note	Order number
	255	1,200	5.6	12	28		•	VA11-AP8/C-57S	–	62080197A
	255	1,360	8.7	12	52	•		VA11-AP7/C-57A	–	62080157A
	255	1,360	8.7	12	52	•		VA11-AP7/C-57A	PKSL	62080199A
	255	1,400	3.7	24	52		•	VA11-BP12/C-57S	PKSL	62080174A
	255	1,430	7.6	12	52		•	VA11-AP7/C-57S	PKSL	62080131S1A
									6233141A (12 pcs.*)	
	280	1,280	6.2	12	52	•		VA09-AP8/C-27A	PKSL	62080028S1A
	280	1,290	6.4	12	52		•	VA09-AP8/C-27S	–	62080027S1A
	280	1,370	3.6	24	52		•	VA09-BP8/C-27S	PKSL	62080085S1A
	280	1,400	7.7	12	52		•	VA09-AP12/C-27S	PKSL	62080113S1A
	280	1,580	8.6	12	63	•		VA09-AP50/C-27A	–	62080051S1A
	280	1,580	8.6	12	63	•		VA09-AP50/C-27A	PKSL, with drain holes	62080051S2A
	280	1,600	7.9	12	63		•	VA09-AP50/C-27S	PKSL, with drain holes	62080052S1A
	280	1,690	4.4	24	63	•		VA09-BP50/C-27A	PKSL, with drain holes	62080189A
	280	1,410	6.4	12	52		•	VA09-AP8/C-54S		62080108A
	280	1,430	7.8	12	52	•		VA09-AP12/C-54A	PKSL, with drain holes	62080180A
	280	1,430	7.8	12	52	•		VA09-AP12/C-54A	–	62080133S1A
	280	1,500	7.7	12	52		•	VA09-AP12/C-54S	–	62080179A
	280	1,520	4.5	24	52	•		VA09-BP12/C-54A	PKSL, with drain holes	62080181A
	280	1,520	4.5	24	52	•		VA09-BP12/C-54A	PKSL	62080134S1A
	280	1,600	4.3	24	52		•	VA09-BP12/C-54S	PKSL	62080183A
	280	2,220	11.2	12	95		•	VA03-AP70/LL-44S	Long life motor, PKSL	62080101S1B
	280	2,330	12.8	12	95	•		VA03-AP70/LL-37A	Long life motor	62080081S1B
	280	2,310	6.2	24	95		•	VA03-BP70/LL/I-37S	Long life motor, with EMC filter	62080194A
	280	2,310	6.2	24	95		•	VA03-BP70/LL-37S	Long life motor	62080150B
	280	2,480	7	24	95	•		VA03-BP70/LL-37A	Long life motor	62080206A
	305	1,450	6.4	12	52		•	VA10-AP9/C-25S	–	62080044S1A
	305	1,450	6.4	12	52		•	VA10-AP9/C-25S	PKSL	62080158A
	305	1,470	6.9	12	52	•		VA10-AP9/C-25A	PKSL	62080125S1A
	305	1,560	3.5	24	52	•		VA10-BP9/C-25A	PKSL	62080146S1A
	305	1,710	8.2	12	63		•	VA10-AP50/C-25S	–	62080048S1A
	305	1,710	8.2	12	63		•	VA10-AP50/C-25S	PKSL, incl. protection function	62080172A

# Fans, Blowers

## Axial fans



	Ø Blades (mm)	Air flow (m³/h)	Current consumption (A)	Voltage (V)	Thickness (mm)	Suction	Blowing	Manufacturer code	Note	Order number
	305	1,620	3.5	24	52		•	VA10-BP10/C-61S	PKSL	62080138S1A
	305	1,680	3.4	24	52	•		VA10-BP10/C-61A	PKSL	62080177A
	305	1,750	6.9	12	52		•	VA10-AP10/C-61S	–	62080135S1A
	305	1,750	7	12	52	•		VA10-AP10/C-61A	PKSL	62080176A
	305	2,190	12.6	12	63		•	VA10-AP50/C-61S	PKSL	62080169A
	305	2,240	6	24	62		•	VA10-BP50/C-61S	–	62080175A
	305	2,250	13.5	12	63	•		VA10-AP50/C-61A	PKSL, with drain holes	62080170A
	305	2,280	6.5	24	63	•		VA10-BP50/C-61A	PKSL, with drain holes	62080182A
	305	2,760	7.1	24	95		•	VA01-BP70/LL-36S	Long life motor	62080193AA
	305	2,900	7.4	24	95	•		VA01-BP70/LL-36A	Long life motor	62080192AA
	305	3,095	20.7	12	154	•		VA52-55A	with flange	62080106A
	350	1,620	6.5	12	52	•		VA08-AP10/C-23A	–	62080120S1A
	350	2,580	7.2	24	88	•		VA08-BP70/LL-23A	Long life motor	62080094B
	350	3,160	19.5	12	88	•		VA08-AP71/LL-53A	Long life motor, PKSL	62080148B
	350	3,120	21.1	12	88	•		VA08-AP71/LL-53S	Long life motor	62080154B
	350	3,150	9.7	24	88	•		VA08-BP71/LL-53S	Long life motor	62080178A
	385	3,390	10.2	24	28		•	VA18-BP71/LL-42S	Long life motor	62080195A
	385	3,430	19.5	12	28		•	VA18-AP71/LL-42S	Long life motor, PKSL	62080196A
	385	3,430	19.5	12	88	•		VA18-AP70/LL/F-59A	Long life motor, PKSL, saber	62080156A
	385	3,430	19.5	12	88	•		VA18-AP70/LL-59A	Long life motor, PKSL	62080141S1B
	385	3,250	18.5	12	88	•		VA18-AP70/LL-86A	Long life motor	62080084S1B

# Fans, Blowers

## Axial fans and brackets

### Axial fans for Frigo Top from Comex

	Ø Blades (mm)	Air flow (m³/h)	Current consumption (A)	Voltage (V)	Thickness (mm)	Suction	Blowing	Manufacturer code	Order number
	255	1,590	8	12	55	-	•	F31P-12E8002-EFP-13B WPC	6235534A
	255	1,590	4.2	24	55	-	•	F31P-24EL8002-EFP-13B WPC	6235571A
	255	1,660	8.4	12	55	•	-	F50P-12E8002-EFP-13S 2H WPC	6238228A
	255	1,650	4.3	24	55	•	-	F50P-24EL8002-EFP-13S 2H WPC	6238229A
	280	1,620	7.9	12	53	•	-	F49P-12E8004-EFP-02S 2H WPC	6238230A
	280	1,820	4	24	53	•	-	F49P-24EL8004-EFP-02S 2H WPC	6238231A

### Brackets

	Note	Order number
	Bracket (20 pcs.)	6230465A
	-	62036152A
	Bracket (50 pcs.)	6230467A
	Bracket (50 pcs.)	6230619A

# Fans, Blowers

## Centrifugal blowers



	Air flow (m³/h)	Current consumption (A)	Length (mm)	Width (mm)	Height (mm)	Voltage (V)	Nº Speed	Nº Fans	Protection grill	Manufacturer code	Note	Order number
	260	2.7	113	119	127.5	12	-	1	no	008-A100-93D	-	62054096A
	260	1.4	113	119	127.5	24	-	1	no	008-B100-93D	-	62054137A
	510	19.9	134	127	140	12	-	1	no	010-A70-74D	-	62054022S1A
	510	19.9	134	127	140	12	3	1	no	010-A70-74D	-	6205408551A
	530	11.1	134	127	140	24	-	1	no	010-B70-74D	-	62054047S1AA
	530	11.1	134	127	140	24	3	1	yes	010-B70-74D	-	62054086AB
	500	25	152	-	-	12	-	1	no	A47-48S	-	62054069A
	540	19.6	140	100	145	12	3	1	yes	009-A70-74D	-	62054129A
	560	10.4	140	100	145	24	-	1	no	009-B70-74D	GR RPA3VCB	62054143A
	610	11	317	125	112	12	3	2	yes	005-A46-02	-	62054110A
	610	11	317	125	112	12	-	2	no	005-A46-02	-	6233142A (10 pcs.*)
	610	14.1	317	125	112	12	3	2	no	005-A45-02	RPA3VCB	62054159A
	620	6	317	125	112	24	-	2	no	005-B46-02	-	62054010A
	620	6	317	125	112	24	3	2	no	005-B46-02	-	62054092A
	750	10	317	125	112	24	-	2	no	005-B45-02	-	62054050A
	750	11.5	130	120	220	24	3	1	no	004-B42-28D	-	62054164A
	750	11.5	130	120	232	24	3	1	no	004-B41-28S	-	62054165A

# Fans, Blowers

## Centrifugal blowers



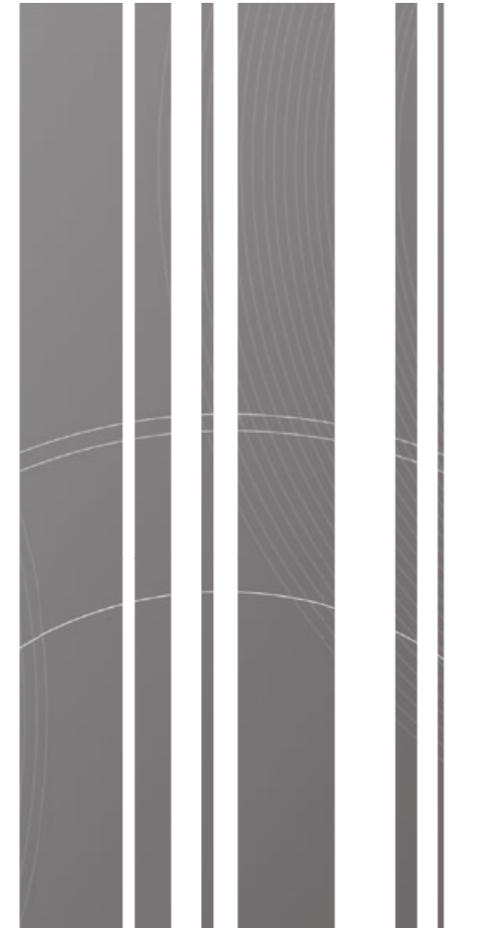
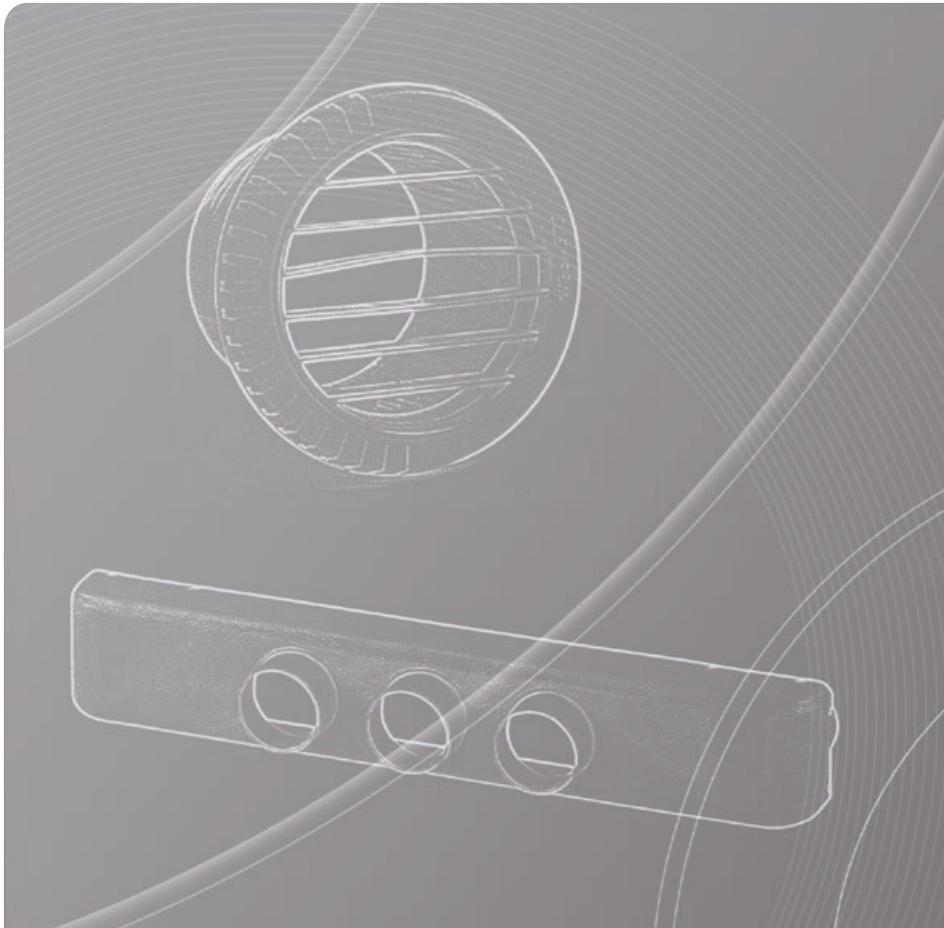
	Air flow (m³/h)	Current consumption (A)	Length (mm)	Width (mm)	Height (mm)	Voltage (V)	Nº Fans	Protection grill	Manufacturer code	Note	Order number
	400	5.7	120	77	113.5	24	–	1	no	008-B45-02D	–
	690	15.1	120	77	113.5	12	3	1	no	008-A45-02D	GR RPA3VCB 62054167A
	690	15.1	310	128	113	12	–	2	yes	008-A45-02	–
	690	15.1	310	128	113	12	3	2	yes	008-A45-02	–
	740	9.5	310	128	113	24	3	2	yes	008-B54-02	–
	750	8.2	310	128	113	24	–	2	yes	008-B45-02	–
	750	8.2	310	128	113	24	3	2	yes	008-B45-02	–
	890	21	310	168	140	12	–	2	no	015-A45-22	–
	920	29.7	320	128	113	12	3	2	no	008-A54-02	–
	770	17.5	175	120	175	12	3	1	yes	007-A42-32D	–
	830	9.5	175	120	175	24	–	1	yes	007-B42-32D	–
	830	9.5	175	120	172	24	3	1	yes	007-B42-32D	–
	910	17.2	351	168	140	12	3	2	yes	006-A46-22	–
	800	14.1	320	168	140	12	–	2	yes	011-A46-22	–
	800	14.1	351	168	140	12	3	2	yes	011-A46-22	H320+RPA3V 62054094S1A
	900	21.7	320	168	140	12	3	2	no	011-A40-22	–
	900	21.7	320	168	140	12	–	2	no	011-A40-22	–
	930	34.9	320	168	140	12	3	2	no	011-A54/2C/I-22	RA3VCVSX 62054158A
	930	34.9	320	168	140	12	3	2	yes	011-A45-22	REA3V 62054180A
	960	11.5	320	168	140	24	3	2	no	011-B40-22	–
	960	11.5	320	168	140	24	–	2	no	011-B40-22	–
											620540851A

# Fans, Blowers

## Centrifugal blowers



	Air flow (m³/h)	Current consumption (A)	Length (mm)	Width (mm)	Height (mm)	Voltage (V)	Nº Speed	Nº Fans	Protection grill	Manufacturer code	Note	Order number
	840	34	351	168	140	12	–	2	no	006-A54-22	–	62054070A
	910	17	351	168	140	12	–	2	yes	006-A46-22	GR-RPA3VCV	62054014A
	920	8.1	351	168	140	24	3	2	yes	006-B46-22	–	62054106A
	920	8.1	351	168	140	24	3	2	yes	006-B46-22	GR-RPA3VCV	62054106S1AA
	920	8.1	351	168	140	24	–	2	yes	006-B46-22	–	62054015A
	1,200	16	351	168	140	24	–	2	no	006-B39-22	RPA3V+2ICB	62054185A
	1,200	16	351	168	140	24	–	2	no	006-B39-22	RPA3V	6235212A
	910	26.4	175	197	174	12	3	1	no	007-A54-32D	–	6238232A
	970	14.6	175	197	174	24	3	1	yes	007-B56-32D	–	62054166A
	1,080	25.3	351	168	140	12	–	2	no	006-A40-22	–	62054019A
	1,080	25.3	351	168	140	12	–	2	yes	006-A40-22	–	6232977B (70 pcs.*)
	1,080	25.3	351	168	140	12	3	2	no	006-A40-22	–	62054095A
	1,100	12	351	168	140	24	–	2	no	006-B40-22	–	62054090A
	1,100	12	351	168	140	24	3	2	no	006-B40-22	RPA3VCB	62054065A
	1,100	12	351	168	140	24	3	2	no	006-B40-22	RA3VCV	62054125A
	1,130	30.5	351	168	140	12	3	2	no	017-A39-22	RPA 3VCB	62054113B
	1,130	34.5	351	168	140	12	–	2	no	006-A39-22	–	6233211A (5 pcs.*)
	1,160	16.5	351	168	140	24	–	2	no	006-B50-22	–	62054119A
	1,200	16	351	168	140	24	3	2	no	006-B39-22	–	62054114A



**Modulair 1**



**Modulair 2**



**Universal air duct for rooftop and under roof AC units**

The components are modular and can be combined in many different versions according to the applications and to the vehicle length.

Modulair 1: central air duct for mini buses to contain the evaporator unit.

Modulair 2: central air duct for a rooftop AC unit with central diffuser and front / end extension.

## Air ducts, Louvers

### Air ducts

Air ducts are the perfect connection between the AC unit and the louvers. Various air duct variants are available to fit into the specific application. Some models are already equipped with control elements or louvers. The modular system Modulair 1, 2 and 3 can be combined in many different variants.

### Louvers

The louvers or air outlets are final elements in the air ducting system in the compartment. They are used to deflect and adjust the intensity of the air flow.

### Air ducts

### Louvers

**Modulair 3**



**Universal air duct for rooftop and under roof AC units**

The components are modular as well and can be combined according to the mini and midi bus length, above the example of the lateral air duct for the Panama, Madrid and Santana AC units as well as for the new Cool Top 110/140 RT-C and Cool Top 190/220 RT-C series.

The pictures above are exemplary for the various possibilities.

# Air ducts, Louvers

## Air ducts

	Suitable for model	Dimensions L x W x H (mm)	Color	Description	Order number
	Sydney	265 x 48 x 113	black	Ø 45 mm	62U003AA079A
	Sydney	265 x 48 x 113	black	Ø 60 mm	62U003AA081A
	Sydney	265 x 38 x 113	black	–	62U003AA126A
	Sydney	265 x 23 x 113	black	–	62U003AA077A
	Sydney	265 x 116 x 113	black	Ø 100 mm	62U003AA135A
	Oakland, Phoenix, Baltimore	345 x 68 x 90	black	Ø 60 mm	62U003AA065A
	Oakland, Phoenix, Baltimore	345 x 72 x 90	black	Ø 60 mm	62U003AA102A
	Oakland, Phoenix, Baltimore	345 x 48 x 90	black	Ø 55 mm	62U003AA016A
	Oakland, Phoenix, Baltimore	345 x 38 x 90	black	–	62U003AA017A
	Oakland	345 x 38 x 90	grey	–	62U003AA068A

# Air ducts, Louvers

## Air ducts

	Suitable for model	Dimensions L x W x H (mm)	Color	Description	Order number
	Oakland	345 x 22 x 90	black	–	62U003AA018A
	Oakland, Phoenix, Baltimore	345 x 22 x 90	grey	–	62U003AA069A
	Oakland, Phoenix, Baltimore	345 x 40 x 90	black	–	62U003AA128B
	Oakland	345 x 40 x 90	grey	–	62U003AA129B
	Oakland	345 x 78 x 90	black	Ø 60 mm	62U003AA070A
	Oakland	345 x 60 x 90	black	Ø 45 mm	62U003AA146A
	Oslo, Glasgow, Vancouver, London, Cyprus	395 x 58 x 105	black	Ø 60 mm	62U003AA151A
	Oslo, Glasgow, Vancouver, London, Cyprus	395 x 58 x 105	grey	Ø 60 mm	62U003AA152A
	Oslo, Glasgow, Vancouver, London, Cyprus	395 x 58 x 105	black	Ø 60 mm	62U003AA019A
	Oslo, Glasgow, Vancouver, London, Cyprus	395 x 58 x 105	grey	Ø 60 mm	62U003AA049A
	Oslo, Glasgow, Vancouver, London, Cyprus	395 x 58 x 105	black	–	62U003AA050B
	Oslo, Glasgow, Vancouver, London, Cyprus	395 x 39 x 105	black	–	62U003AA045A
	Oslo, Glasgow, Vancouver, London, Cyprus	395 x 39 x 105	grey	–	62U003AA048A
	Oslo, Glasgow, Vancouver, London, Cyprus	395 x 39 x 105	white	–	62U003AA169A
	Oslo, Glasgow, Vancouver, London, Cyprus	395 x 22 x 105	black	–	62U003AA021A
	Oslo, Glasgow, Vancouver, London, Cyprus	395 x 22 x 105	grey	–	62U003AA051A
	Oslo, Glasgow, Vancouver, London, Cyprus	656 x 119 x 105	black	Ø 60 mm	62U003AA046A

Air ducts,  
Louvers

# Air ducts, Louvers

## Air ducts

	Suitable for model	Dimensions L x W x H (mm)	Color	Description	Order number
	Oslo, Glasgow, Vancouver, London, Cyprus	720 x 108 x 128	black	Ø 60 mm	62U003AA123A
	Oslo, Glasgow, Vancouver, London, Cyprus	720 x 108 x 128	grey	Ø 60 mm	62U003AA114A
	Oslo, Glasgow, Vancouver, London, Cyprus	450 x 105 x 105	black	Ø 75 mm	62U003AA165A
	Oslo, Glasgow, Vancouver, London, Cyprus	450 x 105 x 105	black	4 Ø 50 mm 2 Ø 60 mm	62U003AA166A
	Moscow, Kiev, Newport, Monterrey	850 x 58 x 85	grey	Ø 60 mm	62U003AA027A
	Moscow, Kiev, Newport, Monterrey	850 x 27 x 85	grey	—	62U003AA025A
	Moscow, Kiev, Newport, Monterrey	850 x 27 x 85	grey	—	62U003AA026A
	Moscow, Kiev, Newport, Monterrey	886 x 69 x 121	grey	Ø 60 mm	62U003AA030A
	Moscow, Kiev, Newport, Monterrey	886 x 38 x 121	grey	—	62U003AA028A
	Moscow, Kiev, Newport, Monterrey	886 x 38 x 121	black	—	62U003AA031A
	Moscow, Kiev, Newport, Monterrey	886 x 38 x 121	grey	—	62U003AA029A
	Moscow, Kiev, Newport, Monterrey	1,035 x 95 x 85	grey	Ø 60 mm	62U003AA038A

# Air ducts, Louvers

## Air ducts

	Suitable for model	Dimensions L x W x H (mm)	Color	Description	Order number
	Moscow, Kiev, Newport, Monterrey	1,080 x 147 x 140	black	Ø 120 mm	62U003AA162A
	Quebec, Montreal	370 x 85 x 145	grey	—	62U003AA054A
	Quebec, Montreal	370 x 85 x 145	black	—	62U003AA022A
	Quebec, Montreal	370 x 54 x 145	grey	—	62U003AA055A
	Quebec, Montreal	370 x 54 x 145	black	—	62U003AA023A
	Quebec, Montreal	370 x 68 x 145	black	—	62U003AA024A
	Quebec, Montreal	370 x 68 x 145	grey	—	62U003AA056A
	Quebec, Montreal	370 x 90 x 145	grey	Ø 50 mm	62U003AA124A
	Quebec, Montreal	370 x 90 x 145	grey	Ø 60 mm	62U003AA125A
	Marbella	370 x 105 x 145	black	Ø 60 mm	62U003AA142B
	Ibiza	—	black	—	62U003AA134B
	Oslo, Glasgow, Vancouver, London, Cyprus, Tarifa, Rimini, Turin	497 x 247 x 50	black	Modulair 1	62U003AA061A
	Oslo, Glasgow, Vancouver, London, Cyprus, Tarifa, Rimini, Turin	497 x 247 x 50	grey	Modulair 1	62U003AA062A
	Oslo, Glasgow, Vancouver, London, Cyprus, Tarifa, Rimini, Turin	497 x 500 x 50	black	Modulair 1	62U003AA059A
	Oslo, Glasgow, Vancouver, London, Cyprus, Tarifa, Rimini, Turin	497 x 500 x 50	grey	Modulair 1	62U003AA060A

# Air ducts, Louvers

## Air ducts

	Suitable for model	Dimensions L x W x H (mm)	Color	Description	Order number
	Oslo, Glasgow, Vancouver, London, Cyprus, Tarifa, Rimini, Turin	497 x 1,000 x 50	black	Modulair 1	62U003AA057A
	Oslo, Glasgow, Vancouver, London, Cyprus, Tarifa, Rimini, Turin	497 x 1,000 x 50	grey	Modulair 1	62U003AA058A
	Oslo, Glasgow, Vancouver, London, Cyprus, Tarifa	730 x 140 x 148	black	Modulair 1	62U003AA119A
	Rimini, Turin	602 x 506 x 85	black	Modulair 1	62U003AA072A
	Rimini, Turin	602 x 506 x 85	grey	Modulair 1	62U003AA073A
	Oslo, Glasgow, Vancouver, London	497 x 100 x 112	black	Modulair 1	62U003AA052A
	Oslo, Glasgow, Vancouver, London	497 x 100 x 112	grey	Modulair 1	62U003AA053A
	Oslo, Glasgow, Vancouver, London	680 x 414 x 170	black	Modulair 1	62U003AA093A
	Oslo, Glasgow, Vancouver, London	680 x 414 x 170	grey	Modulair 1	62U003AA094A
	Moscow, Kiev, Newport, Monterrey, Tarifa, Smirne	610 x 255 x 55	black	Modulair 2	62U003AA104A
	Moscow, Kiev, Newport, Monterrey, Tarifa, Smirne	610 x 255 x 55	grey	Modulair 2	62U003AA105A
	Moscow, Kiev, Newport, Monterrey, Tarifa, Smirne	610 x 500 x 55	black	Modulair 2	62U003AA106A
	Moscow, Kiev, Newport, Monterrey, Tarifa, Smirne	610 x 500 x 55	grey	Modulair 2	62U003AA107A
	Moscow, Kiev, Newport, Monterrey, Tarifa, Smirne	610 x 1,000 x 55	black	Modulair 2	62U003AA108A
	Moscow, Kiev, Newport, Monterrey, Tarifa, Smirne	610 x 1,000 x 55	grey	Modulair 2	62U003AA109A
	Moscow, Kiev, Newport, Monterrey	865 x 115 x 88	black	Modulair 2	62U003AA121A
	Moscow, Kiev, Newport, Monterrey	865 x 115 x 88	grey	Modulair 2	62U003AA117A

# Air ducts, Louvers

## Air ducts

	Suitable for model	Dimensions L x W x H (mm)	Color	Description	Order number
	Smirne	775 x 550 x 100	black	Modulair 2	62U003AA086A
	Smirne	775 x 550 x 100	grey	Modulair 2	62U003AA087A
	Santana, Madrid, Panama, Cool Top 110/140 RT-C, Cool Top 190 RT-C/190 RT-CXL/220 RT-C	263 x 85 x 86	grey	Modulair 3	62U003AA159A
	Santana, Madrid, Panama, Cool Top 110/140 RT-C, Cool Top 190 RT-C/190 RT-CXL/220 RT-C	263 x 1,000 x 86	grey	Modulair 3 Extension	62U003AA161A
	Santana, Madrid, Panama, Cool Top 110/140 RT-C, Cool Top 190 RT-C/190 RT-CXL/220 RT-C	263 x 1,000 x 86	grey	Modulair 3 End part	62U003AA157A
	Santana, Madrid, Panama, Cool Top 110/140 RT-C, Cool Top 190 RT-C/190 RT-CXL/220 RT-C	263 x 500 x 86	grey	Modulair 3	62U003AA158A
	Santana, Madrid, Panama, Cool Top 110/140 RT-C, Cool Top 190 RT-C/190 RT-CXL/220 RT-C	263 x 22 x 86	grey	Modulair 3 End part	62U003AA160A
	Tarifa	330 x 330 x 120	black	with air distribution for Modulair 2	62U003AA122A
	Tarifa	330 x 330 x 120	grey	with air distribution for Modulair 2	62U003AA113A
	Minsk, Portofino	429 x 381 x 50	black	-	62U003AA138B
	Minsk, Portofino	429 x 381 x 50	grey	-	62U003AA139B

Air ducts,  
Louvers

# Air ducts, Louvers

## Air ducts

	Suitable for model	Dimensions L x W x H (mm)	Color	Description	Order number
	Minsk, Portofino	429 x 381 x 50	black	with control 12 V	62U003AA153A
	Minsk, Portofino	429 x 381 x 50	black	with control 24 V	62U003AA154A
	Minsk, Portofino	429 x 381 x 50	grey	with control 12 V	62U003AA155A
	Minsk, Portofino	429 x 381 x 50	grey	with control 24 V	62U003AA156A
	Rimini, Turin	610 x 498 x 60	black	with control 12 V	62U003AA083B
	Rimini, Turin	610 x 498 x 60	black	with control 24 V	62U003AA085B
	Rimini, Turin	610 x 498 x 60	grey	with control 12 V	62U003AA095B
	Rimini, Turin	610 x 498 x 60	grey	with control 24 V	62U003AA096B
	Smirne	800 x 530 x 60	black	—	62U003AA089A
	Smirne	800 x 530 x 60	grey	—	62U003AA100A
	Smirne	800 x 530 x 60	black	with control 12 V	62U003AA088A
	Smirne	800 x 530 x 60	black	with control 24 V	62U003AA090A
	Smirne	800 x 530 x 60	grey	with control 12 V	62U003AA098B
	Smirne	800 x 530 x 60	grey	with control 24 V	62U003AA099A
	Santana, Madrid, Panama, Cool Top 110/140 RT-C, Cool Top 190 RT-C/190 RT-CXL/220 RT-C	615 x 495 x 35	black	air intake	62U003AA140A
	Santana, Madrid, Panama, Cool Top 110/140 RT-C, Cool Top 190 RT-C/190 RT-CXL/220 RT-C	615 x 495 x 35	grey	air intake	62U003AA141A
	Paris, Monaco	585 x 73 x 20	black	Ø 45 mm	62U003AA173A
	Paris, Monaco	585 x 73 x 20	black	—	62U003AA172A
	Paris, Monaco	585 x 73 x 20	grey	—	62U003AA175A
	Paris, Monaco	585 x 73 x 20	black	with cable	62U003AA171A
	Paris, Monaco	585 x 73 x 20	grey	with cable	62U003AA174A

# Air ducts, Louvers

## Louvers

Description	Hose type (mm)	Ø Internal (mm)	Ø External (mm)	Length (mm)	Width (mm)	Thickness (mm)	Fins	Color	Note	Order number
	45° reduction	45	73.5	45	60	—	—	black	for 62063094A - 62063103A	62063101A
	90° reduction	45	73.5	45	78	—	—	black	for 62063094A - 62063103A	62063100A
	Adapter	45	45	82	35.6	—	—	black	for 62063094A - 62063103A	62063095A
	Adapter	50	48	82	35.6	—	—	black	for 62063094A - 62063103A	62063105A
	Adapter	55	53.5	82	35.6	—	—	black	for 62063094A - 62063103A	62063096A
	Adapter	60	58.5	82	35.6	—	—	black	for 62063094A	62063097A
	Reduction	90 – 80	—	—	—	—	—	black	—	1320185A
	Reduction	90 – 80	—	—	—	—	—	black	—	1320186A
	Y Connection	80 – 55 – 80	—	—	—	—	—	black	—	1319479A
	Y Connection	80 – 80 – 80	—	—	—	—	—	black	—	1319478A
	Connection	60 – 60	—	—	—	—	—	black	connection for two air hoses	1320469A
	Connection	55	—	—	—	—	—	black	—	1319224A

Air ducts,  
Louvers

# Air ducts, Louvers

## Louvers

	Description	Hose type (mm)	Ø Internal (mm)	Ø External (mm)	Length (mm)	Width (mm)	Thickness (mm)	Fins	Color	Note	Order number
	Connection	60 - 60	-	-	-	-	-	-	black	for louvers with 60 mm diameter, suitable to fix with thread	62RWA8500
	Lock nut	60	-	-	-	-	-	-	black	for louvers with 60 mm diameter, not suitable to fix with thread	62RWA8300
	Lock nut	60	-	-	-	-	-	-	black	for louvers with 60 mm diameter, suitable to fix with thread	1320922A
	Grill	-	-	-	400.5	70	17.5	-	black	-	62063014A
	Grill	-	-	-	210.5	25.8	20	-	black	-	62063122A
	Grill	-	-	-	210.5	70	13.6	-	black	-	62063016A
	Grill	-	-	-	85	15	10	-	black	-	62063120A
	Louver	55	-	63.2	-	-	20	adjustable	black	-	62063085B (50 pcs.*)

# Air ducts, Louvers

## Louvers

	Description	Hose type (mm)	Ø Internal (mm)	Ø External (mm)	Length (mm)	Width (mm)	Thickness (mm)	Fins	Color	Note	Order number
	Louver	60	-	55	-	-	-	-	black	-	1322405A
	Louver	80	-	-	-	-	-	fix to 90°	black	-	1322710A
	Louver	80	-	-	-	-	-	fix to 45°	black	-	62107984A
	Louver	-	-	71.3	-	-	39.8	adjustable	black	-	62063093A 6232969A (10 pcs.*) 6233020A (50 pcs.*)
	Louver	-	-	85.6	-	-	30	adjustable	black	-	62063046D 6233176A (20 pcs.*)
	Louver	-	-	-	170	44	40	-	black	-	6240382A
	Louver	-	67	74	-	-	25	adjustable	black	-	62063090A
	Louver	-	-	-	90	46	25	adjustable	black	-	62063008A

Air ducts,  
Louvers

# Air ducts, Louvers

## Louvers

	Description	Hose type (mm)	Ø Internal (mm)	Ø External (mm)	Length (mm)	Width (mm)	Thickness (mm)	Fins	Color	Note	Order number
	Louver	-	97	106	-	-	17	fix to 45°	black	spring is reference 62069287A 6233183A (10 pcs.*)	6232975A
	Louver	90	-	-	-	-	-	-	black	-	1320956A
	Louver	70	68	-	-	-	52	adjustable	black	-	62063072A
	Louver	-	76	82	-	-	32	adjustable	black	-	62063103A 6232973A (50 pcs.*)
	Louver	-	76	101	-	-	34.6	adjustable	black	-	62063094A 6233167A (5 pcs.*)
	Louver	-	-	107.5	-	-	23.4	adjustable	black	-	62063123A
	Louver	-	-	-	92 (i:87)	52 (i:47)	32 (i:30)	adjustable	black	-	62063049A
	Louver	-	-	-	143.5	52 (i:47)	32 (i:30)	adjustable	black	-	62063121A

# Air ducts, Louvers

## Louvers

	Description	Hose type (mm)	Ø Internal (mm)	Ø External (mm)	Length (mm)	Width (mm)	Thickness (mm)	Fins	Color	Note	Order number
	Louver	60	-	-	92 (i:87)	52 (i:47)	32 (i:30)	adjustable	black	-	62063064A 6233148A (15 pcs.*)
	Louver	60	-	-	92 (i:87)	52 (i:47)	32 (i:30)	adjustable	grey	-	62063115A
	Louver	60	-	-	92 (i:87)	52 (i:47)	32 (i:30)	adjustable	black	-	62063012A 6233177A (5 pcs.*)
	Louver	60	-	-	92 (i:87)	52 (i:47)	32 (i:30)	adjustable	grey	-	62063089A
	Louver with thread	60	-	-	-	-	-	fix to 90°	grey	-	62RWA8200
	Louver with thread	60	-	-	-	-	-	fix to 90°	white	-	62RWA8210A
	Louver with thread	60	-	-	-	-	-	fix to 90°	black	-	62RWA8220
	Louver with thread	60	-	-	-	-	-	45° fix	brown	-	62RWA9015000A 6232974A (30 pcs.*)

## Air ducts, Louvers

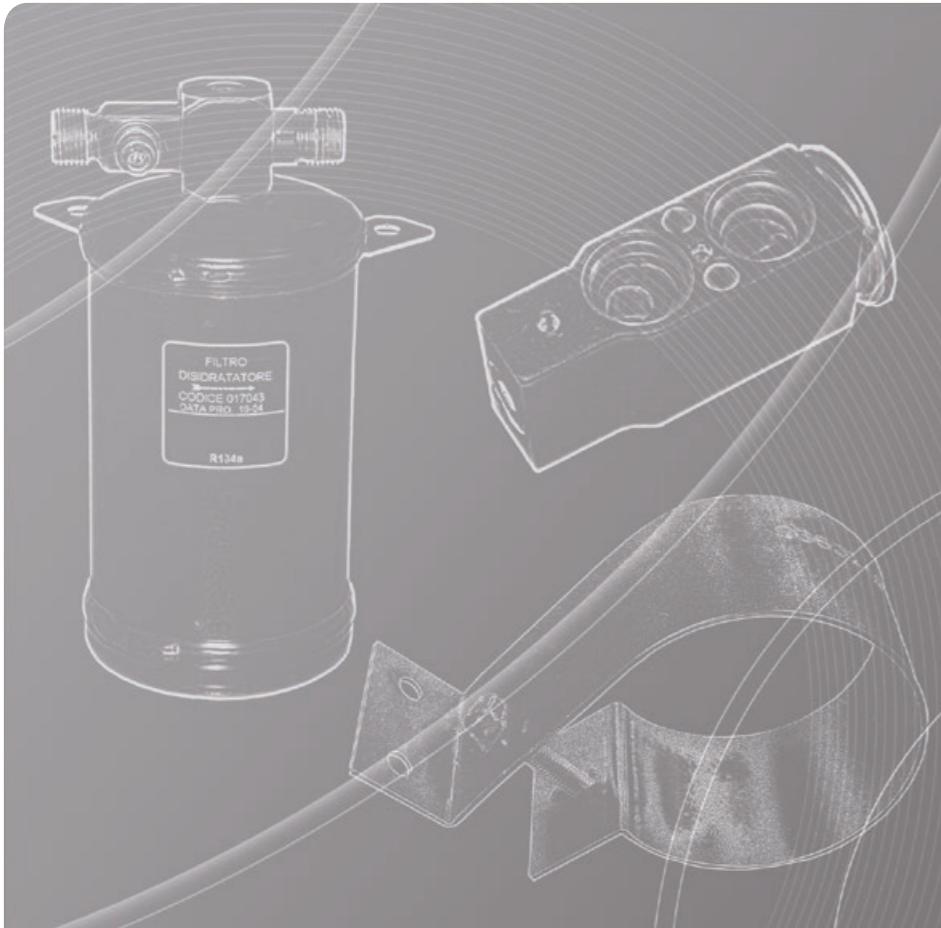
### Louvers

	Description	Hose type (mm)	Ø Internal (mm)	Ø External (mm)	Length (mm)	Width (mm)	Thickness (mm)	Fins	Color	Note	Order number
	Louver with thread	60	-	-	-	-	-	45° fix	grey	-	62RWA8100
	Louver with thread	60	-	-	-	-	-	45° fix	white	-	6234865A
	Louver with thread	60	-	-	-	-	-	45° fix	black	-	62RWA8120
	Louver with thread	60	-	-	-	-	-	adjustable	brown	-	62RWA9014998A
	Louver with thread	60	-	-	-	-	-	adjustable	grey	-	62RWA8000
	Louver with thread	60	-	-	-	-	-	adjustable	white	-	62RWA8010
	Louver with thread	60	-	-	-	-	-	adjustable	black	-	62RWA8020
	Protection	-	-	-	-	-	-	-	black	-	1320102A

## Air ducts, Louvers

### Louvers

	Description	Hose type (mm)	Ø Internal (mm)	Ø External (mm)	Length (mm)	Width (mm)	Thickness (mm)	Fins	Color	Note	Order number
	Protection	-	11.4	-	-	-	9.5	-	black	-	62063063A
	Louver	-	30.4	33	-	-	-	-	black	Min. order quantity 50 pcs.*	6234664A
	Louver	-	27	30	-	-	-	-	black	Min. order quantity 50 pcs.*	6234668A
	Louver	-	27	30	-	-	-	-	black	Min. order quantity 50 pcs.*	6234669A
	Wall connection	60	-	-	-	-	-	-	black	-	6235220A
	Wall connection	70	-	-	-	-	-	-	black	Min. order quantity 10 pcs.*	6238244A



## Receiver dryers, Expansion valves

### Receiver dryers

The filter functionalities are essential for protecting the system. They include:

Filtering: the detection of any solid particles drawn into circulation through the refrigerant and the oil, having a diameter equal or exceeding 15 microns.

Dehumidification: the absorption of any humidity in the refrigerant and in the oil at moment of charging or subsequently penetrating in the system through the hose walls or the joint seals.

### Expansion valves

The expansion valve of an AC system performs the following two essential functions:

Drastic pressure, and thus temperature, decrease of the liquid refrigerant coming from the condenser through the receiver dryer. Continuous adjustment of the refrigerant flowing to the evaporator, so that, in the various conditions of thermal load, it can evaporate completely during its traversing, reach a minimal superheating point, yet sufficient to guarantee its arriving in the compressor in vapor state.

### Receiver dryers

### Receiver dryer brackets

### Expansion valves

## Receiver dryers, Expansion valves

### Receiver dryers

	Volume (cm <sup>3</sup> )	Length (mm)	Ø (mm)	Refrigerant fittings inlet (mm/inch)	Refrigerant fittings outlet (mm/inch)	Pressure switch connection	Refrigerant	O-Ring	Order number
	276	125	53	5/8" 18 UNF 2A	5/8" 18 UNF 2A	—	R404A	—	62017061A 6233181A (5 pcs.*)
	316	138	54	5/8" 18 UNF Konus	5/8" 18 UNF Konus	—	R404A	—	62017060B 6233231A (5 pcs.*)
	460	110	73	—	—	—	R404A	—	62017071A 6233162A (10 pcs.*)
	260	192	64	5/8" SAE	5/8" SAE	Info: with sight glass	R134a	—	6240448A
	260	306	41	11	11	—	R134a	—	62017072RA
	385	185	60	10,1	10,1	—	R134a	—	62017057A
	460	173	76	5/8" 18 UNF 2A	5/8" 18 UNF 2A	7/16" 20 UNF 2A	R134a	62069505AA	62017043A
	480	141	76	5/8" 18 UNF 2A	5/8" 18 UNF 2B	7/16" 20 UNF	R134a	62069505AA	62017065A 6232960A (5 pcs.*) 6233016A (20 pcs.*)
	480	141	76	5/8" 18 UNF 2A	5/8" 18 UNF 2B	7/16" 20 UNF 2A	R452A	62069505AA	6242775A

# Receiver dryers, Expansion valves

## Receiver dryers

	Volume (cm <sup>3</sup> )	Length (mm)	Ø (mm)	Refrigerant fittings inlet (mm/inch)	Refrigerant fittings outlet (mm/inch)	Pressure switch connection	Refrigerant	O-Ring	Order number
	510	208	64	5/8" 18 UNF 2B	5/8" 18 UNF 2A	7/16" 20 UNF 2A	R134a	62069505AA	62017063A  6233182A (20 pcs.*)
	510	213	64	5/8" 18 UNF 2A	5/8" 18 UNF 2A	7/16" 20 UNF 2A	R134a	62069505AA	62017068A  6233132A (20 pcs.*)
	510	169	76	5/8" 18 UNF 2A	5/8" 18 UNF 2B	-	R134a	62069505AA	62017075A  6233207A (20 pcs.*)
	530	219	64	5/8" 18 UNF 2A	5/8" 18 UNF 2B	7/16" 20 UNF 2A	R134a	62069505RAA	62017064A  6233216A (20 pcs.*)
	530	208	64	5/8" 18 UNF 2A	5/8" 18 UNF 2A	7/16" 20 UNF	R134a	62069505AA	62017069A  6232970A (20 pcs.*)
	570	173	76	5/8" 18 UNF 2A	5/8" 18 UNF 2A	7/16" 20 UNF 2A	R134a	62069505AA	62017067A  6233291A (20 pcs.*)
	570	170	76	5/8" 18 UNF 2A	5/8" 18 UNF 2A	7/16" 20 UNF	R134a	62069505AA	62017076A  6233134A (20 pcs.*)
	780	230	76	5/8" 18 UNF 2A	5/8" 18 UNF 2A	7/16" 20 UNF 2A	R134a	62069505AA	62017066A  6233147A (20 pcs.*)
	780	230	76	5/8" 18 UNF 2B	5/8" 18 UNF 2A	7/16" 20 UNF 2A	R134a	62069505AA	62017077A  6233425A (20 pcs.*)
	1,088	240	76	5/8" 18 UNF 2B	5/8" 18 UNF 2A	7/16" 20 UNF	R134a	-	62017070A

# Receiver dryers, Expansion valves

## Receiver dryer brackets

	Ø (mm)	Order number		Ø (mm)	Order number
	54	620361806A		64	620361764A
	60	62036017A		64	620361822B
	60	620361601A		64	620361833A
	61	620361879A		64	620361819A
	62	620361487A		64	620361846B
	62	62036424A		64	620361859A
	62	620365468		64	620361861A
	64	620361166A		64	6235306A
	64	620361346B		65	62036018B  6233156A (10 pcs.*)
	64	620361509A		65	62036021AA  6233154A (10 pcs.*)

Receiver dryers,  
Expansion valves

# Receiver dryers, Expansion valves

## Receiver dryer brackets

	$\varnothing$ (mm)	Order number
	65	62036040C
	65	620361690A
	65	620361754A
	66	620361829A
	70	620361502A
	70	620361759A
	72	620361831A
	74	620361444A
	74	620361799A
	74	620361850A
	75	620361131A

# Receiver dryers, Expansion valves

## Expansion valves

### Block expansion valves

	Type	Capacity (ton)	Compressor inlet (mm/inch)	Compressor O-Ring	Receiver dryer outlet (mm/inch)	Receiver dryer O-Ring	Compressor – evaporator inlet (mm/inch)	Compressor – evaporator O-Ring	Receiver dryer – evaporator outlet (mm/inch)	Receiver dryer – evaporator O-Ring	Refrigerant	Note	Order number
	TCDF	1.5	17.7	62069508RA	8.6	62069505AA	14.6	62069507AA	11.8	62069506A	R134a	-	62058024A
	TCDF	1.5	17.7	62069508RA	8.6	62069505AA	14.6	62069508RA	11.8	62069506A	R134a	-	6233165A (5 pcs.*)
	TGKE	1.5	18.3	62069508RA	10.2	-	18.3	62069508RA	18.3	62069508RA	R134a	-	9024277A
	TCDF	2	17.7	62069508RA	8.6	62069505AA	14.6	62069507AA	11.8	62069506A	R134a	-	620585008A
	TCDF	2	17.7	62069508RA	8.6	62069505AA	14.6	62069508RA	11.8	62069506A	R134a	-	62058013A
	TCD	2	7/8"	-	5/8"	-	3/4"	-	3/4"	-	R134a	-	6233204A (5 pcs.*)
	TCDFM	2	17.7	62069508RA	8.6	62069505AA	14.6	62069507AA	11.8	62069506A	R134a	-	9024281A
	TCD	2	7/8"	-	5/8"	-	3/4"	-	3/4"	-	R134a	-	62058016A
	TCDFM	2	17.7	62069508RA	8.6	62069505AA	14.6	62069507AA	11.8	62069506A	R134a	-	6233201A (5 pcs.*)
	TCD	2	7/8"	-	5/8"	-	3/4"	-	3/4"	-	R134a	-	62058017A

Receiver dryers,  
Expansion valves

# Receiver dryers, Expansion valves

## Expansion valves

### Block expansion valves

	Type	Capacity (ton)	Compressor inlet (mm/inch)	Compressor O-Ring	Receiver dryer outlet (mm/inch)	Receiver dryer O-Ring	Receiver dryer – Compressor inlet (mm/inch)	Receiver dryer – Compressor O-Ring	Receiver outlet – evaporator (mm/inch)	Receiver dryer – evaporator O-Ring	Refrigerant	Note	Order number
	TXV	2	17.7	62069508RA	8,6	62069505AA	14.6	62069507AA	11.8	62069506A	R134a	–	62058018B
	TCDM	2	7/8"	–	5/8"	–	3/4"	–	3/4"	–	R134a	–	62058019A
	TGKE	2	17.7	62069508RA	8,6	62069505AA	14.6	62069507AA	11.8	62069506A	R134a	–	62058027A 6233208A (20 pcs.) 6233307A (100 pcs.*)
	TGKE	2	17.7	62069508RA	8,6	62069505AA	14.6	62069507AA	11.8	62069506A	R134a	–	62058028B
	EBH	2	17.7	62069508RA	8,6	62069505AA	14.6	62069507AA	11.8	62069506A	R134a	–	62058041A 6233175A (10 pcs.*)
	TXV	2	17.7	62069508RA	8,6	62069505AA	14.6	62069507AA	11.8	62069506A	R134a	–	62058051A 6233407A (6 pcs.*)
	TCDF	2.5	14,65	62069507AA	8,6	62069505AA	14.67	62069507AA	11.85	62069506A	R134a	–	620585011A

# Receiver dryers, Expansion valves

## Expansion valves

### Angle expansion valves

	Type	Capacity (ton)	From condenser inlet (inch)	To evaporator outlet (inch)	Refrigerant	Note	Order number
	–	2	3/4" 16 UNF	5/8" 18 UNF	R134a	–	62058020A 6233158A (10 pcs.*)
	–	–	3/4" 16 UNF	5/8" 18 UNF	R134a	Nozzle to be added according capacity	62058034A 6233288A (10 pcs.*)
	TBEX	0.5 – 4.5	3/4" 16 UNF	5/8" 18 UNF	R134a	Nozzle to be added according capacity, with service valve 7/16" 20 UNF	9002737A
	TOEX 4.5 S E0539	0.5 – 4.5	3/4" 16 UNF	5/8" 18 UNF"	R134a	incl. nozzle, service valve 7/16" and pressure compensation pipe, performance at R134a up to 13.2 kW	6240451A
	TOEX 4.5 E0523	0.5 – 4.5	3/4" 16 UNF	5/8" 18 UNF"	R134a	incl. nozzle, service valve 7/16" and pressure compensation pipe, performance at R134a up to 11.8 kW	6240452A
	TES2	–	3/4" 16 UNF	5/8" 18 UNF	R404A	Nozzle to be added according capacity	62058035A
	TES2	–	3/4" 16 UNF	5/8" 18 UNF	R404A	Nozzle to be added according capacity	62058038A
	–	–	3/4" 16 UNF	5/8" 18 UNF	R404A	Nozzle to be added according capacity	6240255A
	TES2	–	3/8"	1/2"	R404A	Nozzle to be added according capacity	6240224A
	–	–	1/4"	1/4"	R404A	–	6205803053A 6233001A (45 pcs.*)

# Receiver dryers, Expansion valves

## Expansion valves

### Nozzles

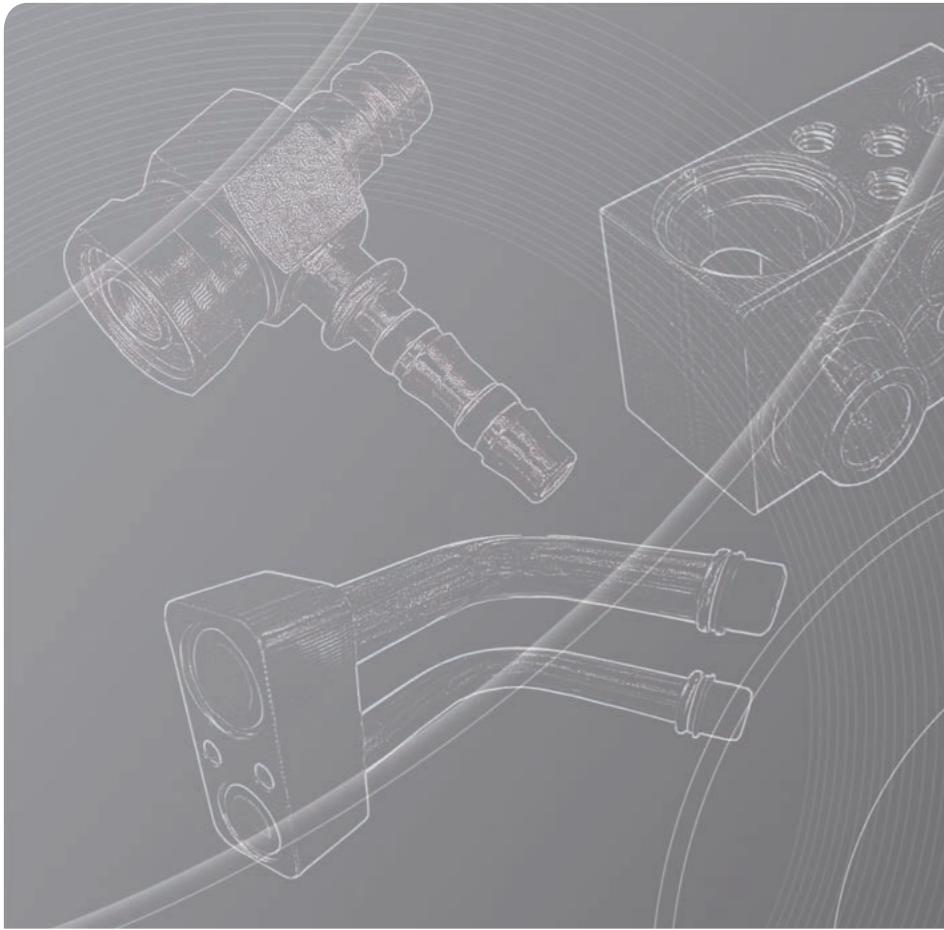
	∅ Hole (mm)	Capacity with refrigerant R134a (ton)	Capacity with refrigerant R404A (ton)	Order number
	01	0.5	0.45	62058033S3A  6233293A (5 pcs.*)
	02	0.8	0.6	62058039A
	03	1.3	1.2	62058033S1A  6233292A (5 pcs.*)
	04	1.9	1.7	62058034S1A  6233413A (5 pcs.*)
	05	2.5	2.2	62058033S2A  6233406A (5 pcs.*)
	06	3	2.6	62058040A
	01	1.7	1.6	6241130A  6241133A (5 pcs.*)
	02	3.1	2.8	6241128A  6241131A (5 pcs.*)
	03	4.6	4.2	6241129A  6241132A (5 pcs.*)

# Receiver dryers, Expansion valves

## Expansion valves

### Flanges

	Description	Note	Order number
	Expansion valve flange	–	62043060B  6233013A (50 pcs.*)  6233033A (100 pcs.*)
	Refrigerant hoses fixing kit for expansion valve	–	62043111B
	Expansion valve flange	–	6230468A
	Refrigerant hoses fixing kit for expansion valve	–	62043066D  6232981A (50 pcs.*)  6233024A (100 pcs.*)
	Refrigerant hose fixing kit for expansion valve 62058018B	–	62043143A



# Fittings

## Fittings

Fittings are used for the connection of the hoses. For each application the suitable fitting in terms of type, thread, hose and angle can be selected. In addition points of charge or service ports as well as 2- or 3-way connections are available.

Standard fittings to be used for Manuli Glacier hoses.

Fittings with reduced section to be used for Goodyear Galaxy hoses.

Refrimaster and special fittings to be used for Maflow Artic and Refrimaster hoses.

Ghibli fittings to be used for Ghibli hoses.

## Standard fittings

### Refrimaster-Fittings

### Ghibli-Fittings

### Fittings with reduced section

## Special fittings

### Clips

### Adapters, Nippels, Connections

# Fittings

## Standard fittings

### Fittings 45°

Type	A (mm)	B (mm)	C (mm)	Valve	Valve angle (°)	X (°)	Hose size	Thread	Note	Order number
Female O-Ring	80	12.5	—	—	—	—	5/16"	5/8" 18 UNF 2B	—	6280106FG026A
Female O-Ring	80	12.5	16	HP	0	—	5/16"	5/8" 18 UNF 2B	—	6280106FG109A
Female O-Ring	88	13.5	—	—	—	—	13/32"	3/4" 16 UNF 2B	—	6280108FG076A
Female O-Ring	99	24	—	—	—	—	1/2"	7/8" 14 UNF 2B	—	6280110FG127A
Female O-Ring	99	24	16	LP	90	—	1/2"	7/8" 14 UNF 2B	—	6280110FG153A
Male O-Ring	83	21.5	—	—	—	—	5/16"	5/8" 18 UNF 2A	—	6280106FG031A
Male O-Ring	102.5	30	—	—	—	—	1/2"	7/8" 18 UNS 2A	—	6280110FG218A
Male flanged	79	14	—	—	—	—	5/16"	—	—	6280106FG033A
Male flanged	99	18.5	—	—	—	—	1/2"	—	—	6280110FG034A
Male flanged	99	24	—	—	—	—	1/2"	—	—	6280110FG958A
Female Rotalock	85	14	—	—	—	—	13/32"	1" 14 UNS 2B	—	6280108FG029A
Female Rotalock	85	14	16	HP	0	—	13/32"	1" 14 UNS 2B	—	6280108FG813A
Female Rotalock	85	14	—	HP	315	72	13/32"	1" 14 UNS 2B	—	6280108FG125A
Female Rotalock	96	16.5	—	—	—	—	5/8"	1" 14 UNS 2B	—	6280112FG449A
Female Rotalock	98	22	—	—	—	—	1/2"	1" 14 UNS 2B	—	6280110FG071A
Female Rotalock	98	22	16	LP	0	—	1/2"	1" 14 UNS 2B	—	6233277A (15 pcs.*)
Female Rotalock	98	22	16	LP	0	—	1/2"	1" 14 UNS 2B	—	6280110FG134A
										6233295A (5 pcs.)

# Fittings

## Standard fittings

### Fittings 90°

Type	A (mm)	B (mm)	C (mm)	Valve	Valve angle (°)	Hose size	Thread	Notes	Order number
Female O-Ring	66	32	—	—	—	5/16"	5/8" 18 UNF 2B		6280106FG563A 6233371A (10 pcs.*)
Female O-Ring	66	32	—	—	—	13/32"	3/4" 18 UNF 2B		6280108FG107A
Female O-Ring	70	53	—	—	—	13/32"	3/4" 18 UNF 2B		6280108FG021A
Female O-Ring	72.5	24	—	—	—	5/16"	5/8" 18 UNF 2B		6280106FG001A 6233245A (25 pcs.*)
Female O-Ring	72.5	24	16	HP	0	5/16"	5/8" 18 UNF 2B		6280106FG337A 6233388A (5 pcs.*)
Female O-Ring	72.5	24	16	HP	90	5/16"	5/8" 18 UNF 2B		6280106FG177A
Female O-Ring	72.5	24	24	HP	15	5/16"	5/8" 18 UNF 2B		6280106FG044A
Female O-Ring	79	30	—	—	—	13/32"	3/4" 16 UNF 2B		6280108FG004A 6233275A (15 pcs.*)
Female O-Ring	125	30	—	—	—	13/32"	3/4" 16 UNF 2B	Min. order quantity 5 pcs.*	6280108FG077A
Female O-Ring	79	30	16	HP	270	13/32"	3/4" 16 UNF 2B		6280108FG168B
Female O-Ring	79	30	16	HP	90	13/32"	3/4" 16 UNF 2B		6280108FG431A
Female O-Ring	79	30	79	HP	0	13/32"	3/4" 16 UNF 2B		6280108FG142A 6233237A (10 pcs.*)
Female O-Ring	88	75	—	—	—	5/16"	5/8" 18 UNF 2B		6280106FG090A
Female O-Ring	88.5	59	—	—	—	5/16"	5/8" 18 UNF 2B		6280106FG382A
Female O-Ring	86	46	—	—	—	5/16"	5/8" 18 UNF 2B		6280106FG553A
Female O-Ring	89	45	—	—	—	5/8"	7/8" 14 UNF 2B		6280112FG514A
Female O-Ring	89	45	16	LP	90	5/8"	7/8" 14 UNF 2B		6280112FH174A
Female O-Ring	90	78	—	—	—	13/32"	3/4" 16 UNF 2B		6280108FG694A
Female O-Ring	92	46.5	—	—	—	1/2"	7/8" 14 UNF 2B		6280110FG064A 6233279A (25 pcs.*)
Female O-Ring	92	46.5	16	LP	0	1/2"	7/8" 14 UNF 2B		6280110FG093A 6232996A (25 pcs.*)
Female O-Ring	92	46.5	16	LP	270	1/2"	7/8" 14 UNF 2B		6280110FG041A
Female O-Ring	92	46.5	25	LP	8	1/2"	7/8" 14 UNF 2B		6280110FG747A
Female O-Ring	94	88	—	—	—	13/32"	3/4" 16 UNF 2B		6280108FG053A
Female O-Ring	103	54.5	—	—	—	5/8"	1" 1/16 14 UNS 2B		6280112FG938A
Male O-Ring	68	36.5	—	—	—	5/16"	5/8" 18 UNF 2A		6280106FG002A 6233006A (25 pcs.*)
Male O-Ring	68	36.5	16	HP	90	5/16"	5/8" 18 UNF 2A		6280106FG201A
Male O-Ring	68	36.5	16	HP	270	5/16"	5/8" 18 UNF 2A		6280106FG280A
Male O-Ring	68	36.5	16	Service valve M10 x 1.25	270	5/16"	5/8" 18 UNF 2A		6280106FG964A
Male O-Ring Fix	74	35	—	—	—	5/16"	5/8" 18 UNF 2A		6280106FG772A

# Fittings

## Standard fittings

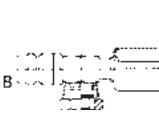
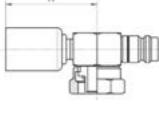
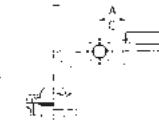
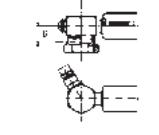
### Fittings 90°

Type	A (mm)	B (mm)	C (mm)	Valve	Valve angle (°)	Hose size	Thread	Notes	Order number
Male O-Ring	68	36.5	50	HP	5	5/16"	5/8" 18 UNF 2A		6280106FG098A
Male O-Ring	79	48	—	—	—	13/32"	3/4" 18 UNS 2A		6280108FG060A
Male O-Ring	87	54.5	—	—	—	1/2"	7/8" 18 UNS 2A		6280110FG110A
Male flanged	84	40	16	HP	0	5/16"	—		6280106FG016A
Male flanged	86	24	—	—	—	5/16"	—		6280106FG049A
Male flanged	86	46	—	—	—	5/16"	—		6233283A (25 pcs.*)
Male flanged	87.5	55	—	—	—	1/2"	—		6280106FG009A
Male flanged	92	46.5	—	—	—	1/2"	—		6280110FG152A
Male flanged	94.5	42.5	16	LP	0	1/2"	—		6280110FG956A
Male flanged	94.5	42.5	—	—	—	1/2"	—		6280110FG007A
Male flanged	100	44	—	—	—	5/8"	—		6280112FG875A
Block, O-Ring	47	12.9	—	—	—	5/16"	5/8" 18 UNF 2B		6280106FG039A 6232995A (25 pcs.*)
Block, O-Ring	55	16.4	—	—	—	1/2"	7/8" 14 UNF 2B		6280110FG105A
Block, O-Ring	56	16.4	—	—	—	1/2"	1" 14 UNS 2B		6280110FG006A
Block, O-Ring	47	12.9	—	HP	—	5/16"	5/8" 18 UNF 2B		6280106FG040A
Block, O-Ring	47	12.9	—	Service valve 7/16" 20 UNF	—	5/16"	5/8" 18 UNF 2B		6280106FG038A
Block, O-Ring	52	16	—	—	—	13/32"	3/4" 16 UNF 2B		6280108FG051A 6233262A (25 pcs.*)
Block, O-Ring	52.2	16	—	HP	—	13/32"	3/4" 16 UNF 2B		6280108FG202A
Block, O-Ring	55	16.4	—	LP	—	1/2"	7/8" 14 UNF 2B		6280110FG128A
Block, O-Ring	55.5	16.35	—	—	—	13/32"	1" 14 UNS 2B		6280108FG058A
Block, O-Ring	55.7	16.4	—	HP	—	13/32"	1" 14 UNS 2B		6280108FG036A
Block, O-Ring	56.2	16.4	—	LP	—	1/2"	1" 14 UNS 2B		6280110FG035A 6233233A (10 pcs.*)

# Fittings

## Standard fittings

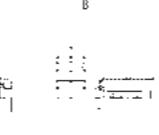
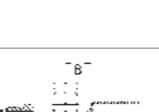
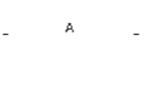
### Fittings 90°

Type	A (mm)	B (mm)	C (mm)	Valve	Valve angle (°)	Hose size	Thread	Notes	Order number	
	Block, O-Ring	47	12.9	—	HP	—	5/16"	5/8" 18 UNF 2B	—	6280106FG674A
	Block, O-Ring	56.2	16.4	—	LP	—	1/2"	1" 14 UNS 2B	—	6280110FG308A
	Female Rotalock	55.5	—	—	HP	—	13/32"	1" 14 UNS 2B	—	6280108FG974A
	Female Rotalock	78	33	—	—	—	13/32"	1" 14 UNS 2B	—	6280108FG022A
	Female Rotalock	78	33	16	HP	270	13/32"	1" 14 UNS 2B	—	6280108FG279A
	Female Rotalock	79.5	32	16	HP	0	13/32"	1" 14 UNS 2B	—	6280108FG061A
	Female Rotalock	79.5	32	16	HP	90	13/32"	1" 14 UNS 2B	—	6280108FG048A
	Female Rotalock	86	39	16	LP	345	1/2"	1" 14 UNS 2B	—	6280110FG008A
	Female Rotalock	93	39	—	—	—	1/2"	1" 14 UNS 2B	—	6280110FG054A
	Female Rotalock	93	39	16	LP	0	1/2"	1" 14 UNS 2B	—	6280110FG011A
	Female Rotalock	93	39	16	LP	0	1/2"	1" 14 UNS 2B	—	6233000A (25 pcs.*)
	Female Rotalock	93	39	16	LP	270	1/2"	1" 14 UNS 2B	—	6280110FG290A
	Block, O-Ring	56	16.4	—	LP	—	1/2"	1" 14 UNS 2B	—	6280110FG067A
	Block, O-Ring	55.2	16.4	—	LP	—	1/2"	7/8" 14 UNF 2B	—	6280110FG509A

### Fittings

## Standard fittings

### Fittings straight

Type	A (mm)	B (mm)	Valve	Hose size	Thread	Notes	Order number	
	Female O-Ring	61.5	—	—	5/16"	5/8" 18 UNF 2B	—	6280106FG19A
	Female O-Ring	86	—	—	5/16"	5/8" 18 UNF 2B	—	6280106FG242A
	Female O-Ring	66.5	—	—	13/32"	5/8" 18 UNF 2B	—	6280108FG186A
	Female O-Ring	66.5	—	—	13/32"	3/4" 16 UNF 2B	—	6280108FG059A
	Female O-Ring	70.5	—	—	13/32"	7/8" 14 UNF 2B	—	6280108FG372A
	Female O-Ring	68	—	—	1/2"	7/8" 14 UNF 2B	—	6280110FG111A
	Female O-Ring	69	—	—	5/8"	7/8" 14 UNF 2B	—	6280112FG240A
	Female O-Ring	77	16	HP	13/32"	3/4" 16 UNF 2B	—	6280108FG424B
	Male flanged	55.5	—	—	5/16"	—	—	6280106FG032A
	Male flanged	68	—	for valve 1.5 t	1/2"	—	—	6280110FG074A
	Male flanged	68	—	for valve 2.5 t 620585011A	1/2"	—	—	6280110FG957A
	Male flanged	84.5	16	HP	5/16"	—	—	6280106FG052A
	Male flanged	90	20	LP	1/2"	—	—	6280110FG055A
	Male O-Ring	63	—	—	5/16"	5/8" 18 UNF 2A	—	6280106FG050A
	Male O-Ring	72	—	—	1/2"	7/8" 18 UNF 2A	—	6280110FG221A
	Male O-Ring	86.5	16	HP	5/16"	5/8" 18 UNF 2A	—	6280106FG037A
	Male O-Ring	86.5	16	Service valve 7/16" 20 UNF	5/16"	5/8" 18 UNF 2A	—	6280106FG282A
	Wall-pass	75.5	34	—	5/16"	5/8" 18 UNF 2A	—	6280106FG950A
	Wall-pass	83	—	—	1/2"	7/8" 14 UNF 2A	—	6280110FG949A

# Fittings

## Standard fittings

### Fittings straight

Type	A (mm)	B (mm)	Valve	Hose size	Thread	Notes	Order number
Female Rotalock	56.5	—	—	1/2"	1" 14 UNS 2B	—	6280110FG155A
	66	—	—	13/32"	1" 14 UNS 2B	—	6280108FG005A
	68	—	—	5/8"	1" 1/16 14 UNS 2B	6233328A (5 pcs.*)	6280112FG520A
	75	16	HP	13/32"	1" 14 UNS 2B	6233260A (25 pcs.*)	6280108FG010A
	79	16	LP	1/2"	1" 14 UNS 2B	6233381A (10 pcs.*)	6280110FG047A
Male fixed O-Ring	88	16	HP	13/32"	3/4" 16 UNF 2A	—	6280108FG853A
Male fixed O-Ring	56	—	—	5/16"	5/8" 18 UNF 2A	6280106FG243A 6232994A (25 pcs.*) 6233066A (100 pcs.*)	6280110FG948A
	70	—	—	5/8"	7/8" 14 UNF 2A	—	6280112FG845B
	73	—	—	1/2"	7/8" 14 UNF 2A	—	6280110FG236B
	88	16	HP	13/32"	3/4" 16 UNF 2A	—	6280108FG853A

# Fittings

## Standard fittings

### Connections

Type	A (mm)	B (mm)	C (mm)	D (mm)	Hose size	Valve	Notes	Order number
Connection	98	37	18.5	—	5/16"	HP	—	6280106FG023A
	98	37	18.5	—	13/32"	HP	—	6280108FG078A
	102	33	16.5	—	1/2"	LP	—	6280110FG065A
	104	32	16	—	5/8"	LP	—	6280112FG327A
3-way-connection	70	70	70	20	5/16"	—	—	6280106FH092A
3-way-connection	130	70	65	—	1/2"	—	—	6280110FG948A
Special connection	111	90	16	30	1/2"	LP	—	6280110FG103A

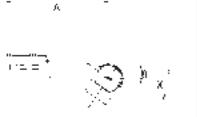
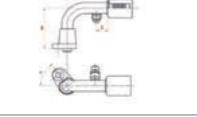
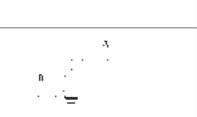
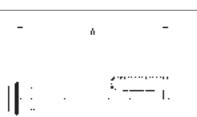
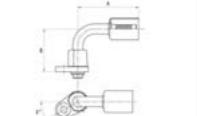
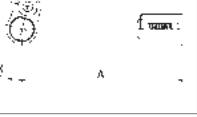
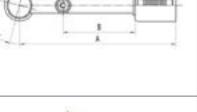
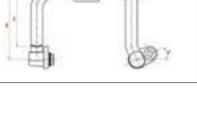
### Fittings flanged

Type	Dimensions (mm)	A (mm)	B (mm)	C (mm)	X (°)	Y (°)	Hose size	Valve	Valve angle (°)	Order number
SD7B10	—	69	33	14	—	—	13/32"	HP	90	6280108FG138A
	—	71.5	29	—	—	—	13/32"	—	—	6280108FG062A
SD7B10	—	96	20	16	45	—	13/32"	HP	0	6280108FG148A
	—	50.5	—	—	—	—	1/2"	—	—	6280110FG094A

# Fittings

## Standard fittings

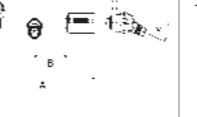
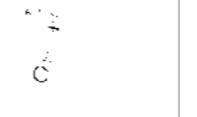
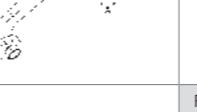
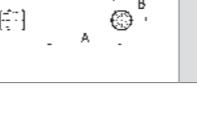
### Fittings flanged

Type	Dimensions (mm)	A (mm)	B (mm)	C (mm)	X (°)	Y (°)	Hose size	Valve	Valve angle (°)	Order number	
	SD 706	—	95	48	—	—	—	1/2"	—	—	6280110FG017A
	SD 706	—	95	48	—	—	—	1/2"	LP	90	6280110FG160A
	SD 706	—	107	15	—	45	—	1/2"	—	—	6280110FG083A
	SD 706	—	110	18	—	45	—	1/2"	LP	315	6280110FG068A
	SD7 B10	92	57.5	—	55	—	1/2"	HP	123	6280110FG935A	
	SP10	—	120	10	—	20	—	1/2"	—	—	6280110FG589A
	SP10	—	121	6.5	—	22	—	1/2"	LP	0	6280110FG714A
	SP10	—	121	6.5	—	22	—	1/2"	LP	55	6280110FG456A
	SP10	—	80	46	—	5	—	13/32"	—	—	6280108FG273A
	SP10	—	90	—	—	90	—	13/32"	—	—	6280108FG843A
	SP10	—	72	51	—	30	—	13/32"	—	—	6280108FG717A
	SP10	—	130	—	—	75	—	13/32"	—	—	6280108FG851A
	SP10	—	130	60	—	15	—	13/32"	HP	—	6280108FG713A
	SP10	—	85	94	—	15	—	1/2"	HP	45	6280110FG710A

# Fittings

## Standard fittings

### Fittings flanged

Type	Dimensions (mm)	A (mm)	B (mm)	C (mm)	X (°)	Y (°)	Hose size	Valve	Valve angle (°)	Order number	
	SP10	—	130	43	—	15	25	13/32"	HP	10	6280108FG455A
	SP10	—	85	66	—	20	—	13/32"	—	—	6280108FG517A
	SP10	—	95	45	—	75	290	13/32"	—	—	6280108FG652A
	V5 - VDA	—	90	35	—	90	—	13/32"	—	—	6280108FG861A
	V5 - VDA	—	90	16	—	—	—	13/32"	HP	—	6280108FG666A
	V5 - VDA	—	90	44	—	—	—	1/2"	—	—	6280110FG756A
	V5 - VDA	—	121.6	43.7	—	50	—	1/2"	—	—	6280110FG862A
	V5 - VDA	—	90	—	—	—	—	1/2"	LP	—	6280110FG863A
	SP15	30 x 165 x 80	—	—	—	—	—	1/2"	LP	330	6280110FH163A
	Flanged for expansion valve	—	90	42.5	—	—	—	1/2"	—	—	6280110FG140A

# Fittings

## Standard fittings

### Fittings flanged

	Type	Dimensions (mm)	A (mm)	B (mm)	C (mm)	X (°)	Y (°)	Hose size	Valve	Valve angle (°)	Order number
	Flanged for expansion valve	-	94	-	-	-	-	1/2"	-	-	6280110FG521A
	Flanged for expansion valve	-	84	62	-	25	-	1/2"	-	-	6280110FH147A
	Flanged for expansion valve	-	89	54	-	60	-	5/16"	-	-	6280106FH148A
	Flanged for expansion valve	-	70	-	-	-	-	13/32"	-	-	6280108FG893A
	CVC	-	90	45	-	50	-	13/32"	-	-	6280108FG826A
	CVC	-	116	28	-	45	-	1/2"	-	-	6280110FG732A
	CVC	130 x 110 x 40	-	-	-	50	-	1/2"	-	-	6280110FG827A
	FKX40 Female flanged	-	-	-	-	90		DN22	-	-	6241771A
	FKX40 Male flanged	-	-	-	-	90		DN22	-	-	6241769A
	FKX40 Female flanged	-	-	-	-	90		DN28	-	-	6241770A
	FKX40 Male flanged	-	-	-	-	90		DN28	-	-	6241772A

# Fittings

## Standard fittings

### Special fittings

Type	A (mm)	B (mm)	C (mm)	Valve angle (°)	Hose size	Thread	Notes	Order number
	Female O-Ring	85	50	32.5	-	5/16"	5/8" 18 UNF 2B	6280106FG081A 6232990A (25 pcs.*)
	Female O-Ring	92.5	60	49	-	5/16"	5/8" 18 UNF 2B	6280106FG161A 6243419A (20 pcs.*)
	Female O-Ring	96	48	46	-	1/2"	7/8" 14 UNF 2B	6280110FG345A
	Female O-Ring	100	37	-	45	13/32"	3/4" 16 UNF 2B	6280108FG362A
	Female O-Ring	90	62	7	15	13/32"	3/4" 16 UNF 2B	6280108FG235A
	Female O-Ring	110	77	40	15	5/16"	5/8" 18 UNF 2B	6280106FG073A
	Female O-Ring	132.5	92	70	10	13/32"	3/4" 16 UNF 2B	6280108FG554A
	Male flanged	118	42	31	60	5/16"	-	6280106FG075A
	Male flanged	100	27	26	45	5/16"	-	6280106FG771A
	Male flanged	96	40	47.5	-	5/16"	-	6280106FG357A
	Block, O-Ring	73	37	-	90	5/16"	5/8" 18 UNF 2B	6280106FG099A

# Fittings

## Standard fittings

### Special fittings

Type	A (mm)	B (mm)	C (mm)	Valve angle (°)	Hose size	Thread	Notes	Order number
Block, O-Ring	90	52	—	90	5/16"	5/8" 18 UNF 2B	—	6280106FG543A
Block, O-Ring	65	50	—	90	5/16"	5/8" 18 UNF 2B	—	6280106FG466A
Block, O-Ring	65	50	—	90	5/16"	5/8" 18 UNF 2B	—	6280106FG123A
Male O-Ring	83	21.5	—	28	5/16"	5/8" 18 UNF 2B	6280106FG015A 6233004A (25 pcs.*)	—
Female Rotalock	96	75	46	—	13/32"	1" 14 UNS 2B	—	6280108FG133A
Block	62	32	—	10	13/32"	3/4" 16 UNF 2B	—	6280108FG247A
Block	90	60	—	90	13/32"	3/4" 16 UNF 2B	—	6280108FG591A
Block	65	35	—	—	13/32"	3/4" 16 UNF 2B	—	6280108FG124A
Block	55.5	16.4	—	90	13/32"	1" 14 UNS 2B	—	6280108FG072A

# Fittings

## Refrimaster fittings

### Fittings 45°

Type	A (mm)	B (mm)	C (mm)	D (mm)	Mechanical key (wrench)	Valve	Hose size	Thread	Order number
Female O-Ring	84.9	46.3	12.5	—	19	—	5/16"	5/8" 18 UNF 2B	6280106FS004B
Female O-Ring	87	48.4	13.5	—	22	—	1/2"	3/4" 16 UNF 2B	6280110FS039A
Female O-Ring	91.3	52.7	13.5	—	22	—	13/32"	3/4" 16 UNF 2B	6280108FS015A
Female O-Ring	107.7	69.1	24	—	27	—	1/2"	7/8" 14 UNF 2B	6280110FS028A
Female O-Ring	108.5	69.9	24	—	27	—	5/8"	7/8" 14 UNF 2B	6280112FS009A
Female O-Ring	115.9	77.3	27	—	32	—	5/8"	1 1/16" 14 UNS 2B	6280112FS008A
Female O-Ring	85.12	46.52	12.62	21	22	HP	5/16"	5/8" 18 UNF 2B	6280106FS012A
Female O-Ring	87.8	—	13.5	16	22	LP	13/32"	3/4" 16 UNF 2B	6280108FS049A
Female O-Ring	84.9	46.3	12.5	16	19	—	5/16"	5/8" 18 UNF 2B	6280106FS032A
Female O-Ring	101.3	62.7	13.5	24.5	22	HP	13/32"	3/4" 16 UNF 2B	6280108FS047A
Female O-Ring	101.3	62.7	13.5	24.5	22	HP	1/2"	3/4" 16 UNF 2B	6280110FS065A
Female O-Ring	107.7	69.1	24	25.2	27	LP	1/2"	7/8" 14 UNF 2B	6280110FS063A
Female O-Ring	107.7	69.1	24	25.2	27	LP	5/8"	7/8" 14 UNF 2B	6280112FS025A
Female Rotalock	105.9	67.3	22	—	29	—	1/2"	1" 14 UNS 2B	6280110FS042A
Female Rotalock	106.5	67.9	22	—	29	—	13/32"	1" 14 UNS 2B	6280108FS011A
Female Rotalock	106.5	67.9	22	—	29	—	5/8"	1" 14 UNS 2B	6280112FS013A
Female Rotalock	106	67.4	22	24	29	HP	13/32"	1" 14 UNS 2B	6280108FS044A
Female Rotalock	106.5	67.9	22	26	29	LP	5/8"	1" 14 UNS 2B	6280112FS026A
Female Rotalock	107.2	68.6	24	25	29	HP	1/2"	1" 14 UNS 2B	6280110FS066A
Female Rotalock	107.2	68.6	24	25	29	LP	1/2"	1" 14 UNS 2B	6280110FS069A
Female conical	83.6	45	14	—	19	—	5/16"	5/8" 18 UNF 2B	6280106FS006B
Female conical	91.3	52.7	16	—	22	—	13/32"	3/4" 16 UNF 2B	6280108FS025A
Female conical	107.3	68.7	16	18.7	22	LP	13/32"	3/4" 16 UNF 2B	6280108FS048A
Male O-Ring	92.7	54.1	21.5	—	17	—	5/16"	5/8" 18 UNF 2A	6280106FS003B
Male O-Ring	100.9	62.3	25	—	22	—	13/32"	3/4" 18 UNS 2A	6280108FS032A
Male O-Ring	112.4	73.8	28.5	—	22	—	1/2"	7/8" 18 UNS 2A	6280110FS043A
Male O-Ring	90	51.4	25	—	5	—	5/16"	5/8" 18 UNF 2A	6280106FS029A
Flanged for expansion valve	105	91	14	—	—	—	5/16"	—	6280106FS034A
Flanged for expansion valve	106	—	20	—	—	—	1/2"	—	6280110FS078A

# Fittings

## Refrimaster fittings

### Fittings 90°

Type	A (mm)	B (mm)	C (mm)	D (mm)	Mechanical key (wrench)	Valve	Valve angle (°)	Hose size	Thread	Order number
Female O-Ring	72.9	38.6	24	—	19	—	—	5/16"	5/8" 18 UNF 2B	6280106FS002B
Female O-Ring	79	38.6	24	—	19	—	—	13/32"	5/8" 18 UNF 2B	6280108FS030A
Female O-Ring	85.6	38.6	30	—	22	—	—	13/32"	3/4" 16 UNF 2B	6280108FS003B
Female O-Ring	89.1	38.6	36.5	—	22	—	—	13/32"	3/4" 16 UNF 2B	6280108FS029A
Female O-Ring	90.5	38.6	36.5	—	22	—	—	1/2"	3/4" 16 UNF 2B	6280110FS040A
Female O-Ring	101	38.6	45	—	27	—	—	5/8"	7/8" 14 UNF 2B	6280112FS011A
Female O-Ring	104	38.6	45	—	27	—	—	1/2"	7/8" 14 UNF 2B	6280110FS012A
Female O-Ring	104.9	38.6	54.5	—	32	—	—	5/8"	1 1/16" 14 UNS 2B	6280112FS010A
Female O-Ring	77	38.4	24	20	19	HP	—	5/16"	5/8" 18 UNF 2B	6280106FS008A
Female O-Ring	85.6	47	30	15	22	Service port 5/8" 18 UNF 2B	—	13/32"	3/4" 16 UNF 2B	6280108FS008A
Female O-Ring	104	65.4	45	24	29	Service port 5/8 18 UNF 2B"	—	1/2"	7/8" 14 UNF 2B	6280110FS002A
Female O-Ring	89.1	50.5	36.5	24.5	22	HP	—	13/32"	3/4" 16 UNF 2B	6280108FS045A
Female O-Ring	90.5	51.9	39.5	26	22	HP	—	1/2"	3/4" 16 UNF 2B	6280110FS067A
Female O-Ring	103.9	65.3	45	28.8	27	LP	—	1/2"	7/8" 14 UNF 2B	6280110FS061A
Female O-Ring	103.9	65.3	45	28.8	27	LP	—	5/8"	7/8" 14 UNF 2B	6280112FS027A
Female Rotalock	99.1	60.5	39	—	29	—	—	13/32"	1" 14 UNS 2B	6280108FS014A
Female Rotalock	99.1	60.5	39	—	29	—	—	5/8"	1" 14 UNS 2B	6280112FS014A
Female Rotalock	99.1	60.5	48.5	—	29	—	—	13/32"	1" 14 UNS 2B	6280108FS001A
Female Rotalock	107.2	68.6	39	—	29	—	—	1/2"	1" 14 UNS 2B	6280110FS020A
Female block	52.5	13.9	12.9	—	19	—	—	5/16"	5/8" 18 UNF 2B	6280106FS033A
Female block	58.5	20.5	16.4	—	27	—	—	1/2"	7/8" 14 UNF 2B	6280110FS024A
Female block	59.5	21.5	16.4	—	29	—	—	13/32"	1" 14 UNS 2B	6280108FS007A
Female block	59.5	21.5	16.4	—	29	—	—	1/2"	1" 14 UNS 2B	6280110FS026A
Female block	59.5	21.5	16.4	—	29	—	—	1/2"	1" 14 UNS 2B	6280110FS001A
Female block	62	23.4	16	—	22	—	—	13/32"	3/4" 16 UNF 2B	6280108FS009A
										6233008A (25 pcs.*)

# Fittings

## Refrimaster fittings

### Fittings 90°

Type	A (mm)	B (mm)	C (mm)	D (mm)	Mechanical key (wrench)	Valve	Valve angle (°)	Hose size	Thread	Order number
Female block	59.5	20.9	16.4	—	29	HP	—	13/32"	1" 14 UNS 2B	6280108FS013A
Female block	59.5	21.5	16.4	—	29	LP	—	1/2"	1" 14 UNS 2B	6280110FS021A
Female block	59.5	21.5	16.4	—	29	HP	—	1/2"	1" 14 UNS 2B	6280110FS064A
Female block	65	26.4	24.2	—	29	LP	—	5/8"	1" 14 UNS 2B	6280112FS040A
Female block	59.5	20.9	16.4	—	29	HP	—	13/32"	1" 14 UNS 2B	6280108FS039A
Female block	59.5	21.5	16.4	—	29	LP	—	1/2"	1" 14 UNS 2B	6280110FS009A
Female conical	68	30	35	—	19	—	115	5/16"	5/8" 18 UNF 2B	6280106FS009A
Female conical	70.5	31.9	33	—	14	—	—	5/16"	7/16" 20 UNF 2B	6280106FS026A
Female conical	77	38.4	26	—	19	—	—	3/4"	5/8" 18 UNF 2B	6280108FS027A
Female conical	81.8	43.2	26	—	19	—	—	5/16"	5/8" 18 UNF 2B	6280106FS021A
Female conical	82.7	44.1	34	—	22	—	—	13/32"	3/4" 16 UNF 2B	6280108FS026A
Female conical	86	47.4	34	—	27	—	—	1/2"	3/4" 16 UNF 2B	6280110FS036A
Female conical	99	60.4	37	—	27	—	—	5/8"	7/8" 14 UNF 2B	6280112FS004A
Female conical	103.1	64.5	37	—	29	—	—	1/2"	7/8" 14 UNF 2B	6280110FS035A
Female conical	81.8	43.2	26	16	19	HP	—	5/16"	5/8" 18 UNF 2A	6280106FS015A
Male O-Ring	77	38.4	37.5	—	17	—	—	13/32"	5/8" 18 UNF 2A	6280108FS034A
Male O-Ring	80.6	42	37.5	—	17	—	—	5/16"	5/8" 18 UNF 2B	6280106FS005B
Male O-Ring	83	44.4	47	—	22	—	—	13/32"	3/4" 18 UNS 2A	6280108FS033A
Male O-Ring	99	60.4	54.5	—	22	—	—	5/8"	7/8" 18 UNS 2A	6280112FS016A
Male O-Ring	100.9	62.3	54.5	—	22	—	—	1/2"	7/8" 18 UNS 2A	6280110FS003B
Male O-Ring	77	38.5	60	33	17	—	—	5/16"	5/8" 18 UNF 2A	6280106FS016A
Male O-Ring	80.2	41.6	37.5	16	17	—	—	5/16"	5/8" 18 UNF 2B	6280106FS018A
Flanged for expansion valve	95	56.4	22	—	—	—	—	5/16"	—	6280106FS017A
Flanged for expansion valve	99	60.5	41.5	—	—	—	—	5/8"	—	6280112FS018A
Flanged for expansion valve	103.8	65.2	45	—	—	—	—	1/2"	—	6280110FS046A
Flanged for expansion valve	104.3	65.7	41.5	—	—	—	—	1/2"	—	6280110FS019A

# Fittings

## Refrimaster fittings

### Fittings straight

Type	A (mm)	B (mm)	C (mm)	Mechanical key (wrench)	Valve	Hose size	Thread	Order number
Female O-Ring	68.9	30.3	—	19	—	5/16"	5/8" 18 UNF 2B	6280106FS001B
Female O-Ring	74	35.4	—	19	—	13/32"	5/8" 18 UNF 2B	6280108FS020B
Female O-Ring	85	46.4	—	22	—	13/32"	3/4" 16 UNF 2B	6280108FS004B
Female O-Ring	85	46.5	—	27	—	1/2"	7/8" 14 UNF 2B	6280110FS049A
Female O-Ring	85	46.5	—	27	—	1/2"	7/8" 14 UNF 2B	6280110FS041A
Female O-Ring	82.4	43.8	—	27	—	1/2"	1" 14 UNS 2B	6280112FS007A
Female O-Ring	94.2	55.6	—	32	—	5/8"	1 1/16" 14 UNS 2B	6280112FS006A
Female O-Ring	103	64.4	—	22	—	1/2"	3/4" 16 UNF 2B	6280110FS038A
Female O-Ring	105	66.4	—	22	—	13/32"	3/4" 16 UNF 2B	6280108FS028A
Female O-Ring	85	46.4	24.4	22	Service port 5/8" 18 UNF 2B	13/32"	3/4" 16 UNF 2B	6280108FS002A
Female O-Ring	95	56.4	24	22	HP	13/32"	3/4" 16 UNF 2B	6280108FS046A
Female O-Ring	95	56.4	27	27	LP	1/2"	7/8" 14 UNF 2B	6280110FS062A
Female O-Ring	95	56.4	27	27	LP	5/8"	7/8" 14 UNF 2B	6280112FS028A
Female O-Ring	97	58.4	26	27	HP	1/2"	3/4" 16 UNF 2B	6280110FS068A
Female O-Ring	95	56.4	27	27	LP	1/2"	7/8" 14 UNF 2B	6280110FS007A
Female Rotalock	86	47.4	—	29	—	13/32"	1" 14 UNS 2B	6280108FS005A
Female Rotalock	86	47.4	—	29	—	5/8"	1" 14 UNS 2B	6280112FS012A
Female Rotalock	82.4	43.8	21.5	29	LP	1/2"	1" 14 UNS 2B	6280110FS018A
Female Rotalock	86	47.4	21.5	29	HP	13/32"	1" 14 UNS 2B	6280108FS012A
Female Rotalock	86	47.4	25	29	HP	1/2"	1" 14 UNS 2B	6280110FS052A
Female Rotalock	86	47.4	26	29	LP	5/8"	1" 14 UNS 2B	6280112FS023A
Female conical	77.8	39.2	—	19	—	5/16"	5/8" 18 UNF 2B	6280106FS013B
Female conical	78.5	39.9	—	14	—	5/16"	7/16" 20 UNF 2B	6280106FS025A
Female conical	86.1	47.5	—	22	—	13/32"	3/4" 16 UNF 2B	6280108FS023A
Female conical	86.3	47.7	—	27	—	1/2"	7/8" 14 UNF 2B	6280110FS032A
Female conical	87	48.4	—	27	—	5/8"	7/8" 14 UNF 2B	6280112FS001A
Female conical	99.5	60.9	—	32	—	5/8"	1 1/16" 14 UNS 2B	6280112FS002A

# Fittings

## Refrimaster fittings

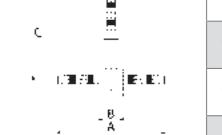
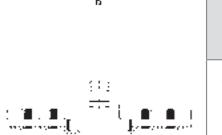
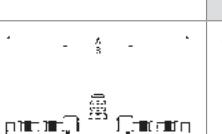
### Fittings straight

Type	A (mm)	B (mm)	C (mm)	Mechanical key (wrench)	Valve	Hose size	Thread	Order number
Female conical	98	59.4	16	19	HP	5/16"	5/8" 18 UNF 2B	6280106FS035A
Male O-Ring	70.2	31.6	—	17	—	5/16"	5/8" 18 UNF 2A	6280106FS020A
Male O-Ring	74	35.4	—	17	—	13/32"	5/8" 18 UNF 2A	6280108FS031A
Male O-Ring	86	47.4	—	22	—	5/8"	7/8" 18 UNS 2A	6280112FS015A
Male O-Ring	89.4	50.8	—	22	—	13/32"	3/4" 18 UNS 2A	6280108FS022A
Male O-Ring	91.6	53	—	22	—	1/2"	7/8" 18 UNS 2A	6280110FS023A
Male O-Ring	101	56.4	16	17	Service port 7/16" 20 UNF	5/16"	5/8" 18 UNF 2A	6280106FS030A
Male fixed	70.2	31.6	—	17	—	5/16"	5/8" 18 UNF 2A	6280106FS024A
Male fixed	77.8	36.6	—	24	—	1/2"	7/8" 14 UNF 2A	6280110FS030A
Flanged for expansion valve	77.9	39.3	—	—	—	5/16"	—	6280106FS027A
Flanged for expansion valve	85	46.4	—	—	—	1/2"	—	6280110FS044A
Flanged for expansion valve	92	53.4	—	—	—	1/2"	—	6280110FS045A
Flanged for expansion valve	92	53.4	—	—	—	5/8"	—	6280112FS017A

# Fittings

## Refrimaster fittings

### Connections

	Type	A (mm)	B (mm)	C (mm)	D (mm)	Valve	Hose size	Order number
	Connection 3-ways	100	22.8	83.5	—	—	5/16"	6280106FS023A
	Connection 3-ways	100	22.8	88.5	—	—	13/32"	6280108FS036A
	Connection 3-ways	100	22.8	88.5	—	—	1/2"	6280110FS029A
	Connection 3-ways	100	22.8	88.5	—	—	5/8"	6280112FS021A
	Connection 3-ways	100	22.8	42.5	68.5	—	13/32"	6280108FS043A
	Connection 3-ways	100	22.8	42.5	80	—	1/2"	6280110FS059A
	Connection 3-ways	100	22.8	42.5	119	—	13/32"	6280108FS038A
	Connection 3-ways	100	22.8	48.5	115	—	1/2"	6280110FS010A
	Connection 3-ways	153	65	—	—	—	13/32"	6280108FS037A
	Connection	120	43	—	—	—	5/16"	6280106FS028A
	Connection	124	47	—	—	—	13/32"	6280108FS035A
	Connection	124	47	—	—	—	1/2"	6280110FS047A
	Connection	124	47	—	—	—	5/8"	6280112FS019A
	Connection	124	47	—	—	LP	1/2"	6280110FS005A
	Connection	124	47	—	—	LP	5/8"	6280112FS020A
	Connection	120	43	—	—	HP	5/16"	6280106FS007A
	Connection	124	47	—	—	HP	13/32"	6280108FS017A
	Connection	124	47	—	—	HP	1/2"	6280110FS048A
	Connection	124	47	—	—	7/16" 20 UNF	1/2"	6280110FS053A
	Connection	124	47	34	—	3/4" 16 UNF 2A	1/2"	6280110FS011A
	Connection	124	48	42	—	7/8" 14 UNF 2A	5/8"	6280112FS029A

# Fittings

## Refrimaster fittings, clips and sealing rings

### Refrimaster clips

	Tube Ø (mm)	Hose Ø (inch)	Notes	Order number
	6	5/16"	—	620361778A
	8	13/32"	—	620361779A
	10	1/2"	—	620361780A
	12	5/8"	—	620361781A

### Refrimaster sealing rings

	Tube Ø (mm)	Hose Ø (inch)	Notes	Order number
	6	8	HNBR SP868-06 DRS Min. order quantity 10 pcs.*	6240277A
	8	10	HNBR SP868-08 DRS Min. order quantity 10 pcs.*	6240278A
	10	13	HNBR SP868-10 DRS Min. order quantity 10 pcs.*	6240279A
	12	16	HNBR SP868-12 DRS Min. order quantity 10 pcs.*	6240280A
	16	22	HNBR SP868-16 DRS Min. order quantity 10 pcs.*	6240281A

# Fittings

## Ghibli fittings

### Fittings 45°

	Type	A (mm)	B (mm)	C (mm)	Hose size	Thread	Order number
	Female O-Ring	95	55	23	13/32"	3/4" 16 UNF	6232062A
	Female O-Ring	85	45	18	13/32"	5/8" 18 UNF 2B	6241297A
	Female O-Ring	115	75	31	5/8"	7/8" 14 UNF	6232064A
	Female O-Ring	115	75	31	5/8"	1 1/16" 14 UNS	6232066A
	Female Rotalock	115	75	35	13/32"	1" 14 UNS 2B	6232063A

### Fittings 90°

	Type	A (mm)	B (mm)	C (mm)	Hose size	Thread	Order number
	Female O-Ring	80	40	28	5/16"	5/8" 18 UNF 2B	6241232A 6241154A (5 pcs.*)
	Female O-Ring	105	65	33	5/8"	1 1/16" 14 UNS	6232068A
	Female O-Ring	85	45	30	13/32"	3/4" 16 UNF 2B	6241295A
	Female O-Ring	80	40	50	13/32"	3/4" 16 UNF 2B	6241231A 6241153A (5 pcs.*)
	Female O-Ring	72	32	41	5/16"	5/8" 18 UNF 2A	6241238A 6241159A (5 pcs.*)
	Female Rotalock	105	65	48	13/32"	1" 14 UNS 2B	6232067A
	Female Rotalock	105	65	48	5/8"	1" 14 UNS 2B	6232069A

# Fittings

## Ghibli fittings

### Fittings 90°

	Type	A (mm)	B (mm)	C (mm)	Hose size	Thread	Order number
	Block Rotalock	80	40	—	13/32"	1" 14 UNS 2B	6232072A
	Block Rotalock	80	40	—	5/8"	1" 14 UNS 2B	6232082A
	ORFS	80	40	45	5/16"	11/16" 16 UNS 2B	6241225A
	ORFS	80	40	45	13/32"	3/4" 16 UNS 2B	6241227A
	ORFS	80	40	45	1/2"	1" 14 UNS 2B	6241230A
	ORFS	90	50	53	1/2"	1" 14 UNS 2B	6241228A

# Fittings

## Ghibli fittings

### Fittings 180°

	Type	A (mm)	B (mm)	C (mm)	Hose size	Thread	Order number
	Female O-Ring	95	55	—	13/32"	3/4" 16 UNF	6232058A
	Female O-Ring	95	55	—	5/8"	7/8" 14 UNF	6232060A
	Female O-Ring	95	55	—	5/16"	5/8" 18 UNF 2B	6241234A
	Female O-Ring	95	55	—	13/32"	3/4" 16 UNF 2B	6241237A
	Female O-Ring	95	55	—	5/16"	5/8" 18 UNF 2B	6241233A 6241155A (5 pcs.*)
	Male O-Ring	72	32	—	5/16"	5/8" 18 UNF 2A	6241239A 6241160A (5 pcs.*)
	Female Rotalock	95	55	—	13/32"	1" 14 UNS 2B	6232059A
	Female Rotalock	85	45	—	5/8"	1" 14 UNS 2B	6232061A
	ORFS	80	40	—	5/16"	11/16" 16 UNS 2B	6241226A

# Fittings

## Ghibli fittings and clips

### Special fittings

	Type	A (mm)	B (mm)	C (mm)	Hose size	Valve	Order number
	3-way connection	125	45	—	13/32"	—	6241236A 6241157 (5 pcs.*)
	3-way connection	125	45	—	1/2"	1/4" SAE D6	6241229A

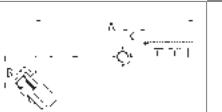
### Ghibli clips

	Tube Ø (mm)	Hose Ø (inch)	Notes	Order number
	6	5/16"	Min. order quantity 10 pcs.*	6232774A
	8	13/32"	Min. order quantity 10 pcs.*	6232775A
	10	1/2"	Min. order quantity 10 pcs.*	6232776A
	12	5/8"	Min. order quantity 10 pcs.*	6232777A

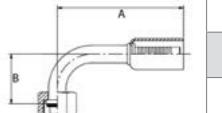
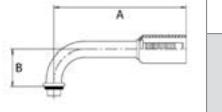
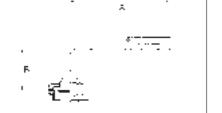
# Fittings

## Fittings with reduced section

### Fittings 45°

	Type	A (mm)	B (mm)	C (mm)	Valve	Valve angle (°)	Hose size	Thread	Order number
	Female Rotalock	113	22	16	LP	90	1/2"	1" 14 UNS 2B	6270110FG160A
	Male flanged	97	18.5	—	—	—	1/2"	—	6270110FG031A

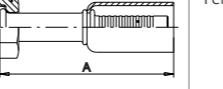
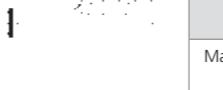
### Fittings 90°

	Type	A (mm)	B (mm)	Valve	Hose size	Thread	Notes	Order number
	Female O-Ring	72.5	28.5	—	5/16"	5/8" 18 UNF 2B	—	6270106FG032A
	Female O-Ring	79	34	—	13/32"	3/4" 16 UNF 2B	—	6270108FG026A
	Female O-Ring	94	45	—	1/2"	7/8" 14 UNF 2B	—	6270110FG059A
	Female O-Ring	115	72	—	1/2"	7/8" 14 UNF 2B	—	6270110FG072A
	Male flanged	86	24	—	5/16"	—	—	6270106FG014A
	Male flanged	94.5	42.5	—	1/2"	—	—	6270110FG027A 6233164A (10 pcs.*)
	Block O-Ring (without valve)	52	16	—	13/32"	3/4" 16 UNF 2B	—	6270108FG131A
	Block O-Ring (without valve)	53	12.9	—	5/16"	5/8" 18 UNF 2B	—	6270106FG056A
	Block O-Ring (with valve)	54	—	LP	1/2"	1" 14 UNS 2B	—	6270110FG064A
	Block O-Ring (with valve)	55.5	—	HP	13/32"	1" 14 UNS 2B	—	6270108FG093A
	Female Rotalock	79.5	32	—	13/32"	1" 14 UNS 2B	—	6270108FG162A

# Fittings

## Fittings with reduced section

### Fittings straight

	Type	A (mm)	B (mm)	Valve	Hose size	Thread	Order number
	Female O-Ring	61.5	—	—	5/16"	5/8" 18 UNF 2B	6270106FG069A 6233014A (54 pcs.*) 6233034A (162 pcs.*)
	Female O-Ring	70	—	—	13/32"	3/4" 16 UNF 2B	6270108FG095A
	Female O-Ring	77	—	—	1/2"	7/8" 14 UNF 2B	6270110FG002A 6233011A (54 pcs.*) 6233032A (162 pcs.*)
	Male flanged	55.5	—	—	5/16"	—	6270106FG021A
	Male flanged	68	—	—	1/2"	—	6270110FG008A
	Male O-Ring	60	—	—	5/16"	5/8" 18 UNF 2A	6270106FG029A
	Male O-Ring	78	—	—	13/32"	3/4" 16 UNF 2A	6270108FG214A

### Fittings with flanged connection

	A (mm)	B (mm)	C (mm)	Valve	Valve angle (°)	Hose size	Thread	Notes	Order number
	130	70	20	HP	90	13/32"	Flanged	—	6270108FH281A

# Fittings

## Special fittings

	A (mm)	B (mm)	C (mm)	Valve	Valve angle (°)	Hose size	Thread	Notes	Order number
	100	—	—	LP	180	1/2"	Flanged	for compressor SS48	6280110FH228A 6233427A (3 pcs.*)
	102	50	42	—	360	1/2"	Flanged	—	6280110FG358A
	46	50	42	—	360	5/16"	5/8" 18 UNF 2B	—	6280106FS011A
	75	51	—	—	90	13/32"	Flanged	for compressor SP10	6280108FS016A
	88	—	—	—	180	13/32"	Flanged	for compressor SP10	6280108FS018A
	89	58	28	—	360	13/32"	3/4" 16 UNF 2B	—	6280108FS010A
	82	82	36	—	SP	13/32"	1" 14 UNS 2B	—	6280108FS019A
	—	—	—	—	SP	13/32"	Flanged	for compressor SP10	6280108FS042A
	82	140	110	—	SP	13/32"	Flanged	for compressor SP10	6280108FS050A 6233236A (10 pcs.*)

# Fittings

## Special fittings

	A (mm)	B (mm)	C (mm)	Valve	Valve angle (°)	Hose size	Thread	Notes	Order number
	84	—	—	—	90	13/32"	Flanged	for compressor SP20/21	6280108FS040A
	95	—	—	—	180	1/2"	Flanged	for compressor SP10	6280110FS025A
	86	50	39	—	25	1/2"	1" 14 UNS 2B	—	6280110FS027A
	70	36	—	—	45	1/2"	Flanged	for expansion valve	6280110FS060A
	—	—	—	LP	76	1/2"	Flanged	for compressor SP10	6280110FS022A
	—	—	—	—	SP	1/2"	Flanged	for compressor SP10	6280110FS058A
	75	—	—	—	SP	1/2"	Flanged	for compressor SP10	6280110FS071A
	—	—	—	—	SP	1/2"	Flanged	for compressor SP10	6280110FS072A 6233284A (10 pcs.*)
	100	—	—	—	SP	1/2"	Flanged	for compressor SP20/21	6280110FS050A

# Fittings

## Special fittings

	A (mm)	B (mm)	C (mm)	Valve	Valve angle (°)	Hose size	Thread	Notes	Order number
	—	—	—	—	SP	13/32"	3/4" 16 UNF 2B	—	6280108FS051A
	152	—	—	LP	90	5/8"	7/8" 14 UNF 2B	—	6280112FG884A
	—	—	—	—	Female conical O-Ring	13/32"	3/4" 16 UNF	Fastclic for compressor, with clip	6231303A
	—	—	—	—	45° Rotalock	5/8"	1" 14 UNS 2B	Fastclic for compressor, with clip	6231298A
	—	—	—	—	Female conical O-Ring	5/8"	7/8" 14 UNF	Fastclic for compressor, with clip	6231305A

# Fittings

## Adapters, Nippels, Connections

### Adapter, Nippels

	Description	Thread	Notes	Order number
	Nippels	5/8" 18 UNF 2A	Min. order quantity 6 pcs.*	6233278A
	Adapter	O-Ring 5/8" 18 UNF 2A - Conical	—	62021016B 6233373A (10 pcs.*)
	Adapter	O-Ring 3/4" 16 UNF 2A - Conical	—	62021030A 6233361A (15 pcs.*)
	Nippels	3/4" 16 UNF 2A	—	62021043A
	Adapter	O-Ring 13/32" - Conical	—	6230460A
	Nippels	7/8" 14 UNF 2A	—	62021074A
	Adapter	O-Ring 7/8" 14 UNF - Conical	—	62021078A
	3-way adapter	(2x) 5/8" 18 UNF 2A - (1x) 5/8" 18 UNF 2B	—	62021119B
	Quick coupling kit	5/16"	—	620361472A

# Fittings

## Adapters, Nippels, Connections

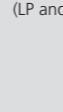
### Adapters, Nippels

	Description	Thread	Notes	Order number
	Quick coupling kit	1/2"	-	620361473A
	Quick coupling kit	13/32"	-	620361475A
	Adapter quick-coupling 13/32"	3/4" 16 UNF 2A	-	62043033S1A
	Adapter quick coupling from 7/8" to 1/2"	7/8" 14 UNF 2A	-	62043033S2B
	Male quick coupling	5400-S2-8	-	62043039S1A
	Female quick coupling	5400-S5-8	-	62043039S2A
	Screw	5400-53-8 S	-	62043039S3A
	3-way adapter	1" - 14 UNF 2A - 7/8" 14 UNF 2A - 1" - 14 UNF 2B	-	62043108B
	LP Adapter valve from R12 to R134a	-	Min. order quantity 5 pcs.*	62043139A

# Fittings

## Adapters, Nippels, Connections

### Adapters, Nippels

	Description	Thread	Notes	Order number
	HP Adapter valve from R12 to R134a	-	-	62043140A
	Adapter kit valve from R12 to R134a (LP and HP)	-	-	62043141S1A
	Hose extension coupler 5/16" (L = 50 mm)	5/8" 18 UNF 2B	-	62043401B 6233224A (5 pcs.*)
	Hose extension coupler 13/32" (L = 50 mm)	3/4" 16 UNF 2B	-	62043402B
	Hose extension coupler 1/2" (L = 50 mm)	7/8" 14 UNF 2B	-	62043403B 6233274A (5 pcs.*)
	Hose extension coupler 5/16" (L = 90 mm)	5/8" 18 UNF 2B	-	62043407A
	Hose extension coupler 13/32" (L = 90 mm)	3/4" 16 UNF 2B	-	62043408A
	3/4" Male O-Ring connection	-	-	62043486A
	5/8" Male O-Ring connection	-	-	62043487A

# Fittings

## Adapters, Nippels, Connections

### Expansion Valve Connections

	Type	Notes	Order number
	Extension System for Original AC	3-way Freon-Feeder suitable for Fiat Scudo	62043283A
	Extension System for Original AC	Freon-Feeder suitable for Fiat Ducato 230/244	62043343A
	Extension System for Original AC	Freon-Feeder suitable for Fiat Ducato X250 62043359A 6233246A (5 pcs.*)	62043359A
	Extension System for Original AC	3-way block suitable for VW T5 (7H0 820 679)	62043366B
	Extension System for Original AC	3-way block suitable for Renault Master, Opel Movano, Nissan Interstar	62043501A
	Extension System for Original AC	3-way adapter 5/16"	62043417B
	Extension System for Original AC	3-way adapter 1/2"	62043418A
	Extension System for Original AC	3-way adapter 5/16" (62043417B) 3-way adapter 1/2" (62043418A) suitable for Mercedes Sprinter, VW Crafter	62A031060A
	Extension System for Original AC	Adapter 1/2" and 13/32" with service port HP and LP	62043220A

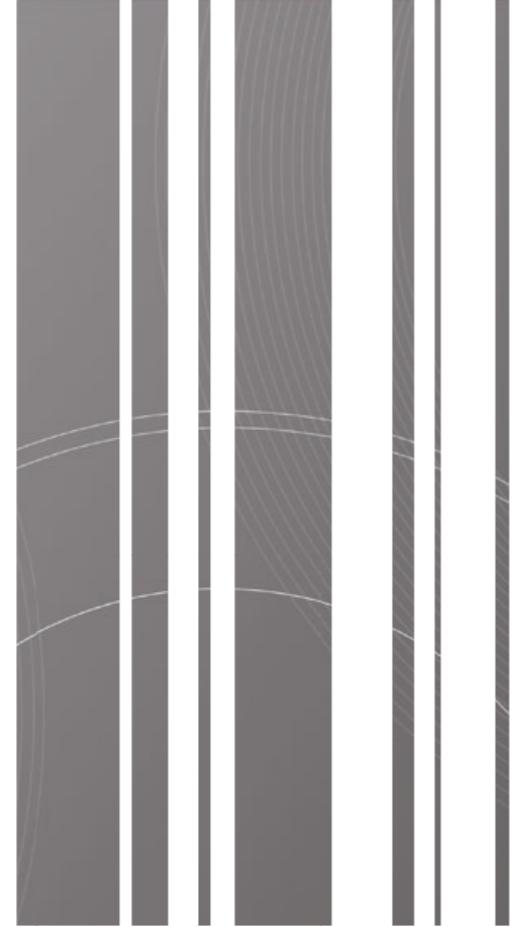
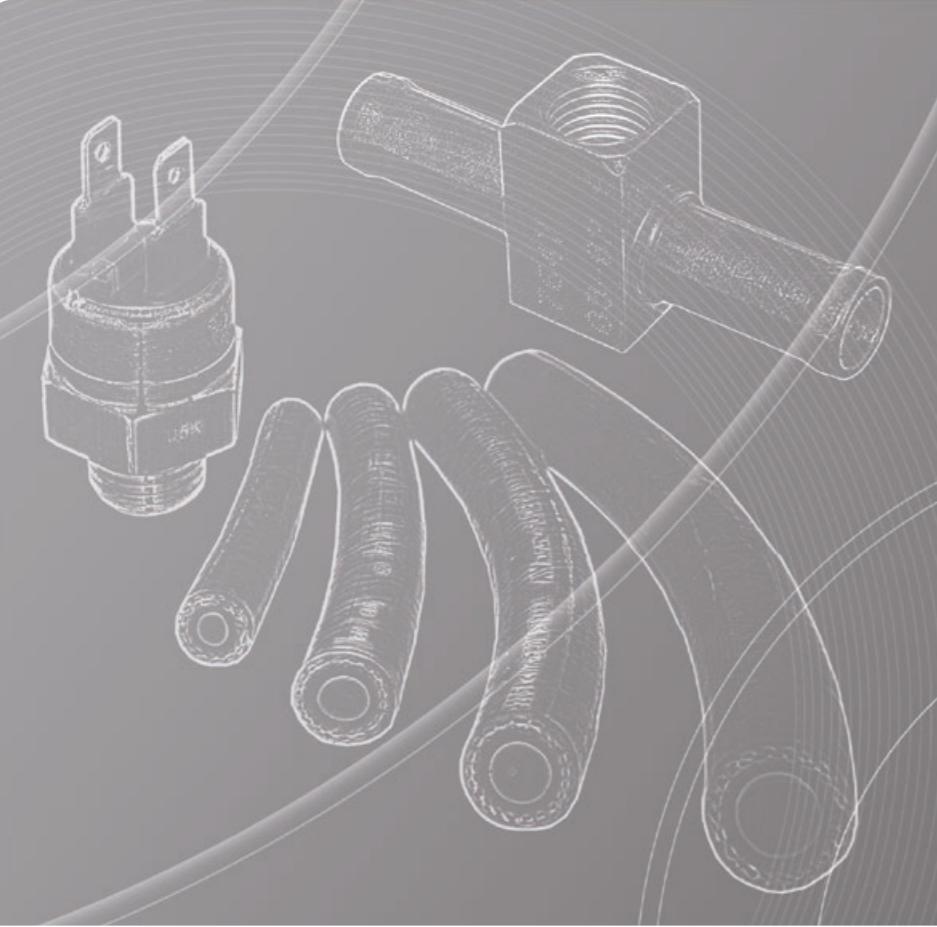
# Fittings

## Adapters, Nippels, Connections

### Expansion Valve Connections

	Type	Notes	Order number
	Expansion valve connection	suitable for Skoda Fabia	62043288
	Expansion valve connection	suitable for Audi A3	62043309A
	Expansion valve connection	suitable for MB Vito 111 CDI	62043310A
	Expansion valve connection	suitable for Fiat Doblo' only in combination with valve 62058027A	62043311A
	Expansion valve connection	suitable for Fiat Ducato	62043357A

Fittings



## Hoses

### Air and protection hoses

Description	Ø internal (mm)	Note	Order number
Paper air hose (Length 12 m)	45,5	–	6230573A
Paper air hose (Length 10 m)	50,5	–	62033050CARA
Paper air hose (Length 12 m)	60,5	–	6230575A
Paper air hose (Length 10 m)	75	–	6230463A
Plastic air hose (Length 12 m)	50	–	6230574A
Plastic air hose (Length 10 m)	60	–	6230462A
Plastic air hose (Length 10 m)	75	–	6230576A
Paper aluminium air hose (Length 25 m)	55	–	62RWTF55B
Paper aluminium air hose (Length 25 m)	60	–	62RWTF60B
Paper aluminium air hose	70	Min. order quantity 10 m*	6234920A
Paper aluminium air hose	80	Min. order quantity 25 m*	62RWTF80B
Paper aluminium air hose (Length 25 m)	90	–	62RWTF90B
Paper aluminium air hose (Length 20 m)	100	–	62RWTF101
Insulating protection hose	14	Min. order quantity 10 m*	6235026A
Insulating protection hose (Length 10 m)	17	–	6230602A
Insulating protection hose	27	Min. order quantity 10 m*	62070251A
Westaflex protection hose	18	Min. order quantity 10 m*	62070222A
Westaflex protection hose (Length 25 m)	21	–	6230539B
Westaflex protection hose (Length 20 m)	24	–	6230537B
Westaflex protection hose (Length 25 m)	26	–	6230538B
Polar protection hose	14	Min. order quantity 10 m*	6235017A
Polar protection hose	18	Min. order quantity 10 m*	6235015A
Polar protection hose	20	Min. order quantity 10 m*	6235016A
Polar protection hose (Length 10 m)	30	–	6230603A
Anticondensate Material (Length 10 m)	–	–	62070001RA

## Hoses

### Hoses

Refrigerant hoses are available for different refrigerant types and in different diameters and variants.

Air hoses in different diameters and material connect the AC blower with the louvers. For protecting hoses several variants can be selected.

A variety of water hoses, especially for the drain water or glycol (heating function), and its accessory such as fittings, connections and bulbs are provided.

Manuli Glacier hoses to be used for AC systems with standard fittings.

Goodyear Galaxy hoses to be used for AC systems with fittings with reduced section.

Maflow Artic and Refrimaster hoses to be used for refrigeration systems with Refrimaster and special fittings.

Ghibli hoses to be used for refrigeration systems with Ghibli fittings.

### Air and protection hoses

### Refrigerant hoses

### Water hoses and equipment

# Hoses

## Refrigerant hoses

Type	Description	Ø internal (mm)	Ø external (mm)	Order number
	5/16" Glacier SAEJ 2064 GY4828 (Length 20 m)	8.2	18.3	6290006G2GS18A
	5/16" Glacier SAEJ 2064 GY4828 (Length 50 m)	8.2	18.3	6290006G2GS19A
	13/32" Glacier SAEJ 2064 GY4828 (Length 20 m)	10.6	22.2	6290008G2GS13A
	13/32" Glacier SAEJ 2064 GY4828 (Length 50 m)	10.6	22.2	6290008G2GS14A
	1/2" Glacier SAEJ 2064 GY4828 (Length 20 m)	13	24.6	6290010G2GS20A
	1/2" Glacier SAEJ 2064 GY4828 (Length 50 m)	13	24.6	6290010G2GS21A
	5/8" Glacier SAEJ 2064 GY4828 (Length 20 m)	16.2	27.8	6290012G2GS4A
	5/8" Glacier SAEJ 2064 GY4828 (Length 50 m)	16.2	27.8	6290012G2GS5A
	5/16" Artic NK (Length 20 m)	8	12.7	6290006G2GAS19A
	5/16" Artic NK (Length 50 m)	8	12.7	6290006G2GAS20A
	13/32" Artic NK (Length 20 m)	10.5	16	6290008G2GAS9A
	13/32" Artic NK (Length 50 m)	10.5	16	6290008G2GAS10A
	1/2" Artic NK (Length 20 m)	12.7	18.1	6290010G2GAS16A
	1/2" Artic NK (Length 50 m)	12.7	18.1	6290010G2GAS17A
	5/8" Artic NK (Length 20 m)	16	21.7	6290012G2GAS5A
	5/8" Artic NK (Length 50 m)	16	21.7	6290012G2GAS6A
	5/16" Refrimaster (Length 20 m)	8	12.7	6290006G2GRS25A
	5/16" Refrimaster (Length 50 m)	8	12.7	6290006G2GRS26A
	13/32" Refrimaster (Length 20 m)	10.5	16	6290008G2GRS17A
	13/32" Refrimaster (Length 50 m)	10.5	16	6290008G2GRS18A
	1/2" Refrimaster (Length 20 m)	13	18.1	6290010G2GRS21A
	1/2" Refrimaster (Length 50 m)	13	18.1	6290010G2GRS22A
	5/8" Refrimaster (Length 20 m)	16	21.7	6290012G2GRS7A
	5/8" Refrimaster (Length 50 m)	16	21.7	6290012G2GRS8A
	5/16" Galaxy Reduced section (Length 20 m)	8	14.7	6240156A
	5/16" Galaxy Reduced section (Length 50 m)	8	14.7	6240161A
	13/32" Galaxy Reduced section (Length 20 m)	10	17.3	6240158A
	13/32" Galaxy Reduced section (Length 50 m)	10	17.3	6240162A
	1/2" Galaxy Reduced section (Length 20 m)	12	19.4	6240159A
	1/2" Galaxy Reduced section (Length 50 m)	12	19.4	6240163A
	5/8" Galaxy Reduced section (Length 20 m)	16	23.6	6240160A
	5/8" Galaxy Reduced section (Length 50 m)	16	23.6	6240164A
	5/16" Ghibli (Length 20 m)	8	16	6240150A
	5/16" Ghibli (Length 50 m)	8	16	6240165A
	13/32" Ghibli (Length 20 m)	10.7	18.8	6240149A
	13/32" Ghibli (Length 50 m)	10.7	18.8	6240166A
	1/2" Ghibli (Length 20 m)	12.7	21.5	6240151A
	1/2" Ghibli (Length 50 m)	12.7	21.5	6240168A
	5/8" Ghibli (Length 20 m)	16.1	24.1	6240154A
	5/8" Ghibli (Length 50 m)	16.1	24.1	6240169A

# Hoses

## Water hoses and equipment

### Water hoses and pumps

Description	Ø internal (mm)	Ø external (mm)	Order number	
	Standard water hose (Length 10 m)	11	18	6230615A
	Standard water hose (Length 10 m)	14.5	21.5	6230570A
	Standard water hose (Length 20 m)	14.5	21.5	6201103251A
	Standard water hose (Length 12 m)	15.5	22.5	6201100357A
	Standard water hose (Length 2 m)	18.5	25.5	62011021RC
	Water circulation pump 12 V Circulation volume 510 l/h @ 0.145 bar Bosch No. 392044020	-	-	62007761A

### Condensate drain equipment

Description	Ø internal (mm)	Ø external (mm)	∅ (inch)	Note	Order number	
	Condensate drainage hose (Length 3.5 m)	11	15.5	-	-	62069007S13AA
	Condensate drainage hose (Length 10 m)	11	15.5	-	-	62069007RB
	Condensate drainage hose (Length 20 m)	11	15.5	-	-	62069007S5A
	Condensate drainage hoses accessories straight, (50 pcs.)	-	10	-	-	6230592A
	Condensate drainage hoses accessories straight	-	12	-	Min. order quantity 50 pcs.*	62305058
	Condensate drainage hoses accessories 90° (50 pcs.)	-	10	-	-	6230638A
	Condensate drainage hoses accessories 90° (50 pcs.)	-	13	-	-	6230511A
	Universal rubber grommet for hoses	-	-	-	Min. order quantity 100 pcs.*	6232962A
	Double rubber grommet (20 pcs.)	-	-	-	-	6230512A
	3/8" rubber grommet	-	-	3/8	-	62069108A
	1/2" rubber grommet	-	-	1/2	-	6238235A (20 pcs.*)
	1/2" rubber grommet	-	-	1/2	-	6238237A (20 pcs.*)

# Hoses

## Water hoses and equipment

### Connections

	Description	Ø internal (mm)	Ø external (mm)	Ø external (mm)	Note	Order number
	Condensate drainage hoses accessories (T-connection)	13	13	13	–	6230506A 6234480A (10 pcs.*)
	2-way connection	10	10	–	–	62007279A
	2-way connection	12	12	–	Min. order quantity 10 pcs.*	6238236A
	2-way connection	15	15	–	–	62007412A
	2-way connection	16	16	–	–	620691326A 6232992A (100 pcs.*) 6233028A (400 pcs.*)
	2-way connection with plastic screw	16	16	–	–	62069273A
	3-way connection	6	6	6	–	620691175A 6238238A (100 pcs.*)
	3-way connection	6	6	6	–	620691066A 6233241A (100 pcs.*)
	3-way connection	16	16	16	Min. order quantity 10 pcs.*	6232966A
	3-way connection	20	16	8	–	62007718A
	3-way connection	20	20	8	–	62007719A

# Hoses

## Water hoses and equipment

### Adapters, clamps

	Description	Ø internal (mm)	Ø external (mm)	Ø (mm/inch)	Note	Order number
	Adapter	16	11	–	–	62069889A
	Adapter	19	14	–	–	620691558A
	Adapter	20	16	–	–	62007717B
	Hose Clamp (20 pcs.)	–	–	1/2"	–	6230593A
	Hose Clamp (20 pcs.)	–	–	3/8"	–	6230510A
	Pipe Clamp (50 pcs.)	–	–	14	–	6230529A
	Pipe Clamp	–	–	15	Min. order quantity 20 pcs.*	62069557A
	Pipe Clamp (50 pcs.)	–	–	18	–	6230524A
	Pipe Clamp (20 pcs.)	–	–	20	–	6230640A
	Pipe Clamp (50 pcs.)	–	–	22	–	6230525A
	Pipe Clamp	–	–	23	Min. order quantity 20 pcs.*	6238239A
	Pipe Clamp (50 pcs.)	–	–	24	–	6230527A
	Pipe Clamp	–	–	28	Min. order quantity 20 pcs.*	6238240A
	Pipe Clamp (20 pcs.)	–	–	50	–	6230523A
	Pipe Clamp	–	–	42	–	62069697A
	Hose Clamp	–	–	–	Min. order quantity 20 pcs.*	6238241A

# Hoses

## Water hoses and equipment

### Pipes, Bulbs

	Description	Ø external (mm)	Fittings	Order number
	Pipe Metal	16	M14 x 1.5	62007481C
	Pipe Metal	20	M14 x 1.5	62007406C
	Pipe Metal	28	M22 x 1.5	62007396A

### Thermostatic bulbs

	Bulb type	Open at (°C)	Closed at (°C)	Fitting type	Fittings	Order number
	One contact normally closed	107	97	Male	M14 x 1.5	62068635A 6233411A (5 pcs.*)
	One contact normally closed	117	107	Male	M14 x 1.5	620681209A 6233222A (5 pcs.*)
	One contact normally closed	115	105	Male	M14 x 1.5	620681568A

# Hoses

## Water hoses and equipment

### Water Pipes

Type	Length A (Center of pipe to end of pipe) (mm)	Length B (center of pipe to end of pipe) (mm)	Ø internal (mm)	Ø external (mm)	Note	Order number
	36	110	14.5	21.5	-	620691088A
	45	70	14.5	21.5	-	62069355A
	50	50	14.5	21.5	-	620691087A
	50	80	14.5	21.5	-	62069894A 6233174A (15 pcs.*)
	50	100	14.5	21.5	-	620691237A
	55	110	14.5	21.5	-	62069393A 6232976A (50 pcs.*)
	60	125	14.5	21.5	-	62069432A 6233131A (15 pcs.*)

# Hoses

## Water hoses and equipment

### Water valves

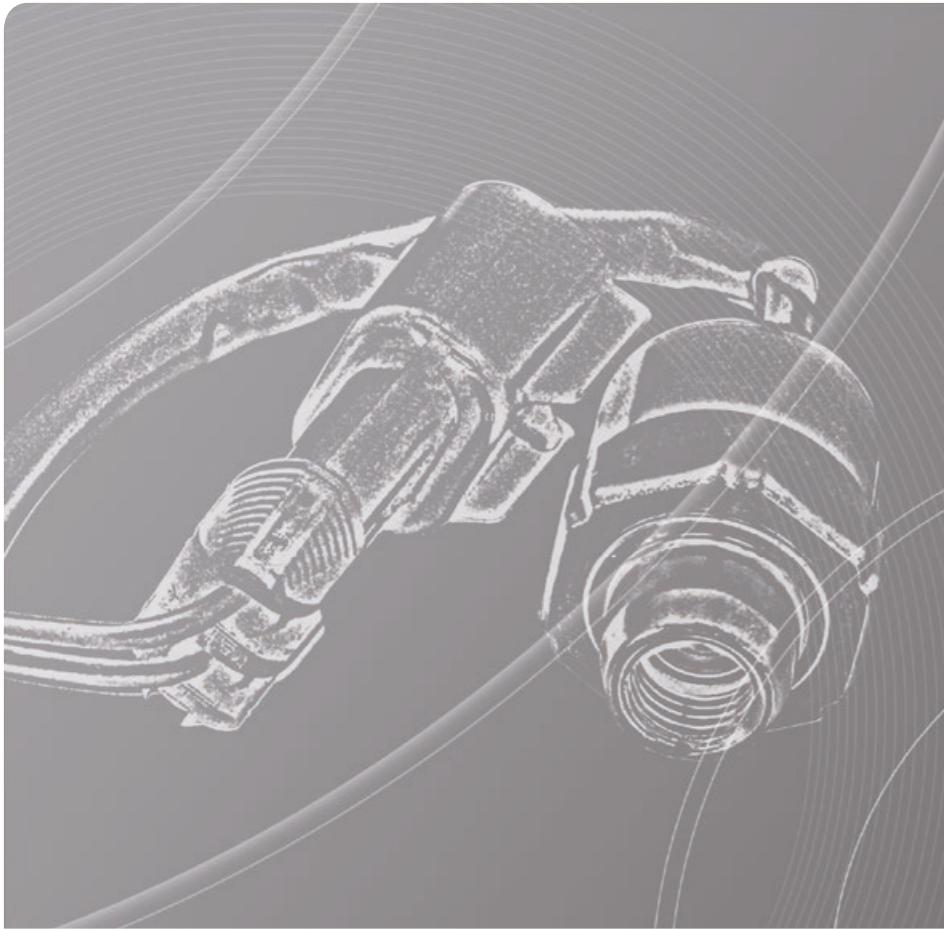
	Description	Note	Order number
	Vacuum water valve	Normally open	62031007B
	Vacuum water valve	Normally closed	62031069B
	Water valve	–	62031024A
	Water valve D-12	Mounting angle 90°	62069749A 6233248A (10 pcs.*)
	Water valve D-16	Mounting angle 90°	62069867A 6233294A (5 pcs.*) 6233309A (20 pcs.*)
	Water valve D-16	Mounting angle straight	62069976A 6233389A (5 pcs.*)
	Bowden water valve	Straight	620311206A 6233157A (5 pcs.*)
	Bowden water valve	90°	620311567A
	Water valve electrical (on/off)	12 V	62ECA068688A 6232980A (50 pcs.*) 6233023B (72 pcs.*)
	Water valve electrical (on/off), 0 – 2,000 l	12 V for hose diameter 16 mm	6241283A 6240690A (40 pcs.*)

# Hoses

## Water hoses and equipment

### Water valves

	Description	Note	Order number
	Water valve electrical (on/off), 0 – 2,000 l	24 V for hose diameter 16 mm	6240852A
	Water valve manual control	–	620691045C 6233235A (5 pcs.*)
	Bracket for bowden	–	6206912352A 6233329A (10 pcs.*)
	Vacuum 4 way by-pass valve	for hose diameter 16 mm	62031630A
	4 ways manifold	for hose diameter 16 mm	62031630S1A
	4 ways valve with electric actuator	12 V for hose diameter 16 mm	62068812A
	Electric valve with wiring	24 V for hose diameter 16 mm	620282102B 6233166B (5 pcs.*)
	Electric valve with wiring	12 V for hose diameter 16 mm	620282129B 6233184B (5 pcs.*)
	Electric valve	12 V for hose diameter 16 mm	6206814555FA 6232982B (20 pcs.*) 6233025B (100 pcs.*)



## Electrical material

### Solenoid valves, Probes, Actuators, Relays, Resistors, Switches

All electrical material such as solenoid valves, actuators and thermostats are dedicated to control and protect the complete system or particular components.

#### Pressure switches

Pressure switches are electromagnetic devices which have the function of protecting other components from anomalous pressure value and regulating condensation pressure.

#### Knobs and silk-screen printings

These devices are integrated in the control panel of the vehicle to control the AC.

#### Solenoid valves

#### Pressure switches

#### Knobs

#### Probes

#### Resistors

#### Silk-screen printings

#### Actuators

#### Thermoswitches

#### Relays and accessories

#### Standard switches

## Electrical Material

### Solenoid valves

	Voltage (V)	Temperature range (°C)	Current consumption (A)	Max. pressure (bar)	Note	Order number
	-	-35 to +105	-	45	Normally closed Thread: 5/8" 18 UNF 2A (external), 2B (internal)	620681053S1A
	-	-35 to +105	-	45	Normally closed Thread: 5/8" 18 UNF 2A conical (external), 2A conical (internal)	6206870252A
	-	-35 to +105	-	45	Normally open Thread: 5/8" 18 UNF 2A (external), 2B (internal)	620682703A
	-	-35 to +105	-	45	Normally closed, 1/2" SAE flare connection	6242293A
	12	-30 to +105	0.9	45	Normally closed Thread: 5/8" 18 UNF 2A conical (external), 2A conical (internal)	620681053RA 6233063A (5 pcs.*)
	24	-35 to +105	0.9	45	Normally closed Thread: 5/8" 18 UNF 2A conical (external), 2A conical (internal)	620682367A
	12	-30 to +105	1.7	45	-	6206870251A
	24	-30 to +105	0.9	45	-	62RMB0305A
	12	-30 to +100	1.6	45	-	6243204A
	24	-30 to +105	0.9	45	-	6243203A
	24	-30 to +105	0.95	45	-	6240453A
	12	-	-	1.6	3-way Bosch valve 1147412049: diameter external 20 mm, internal 16 mm	620682447A
	12	-	-	1.6	3-way Bosch valve 1147412020: diameter external 20 mm, internal 16 mm	620682546A

# Electrical Material

## Probes

	Description	Order number
	Cabin air temperature probe	620681117B 6233196A (20 pcs.*)
	Air temperature probe inside AC	620681202A
	PTC 970 Ohm at 20°C	62068056A 6233375A (10 pcs.*)
	10 kOhm at 25°C, 1.5 m, with connector (AK7810)	620682856S3A 6233298A (10 pcs.*)
	NTC 5kOhm at 25°C, 220 mm cable, with 2 pin adaptor (Amp 174460)	6241300A 6240943A (5 pcs.*) 620682914RA (50 pcs.*)
	10 kOhm at 25°C, 1.5 m, without connector	620682856A 6233266A (10 pcs.*)
	NTC 10 kOhm at 25°C, 1.5 m, with connector (NG6 black)	6241220A
	10 kOhm at 25°C, 1.5 m, with connector (NG6 blue)	6235535A
	10 kOhm at 25°C, 0.21 m, with connector (AK8450)	62068680S8A 6232967A (40 pcs.*)
	10 kOhm at 25°C, 0.9 m, with connector (AK7205)	62ECA068680S1B 6235941A (10 pcs.*) 6233064A (36 pcs.*)
	10 kOhm at 25°C, 1.4 m, with connector (AK5044-04)	62ECA068680S2B 6233203A (5 pcs.*)

# Electrical Material

## Actuators

	Description	Order number
	Electric actuator	620682151A
	Electric actuator	620682380S1A 6233326A (18 pcs.*)
	Electric actuator	620682381A
	Electric actuator	620682380A
	Electric actuator 12 V on/off, with lever	620682780S1RA
	Electric actuator for electronic control	62ECA0681028A

# Electrical Material

## Relays and accessories

	Voltage (V)	Temperature range (°C)	Current load (A)	Note	Order number
	12	-30 to +90	30	Switch	620681236A 6233387A (10 pcs.*)
	12	-40 to +125	30	Relay	620681238A 6238242A (10 pcs.*)
	12	-35 to +85	4	Relay timer 2 sec.	620681520A
	12	-35 to +85	4	Relay	620681789A
	12	-	30	Relay	620681911A
	24	-30 to +85	2 x 10	Relay	620682049A
	-	-	15 - 25	Relay	620682146A
	12	-30 to +85	8	Relay timer 2 sec.	620682230A

# Electrical Material

## Relays and accessories

	Voltage (V)	Temperature range (°C)	Current load (A)	Note	Order number	
	12	-40 to +90	2 x 20		Relay	620682334B 6233398A (10 pcs.*)
	24	-	-	Relay for compressor	620682838A	
	24	-	-	Relay for electric fan	620682839A	
	-	-	-	Logic relay	620682855A	
	-	-	-	Positive switch	62068535C	
	12	-40 to +125	70		Relay	62068694C 6233394A (10 pcs.*)
	-	-	-	Relay bracket 1 hole Min. order quantity 20 pcs.*	6233264A	
	-	-	-	Relay bracket 2 holes Min. order quantity 20 pcs.*	6233366A	

## Electrical Material

### Relays and accessories

	Voltage (V)	Temperature range (°C)	Current load (A)	Note	Order number
	-	-	-	Relay bracket 3 holes	62068626C 6233230A (20 pcs.*)
	-	-	-	Relay bracket 5 holes	620682048A
	-	-	-	Fan control module	620682852A
	-	-	-	Blower control module	620682853A

## Electrical Material

### Pressure switches

	PSI min./max.	Low level open outlet (bar)	Low level closed inlet (bar)	Medium level open outlet (bar)	Medium level closed inlet (bar)	High level open outlet (bar)	High level closed inlet (bar)	Thread	Note	Order number
	-	2.1 ± 0.3	2 ± 0.2	-	-	19 ± 2	25 ± 2	7/16" 20 UNF 2B	-	62043063S4A 6233403A (5 pcs.*) 62043063S7RA (10 pcs.*)
	-	2.1 ± 0.3	2 ± 0.2	-	-	19 ± 2	25 ± 2	7/16" 20 UNF 2B	-	62043063S7A 6233280A (5 pcs.*) 6233227A (10 pcs.*)
	-	2.1 ± 0.3	2 ± 0.2	-	-	19 ± 2	25 ± 2	7/16" 20 UNF 2B	-	62043063A 6233281A (5 pcs.*)
	-	2.15 ± 0.35	2 ± 0.75	16 ± 1	12 ± 1	21 ± 1.5	25 ± 1.5	7/16" 20 UNF 2B	-	62043101S1A 6233168A (50 pcs.*)
	-	2.15 ± 0.35	2 ± 0.75	16 ± 1	12 ± 1	21 ± 1.5	25 ± 1.5	7/16" 20 UNF 2B	-	62043101S2A
	-	2.45 ± 0.25	2.6 ± 0.34	11.28 ± 0.98	15.3 ± 0.98	28 + 0.96 - 2.94	22.12 ± 1.96	7/16" 20 UNF 2B	-	62043112A
	-	2.1 ± 0.3	2 ± 0.2	-	-	19 ± 2	25 ± 2	7/16" 20 UNF 2B	-	62043113A 6233206A (2 pcs.*)

# Electrical Material

## Pressure switches

	PSI min./max.	Low level open outlet (bar)	Low level closed inlet (bar)	Medium level open outlet (bar)	Medium level closed inlet (bar)	High level open outlet (bar)	High level closed inlet (bar)	Thread	Note	Order number
	-	2.15 ± 0.35	2 ± 0.75	16 ± 1	12 ± 1	20 ± 1.5	30 ± 1.2	7/16" 20 UNF 2B	-	62043118B  6233140A (36 pcs.*)  6233304A (180 pcs.*)
	-	2 ± 0.25	2.15 ± 0.35	15 ± 1.0	11 ± 1.0	27 + 2.0 -3.0	21 ± 2.0	3/8" 24 UNF 2A	-	62043123S1A  6233146A (5 pcs.*)
	-	2.45 ± 0.35	3.5 max.	19 ± 1	15 ± 1	24 ± 1	20 ± 1.2	7/16" 20 UNF 2B	4th level: 28 bar ± 2	62043181A  6233188A (10 pcs.*)
	45	2.1	0.35	-	-	-	-	-	Danfoss 061F7520	62043349A
	-	-	-	-	-	-	-	-	-	62043358A
	-	2.1 ± 0.3	2 ± 0.2	-	-	19 ± 2	25 ± 2	7/16" 20 UNF 2B	-	62043395A  6232978A (50 pcs.*)  6233022A (200 pcs.*)
	-	2.05	2.45	16 11	20 15	28	22	7/16" 20 UNF 2B	-	62043396A  6233149A (2 pcs.*)

# Electrical Material

## Pressure switches

	PSI min./max.	Low level open outlet (bar)	Low level closed inlet (bar)	Medium level open outlet (bar)	Medium level closed inlet (bar)	High level open outlet (bar)	High level closed inlet (bar)	Thread	Note	Order number
	45	27 ± 1.5	32 ± 1.0	-	-	-	-	7/16" 20 UNF 2B	-	62043449A
	15	1 ± 0.4	0.1 ± 0.3	-	-	-	-	7/16" 20 UNF 2B	-	62043450A  6233254A (5 pcs.*)
	-	-	-	-	-	-	-	M10 x 1.25	-	62043506B
	-	2.1	0.35	-	-	-	-	7/16" 20 UNF 2B	-	62043400B  6233268A (5 pcs.*)
	45	23 ± 1	-	-	-	-	-	7/16" 20 UNF 2B	-	6242291A
	-	28 ± 5	-	-	-	-	-	3/8" 24 UNF 2A	-	6240449A

# Electrical Material

## Resistors

	Voltage (V)	Resistance (Ohm)	Note	Order number
	12	0.4 + 1.2	-	62068016A 6233061A (50 pcs.*) 6233065A (200 pcs.*)
	12	2 + 2	-	62068062A 6233195A (5 pcs.*)
	12	-	Blower control 4 speed	620681025B
	12	2.18 / 1.18 / 0.32	Blower control 4 speed 2R18K R84K R32K	620682591A
	12	0.18 / 0.23 / 0.30	-	620682787A 6233185A (5 pcs.*)
	12	0.68	-	62068451A

# Electrical Material

## Thermoswitches

	Length of thermoswitch probe (mm)	Total thread length inc. knob (mm)	Thread length (mm)	N° pin	Note	Order number
	-	-	-	-	for Mercedes MB124	62068168B
	160	-	-	-	Defrost	620682692A 6233229A (5 pcs.*)
	450	-	5.5	4	-	620683240A 6233138A (50 pcs.*)
	1,520	25	11.5	2	-	620683241A 6233383A (10 pcs.*)
	1,500	25	11.5	3	-	620683242A
	1,250	24.5	11.8	2	-	620683243A 6233143A (5 pcs.*)
	600	25	11	2	-	620683239A 6233143A (5 pcs.*)
	600	35	24	2	-	62068010B 6233186A (10 pcs.*)

## Electrical Material

### Thermoswitches

	Length of thermostat probe (mm)	Total thread length inc. knob (mm)	Thread length (mm)	N° pin	Note	Order number
	600	24.5	11.8	2	Cold off -1°C, on +4°C 6232979A (25 pcs.*)	62068011C
	1.500	24.5	11.8	2	Cold off -1°C, on +4°C 6233242A (10 pcs.*)	62068012C
	1.500	24.5	12	2	Cold off -1°C, on +4°C 6233187A (10 pcs.*)	62068226B
	450		6.5	2	Cold off -1°C, on +4°C 6233152A (10 pcs.*)	62068389D

## Electrical Material

### Thermoswitches

	Length of thermostat probe (mm)	Total thread length inc. knob (mm)	Thread length (mm)	N° pin	Note	Order number
		-	16.2	9.1	-	620682164A 6233173A (50 pcs.*)
		-	-	-	Electronic	62068745A
		-	-	-	Bracket for thermoswitch	62068165A 6232958A (80 pcs.*)

# Electrical Material

## Standard switches

	Description	Voltage (V)	Nº pin	Order number
	3 Speed Switch	12	5	62068007RAA 6233015B (150 pcs.*)
	3 Speed Switch with Resistor	12	3 + 2 resistor	62068008A 6233213A (10 pcs.*)
	3 Speed Switch	12	5	620682882A
	Wired Switch	12	-	620682413S1A
	On Off Switch + Knob	24	4	620682555A
	3 Speed Switch	12	5	62068331A 6233401A (5 pcs.*)
	On Off Switch + Knob	12	4	6206850451A
	Recirculation rectangular Microswitch (20 pcs.)	12	-	6230502A

# Electrical Material

## Standard switches

	Description	Voltage (V)	Nº pin	Order number
	AC rectangular Microswitch	12	-	62068540S3A
	Rectangular switch bracket (20 pcs.)	-	-	6230591A
	Recirculation round Microswitch	12	-	62068540S2A
	AC round Microswitch	12	-	62068540S4A 6233250A (20 pcs.*)
	Round switch bracket (20 pcs.)	-	-	6230501A

## Electrical Material

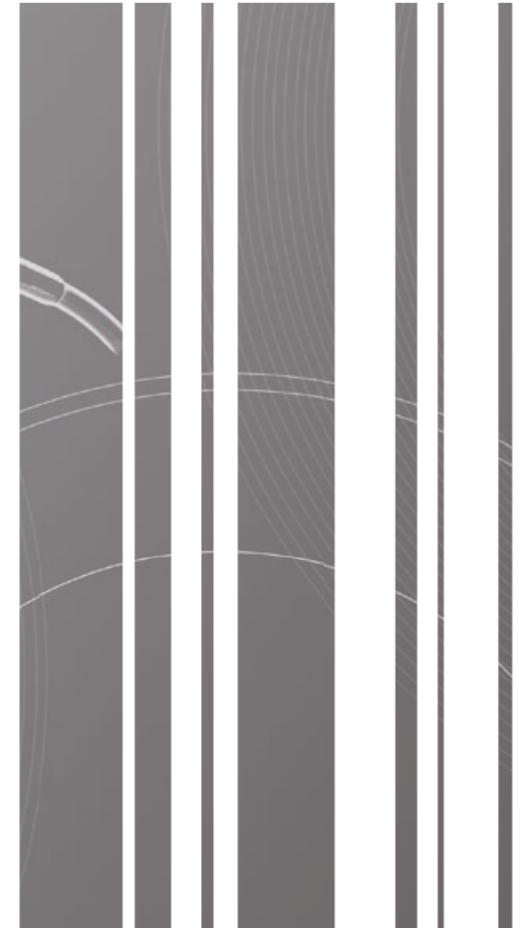
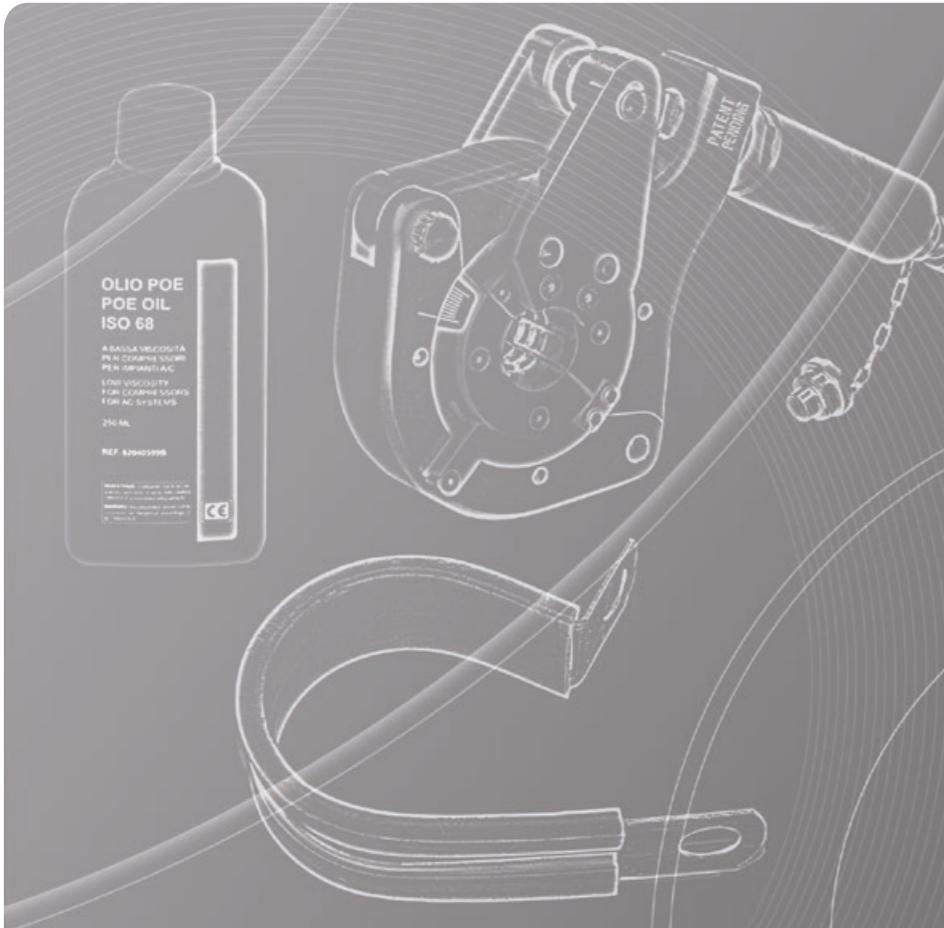
### Knobs

	Description	Order number
	Knob	62068003A 6233163A (50 pcs.*)
	Knob 90°	62068061A 6233010A (20 pcs.*) 6233031A (100 pcs.*)
	Knob (20 pcs.)	6230500A
	Octagonal Knob	62068323A
	Octagonal Knob	62068324A 6233252A (15 pcs.*)
	Octagonal Knob	62068406A
	Knob	62068407A 6232993A (20 pcs.*) 6233029A (100 pcs.*)

## Electrical Material

### Silk-screen printings

	Description	Dimensions (mm)	Hole	Order number
	Air label PVC	40 x 35	1	62067001A 6232986A (50 pcs.*) 6233027A (500 pcs.*)
	Temp label PVC	40 x 35	1	62067002A 6240558A (50 pcs.*)
	Air - Temp label PVC (horizontal)	75 x 45	2	62067060B 6233179A (15 pcs.*)
	Air speed label aluminium	40 x 35	1	62067061A 6233002A (50 pcs.*)
	Temp label aluminium	40 x 35	1	62067062A 6233256A (20 pcs.*) 6233308A (100 pcs.*)



## Maintenance products, Tools

### Cabin air filters

Cabin air filters remove contaminants from the air that comes from the outside of a vehicle into the cabin. Thanks to their material they can hold back the pollutants up to the size of 1 micron. In fact, the filter material is a particular micro porous fabric, composed of viscose and cellulose fiber that acts as a sieve.

### Oils

Specific oil types safeguards the lubrication of the compressor.

### Leak detections, AC flushings, Servicing tools

Several tools such as leak detections, AC flushings, crimping machines and special pliers are standard equipment of every workshop to maintain the AC system.

### Cabin air filters

### O-rings, sealings and clamps

### Oils

### Leak detections

### AC flushings

### Servicing tools

## Maintenance products, Tools

### Cabin air filters

Type	Length (mm)	Width (mm)	Thickness (mm)	Order number
	200	126	19	620691236A
	203	145	17	620691626A
	328	67	34	62031745B
	355	70	15	620691373A
	371	86	30	620311149A
	385	60	25	620691097A
	425	113	18	620691413A
	425	170	10	620691421A
	460	89	30	620311146A
	565	445	4	620701398B

# Maintenance products, Tools

## O-rings and clamps

	Product	$\varnothing$ (mm, inch)	Order number
	O-Ring 7.66 x 1.78 (50 pcs.)	–	62069505RAA
	O-Ring 10.82 x 1.78 (50 pcs.)	–	62069506RA
	O-Ring 14 x 1.78 (50 pcs.)	–	62069507RAA
	O-Ring 17.16 x 1.78 (50 pcs.)	–	62069508RA
	O-Ring 10.8 x 2.4 (50 pcs.)	–	6234992A
	O-Ring 13.4 x 2.4 (50 pcs.)	–	62069863A
	O-Ring 15.6 x 2.4 (50 pcs.)	–	6231571A
	O-Ring 18.6 x 2.4 (50 pcs.)	–	6231572A
	Kupferdichtung konisch B2-1/4, D5,5 (50 pcs.)	–	6230703A
	Kupferdichtung konisch B2-5 5/16, D6 (20 pcs.)	–	6230702A
	Kupferdichtung konisch B2-6 3/8, D9 (20 pcs.)	–	6230701A
	Kupferdichtung konisch B2-8 1/2, D11 (20 pcs.)	–	6230700A
	Kupferdichtung konisch B2-10 5/8, D12 (50 pcs.)	–	6230704A
	Rubber grommet height 16 mm (50 pcs.)	20	6230507A
	Rubber grommet height 22 mm (20 pcs.)	30	6230515A
	Universal rubber grommet (20 pcs.)	for refrigerant hose	6230509A
	Drop break (reduction 6230521A needed) (20 pcs.)	–	6230518A
	Reduction for drop break (drop break 6230518A needed) (20 pcs.)	–	6230521A

# Maintenance products, Tools

## Oils

### POE Oils

	Oil type	Quantity (cc/piece)	Description	Order number
	POE ISO 100	1,000	RL100S R12-R134a	62040596B
	POE ISO 100	1,000 x 12	RL100S R12-R134a	62040597B
	POE ISO 150	1,000	RL 150S R12-R134a	62040598B
	Raisol ISO 68	1,000	Oil for vacuum pump	62040197B
	POE ISO 32	1,000	R404A compressor oil	62040578B
	POE ISO 68	250	R404A compressor oil	62040599B

# Maintenance products, Tools

## Oils

### PAG Oils

	Oil type	Quantity (cc)	Description	Order number
	PAG ISO 46	250	Suitable for Ford (FX15-FS10); Harrison, GM, Delco (CVC); Honda (Hadsys); Matsusita (Scroll); Mitsubishi (Scroll); Nippondenso (10P, 10PA, CA, SC, SB, SE); Panasonic (Scroll); Sanden (SD7H Type C; SD7B10, SD7V, TR Scroll); Diesel Kiki (CD17, DCW17, 13CH, 15CH); Tama Seikusyo (16CH, 17CH, DKS26, TM31); Unicla (Z145, Z150, Z170); York/CCI (206, 209, 210)	62040595B 6233180A (24 pcs.*)
	PAG ISO 100	250	Suitable for Nippondenso (TV); Sanden (SD5H, SD7H type A&B); Seiko Seiki (SS Rotary); Seltec (DKV-14C&D, KC45&50); Zexel (all piston compressor)	62040593B 6233392A (8 pcs.)
	PAG ISO 150	250	Suitable for Harrison, GM	62040594B 6233171A (24 pcs.*)

# Maintenance products, Tools

## Leak detections and AC flushings

	Product	Description	Order number
	Electronic leak detector	This refrigerant leak detector has an electro-chemical sensor made of ceramic substrate covered with a reagent. The sensor is kept at a high temperature by an in-built mechanism. It is sensitive to all CFCs (R12, R11), HFCs (R134a) and HCFCs (R22, R123). When one of these halogen gases comes in contact with the hot surface, the chlorine, fluorine and bromine atoms separate from their molecules and ionise. This produces an electrical current that, passing through the ceramic material, reaches an electrode in the centre of the sensor. The detector is automatic and does not have to be set for a particular type of refrigerant. It compensates automatically for variations in background contamination and humidity. An audible variable pitch signal pinpoints the exact source of the leak.	621TP41570A
	UV Dye for leak detection	Suitable for leak detection tools. A measurer for one dose is included.	621TP41600A
	AC Flushing kit	This kit consists of a 400 cc sturdy alloy bottle (with valve), hose, pistol, clamp and a container for flushing liquid recovery. It can be used with any suitable cleansing fluid (R141b, etc) though we recommend 1TP41425. The flushing liquid is pressurised in the alloy bottle using compressed air or nitrogen through the inlet valve. The kit comes in a handy crate, which keeps all the contents together and also keeps the flushing liquid recovery container upright when receiving liquid under pressure. Flushing fluid not included.	621TP41415A
	AC Flushing fluid	This environmentally friendly solvent is non-toxic and contains no polluting substances such as surface-active agents, ether glycol or halogen hydrocarbons. It does not destroy or deform elastomer (rubber) and / or synthetic materials. Its flash point of 70°C makes it much safer to use than benzene based solvents. It allows the evacuation of oil and particles in suspension from the heat exchanger tubes (evaporator and condenser). The solvent drying time is compatible with the normal servicing requirements for AC systems. It is an ideal replacement for CFC-R113 and has excellent cleansing properties and rapid evaporation time. It is compatible with all refrigerants (CFC, HCFC, HFC). Supplied in a 5 l container.	621TP41425A

# Maintenance products, Tools

## Servicing tools

Product	Description	Order number
	Hydraulic crimping machine with 8 dies A new crimping machine with 8 dies, to crimp hoses of AC and cooling systems in different sector. The system with 8 dies allows elimination of pressure leak from the fittings. The crimper can be open thus allowing the crimping of special and difficult elbows. Two versions are available, manual pump and integrated piston and with hydraulic handle in titanium alloy, hose and adapter to be matched to the pneumo-hydraulic power unit 621TP41374A.	621TP41574A
	Pneumo-Hydraulic power unit for crimper Meets with CE safety requirements. The unit is pneumatically operated and is activated by a built-in pedal. The unit is connected to a compressed air line using standard couplings and allows work to be carried out at the workbench with no physical effort required.	621TP41374A
	Pliers for Gibli and Refrimaster For an easy clamping/releasing of Gibli/Refrimaster hose clamps.	621TP41546A

# Webasto subsidiaries and representatives

<b>Head Office</b> <b>Webasto Thermo &amp; Comfort SE</b> Friedrichshafener Straße 9 82205 Gilching Tel.: +49 (0) 89 85794-0 <a href="http://webasto.com">webasto.com</a>	<b>Bulgaria</b> <b>Rhea MP GmbH</b> ul. Boris Iliev 17 1839 Sofia Tel.: +359 2 9420555 <a href="http://rheamp.com">rheamp.com</a>	<b>Estonia</b> <b>AS KG KNUSSON</b> Saeveski 12 11214 Tallinn Tel.: +372 6 519300 <a href="http://kgk.ee">kgk.ee</a>
<b>Argentina</b> <b>FRIBA TECNOLOGÍA S.A.</b> Av. Pavón 4080/84 C1253AAY Buenos Aires Tel.: +54 11 49242117 <a href="http://friba.com.ar">friba.com.ar</a>	<b>Chile</b> <b>Webasto Thermo &amp; Comfort – LATAM</b> Hermanos Cabot 6707 – Dpt. 126 Las Condes – Santiago de Chile 7561255 Chile Tel.: +56 (9) 4683 1100 <a href="http://webasto.es">webasto.es</a>	<b>Finland</b> <b>Oy Kaha AB</b> Ansatie 2 01740 Vantaa Tel.: +358 9 61568379 <a href="http://kaha.fi">kaha.fi</a>
<b>Australia</b> <b>Webasto Thermo &amp; Comfort</b> <b>Australia Pty. Ltd.</b> 423-427 The Boulevarde NSW 2232 Kirrawee Tel.: +61 2 85364800 <a href="http://webasto.com.au">webasto.com.au</a>	<b>China</b> <b>Webasto Thermo &amp; Comfort</b> <b>Technology (Beijing) Co. Ltd.</b> A2105, Building 2, Boya International Center No. 1 Lize Zhongyi Road Chaoyang District Beijing 100102 Tel.: +86 10 84782320 <a href="http://webasto.cn">webasto.cn</a>	<b>France</b> <b>Webasto Thermo &amp; Comfort</b> <b>France S.A.S.</b> PA Estuaire Sud Rue du Camp d'Aviation 44320 Saint Viaud Tel.: +33 (0) 2 40 21 85 50 <a href="http://webasto-france.fr">webasto-france.fr</a>
<b>Austria</b> <b>Webasto Fahrzeugtechnik G.m.b.H.</b> Jochen-Rindt-Straße 19 1230 Vienna Tel.: +43 (0) 1 6043780 <a href="http://webasto.at">webasto.at</a>	<b>Czech Republic</b> <b>Webasto Thermo &amp; Comfort</b> <b>Czech Republic s.r.o.</b> Na Strži 1373/35 14000 Praha 4 Tel.: +420 241045450-7 <a href="http://webasto.cz">webasto.cz</a>	<b>Germany</b> <b>Webasto Thermo &amp; Comfort SE</b> Friedrichshafener Straße 9 82205 Gilching Tel.: +49 (0) 395 5592-229 <a href="http://webasto.de">webasto.de</a>
<b>Belarus</b> <b>Falkat GmbH</b> Ul. Drozda 8 220004 Minsk Tel.: +375 17 2001894 <a href="http://falkat.com">falkat.com</a>	<b>Greece</b> <b>SYSTEMS S.A.</b> 73rd, Agias Annis street 18233 Rentis Tel.: +30 210 3472105	<b>Hungary</b> <b>Webasto Thermo &amp; Comfort</b> <b>Hungária Kft.</b> Szent László út 73 1135 Budapest Tel.: +36 1 3502338 <a href="http://webasto.hu">webasto.hu</a>
<b>Belgium/Luxemburg</b> <b>Webasto Thermo &amp; Comfort</b> <b>Benelux B.V.</b> Constructieweg 47 8263 BC Kampen Tel.: +31 (0) 38 3371137 <a href="http://webasto.nl">webasto.nl</a>		

# Webasto subsidiaries and representatives

## India

**Webasto Roofsystems India Ltd.**  
Gat 838/1, Sanaswadi,  
Pune Nagar Highway,  
Dist. Pune 412208  
Maharastra  
Tel.: +91 2137619902

## Iceland

**Bilasmidurinn hf.**  
Bildshofda 16  
110 Reykjavik  
Tel.: +354 5672330  
bilasmidurinn.is

## Italy

**Webasto Thermo & Comfort Italy S.r.l.**  
Via Efrem Nobili 2  
40062 Molinella (BO)  
Tel.: +39 051 6906 111  
webasto.it

## Japan

**Webasto Thermo & Comfort Japan Co. Ltd.**  
11F Shin-Yokohama 2nd Center building  
3-19-5 Shin-Yokohama Kohoku-ku  
Kanagawa Prefecture  
222-0033 Yokohama  
Tel.: +81.45.567.0002  
webasto.co.jp

## Kazakhstan

**Webasto Thermo & Comfort Kazakhstan LLP**  
Alash High Road office No. 101, 22  
010000 Astana city  
Tel.: +7 383 3637115

## Latvia

**KG KNUTSSON SIA**  
Gunara Astras iela 3  
Riga, LV 1084  
Tel.: +371 67 807 870

## Lithuania

**UAB KG Knutsson**  
Jocioniu g 14  
Vilnius. LT - 02300  
Tel.: +370 5 2758181  
kgk.lt

## Moldavia – via Webasto Romania

**Webasto Thermo & Comfort Romania**  
Sos Odai, 40  
075100 Otopeni, Ilfov  
Tel.: +40 21 2032751  
webasto.ro

## Mongolia – via Webasto China

**Webasto Thermo & Comfort Technology (Beijing) Co. Ltd.**  
A2105, Building 2,  
Boya International Center  
No. 1 Lize Zhongyi Road  
Chaoyang District  
Beijing 100102  
Tel.: +86 10 84782320  
webasto.cn

## Netherlands

**Webasto Thermo & Comfort Benelux B.V.**  
Constructieweg 47  
8263 BC Kampen  
Tel.: +31 (0) 38 3371137  
webasto.nl

## Norway

**Webasto Thermo & Comfort Norway**  
Industriveien 34A  
2072 DAL  
Tel.: +47 61 16 20 00

## Poland

**Webasto Petemar Sp. z.o.o.**  
ul. Warszawska 205/219  
05-092 Lomianki  
Tel.: +48 22 7327320  
webasto.pl

## Romania

**Webasto Thermo & Comfort Romania**  
Sos Odai, 40  
075100 Otopeni, Ilfov  
Tel.: +40 21 2032751  
webasto.ro

## Russia

**Webasto Rus OOO**  
Altajskaja ul. 19, 1/a  
107065 Moscow  
Tel.: +7 495 7770245  
webasto.ru

## Sweden

**KG Knutsson AB**  
Hammarbacken 8  
19181 Sollentuna/Stockholm  
Tel.: +46 8 923000  
kgk.se

## Switzerland

**Lorch AG**  
Kriesbachstrasse 4  
8600 Dübendorf  
Tel.: +41 (0)44 299 98 98

## Slovakia

**Webasto Thermo & Comfort Slovakia s.r.o.**  
Galgovecká ulica 3  
040 11 Košice  
Tel.: +421 5 57871000  
webasto.sk

## Slovenia

**Webasto Thermo & Comfort automobilска техника d.o.o.**  
Cesta v Gorice 34  
1000 Ljubljana  
Tel.: +386 1 2008712  
webasto.si

## Spain

**Webasto Thermo & Comfort Ibérica S.L.U.**  
C/Mar Tirreno 33  
Polígono Industrial  
28830 San Fernando de Henares (Madrid)  
Tel.: +34 91 626 86 11  
webasto.es

## South Korea

**Webasto Korea Inc.**  
Indeogwon IT Valley,  
40 Imi-ro, Bldg. B, Suite 612  
16006 Uiwang-si, Gyeonggi-do  
Tel.: +82 31 80170241  
webasto.korea.com

## Turkey

**Webasto Thermo Comfort İklimlendirme Sistemleri Ticaret Limited Şirketi**  
Manisa Organize Sanayi Bölgesi 4. Bölüm  
Ahmet Nazif Zorlu Bulvarı No: 8  
45030 Manisa  
Tel.: +90 236 226 90 00  
webasto.com.tr

## Ukraine

**Webasto Thermo & Comfort Ukraine Tzow**  
Chervonopraporna str. 28  
03680 Kiev  
Tel.: +380 (044) 503-31-76  
webasto.com.ua

## United Kingdom

**Webasto Thermo & Comfort UK Ltd.**  
Webasto House  
White Rose Way  
Doncaster  
South Yorkshire DN4 5JH  
Tel.: +44 (0) 1302 322232  
webasto.co.uk

## USA

**Webasto Thermo & Comfort North America Inc.**  
15083 North Road  
Fenton, MI 48430  
Tel.: +1 800 860 7866  
webasto.us



## Notes

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

- Gilching Headquarters
- Webasto Locations



Since its foundation in 1901 the Webasto group has continued to set new technological standards in the original equipment and aftermarket sector. Today, we are one of the 100 biggest suppliers in the automotive industry worldwide. We develop and produce roof, convertible as well as heating, cooling and ventilation systems. Our products help provide a better atmosphere on the road, more comfort and security, as well as increased efficiency for cars, commercial and special vehicles, motor homes and boats. An outstanding network of production facilities and dealers guarantees high-quality products, installation standards and services worldwide.