



# PIONEERING HVAC SYSTEMS

## WELCOME TO THE NEW COMFORT ZONE

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We at AURORA are an international manufacturer of state-of-the-art HVAC systems and components for on-road and off-road vehicle series. We effectively accelerate technical progress with intelligent solutions for thermal comfort that are ecologically trendsetting.

Our HVAC systems and components for on-road and off-road vehicles help to maximize operator comfort while minimizing energy consumption. Our pursuit to make the best systems and components challenges us in development and production day after day. We are continuously seeking for pioneering individual series solutions. Worldwide.

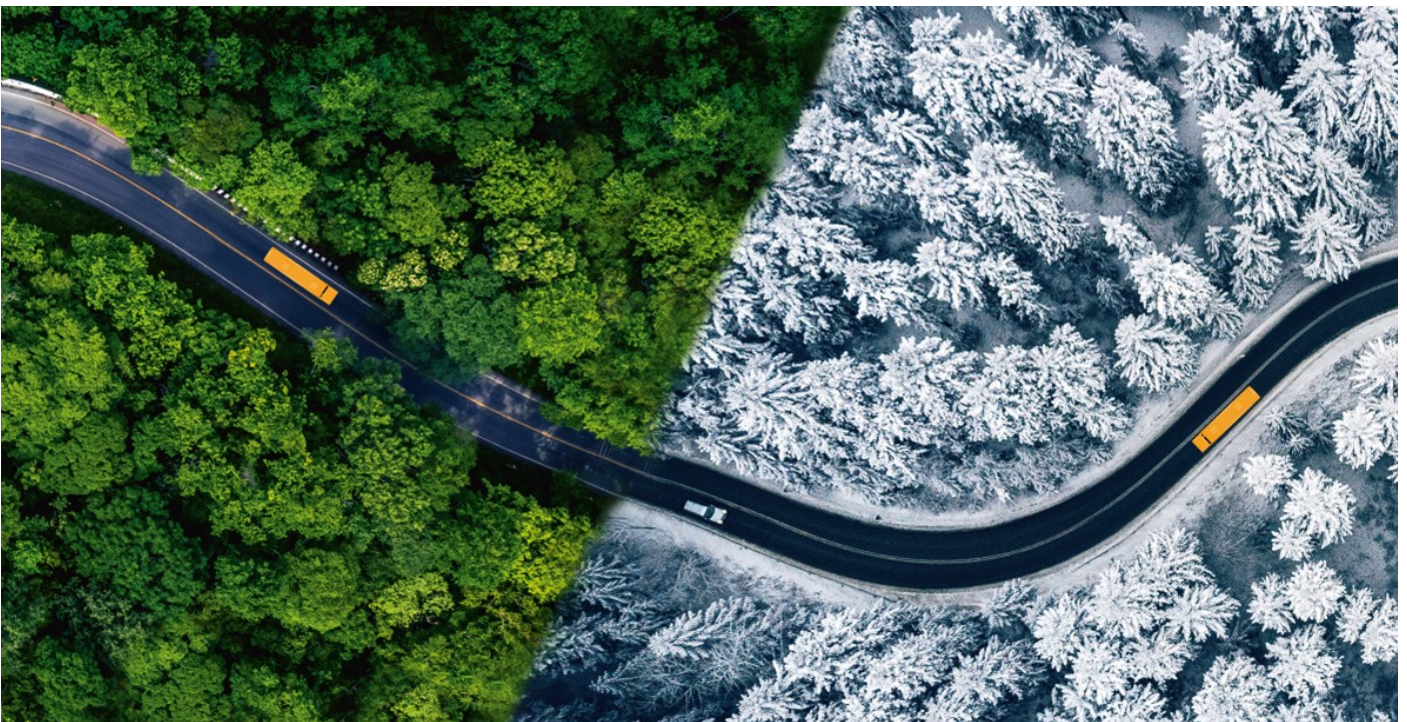
### OUR CORE COMPETENCE

**Your Specialist** for heating, ventilation and air conditioning of light and heavy-duty vehicles:

- On and off-highway vehicles and machines produced in small to medium numbers
- Your premium partner for development and series

### OUR SELF-CONCEPT

**Your Specialist** for maximum climate comfort and minimum energy consumption



# OUR PRODUCTION COMPETENCE

## SUSTAINABLE MAXIMUM PERFORMANCE

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Our high specialization shows not only in our engineering capabilities but also in our production processes. Contrary to our competitors, at AURORA we both develop and produce the core components for our integrated system solutions. The high proportion of in-house production paired with a high-performance purchase department helps us develop custom-made system solutions and in deliver them as required.

As a leading supplier, we are continuously investing in new technologies and production methods, thus saving resources, and meeting our customers' increasing quality standards. Sustainability and environmental protection have always been an inherent parts of our production processes, as well as our certified, effective quality management.

The name AURORA is considered synonymous with quality. All production possibilities and processes are certified and tested for each location. At whatever location our products are made, our processes ensure that you always receive the quality that you expect.



# TRAILBLAZING DEVELOPMENTS

## INNOVATION LEAPS

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Trailblazing innovations have always been a part of AURORA’s company culture – from developing the first heater for buses, ever. Learn how today we accelerate HVAC progress for special vehicles as well as on-road and off-road mobile machinery: from “Thermal Comfort” to innovative cluster projects.

In collaboration together with our customers, we design, develop and manufacture heating, ventilation, and air-conditioning systems and components. Drawing upon our near century of expertise, we understand the unique expectations that exist within each industry and each application. Our solutions continue to accommodate almost every cabin configuration—and performance demand.

Aligning a dedicated team of thermal management specialists supported by our professional simulation and test facilities enables AURORA to design thermal management solutions to meet specific customer expectations and then optimize their integration into various vehicle classifications. Our vertically integrated production with enormous capacity enables us to design custom-fit system solutions specially for every cabin — all this delivered through setting in motion a demand-driven supply-chain.



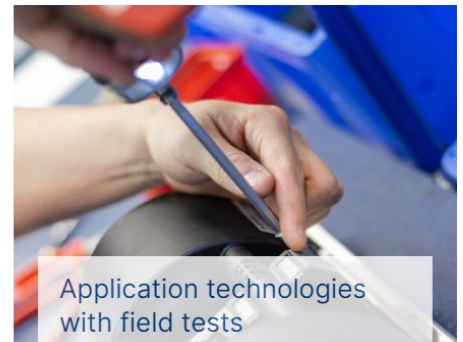
# TRAILBLAZING DEVELOPMENTS

## INNOVATION LEAPS

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### OUTPERFORMANCE IN DEVELOPMENT

Concept, Creation, Completion – Three Tiers of our Product Development



### COMPONENT DEVELOPMENT WITH TESTING

We develop and manufacture the core components for heating and air conditioning in-house. This is the only way to ensure that our components and systems meet the special requirements of our heavy-duty customers.

### SYSTEM DEVELOPMENT WITH TESTING SIMULATION AND SOFTWARE

The cure for thermal comfort is revealed by organizing the interplay between components in the system in such a way that optimal outcomes in driving mode are reached. To accomplish this, we have invested in the calculation tools for components and simulation tools, which test this interplay across various weather conditions over an entire year. Thermodynamics, fluid mechanics, strength, and acoustics are investigated with models, that simulate the whole vehicle as well throughout a yearly cycle.

### APPLICATION TECHNOLOGIES WITH FIELD TESTS

Our application technologies, including test chambers, in all of our locations achieve the target of pinpointing specific vehicle packaging, and meeting the desired functionality. Here, we work in close collaboration with our customers as strategic development partners.

Foundational for all this is our product development process (PDP), which draws upon our many years of experience, including best practices, benchmarks, and lessons-learned to achieve exactly what customers expect.

# TRAILBLAZING DEVELOPMENTS

## OUR TEST FACILITIES

An experienced team of HVAC specialists as well as our state-of-the-art simulation and test facilities enable AURORA to optimize the development of HVAC systems and their integration into different vehicle types based on customer-specific requirements.

Our HVAC systems are tested to the limit before the start of production. For this purpose, at AURORA Group we have state-of-the-art test facilities for various types of vehicles and components. In Germany and the Netherlands, we have climate halls suitable for vehicles of up to 15 m in length and 3.3 m width for conditions ranging from -46°C to +50°C (-50.8°F to 122°F). Our division, AURORA North America offers a climate hall, too.

### SPECIFICATIONS OF OUR CLIMATE HALLS

Technical Data	Climate Hall AURORA DE-Mudau	Climate Hall AURORA NL-Nuenen	Climate Hall AURORA North America Grand Rapids, Michigan
<b>Cooling</b>	Up to -10°C / 14°F (standard measurement) Up to -46°C / -50.8°F (special measurement)	Up to -20°C / -4°F	Up to -30°C / -22°F (standard measurement)
<b>Heating</b>	Up to 50°C / 122°F	Up to 40°C / 104°F	Up to 50°C / 122°F
<b>Moisturization</b>	Up to 70% relative humidity	Up to 95% relative humidity	70% relative humidity
<b>Solar simulation</b>	IR emitter Performance < 1500W/m <sup>2</sup>	Not available	<1200 W/m <sup>2</sup>
The climate halls are suitable for all kinds of vehicles and cabs.			
	Climate Hall AURORA DE-Mudau	Climate Hall AURORA NL-Nuenen	Climate Hall AURORA North America Grand Rapids, Michigan
<b>Length of vehicle</b>	< 15.0 m	< 15.0 m	< 6.0 m
<b>Height of vehicle</b>	< 4.0 m	< 4.5 m	< 3.0 m
<b>Width of vehicle</b>	< 3.5 m	< 4.0 m	< 3.5 m
<b>Technical measurement equipment</b>	Technical equipment for mea- suring the cooling and heating capacity of HVAC units with so- lar simulation.	Not available	Technical equipment for mea- suring the cooling and heating capacity of HVAC units with so- lar simulation.

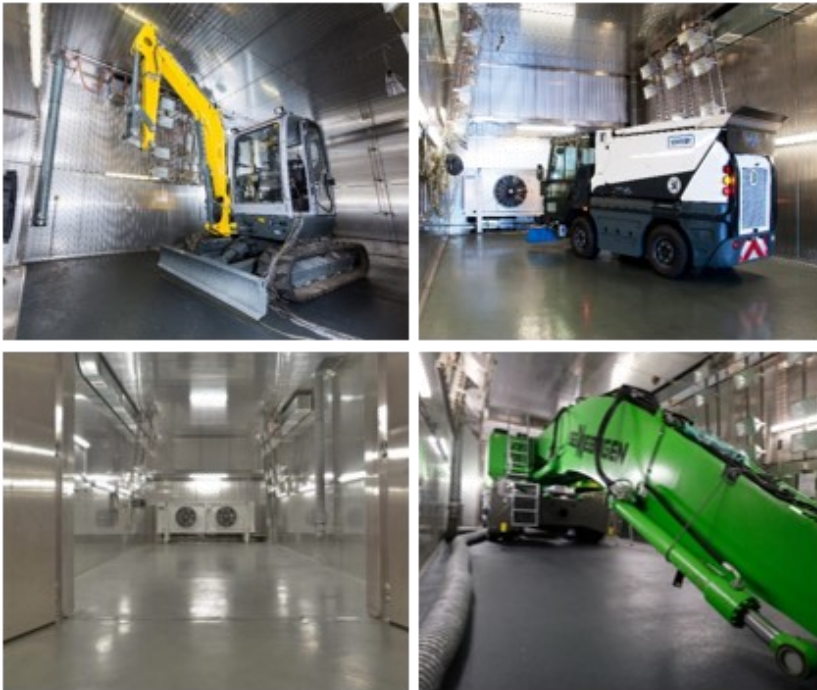


# TRAILBLAZING DEVELOPMENTS

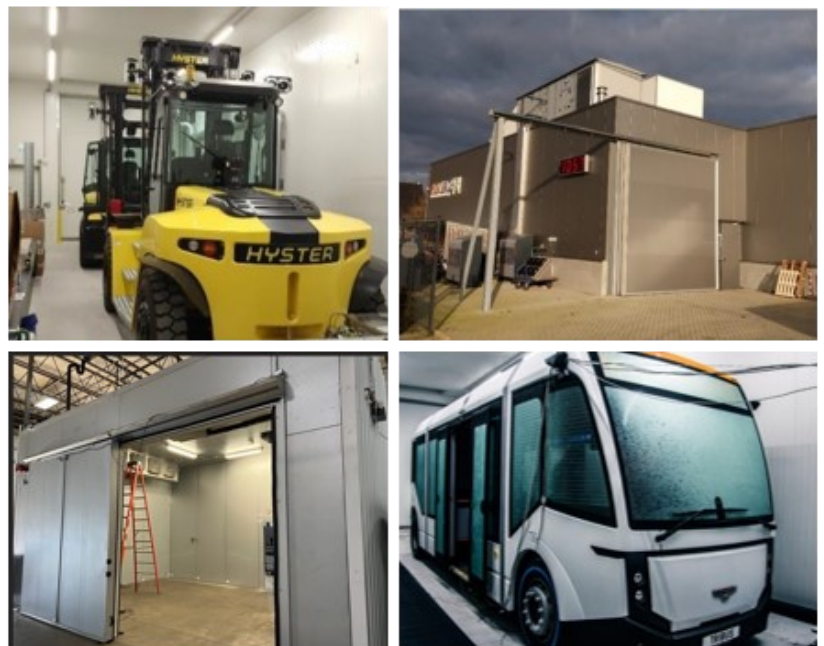
## IMPRESSIONS TEST FACILITIES

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### AURORA Germany



### AURORA Netherlands/ AURORA North America



# TRAILBLAZING INNOVATION

## THERMAL COMFORT

Trailblazing innovations has always been a part of AURORA's company culture – from developing the first heater for buses, ever to designing the latest HVACs for electric vehicles, and developing cutting edge validation techniques. Learn how today we accelerate HVAC progress for special vehicles as well as on-road and off-road mobile machinery, from "Thermal Comfort" to innovative cluster projects.

### MAXIMUM FEEL-GOOD CLIMATE CAN BE USED

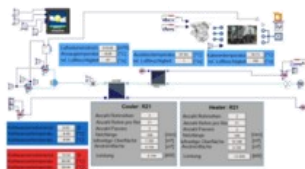
Our innovative "Thermal Comfort" method is trailblazing for the future development of custom-fit HVAC solutions. Instead of cost-intensive special designs, we rely on our state-of-the-art simulation method to exactly calculate the feel-good climate in the operator's cab, thanks to a special measuring manikin with hundreds of sensors.

Based on the acquired data, we develop HVAC solutions that are perfect for the individual application. Then, the corresponding requirements are matched standard components, resulting in perfectly efficient solutions with the best price-performance ratio.

### INDIVIDUAL DEVELOPMENT STAGES:



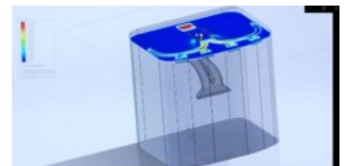
Modularity



1D-Simulation



Design



3D-Simulation



Prototyping



Industrialization/PDP



Software Customization



Cab Validation



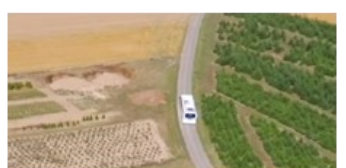
Acoustics



Vehicle Validation



Thermal Comfort Analysis



Field Validation





# TRAILBLAZING HVAC SYSTEMS

## FOR ON-ROAD AND OFF-ROAD VEHICLES

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As a well-established development and engineering company, we deliver customized HVAC solutions for well-known customers from a broad range of industrial sectors. We always embrace new challenges, whatever the industrial sector. Please contact us at any time.



# GLOBALIZED ACTIVE

## MUCH VALUED ALL OVER THE WORLD

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With approx. 500 members in 5 national locations, we serve our customers from all over the world from different branches of commercial and offroad mobile machinery. Each location contributes their expertise to the group, thus always ensuring the customer's best benefits. AURORA is well-known for innovative developments and an extraordinarily broad range of products.

Our worldwide presence is one of our strengths because it ensures that the various standards, regulations, wishes, and needs of our customers are met, in every country and on every continent.

The different locations are continuously being modernized and expanded to assist our customers at their best. The name AURORA is synonymous with quality. At whatever location our products are made: our processes ensure that you always receive the quality that you expect.



# WE LOOK FORWARD TO SERVING YOU

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/ Germany

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**AURORA**   
/ North America

**AURORA North America, LLC.**

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**AURORA**   
/ Turkey

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# SUSTAINABLY AHEAD


## SUSTAINABILITY - A LASTING CHALLENGE

For AURORA, sustainability means taking on responsibility in all three dimensions of sustainability: economic, ecological, and social. AURORA is, of course, a part of society. We are fully aware of our responsibility towards our fellow human beings, our employees, and our environment. For this reason, sustainability is deeply entrenched in AURORA'S DNA and firmly rooted in its corporate strategy and policy.

- We make lasting, risk-minimizing decisions. Our long company history is both incentive and commitment to lead our company to a prosperous future.
- Being innovation-driven, we develop trailblazing, environmentally friendly solutions for cab, full-vehicle, and bus and coach applications for example, the development of our highly efficient heat pump BOREALIS for electric buses leads to a decrease in the annual energy consumption for heating and climatization of up to 50%.
- We pursue a strategy that goes far beyond eco-friendly product solutions. Our environmental and energy policies have proven successful over and over again.
- We are keenly aware of our social responsibilities. Therefore, we have strict compliance regulations that are effectively implemented.

### Our Environmental and Energy Policies

- Comprehensive environmental protection is a key factor in our company philosophy. We analyze our company's impacts on and consequences for our environment and keep identifying potential for improvement. This is done by an on-going review of what we do and how we do it.
- All employees are adequately trained to increase their environmental awareness. We aim to protect our environment during every individual production step. Our environmental management system is certified according to ISO 14001. This does not only apply to AURORA Germany, but also for our three AURORA locations in North America, Turkey, and the Netherlands.



**CERTIFICATE**

Certificate Registration No.: 12 100104 25497 TMS / Order No.: 70014891

The Certification Body of TÜV SÜD Management Service GmbH certifies that the organization

**AURORA**  
/ Pioneering Your Comfort

**AURORA Konrad G. Schulz GmbH & Co. KG**  
Joachim-Schulz-Str. 4  
69427 Mudau  
Germany


for the scope

Development, production, and sales of climate systems in vehicles including the sites see enclosure

has established and applies a Quality and Environmental Management System. Performance of audits has furnished proof that these management systems meet the requirements of the following standards:


**DIN EN ISO 9001:2015**  
**DIN EN ISO 14001:2015**

The certificate is valid from 2023-09-19 until 2026-06-21.  
Previous certificate valid until 2023-09-21.

  
Prof. Werner  
Head of Certification Body  
Munich, 2023-09-20

Page 1 of 2

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www.tuv.sud.com/en/units/locations/100104




**ENCLOSURE OF CERTIFICATE**

Certificate Registration No.: 12 100104 25497 TMS / Order No.: 70014891

certificate holder:  
**AURORA Konrad G. Schulz GmbH & Co. KG**  
Joachim-Schulz-Str. 4  
69427 Mudau  
Germany

at the sites	scope
<b>AURORA</b> Germany AURORA Konrad G. Schulz GmbH & Co. KG Joachim-Schulz-Str. 4 69427 Mudau Germany	Development, production, and sales of climate systems in vehicles.
<b>AURORA</b> North America AURORA NORTH AMERICA LLC 4311 Patterson Ave. SE Grand Rapids, MI 49512 USA	Development, production, and sales of climate systems in vehicles.
<b>AURORA</b> Turkey AURORA İni Aracıları San. Ve Tic. Ltd. Şti. Yatırım Organize Sanayi Mahallesi 29030 ERİCİNE - TEKİRGÖZ Turkey	Production and sales of climate systems in vehicles.
<b>AURORA</b> Netherlands Aurora Netherlands B.V. Gulden 10 2014 TE Nuenen Netherlands	Development, production and sales of climate systems in vehicles.

  
Prof. Werner  
Head of Certification Body  
Munich, 2023-09-20

Page 2 of 2

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# SUSTAINABLY SUCCESS

## SELECTION OF SUCCESS STORIES

### Energy Management



**10.000**

**liters of heating oil**

By installing decentralized tankless water heaters and laying new insulated hot water pipes we can save 10,000 liters of heating oil per year.



**7.000**

**liters of wastewater**

After introducing differential pressure measuring devices and the conversion of the leak test to a dry testing method using helium, we do no longer carry out water bath leak tests, thus saving approx. 7,000 liters of wastewater per month.



**1.400**

**watt**

By installing innovative LED lamps at the workstations, we can save more than 1.400 watts per day.



**212**

**tons of CO<sub>2</sub>**

By modernizing our vehicle fleet to purely electric vehicles and hybrid vehicles we could reduce CO<sub>2</sub> emissions by 212 tons (reference period: 2023 compared to 2019). New company cars will generally be purely electric vehicles.



### Environmental Management



**80**

**pallets and cardboard pallet boxes**

By partly changing to returnable containers our dispatch departments can save more than 80 pallets and cardboard pallet boxes.



**2.500**

**disposable coffee cups**

The company coffee dispensers can only be used with normal cups since 2019, leading to a reduction of more than 2,500 disposable cups month by month.



**50.000**

**sheets of print-out paper**

We are currently working on adjusting our workflow processes to be (almost) completely paperless. In the current state we save 50,000 sheets of print-out paper per quarter.



**850**

**beverage crates**

After introducing water dispensers, we save more than 850 beverage crates with plastic bottles per year.

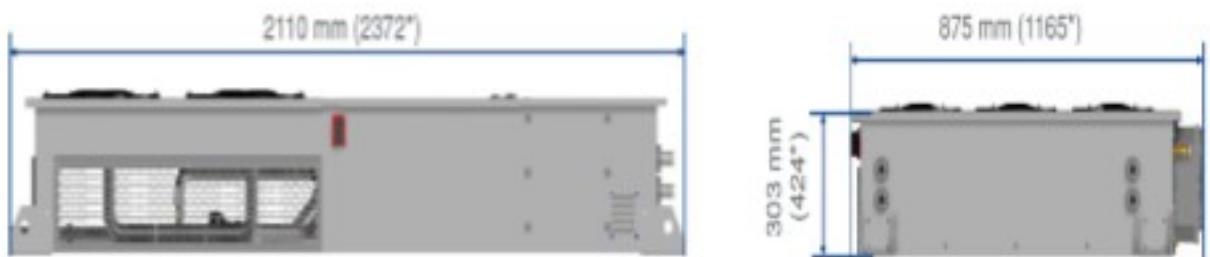
# BOREALIS

## FOR A E-BUS

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### FEATURES

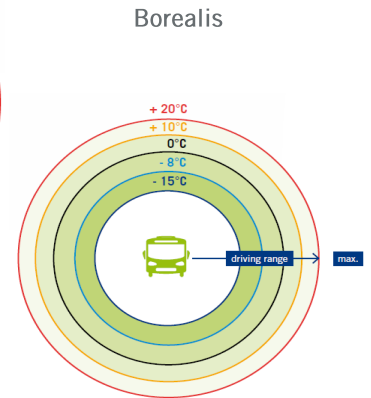
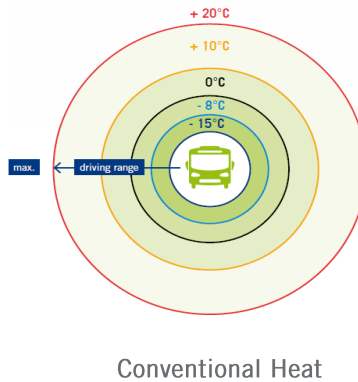
- **Heat pump system** serves as a heat-pump unlike any other
- **Roof module** compliments the rooftop heat transfer with an aerodynamically formed body and supreme airflow
- **Cab heater/interior heater** provides a strong heat source from both the driver space / anterior as well as posterior of the bus
- **Blower forced convector** spreads a wide-distribution of convection heat along the sidewall
- **Customized Defroster** ensures the front windshield is quickly freed of fog and even ice accumulation.
- **Control panel** features AURORA's specialty Automatic-Temperature Control to serve end-user desires promptly
- **Electrical HVAC System** (see pages 16 - 23) *optional*



# BOREALIS FOR A E-BUS

## BENEFITS

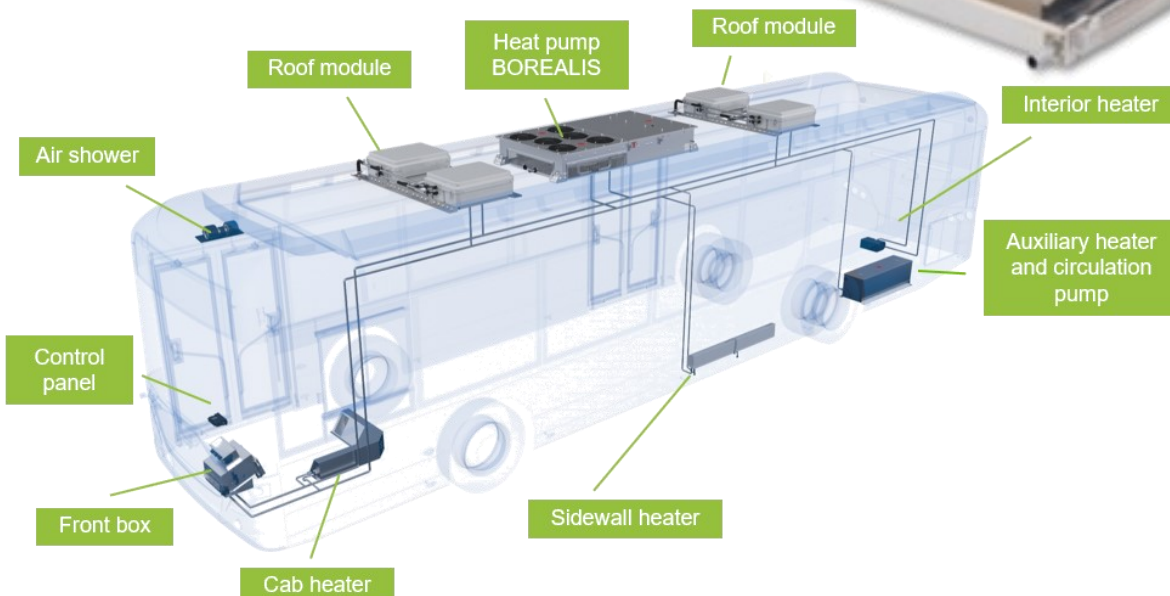
- **High Energy Efficiency** with fully-electric function
- **Flexible, Modular Design** to accommodate almost any vehicle
- **Harmonized Performance** optimized interaction between components
- **Emissions-Free**
- **Blowers Synchronized**
- **Two-Step to Stepless Function**
- **Filtration Classification Match**
- **CFD Simulations** to maximize system performance through effective component selection for best airflow performance
- **DIN EN45545 on request**
- **Capable of operation in -15°C to +45°C** with an additional refrigerant option for 0°C - 55°C



AC-MODE	
COP	2,5
Cooling Capacity	22 kW
Cooling fluid interior	4°C
Ambient	35°C / 70% r.h.

HEAT-MODE (vehicle waste heat)	
COP	3,5
Cooling Capacity	18 kW
Cooling fluid interior	45°C
Cooling fluid waste	20°C

HEAT-MODE (ambient air)	
COP	2,6
Heating Capacity	11 kW
Cooling fluid interior	40°C
Ambient	-15°C / 30% r.h.



# ELECTROMOBILITY SOLUTIONS

## BATTERY COOLER & HEATER

### FEATURES & BENEFITS

- **Unison of performance of batteries**, this device regulates to maintain the battery's temperature within an optimal range under most all conditions.
- **Easy-to-install** thanks to modularity of design
- **Long-lasting componentry** for minimized aftermarket maintenance and thereby lower cost of ownership
- **Height of only 415mm**: the roof-mountable symmetry of this Unit makes for an absolutely ideal application underneath any aerodynamically-curved bus rooftop.
- **Diagnostics available from UDS**: enabling monitoring of system performance & variables.
- Integrated **automatic coolant deairation system** designed for smooth, uninterrupted function whenever in use

Performance		
	VS02 - 4 kW	VS03 - 7 kW
<b>Cooling Capacity <sup>(1)</sup></b>	4.2 kW	6.9 kW
<b>Heating Capacity</b>	1.2 kW @ 230 V	1.2 kW @ 230 V
<b>Maximum Current Draw 26 V</b>	17 A	17 A
<b>Dimensions W x L x H</b>	460 × 1412 × 455	804 × 1757 × 377
<b>Weight</b>	84 kg	98 kg.
<b>Refrigerant</b>	R134a	R134a
<b>Compressor</b>	Scroll	Scroll
<b>Voltage</b>	400 V - 3 phase	400 V - 3 phase
<b>Maximum Current Draw 400 V AC</b>	5.1 A	9.0 A
<b>Water Pump</b>	Max 6000 L / h at 0.4 bar	Max 6000 L / h at 0.4 bar

1 R134a evaporating 5° C condensing 50 ° C

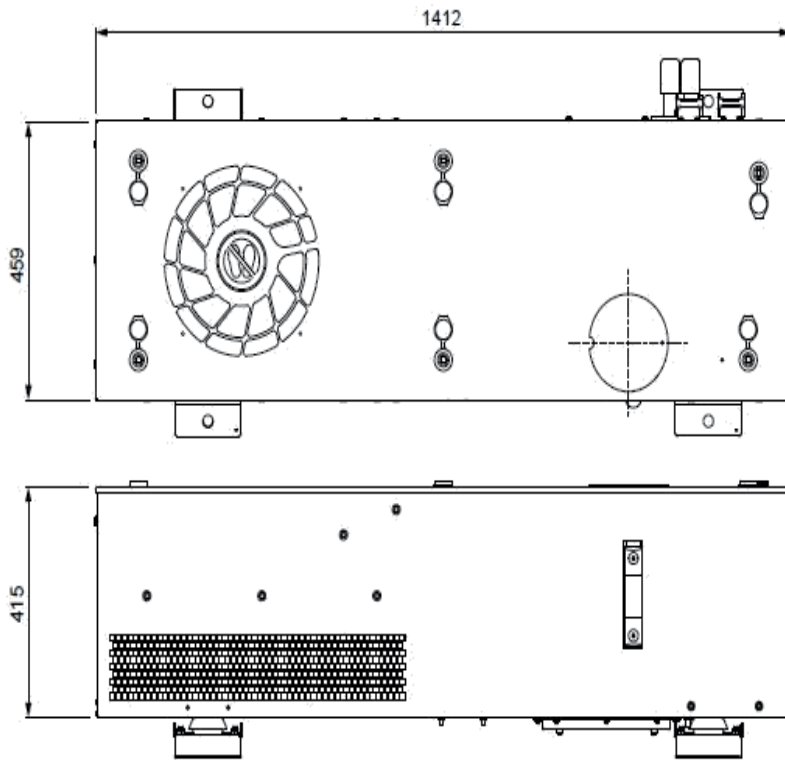




# ELECTROMOBILITY SOLUTIONS

## BATTERY COOLER & HEATER

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# ELECTROMOBILITY SOLUTIONS

## ELECTRIC, HIGH VOLTAGE HEATER

### FEATURES & BENEFITS

Powerful similar to its namesake, this high-voltage heater is specialized for electric vehicles. By converting electrical energy of the battery with DC voltages, ranging from 300 to 850, into abundant heat, this device provides efficient, zero-emission warming — all throughout the interior of the vehicle.

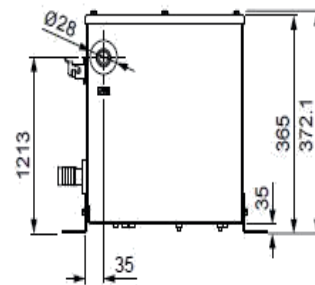
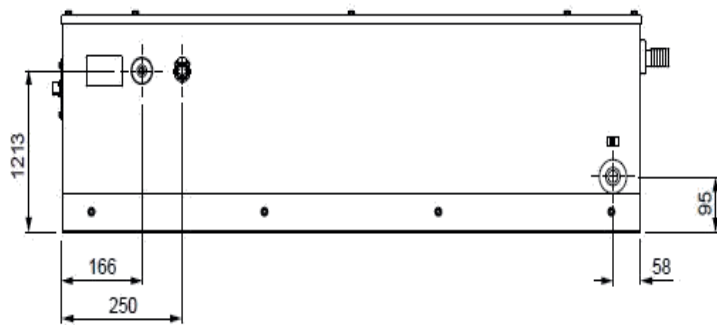
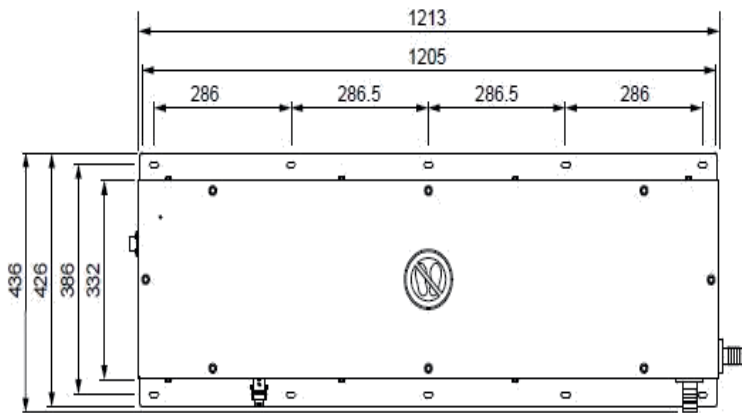
Performance		
	HV 9	HV 13
<b>Heating Capacity</b>	8.5 kW	13 kW
<b>Range of Supply Voltage DC</b>	300 - 850 V DC	300 - 850 V DC
<b>Current Draw</b>	300 V = 4.6 A	300 V = 8 A
	800 V = 12.5 A	800 V = 19 A
<b>Dimensions W x L x H</b>	436 × 1269 × 372	436 × 1269 × 372
<b>Weight</b>	42 kg	42 kg
<b>Volume Flow L/h</b>	> 1500	> 1500
<b>Current Draw Water Pump 26V</b>	10 A	10 A
<b>Operating Pressure (bar)</b>	Max. 2.0	Max 2.0



# ELECTROMOBILITY SOLUTIONS

## ELECTRIC, HIGH VOLTAGE HEATER

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# ELECTROMOBILITY SOLUTIONS

## BORA HV 20

### FEATURES & BENEFITS

Electrical rooftop air-conditioner, which is designed specifically to provide constant capacity for both hybrid as well as electric buses.

Performance	
Maximum Cooling Capacity <sup>(1)</sup>	5.7 kW
Nominal Cooling Capacity <sup>(1)</sup>	4.6 kW
Heating Capacity <sup>(2)</sup>	-
Airflow <sup>(3)</sup>	800 m <sup>3</sup> / h
Maximum Current Draw 540 DC	7 A
Maximum Current Draw 26 DC	8 A
Dimensions L X W X H	1256 × 756 × 215
Weight	38 kg
Refrigerant	R134a
Compressor	Scroll
Range Of Supply Voltage DC	400 - 750 V DC

1 AHRI standard: Max: Ti 40°C, Te 35°C, r.h. 46%. Nom: Ti 27°C, Te 35°C, r.h. 46%

2 80°C coolant, 0°C air

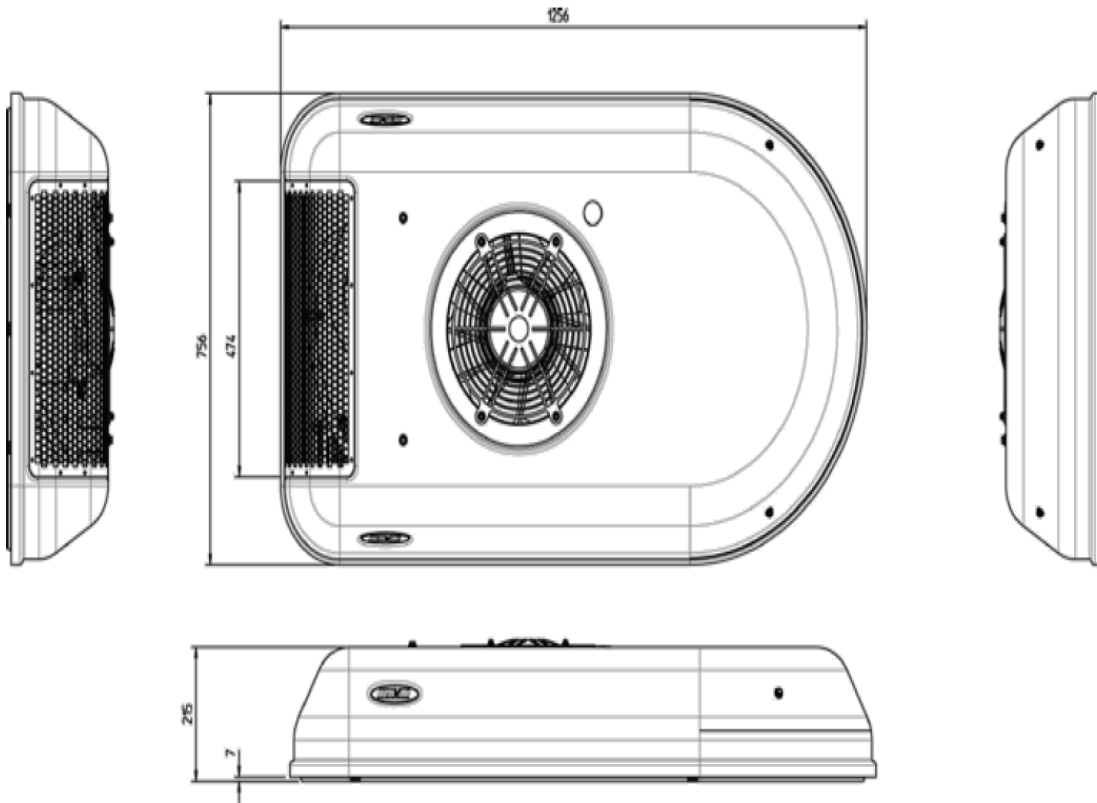
3 Free blowing at standard conditions 20°C and 1,01325 Bara



# ELECTROMOBILITY SOLUTIONS

## BORA HV 20

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# ELECTROMOBILITY SOLUTIONS

## BOREAS - E

### FEATURES & BENEFITS

- **Steady Airflow** - Constant Cooling Capacity
- **Fresh Air** - 100% Fresh Air Supply
- **Applied Engineering** - Roof-Mounted System
- **Quiet Function** - Brushless Blowers
- **Modular** - Easy-Installation
- **Sustainable** - Lightweight & 100 Recyclable
- **No Refrigerant Pipes Installation** thanks to an integrated compressor
- **Low Cost of Operation** with Durable, Long-Lasting Components

Performance	
Maximum Cooling Capacity <sup>(1)</sup>	18 / 24 kW; 50 / 75 Hz
Nominal Cooling Capacity <sup>(1)</sup>	11 / 15 kW; 50 / 75 Hz
Heating Capacity <sup>(2)</sup>	38 kW @ Q80
Airflow <sup>(3)</sup>	3800 m <sup>3</sup> / h
Fresh air	0% — 100%
Maximum Current Draw 24 DC	63 A
Dimensions <sup>(4)</sup> W X L X H	2040 × 2585 × 340
Weight	185 kg
Refrigerant	R134a
Compressor	Scroll
Maximum Current Draw 600 V DC	22 A
Inverter	External
Filter dUdt	optional

1 AHRI standard: Max: Ti 40°C, Te 35°C, r.h. 46%. Nom: Ti 27°C, Te 35°C, r.h. 46%

2 80°C coolant, 0°C air

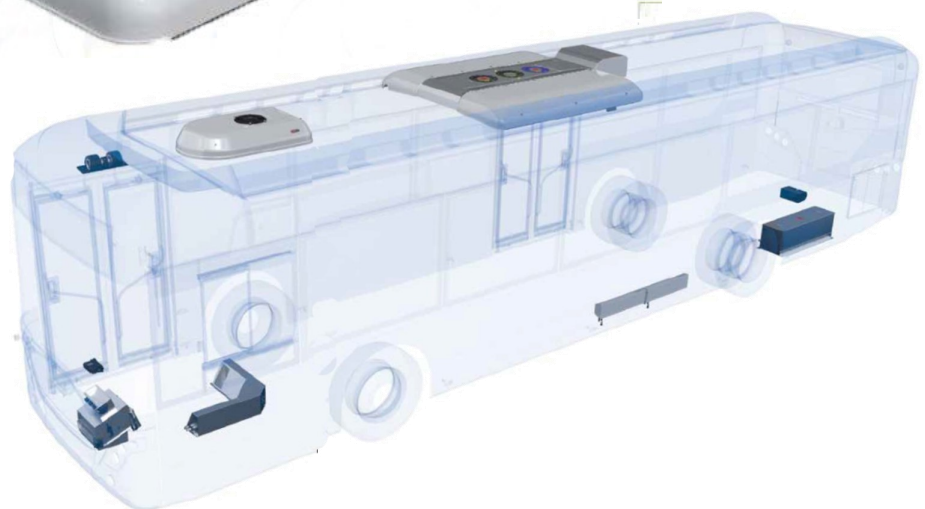
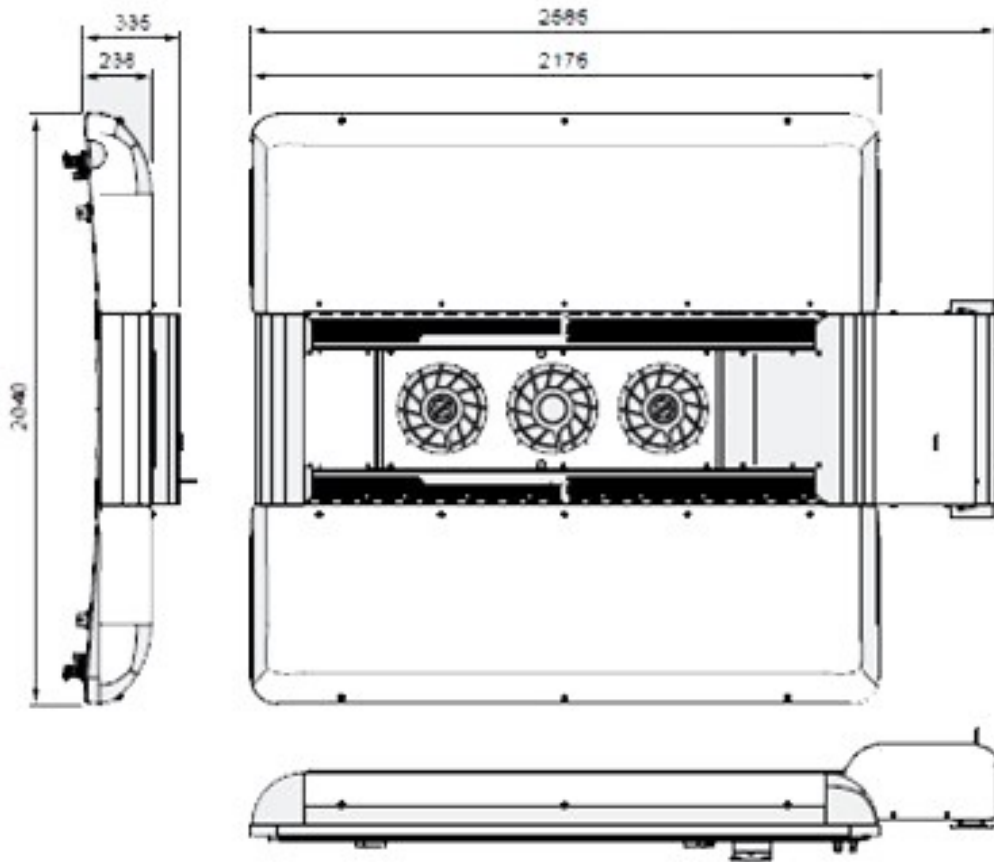
3 Free blowing at standard conditions 20°C and 1,01325 Bara

4 Custom width on customer demand



# ELECTROMOBILITY SOLUTIONS

## BOREAS - E



# ROOFTOP-MOUNTABLE

COMPACT VERSATILITY FOR HIGHLY-EFFICIENT  
ALL-ELECTRIC PERFORMANCE





# AURORA

/ Pioneering Your Comfort



# ROOFTOP MOUNTABLE UNITS

## BORA EL 10

Uniquely designed to deliver air-conditioning to a driver in constant capacity, full-electric functionality, and after an easy installation, this unit is compatible with the AURORA control system and comes prefilled with refrigerant, requiring no refrigerant pipes leading to the vehicle's engine — completely standalone when the topic is refrigerant. Most ideal for implementation in roof-mounted applications.

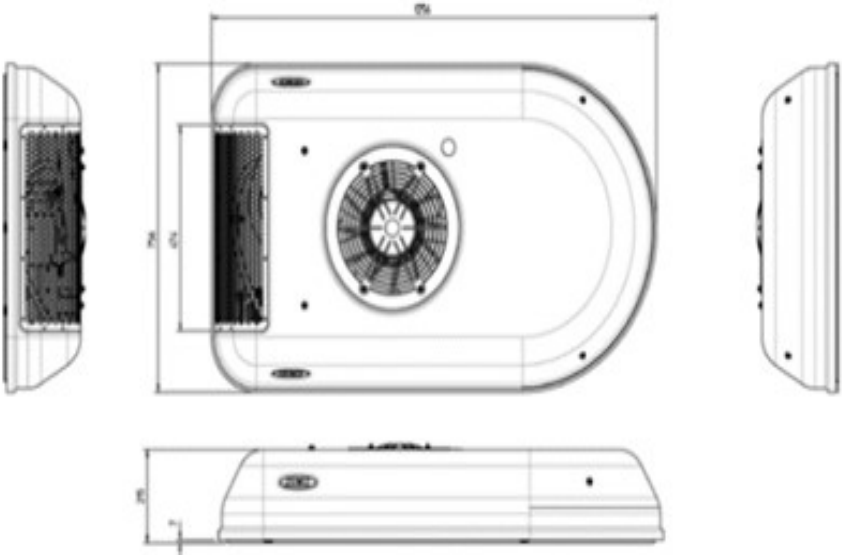
Performance	
Maximum Cooling Capacity	3 kW
Nominal Cooling Capacity	2.6 kW
Heating Capacity	-
Airflow AC	800 m <sup>3</sup> / h
Fresh air AC	0%
Nominal Voltage	24 V
Maximum Current Draw	40 A
Dimensions	1256 × 756 × 215
Weight	42 kg



# ROOFTOP MOUNTABLE UNITS

BORA EL 10

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# ROOFTOP MOUNTABLE UNITS

## SON 50

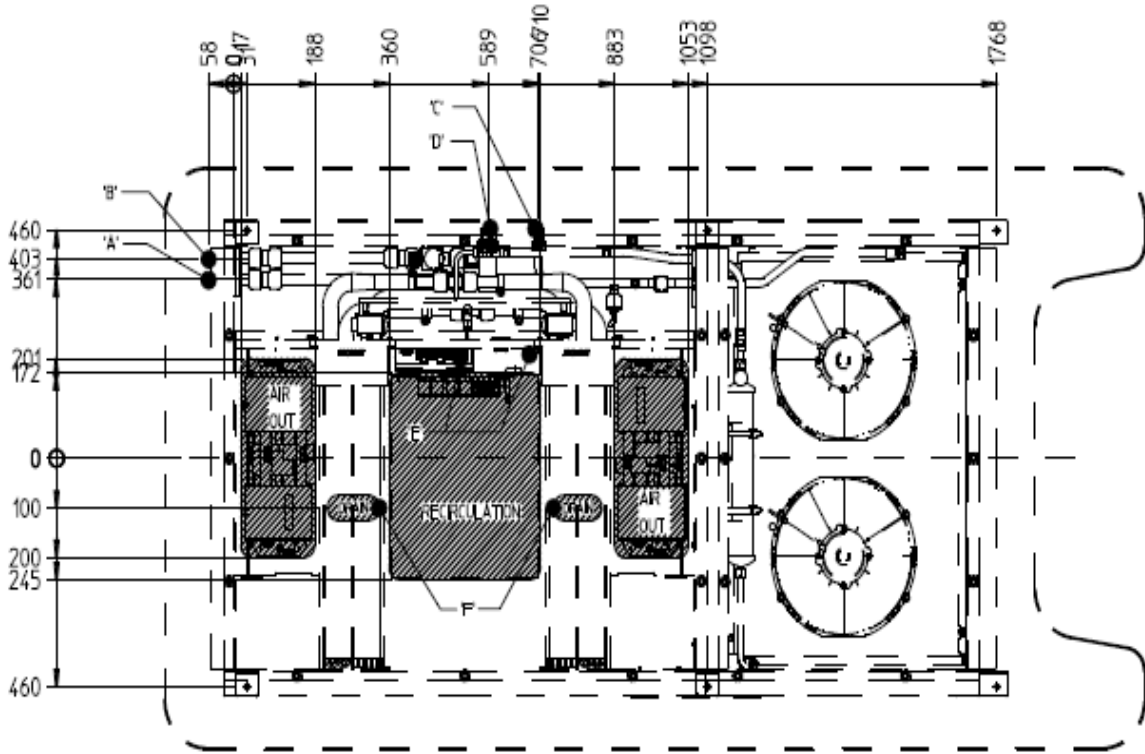
Featuring an aerodynamically shaped body to enhance overall vehicle travel efficiencies, this particular device can unleash power and performance unlike most any roof-mounted units before, especially at this level. SON features the duality of both heating, and cooling packed into one slim, high-performance unit. Loaded with awesome features: brushless evaporator blowers, a central duct, controller intergrade in unit or dashboard — all lightweight and ready for plug & play function. Best mounted on cabin sizes like a mid-sized bus.

Performance	
Maximum Cooling Capacity	14 kW
Nominal Cooling Capacity	2.6 kW
Heating Capacity	30 kW
Airflow AC	2000 m <sup>3</sup> / h
Fresh air AC	0% — 100%
Nominal Voltage	24 V
Maximum Current Draw	39 A
Dimensions	2270 × 1175 × 190
Weight	63 kg
Options	Cool-Only; Cool / Heat; Cool-Only with Fresh-Air; Cool / Heat with Fresh-Air



# ROOFTOP MOUNTABLE UNITS

## SON 50



# ROOFTOP MOUNTABLE UNITS

## SON 70

AURORA's Electric, Compact Rooftop Units are versatile and ready to serve at the forefront of the next generation of HVAC. SON is engineered with mid-size busses in mind and comes complete with brushless evaporator blowers, a central duct, integrated controller either in-unit or on-dashboard, efficient heating performance, is both lightweight + plug-and-play.

Performance	
Maximum Cooling Capacity	24 kW
Nominal Cooling Capacity	18 kW
Heating Capacity	34 kW
Airflow AC	4800 m <sup>3</sup> / h
Fresh Air AC	0% — 100%
Nominal Voltage	24 V
Maximum Current Draw	70 A
Dimensions	2270 × 1800 × 290
Weight	113 kg





# ROOFTOP MOUNTABLE UNITS

## BOREAS

AURORA's Electric, Compact Rooftop Units are versatile and ready to serve at the forefront of the next generation of HVAC.

Every *Boreas* is recyclable as well as lightweight to empower sustainability in transportation for generations to come, these factors among others such as a wide-variety of power options make Boreas another perfect solution for bus drivers on-board city and intercity buses.

	Performance		
	Boreas 18	Boreas 24	Boreas 40
Maximum Cooling Capacity	18 kW	24 kW	39 kW
Nominal Cooling Capacity	11 kW	16 kW	29 kW
Heating Capacity	38 kW at Q80	38 kW at Q80	42 kW at Q80
Airflow AC	3800 m <sup>3</sup> / h	3800 m <sup>3</sup> / h	6000 m <sup>3</sup> / h
Fresh air AC	0 – 100 %	0 – 100 %	0 – 100 %
Nominal Voltage	24 V	24 V	24 V
Maximum Current Draw AC	60 A	70 A	115 A
Dimensions	2040 × 2180 × 240	2040 × 2180 × 240	2040 × 2180 × 240
Weight	120 kg	124 kg	128 kg
Refrigerant	R-134 a	R-134 a	R-134 a
Compressor	TM-31	TM-43	TM-65



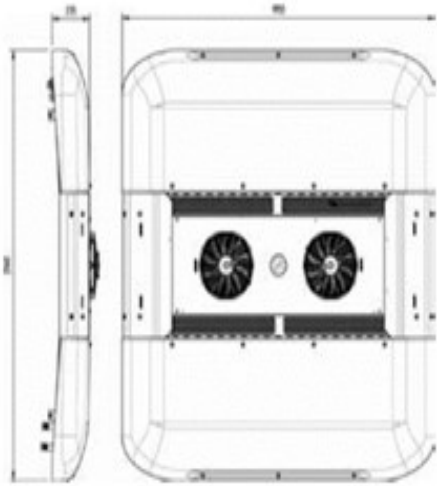


# ROOFTOP MOUNTABLE UNITS

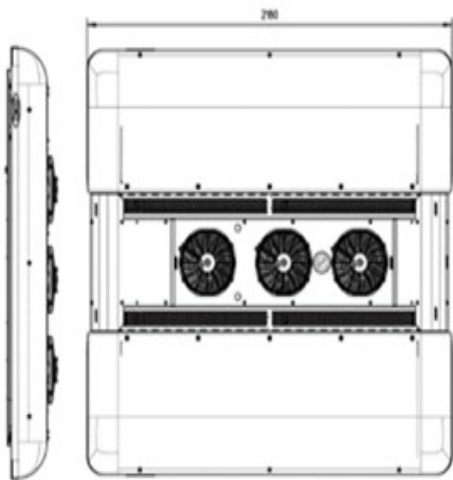
## BOREAS

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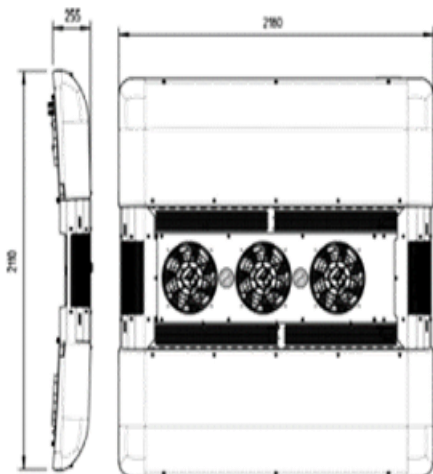
### Model 18



### Model 24



### Model 40



# **STANDARD HEATERS**

**LOW-NOISE, FIELD-PROVEN DURABILITY,  
EASY SERVICABILITY**



# AURORA

/ Pioneering Your Comfort



# STANDARD HEATERS

## UNDERFLOOR HEATER EHU-K-11500

AURORA's UNDERFLOOR HEATER EHU-K can be utilized as a built-in model for the heating and ventilation of buses. Operational with either external or recirculating air, *EHU's* recirculated air option is especially advantageous for dehumidifying the inside air during cooling. *EHU-K* also uses aluminum flat-tube heat exchanger technology to boost performance and reduce weight.

Specifications	
Housing: plastic PA6 Twin Radial Blower DRG 730 Powerful electric motor with long life cycle	
Technical Information	
912-100-1089	
Variations	
Part Number	Description
151-562-0241	11500 24 V 3-Speed
Performance	
Heat Power	13 kW
Vol. Air Flow	884 m <sup>3</sup> /h
Weight	5.5 kg (11.25 lbs.)



# STANDARD HEATERS

## UNDERFLOOR HEATER EHU-K-11500

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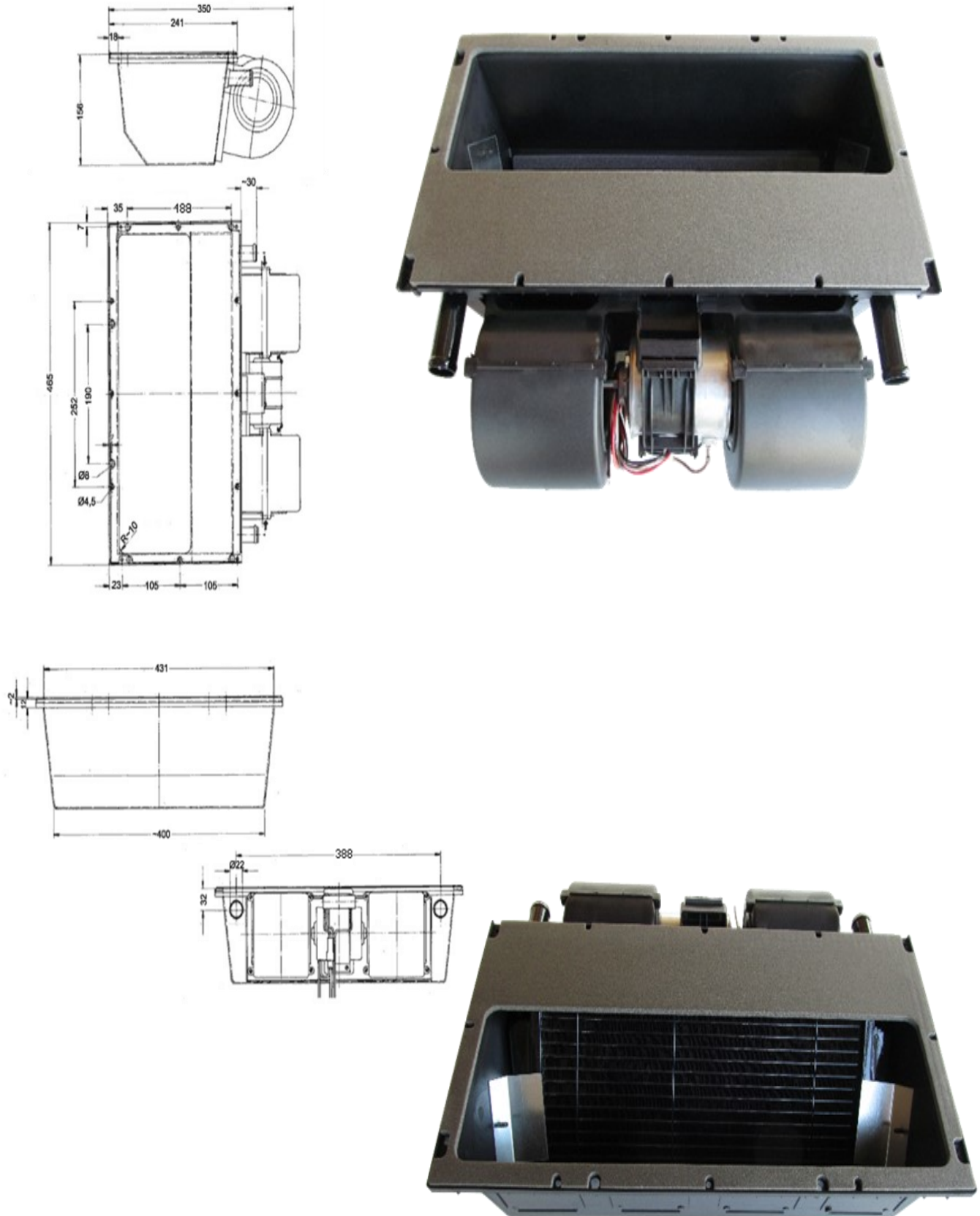


Illustration similar

# STANDARD HEATERS

## MINI H 410

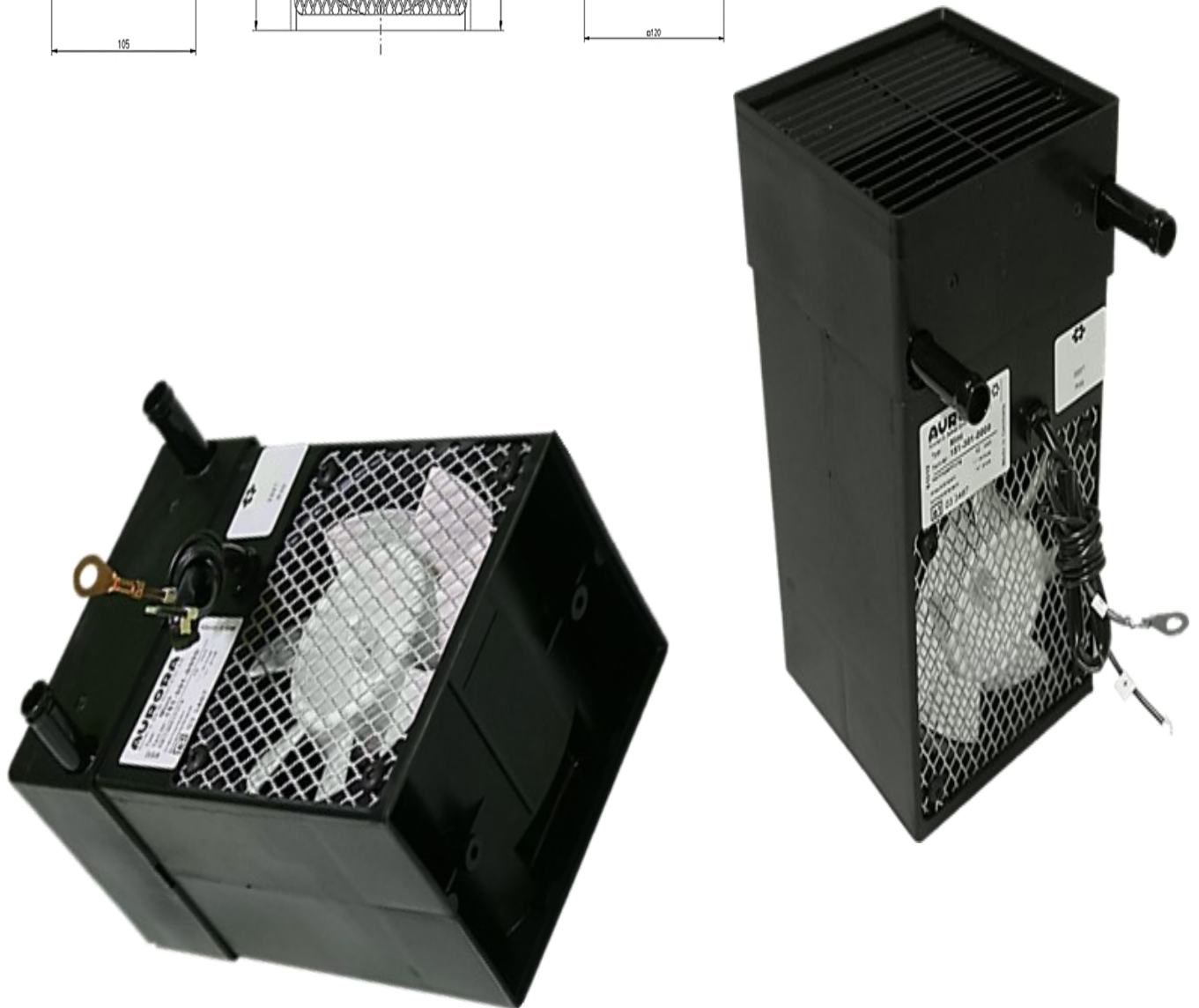
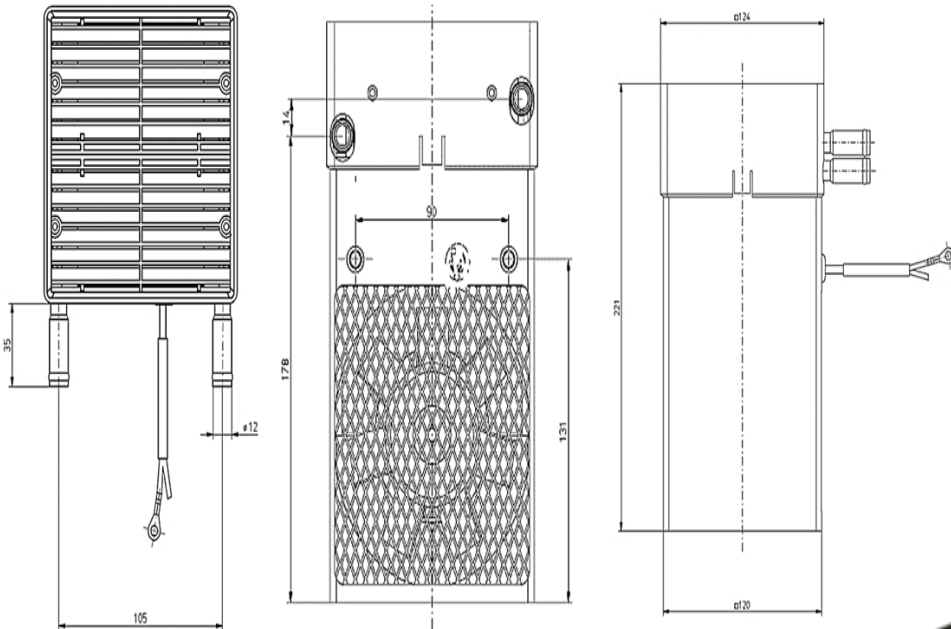
The AURORA *Mini* heater is perfectly designed to outfit cabins of nearly all applications. The 221 mm by 124 mm *Mini* is ideal for providing efficient heat to passengers and operators in areas where installation space is scarce. The *Mini* is also suited for a number of heating functions. Regardless whether installed under the seat, mounted to a side wall, driver's space, door entries, sleeping cabins, on-board kitchens, or simply used as a defroster, *Mini* is the Unit for the job at hand.

Specifications	
<b>Air Flow:</b> 114 m <sup>3</sup> /h <b>Heating Power:</b> 2.1 kW <b>Power Consumption:</b> Pel = 29 W <b>Noise Emission:</b> 64 dB(A)	
Technical Information	
912-100-0958	
Variations	
Part Number	Description
151-301-0200	Mini H410 12 V
151-302-0200	Mini H410 24 V
151-302-0242	Mini H410 24 V



# STANDARD HEATERS

## MINI H 410



# STANDARD HEATERS

## OSCAR 8000

AURORA's *Oscar* heater is the ultimate solution for side wall heating in buses and cabs. The 8000 is AURORA's most powerful unit in the *Oscar* family. It was developed for usage in operator spaces and for mounting on the side walls of passenger cabins. This 8000 sports dual aluminum flat tube heat exchangers and a twin radial blower for maximum efficiency. For Bus and Passenger Transit heating, we recommend using 3 - 4 units in a full sized bus depending on the surrounding climate. Depending on the operating environment, air filtration is also a possible addition with the *Oscar* series.

Specifications		
Polyamide PA6 glass fiber reinforced housing Dual Aluminum Flat-tube Heat Exchangers Twin Radial Blower		
Technical Information		
912-100-0959		
Variations		
Part Number	Description	
151-682-0201	Oscar 8000 24 V 2-Speed w/ hood	
Performance		
Blower Speed	1	2
Heat Power	4.6 kW	7.2 kW
Vol. Air Flow	185 m <sup>3</sup> /h	350 m <sup>3</sup> /h
Weight	3.8 Kg (8.4 lbs.)	

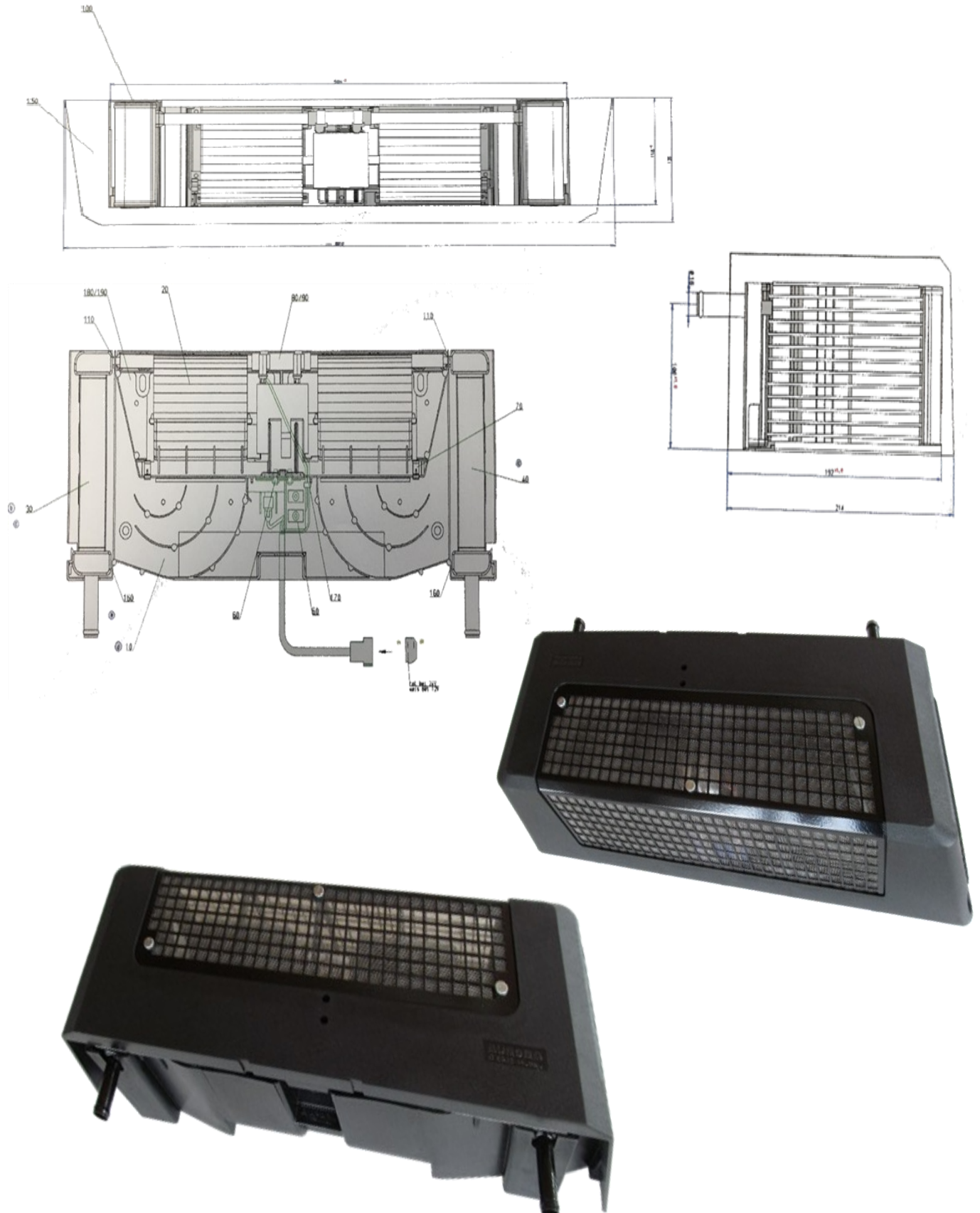




# STANDARD HEATERS

## OSCAR 8000

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# STANDARD HEATERS

## KKH HEATER TRADITIONAL

AURORA's KKH Heater is an ideal and powerful solution for small cabins. Its universal nature allows the KKH to maintain a 3.6 kW output in various applications and installation options as either a main or supplementary unit. The unit comes in 12 and 24 volt options, as well as different louver and grill packages suitable for installations in any of the following locations: under seats, instrument dashboard, side wall, operator / driver space, door entries, sleeping cabins, on-board kitchens, or as a defroster unit. Connections on both sides come standard at 15 mm in diameter.

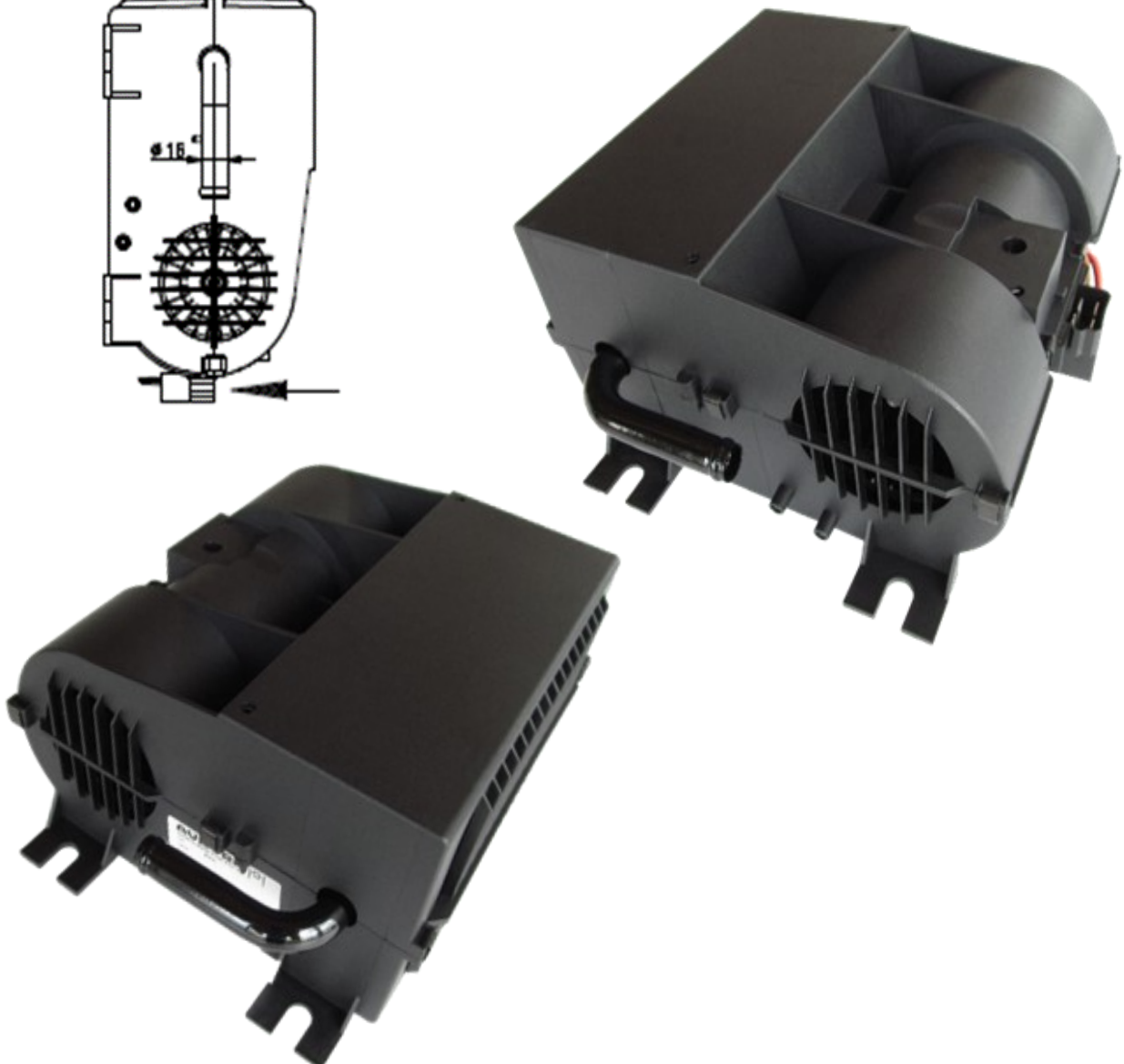
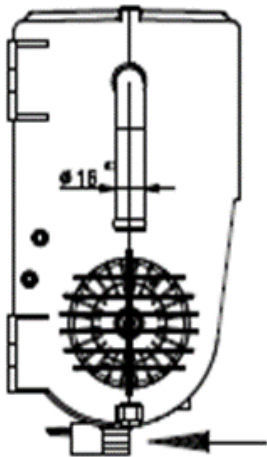
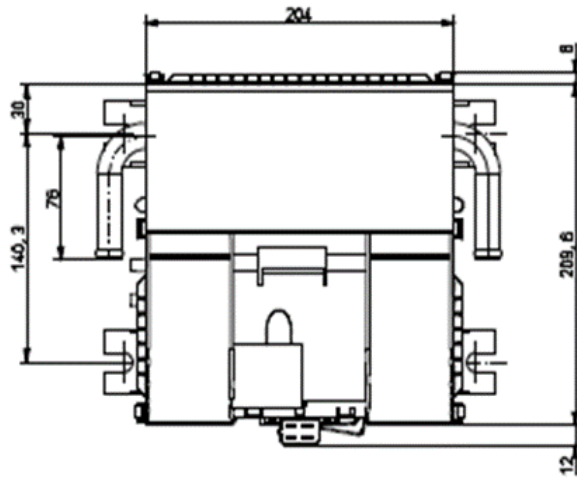
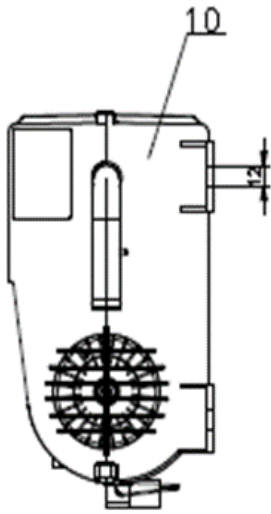
Specifications			
<p><b>Housing:</b> Glass-fiber reinforced polyamide PA6, black                      Aluminum Flat-tube heat exchanger system                      Powerful electric long-life motor. Blower speeds defined by series resistors with ceramic heat sink and micro-temperature fuses.</p>			
Technical Information			
912-100-0973			
Variations			
Part Number	Description		
151-801-0203	12 V 3-Speed w/ output grill		
151-802-0203	24 V 3-Speed w/ output grill		
151-801-0237	12 V 3-Speed		
151-801-0240	12 V 3-Speed		
Performance			
Blower Speed	1	2	3
Heat Power	1.9 kW	2.7 kW	3.8 kW
Vol. Air Flow	62 m <sup>3</sup> /h	103 m <sup>3</sup> /h	163 m <sup>3</sup> /h
Power Consumption	16 W	26 W	45 W
Weight	1.55 kg (3.4 lbs.)		



# STANDARD HEATERS

## KKH HEATER TRADITIONAL

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# STANDARD HEATERS

## KKH HEATER ALL ELECTRIC

AURORA's KKH Heater features PTC technology making this an all-electric heater, which is an ideal and powerful solution for small cabins. Its universal nature allows the KKH the versatility necessary for various applications and installation options as either a main or supplementary unit. The unit comes in 12 and 24-volt options, as well as different louver and grill packages suitable to for installations in any of the following locations: under seats, instrument dashboard, side wall, operator / driver space, door entries, sleeping cabins, on-board kitchens, or as a defroster unit.

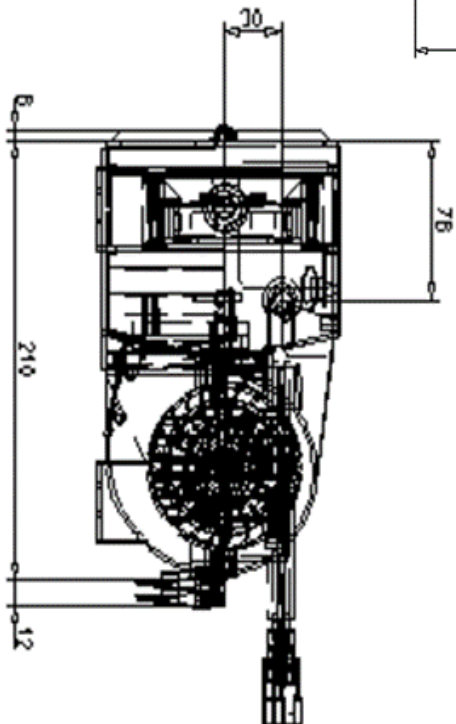
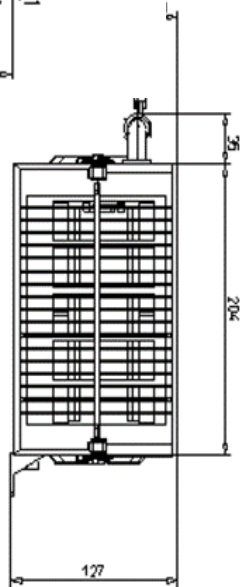
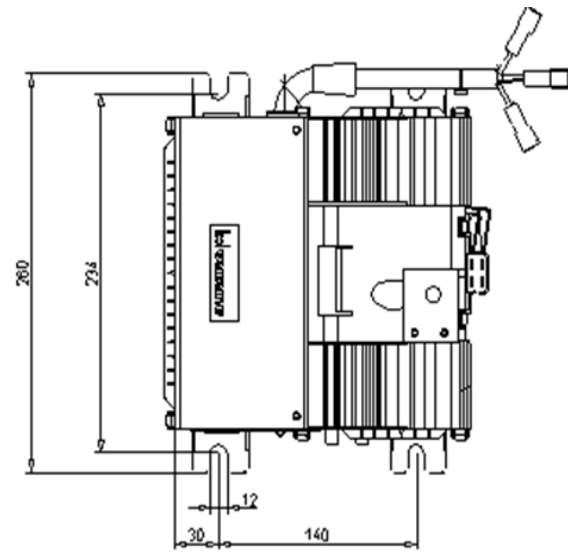
Specifications									
<p><b>Housing:</b> Glass-fiber reinforced polyamide PA6, black                      Aluminum Flat-tube heat exchanger system                      Powerful electric long-life motor. Blower speeds defined by series resistors with ceramic heat sink and micro-temperature fuses.</p>									
Variations									
Part Number / Technical Information				Description					
153-801-0005 / 912-100-0960				12 V Blower; <120 V PTC; 1280 W					
153-801-0001/ 912-100-1135				12 V Blower; 80 V PTC; 1100 W					
153-802-0001/ 912-100-0304				24 V Blower; 80 V PTC; 1100 W					
153-802-0003/ 912-100-0374				24 V Blower; 24 V PTC; 870 W					
153-802-0002/ 912-100-0374				24 V Blower; 24 V PTC; 750 W					
Performance									
Blower Speed Level		12 V Model (PTC Radiator <120 V)	1	2	3	24 V Model (PTC Radiator 80 V)	1	2	3
Nominal Heat Power (kW)	W		980	1130	1280		720	900	1100
	BTU / hr.		3344	3856	4367		2459	3074	3757



# STANDARD HEATERS

## KKH HEATER ALL ELECTRIC

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# **CONVECTORS**

**WIDE-DISTRIBUTION OF HEAT,  
SPECIALIZED FOR BUS APPLICATIONS**



**AURORA**   
/ Pioneering Your Comfort

# CONVECTORS

## AF SERIES

All our convectors are developed by AURORA and manufactured at several locations of the AURORA group. They are especially designed for use in bus and coach and available in two different power classes and sizes.

Convectors are used whenever the advantages of natural convection predominate. Optionally, our convectors can be combined with our Puma heater. The blower-assisted version offers an even better heating capacity.

Technical Information			
Performance	AF 60	AF 70	Puma
Size / Measurements	160 mm. x 73 mm.	170 mm. x 100 mm.	170 mm. x 100 mm.
Heating Capacity	700 W / m at Q <sub>60</sub>	830 W / m at Q <sub>60</sub>	2900 W / m at Q <sub>60</sub>
Blower	None	None	73 <sup>3</sup> / blower
Molding	Aluminum EN AW 6063 one-piece	Aluminum EN AW 6063	--
Weight	2.5 kg / m	3.5 kg / m	--
Connector(s)	16 + 18 mm.	22 mm.	22 mm.





# CONVECTORS

## AF SERIES

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**AF60**



**AF70**



**Puma**



# BLOWERS

EFFICIENT, LOW-NOISE, POWERFUL



**AURORA**   
Karl Schmid GmbH & Co. KG  
Type: **BRG 1000**  
Tel. in USA: AURORA: 1-800-888-8888  
Tel. in USA: AURORA: 1-817-713-3643  
RIBB BUSINESS No.: 5000 788 788  
Voltage: 24 Volt  
Current: 1.2 Amp  
Speed: 3000 RPM  
Material: Polypropylene  
Application: For motor mounting in  
pneumatic systems  
Features: Draft of motor and  
100% pure plastic

# AURORA

/ Pioneering Your Comfort



# FANS

## AXIAL

AURORA's Axial Fans come in several different sizes and mounting options in order to ensure the correct fit. These fans are powerful, durable, and lightweight. They are ideal for use as roof vents, condenser fans, oil coolers, and several other applications where maximum airflow is essential.

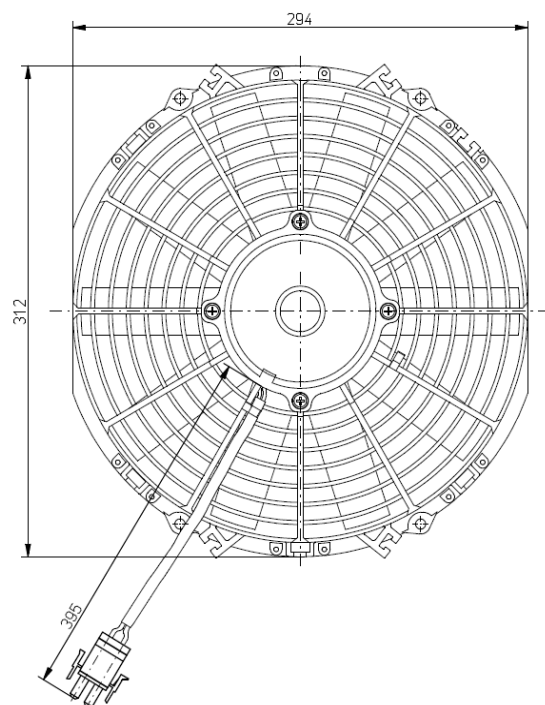
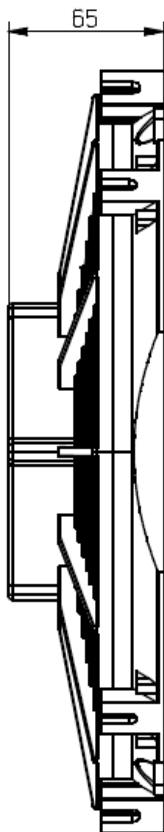
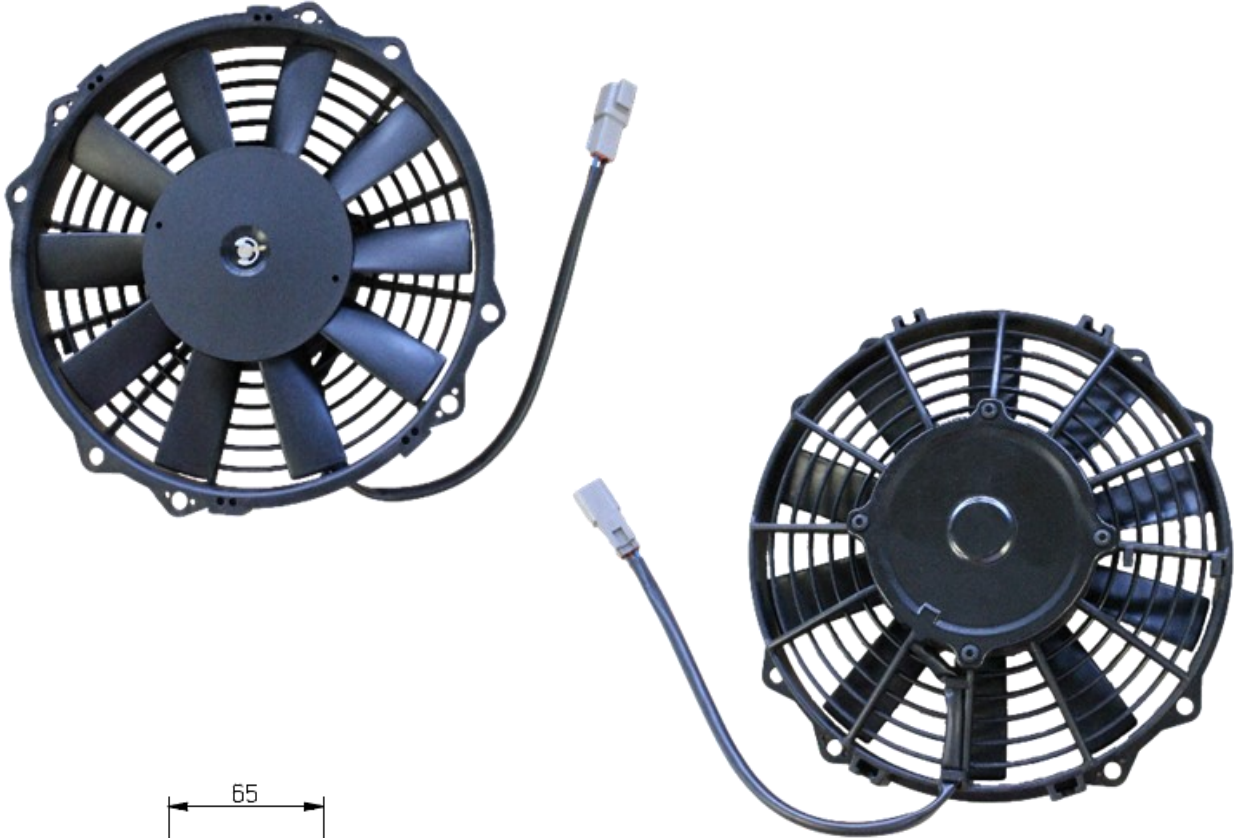
Technical Information	
912-100-0617 / 912-100-0948 912-100-0482 / 912-100-0751 912-100-0754	
Variations	
Part Number	Description   Dimension   Performance Max.
134-801-0008	12 V / 8" / suction   210 × 5260 mm   805
134-802-0008	24 V / 8" / suction   210 × 5260 mm   805
134-801-0010	12 V / 9" / suction   2478 × 526 mm   1060
134-802-0011	24 V / 9" / suction   2478 × 526 mm   1090
134-801-0009	12 V / 10" / blowing   285 × 525 mm   1325
134-801-0043	12 V / 10" / suction   285 × 525 mm   1480
134-801-0004	12 V / 11" / blowing   310 × 524 mm   1530
134-802-0004	24 V / 11" / blowing   310 × 524 mm   1580
134-801-0054	12 V / 12" / suction   335 × 62 mm   2050
134-802-0054	24 V / 12" / suction   335 × 62 mm   2050
134-802-0012	12 V / 16" / suction   416 × 704 mm   2820
134-802-0017	24 V / 16" / blowing   416 × 704 mm   2820



# FANS

## AXIAL

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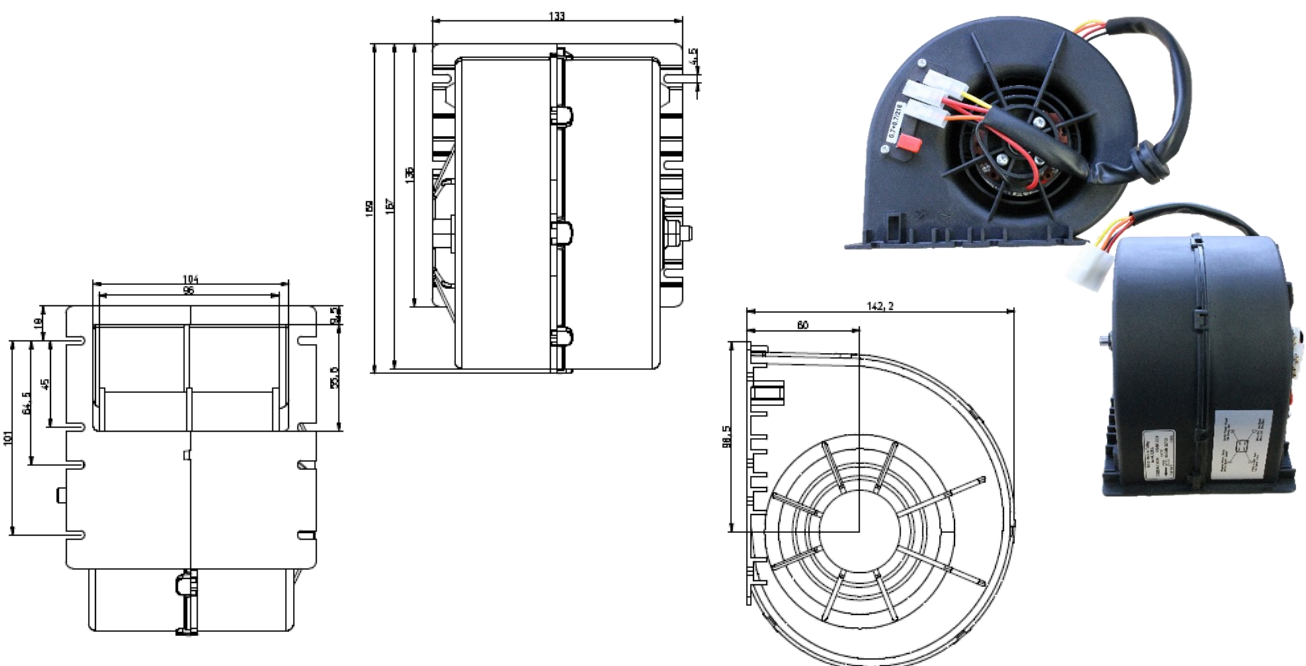


# BLOWERS

## RG 550

AURORA's Radial Blowers are built with powerful electric motors for high efficiency throughout a long lifetime of performance. These blowers feature a high proportion of air flow vs. system resistance. All radial blowers have flange seals made out of cellular rubber. Our family of Radial Blowers are built with a powerful electro motor to boost high efficiency over a long lifetime of performance.

Specifications	
<b>Housing:</b> 35% glass fiber polyamide PA6 <b>Airflow:</b> 500 m <sup>3</sup> /h (294 cfm) <b>Nominal voltage:</b> 12 or 24 Volt <b>Weight:</b> ~1.27 kg (2.8 lbs.) <b>Pel:</b> 210 W <b>Lp:</b> 75.5 dB (A)	
Technical Information	
912-100-0674/1102	
Variations	
Part Number	Description
132-901-0023	12 V 3 Speed
132-901-0028	12 V Brushless Stepless Controlled
132-902-0004	24 V - 3 Speed
132-902-0028	24 V Brushless Stepless Controlled



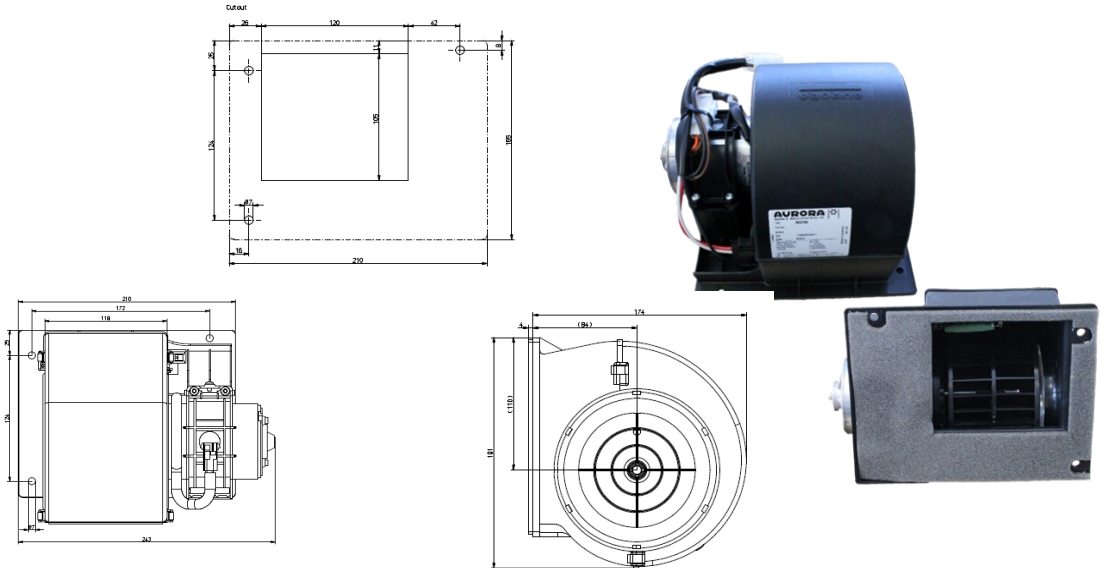
# BLOWERS

## RG 780

AURORA’s Radial Blowers are built with powerful electric motors for high efficiency throughout a long lifetime of performance. These blowers feature a high proportion of air flow vs. system resistance. All radial blowers have flange seals made out of cellular rubber. Our family of Radial Blowers are built with a powerful electro motor to boost high efficiency over a long lifetime of performance.

Specifications				
<b>Housing:</b> 35% glass fiber polyamide PA6 <b>Airflow:</b> 780 m <sup>3</sup> /h (459 cfm) <b>Nominal voltage:</b> 12 or 24 Volt <b>Weight:</b> ~2 kg (4.41 lbs.)				
Technical Information				
912-100-0579				
Variations				
Part Number		Description		
132-901-0400		12 V - Standard		
132-901-0405		12 V - 4 Speed		
132-902-0400		24 V - Standard		
132-902-0405		24 V - 4 Speed		
	Speed 1	Speed 2	Speed 3	Speed 4
V air m <sup>3</sup> /h.	300	410	530	780
Pel in W	70	110	160	280
Lp in dB (A)	57	65	71	77

Values +/- 10%

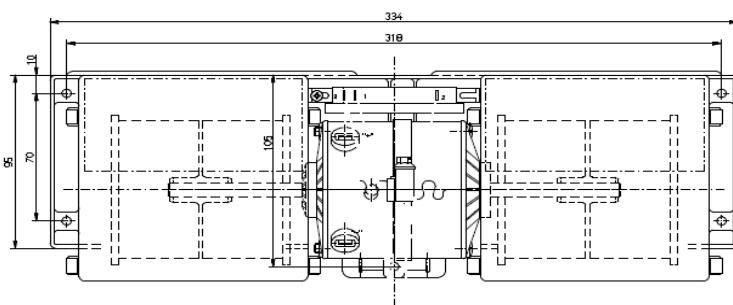


# BLOWERS

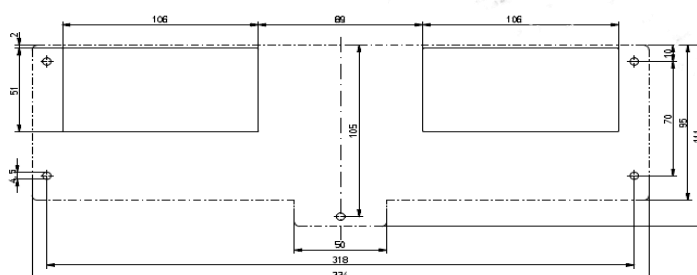
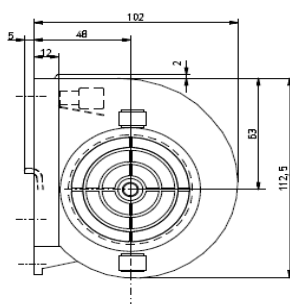
## DRG 530

AURORA's Twin Radial Blower (DRG) design incorporates high performance, low noise, and long life. The compact DRG 530 design produces 530 m<sup>3</sup>/h of airflow and utilizes longer brushes and internal resistors extending the life of the blowers. Blower speeds are regulated via a series resistor thanks to ceramic heat sink and micro-temperature-fusing.

Specifications	
<b>Housing:</b> 35% glass fiber polyamide PA6 <b>Airflow:</b> 530 m <sup>3</sup> /h <b>Nominal voltage:</b> 12 or 24 Volt <b>Weight:</b> ~1.25 kg (2.76 lbs.)	
Technical Information	
912-100-0550/1102	
Variations	
Part Number	Description
131-201-0011	12 V - Standard
131-201-0020	12 V - 3 Speed
131-201-0035	12 V Brushless stepless controlled
131-202-0011	24 V - Standard
131-202-0020	24 V - 3 Speed
131-202-0035	24 V Brushless stepless controlled



131-201/202-0011





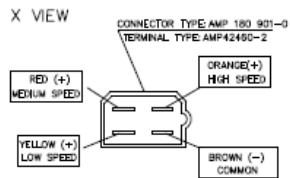
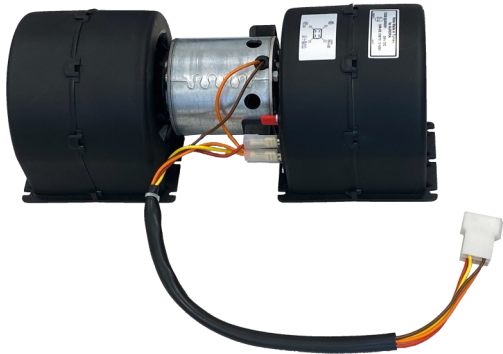
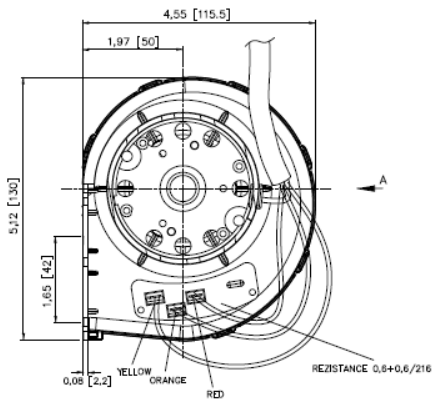
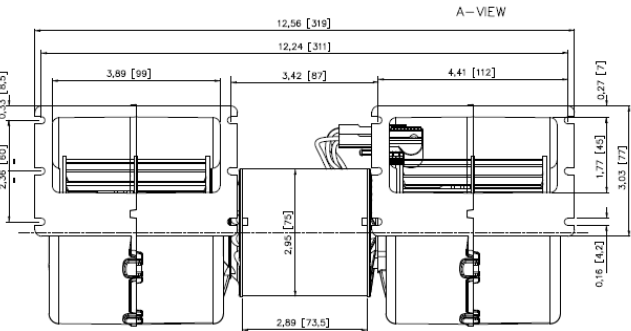
# BLOWERS

## DRG 800

AURORA’s Radial Blowers are built with powerful electric motors for high efficiency throughout a long lifetime of performance. These blowers feature a high proportion of air flow vs. system resistance. Our family of Radial Blowers are built with a powerful electro motor to boost high efficiency over a long lifetime of performance.

Specifications			
<b>Housing:</b> polyamide PA6 GF35 <b>Airflow:</b> 770 m <sup>3</sup> /h (452 cfm) <b>Nominal voltage:</b> 12 or 24 Volt <b>Weight:</b> ~2 kg (4.41 lbs.)			
Technical Information			
912-100-1181			
Variations			
Part Number	Description		
131-901-0058	12 V - 3 Speed Standard		
131-902-0058	24 V - 3 Speed Standard		
	Speed 1	Speed 2	Speed 3
V air m <sup>3</sup> /h.	380	490	770
Pel in W	84	125	265
Lp in dB (A)	61	67	74,5

Values +/- 10%



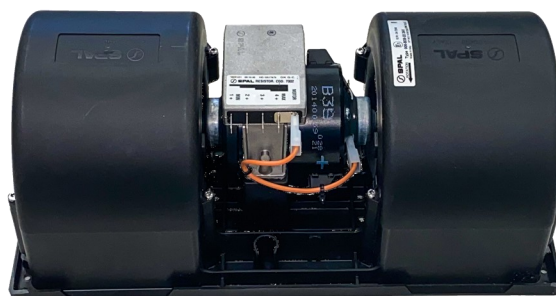
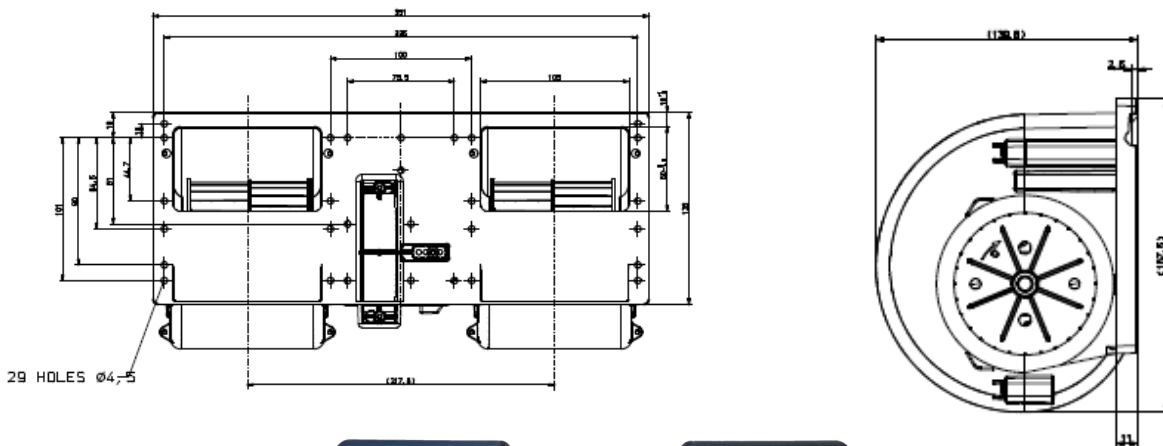
# BLOWERS

## DRG 1150

AURORA's Radial Blowers are built with powerful electric motors for high efficiency throughout a long lifetime of performance. These blowers feature a high proportion of air flow vs. system resistance. Our family of Radial Blowers are built with a powerful electro motor to boost high efficiency over a long lifetime of performance.

Specifications				
<b>Housing:</b> polypropylene PPT40 wheels: polyamide PA6 GF35 <b>Airflow:</b> 1150 m <sup>3</sup> /h (676 cfm) <b>Nominal voltage:</b> 12 or 24 Volt <b>Weight:</b> ~2 kg (4.41 lbs.)				
Technical Information				
912-100-1162				
Variations				
Part Number		Description		
131-901-0050		12 V - 4 Speed Standard		
131-902-0050		24 V - 4 Speed Standard		
	Speed 1	Speed 2	Speed 3	Speed 4
V air m <sup>3</sup> /h.	400	705	850	1150
Pel in W	89	193	263	440
Lp in dB (A)	59	67	69	76

Values +/- 10%



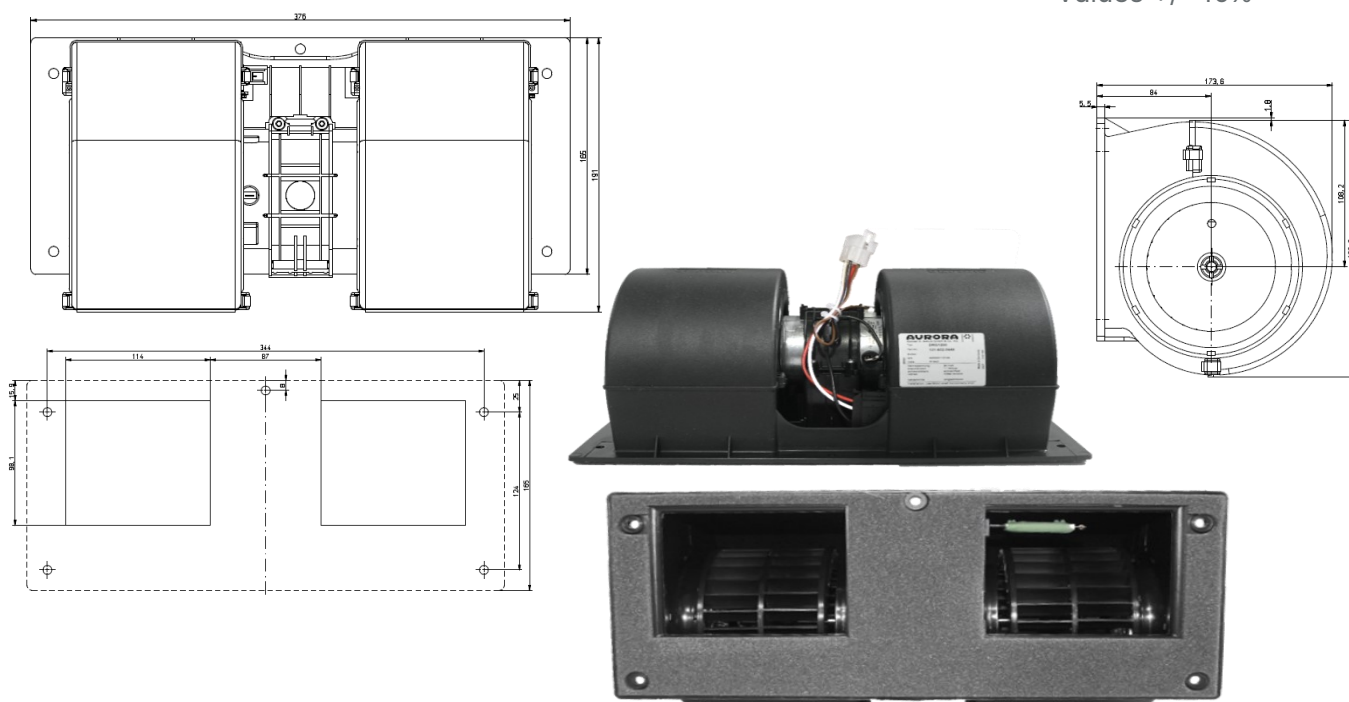
# BLOWERS

## DRG 1200

AURORA's Twin Radial Blower *DRG1200* is ideal for heating, AC, and ventilation. *DRG1200*'s powerful electric motor has high efficiency and a long lifetime of performance. AURORA Twin Radial Blowers contain a high air flow vs. system resistance proportion. Blower speeds are regulated via a series resistor with ceramic heat sink and micro-temperature-fusing. Only available as replacement, not new projects

Specifications				
<b>Housing:</b> 35% glass fiber polyamide PA6 <b>Airflow:</b> 1200 m <sup>3</sup> /h (736 cfm) <b>Nominal voltage:</b> 12 or 24 Volt <b>Weight:</b> ~2.54 kg (6 lbs.)				
Technical Data				
912-100-0578				
Variations				
Part Number		Description		
131-601-0400		12 V - Standard		
131-601-0403		12 V - 3 Speed		
131-602-0400		24 V - Standard		
131-602-0450		24 V - 4 Speed		
	Speed 1	Speed 2	Speed 3	Speed 4
Vair in m <sup>3</sup> /h	470	675	800	1250
Vair in cfm	277	397	471	736
Pel in W	70	109	150	307
Lp in dB(A)	56	63	68	77

Values +/- 10%



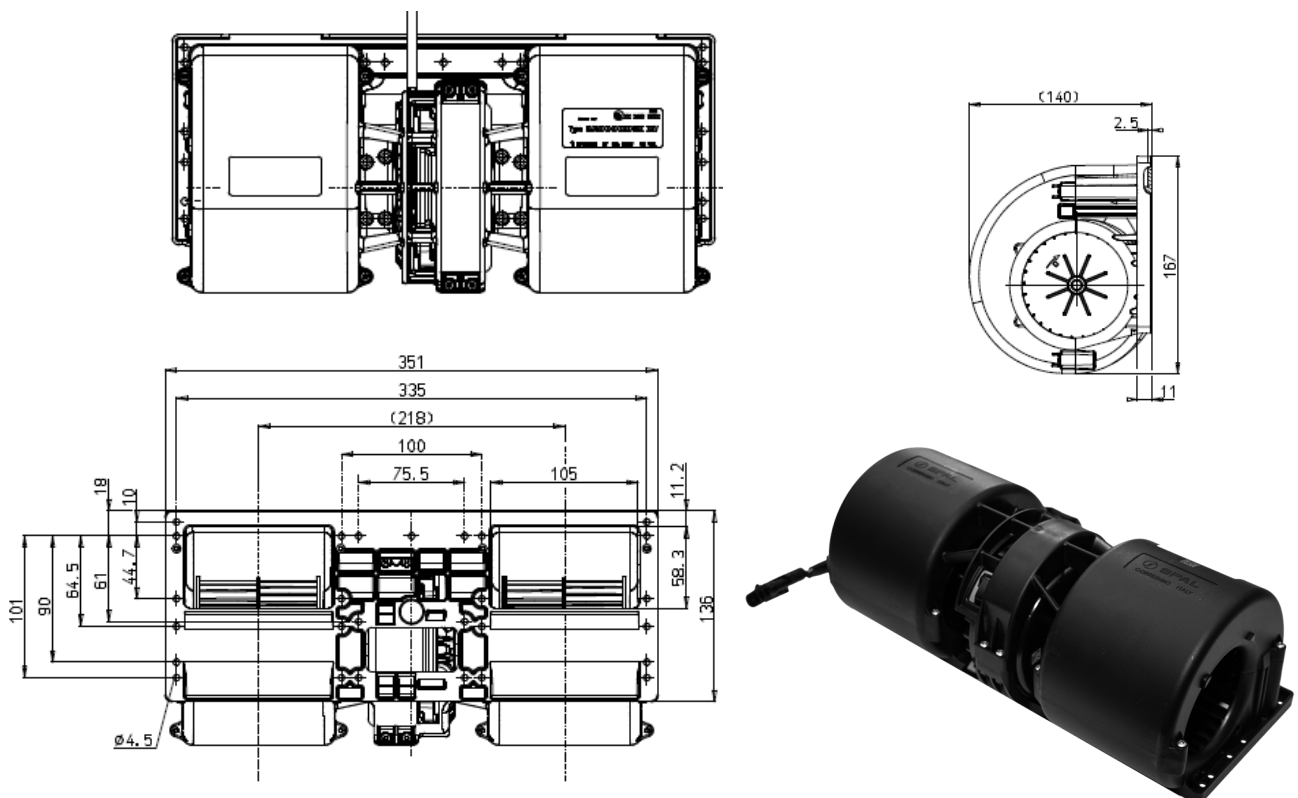
# BLOWERS

## DRG 1150 EC

The twin radial blower *DRG 1150 EC* is infinitely adjustable, satisfying to even the highest, most attune comfort standards. This blower also has a high lifetime of about 25,000 operation hours. The twin radial blowers are very efficient with low noise emission. Used exclusively for air flow distribution in heaters, air conditioning units, and ventilation units. The DRG 1150 EC is generally suitable for all mounting positions and consists of a plastic housing, two fan wheels and a brushless DC motor with dual ball bearings.

Specifications		
<b>Housing:</b> polypropylene reinforced with 40% Talcum PP T40		
<b>Airflow:</b> 1200 m <sup>3</sup> /h (244 cfm)		
<b>Nominal voltage:</b> 12 or 24 Volt		
<b>Weight:</b> ~2.4 kg (5.3 lbs.)		
Technical Information		
912-100-1168/1193		
Variations		
Part Number	Description	
131-901-0036	12 V - Standard	
131-902-0051	24 V - Standard	
	12 V	24 V
Vair in m <sup>3</sup> /h	1200	1200
Pel in W	370	330
Lp in dB(A)	74	73

Values +/- 10%

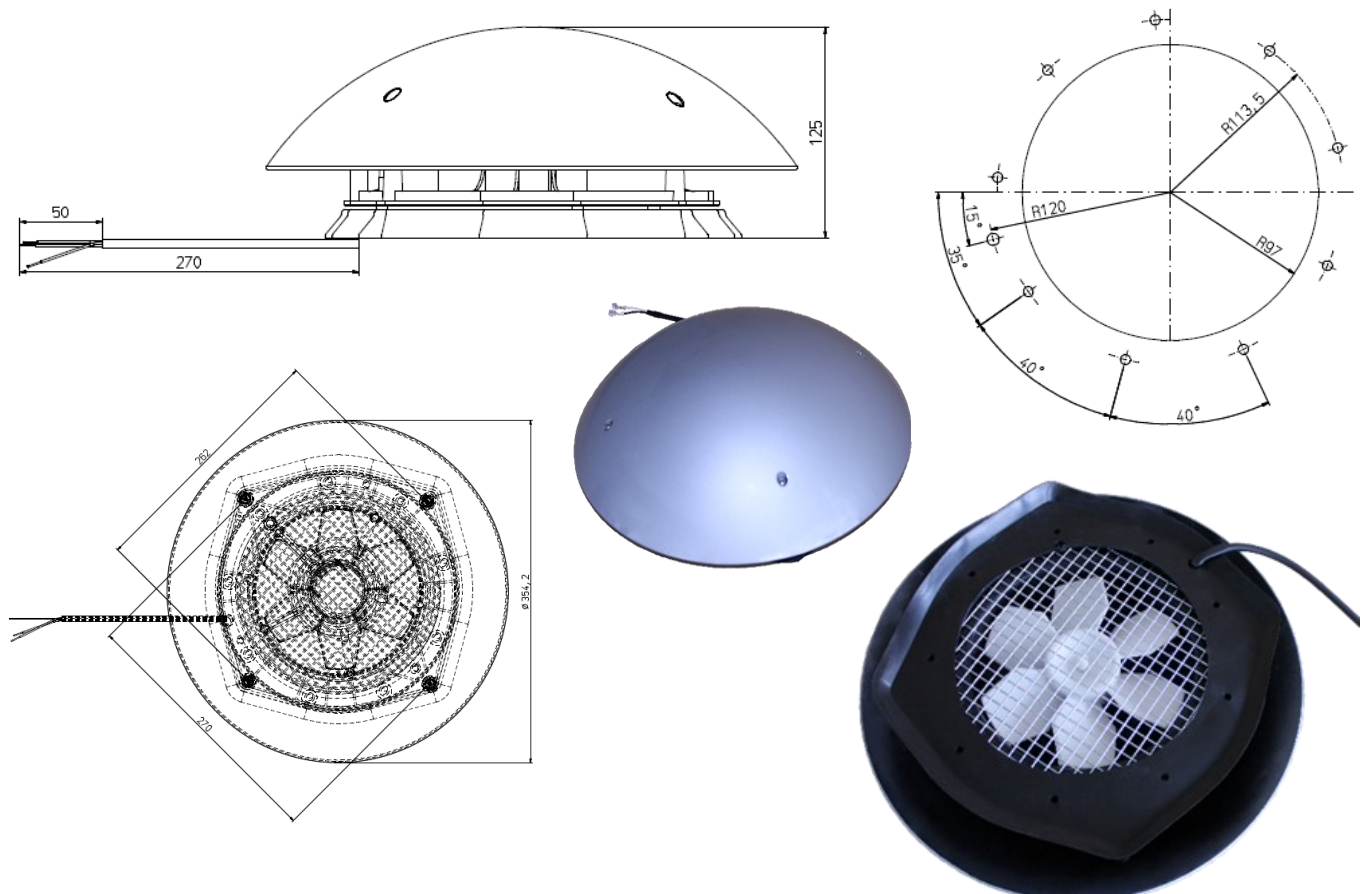


# HOOD VENTILATORS

## HV 350

AURORA Hood ventilators are designed to efficiently and easily provide transit vehicles, cargo vans, and buses, with additional airflow. Most models are can be switched to either provide air intake or air extraction in any desired application. The plastic hood is constructed of polyamide PA6 35% glass fiber reinforced material to increase durability against the elements. These units are manufactured to specifications which reduce weight and noise emissions.

Specifications	
<b>Nominal Voltage:</b> 12 or 24 Volt	
<b>Air Flow:</b> 350 m <sup>3</sup> /h	
<b>Sound Level:</b> 67 dB(A)	
<b>Weight:</b> 1.8 kg (3.97 lbs.)	
Technical Information	
912-100-0369	
Variations	
Part Number	Description
134-101-0001	HV 350-BE 12 V
134-102-0001	HV 350-BE 24 V
134-101-0013	HV 350 -BE 2Speed 12 V
134-102-0013	HV 350 -BE 2Speed 24 V

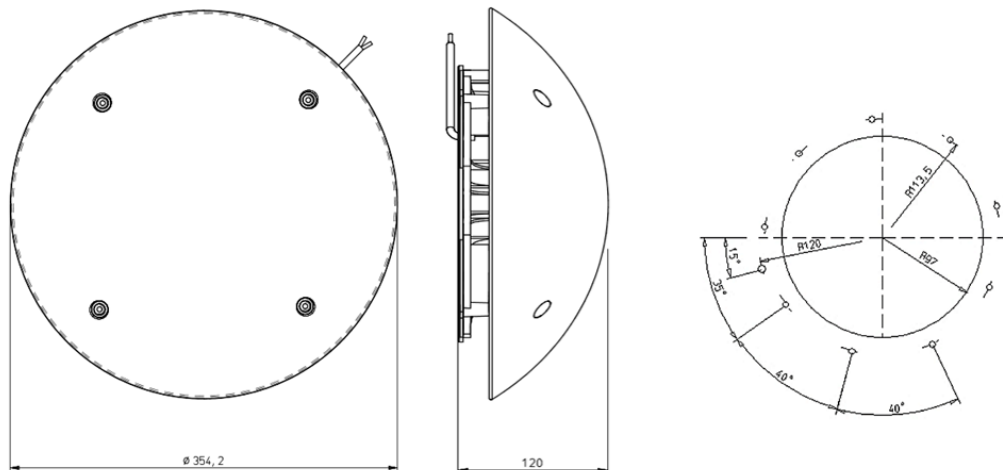


# HOOD VENTILATORS

## HV 420

AURORA Hood Ventilators are designed to efficiently and easily provide transit vehicles, cargo vans, and buses, with additional airflow. The plastic hood is constructed of polyamide PA6 35% glass fiber reinforced material to increase durability against the elements. These units are manufactured to specifications which reduce both weight and noise emissions, simultaneously.

Specifications	
<b>Nominal Voltage:</b> 12 or 24 Volt <b>Air Flow:</b> 420 m <sup>3</sup> /h <b>Sound Level:</b> 67 dB(A) <b>Weight:</b> 1.8 kg (3.97 lbs.)	
Technical Information	
912-100-0435	
Variations	
Part Number	Description
134-151-0000	HV 420-KB 12 V
134-151-0002	HV 420-KE 12 V
134-152-0000	HV 420-KB 24 V
134-152-0009	HV 420-KE 24 V

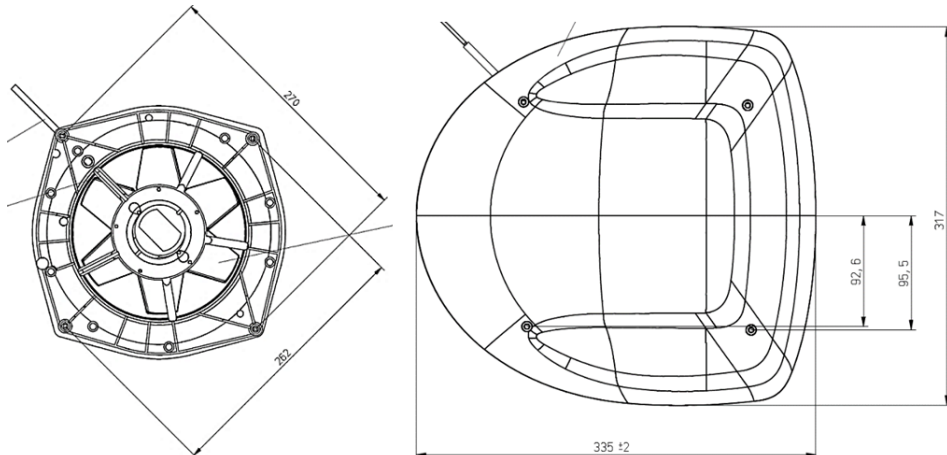


# HOOD VENTILATORS

## HV 500

AURORA Hood ventilators are designed to efficiently and easily provide transit vehicles, cargo vans, and buses, with additional airflow. Most models are can be switched to either provide air intake or air extraction in any desired application. The plastic hood is constructed of polyamide PA6 35% glass fiber reinforced material to increase durability against the elements. These units are manufactured to specifications which reduce weight and noise emissions, simultaneously.

Specifications	
<b>Material:</b> ABS Plastic <b>Airflow:</b> ~ 500m <sup>3</sup> /h <b>Power Consumption:</b> Pel ~ 45W <b>Sound Level:</b> Max 69 dB(A)	
Technical Information	
912-100-0285	
Variations	
Part Number	Description
134-171-0012	HV 500-B+E 12 V LC
134-172-0012	HV 500-B+E 24 V LC



# AURORA

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# **CONTROL PANELS**

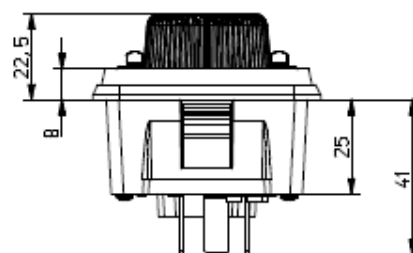
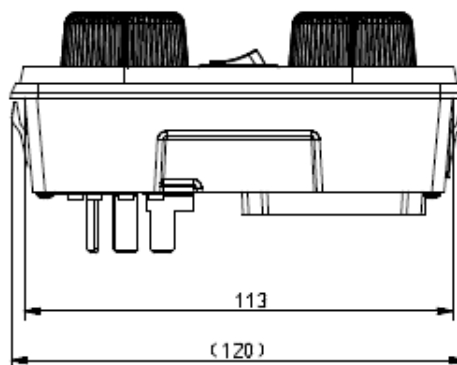
**INTELLIGENT-RESPONSIVENESS,  
DYNAMIC; USER-FRIENDLY**

# CONTROL PANELS

## NEO2B

AURORA's NEO2B Control Panel is designed for the rough and tough operator. For this, we've stripped out all the extra bells and whistles to give customers exactly what they need: simplicity and functionality. The NEO2B has two knobs and up to two rocker switches, all electronically manipulated. It is designed for a 3-speed blower and optional rocker switches for AC and recirculation.

Functions	Specification
3-Step rotary switch for blower speed (25A)	Operation voltage 9 to 30 V
Potentiometer for water valve position	Operation temperature -40°C to +85°C
5-Pol. actuator for water valve	IP40 (front side)
Push button for AC (optional)	15 pol. AMP connector
Rocker switch for recirculation flap (optional)	ECE R10 certificated
Illuminated symbols	
Illuminated knobs	
Function and status LED's	

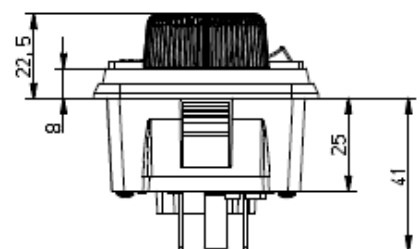
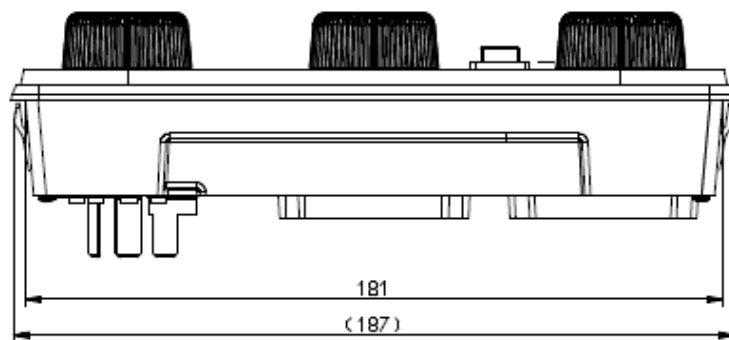


# CONTROL PANELS

## NEO3B

AURORA's NEO3B Control Panel is designed for the rough and tough operator. For this line, we've stripped out all the extra bells and whistles to give customers exactly what they need: simplicity and functionality. The NEO3B has three knobs and up to two rocker switches, all electronically manipulated. It is designed for a 3-speed blower, proportionally positioned air distribution flap and optional rocker switches for AC and recirculation.

Functions	Specification
3-Step rotary switch for blower speed (25A)	Operation voltage 9 to 30 V
Potentiometer for watervalue position	Operation temperature -40°C to +85°C
3-Pol. actuator for watervalue	IP40 (front side)
Potentiometer for air distribution flap position	1 x 15 pol. AMP connector
3-Pol. actuator for air distribution flap	ECE R10 certificated
Rocker switch for AC (optional)	
Rocker switch for recirculation flap (optional)	
Illuminated symbols	
Illuminated knobs	

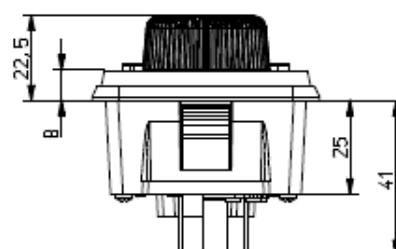
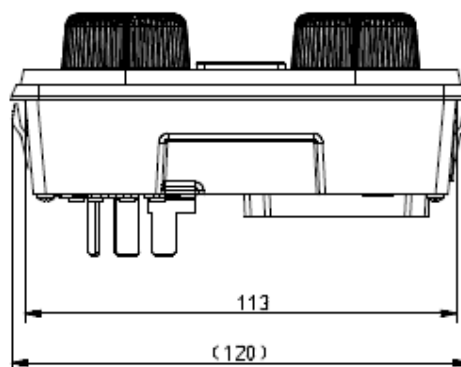


# CONTROL PANELS

## NEO2

AURORA's NEO2 Control Panel is designed for the rough and tough operator. For this line, we've stripped out all the extra bells and whistles to give customers exactly what they need: simplicity and functionality. The NEO2 has two knobs and up to two rocker switches, all electronically manipulated. It is designed for a 3-speed blower and optional rocker switches for AC and recirculation .

Functions	Specification
3-Step rotary switch for blower speed (25A)	Operation voltage 9 to 30 V
Potentiometer for water valve position	Operation temperature -40°C to +85°C
5-Pol. actuator for water valve	IP54 (front side)
Push button for AC (optional)	1 × 15 pol. AMP connector
Rocker switch for recirculation flap (optional)	ECE R10 certificated
Illuminated symbols	
Illuminated knobs	
Function and status LED's	

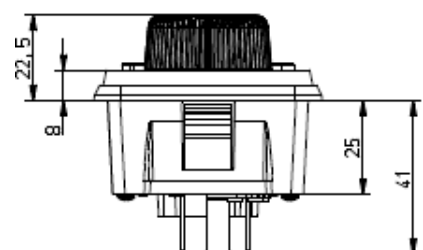
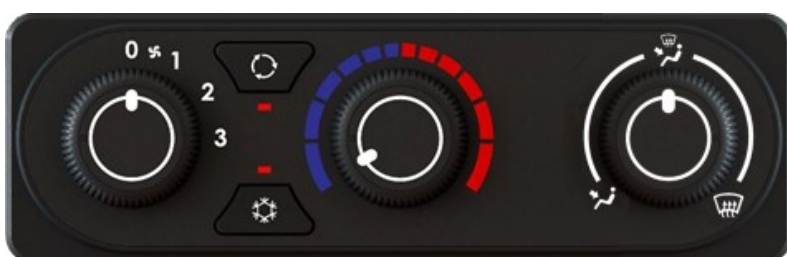
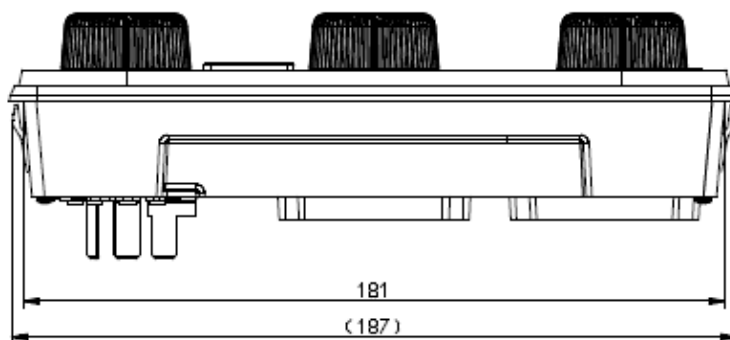


# CONTROL PANELS

## NEO3

AURORA's NEO3 Control Panel is designed for the rough and tough operator. For this line, we've stripped out all the extra bells and whistles to give customers exactly what they need: simplicity and functionality. The NEO3 has three knobs and up to two rocker switches, all electronically manipulated. It is designed for a 3-speed blower, proportionally positioned air distribution flap and optional rocker switches for AC and recirculation.

Functions	Specification
3-Step rotary switch for blower speed (25A)	Operation voltage 9 to 30 V
Potentiometer for watervalue position	Operation temperature -40°C to +85°C
5-Pol. actuator for watervalue	IP54 (front side)
Potentiometer for air distribution flap position	2 × 15 pol. AMP connector
5-Pol. actuator for air distribution flap	ECE R10 certificated
Push button for AC (optional)	
Push button for recirculation flap (optional)	
Illuminated symbols	
Illuminated knobs	
Function and status LED's	

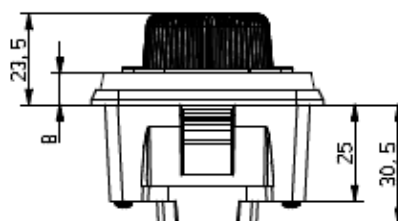
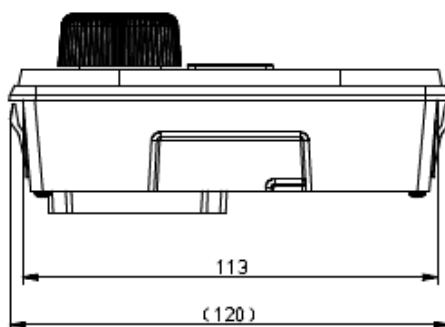


# CONTROL PANELS

## NEO2PLUS

AURORA's NEO2PLUS takes the next step towards ultimate climate control in a cabin or vehicle. The NEO2plus has an encoder that is used for multiple functions, two push-buttons and a round OLED display with a resolution of 128×128px. It is designed to connect a stepless blower; it has a CAN-bus interface, and up to three sensors can be connected.

Functions	Specification
Encoder for set temperature and blower speed	Operation voltage 9 to 30 V
PWM output for stepless blower	Operation temperature -40°C to +85°C
Upper push button for defrost function	IP54 (front side)
Lower push button for menu and AC	1 × 15 pol. AMP connector
Background illumination	ECE R10 certificated
CAN bus interface	
3 temperature sensors	
OLED display	
Function and status LED's	
Configuration menu	

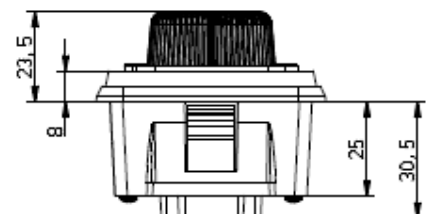
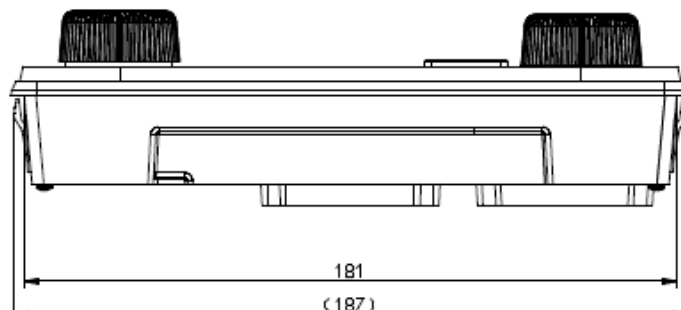


# CONTROL PANELS

## NEO3PLUS

AURORA's NEO3PLUS takes the next step towards ultimate climate control in a cabin or vehicle. The NEO3plus has an encoder that is used for multiple functions, a potentiometer for the air distribution, two push-buttons and a round OLED display with a resolution of 128×128px. It is designed to connect a stepless blower, it has a CAN-bus interface and up to four sensors can be connected.

Functions	Specification
Encoder for set temperature and blower speed	Operation voltage 9 to 30 V
PWM output for stepless blower	Operation temperature -40°C to +85°C
Potentiometer for air distribution	IP54 (front side)
Upper push button for defrost function	2 × 15 pol. AMP connector
Lower push button for menu and AC	ECE R10 certificated
Background illumination	
CAN bus interface	
Up to 4 temperature sensors	
Up to 2 air flap actuators	
Recirculation flap	
OLED display	
Function and status LED's	
Configuration menu	



# LOUVERS

DURABLE,  
DYNAMIC, USER-  
FRIENDLY







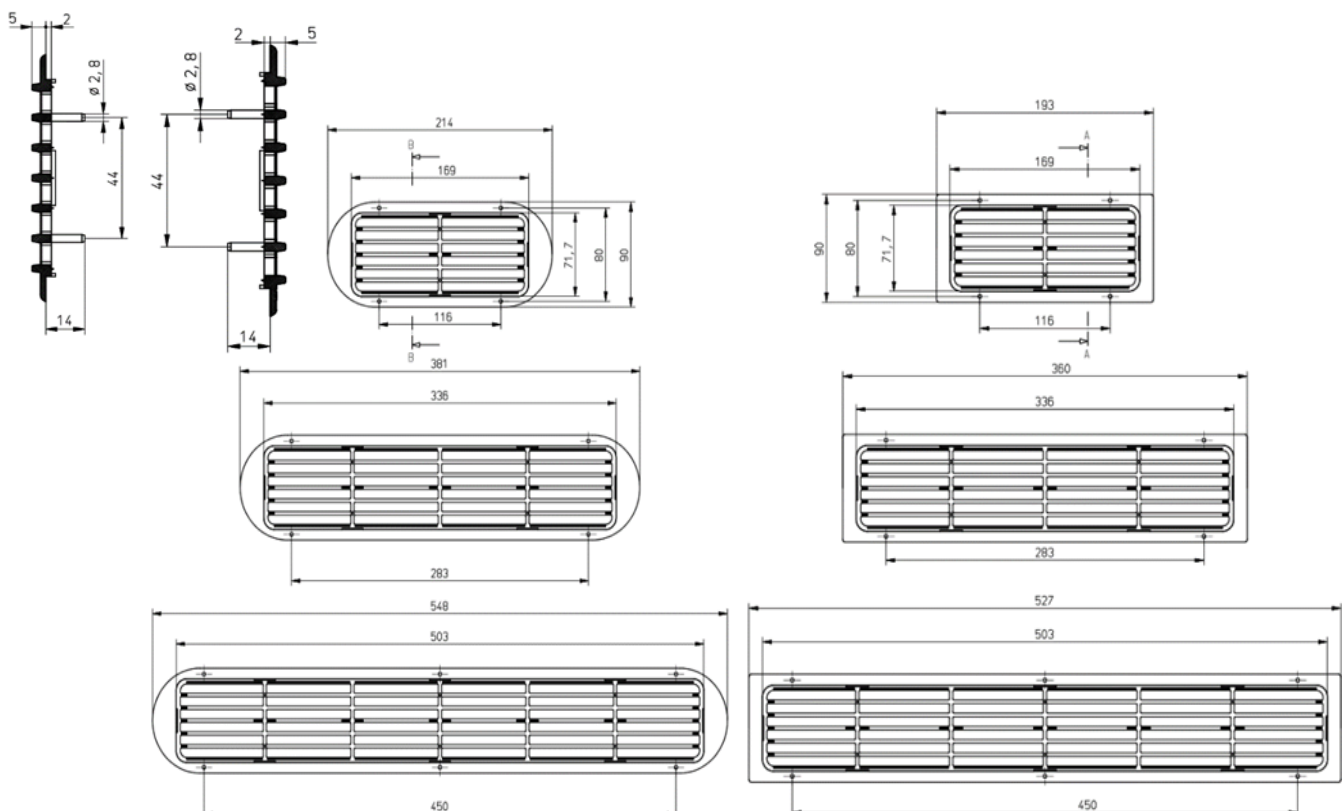
**AUROYA**   
/ Pioneering Your Comfort

# VENTILATION LOUVERS

## AIR GRILLS

AURORA's Air Grills have horizontal fixed air guide vanes that can be used in both air intake and outtake applications. The grills are designed to allow for different filtration elements in order to keep all foreign and unwanted objects out of the air circulation system. The grills come in several sizes and shapes, and some also have pegged inserts for easier installation with various filtration options.

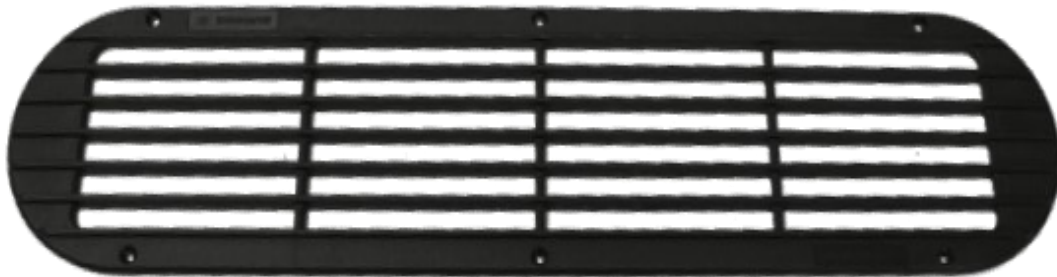
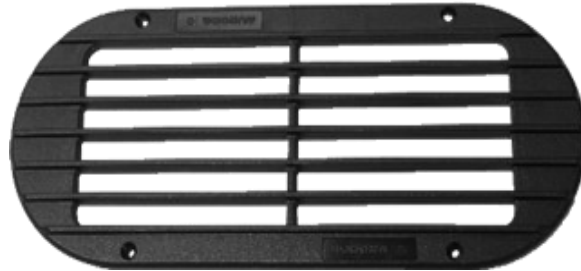
Material and Color	
Polyamide PA6 15% glass fiber reinforced Standard Color: black, similar to RAL 9005	
Technical Information	
912-100-0324	
Variations	
Part Number	Description
431-410-0010	Round Long
431-410-0011	Round Medium
431-410-0012	Round Short
334-130-0001	Round Long with ppi30 filter
334-130-0002	Round Medium with ppi30 filter
334-130-0003	Round Short with ppi30 filter
431-410-0020	Edged Long
431-410-0021	Edged Medium
431-410-0022	Edged Short



# VENTILATION LOUVERS

## AIR GRILLS

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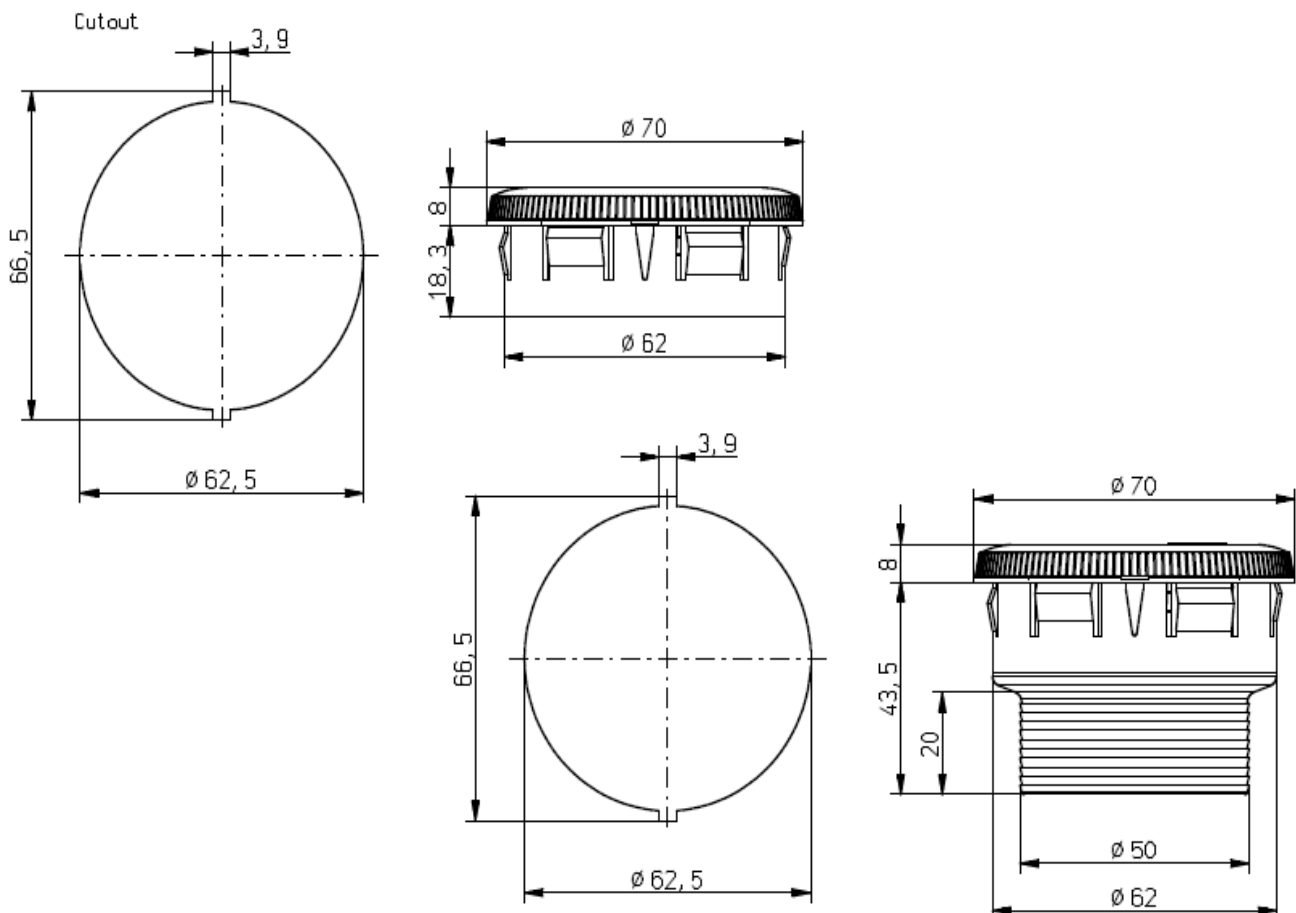


# ROUND LOUVERS

## RD 70

RD 70, named such for its 70 mm. diameter, features flaps, a 3 mm. as well as 5 mm dash-board clip adaptor standard, and an optional 50 mm. hose adaptor — all for easy affixation into most any hole spaces near its size. Flaps that rotate 360 degrees in a clockwise manner of the Louver provide for maximum air concentration in any user-defined, desired direction.

Material and Color		
Polyamide PA6 35% glass fiber reinforced Standard Color: black, similar to RAL 9005		
Technical Information		
912-100-0178		
Variations		
Part Number	Clip Range	Descriptions
334-220-0046	3 or 5 mm	RD 70 Black - Clip
334-220-0045	3 or 5 mm	RD 70 Black with 50 mm Ø Hose Adaptor



# ROUND LOUVERS

RD 70

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*Printed widths (2.75"/ 70 mm diameter) closely mimic actual piece size*



*Pictured from top-to-bottom:*

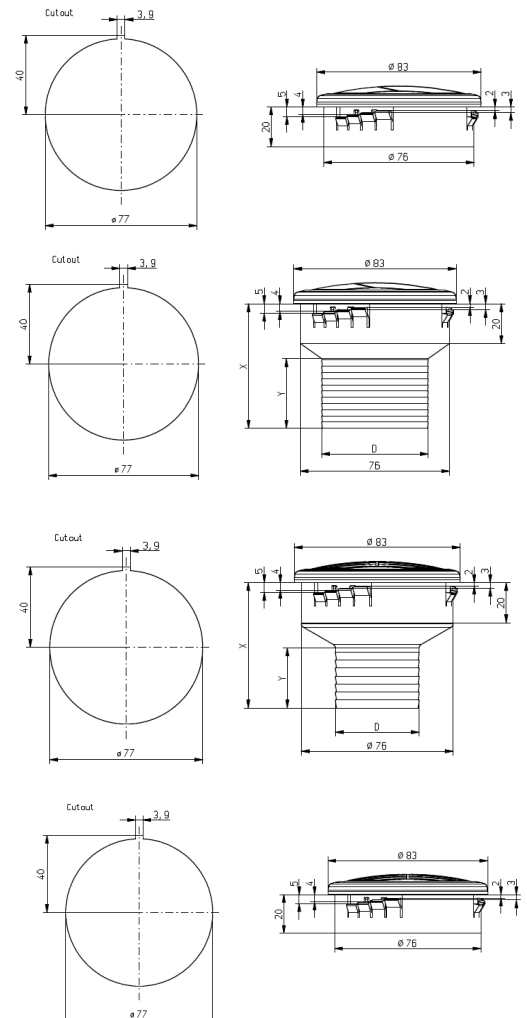
*RD70 without Adaptor; RD70 with 50mm. Ø Hose Adaptor*

# ROUND LOUVERS

## RD 83

Material & Color					
Polyamide PA6 35% glass fiber reinforcement Standard Color: black, similar to RAL 9005					
Technical Information					
912-100-0911 / 912-100-0505					
Variations					
Description	Subcategories	Part Number	D – Adaptor Ø	X (mm)	Y (mm)
Custom, <b>Flaps Version</b> with Clip Adaptor	RD 83 Standard Black no adaptor	334-220-0122	—	—	—
	Silver Ring Accent no adaptor	334-220-0123	—	—	—
	Chrome Ring Accent no adaptor	334-220-0154	—	—	—
Standard Black, <b>Flaps Version</b> with Clip & Hose Adaptor		334-220-0144	42 mm	62.5	30
		334-220-0145	50 mm	49	18
		334-220-0146	55 mm	62.5	35
		334-220-0147	60 mm	62.5	35
		334-220-0148	65 mm	63.5	38
		334-220-0149	70 mm	63	40
		334-220-0150	75 mm	50	28
Standard Black, <b>Grill Version</b> with Clip & Hose Adaptor		334-220-0155	42 mm	62.5	30
		334-220-0156	50 mm	49	18
		334-220-0157	55 mm	62.5	35
		334-220-0158	60 mm	62.5	35
		334-220-0159	65 mm	63.5	38
		334-220-0160	70 mm	63	40
		334-220-0161	75 mm	50	28
Custom, <b>Grill Version</b> with Clip	Standard Black	334-220-0142	—	—	—
	Silver Ring	334-220-0127	—	—	—
	Chrome Ring	334-220-0168	—	—	—

AURORA's RD 83 is built for the industry. This next generation louver comes standard with 2 mm, 3 mm, 4 mm, and 5 mm clip ranges. The RD 83's convex design allows for maximum air flow in any desired direction. Perfect for personal air flow, these round louvers are best used in dash and headliner applications. RD 83 also snaps closed for complete air shut off. Various color options for the Louver's outer ring are also available upon request (see title page for examples).



# ROUND LOUVERS

RD 83

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*Printed widths (3.25" / 83 mm. diameter) closely  
mimic actual piece size*



Standard Black with Flaps & Clip Adaptor



Custom with Silver or Colored-Ring & Clip Adaptor



Custom with Chrome Ring & Clip Adaptor



Standard Black with Fixed Vanes / Grill &  
Hose Adaptor



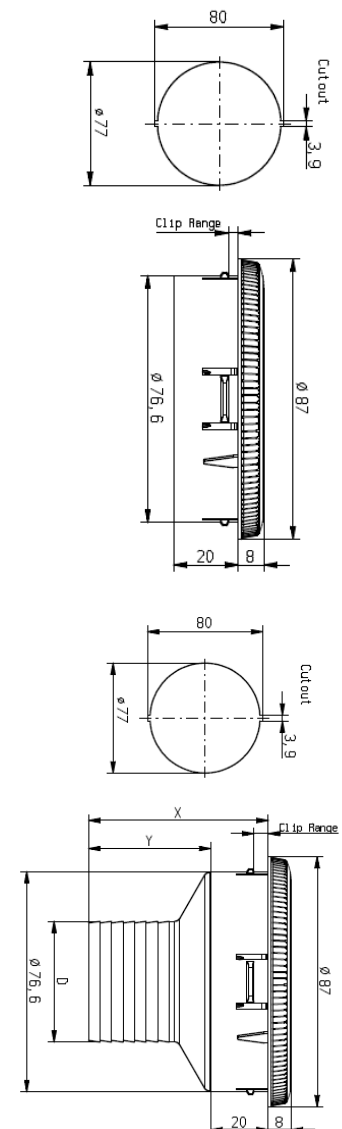
Standard Black with Flaps & Hose Adaptor

# ROUND LOUVERS

## RD 85

Material & Color				
Polyamide PA6 35% glass fiber reinforcement Standard Color: black, similar to RAL 9005				
Technical Information				
912-100-0911 / 912-100-0178				
Variations				
Description	Part Number	D – Adaptor Ø	X (mm)	Y (mm)
3 mm Clip Standard Black Flaps	334-220-0052	None	n/a	n/a
	334-220-0053	42 mm	62.5	30
	334-220-0054	50 mm	49	18
	334-220-0055	55 mm	62.5	35
	334-220-0084	60 mm	62.5	35
	334-220-0056	65 mm	63.5	38
	334-220-0057	70 mm	63	40
	334-220-0058	75 mm	50	28
5 mm Clip Standard Black Flaps	334-220-0013	None	n/a	n/a
	334-220-0024	42 mm	62.5	30
	334-220-0025	50 mm	49	18
	334-220-0026	55 mm	62.5	35
	334-220-0083	60 mm	62.5	35
	334-220-0027	65 mm	63.5	38
	334-220-0028	70 mm	63	40
	334-220-0029	75 mm	50	28
3 mm Clip featuring Grey Flaps	334-220-0108	—	—	—
3 mm. Clip Standard Black Grill	334-220-0060	None	-	-
	334-220-0061	42 mm	62.5	30
	334-220-0062	50 mm	49	18
	334-220-0063	55 mm	62.5	35
	334-220-0064	65 mm	63.5	38
	334-220-0065	70 mm	63	40
	334-220-0066	75 mm	50	28
	5 mm. Clip Standard Black Grill	334-220-0075	None	-
334-220-0076		42 mm	62.5	30
334-220-0077		50 mm	49	18
334-220-0078		55 mm	62.5	35
334-220-0079		65 mm	63.5	38
334-220-0080		70 mm	63	40
334-220-0081		75 mm	50	28

This particular, robust round 85 mm louver is intended for use in multiple locations (headliners, dash panels, cabin floor). With either a 3 mm or 5 mm clip range, *RD 85* can easily snap into most surfaces. The 360° rotation of the louver provides maximum air concentration in most every desired direction. *RD 85*'s rugged design is ideal for heavy machinery, especially whenever durability matters most.





# ROUND LOUVERS

RD 85

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*Printed widths (3.34" / 85 mm. diameter) closely mimic actual piece size*

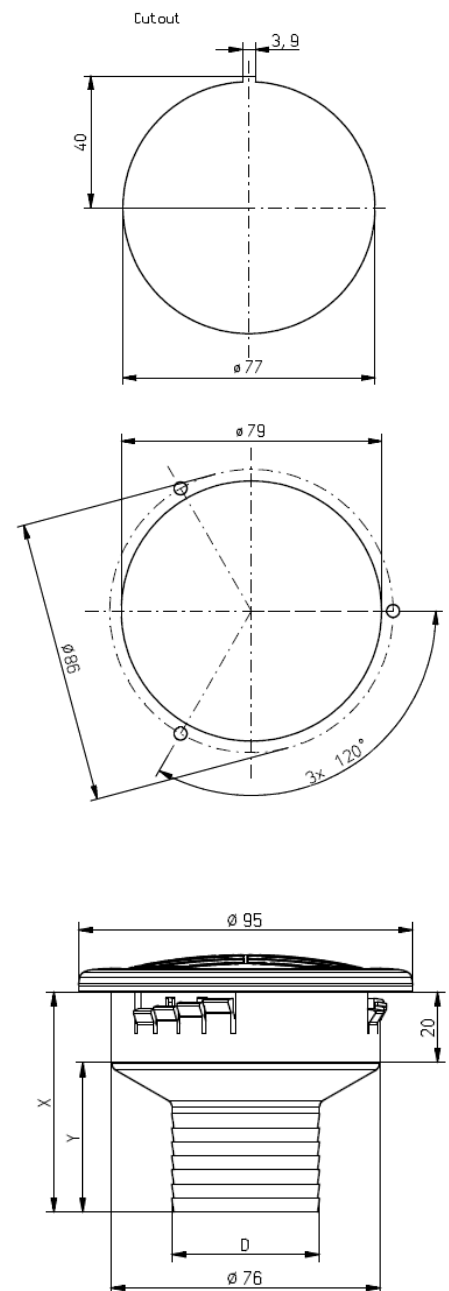


# ROUND LOUVERS

## RD 95

AURORA's round louver *RD 95* is built for the industry. This next generation louver comes standard with 2 mm, 3 mm, 4 mm, and 5 mm clip ranges. The *RD 95*'s convex design allows for maximum air flow in most any desired direction. Awesome for personal airflow, these round louvers are best used in dash and headliner applications. The *RD 95* also snaps closed for complete air shut off.

Material & Color				
Polyamide PA6 35% glass fiber reinforcement Standard Color: black, similar to RAL 9005				
Technical Information				
912-100-1041				
Variations				
Description	Part Number	D – Adaptor Ø	X (mm)	Y (mm)
Flaps Ver- sion Stand- ard Black	334-220-0136	No Adaptor	60.5	20
	334-220-0178	42 mm	62.5	30
	334-220-0179	50 mm	49	18
	334-220-0180	55 mm	62.5	35
	334-220-0181	60 mm	62.5	35
	334-220-0182	65 mm	63.5	38
	334-220-0183	70 mm	63	40
	334-220-0184	75 mm	50	28
Grill Ver- sion Stand- ard Black	334-220-0177	No Adaptor	60.5	20
	334-220-0185	42 mm	62.5	30
	334-220-0186	50 mm	49	18
	334-220-0187	55 mm	62.5	35
	334-220-0188	60 mm	62.5	35
	334-220-0189	65 mm	63.5	38
	334-220-0190	70 mm	63	40
	334-220-0191	75 mm	50	28



# ROUND LOUVERS

RD 95

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*Printed widths (3.74" / 95 mm. diameter) closely mimic actual piece size*

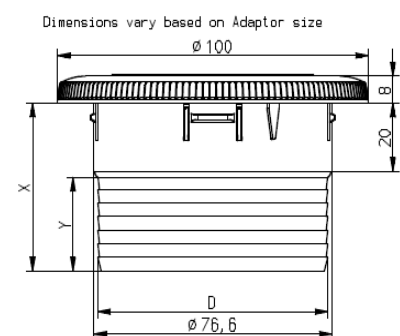
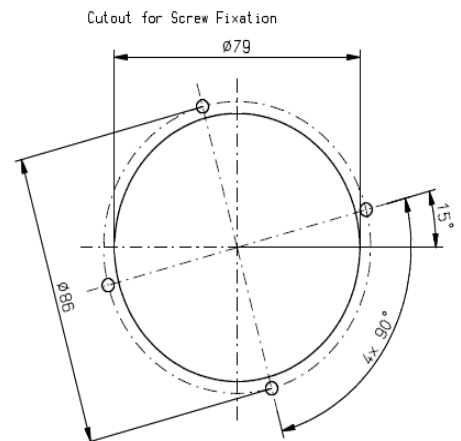
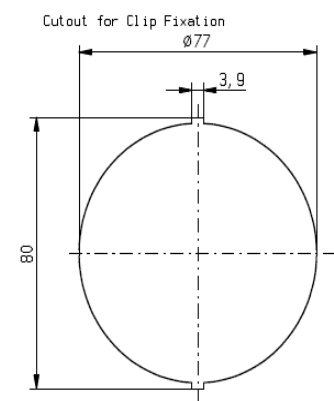


# ROUND LOUVERS

## RD 100

RD 100 is available either with or without adaptors. The robust round 100.0 mm diameter Louver is intended for use in headliners or dash consoles. This Louver is built for durability and massive spot airflow. Its multiple fixation capabilities also make this louver extremely adaptable. With a standard 3 mm clip range, this component easily snaps into most surfaces. For headliners and dash cutouts greater than a 3 mm thickness, the RD 100 can also be fixed into position via screw holes in the mounting base. The 360° rotation of RD 100 louver provides maximum air flow in most any desired direction.

Material & Color				
Polyamide PA6 35% glass fiber reinforcement Standard Color: black, similar to RAL 9005				
Technical Information				
912-100-0699 (Nexus) / 912-100-0178 (Flaps Traditional) / 912-100-0505 (Grill)				
Variations				
Description	Part Number	D – Adaptor Ø	X (mm)	Y (mm)
Flaps Version Traditional Bezel	334-220-0016	No Adaptor	n/a	n/a
	334-220-0017	41.5 mm	62.5	30
	334-220-0018	50 mm	49	18
	334-220-0019	55 mm	62.5	35
	334-220-0082	60 mm	62.5	35
	334-220-0020	65 mm	62.5	38
	334-220-0021	70 mm	63	40
	334-220-0022	75 mm	50	28
Flaps Version Nexus with 0.5-9 mm. clip range	334-220-0102	No Adaptor	n/a	n/a
Grill Version Traditional Bezel	334-220-0067	No Adaptor	n/a	n/a
	334-220-0069	41.5 mm	62.5	30
	334-220-0070	50 mm	50	18
	334-220-0071	55 mm	62.5	35
	334-220-0086	60 mm	62.5	35
	334-220-0072	65 mm	63.5	38
	334-220-0073	70 mm	63	40
	334-220-0074	75 mm	50	28



# ROUND LOUVERS

RD 100

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*Printed widths closely mimic actual piece size.*

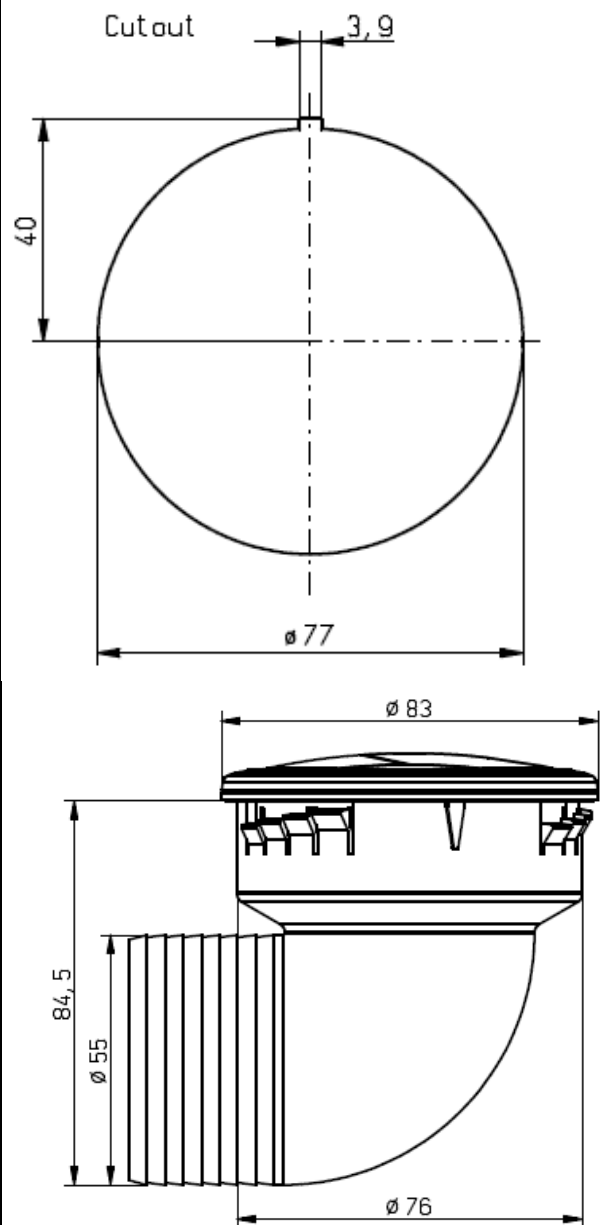


# ROUND LOUVERS

## SPECIALTY WITH 90° ADAPTERS

This Louver features a specialty, 90 degree hose adapter to accommodate attachment to spaces, which are otherwise not reachable in any other manner. Representing yet another significant sign of the AURORA Group's flexibility factored into the design of its standard component Solutions.

Material and Color	
Polyamide PA6 35% glass fiber reinforced Standard Color: black, similar to RAL 9005	
Technical Information	
912-100-0911 + 912-100-0505	
Variations	
Part Number	Description
334-220-0162	RD 100.55 - 3 mm clip Grill Version with 90° adaptor
334-220-0163	RD 83.55 – 2/3/4/5 mm Clip version with 90° adaptor



# ROUND LOUVERS

## SPECIALTY WITH 90° ADAPTERS

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*Printed dimensions of photographs no longer mimic actual size.*



# ROUND LOUVERS

## RD 120

As the largest Round Louver in AURORA's variety, this Round 120.0 mm diameter Louver is intended for use in multiple locations (headliners, dash panels, foot spaces). *RD120* has a standard 3 mm Clip Range. Coupled with screw fastening capabilities, this component can easily be mounted into any surface. The 360 degree rotation of the louver provides maximum air concentration in most every desired direction. This gigantic louver is specially designed for near zero breakages across even the roughest, most rugged environments.

### Material and Color

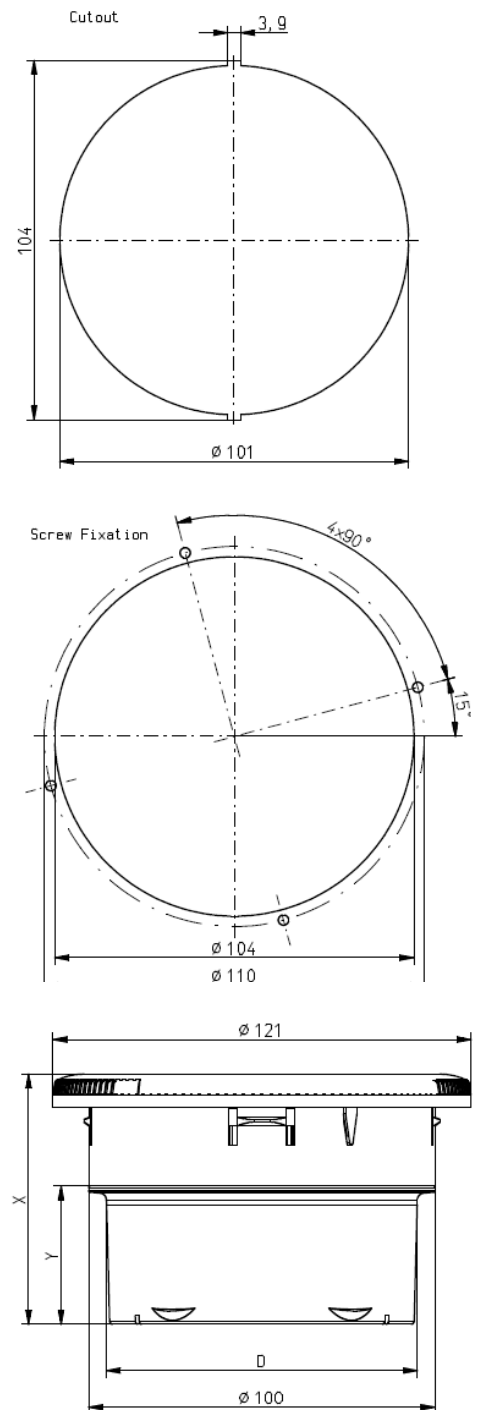
Polyamide PA6 35% glass fiber reinforced  
Standard Color: black, similar to RAL 9005

### Technical Information

912-100-0178

### Variations

Part Number	D Adaptor Ø (mm)	X (mm)	Y (mm)
334-220-0030	None	29	n/a
334-220-0090	90	72	40





# ROUND LOUVERS

RD 120

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*Printed dimensions (4.72" / 120 mm diameter) closely mimic actual piece size*



# RECTANGULAR LOUVERS

## THIN LOUVER

AURORA's Thin Louver incorporates a slim design for installation in spaces where room is scarce. The roll function allows the operator adjust the direction of airflow to the desired destination. The flap control also adds to the adjustability. When closed, the louver is completely shut.

Thin Louvers have excellent flow characteristics in a compact size and are ideal in the support posts or even to utilize as a defrost louver.

### Material and Color

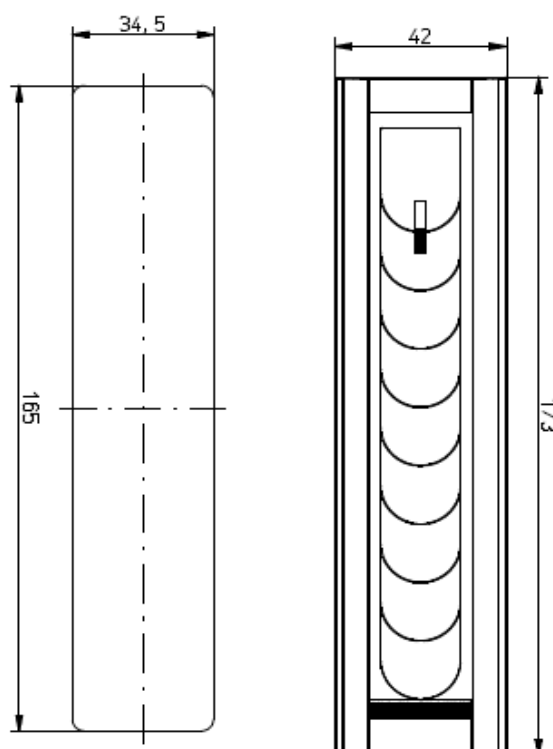
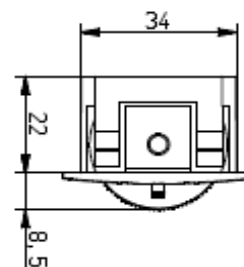
Polyamide PA6 35% glass reinforced  
Standard Color: black, similar to RAL 9005

### Technical Information

912-100-0469

### Variations

Part Number	Description
334-315-0002	Thin Louver Black



# RECTANGULAR LOUVERS

## THIN LOUVER

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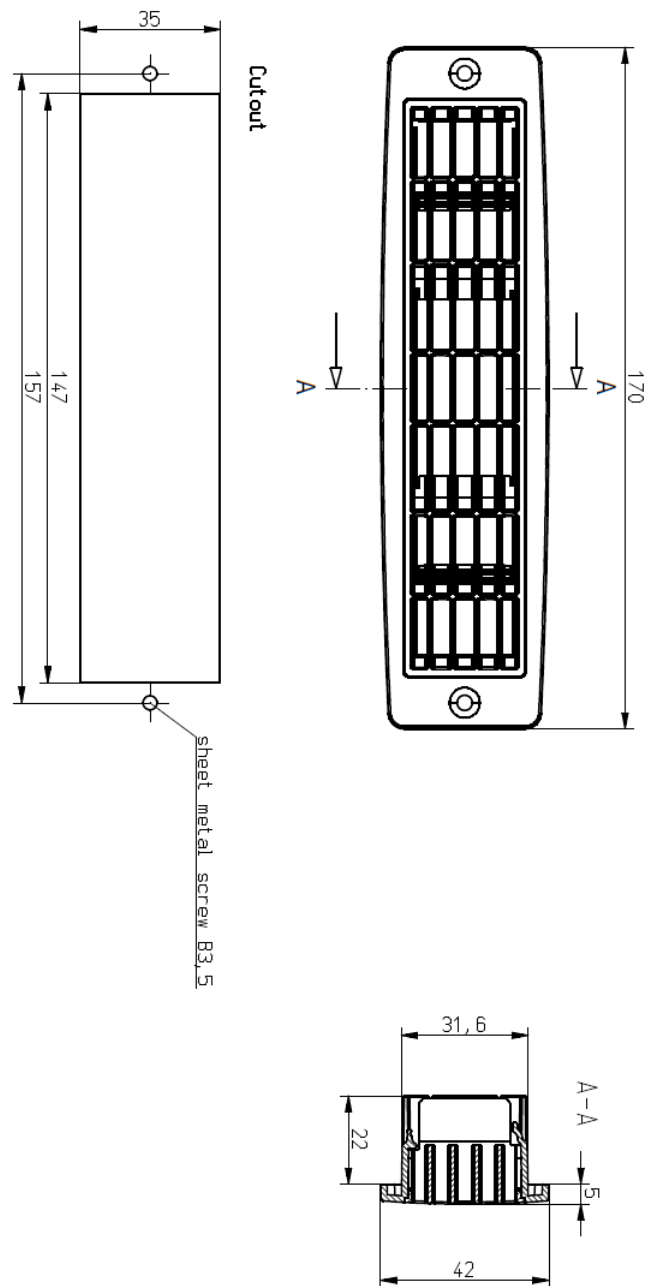


# RECTANGULAR LOUVERS

## VECTOR NOZZLE

AURORA's Vector Nozzle is the ultimate defrost or under the seat louver. With fixed vanes to optimize airflow over the desired surface area, the Vector was designed for defrosting and defogging glass. This component also doubles as a great below the seat option. With a faceplate, this grill prevents any foreign objects from entering the ducting while the spindle allows the operator the option for complete air shut-off in order to allocate maximum air flow to additional areas of the operating environment.

Material and Color	
Polyamide PA6 35% glass reinforced Standard Color: black, similar to RAL 9005	
Technical Information	
912-100-0950	
Variations	
Part Number	Description
334-150-0014	Screw Version Flaps
334-150-0017	Clip Version Flaps
334-150-0016	Screw Version Fix Grill
334-150-0018	Clip Version Fix Grill



# RECTANGULAR LOUVERS

## VECTOR NOZZLE

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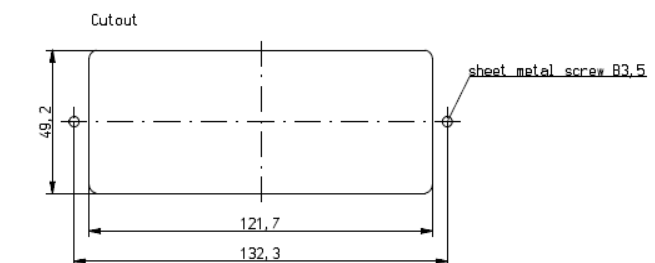
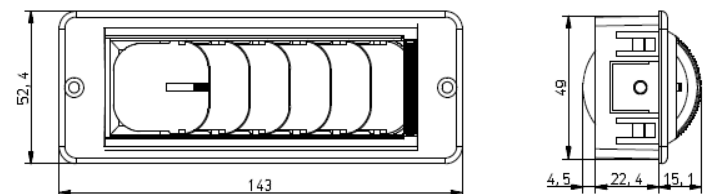
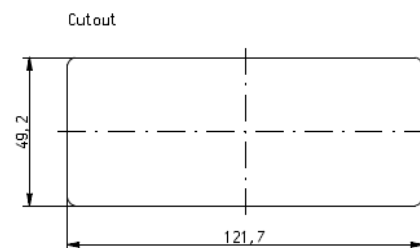
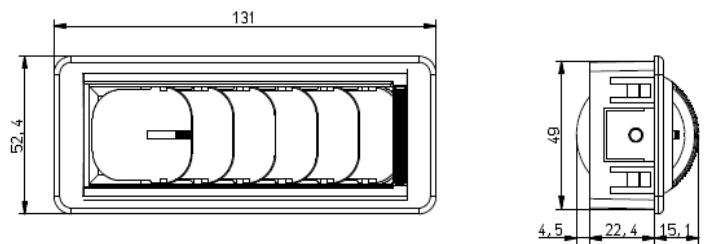


# RECTANGULAR LOUVERS

## SMALL LOUVER I

AURORA's Small Louver has a narrow bezel with vanes that open, close, and roll, providing excellent air distribution. The rugged design allows these louvers to be placed in all locations of the cab. Both the screw and clip versions provide easy mounting options for versatile usage. The Small Louver is an excellent option for headliners, dash panels, and A or B pillars.

Material and Color	
Polyamide PA6 35% glass fiber reinforced Standard Color: black, similar to RAL 9005	
Technical Information	
912-100-0066 / 912-100-0176 / 912-100-0234	
Variations	
Part Number	Attachment
334-314-0003	Screw
334-314-0004	Clip
334-314-0023	Screw type, increased frame width 59 mm



# RECTANGULAR LOUVERS

## SMALL LOUVER I

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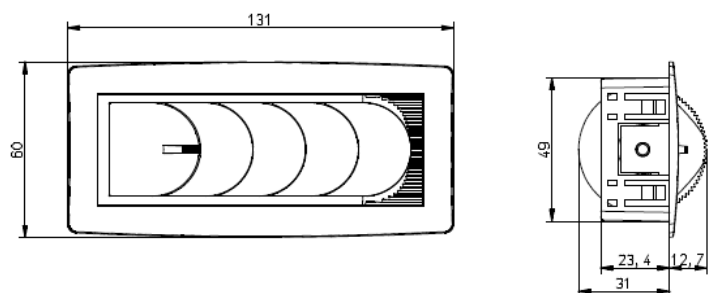


# RECTANGULAR LOUVERS

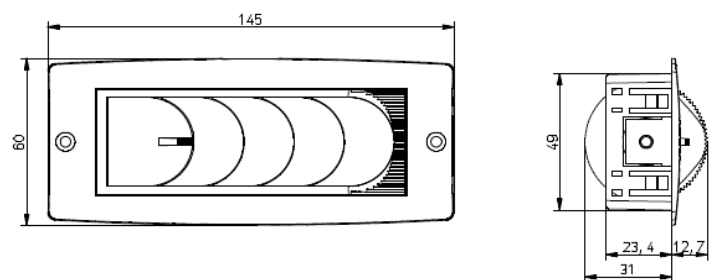
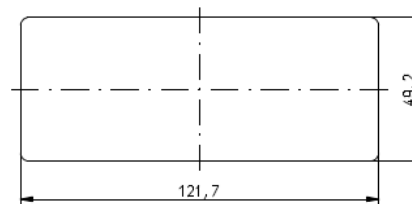
## SMALL LOUVER II

AURORA's newest edition to the Small Louver family. This edition has a new facelift with arched bezels for a modern looking design. Coupled with the same durability and features as the rest of the family, these louvers are a universal rectangular solution to all locations in the cab. Both the screw and clip versions provide easy mounting options for versatile usage. The Small Louver II is an excellent option for headliners, dash panels, and A or B pillars.

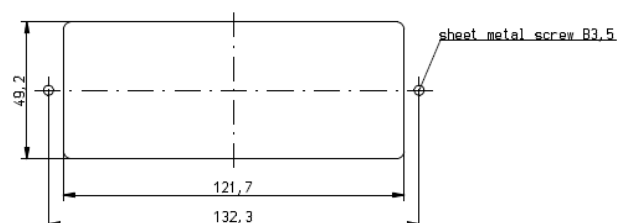
Material and Color	
Polyamide PA6 35% glass reinforced Standard Color: black, similar to RAL 9005	
Technical Information	
912-100-0912	
Variations	
Part Number	Attachment
334-314-0020	Clip
334-314-0021	Screw



Cutout



Cutout

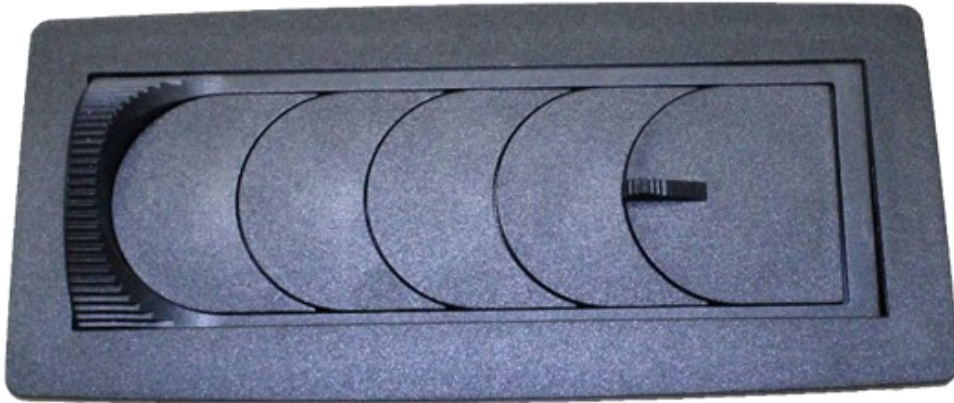




# RECTANGULAR LOUVERS

## SMALL LOUVER II

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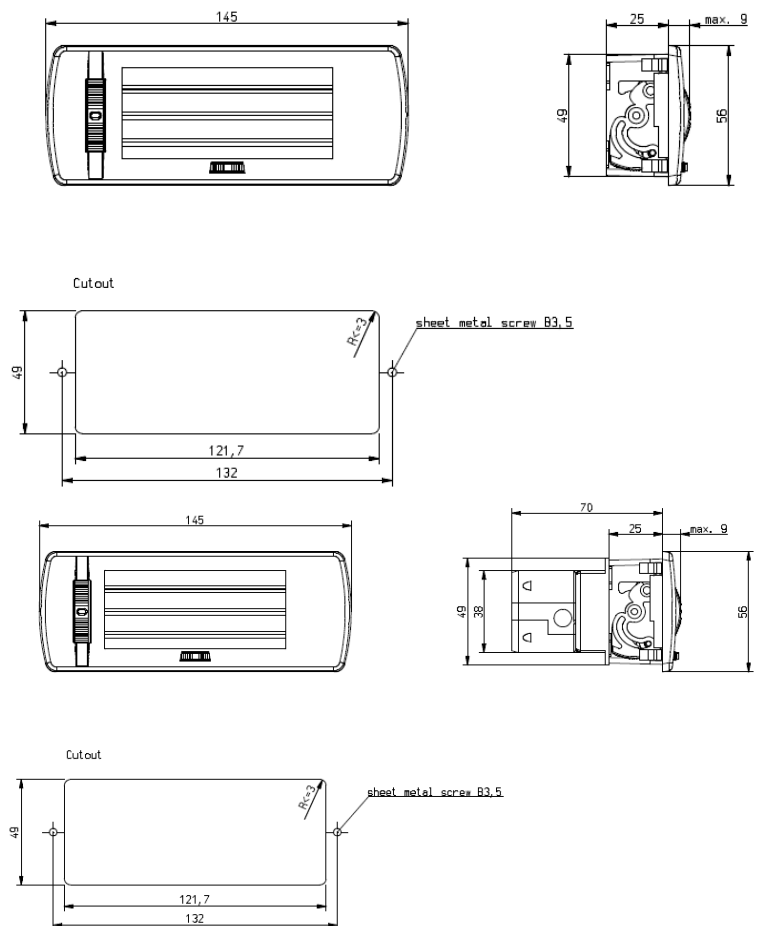


# RECTANGULAR LOUVERS

## AERO LOUVER

AURORA's Aero Louver serves multiple functions for cabin air distribution. This louver caters to cab builders and designers who do not wish to have visible screws in their vehicles. Once the base of the louver is installed, a clip-on face plate hides the screws from view inside the cabin. The Aero louver also has dual wheels for adjusting airflow direction to ensure operator comfort. This louver is a great option for headliner and console applications, as well as under-seat personal air distribution.

Material and Color	
Polyamide PA6 35% glass fiber reinforced Standard Color: black, similar to RAL 9005	
Technical Information	
912-100-0404	
Variations	
Part Number	Attachment
334-314-0050	Screw
334-314-0052	Screw with Hose Adaptor



# RECTANGULAR LOUVERS

## AERO LOUVER

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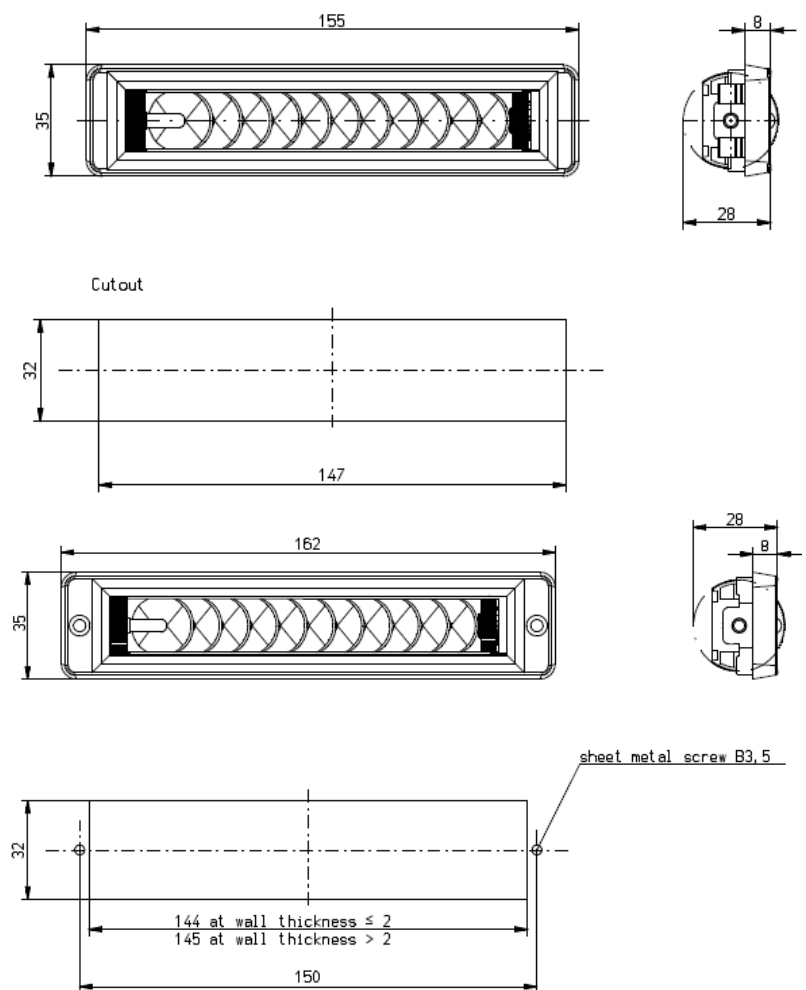
# RECTANGULAR LOUVERS

## STANDARD ROLL NOZZLE

AURORA's Roll Nozzle offers a slim profile allowing this Louver to be located near the wind shield for defrost applications. The inner roll rotates enabling even more flexible air distribution. The roll can also be closed to block airflow through the louver.

AURORA's Roll Nozzle has a slim profile allowing it to be located near the wind shield for defrost applications. The inner roll rotates allowing flexible air distribution. The roll can also be rotated to close off of the air through the louver. This particular roll nozzle has a wider frame to cover up unclean cut outs and frayed edges in the dash.

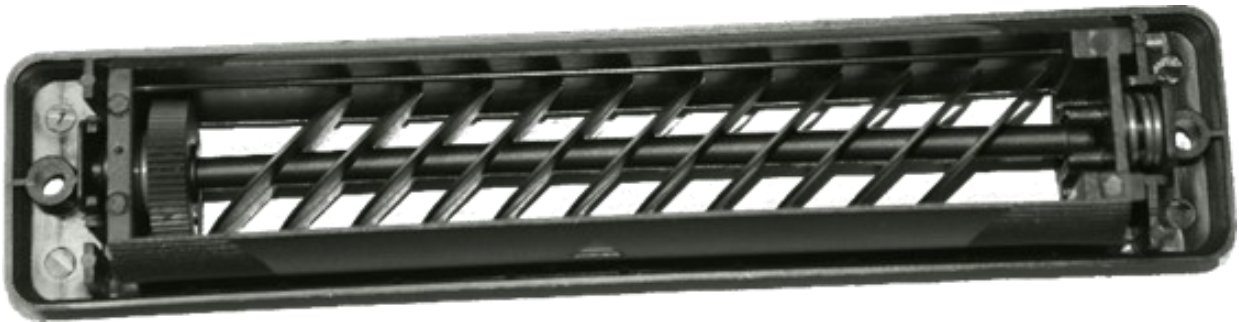
Material and Color	
Polyamide PA6 35% glass fiber reinforced Standard Color: black, similar to RAL 9005	
Technical Information	
912-100-0177 Standard / 912-100-0142 Special Frame	
Variations	
Part Number	Attachment
334-341-0001	Clip
334-341-0002	Screw
334-341-0007	Screw; Special Frame



# RECTANGULAR LOUVERS

## STANDARD ROLL NOZZLE

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# RECTANGULAR LOUVERS

## DOUBLE ROLL NOZZLE

AURORA's Roll Nozzle has a slim profile allowing it to be located near the windshield for defrost applications. The inner roll rotates allowing flexible air distribution. The roll can also be rotated to close of the air through the louver. The Double Roll Nozzle is an excellent option for dash panels.

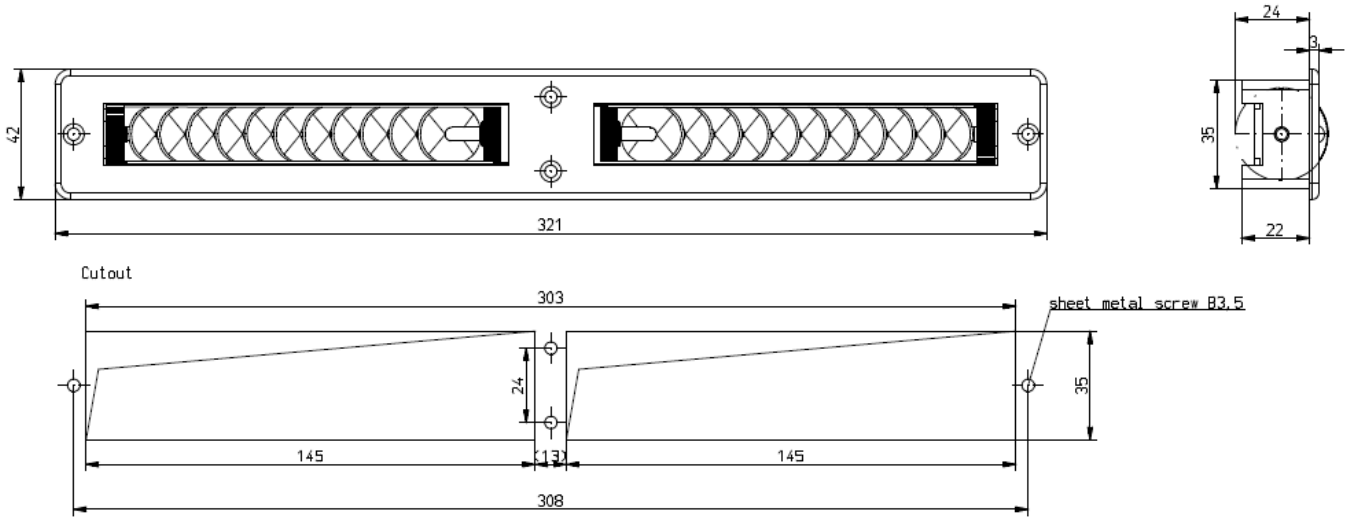
Material and Color	
Polyamide PA6 35% glass fiber reinforced Standard Color: black, similar to RAL 9005	
Technical Information	
912-100-0142	
Variations	
Part Number	Attachment
334-341-0008	Screw – Double Roll



# RECTANGULAR LOUVERS

## DOUBLE ROLL NOZZLE

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# DEFROST LOUVERS

## QUARTER CIRCLE VENT

AURORA's Quarter Circle Vent has a fixed vane profile that evenly distributes airflow, making it ideal for defrost applications. This louver is most suitable for dashboard and window edge applications where defrost functionality is key.

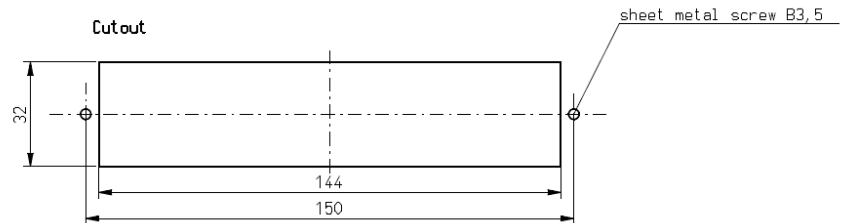
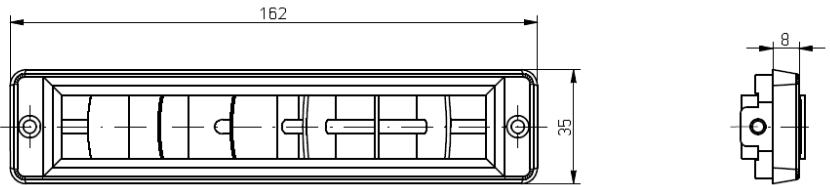
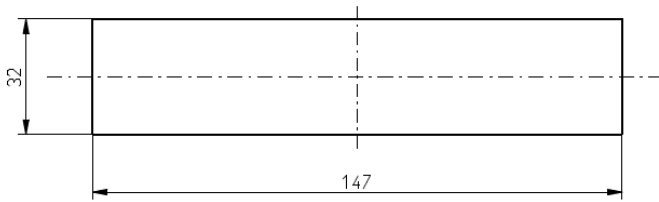
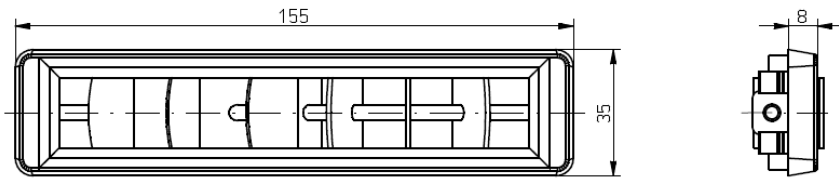
Material and Color	
Polyamide PA6 35% glass fiber reinforced Standard Color: black, similar to RAL 9005	
Technical Information	
912-100-0185	
Variations	
Part Number	Attachment
334-150-0001	Clip
334-150-0002	Screw





# DEFROST LOUVERS

## QUARTER CIRCLE VENT



# DEFROST LOUVERS

## PD NOZZLE

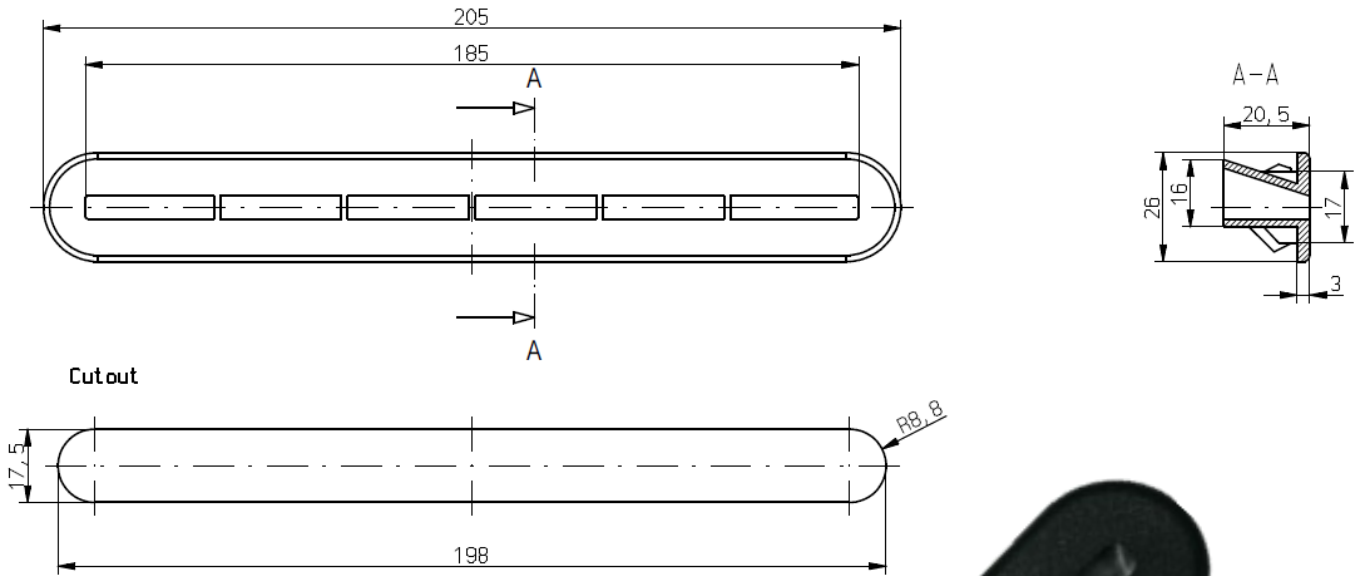
The *PD Nozzle* is a defrost louver designed to be installed nearest the windshield. Resulting from a sleek profile design, *PD* makes an excellent addition to include in any dash board or headliner. Integrated guide vanes distribute optimal airflow along the surface. Various sizes are available upon request.

Material and Color	
ABS Plastic Standard Color: black, similar to RAL 9005	
Technical Information	
912-100-0323	
Variations	
Part Number	Description
334-150-0003	PD Long Louver



# DEFROST LOUVERS

## PD NOZZLE



# DEFROST LOUVERS

## PD2 LOUVER LONG

The *PD Nozzle* is a defrost louver designed to be installed close to the windshield. As a result of its slim profile, it is an excellent product to be incorporated into a dash board or headliner. Integrated guide vanes distribute optimal airflow along the surface. Various sizes are available upon request.

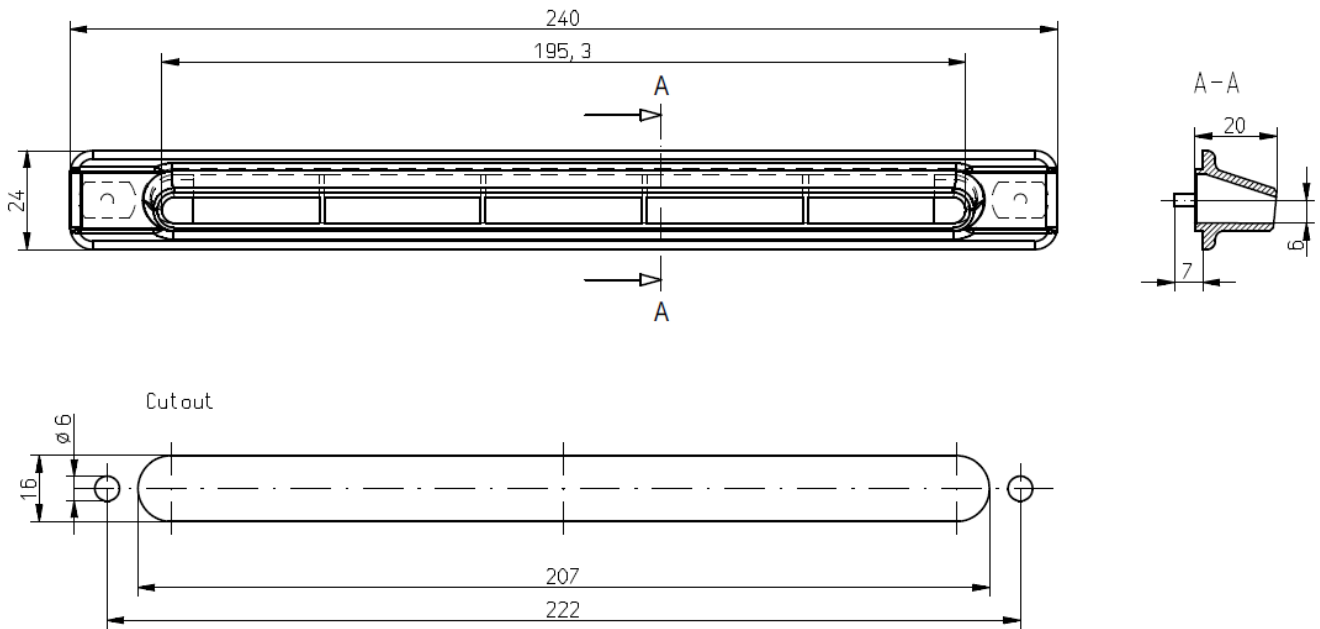
Material and Color	
ABS Plastic Standard Color: black, similar to RAL 9005	
Technical Information	
912-100-0323	
Variations	
Part Number	Description
334-150-0005	PD2 Long Louver



# DEFROST LOUVERS

## PD2 LOUVER LONG

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# DEFROST LOUVERS

## PD SHORT

The *PD Short* is a defrost louver designed to be installed close to the windshield. As a result of its slim profile, it is an excellent product to be incorporated into a dash board or headliner. Integrated guide vanes distribute optimal airflow along the surface. Various sizes are available upon request.

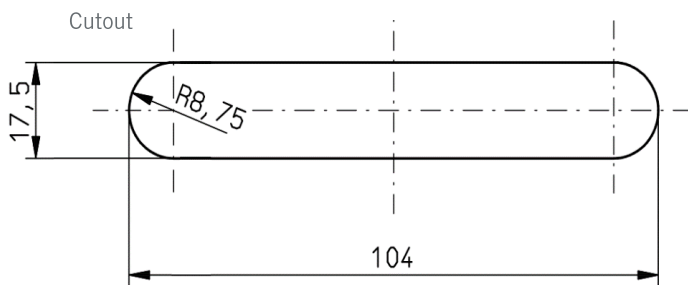
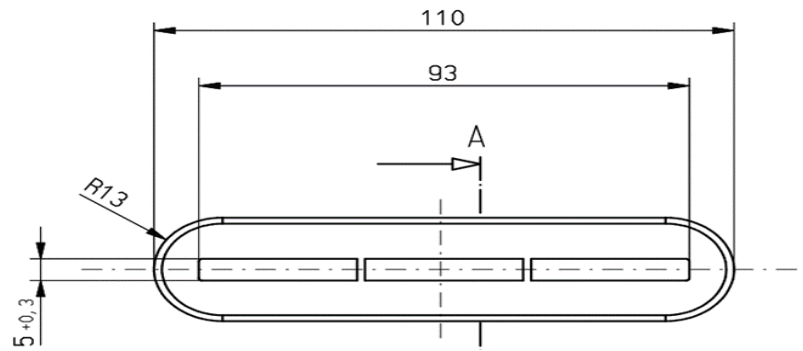
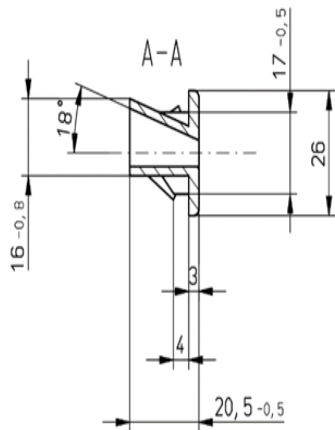
Material and Color	
ABS Plastic Standard Color: black, similar to RAL 9005	
Technical Information	
912-100-0323	
Variations	
Part Number	Description
334-150-0004	PD Short Louver



# DEFROST LOUVERS

## PD SHORT

*Printed dimensions closely mimic actual piece size.*



# DEFROST LOUVERS

## DOMINO

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The *Domino* Louver's compact dimensions allow for ideal defrost applications. Their sleek design allows these louvers to adapt to the curve and width of any surface with minimal space requirements.

*Domino* louvers are optimal for bus and coach applications, as they can be stacked and chained in a tongue and groove system in order to distribute airflow over a larger surface area. *Domino* is available in both clip and screw versions with clip ranges between 2 mm and 5 mm.

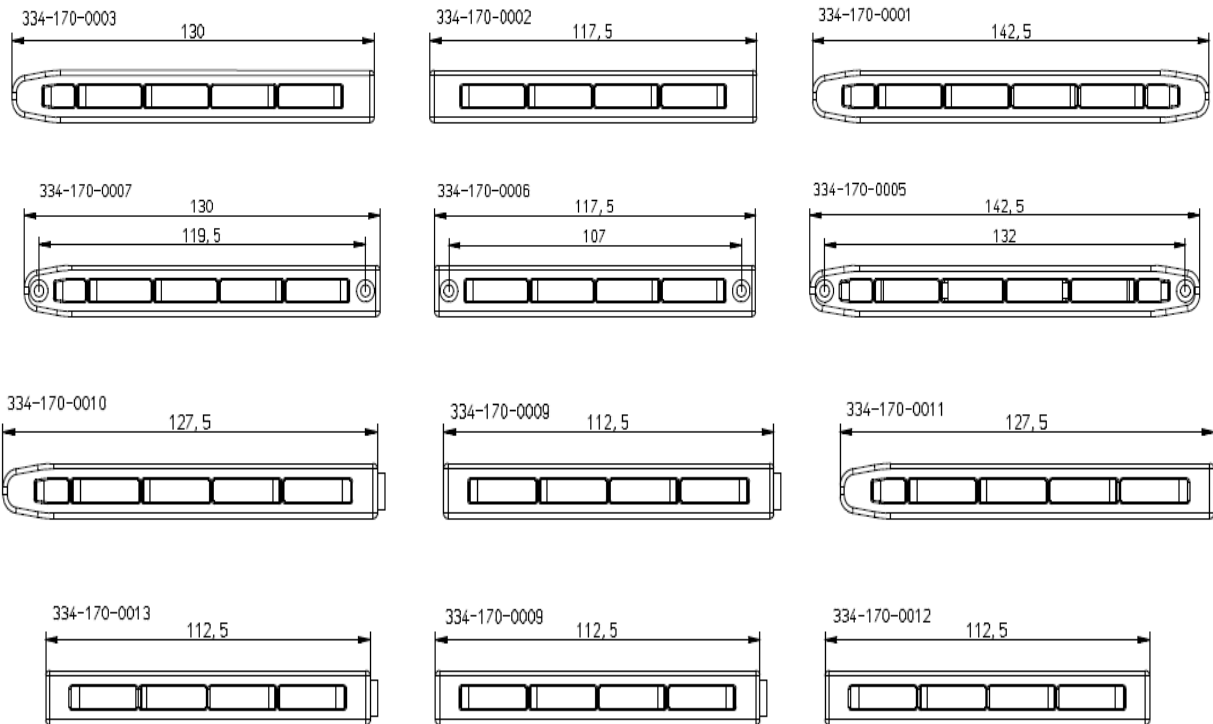
Material and Color
Polyamide PA6 15% glass fiber reinforced Standard Color: black, similar to RAL 9005
Technical Information
912-100-0186
Variations
Please reference Drawings on page 129





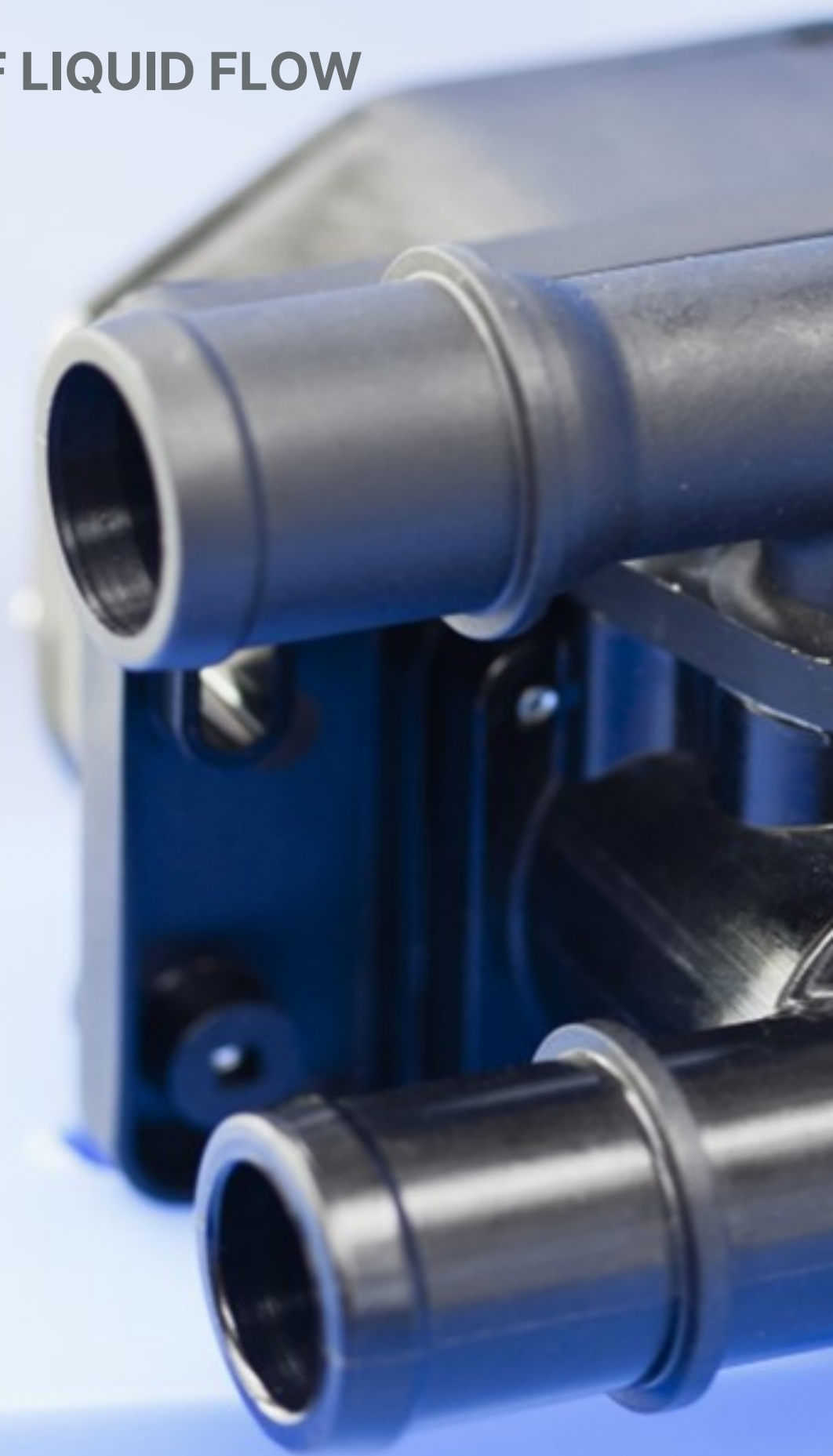
# DEFROST LOUVERS

## DOMINO



# **WATER VALVES**

**MASTERS OF LIQUID FLOW**



# AUROLA

/ Pioneering Your Comfort



# WATER VALVES

## MECHANICAL BOWDEN CABLE

Mechanical Water Valves control the heating performance via easy adjustable Bowden Cables. Standard connection diameters are  $\varnothing$  16 mm / 18 mm / 22 mm / 28 mm. Varied connecting diameters are also available upon request. This water valve has mostly linear operating characteristics, and operates efficiently with a minimum pressure loss.

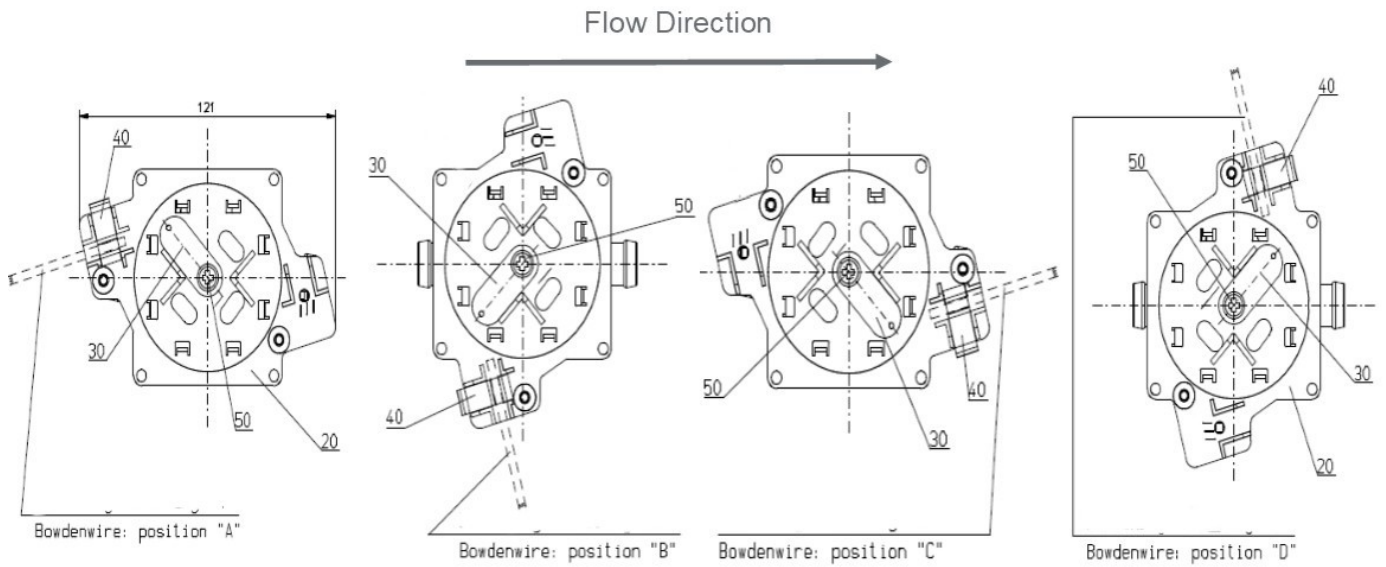
The valve housing is comprised of Polyamide 66 Material, providing AURORA's line of water valves with lightweight and non-corrodible qualities.

Specifications	
<p><b>Flow medium:</b> water with antifreeze (mixture ratio max. 1:1)  <b>Volumetric flow:</b> 100-1.200 l/h  <b>Operating temperature range:</b> -40°C to +100°C fluid temp.  <b>Environmental temperature range:</b> -40°C to +85°C  <b>Nominal pressure of liquid:</b>            p = 1 bar relative Test pressure of the water valve: p1 = 2.5 bar absolute</p>	
Technical Information	
912-100-0007	
Variations	
Part Number	Description
381-000-0141	$\varnothing$ 16/16 with lever Bowden Wire Pos. A
381-000-0142	$\varnothing$ 16/16 with lever Bowden Wire Pos. B
381-000-0143	$\varnothing$ 16/16 with lever Bowden Wire Pos. C
381-000-0144	$\varnothing$ 16/16 with lever Bowden Wire Pos. D
381-000-0145	$\varnothing$ 22/22 with lever Bowden Wire Pos. A
381-000-0146	$\varnothing$ 22/22 with lever Bowden Wire Pos. B
381-000-0147	$\varnothing$ 22/22 with lever Bowden Wire Pos. C
381-000-0148	$\varnothing$ 22/22 with lever Bowden Wire Pos. D
381-000-0149	$\varnothing$ 28/28 with lever Bowden Wire Pos. A
381-000-0150	$\varnothing$ 28/28 with lever Bowden Wire Pos. B
381-000-0151	$\varnothing$ 28/28 with lever Bowden Wire Pos. C
381-000-0158	$\varnothing$ 18/18 with lever Bowden Wire Pos. C



# WATER VALVES

## MECHANICAL BOWDEN CABLE



# WATER VALVES

## 5 POLE WITH SERVO MOTOR

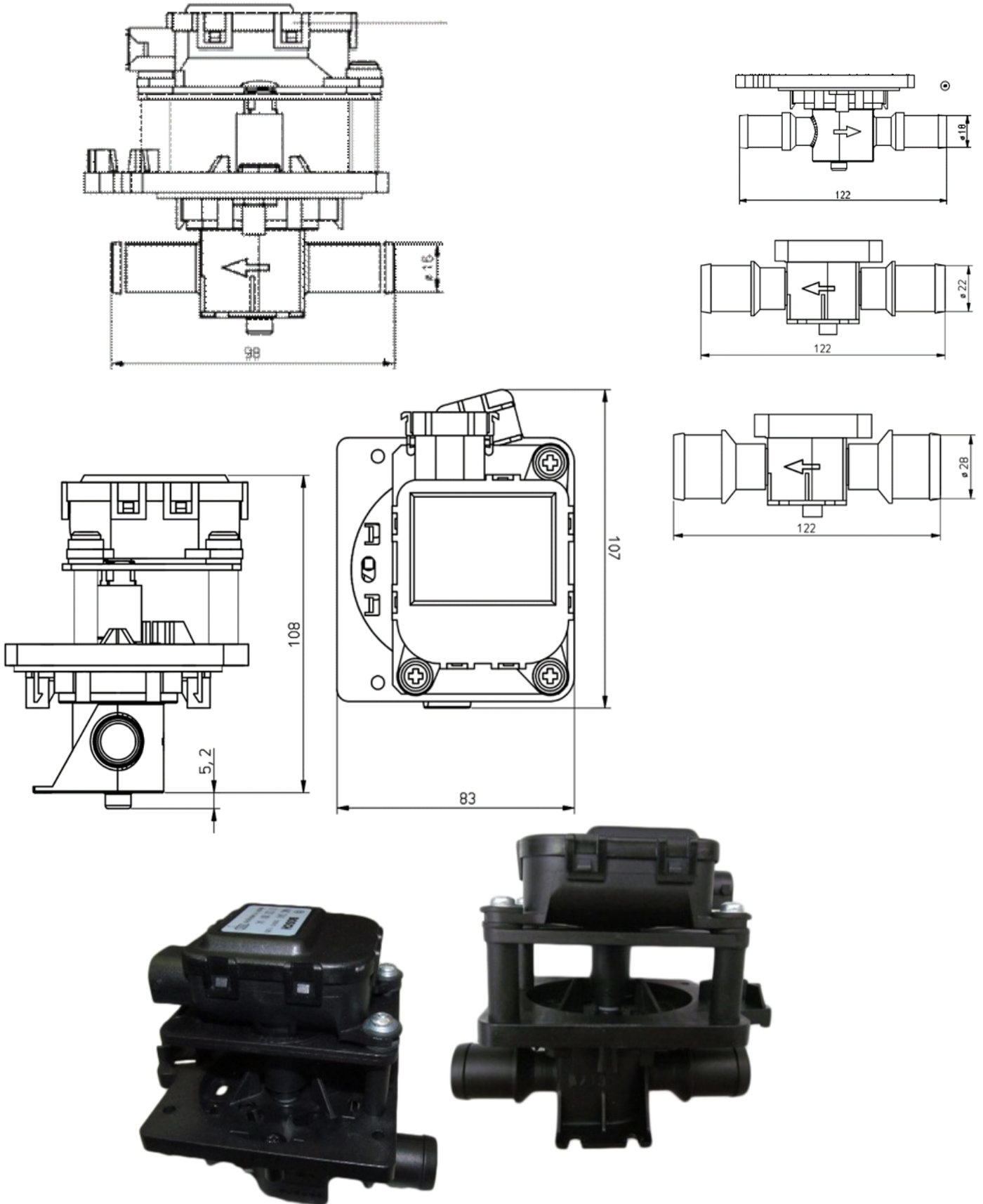
Electrical Water Valve with Servo Motor 5 Pole with varied diameters. Standard connection diameters are 16 mm / 18 mm / 22 mm / 28 mm. Control of this valve is steered by a 5-pole Servo Motor, providing easy adjustment of the heating performance. Varied connecting diameters are also available upon request. Servo Motors available in both 12 and 24 Volts. This water valve has mostly linear operating characteristics, and operates efficiently with minimum pressure loss. The valve housing is comprised of Polyamide 66 Material, giving AURORA's line of water valves with lightweight and non-corrodible qualities.

Specifications		
<b>Flow medium:</b> water with antifreeze with mix ratio max. 1:1 <b>Volumetric flow:</b> 100-1.200 l/h <b>Operating temperature range:</b> -40°C to +100°C fluid temperature <b>Environmental temperature range:</b> -40°C to +85°C <b>Nominal pressure of the fluid:</b> p = 1 bar relative <b>Test pressure of the water valve p1 =</b> 2.5 bar absolute		
Technical Information		
912-100-0007/421		
Variations		
Part Number	Diameter Ø	Voltage (V)
381-000-0312	16/16	24 V
381-000-0350	16/16	12 V
381-000-0318	22/22	24 V
381-000-0352	22/22	12 V
381-000-0319	28/28	24 V
381-000-0390	18/18	12 V
381-000-0339	18/18	24 V



# WATER VALVES

## 5 POLE WITH SERVO MOTOR

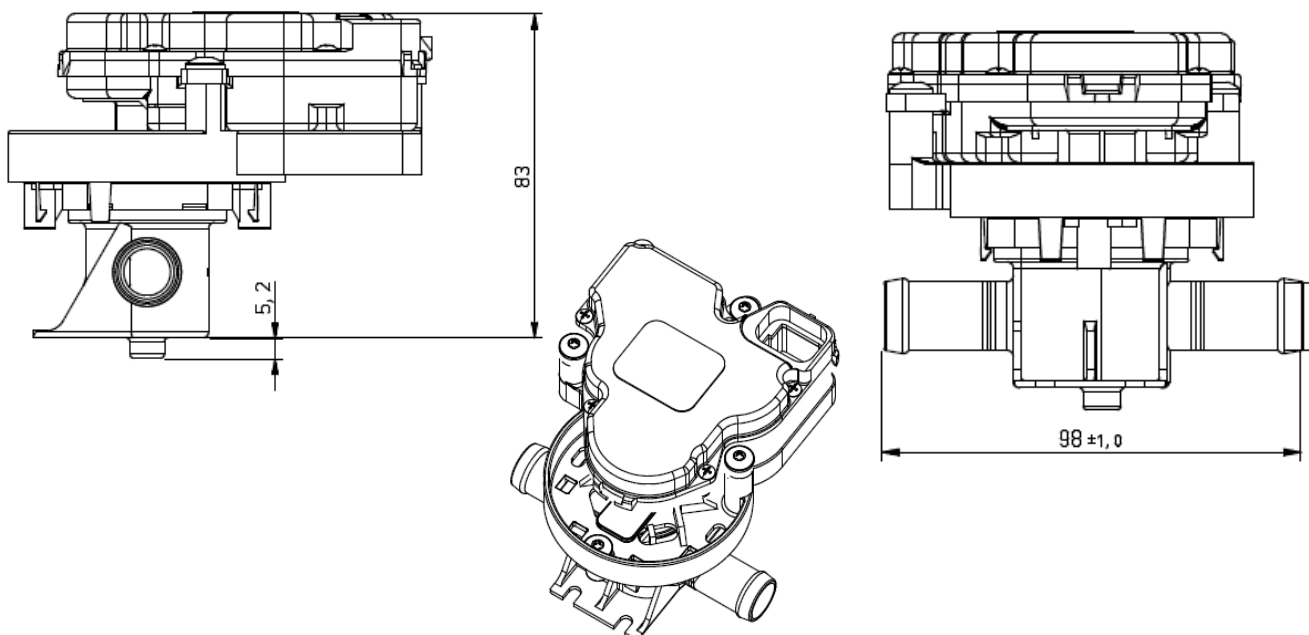


# WATER VALVES

## 2-WAYS WITH 3 POLES SERVO MOTOR

Electrical Water Valve with Servo Motor 3 Pole with varied diameters. Control of this valve is direct by a control voltage to the Servo Motor, providing easy adjustment of the heating performance. Varied connecting diameters are also available upon request. This water valve has mostly linear operating characteristics, and operates efficiently with minimum pressure loss. The valve housing is comprised of Polyamide 66 Material.

Specifications		
<b>Flow medium:</b> water with antifreeze with mix ratio max. 1:1		
<b>Volumetric flow:</b> 100-1.200 l/h		
<b>Operating temperature range:</b> -40°C to +100°C fluid temperature		
<b>Environmental temperature range:</b> -40°C to +85°C		
<b>Nominal pressure of the fluid:</b> p = 1 bar relative		
<b>Test pressure of the water valve p1 = 2.5 bar absolute</b>		
Technical Information		
912-100-0007/0957		
Variations		
Part Number	Diameter Ø	Voltage (V)
381-000-0402	22/22	24 V
381-000-0451	16/16	12 V



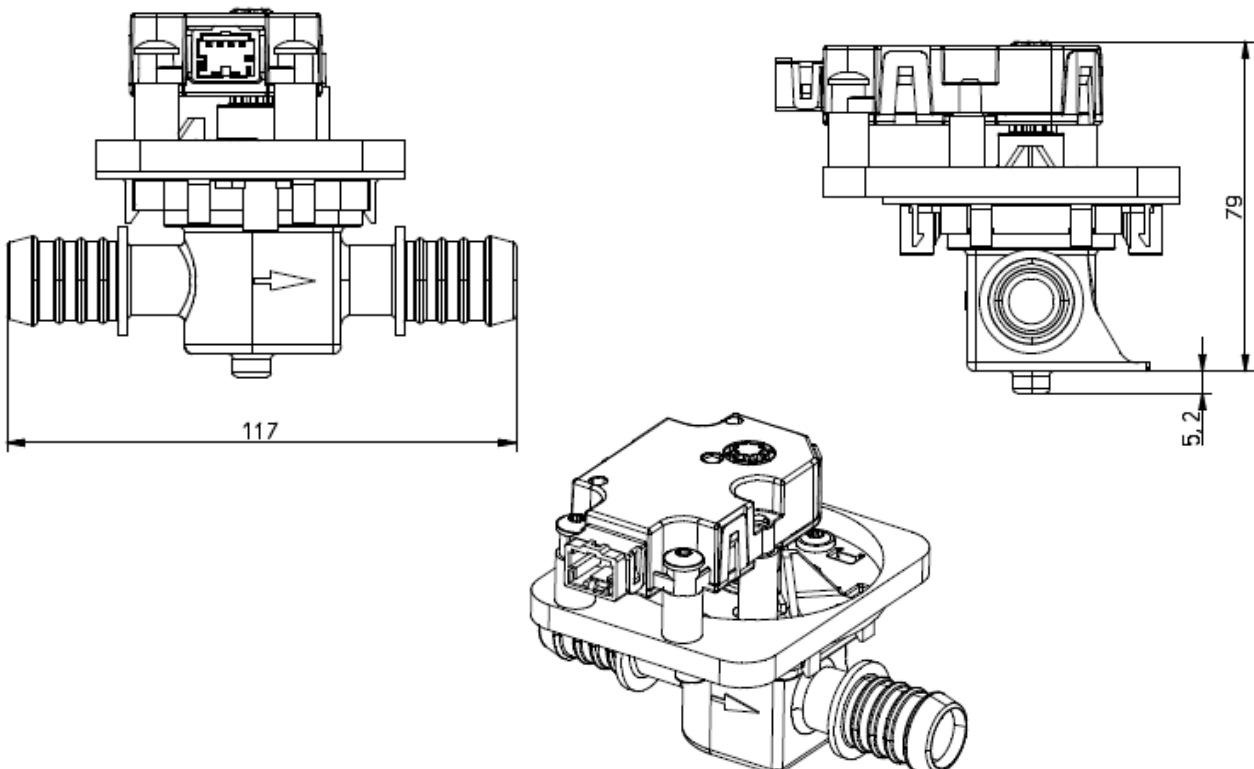


# WATER VALVES

## SERVO MOTOR LINBUS


Electrical Water Valve with Servo Motor LINBUS controlled. Control of this valve is by LINBUS signal, providing easy adjustment of the heating performance. Varied connecting diameters are also available upon request. This water valve has mostly linear operating characteristics, and operates efficiently with minimum pressure loss. The valve housing is comprised of Polyamide 66 Material.

Specifications		
<b>Flow medium:</b> water with antifreeze with mix ratio max. 1:1		
<b>Volumetric flow:</b> 100-1.200 l/h		
<b>Operating temperature range:</b> -40°C to +100°C fluid temperature		
<b>Environmental temperature range:</b> -40°C to +85°C		
<b>Nominal pressure of the fluid:</b> p = 1 bar relative		
<b>Test pressure of the water valve p1 = 2.5 bar absolute</b>		
Technical Information		
912-100-0007/0978		
Variations		
Part Number	Diameter Ø	Voltage (V)
381-000-0042	18/18	12 V



Thank you. | Dankeschön. | Dank je. | Merci. | Teşekkür ederim. | 谢谢. | Gracias. | Obrigado.

2	COMPANY BACKGROUND
14	ELECTROMOBILITY SOLUTIONS
24	ROOFTOP MOUNTABLE UNITS
34	STANDARD HEATERS
46	CONVECTORS
50	BLOWERS
64	CONTROL PANELS
72	LOUVERS
114	WATER VALVES



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TRAILBLAZING  
SOLUTIONS!**

**AURORA**   
/ Pioneering Your Comfort