

PRODUCT CATALOG2024

- ELEKTROLIND -



E-T-A YLIVIRTASUOJAT



Vuonna 1948 perustettu Saksalainen yritys.

E-T-A on johtava ylivirtasuojien valmistaja ja kehittäjä maailmassa. E-T-A:n laajassa tuotevalikoimassa on ylivirtasuojaratkaisuja moniin käyttökohteisiin, kuten ajoneuvo-, prosessi- ja automaatioteollisuudelle, sairaalalaitteisiin, pienkoneisiin, heavy-duty sovelluksiin jne.

Uusimpana tuotehaarana E-T-A on kehittänyt todella laajan valikoiman elektronisia ylivirtasuojia, jotka tarjoavat huomattavasti paremmat tekniset ominaisuudet verrattuna perinteisiin ylivirtasuojiin.

E-T-A:n tuotteet ovat läpikäyneet tarkan tuotekehitysvaiheen ja ne täyttävät tiukimmatkin laatuvaatimukset. Tuotteet ovat tärkeimpien hyväksymislaitosten, kuten VDE:n, UL:n ja Lloyds:n hyväksymiä.

Virallisena jälleenmyyjänä Suomessa voimme tarjota aina uusimmat tuotetiedot, edullisimmat hinnat sekä nopeat ja luotettavat toimitukset.

BEDIA®

BEDIA ANTURITEKNIIKKA



Vuonna 1986 perustettu vahvasti kasvava antureita valmistava yritys.

Korkealaatuiset ja luotettavat anturit ovat olleet maailmalla suuri menestys.

Bedian tuotteisiin luottavat maailman suurimmat moottori- ja ajoneuvovalmistajat.

Bedian tuotteilla varmistat ajoneuvosi luotettavan toiminnan. Myös tulevaisuudessa saat Bedialta teknisesti edistyksellisimmät tuotteet.

Olemme virallinen jälleenmyyjä Suomessa, joten saat kauttamme uusimmat tuotetiedot, edullisimmat hinnat ja nopeimmat toimitukset.

Suomen Elektrolind Oy on vuonna 1995 perustettu palveleva komponenttien maahantuoja ja sähköjärjestelmien valmistaja. Komponenttivalmistajien virallisena edustajana Suomessa voimme tarjota asiakkaillemme nopean ja tehokkaan palvelukokonaisuuden. Ajan tasalla olevat tuotetiedot takaavat, että löydätte uusimmat innovatiiviset tuotteet sivuiltamme. Vankka tekninen osaamisemme mahdollistavat asiantuntevan palvelun ja oikean teknisen ratkaisun löytämisen, "tiedämme mitä myymme".

LUOTETTAVA KUMPPANI kun laatu ja toimitusvarmuus ratkaisee

BRIGADE

BRIGADE KAMERAJÄRJESTELMÄT

Chris Hanson-Abbott perusti vuonna 1976 Brigade PLC:n.

Missiona on vähentää liikenteessä tapahtuvia onnettomuuksia ja sitä kautta pelastaa ihmishenkiä.

Brigade on kohonnut maailman ykköstuotemerkiksi ajoneuvojen turvallisuutta lisäävien järjestelmien kehittäjänä ja toimittajana.

Brigaden kamerat (myös HD teräväpiirtona), tutkat ja summerit on suunniteltu kestämään pitkäaikaista kovaa käyttöä ja niiden käyttö-



ominaisuudet ovat huippuluokkaa. Niiden avulla voidaan välttää monet yllättävät tilanteet, jotka johtuvat huonosta valaistuksesta, ahtaista tiloista tai kevyestä liikenteestä ajoneuvon ympärillä.

Virallisena jälleenmyyjänä Suomessa voimme tarjota aina uusimmat tuotetiedot, edullisimmat hinnat sekä nopeat ja luotettavat toimitukset.

munske



MIUNSKE

Vuonna 1996 perustettu Saksalainen sähkökomponenttien valmistaja.

Vahvasti kasvava yritys valmistaa mm. releitä, relepohjia ja monipuolisia CAN-järjestelmiä. Erityisen edistykselliset ovat Miunsken CAN-kytkintaulut jotka sopivat kaikkiin ajoneuvoihin.

Miunske on myös suuri pienkomponenttien toimittaja. Tuotevaikoima on valtava: sulakepohjia, sulakkeita, liittimiä, akkupääkytkimiä, akkujen ja starttimoottorien napasuojia ym.

Virallisena jälleenmyyjänä Suomessa voimme tarjota aina uusimmat tuotetiedot edullisimmat hinnat sekä nopeimmat toimitukset.

-ELEKTROLIND-

Suomen Elektrolind Oy

Lautamiehentie 3, 02770 ESPOO Puh. +358 9 512 2344 elektrolind@elektrolind.fi • www.elektrolind.fi

PIONEERING HVAC SYSTEMS

WELCOME TO THE NEW COMFORT ZONE

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 SUSTAINALBE MAXIMUM PERFORMANCE

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 inhouse 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.



INNOVATION LEAPS

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 accomodate 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.





INNOVATION LEAPS

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 inhouse. 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.

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.

| Technical Data | Climate Hall AURORA DE-Mudau | Climate Hall AURORA NL-Nuenen | Climate Hall AURORA North America Grand Rapids, Michigan |
|------------------------------------|--|------------------------------------|---|
| Cooling | 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) |
| Heating | Up to 50°C / 122°F | Up to 40°C / 104°F | Up to 50°C / 122°F |
| Moisturization | Up to 70% relative humidity | Up to 95% relative humidity | 70% relative humidity |
| Solar simulation | IR emitter Performance < 1500W/m ² | Not available | <1200 W/m ² |
| | The climate halls are suitable f | or all kinds of vehicles and cabs. | |
| | Climate Hall AURORA DE-Mudau | Climate Hall AURORA NL-Nuenen | Climate Hall AURORA North America Grand Rapids, Michigan |
| Length of vehicle | < 15.0 m | < 15.0 m | < 6.0 m |
| Height of vehicle | < 4.0 m | < 4.5 m | < 3.0 m |
| Width of vehicle | < 3.5 m | < 4.0 m | < 3.5 m |
| Technical measurement equipment | 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 far simulation. |
| | | | |



IMPRESSIONS TEST FACILITIES

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:





TRAILBLAZING HVAC SYSTEMS FOR ON-ROAD AND OFF-ROAD VEHICLES

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

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



AURORA Konrad G. Schulz GmbH & Co. KG

Joachim-Schulz Str. 4; 69247 Mudau, Germany +49 (0) 6284 9202-0 info@aurora-eos.com





AURORA Netherlands B.V. Gulberg 10; 5674 TE Nuenen Netherlands +31 (0) 40 2092100 aunl@aurora-eos.com





Electronic Equipment B.V. Schoutlaan 8; 6002 EA Weert Netherlands +31 495 538 809 info@elec-equip.nl



AURORA North America, LLC. 4311 Patterson Ave SE; Grand Rapids, MI U.S.A. 49512 +1 (616) 698-8545 auna@aurora-eos.com





AURORA Isı Araçları San. Ve Tic. Ltd. Şti. Velimese OSB Mah 241.Sok No:6/1 59930 Ergene/Tekirdag/TURKİYE +90 282 502 58 78 turkey@aurora-eos.com



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 at 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.

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SUSTAINABLY SUCCESS

Selection of Success Stories

Environmental Management



Energy Management



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.



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.



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

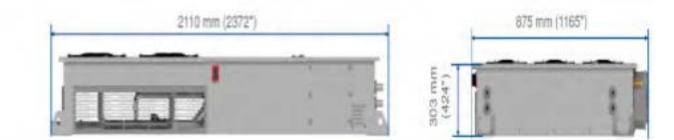


By modernizing our vehicle fleet to purely electric vehicles and hybrid vehicles we could reduce CO2 emissions by 212 tons (reference period. 2023) compared to 2019). New company cars will generally be purely electric vehicles

BOREALIS FOR A E-BUS

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

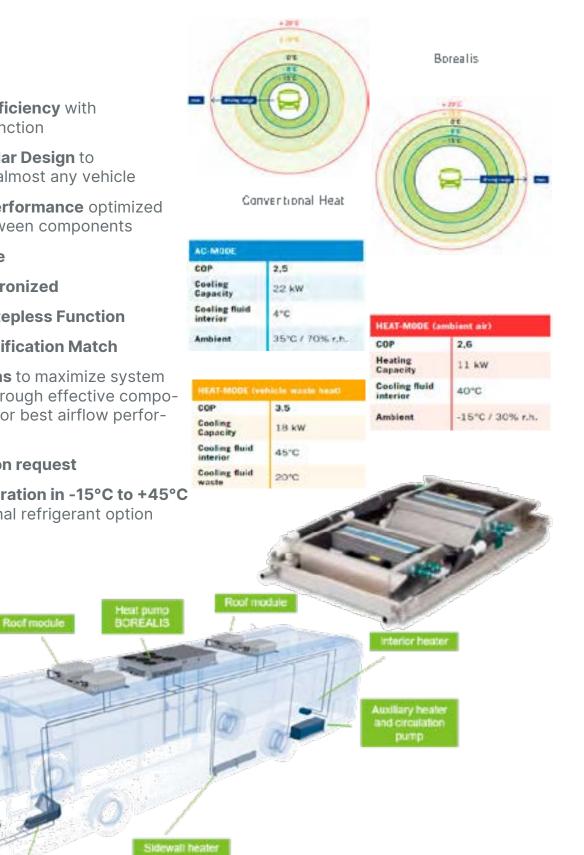
- High Energy Efficiency with . fully-electric function
- Flexible, Modular Design to accommodate almost any vehicle
- Harmonized Performance optimized • interaction between components
- **Emissions-Free** .
- **Blowers Synchronized** .
- **Two-Step to Stepless Function** .
- **Filtration Classification Match** .
- CFD Simulations to maximize system performance through effective component selection for best airflow performance
- **DIN EN45545 on request**

Air shower

Contro

Capable of operation in -15°C to +45°C with an additional refrigerant option for 0°C - 55°C

Cab heater



ELECTROMOBILITY SOLUTIONS

BATTERY COOLER & HEATER

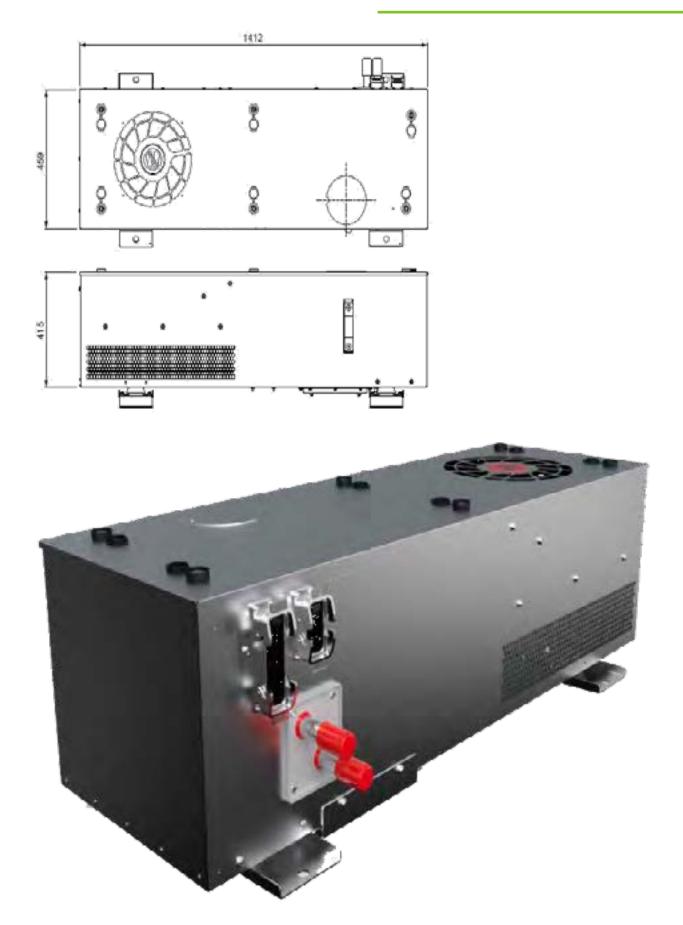
FEATURES & BENEFITS

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

1 R134a evaparating 5° C condensing 50 ° C

ELECTROMOBILITY SOLUTIONS BATTERY COOLER & HEATER



ELECTROMOBILTY SOLUTIONS ELECTRIC, HIGH VOLTAGE HEATER

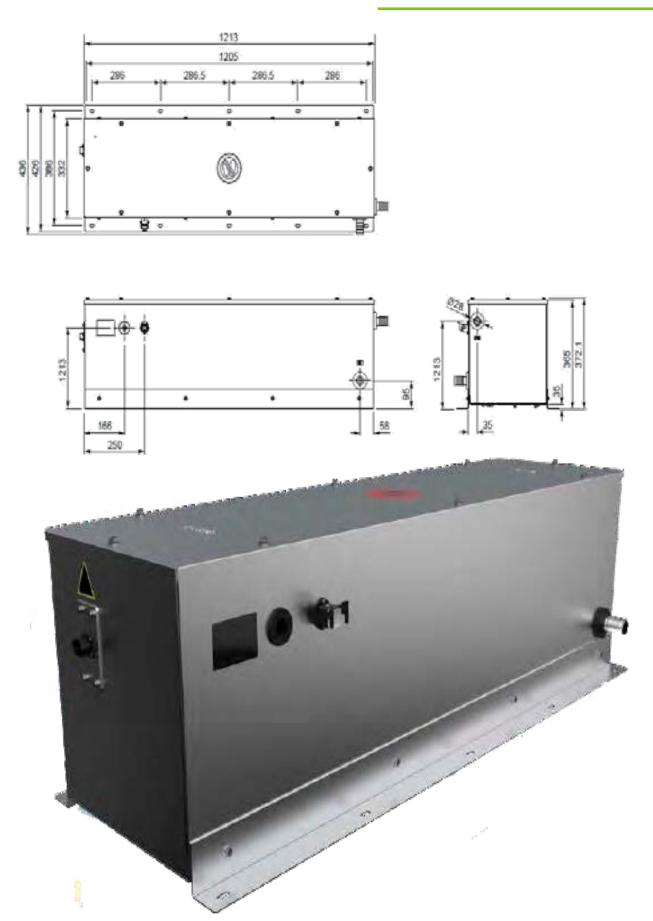
FEATURES & BENEFITS

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



ELECTROMOBILTY SOLUTIONS ELECTRIC, HIGH VOLTAGE HEATER



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 ⁽¹⁾ | 5.7 kW | |
| Nominal Cooling Capacity ⁽¹⁾ | 4.6 kW | |
| Heating Capacity ⁽²⁾ | - | |
| Airflow ⁽³⁾ | 800 m³ / 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



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 ⁽¹⁾ | 18 / 24 kW; 50 / 75 Hz | | |
| Nominal Cooling Capacity ⁽¹⁾ | 11 / 15 kW; 50 / 75 Hz | | |
| Heating Capacity ⁽²⁾ | 38 kW @ Q80 | | |
| Airflow ⁽³⁾ | 3800 m³ / h | | |
| Fresh air | 0% — 100% | | |
| Maximum Current Draw 24 DC | 63 A | | |
| Dimensions ⁽⁴⁾ 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-EFFICIE ALL-ELECTRIC PERFORMANCE



NT

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 m³ / h | |
| Fresh air AC | 0% | |
| Nominal Voltage | 24 V | |
| Maximum Current Draw | 40 A | |
| Dimensions | 1256 × 756 × 215 | |
| Weight | 42 kg | |



BORA EL 10



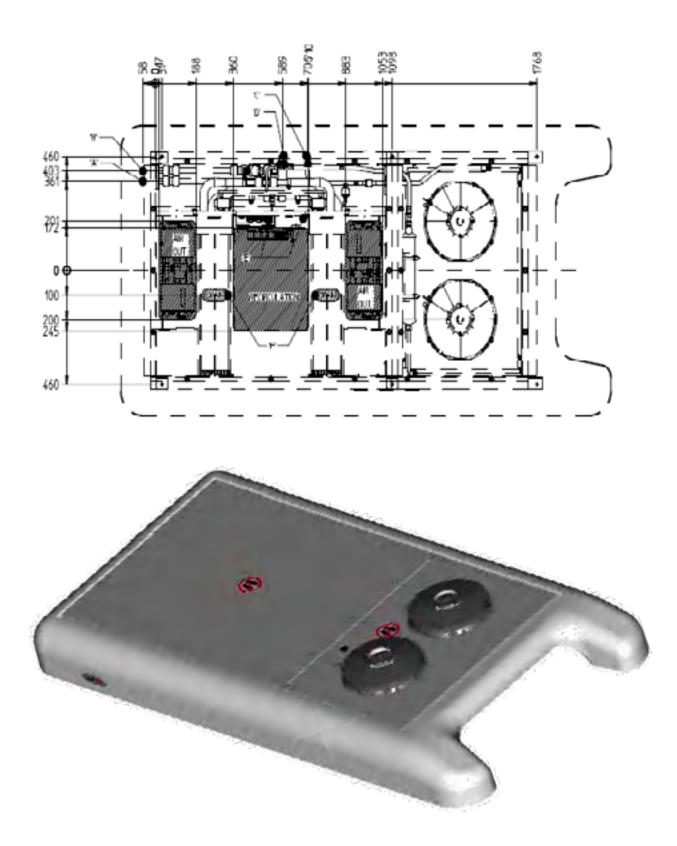
SON 50

Featuring an aerodynamically shaped body to enhance overall vehicle travel efficiencies, this particular device can unleash power and performance unlike most any roofmounted 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 m³ / h | |
| Fresh air AC | 0% — 100% | |
| Nominal Voltage | 24 V | |
| Maximum Current Draw | 39 A | |
| Dimensions | 2270 × 1175 × 190 | |
| Weight | 63 kg | |
| Cool-Only; Cool / Heat; Coolwith Fresh-Air; Cool / Heat wFresh-Air | | |



SON 50



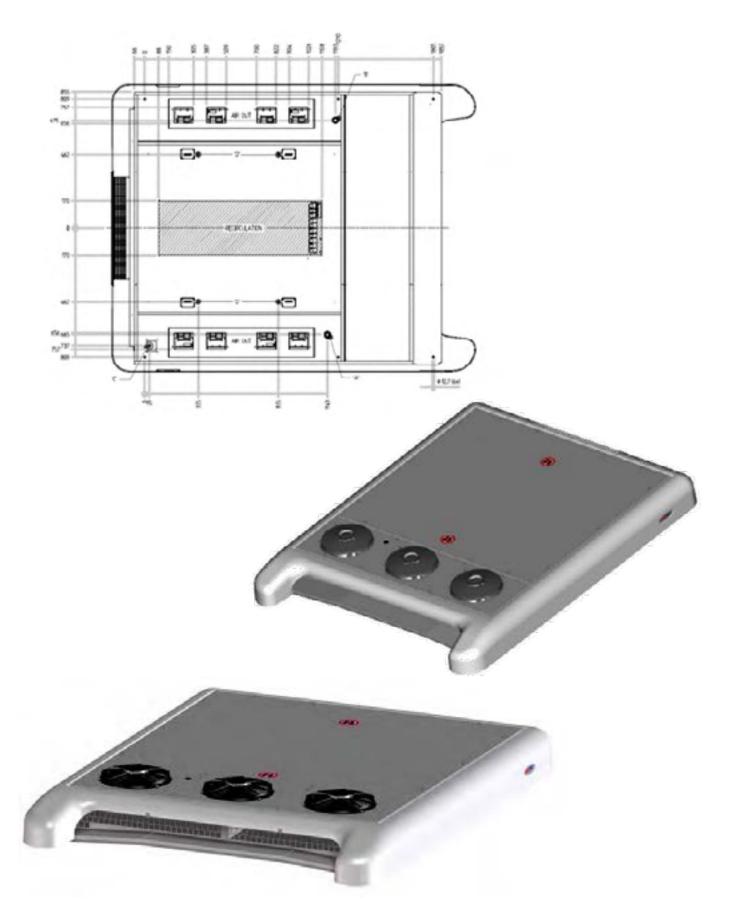
SON 70

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 m³ / h | |
| Fresh Air AC | 0% — 100% | |
| Nominal Voltage | 24 V | |
| Maximum Current Draw | 70 A | |
| Dimensions | 2270 × 1800 × 290 | |
| Weight | 113 kg | |



SON 70



BOREAS

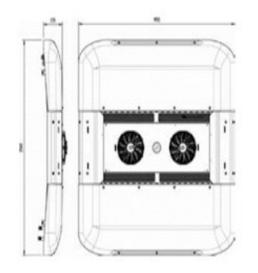
AURORA's Electric, Compact Rooftop Units are versatile and ready to serve at the forefront of the next generation of HVAC.

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 m³ / h | 3800 m³ / h | 6000 m³ / 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 |



BOREAS



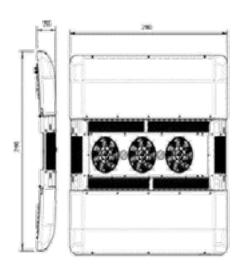


Model 24

Model 18







Model 40



STANDARD HEATERS LOW-NOISE, FIELD-PROVEN DURABILITY, EASY SERVICABILITY



.....

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 I | nformation | | |
| 912-10 | 0-1089 | | |
| Varia | tions | | |
| Part Number Descrip | tion | | |
| 151-562-0241 11500 2 | 4 V 3-Speed | | |
| | | | |
| | EHU 11.500 | | |
| Heat Power | 13 kW | | |
| Vol. Air Flow | 884 m³/h | | |
| Weight | 5.5 kg (11.25 lbs.) | | |

STANDARD HEATERS UNDERFLOOR HEATER EHU-K-11500

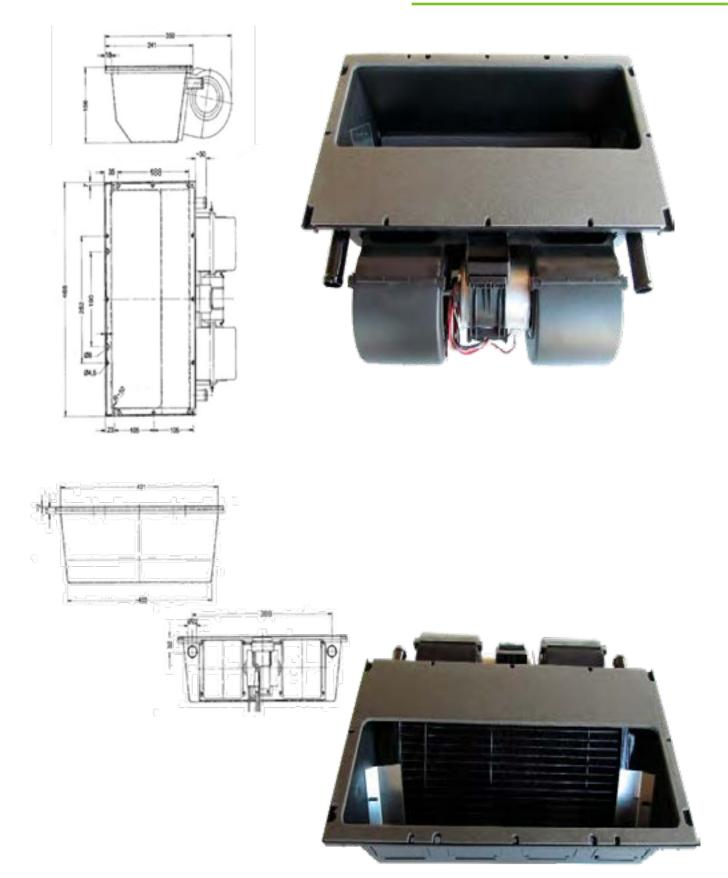


Illustration similar

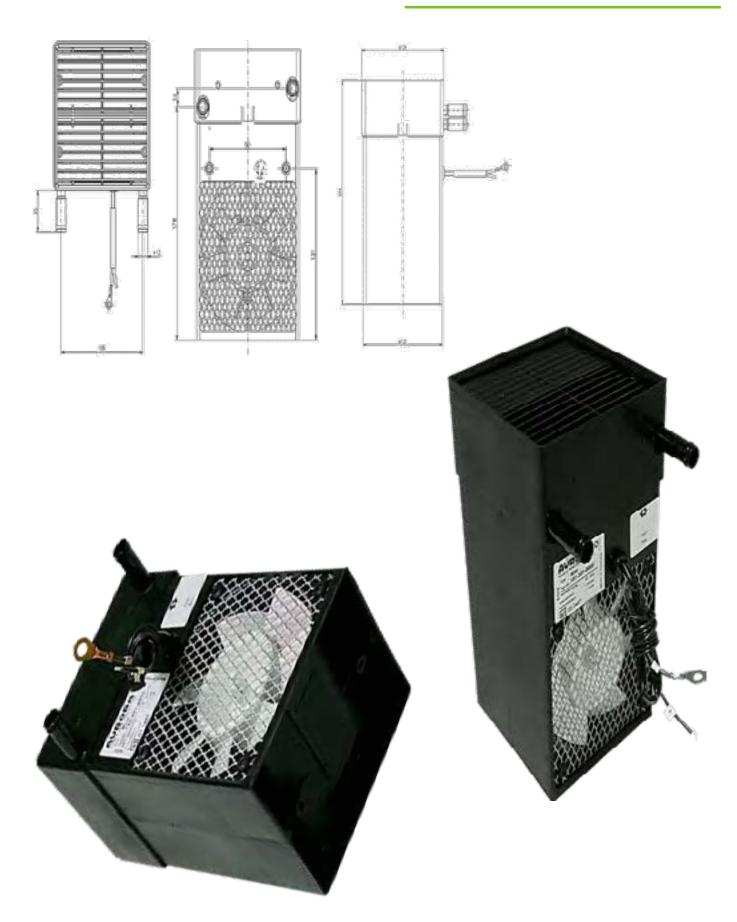
MINI H 410

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 | | | |
|---|----------------|--|--|
| Air Flow: 114 m ³ /h Heating Power: 2.1 kW Power Consumption: Pel = 29 W Noise Emission: 64 dB(A) | | | |
| Technical Information | | | |
| | 912-100-0958 | | |
| N | 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 | | |



MINI H 410

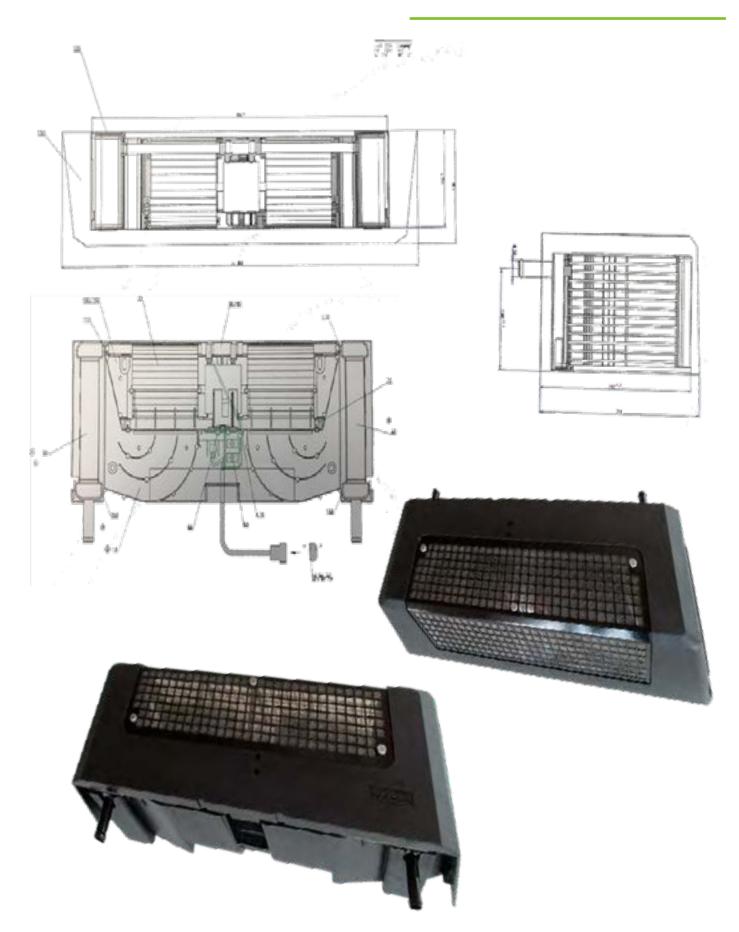


STANDARD HEATERS OSCAR 7000 & 8000

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 hear 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 | | | |
| Те | chnical Information | | | |
| | 912-100-0959 | | | |
| | Variations | | | |
| Part Number | Descrip | | | |
| 151-681-0201 | Oscar 8000 12 V 2- | | | |
| | 151-682-0201 Oscar 8000 24 V 2-Speed w/ hood | | | |
| 151-682-0216 | Oscar 7000 24 V 2-Speed without hood | | | |
| 151-682-0219 | Oscar 7000 24 V 2-Sp | eed without hood | | |
| | Performance | | | |
| Blower Speed | 1 | 2 | | |
| Heat Power | 4.6 kW 7.2 kW | | | |
| Vol. Air Flow 185 m ³ /h 350 m ³ /h | | | | |
| Weight 3.8 Kg (8.4 lbs.) | | | | |

OSCAR 7000 & 8000

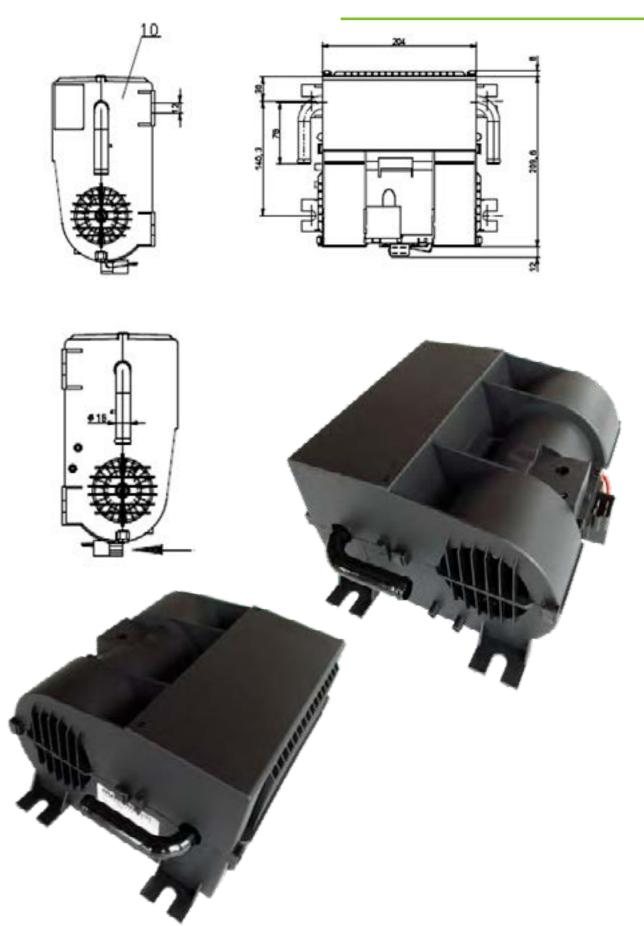


AURORA's KKH Heater is an ideal and powerful solution for small cabins. Its universal nature allows the KKH to maintain a 3.6 kW output in various applications and installation options as either a main or supplementary unit. The unit comes in 12 and 24 volt options, as well as different louver and grill packages suitable 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. Connections on both sides come standard at 15 mm in diameter.

| | Specifications | | | | |
|---|--|-------------------|--------|--|--|
| Housing: 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. | | | | | |
| Тес | chnical Inform | ation | | | |
| | 912-100-0973 | | | | |
| | Variations | | | | |
| Part Number | | Description | | | |
| 151-801-0203 | 12 V 3 | S-Speed w/ output | grill | | |
| 151-802-0203 | 24 V 3 | 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 ³ /h 103 m ³ /h 163 m ³ /h | | | | |
| Power Consumption | 16 W 26 W 45 W | | | | |
| Weight | 1.55 kg (3.4 lbs.) | | | | |



KKH HEATER TRADITIONAL



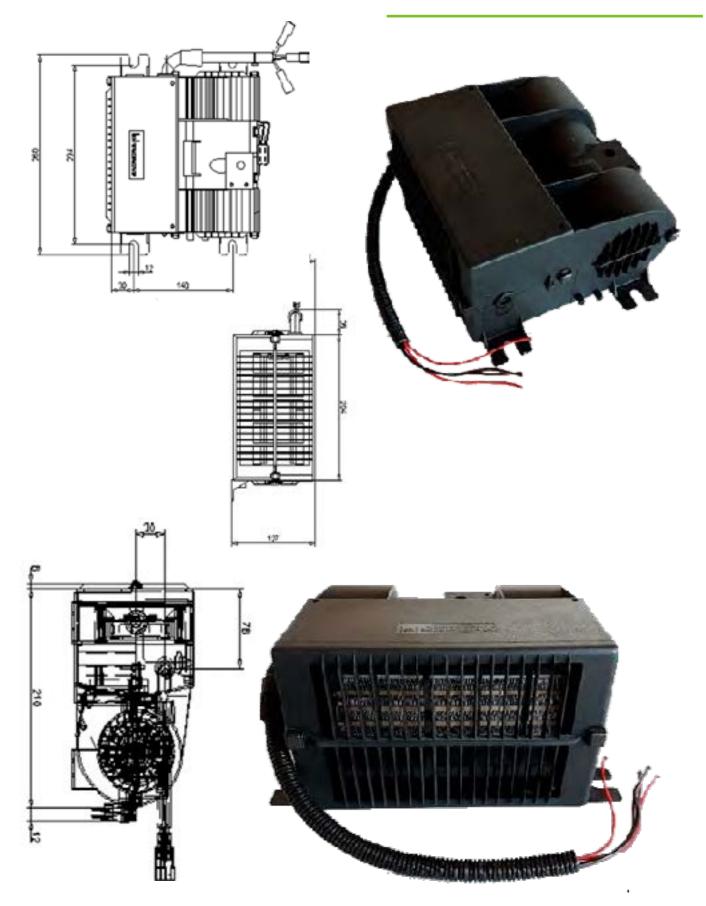
KKH HEATER ALL ELECTRIC

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, onboard kitchens, or as a defroster unit.

| Specifications | | | | | | | | | |
|---|--------------|--|-------------------------------|------------------------------|------------------------------|--|-----------|-------|------|
| Housing : 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. | | | | | | | | | |
| | | | | /ariati | ons | | | | |
| Part Nu | umber / T | echnical Inforn | nation | | | Descript | ion | | |
| | | 301-0005 / 100-0960 | | | 12 V | Blower; <120 V | ′ PTC; 12 | 280 W | |
| | | 801-0001/ -100-1135 | | | 12 \ | V Blower; 80 V | PTC; 110 | W 00 | |
| 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 | | | | | |
| | | 802-0002/ 100-0374 | | | 24 V Blower; 24 V PTC; 750 W | | | | |
| | | | Ре | erform | ance | | | | |
| Blower S Lev | - | | 1 | 2 | 3 | | 1 | 2 | 3 |
| Nominal Heat | W | 12 V Model (PTC Radia- tor <120 V) | 980 | 1130 | 1280 | 24 V Model (PTC Radia- tor 80 V) | 720 | 900 | 1100 |
| Power (kW) | BTU / hr. | | 3344 | 3856 | 4367 | | 2459 | 3074 | 3757 |



KKH HEATER ALL ELECTRIC



CONVECTORS

WIDE-DISTRIBUTION OF HEAT, SPECIALIZED FOR BUS APPLICATIONS



AA

-

CONVECTORS

AF SERIES

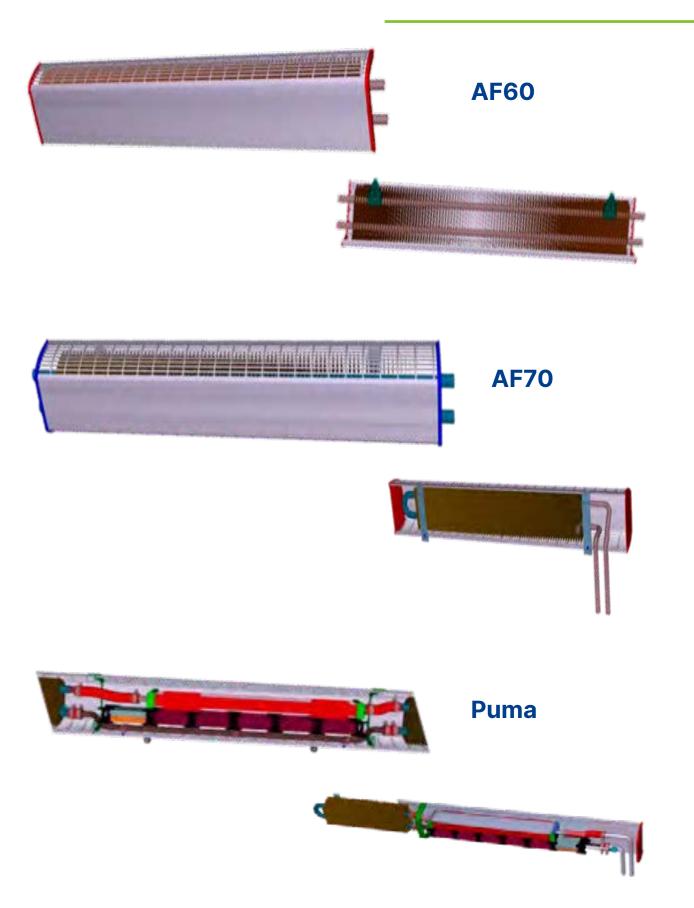
All our convectors are developed by AURORA and manufactured at several locations of the AURORA group. They are especially designed for use in bus and coach and available in two different power classes and sizes.

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 | | | | | |
|--------------------------|----------------------------------|------------------------------|-------------------------------|--|--|
| | AF 60 AF 70 | | | | |
| Size / Measure- ments | 160 mm. x 73 mm. | 170 mm. x 100 mm. | 170 mm. x 100 mm. | | |
| Heating Capacity | 700 W / m at Q_{60} | 830 W / m at Q ₆₀ | 2900 W / m at Q ₆₀ | | |
| Blower | None | None | 73 ³ / 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



EFFICIENT, LOW-NOISE, POWERFUL



52



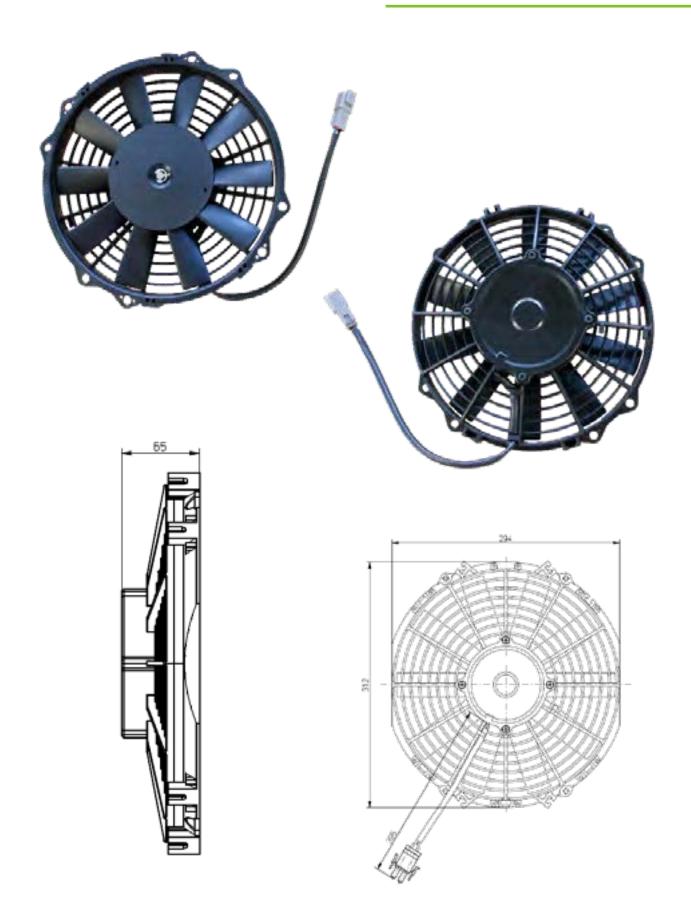


AURORA's Axial Fans come in several different sizes and mounting options in order to ensure the correct fit. These fans are powerful, durable, and lightweight. They are ideal for use as roof vents, condenser fans, oil coolers, and several other applications where maximum airflow is essential.

| 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 | | |



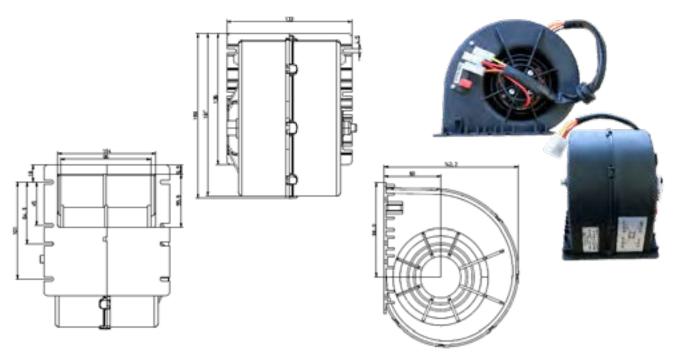
FANS AXIAL



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 | | | | |
|--|------------------------------------|--|--|--|
| Housing: 35% glass fiber polyamide PA6 Airflow: 500 m ³ /h (294 cfm) Nominal voltage: 12 or 24 Volt Weight: ~1.27 kg (2.8 lbs.) Pel: 210 W Lp: 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 | | | |



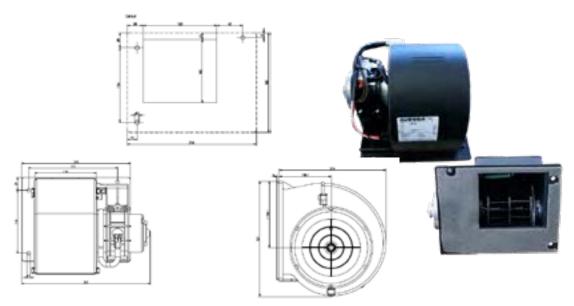


RG 780

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 | | | | |
|--|-------------------------|--------------|-----------------|---------|
| Housing: 35% glass fiber polyamide PA6 Airflow: 780 m³/h (459 cfm) Nominal voltage: 12 or 24 Volt Weight: ~2 kg (4.41 lbs.) | | | | |
| | Tech | nical Inform | ation | |
| | | 912-100-0579 | | |
| | Variations | | | |
| Part | Part Number Description | | | |
| 132-9 | 01-0400 | | 12 V - Standard | k |
| 132-9 | 01-0405 | | 12 V - 4 Speed | |
| 132-9 | 02-0400 | | 24 V - Standard | b |
| 132-9 | 02-0405 | | 24 V - 4 Speed | 1 |
| | Speed 1 | Speed 2 | Speed 3 | Speed 4 |
| V air m³/h. | 300 | 410 | 530 | 780 |
| Pel in W | 70 | 110 | 160 | 280 |
| Lp in dB (A) | 57 | 65 | 71 | 77 |

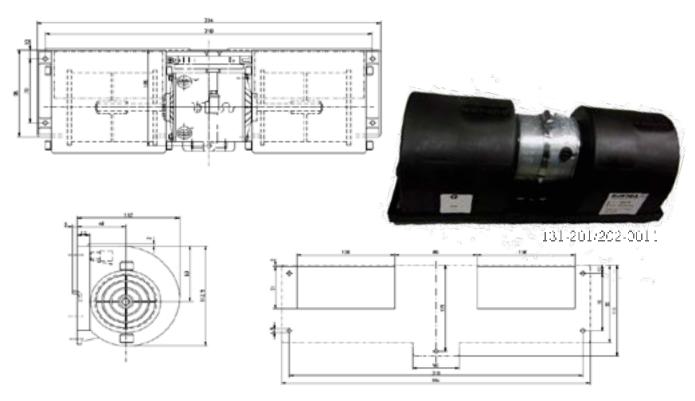
Values +/- 10%



DRG 530

AURORA's Twin Radial Blower (DRG) design incorporates high performance, low noise, and long life. The compact *DRG 530* design produces 530 m³/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 | | | |
|--|------------------------------------|--|--|
| Housing: 35% glass fiber polyamide PA6 Airflow: 530 m ³ /h Nominal voltage: 12 or 24 Volt Weight: ~1.25 kg (2.76 lbs.) | | | |
| Тес | hnical 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 | | |





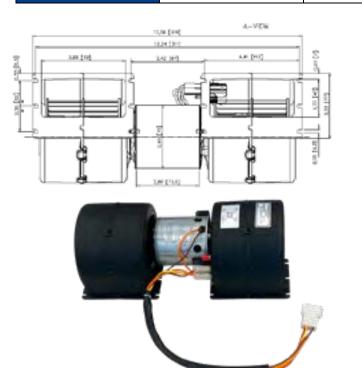
BLOWERS DRG 800

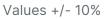
AURORA's Radial Blowers are built with powerful electric motors for high efficiency throughout a long lifetime of performance. These blowers feature a high proportion of air flow vs. system resistance. Our family of Radial Blowers are built with a powerful electro motor to boost high efficiency over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

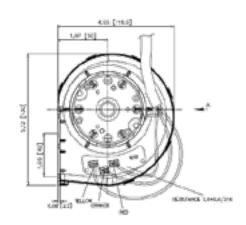
Specifications

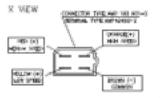
Housing: polyamide PA6 GF35 Airflow: 770 m³/h (452 cfm) Nominal voltage: 12 or 24 Volt Weight: ~2 kg (4.41 lbs.)

| Technical Information | | | | | |
|-----------------------|-------------------------|----------------|------------|--|--|
| | 912· | -100-1181 | | | |
| | Var | riations | | | |
| Part Nun | nber | Descrip | tion | | |
| 132-901- | 0058 | 12 V - 3 Speed | Standard | | |
| 132-902- | 0058 | 24 V - 3 Speed | l Standard | | |
| | Speed 1 Speed 2 Speed 3 | | | | |
| V air m³/h. | 380 | 490 | 770 | | |
| Pel in W | 84 | 125 | 265 | | |
| Lp in dB (A) | 61 67 74,5 | | | | |







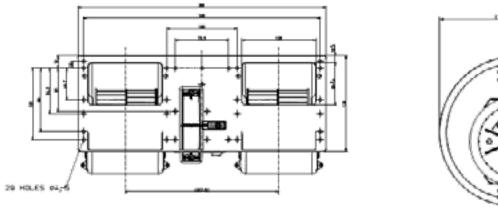


DRG 1150

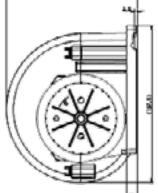
AURORA's Radial Blowers are built with powerful electric motors for high efficiency throughout a long lifetime of performance. These blowers feature a high proportion of air flow vs. system resistance. Our family of Radial Blowers are built with a powerful electro motor to boost high efficiency over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

| Specifications Housing: polypropylene PPT40 wheels: polyamide PA6 GF35 Airflow: 1150 m ³ /h (676 cfm) Nominal voltage: 12 or 24 Volt Weight: ~2 kg (4.41 lbs.) | | | | |
|--|---------|--------------|--------------------|---------|
| | Tech | nical Inform | ation | |
| | | 912-100-1162 | | |
| | | Variations | | |
| Part | Number | | Description | |
| 132-9 | 01-0050 | 1 | 2 V - 4 Speed Star | ndard |
| 132-9 | 02-0050 | 2 | 4 V - 4 Speed Star | ndard |
| | Speed 1 | Speed 2 | Speed 3 | Speed 4 |
| V air m³/h. | 400 | 705 | 850 | 1150 |
| Pel in W | 89 | 193 | 263 | 440 |
| Lp in dB (A) | 59 | 67 | 69 | 76 |

Values +/- 10%







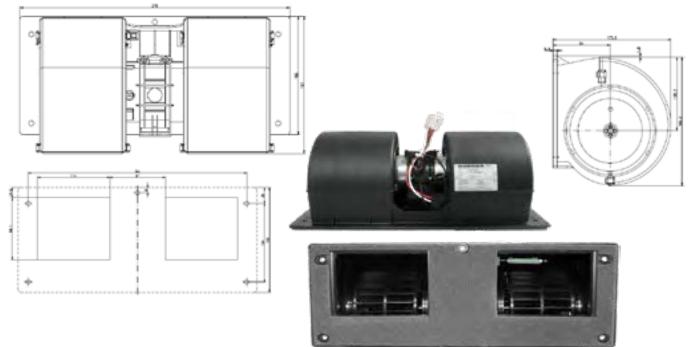


DRG 1200

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 | | | | |
|--|------------------------------|-----------------|-------------|---------|
| Housing: 35% glass fiber polyamide PA6 Airflow: 1200 m ³ /h (736 cfm) Nominal voltage: 12 or 24 Volt Weight: ~2.54 kg (6 lbs.) | | | | |
| | T | echnical Dat | a | |
| | 912-100-0578 | | | |
| | Variations | | | |
| Part | Number | | Description | 1 |
| 131-601-0400 | | 12 V - Standard | | |
| 131-601-0403 12 V - 3 Speed | | ed | | |
| 131-6 | 131-602-0400 24 V - Standard | | ird | |
| 131-602-0450 24 V - 4 Speed | | ed | | |
| | Speed 1 | Speed 2 | Speed 3 | Speed 4 |
| Vair in m³/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%



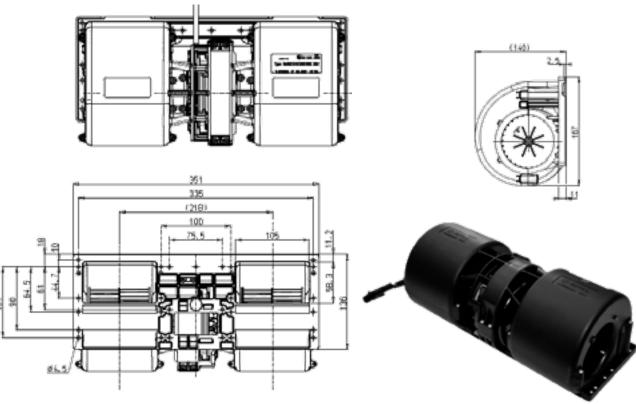
BLOWERS DRG 1150 EC

62

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 | | | |
|---|------|-----------------|--|
| Housing: polypropylene reinforced with 40% Talcum PP T40 Airflow: 1200 m ³ /h (244 cfm) Nominal voltage: 12 or 24 Volt Weight: ~2.4 kg (5.3 lbs.) | | | |
| Technical Information | | | |
| 912-100-1168/1193 | | | |
| Variations | | | |
| Part Number Description | | | |
| 131-901-0036 | 12 | 12 V - Standard | |
| 131-902-0051 24 V - Standard | | V - Standard | |
| | 12 V | 24 V | |
| Vair in m³/h | 1200 | 1200 | |
| Pel in W | 370 | 330 | |
| Lp in dB(A) | 74 | 73 | |

Values +/- 10%

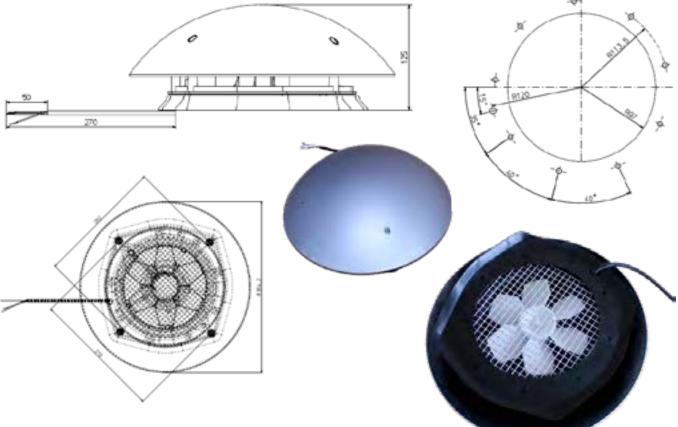


HOOD VENTILATORS

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 | | |
|--|------------------------|--|
| Nominal Voltage: 12 or 24 Volt | | |
| Air Flow: 350 m ³ /h | | |
| Sound Level: 67 dB(A) | | |
| Technic | al Information | |
| 912-100-0369 | | |
| Va | ariations | |
| 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 | | | |
|--|----------------|--|--|
| Nominal Voltage: 12 or 24 Volt Air Flow: 420 m ³ /h Sound Level: 67 dB(A) Weight: 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 | | |



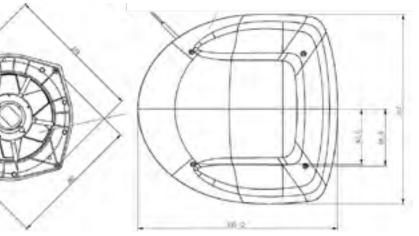


HOOD VENTILATORS

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 | | |
|---|--------------------|--|
| Material: ABS Plastic Airflow: ~ 500m ³ /h Power Consumption: Pel ~ 45W Sound Level: 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 | |









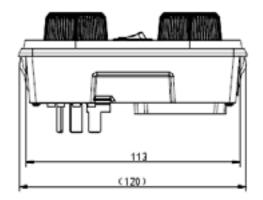
CONTROL PANELS INTELLIGENT-RESPONSIVENESS, DYNAMIC; USER-FRIENDLY

NEO2B

68

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 | |



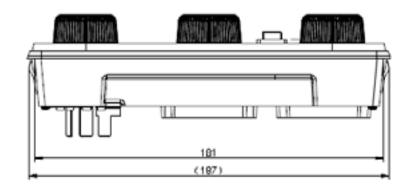




NEO3B

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 watervalve position | Operation temperature -40°C to +85°C |
| 3-Pol. actuator for watervalve | 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 | |

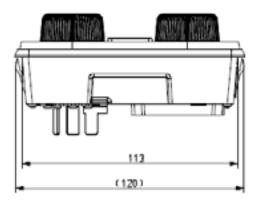




NEO2

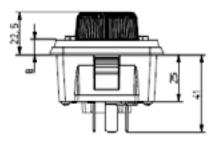
AURORA's NEO2 Control Panel is designed for the rough and tough operator. For this line, we've stripped out all the extra bells and whistles to give customers exactly what they need: simplicity and functionality. The NEO2 has two knobs and up to two rocker switches, all electronically manipulated. It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





70

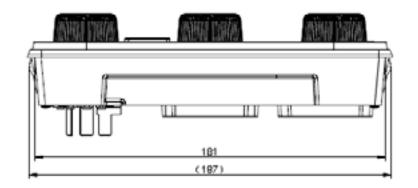




NEO3

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 watervalve position | Operation temperature -40°C to +85°C |
| 5-Pol. actuator for watervalve | 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 | |

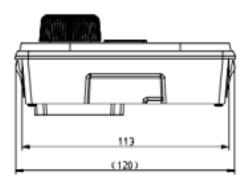




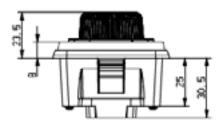
NEO2PLUS

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 pushbuttons 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 | |







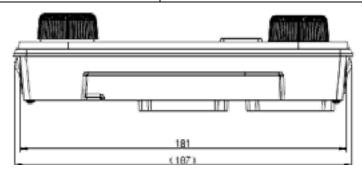


CONTROL PANELS

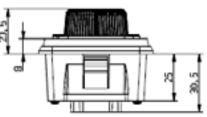
NEO3PLUS

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 pus-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 | Operation voltage 9 to 30 V |
| speed | |
| 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

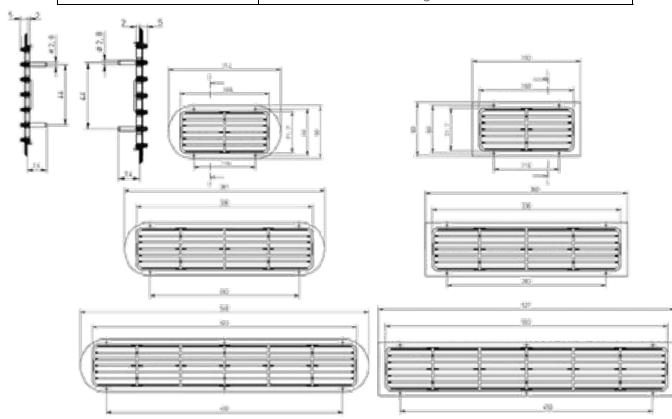
AURORA® / Pioneering Your Comfort

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 | | | | |
| Т | echnical 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 | | | |

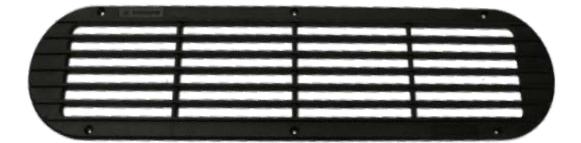




VENTILATION LOUVERS

AIR GRILLS



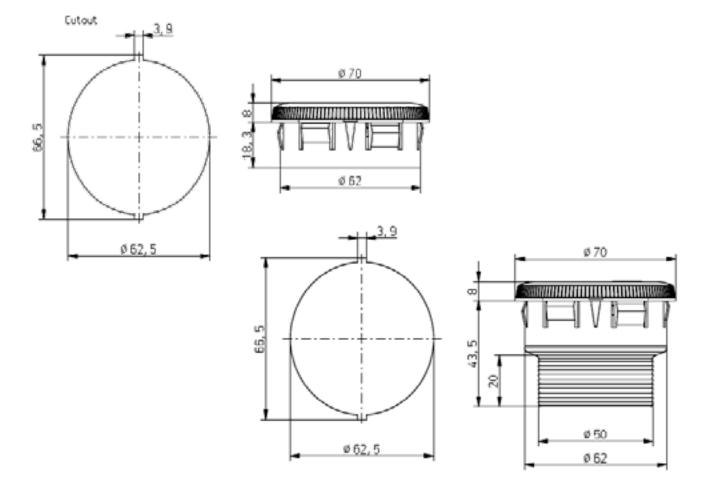




RD 70

RD 70, named such for its 70 mm. diameter, features flaps, a 3 mm. as well as 5 mm dashboard 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 Info | ormation | | |
| | 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 Adap- tor | | |



RD 70

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

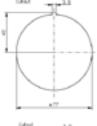


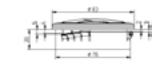
Pictured from top-to-bottom: RD70 without Adaptor; RD70 with 50mm. Ø Hose Adaptor

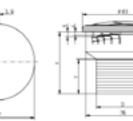
RD 83

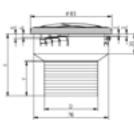
| | Ν | laterial & C | olor | | |
|---|---|------------------|---------------|--------|--------|
| Polyamide PA6 35% glass fiber reinforcement Standard Color: black, similar to RAL 9005 | | | | | |
| | Tec | hnical Info | rmation | | |
| | 912-1 | 00-0911 / 912- | | | |
| D | | Variation | | | |
| Description | Subcategories | Part Number | D – Adaptor Ø | X (mm) | Y (mm) |
| Custom, | RD 83 Standard Black no adaptor | 334-220- 0122 | _ | — | _ |
| Flaps Ver- sion with Clip Adaptor | Silver Ring Ac- cent no adaptor | 334-220- 0123 | _ | _ | _ |
| | Chrome Ring Accent no adap- tor | 334-220- 0154 | _ | _ | _ |
| | I | 334-220- 0144 | 42 mm | 62.5 | 30 |
| | | 334-220- 0145 | 50 mm | 49 | 18 |
| | | 334-220- 0146 | 55 mm | 62.5 | 35 |
| Standard Black, Flaps Version with Clip & Hose Adaptor | | 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 |
| | | 334-220- 0155 | 42 mm | 62.5 | 30 |
| | | 334-220- 0156 | 50 mm | 49 | 18 |
| | | 334-220- 0157 | 55 mm | 62.5 | 35 |
| | ack, Grill Version & Hose Adaptor | 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, | Standard Black | 334-220- 0142 | _ | | _ |
| Grill Ver- sion with | Silver Ring | 334-220- 0127 | | | _ |
| Clip | Chrome Ring | 334-220- 0168 | | | |
| | | | | | |

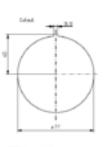
AURORA's RD 83 is built for the industry. This next generation louver comes standard with 2 mm, 3 mm, 4 mm, and 5 mm clip ranges. The RD 83's convex design allows for maximum air flow in any desired direction. Perfect for personal airflow, these round louvers are best used in dash and headliner applications. 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).

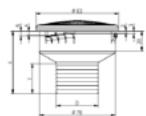














All contents, ideas, & drawings herein throughout are property of the AURORA Group

RD 83

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 Flaps & Hose Adaptor



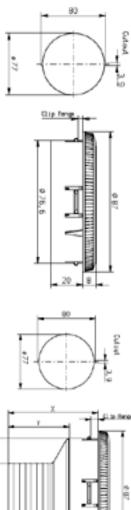
Standard Black with Fixed Vanes / Grill & Hose Adaptor

RD 85

82

| Material & Color | | | | | |
|---|--------------|----------------|--------|--------|--|
| Polyamide PA6 35% glass fiber reinforcement Standard Color: black, similar to RAL 9005 | | | | | |
| | Technical | Information | 1 | | |
| | 912-100-0911 | / 912-100-0178 | | | |
| | Varia | ations | | | |
| Description | Part Number | D – Adaptor Ø | X (mm) | Y (mm) | |
| | 334-220-0052 | None | n/a | n/a | |
| - | 335-220-0053 | 42 mm | 62.5 | 30 | |
| - | 334-220-0054 | 50 mm | 49 | 18 | |
| 3 mm Clip Standard Black | 334-220-0055 | 55 mm | 62.5 | 35 | |
| Flaps | 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 | |
| | 334-220-0013 | None | n/a | n/a | |
| - | 334-220-0024 | 42 mm | 62.5 | 30 | |
| - | 334-220-0025 | 50 mm | 49 | 18 | |
| 5 mm Clip Standard | 334-220-0026 | 55 mm | 62.5 | 35 | |
| Black Flaps | 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 | | — | _ | |
| | 334-220-0060 | None | - | - | |
| - | 334-220-0061 | 42 mm | 62.5 | 30 | |
| - | 334-220-0062 | 50 mm | 49 | 18 | |
| 3 mm. Clip Standard Black Grill | 334-220-0063 | 55 mm | 62.5 | 35 | |
| Didek offin | 334-220-0064 | 65 mm | 63.5 | 38 | |
| - | 334-220-0065 | 70 mm | 63 | 40 | |
| - | 334-220-0066 | 75 mm | 50 | 28 | |
| | 334-220-0075 | None | - | - | |
| | 334-220-0076 | 42 mm | 62.5 | 30 | |
| | 334-220-0077 | 50 mm | 49 | 18 | |
| 5 mm. Clip Standard | 334-220-0078 | 55 mm | 62.5 | 35 | |
| Black Grill | 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. *RD8 5*'s rugged design is ideal for heavy machinery, especially whenever durability matters most.







RD 85

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



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.

| | Mat | terial & Col | or | |
|--------------------------|--------------|---|--------|--------|
| | | 35% glass fiber re or: black, similar to | | |
| | Techn | ical Informa | ation | |
| | | 912-100-1041 | | |
| | ١ | Variations | | |
| Description | Part Number | D – Adaptor Ø | X (mm) | Y (mm) |
| | 334-220-0136 | No Adaptor | 60.5 | 20 |
| | 334-220-0178 | 42 mm | 62.5 | 30 |
| | 334-220-0179 | 50 mm | 49 | 18 |
| Flaps Ver- | 334-220-0180 | 55 mm | 62.5 | 35 |
| sion Stand- ard Black | 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 |
| | 334-220-0177 | No Adaptor | 60.5 | 20 |
| | 334-220-0185 | 42 mm | 62.5 | 30 |
| | 334-220-0186 | 50 mm | 49 | 18 |
| Grill Version | 334-220-0187 | 55 mm | 62.5 | 35 |
| Standard Black | 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 |



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



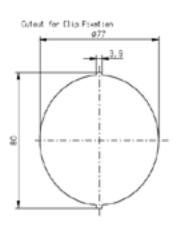
RD 100

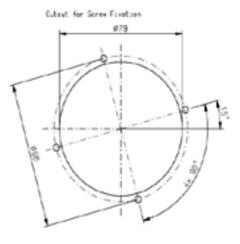
86

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.

| | Polyamide PA6 35% glass fiber reinforcement Standard Color: black, similar to RAL 9005 | | | | |
|--|---|------------------------------|-------------------|------------|--|
| | Techni | ical Informa | ation | | |
| 912-100-06 | 99 (Nexus) / 912-1 | 100-0178 (Flaps 1 (Grill) | Fraditional) / 91 | 2-100-0505 | |
| | ١ | /ariations | | | |
| Description | Part Number | D – Adaptor Ø | X (mm) | Y (mm) | |
| | 334-220-0016 | No Adaptor | n/a | n/a | |
| | 334-220-0017 | 41.5 mm | 62.5 | 30 | |
| Flore | 334-220-0018 | 50 mm | 49 | 18 | |
| Flaps Version | 334-220-0019 | 55 mm | 62.5 | 35 | |
| Traditional Bezel | 334-220-0082 | 60 mm | 62.5 | 35 | |
| Dezei | 334-220-0020 | 65 mm | 62.5 | 38 | |
| | 334-220-0021 | 70 mm | 63 | 40 | |
| | 334-220-0022 | 75 mm | 50 | 28 | |
| Flaps Version <i>Nexus</i> with 0.5-9 mm. clip range | 334-220-0102 | No Adaptor | n/a | n/a | |
| | 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 | |
| Grill Version Traditional | 334-220-0071 | 55 mm | 62.5 | 35 | |
| Bezel | 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 | |

Material & Color





Dimensions very based on Adapter size







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.

| Ма | aterial and Color | Cutout |
|----------------------------|--|--------|
| Polyamide F Standard Co | PA6 35% glass fiber reinforced olor: black, similar to RAL 9005 | |
| Tech | nnical Information | |
| 912-10 | 00-0911 + 912-100-0505 | |
| | Variations | \$77 |
| Part Number | Description | Ø 83 |
| 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 | Ø76 |

ROUND LOUVERS SPECIALTY WITH 90° ADAPTERS

Printed dimensions of photographs no longer mimic actual size.



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.

| | | | | 1 | - |
|----------------------|--|----------------------------|---------------|-------------|---------|
| N | Aaterial and Co | lor | | | |
| Polyamid Standard | e PA6 35% glass fiber Color: black, similar t | r reinforcec o RAL 9005 | 5 | 101 | |
| Te | chnical Informa | ation | | Seres Fice | tion 1 |
| | 912-100-0178 | | | - | |
| | Variations | | | - | |
| Part Number | D Adaptor Ø (mm) | X (mm) | Y (mm) | - - - | <u></u> |
| 34-220-0030 | None | 29 | n/a | | |
| 34-220-0090 | 90 | 72 | 40 | > | |

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

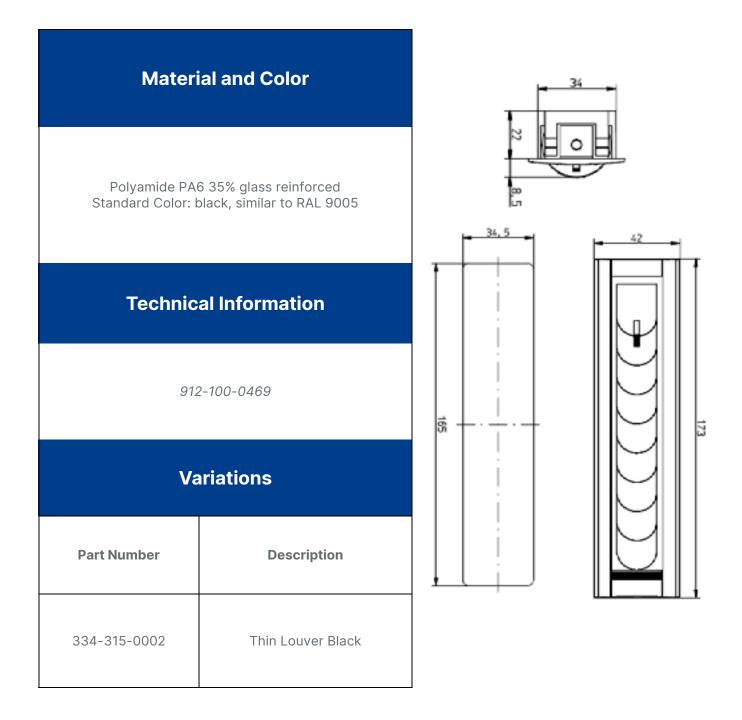




THIN LOUVER

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.



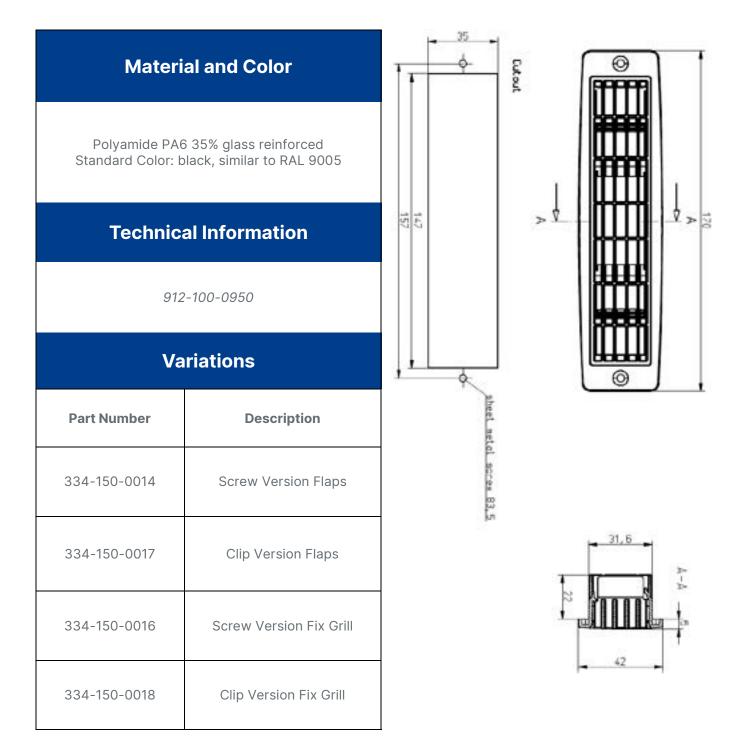


THIN LOUVER



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.





VECTOR NOZZLE

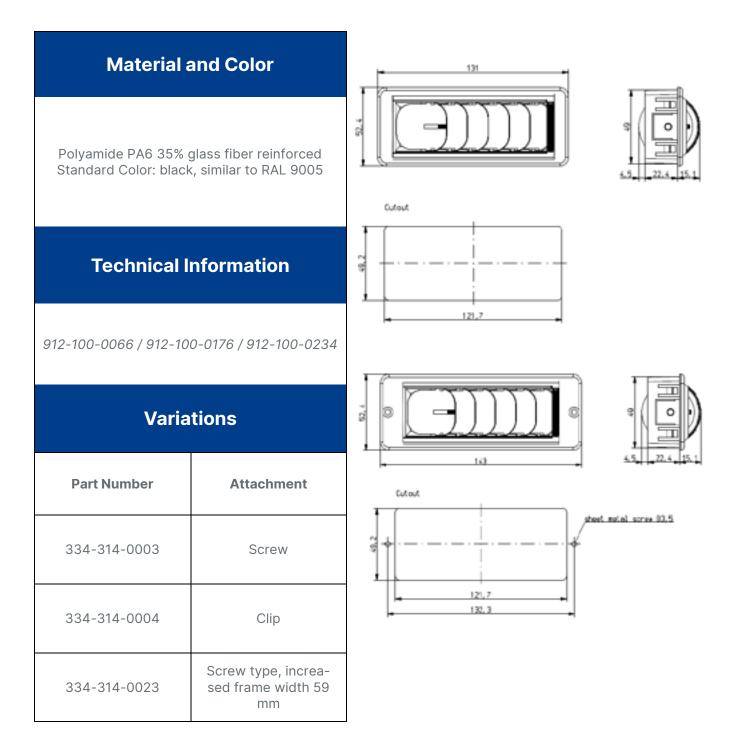




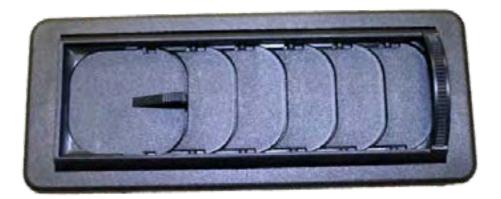


SMALL LOUVER I

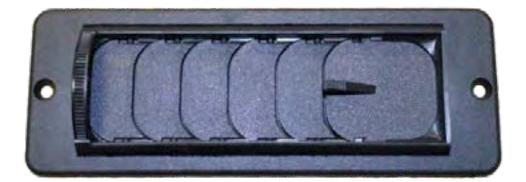
AURORA's Small Louver has a narrow bezel with vanes that open, close, and roll, providing excellent air distribution. The rugged design allows these louvers to be placed in all locations of the cab. Both the screw and clip versions provide easy mounting options for versatile usage. The Small Louver is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



SMALL LOUVER I



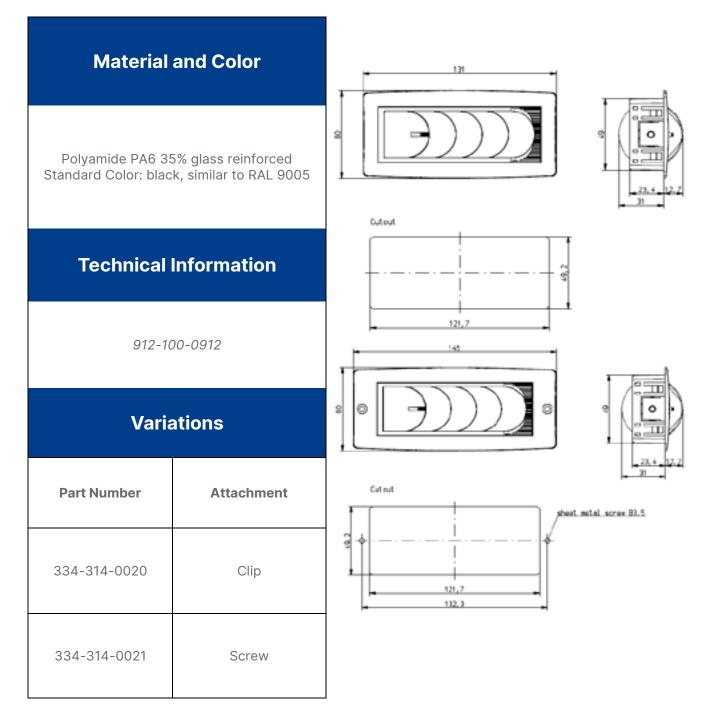






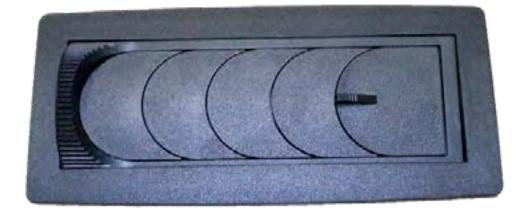
RECTANGULAR LOUVERS SMALL LOUVER II

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.

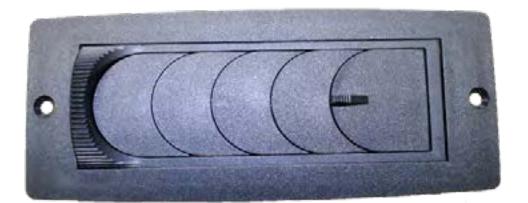




SMALL LOUVER II

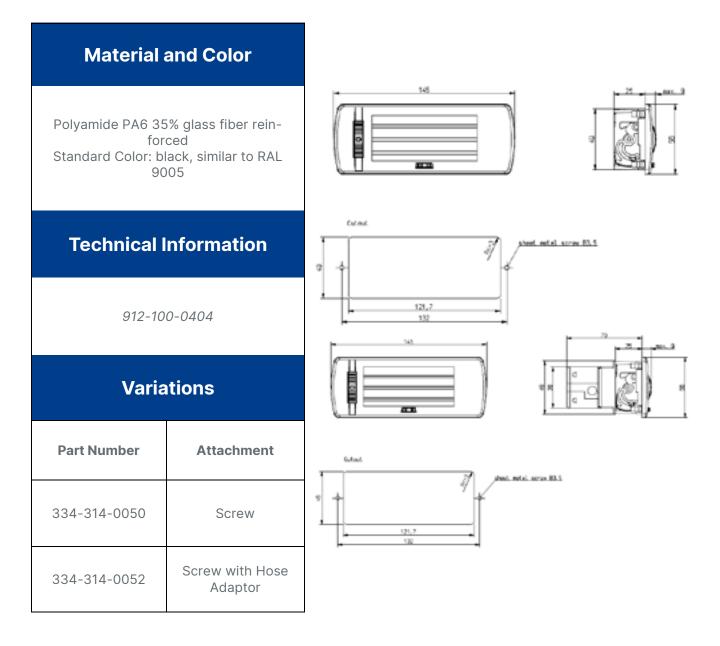








AURORA's Aero Louver serves multiple functions for cabin air distribution. This louver caters to cab builders and designers who do not wish to have visible screws in their vehicles. Once the base of the louver is installed, a clip-on face plate hides the screws from view inside the cabin. The Aero louver 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.





AERO LOUVER



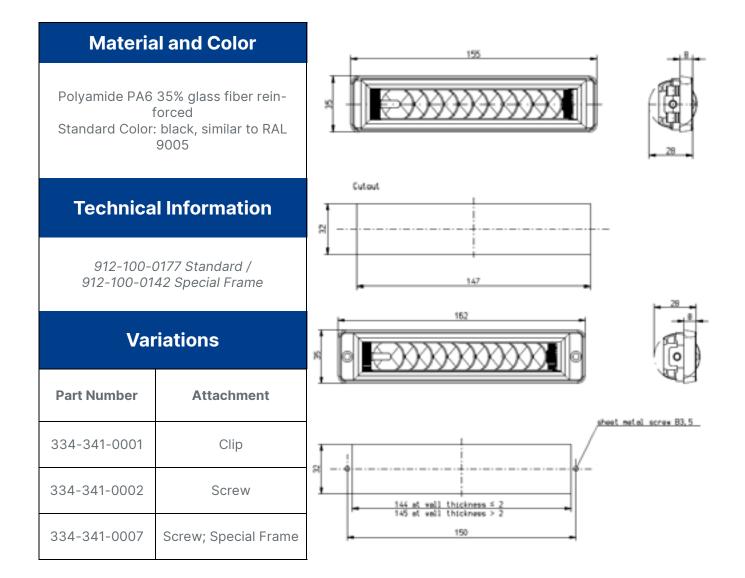




RECTANGULAR LOUVERS STANDARD ROLL NOZZLE

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.





RECTANGULAR LOUVERS STANDARD ROLL NOZZLE







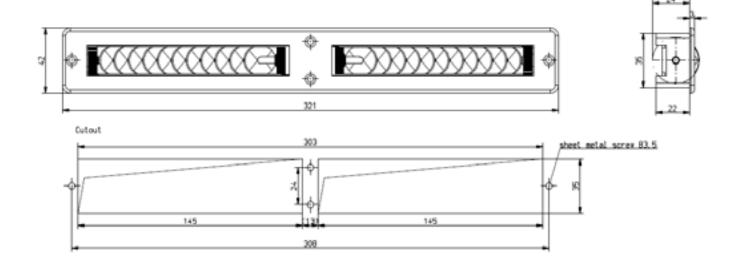
RECTANGULAR LOUVERS DOUBLE ROLL NOZZLE

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 | |



DOUBLE ROLL NOZZLE





DEFROST LOUVERS QUARTER CIRCLE VENT

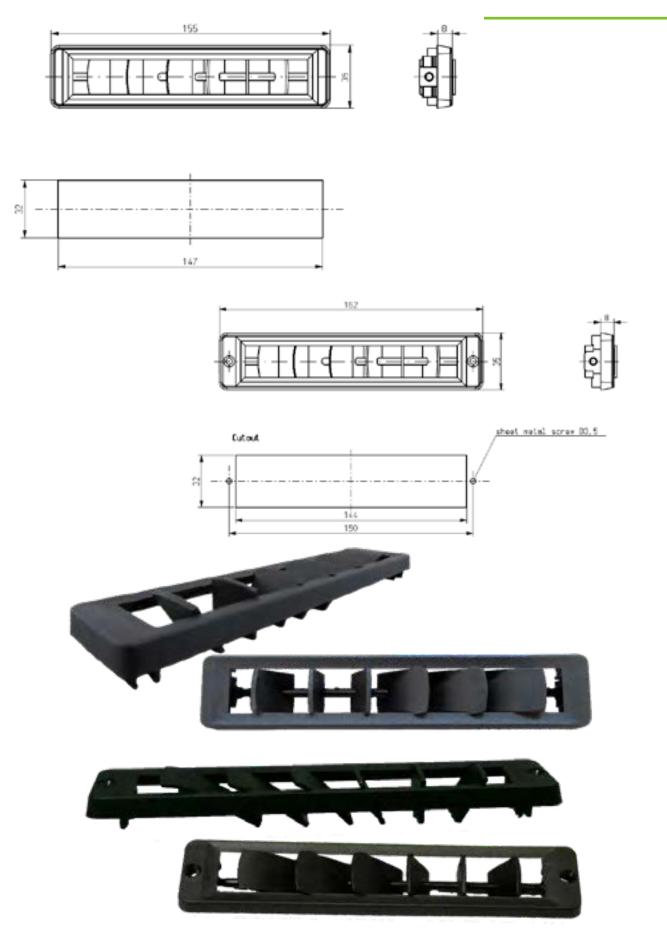
AURORA's Quarter Circle Vent has a fixed vane profile that evenly distributes airflow, making it ideal for defrost applications. This louver is most suitable for dashboard and window edge applications where defrost functionality is key.

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



DEFROST LOUVERS

QUARTER CIRCLE VENT



DEFROST LOUVERS

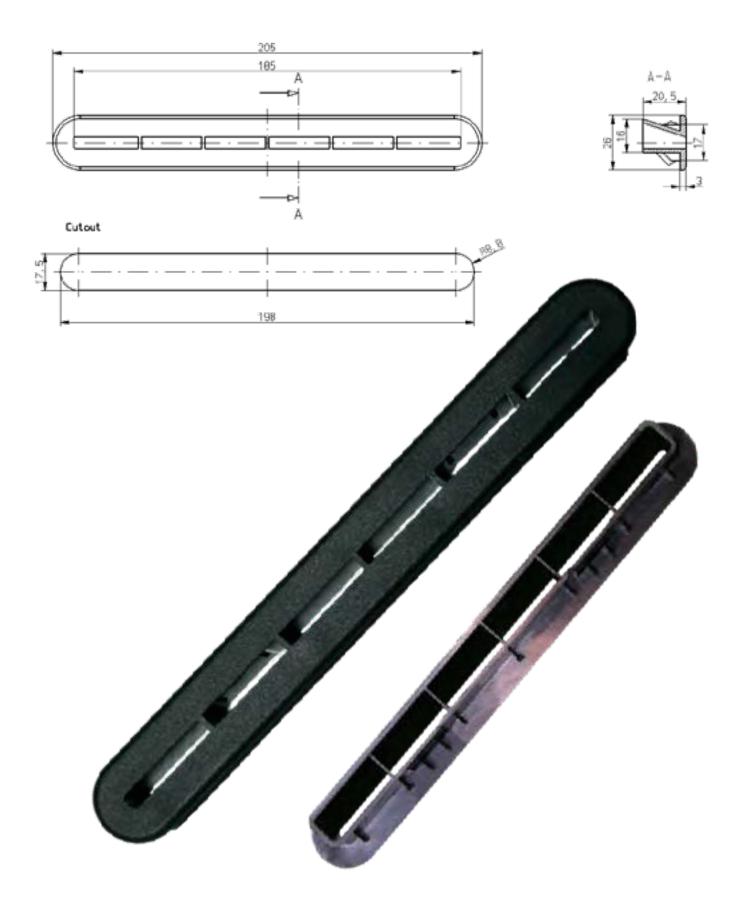
PD NOZZLE

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

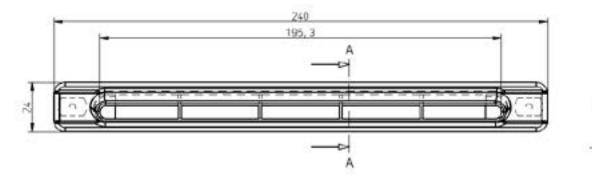
The *PD Nozzle* is a defrost louver designed to be installed close to the windshield. As a result of its slim profile, it is an excellent product to be incorporated into a dash board or headliner. Integrated guide vanes distribute optimal airflow along the surface. Various sizes are available upon request.

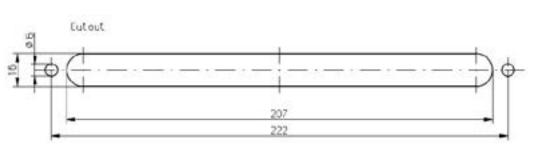
| Material and Color | | | | |
|---|-----------------|--|--|--|
| ABS Plastic Standard Color: black, similar to RAL 9005 | | | | |
| Technical Information | | | | |
| 912-100-0323 | | | | |
| Variations | | | | |
| Part Number | Description | | | |
| 334-150-0005 | PD2 Long Louver | | | |



PD2 LOUVER LONG

∆-A









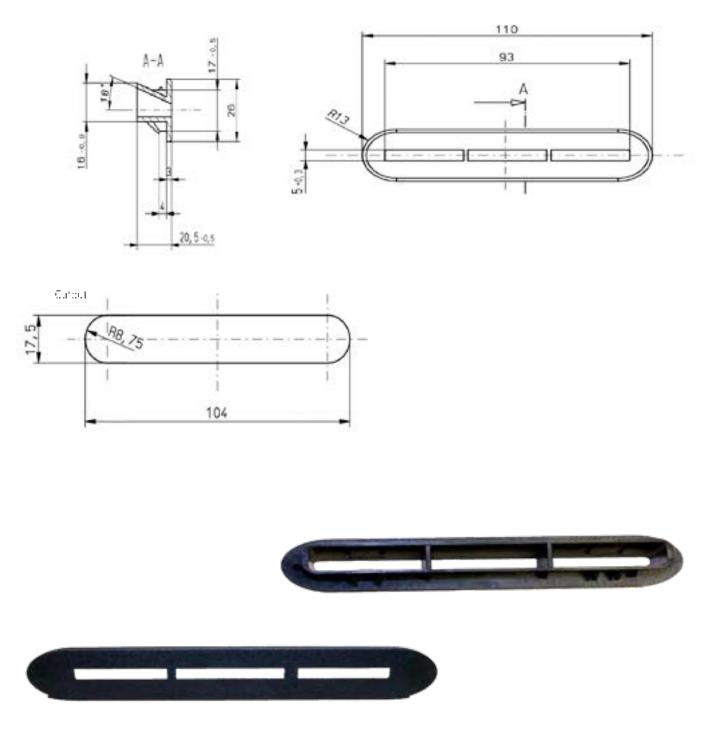
PD SHORT

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.

DOMINO

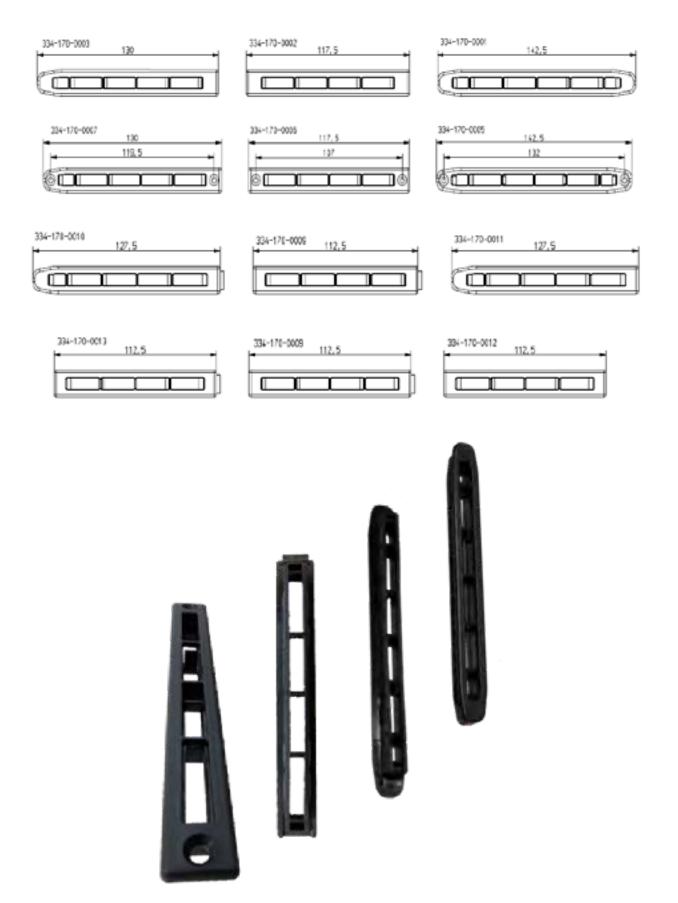
The *Domino* Louver's compact dimensions allow for ideal defrost applications. Their sleek design allows these louvers to adapt to the curve and width of any surface with minimal space requirements.

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 | |



DOMINO



WATER VALVES MASTERS OF LIQUID FLOW



MECHANICAL BOWDEN CABLE

Mechanical Water Valves control the heating performance via easy adjustable Bowden Cables. Standard connection diameters are ø 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

Flow medium: water with antifreeze (mixture ratio max. 1:1) Volumetric flow: 100-1.200 l/h Operating temperature range: -40°C to +100°C fluid temp. Environmental temperature range: -40°C to +85°C Nominal pressure of liquid: p = 1 bar relative Test pressure of the water valve: p1 = 2.5 bar absolute

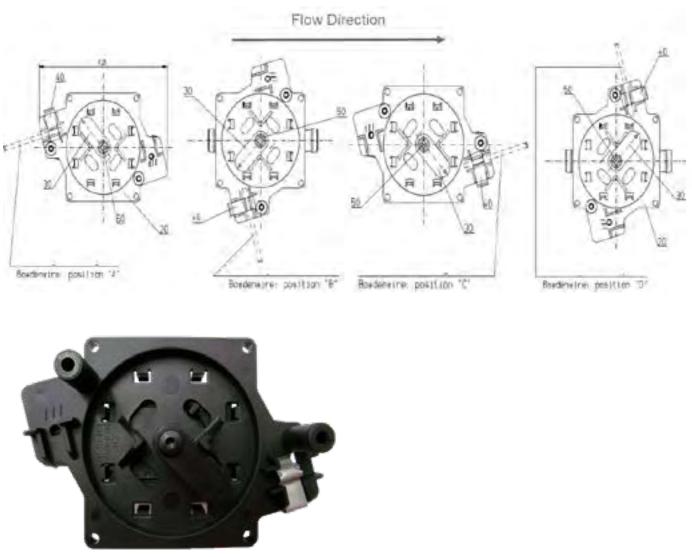
Technical Information

912-100-0007

| Variations | | | |
|--------------|---------------------------------------|--|--|
| Part Number | Description | | |
| 381-000-0141 | Ø 16/16 with lever Bowden Wire Pos. A | | |
| 381-000-0142 | Ø 16/16 with lever Bowden Wire Pos. B | | |
| 381-000-0143 | Ø 16/16 with lever Bowden Wire Pos. C | | |
| 381-000-0144 | Ø 16/16 with lever Bowden Wire Pos. D | | |
| 381-000-0145 | Ø 22/22 with lever Bowden Wire Pos. A | | |
| 381-000-0146 | Ø 22/22 with lever Bowden Wire Pos. B | | |
| 381-000-0147 | Ø 22/22 with lever Bowden Wire Pos. C | | |
| 381-000-0148 | Ø 22/22 with lever Bowden Wire Pos. D | | |
| 381-000-0149 | Ø 28/28 with lever Bowden Wire Pos. A | | |
| 381-000-0150 | Ø 28/28 with lever Bowden Wire Pos. B | | |
| 381-000-0151 | Ø 28/28 with lever Bowden Wire Pos. C | | |
| 381-000-0152 | Ø 28/28 with lever Bowden Wire Pos. D | | |
| 381-000-0170 | Ø 18/18 with lever Bowden Wire Pos. A | | |
| 381-000-0171 | Ø 18/18 with lever Bowden Wire Pos. B | | |
| 381-000-0158 | Ø 18/18 with lever Bowden Wire Pos. C | | |
| 381-000-0172 | Ø 18/18 with lever Bowden Wire Pos. D | | |



MECHANICAL BOWDEN CABLE





WATER VALVES 5 POLE WITH SERVO MOTOR

381-000-0339

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

Flow medium: water with antifreeze with mix ratio max. 1:1 Volumetric flow: 100-1.200 l/h Operating temperature range: -40°C to +100°C fluid temperature Environmental temperature range: -40°C to +85°C Nominal pressure of the fluid: p = 1 bar relative Test pressure of the water valve p1 = 2.5 bar absolute

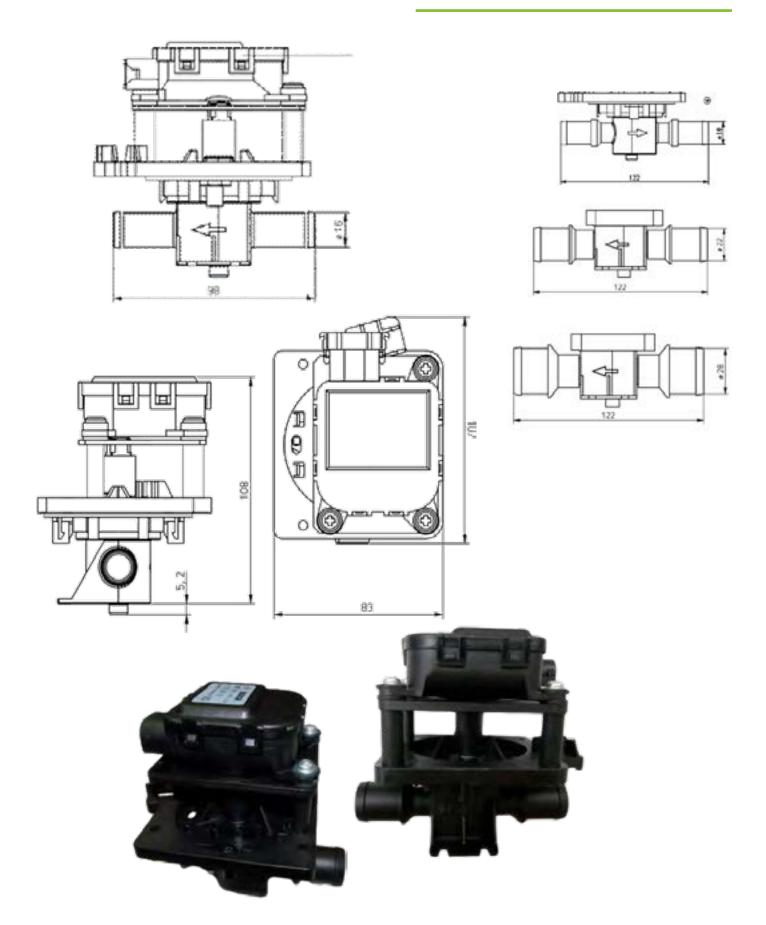
Technical Information

| 912-100-0007/421 Variations | | | |
|--------------------------------|-------|------|--|
| | | | |
| 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 | |
| 381-000-0354 | 28/28 | 12 V | |
| 381-000-0390 | 18/18 | 12 V | |
| | | | |

18/18

24 V

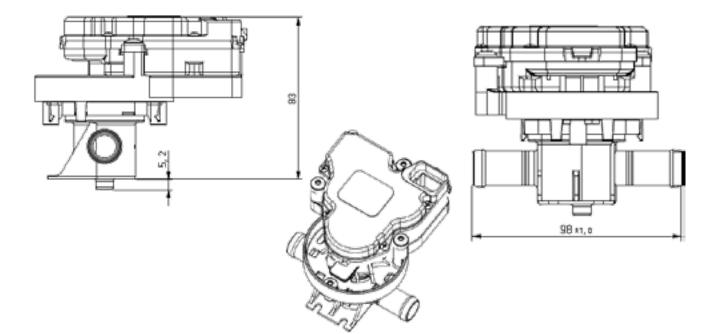
5 POLE WITH SERVO MOTOR



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 | | | |
|--|------------|-------------|--|
| Flow medium: water with antifreeze with mix ratio max. 1:1 Volumetric flow: 100-1.200 l/h Operating temperature range: -40°C to +100°C fluid temperature Environmental temperature range: -40°C to +85°C Nominal pressure of the fluid: p = 1 bar relative Test pressure of the water valve p1 = 2.5 bar absolute | | | |
| Technical Information | | | |
| 912-100-0007/0957 | | | |
| Variations | | | |
| Part Number | Diameter Ø | Voltage (V) | |
| 381-000-0401 | 16/16 | 24 V | |
| 381-000-0402 | 22/22 | 24 V | |
| 381-000-0451 | 16/16 | 12 V | |



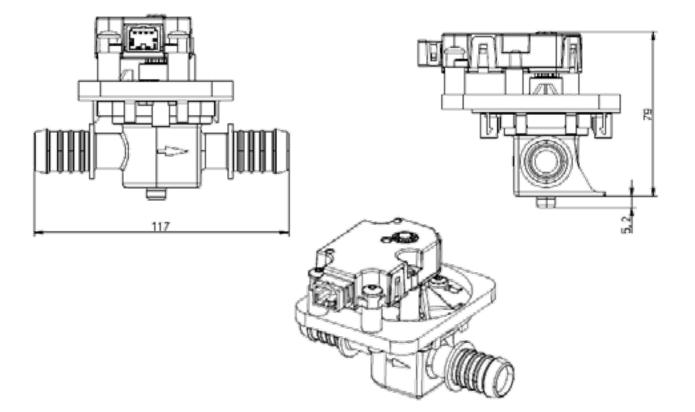




WATER VALVES SERVO MOTOR LINBUS

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



AURORA PRODUCT CATALOG 2024

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Suomen Elektrolind Oy

Lautamiehentie 3, 02770 ESPOO Puh. +358 9 512 2344 elektrolind@elektrolind.fi • www.elektrolind.fi