Twin radial blower DRG 1200 with oval resistor, 12 and 24 Volt versions

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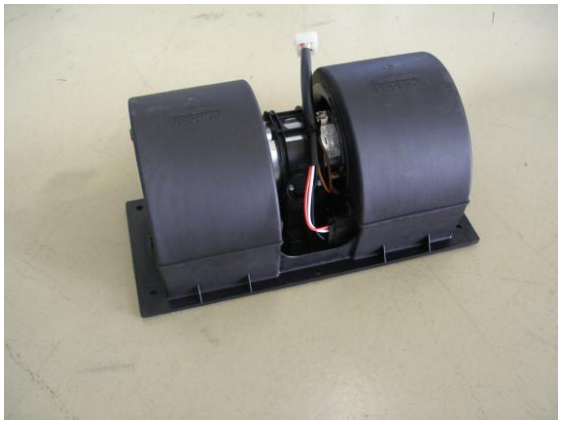

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Technical changes reserved

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a	b	c	d

part no.:
131-601-0400 DRG 1200 12V basic version
131-602-0400 DRG 1200 24V basic version

Further versions can be delivered.

1 Safety advises

- The blower is principle maintenance- and service-free. If there is maintenance work to do, make sure it is to be carried out only when the motor is not running. In order to avoid injuries, the blower is to be separated from the current circuit.
- Make sure that maintenance work is only carried out by specialised personnel.
- Do not reach into the blower and never stick objects into it.
- Please do not get into contact with the resistor on the blower, if it has not completely cooled down.
- Changing the resistor: Pay attention to an installation position resistor parallel to the housing wall.

Advice for installation and maintenance work:
The relevant regulations for the prevention of accidents as well as other generally accepted regulations releated to safety and occupational mediciure must be observed.

2. Usage

The twin radial blower DRG 1200 is used for powerful usage in heaters, A/C units and ventilation systems.

3. Construction of the twin radial blower DRG 1200

3.1. Parts

The twin radial blower DRG 1200 consists of the following parts
- motor, radial wheels, inner and outer rings = fan unit
- basic plate, half bowl, outer rings, motor holder
- oval resistor with micro-temperature-fuse MTS
- housing clips
- cables

Optional with suppressor module
Information about the suppressor module can be seen in technical information 912-100-0398.

3.2. Material

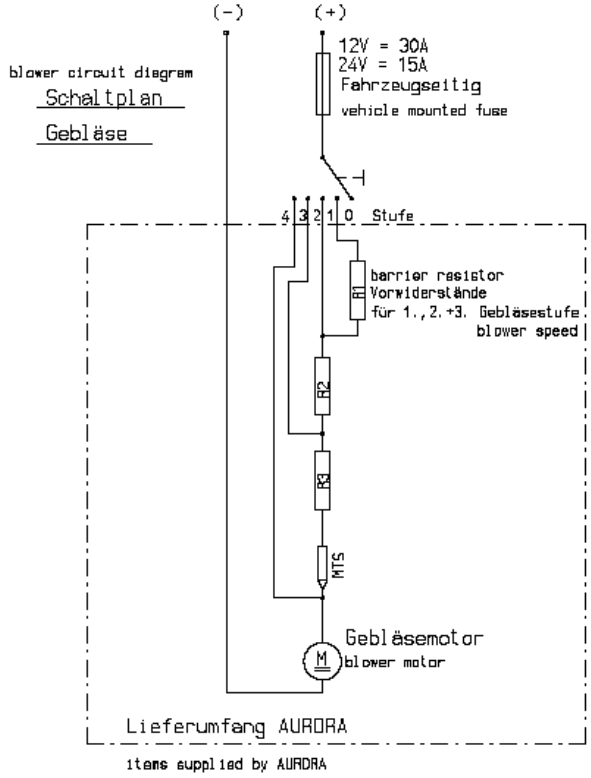
The housing lower part is made out of plastic granulate polyamide PA6 GK30.
Housing upper part, motor holder, inlet rings and the wheels are made out of plastic granulate polyamide PA6, 35% glass-fibre-reinforcement.
This material is has a high temperature-resistant and because of the glass-fibre-reinforcement a high stability. A safety data sheet about the granulate can be ordered by AURORA.

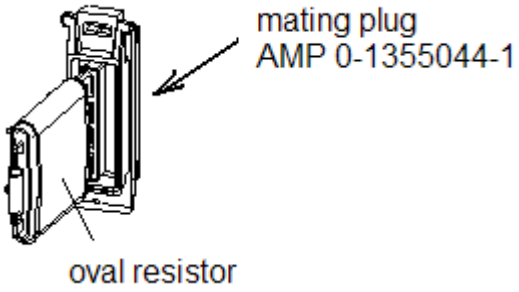
3.3. Speed control

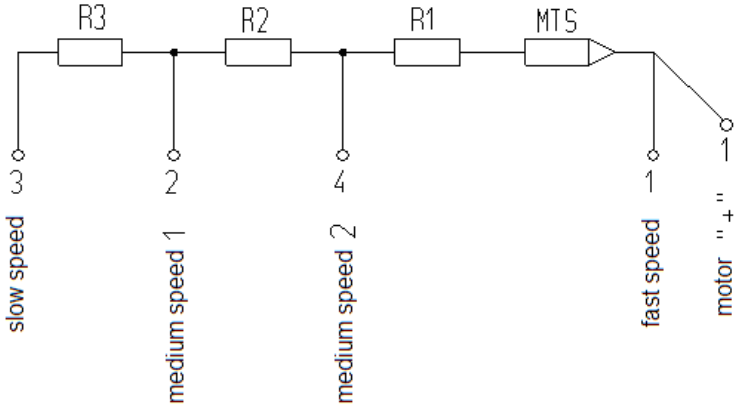
The blower operated in four speed levels.

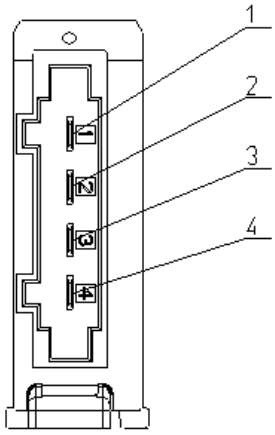
Caution! The vehicle side fuse protection of 15 A at 24V or 30A at 12V has to be made by the customer.
See circuit diagram blower.

The different blower speeds are achieved using an oval resistor. The oval resistor is a cemented ceramic resistor.
The blower is protected from overload and a possible burning danger with a micro-temperature- fuse (MTF) installed at the resistor.









3.4 cables

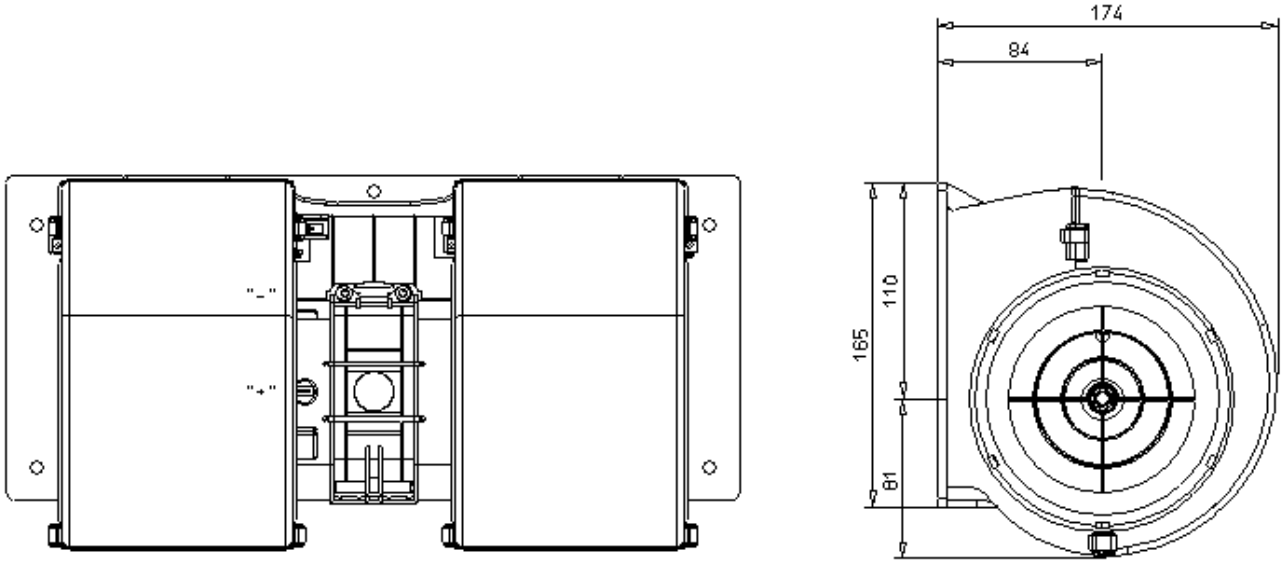
The used wires are unscreened low tensions wires with thin-wall isolation for road vehicles.
FLRY with color marking of wires according to DIN IEC 304.

4. Function

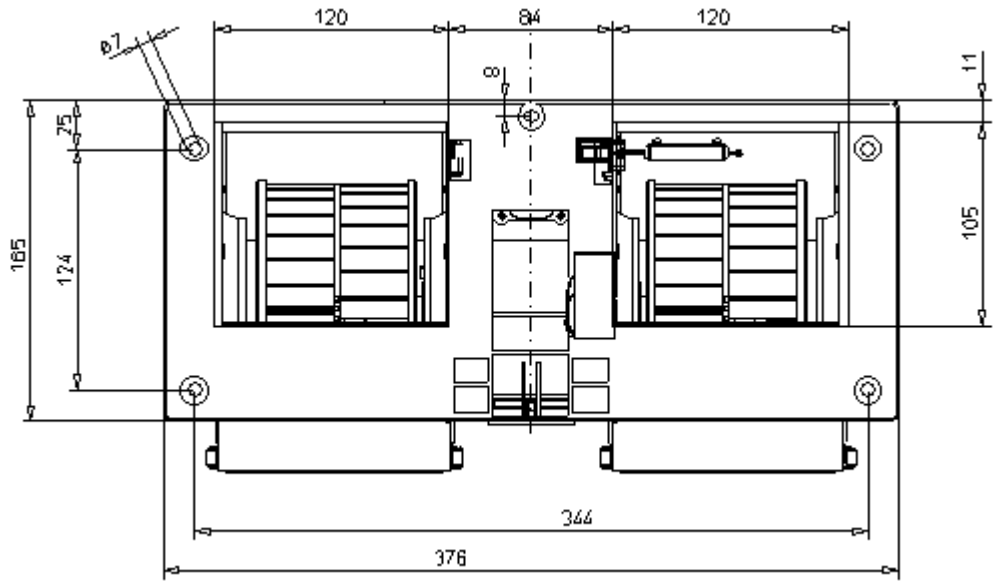
The air enters axial into the fan wheels, then the air will be radial turned round and leaves on the area vertical to the suction direction.

5. Dimensions and hole pattern

Dimensions:



Hole pattern:



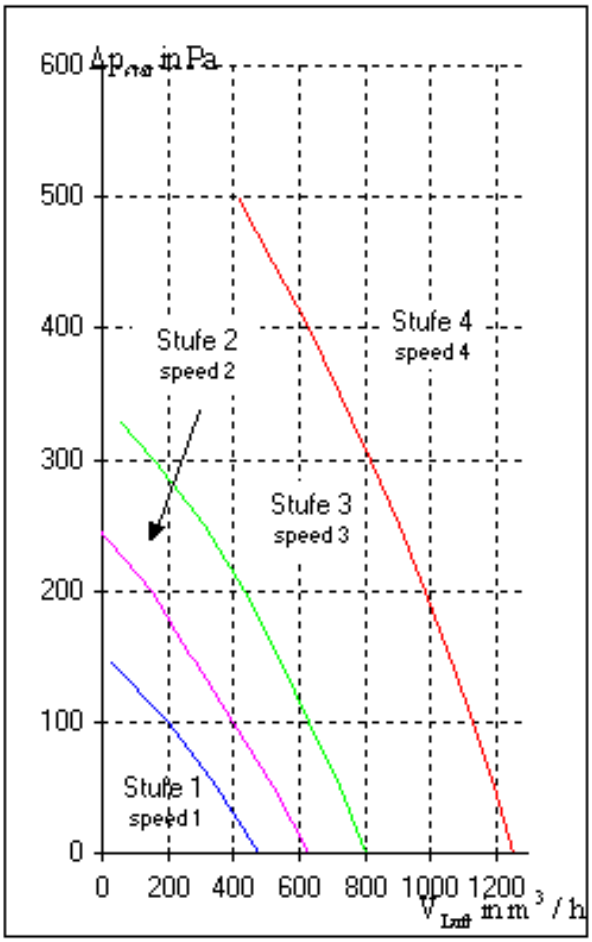
6. Technical data

air flow volume	1200 m^3/h (736 cfm)
valid environmental temperature range	-40°C up to +85°C
weight	ca. 2,65 kg
double ball bearing	
special air flow through the motor for high lifetime (patented)	

	speed 1	speed 2	speed 3	speed 4
Vair in m^3/h	470	675	800	1250
V_{air} in cfm	277	397	471	736
Pel in W	70	109	150	307
Lp in dB(A)	56	63	68	77

power information assumes no system resistance (free-blowing)

7. Characteristic curve



8. Conducted validation tests for DRG-family (motors)

Test method	Standard basis	AU standard	Short description	Validation
power measuring		963-38T-0010	evaluation air characteristic curve	characteristics OK
Sound intensity level test	DIN IEC 651	963-38T-0011	sound intensity level free-blowing	OK
dust test		963-38T-0003	function at dust influence 1000h operation	OK
vibration test	according to DIN IEC 68	963-38T-0007	vibration test 30...100Hz / max 8g	OK
	IVECO 18-2105		10-200Hz/5g	OK
salt spray test	DIN 50021	963-38T-0016	corrosion resistance 72h	OK
electr. Function test			start-up test	
			over voltage 32V 60 min	OK
			polarity test	OK
			Insulation test/electric strength 500V	OK
		963-38T-0012	run behaviour with resistor	OK
balance quality	DIN ISO 1940		blower balanced	OK
temperature test storage	DIN IEC 68		storage 95h /2h	OK
temperature test operation	DIN IEC 68		72h at 85°C	OK
temperature test operation	DIN IEC 68		500h at 80°C	
thermal shock test	IVECO 18-2105		10 cycles 2h at -30°C/2h at 80°C	OK
temperature cycling test	DIN IEC 68		35 cycles 8h between -40/+80°C	OK
climate test humidity constant	DIN IEC 68		55°C at 95% air humidity 21 days	OK
climate test humidity cyclical	DIN IEC 68		12 cycles of 24h at 10-80°C / 95% humidity	OK
cold test	DIN IEC 68		function + storage at -40°C/72h	OK
arctic test	MAN LH 259001		function + storage at -46°C	OK
EMC tests	2006/28 EC directive		emitted interference / interference resistance	OK
electrostatic sensitive device tests	MAN LH 259 001		electrostatic discharge	OK
lifetime test		963-38T-0008	Continuous operation, free-blowing at 13/26V, max. load	ca. 5000 h laboratory conditions