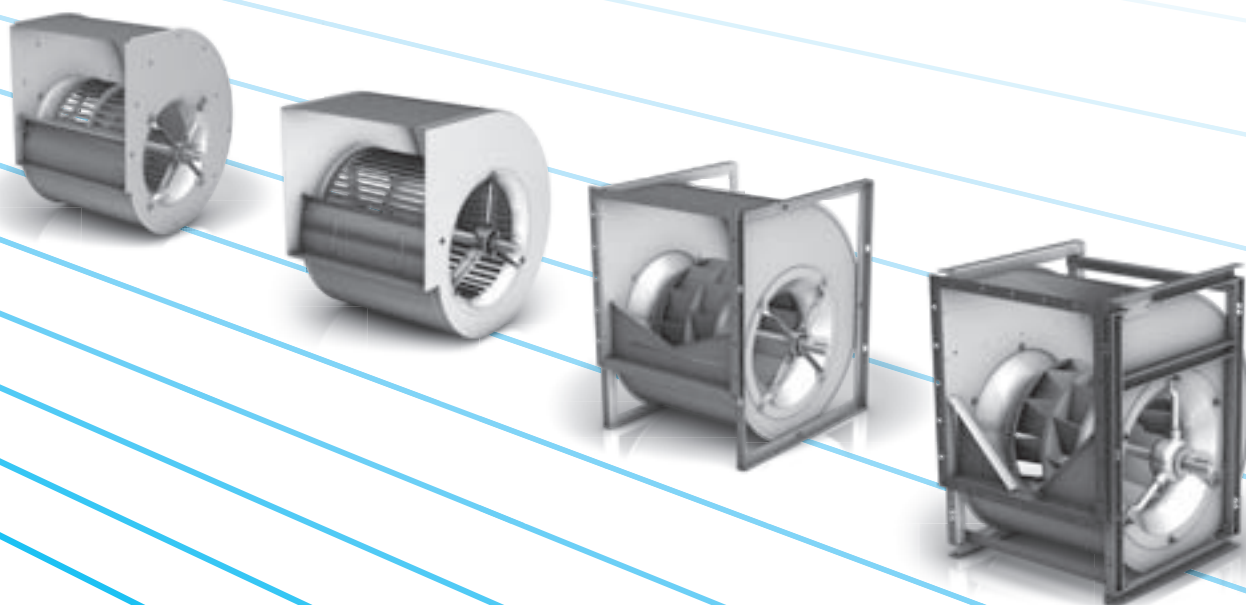


Centrifugal Fans

belt driven

Issue 2.4 EN
June 2012





Nicotra Gebhardt S.p.A. (Italy) certifies that ADH-E fans of the E0, E2, E4, E6 and E7 versions, from sizes 0160 to 0560, RDH-E fans of the E0, E2, E4, E6 and E7 versions, from sizes 0180 to 0560, ADH and RDH fans of the L, R, K, K1 and K2 versions, from sizes 0630 to 1000, AT fans of the S, SC, C and TIC versions, from sizes 7/7 to 30/28, shown herein are licensed to bear the AMCA Seal.

Nicotra Gebhardt GmbH (Germany) certifies that RZR fans of the 11, 12, 15 versions, from sizes 0355 to 1000, shown herein are licensed to bear the AMCA Seal.

The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

Air performance with Installation Type "A" ("with free outlet"), and that of the twin fan versions G2L, G2R, G2K, G2K2, G2E0, G2E2, G2E4, G2E7, SC2, G2C and G2C-C2, and that of the triple fan versions G3C and G3C-C2 in any installation type is not AMCA licensed.

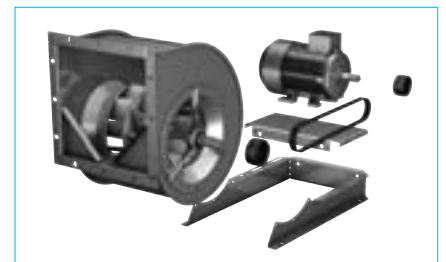
Nicotra Gebhardt stands for:



► Maximised flexibility and minimised design effort for customers, because all radial fan casings have identical dimensions – no matter what kind of impeller geometry



► Top product quality and shorter delivery times – thanks to state-of-the-art production technology



► Energy efficiency through comprehensive system know-how

The Nicotra Gebhardt portfolio

A strong provider for many optimal solutions

When it comes to radial fans, we are the first people you should talk to. From belt-driven radial fans to plugfans, it's all there in our product portfolio. We offer the largest, most comprehensive range of products in this area – and of course the matching services.

ADH-E / ADH



double-inlet
forward-curved
impeller geometry

AT



double-inlet
inch diameters
forward-curved impeller
geometry

RDH-E / RDH



double-inlet
backward-curved
impeller geometry

RZR *rotavent*



double-inlet
hollow aerofoil
impeller geometry

When everything fits

To us, perfection in our product portfolio means that all product series in the area of encased radial fans are attuned to one another and are 100% compatible in their dimensions.

How did we do it?

By using an identical design for the connection dimensions of every fan size in our newly developed series ADH-E and RDH-E and carefully coordinating our options and accessories.

In this way, we have standardised and harmonised our product portfolio in all relevant areas.

Well designed, easy to install, economical

A system that saves space, time, and money – in an air handling unit or any other application: our compact base frame offers decisive advantages:

- The frame lengths have been optimised and adjusted for the casing position and motor installation height to achieve the smallest possible overall height and length
- Exact, optimised coordination of all components, all the way through to installation, adjustment and testing
- Suitable for all fans of the series ADH-E0, RDH-E0 and RZR-11 up to size 0500



The compact base frame from Nicotra Gebhardt

proSELECTA II

proSELECTA II is a technical selection program that allows you to configure your own individually designed fan. It provides you with the opportunity to choose from the entire range of fan types and their associated options.



Simple and reliable selection

The result from **proSELECTA II** is the provision of all the technical data for your fan, including sound level data, dimension specifications and accessories. Apart from that, as a registered user, your purchase prices are provided. Additionally fully dimensioned drawings in DXF format are available, which can be downloaded and transferred straight into your CAD system.

So that you can be sure

Models and options that are technically not permissible, are automatically excluded in proSELECTA II. So there is no chance that you will configure a “wrong” device option.



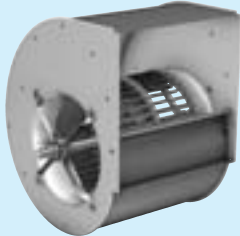
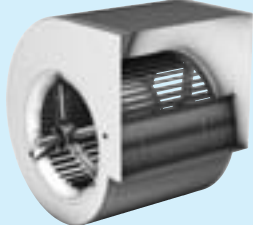
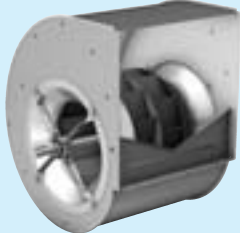
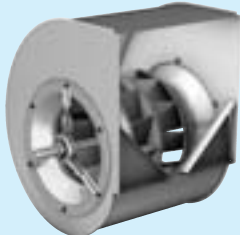
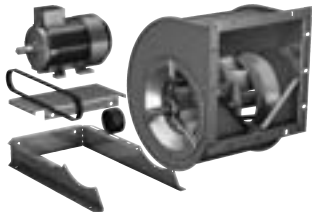

What else is important to you

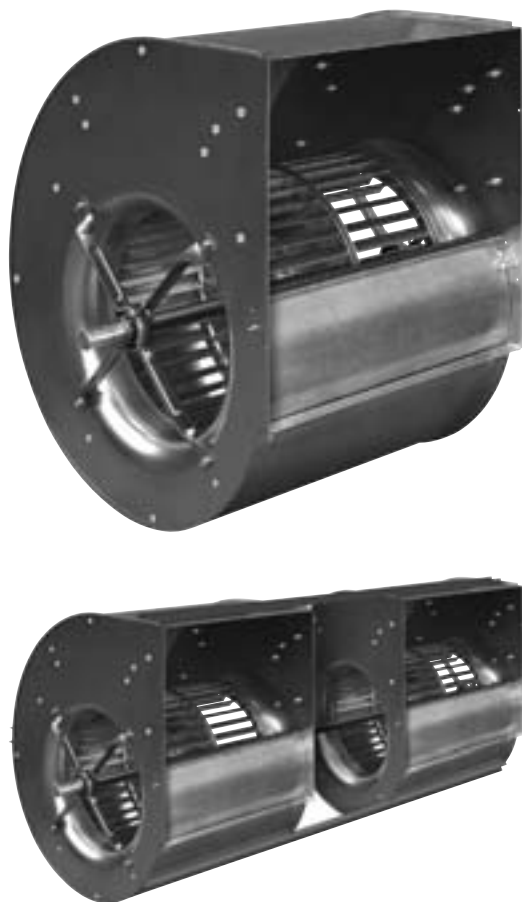
During the fan selection process, you can choose any of the standardised ATEX options.

Free registration and many advantages

You can register as a proSELECTA II user with us, which enables us to offer you faster order processing. What this means for you is:

- ▶ The complete configuration of your fan with its associated system accessories and belt drive layout.
- ▶ The possibility to produce fans that operate via a frequency inverter.
- ▶ The option of saving your own fan configuration on our server.
- ▶ The opportunity to modify your saved configuration, even over the phone to your Nicotra Gebhardt representative.

<p>High performance centrifugal fan ADH</p> <p>double inlet for belt drive impeller with forward curved blades of galvanised sheet steel</p>	<ul style="list-style-type: none"> ▶ Volume up to 300,000 m³/h ▶ Pressure up to 2,200 Pa 	 <p>ADH</p>
<p>High performance centrifugal fan AT</p> <p>double inlet for belt drive impeller with forward curved blades of galvanised sheet steel</p>	<ul style="list-style-type: none"> ▶ Volume up to 65,000 m³/h ▶ Pressure up to 2,500 Pa 	 <p>AT</p>
<p>High performance centrifugal fan RDH</p> <p>double inlet for belt drive centrifugal impeller with backward inclined blades</p>	<ul style="list-style-type: none"> ▶ Volume up to 290,000 m³/h ▶ Pressure up to 3,500 Pa 	 <p>RDH</p>
<p>High performance centrifugal fan RZR</p> <p>double inlet for belt drive high performance impeller with backward curved hollow section true aerofoil blades</p>	<ul style="list-style-type: none"> ▶ Volume up to 300,000 m³/h ▶ Pressure up to 3,500 Pa 	 <p>RZR</p>
<p>Fittings / Accessories</p>	<ul style="list-style-type: none"> ▶ complete system accessories ▶ miscellaneous fittings 	 <p>Accessories</p>
<p>Description</p>	<ul style="list-style-type: none"> ▶ technical description ▶ operating limits 	 <p>Description</p>

**Working towards perfection:
The ADH E and ADH series**

By further developing sizes 0160 to 0560 of our successful ADH model range, we have created a product series which boasts a whole host of improvements. The result is the ADH E generation, one which will overcome the challenges of any application.

During development, we paid particularly close attention to four factors: air volume flow, pressure, energy efficiency and noise. These aspects are the key to success: all of the models are on a par with or superior to their predecessors in terms of these parameters.

New choice of models

Whether you are looking for single or twin fans, the new ADH E series offers impressive further improvements in terms of functionality and potential uses, whatever the application.

The ultimate in compatibility

Minimised design effort for you means that:

- All accessories and equipment are carefully coordinated and compatible to further product ranges like RDH E / RDH (backward curved centrifugal fans) and RZR (hollow-airfoil blade geometry).
- The connection dimensions for ADH E (sizes 0160 to 0560) are identical with the corresponding models from the ADH range.
- The models for sizes ADH 0630 to 1000 remain unchanged.
- All ADH E models up to size 0500 are compatible with the new compact base frame – a unique feature which makes completing your system ultra simple and affordable!

Top quality for performance and a long service life!

Alongside an intelligent construction, aspects such as the quality of materials and workmanship play a crucial role in ensuring a long life cycle. That's why we have made the casing of the new ADH E even sturdier by means of a standing seam construction. In addition to this, the way in which the blades are attached to the impeller has been optimised and the shafts have been galvanised for more effective corrosion protection – further factors which significantly increase the service life of this range.

The product range at a glance:

The technical specifications of the ADH E and ADH series

The standard series are designed for permanent ventilation at up to +80 °C resp. +100 °C. The specifications conform to accuracy class 2 according to DIN 24166.

ADH E and ADH G2E series

- Sizes 0160 up to 0560
- Scroll of galvanized sheet steel with standing seam and straight cut off
- New cylindrical impeller with forward-curved blade geometry
- Galvanized shaft
- Volume up to 120.000 m³/h
- Pressure up to 2.200 Pa






ADH and ADH G2 Series





- Sizes 0630 up to 1000
- Lap jointed scroll of galvanized sheet steel with Pittsburgh-Seam and V-cut off
- Volume up to 300.000 m³/h
- Pressure up to 1.800 Pa

The ADH E and ADH range of models:

The right fan for every specification!

Depending on the fan size, the ADH E and ADH series have up to 5 mechanical versions of the single fan and up to 4 additional twin fan options. In this way, we ensure that we have the perfect model for all requirements and any application.

Version	Description	Figure
ADH E0 / ADH L	Lap jointed scroll without feet and discharge flange. Light duty bearing execution with pressed steel housing/strut assemblies.	
ADH E2 / ADH R	Lap jointed scroll with rectangular side frame, without discharge flange. Light duty bearing execution with pressed steel housing/strut assemblies.	
ADH E4 / ADH K	Lap jointed scroll with heavy duty reinforced side frames, without discharge flange. Medium duty bearing execution with cast iron pillow block, mounted on a robust pedestal.	
ADH E6 / ADH K1	Lap jointed scroll with heavy duty reinforced side frames, without discharge flange. Medium-heavy duty bearing execution with cast iron pillow block, mounted on a robust pedestal.	
ADH E7 / ADH K2	Lap jointed scroll with heavy duty reinforced side frames, without discharge flange. Heavy duty bearing execution with single-piece resp. split-type plummer block, mounted on a robust pedestal.	

Version	Description	Figure
ADH G2E0	The two single fans ADH E0 or ADH L are fitted together to a robust assembly by means of 3 U-channels. Both impellers are fitted on a common shaft supported by 3 bearings.	
ADH G2E2 / ADH G2R	The two single fans ADH E2 or ADH R are fitted together to a robust assembly by means of 3 angle bars. Both impellers are fitted on a common shaft supported by 3 bearings.	
ADH G2E4 / ADH G2K	The two single fans ADH E4 or ADH K are fitted together to a robust assembly by means of 3 angle bars. Both impellers are fitted on a common shaft supported by 3 bearings (sizes 0250/-0630) or the fans have separated shafts being connected by a elastic coupling (sizes 0710/-1000).	
ADH G2E7 / ADH G2K2	The two single fans ADH E7 or ADH K2 are fitted together to a robust assembly by means of 3 angle bars. Both impellers are fitted on a common shaft supported by 3 bearings (sizes 0250/-0630) or the fans have separated shafts being connected by a elastic coupling (sizes 0710/-1000).	

ADH E_-0160

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	160	mm
Number of blades	z	36	
Moment of Inertia	J	0.006	kgm ²

Impeller Data

Impeller weight	m	1.1	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

- ☐ all types suitable
☒ do not use in this area

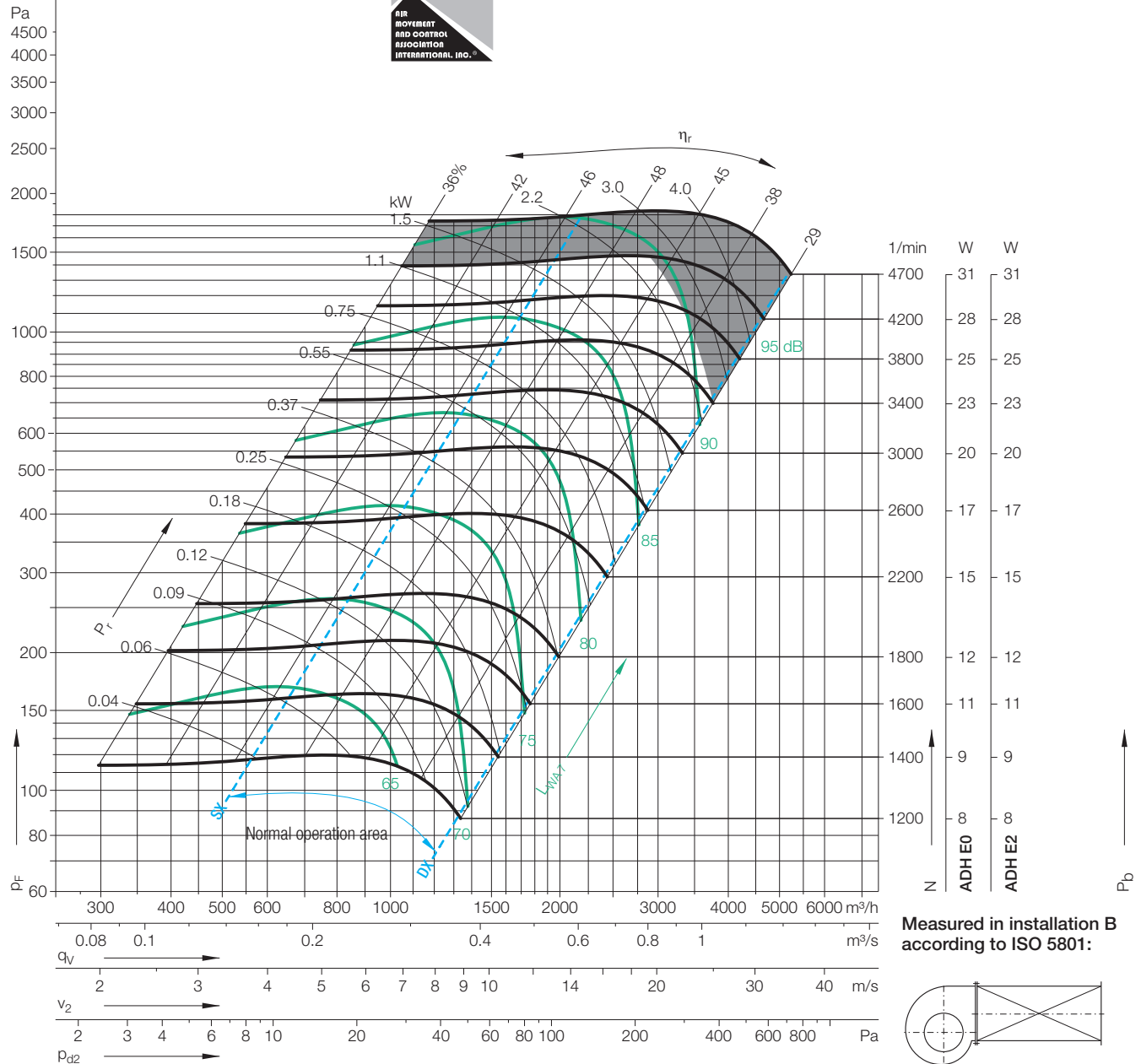


Nicotra Gebhardt S.p.A certifies that the fan shown herein is licensed to bear the AMCA Seal.

The ratings shown are based on tests and procedures performed in accordance with AMCA

Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to air performance ratings only.



Measured in installation B according to ISO 5801:

Duty point	Speed 1/min	$\Delta L_{Wrel4}(A)$ dB
SX	3500	2
SX	2200	1
SX	1400	-1
$Q_{V,opt}$	3500	2
$Q_{V,opt}$	2200	0
$Q_{V,opt}$	1400	-1
DX	3500	2
DX	2200	1
DX	1400	0

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
0	-9	-3	-5	-7	-7	-8	-11	dB
-5	-4	-3	-11	-4	-6	-9	-14	dB
-5	-1	-5	-4	-5	-6	-11	-17	dB
-4	-10	-4	-5	-7	-6	-7	-12	dB
-8	-5	-3	-11	-5	-6	-8	-13	dB
-7	-2	-6	-5	-5	-6	-11	-16	dB
-10	-15	-6	-7	-10	-6	-7	-7	dB
-14	-8	-6	-13	-7	-6	-6	-9	dB
-11	-5	-8	-8	-6	-6	-7	-11	dB

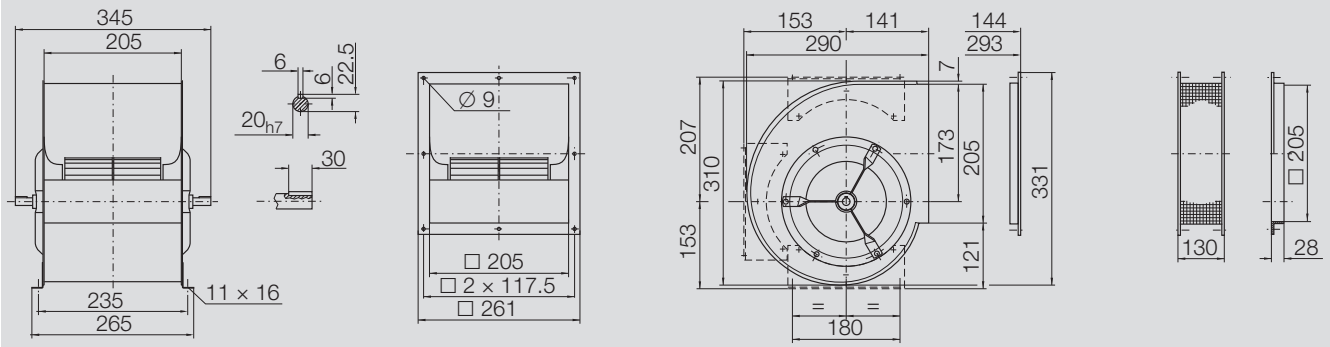
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
9	8	6	-3	-5	-8	-10	-13	dB
9	8	1	-4	-6	-9	-11	-16	dB
10	5	-1	-4	-7	-9	-13	-19	dB
8	6	4	-3	-5	-8	-10	-12	dB
7	6	-0	-4	-6	-9	-10	-15	dB
7	4	-2	-4	-7	-9	-12	-18	dB
-2	2	4	-4	-6	-6	-8	-8	dB
0	5	-3	-5	-5	-8	-8	-11	dB
5	1	-4	-6	-6	-8	-9	-13	dB

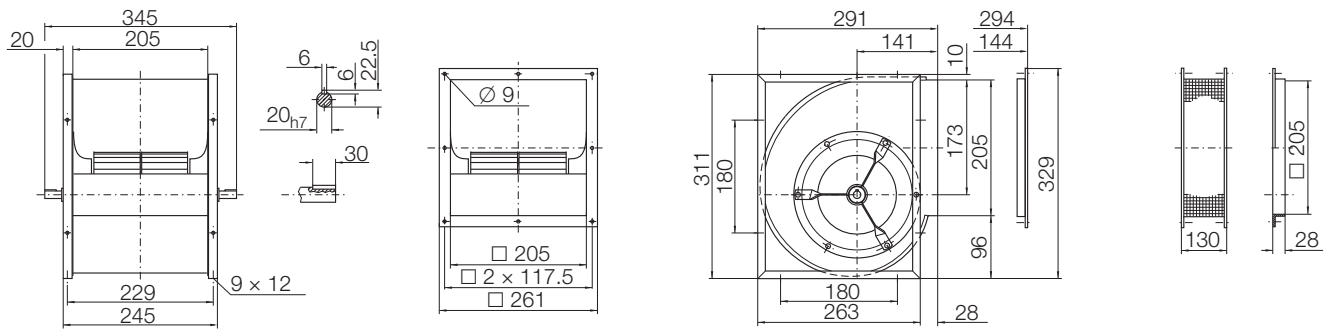
ADH E_-0160

Dimensions in mm, subject to change.

ADH E0-0160 5 kg



ADH E2-0160 6.6 kg



Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

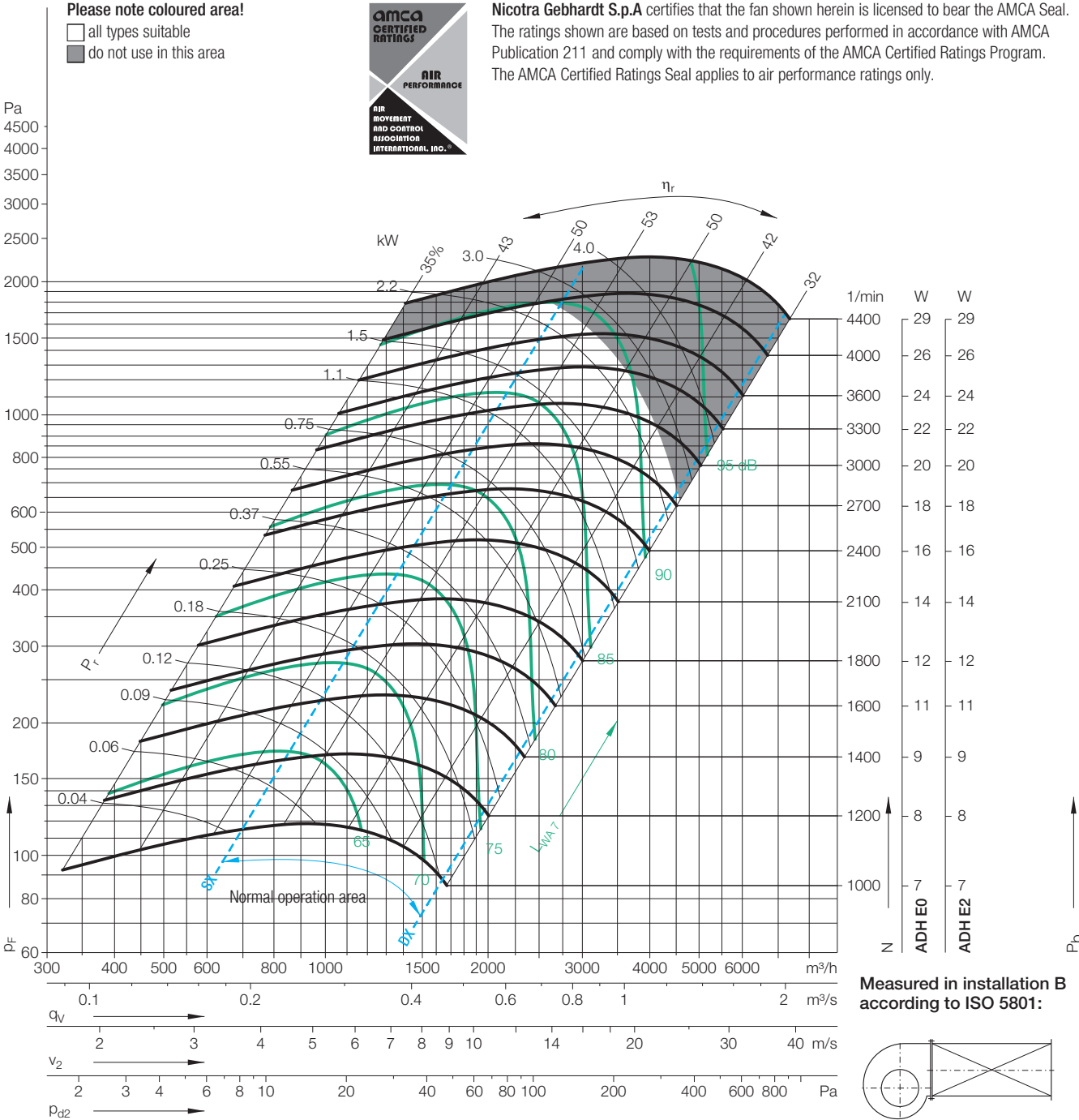
Impeller Data

Impeller diameter	D_r	180	mm
Number of blades	z	40	
Moment of Inertia	J	0.010	kgm ²

Impeller Data

Impeller weight	m	1.5	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves



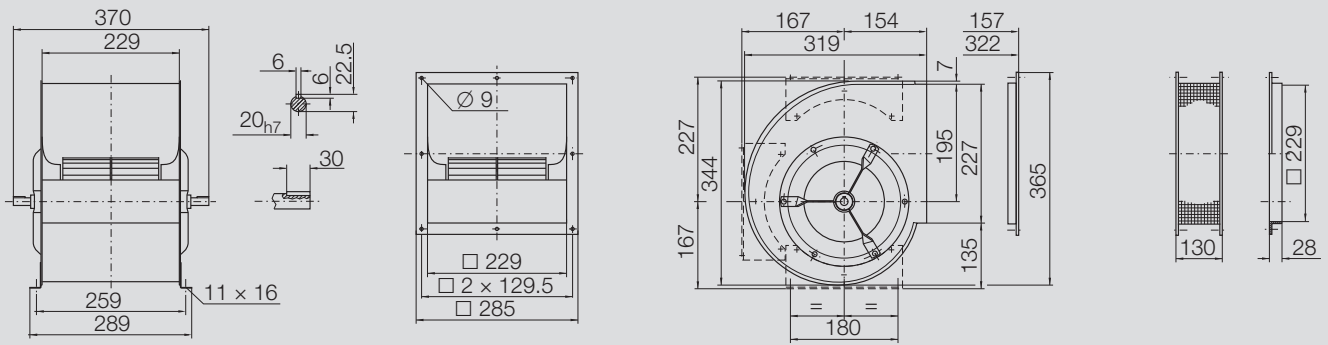
Measured in installation B according to ISO 5801:

$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	3500	3	-9	-7	-2	-5	-9	-7	-7	-10	dB	7	10	5	-1	-5	-5	-8	-11	dB
SX	2400	2	-7	-4	-1	-10	-6	-6	-9	-11	dB	10	8	2	-2	-5	-6	-8	-13	dB
SX	1400	1	-4	1	-7	-6	-5	-6	-9	-14	dB	11	5	0	-4	-4	-7	-10	-16	dB
$Q_{V,opt}$	3500	3	-11	-9	-3	-6	-9	-7	-7	-9	dB	4	9	4	-1	-6	-5	-7	-10	dB
$Q_{V,opt}$	2400	2	-8	-6	-2	-10	-6	-6	-9	-10	dB	8	6	2	-3	-5	-6	-8	-12	dB
$Q_{V,opt}$	1400	1	-6	-1	-8	-6	-5	-6	-9	-14	dB	9	4	-1	-4	-4	-6	-10	-15	dB
DX	3500	2	-19	-15	-8	-10	-10	-6	-6	-6	dB	-5	3	1	-4	-7	-4	-6	-8	dB
DX	2400	1	-17	-12	-7	-13	-7	-6	-6	-8	dB	-1	3	-4	-5	-6	-4	-7	-10	dB
DX	1400	0	-13	-7	-12	-8	-6	-6	-7	-11	dB	4	-2	-5	-6	-4	-7	-9	-13	dB

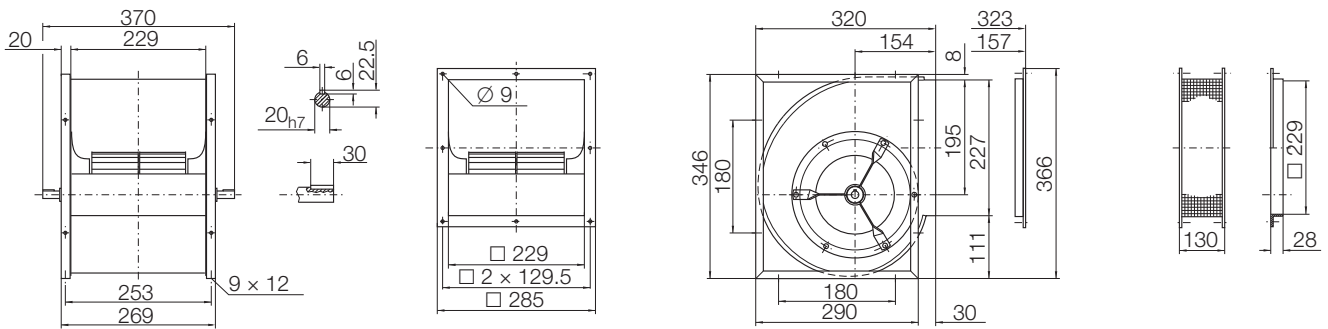
ADH E_-0180

Dimensions in mm, subject to change.

ADH E0-0180 6 kg



ADH E2-0180 7.8 kg



ADH E_-0200

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	200	mm
Number of blades	z	38	
Moment of Inertia	J	0.014	kgm ²

Impeller Data

Impeller weight	m	1.6	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

- ☐ all types suitable
☒ do not use in this area

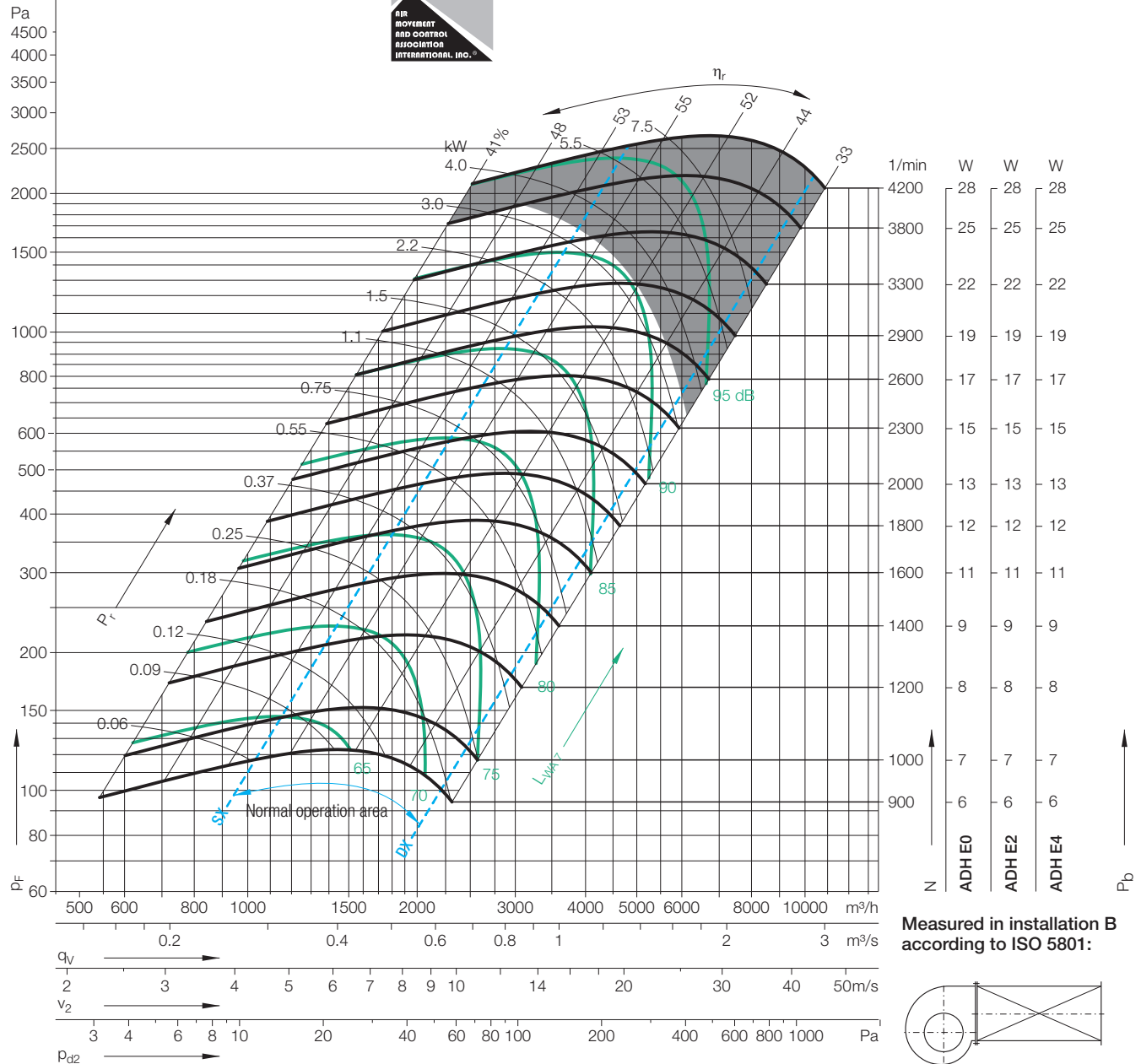


Nicotra Gebhardt S.p.A certifies that the fan shown herein is licensed to bear the AMCA Seal.

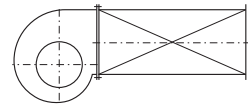
The ratings shown are based on tests and procedures performed in accordance with AMCA

Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to air performance ratings only.



Measured in installation B according to ISO 5801:

 $\Delta L_{Wrel4}(A)$ Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

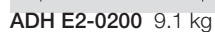
Duty point	Speed 1/min	dB
SX	3300	2
SX	2000	2
SX	1200	1
$Q_{V,opt}$	3300	2
$Q_{V,opt}$	2000	2
$Q_{V,opt}$	1200	1
DX	3300	3
DX	2000	2
DX	1200	1

63	125	250	500	1000	2000	4000	8000	Hz
-11	-9	1	-5	-10	-7	-8	-10	dB
-8	1	-2	-9	-6	-7	-8	-13	dB
-3	3	-6	-6	-5	-6	-10	-16	dB
-14	-11	-0	-6	-10	-6	-8	-9	dB
-11	-0	-3	-9	-6	-7	-7	-12	dB
-5	1	-7	-6	-5	-6	-9	-15	dB
-19	-15	-6	-8	-11	-6	-6	-7	dB
-16	-8	-7	-12	-6	-6	-6	-9	dB
-12	-5	-11	-8	-6	-6	-8	-10	dB

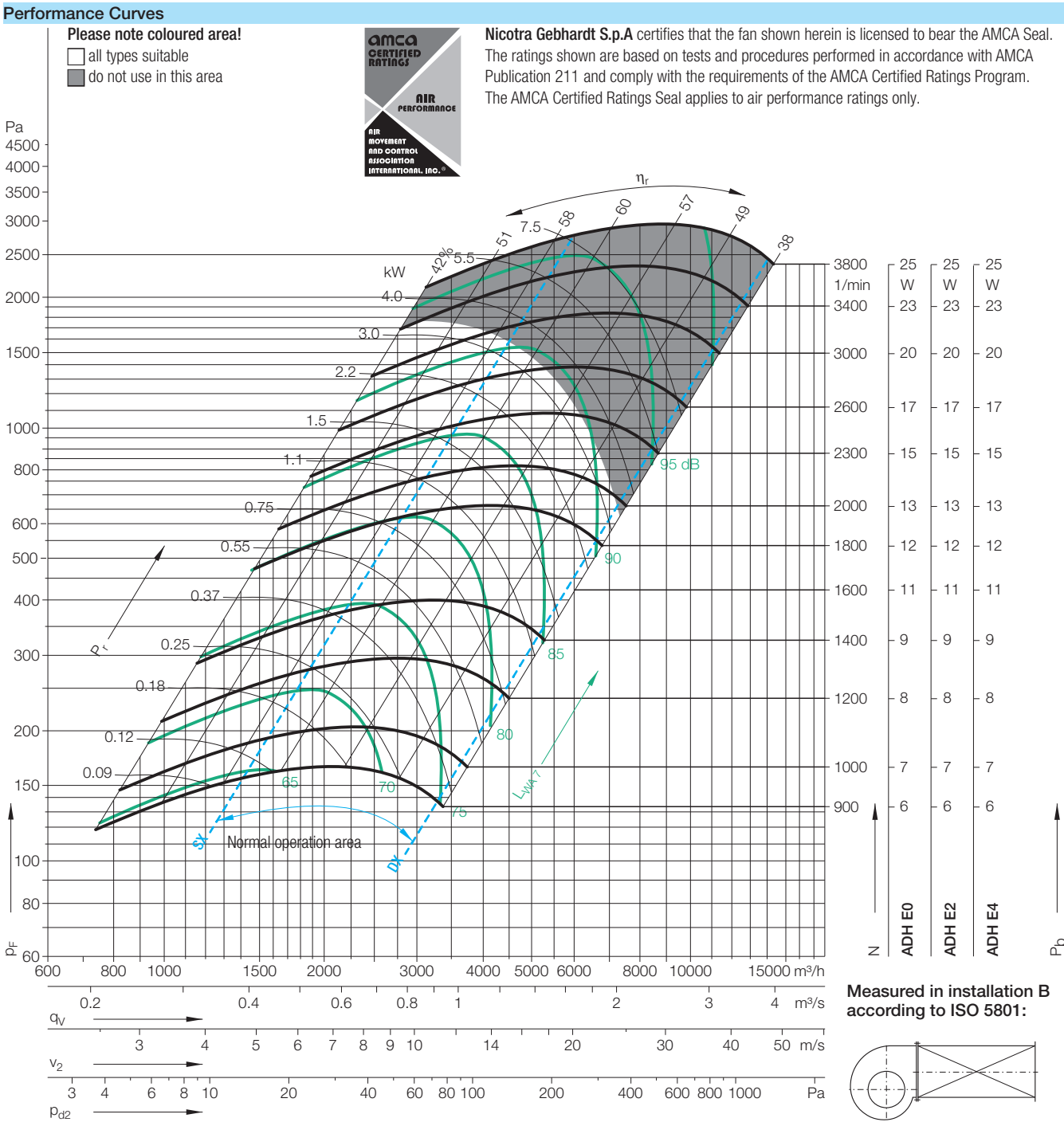
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
5	8	4	-2	-6	-6	-8	-11	dB
8	6	2	-4	-4	-7	-8	-14	dB
8	4	-1	-3	-5	-7	-10	-19	dB
3	5	2	-2	-6	-4	-8	-9	dB
5	3	1	-5	-3	-7	-7	-13	dB
5	3	-2	-3	-4	-7	-9	-18	dB
-4	2	0	-3	-7	-3	-5	-7	dB
-0	2	-2	-6	-3	-5	-6	-9	dB
3	-1	-5	-5	-3	-6	-8	-12	dB

ADH E0-0200 7.1 kg



Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D _r	225	mm		Impeller weight	m	1.8	kg	
Number of blades	z	42			Density of media	ρ ₁	1.2	kg/m ³	
Moment of Inertia	J	0.020	kgm ²		Tolerance class (DIN 24166)		2		



ΔL_{Wrel4(A)}

Duty point	Speed 1/min	dB
SX	3000	4
SX	1800	2
SX	1000	1
Q _{V,opt}	3000	3
Q _{V,opt}	1800	2
Q _{V,opt}	1000	1
DX	3000	3
DX	1800	2
DX	1000	1

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
-9	-7	2	-4	-11	-7	-8	-11	dB
-7	2	0	-9	-7	-6	-8	-13	dB
2	4	-6	-5	-5	-6	-11	-16	dB
-12	-10	1	-5	-11	-6	-8	-9	dB
-10	-0	-1	-9	-6	-7	-7	-12	dB
-1	2	-7	-5	-5	-6	-10	-15	dB
-16	-14	-7	-6	-11	-6	-7	-7	dB
-15	-9	-5	-11	-6	-7	-6	-8	dB
-10	-4	-10	-7	-6	-6	-8	-11	dB

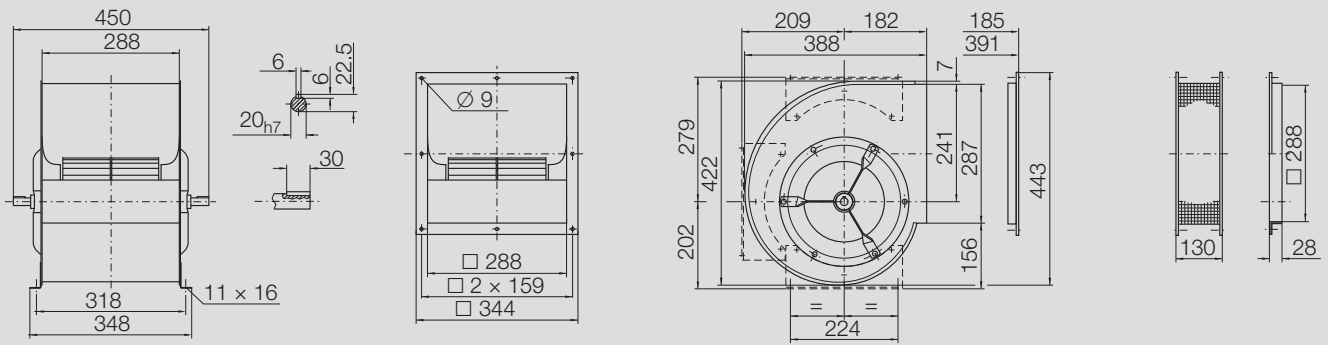
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
6	7	9	-2	-6	-6	-10	-12	dB
8	10	4	-4	-4	-8	-10	-14	dB
12	9	-1	-3	-5	-8	-12	-19	dB
4	5	8	-2	-6	-4	-9	-10	dB
5	8	3	-4	-3	-7	-8	-12	dB
9	7	-2	-2	-5	-7	-10	-16	dB
-1	2	2	-3	-6	-3	-5	-7	dB
0	3	-1	-5	-3	-5	-6	-9	dB
3	1	-4	-4	-4	-5	-8	-12	dB

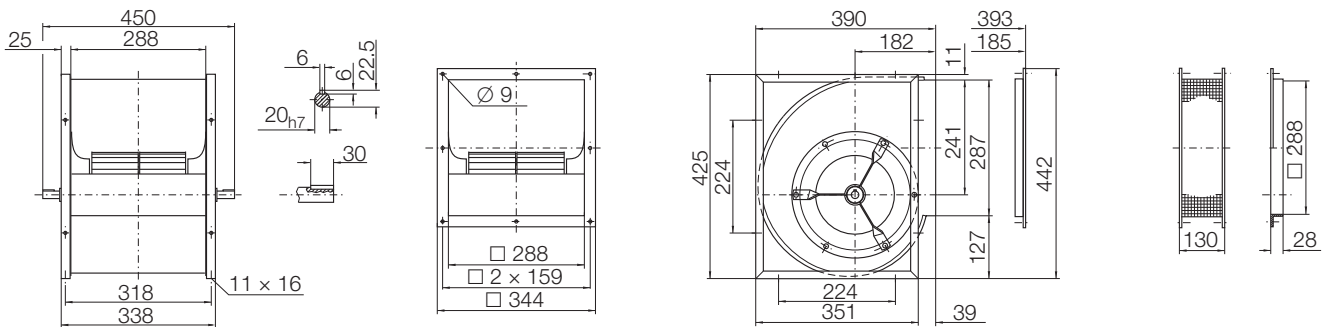
ADH E_-0225

Dimensions in mm, subject to change.

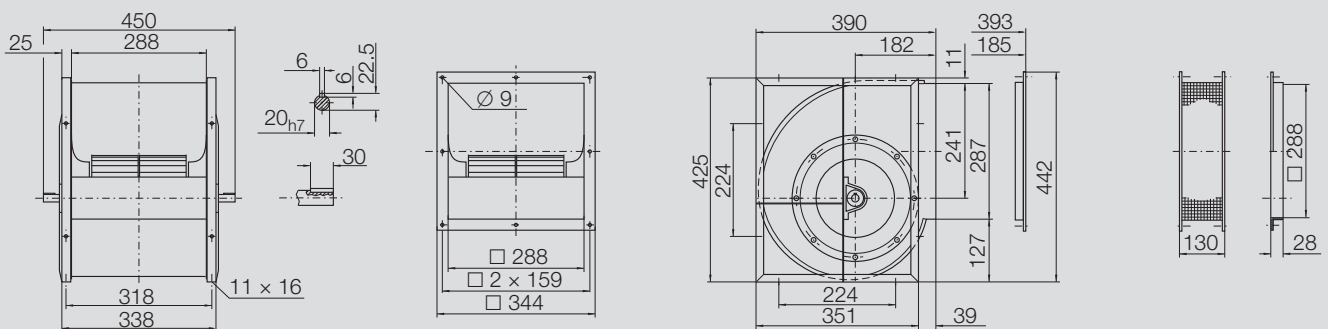
ADH E0-0225 8.5 kg



ADH E2-0225 10.7 kg



ADH E4-0225 14.5 kg



ADH E_-0250

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	250	mm
Number of blades	z	38	
Moment of Inertia	J	0.036	kgm ²

Impeller Data

Impeller weight	m	2.7	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

- all types suitable
- ADH E4 only
- do not use in this area

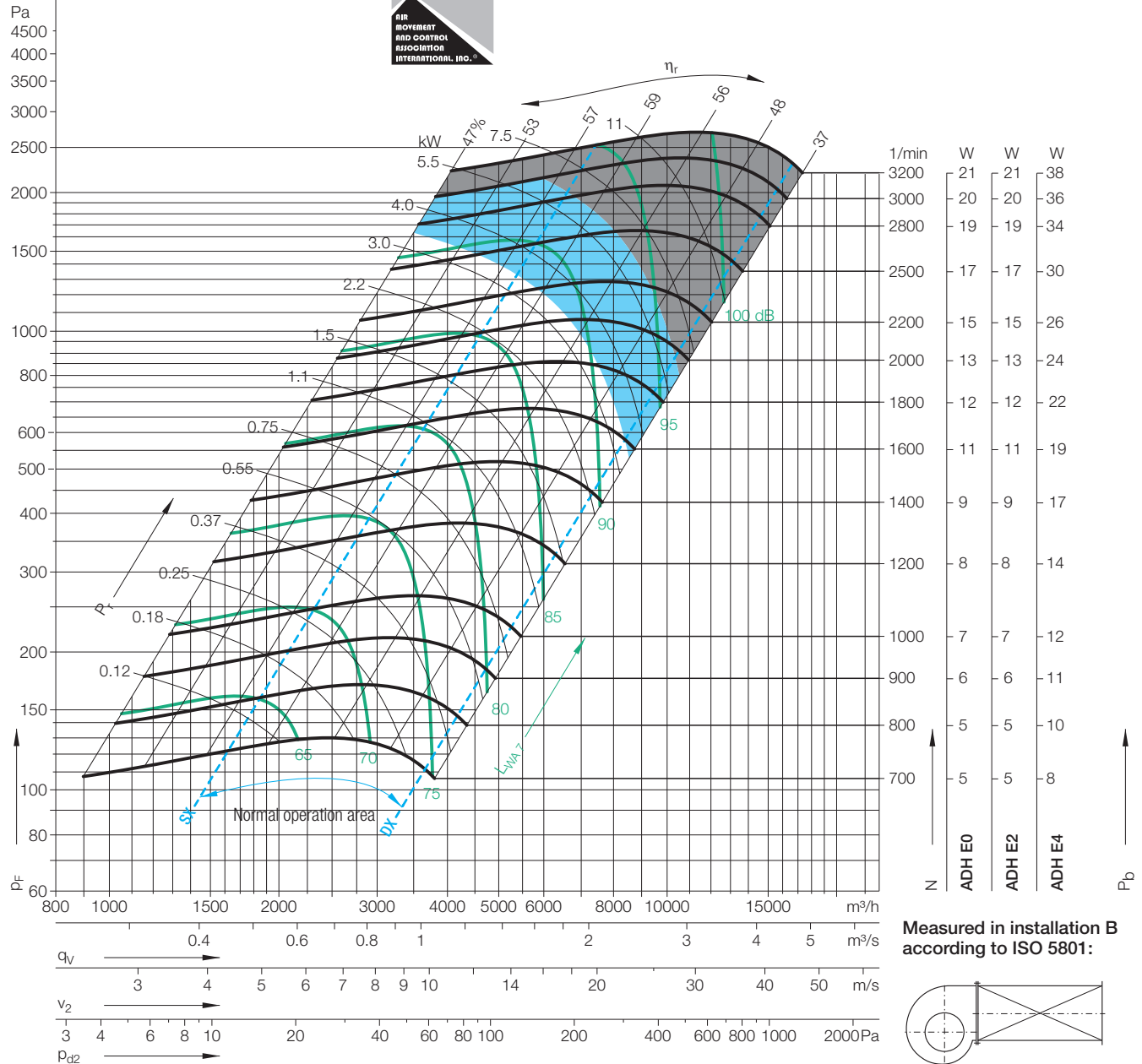


Nicotra Gebhardt S.p.A certifies that the fan shown herein is licensed to bear the AMCA Seal.

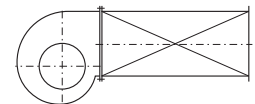
The ratings shown are based on tests and procedures performed in accordance with AMCA

Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to air performance ratings only.



Measured in installation B according to ISO 5801:

 $\Delta L_{Wrel4}(A)$ Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	2800	2
SX	1600	1
SX	1000	0
$q_{V,opt}$	2800	2
$q_{V,opt}$	1600	1
$q_{V,opt}$	1000	1
DX	2800	2
DX	1600	2
DX	1000	1

63	125	250	500	1000	2000	4000	8000	Hz
-7	-6	-1	-5	-11	-5	-8	-10	dB
-6	-4	-1	-10	-4	-7	-8	-13	dB
-5	2	-7	-5	-5	-7	-10	-15	dB
-9	-8	-2	-6	-11	-5	-8	-9	dB
-8	-6	-3	-10	-4	-8	-8	-12	dB
-7	1	-8	-4	-5	-7	-9	-15	dB
-12	-11	-9	-8	-12	-5	-7	-7	dB
-12	-10	-7	-12	-5	-7	-7	-8	dB
-11	-6	-10	-6	-6	-7	-7	-11	dB

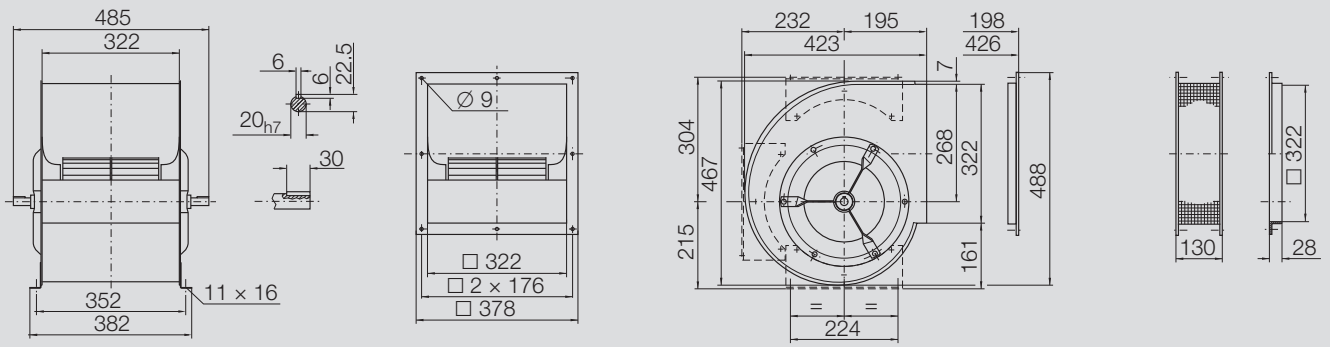
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
6	6	2	-3	-6	-4	-10	-11	dB
7	3	0	-4	-3	-9	-9	-14	dB
6	2	-2	-2	-6	-8	-11	-19	dB
4	3	0	-3	-5	-3	-10	-9	dB
4	1	-1	-5	-2	-9	-9	-13	dB
4	1	-3	-1	-6	-8	-10	-17	dB
0	1	-1	-4	-7	-2	-7	-7	dB
1	-0	-4	-7	-2	-6	-7	-9	dB
1	-3	-5	-3	-4	-7	-8	-11	dB

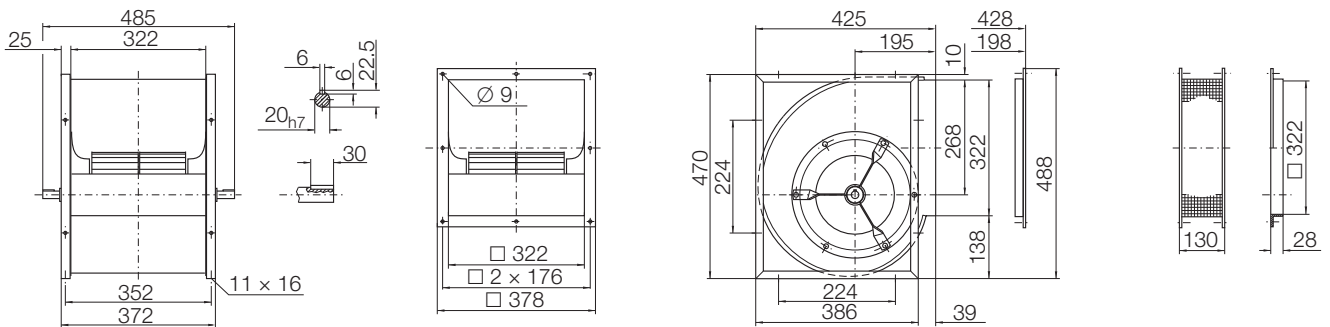
ADH E_-0250

Dimensions in mm, subject to change.

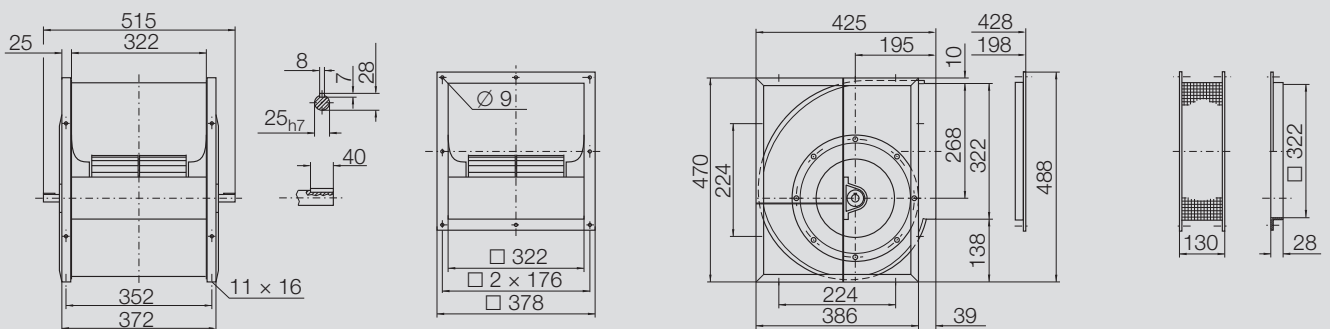
ADH E0-0250 10.5 kg



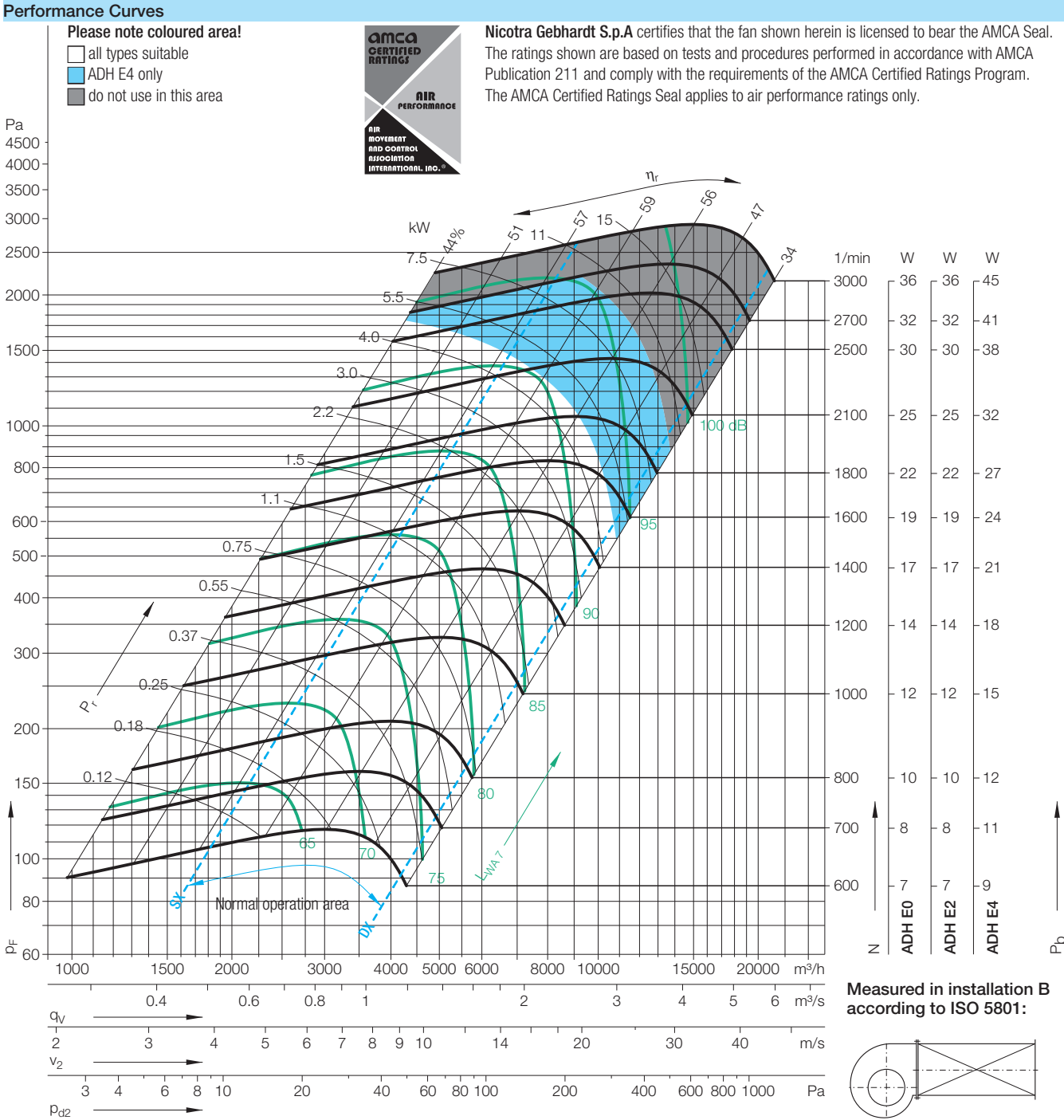
ADH E2-0250 13 kg



ADH E4-0250 18 kg



Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D_r	280	mm		Impeller weight	m	3.5	kg	
Number of blades	z	42			Density of media	ρ_1	1.2	kg/m ³	
Moment of Inertia	J	0.059	kgm ²		Tolerance class (DIN 24166)		2		

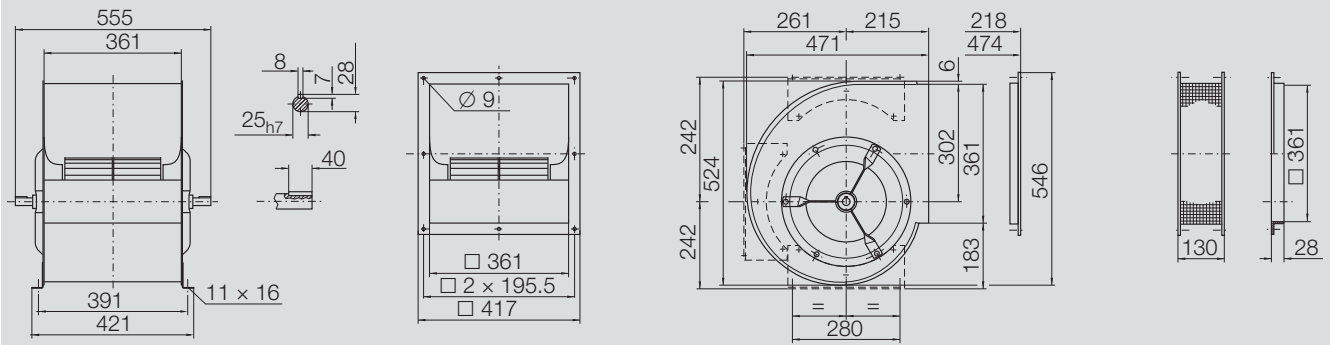


$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	2500	3	-6	-6	1	-4	-9	-6	-9	-12	dB	5	5	7	-1	-5	-6	-11	-13	dB
SX	1400	2	-4	3	-2	-8	-4	-7	-10	-13	dB	7	9	1	-4	-3	-9	-11	-16	dB
SX	800	0	2	2	-6	-3	-6	-7	-11	-16	dB	11	5	-1	-1	-7	-9	-13	-21	dB
$Q_{V,opt}$	2500	3	-10	-10	-1	-6	-10	-5	-9	-11	dB	1	1	5	-2	-5	-4	-10	-12	dB
$Q_{V,opt}$	1400	2	-9	0	-4	-9	-4	-7	-9	-13	dB	2	7	-0	-4	-2	-9	-10	-14	dB
$Q_{V,opt}$	800	1	-0	-0	-8	-3	-6	-7	-10	-16	dB	7	3	-2	-1	-7	-8	-12	-19	dB
DX	2500	2	-10	-9	-6	-7	-11	-5	-7	-7	dB	3	3	1	-2	-5	-3	-8	-9	dB
DX	1400	1	-9	-6	-6	-11	-5	-7	-7	-10	dB	3	2	-2	-5	-3	-8	-9	-12	dB
DX	800	0	-6	-4	-10	-5	-6	-5	-9	-14	dB	4	-0	-4	-2	-6	-7	-10	-16	dB

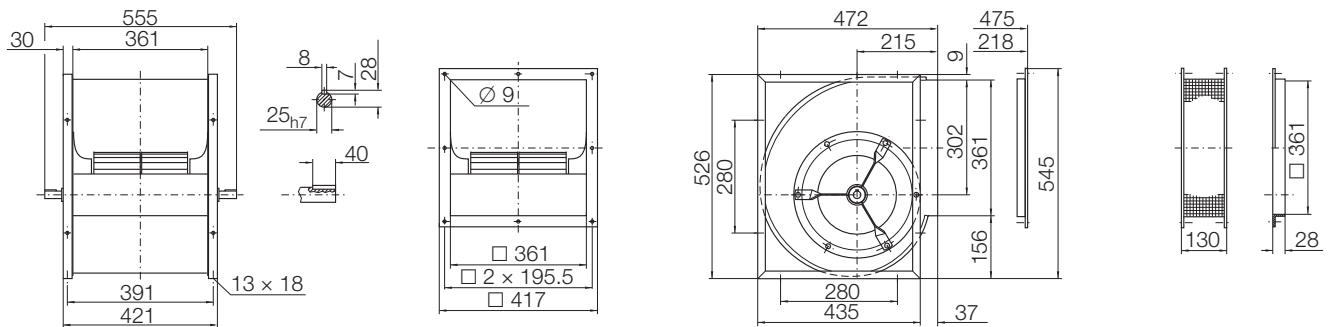
ADH E_-0280

Dimensions in mm, subject to change.

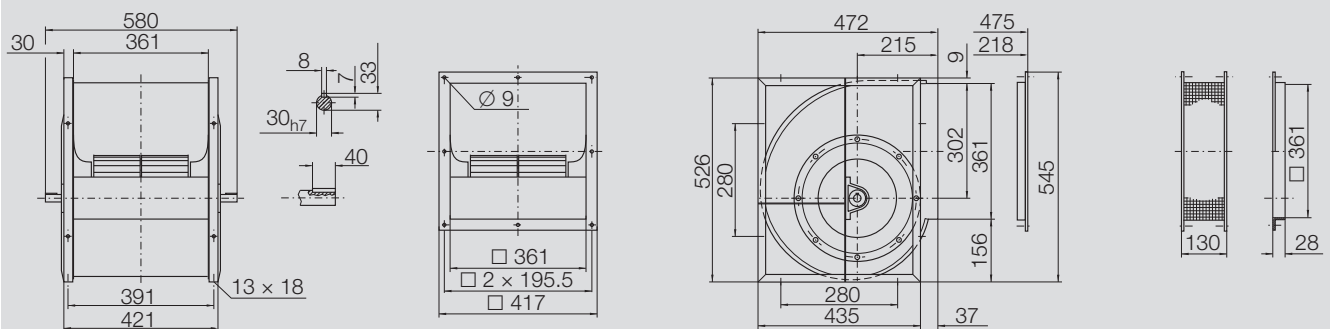
ADH E0-0280 14.2 kg



ADH E2-0280 18 kg



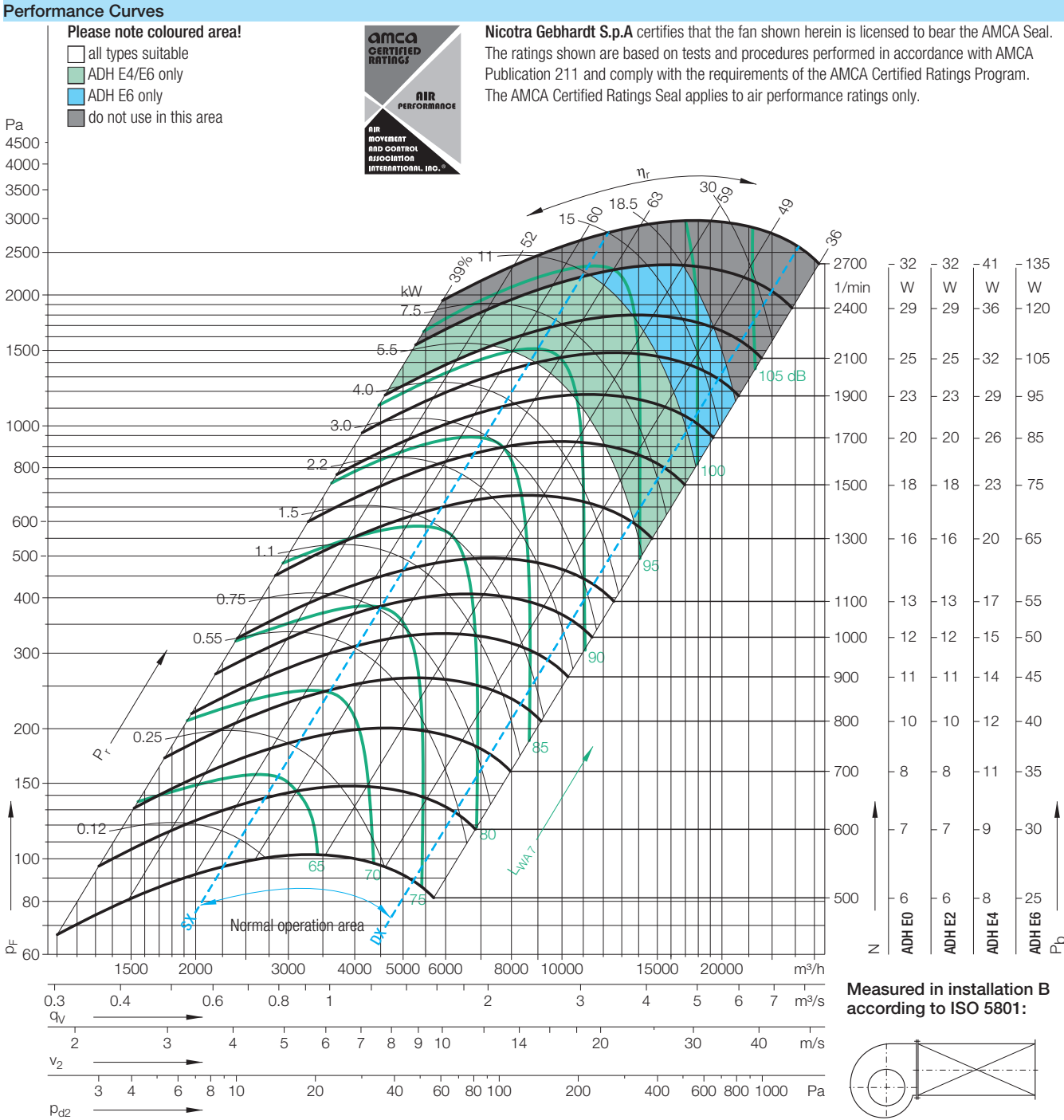
ADH E4-0280 24 kg



ADH E_-0315

Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D _r	315	mm		Impeller weight	m	4.6	kg	
Number of blades	z	38			Density of media	ρ ₁	1.2	kg/m ³	
Moment of Inertia	J	0.100	kgm ²		Tolerance class (DIN 24166)		2		

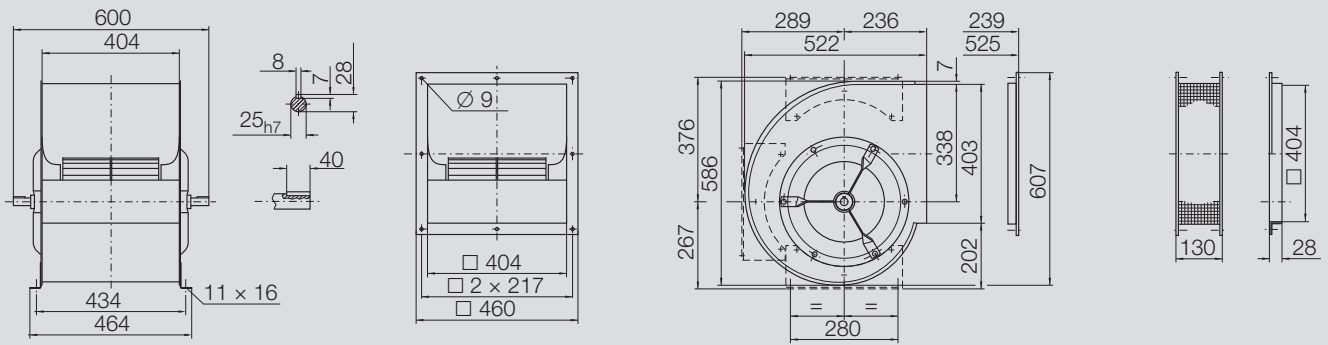


$\Delta L_{wrel4(A)}$			Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	2100	4	-1	-1	-3	-6	-7	-6	-9	-11	dB	10	10	3	-1	-2	-5	-9	-8	dB
SX	1300	3	0	-2	-3	-9	-7	-8	-9	-13	dB	11	6	1	-3	-1	-8	-7	-11	dB
SX	700	2	1	-1	-7	-2	-6	-7	-11	-18	dB	9	3	-1	1	-6	-6	-8	-17	dB
$Q_{V,opt}$	2100	4	-4	-3	-4	-7	-7	-6	-8	-10	dB	6	6	1	-2	-1	-4	-9	-7	dB
$Q_{V,opt}$	1300	3	-3	-4	-4	-9	-4	-8	-9	-13	dB	7	4	-1	-3	-0	-7	-7	-10	dB
$Q_{V,opt}$	700	3	-2	-3	-7	-2	-6	-7	-10	-17	dB	6	2	-1	2	-5	-5	-7	-16	dB
DX	2100	3	-5	-5	-7	-9	-8	-6	-7	-8	dB	4	4	-3	-5	-3	-4	-8	-6	dB
DX	1300	2	-5	-7	-7	-12	-5	-7	-7	-10	dB	4	0	-4	-7	-1	-7	-6	-8	dB
DX	700	2	-5	-6	-11	-4	-6	-6	-9	-14	dB	2	-3	-6	-0	-6	-5	-6	-13	dB

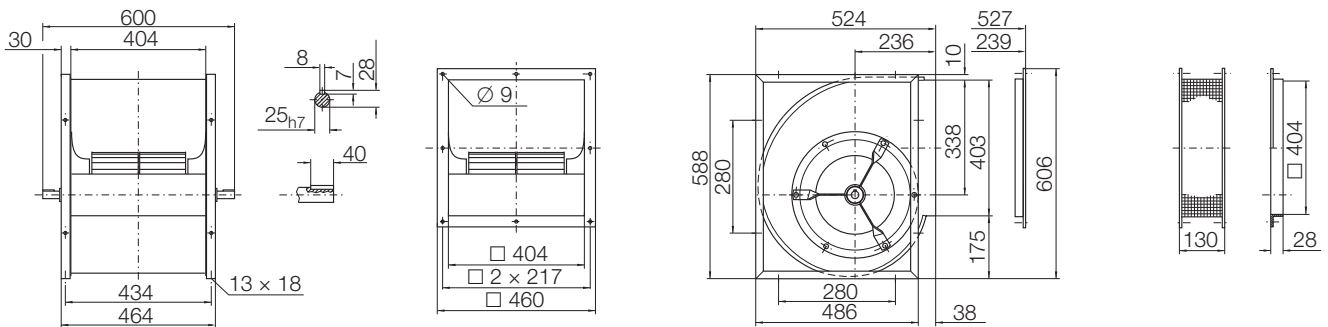
ADH E_-0315

Dimensions in mm, subject to change.

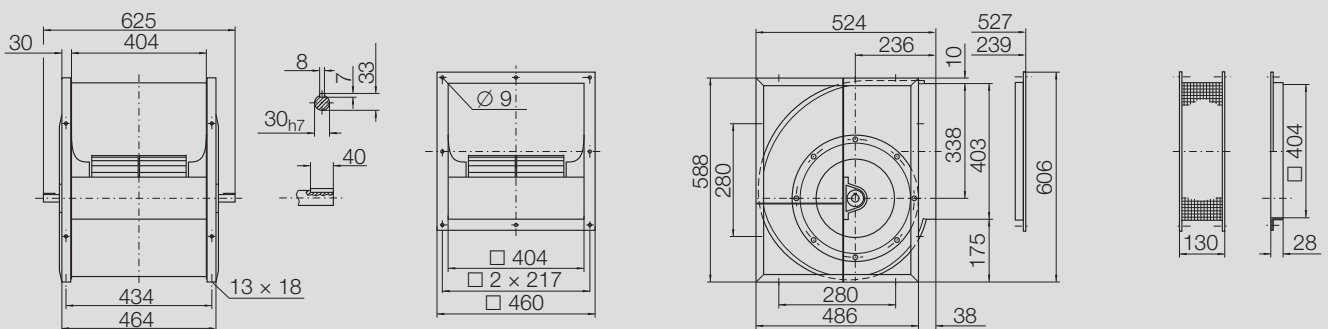
ADH E0-0315 18 kg



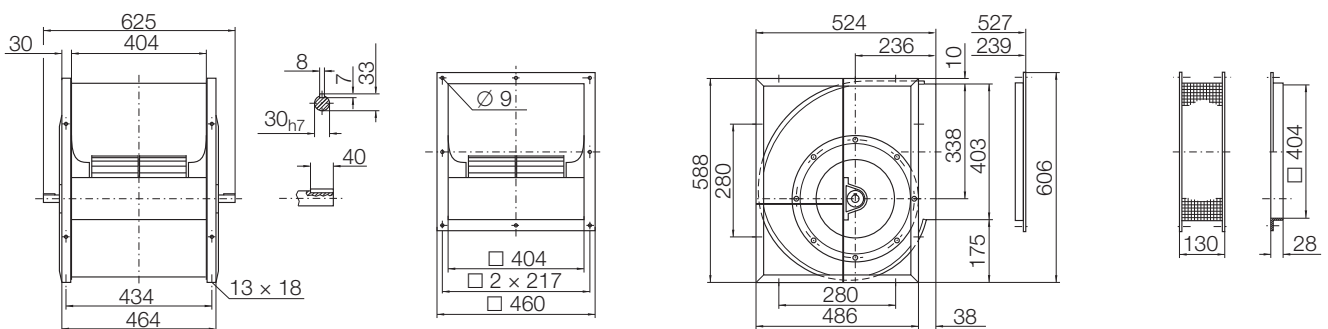
ADH E2-0315 22 kg



ADH E4-0315 29 kg



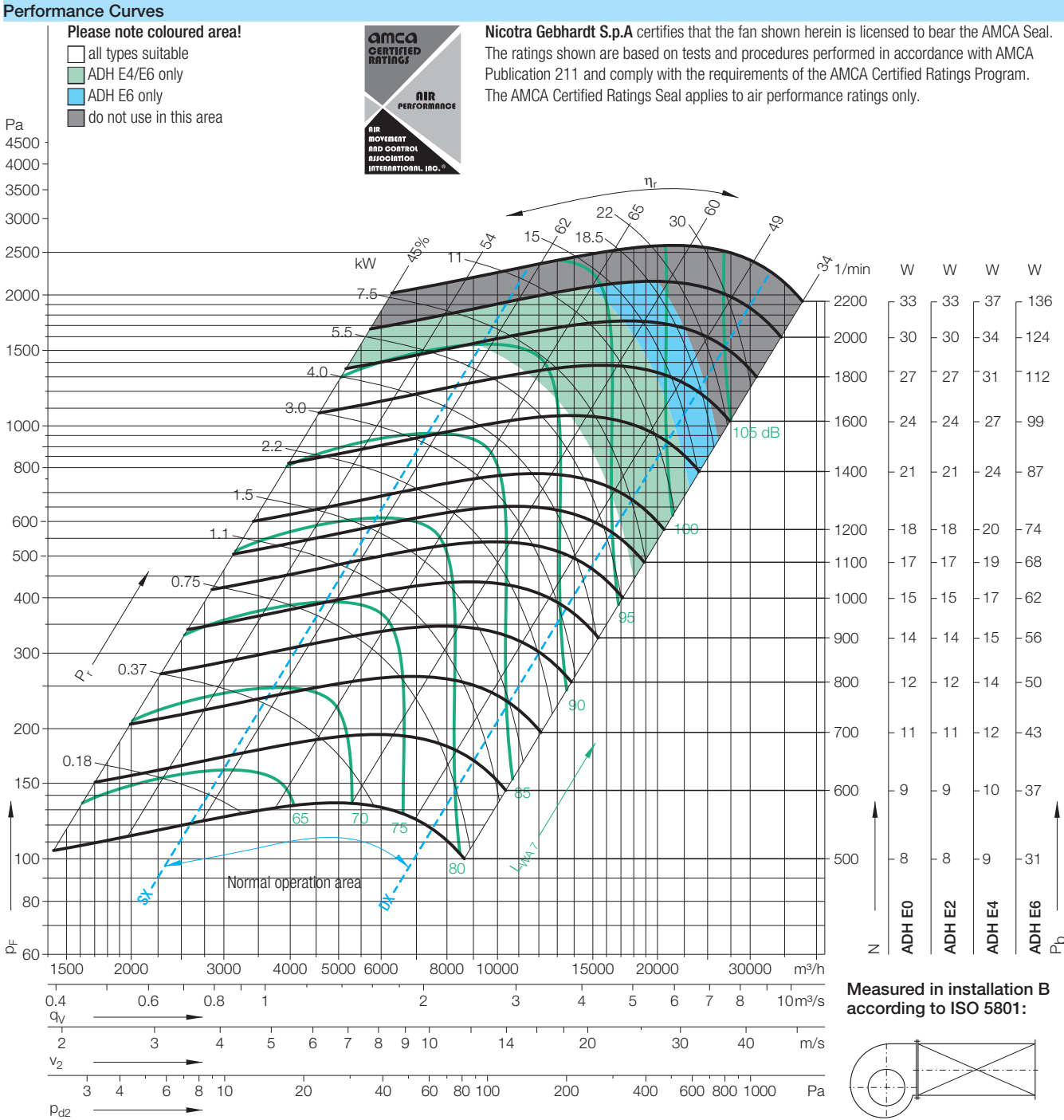
ADH E6-0315 30 kg



ADH E_-0355

Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D_r	355	mm		Impeller weight	m	5.5	kg	
Number of blades	z	42			Density of media	ρ_1	1.2	kg/m ³	
Moment of Inertia	J	0.150	kgm ²		Tolerance class (DIN 24166)		2		

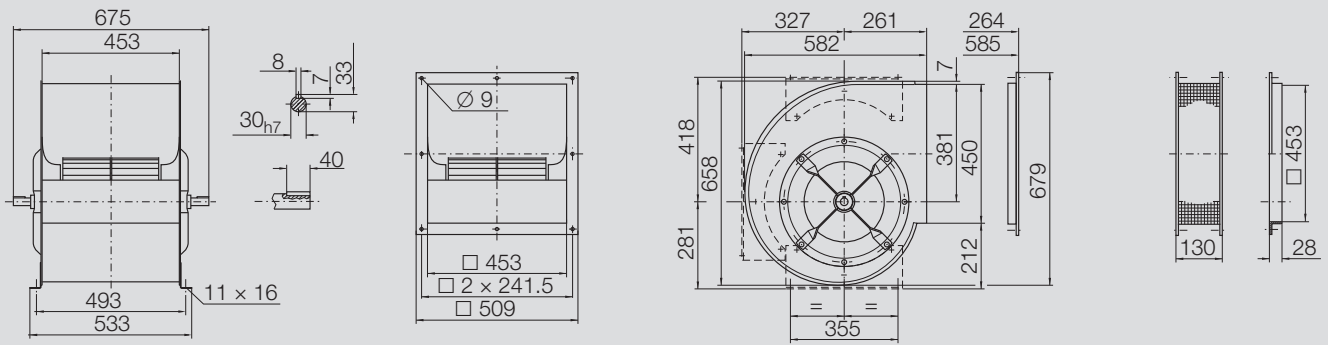


$\Delta L_{Wrel4(A)}$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	1800	4	3	2	-1	-6	-6	-7	-9	-12	dB	13	11	3	-1	-2	-7	-9	-10	dB
SX	1200	3	4	0	-2	-6	-5	-7	-10	-14	dB	14	6	3	-2	-3	-8	-8	-13	dB
SX	600	2	3	-0	-4	-3	-5	-7	-12	-19	dB	9	5	1	-1	-6	-5	-11	-18	dB
$Q_{V,opt}$	1800	3	-3	-3	-5	-8	-5	-7	-8	-10	dB	6	5	0	-3	-2	-6	-8	-8	dB
$Q_{V,opt}$	1200	2	-2	-4	-6	-7	-4	-7	-9	-13	dB	7	2	-1	-2	-2	-8	-7	-12	dB
$Q_{V,opt}$	600	2	-2	-4	-6	-3	-5	-7	-11	-17	dB	3	1	-1	-0	-6	-5	-10	-17	dB
DX	1800	2	-8	-8	-9	-11	-6	-7	-6	-7	dB	2	2	-3	-6	-3	-5	-7	-6	dB
DX	1200	2	-8	-10	-9	-10	-5	-7	-6	-10	dB	2	-3	-4	-6	-3	-8	-6	-9	dB
DX	600	1	-9	-9	-10	-5	-6	-5	-9	-14	dB	-2	-3	-5	-2	-7	-5	-8	-13	dB

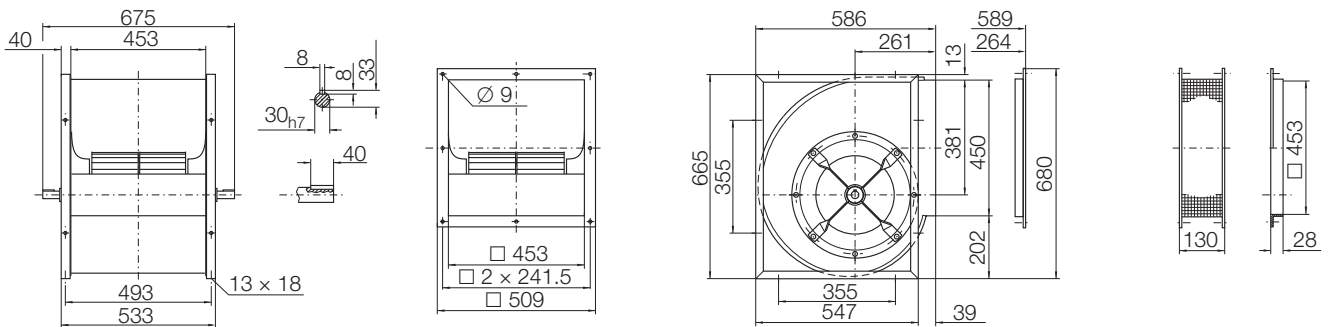
ADH E_-0355

Dimensions in mm, subject to change.

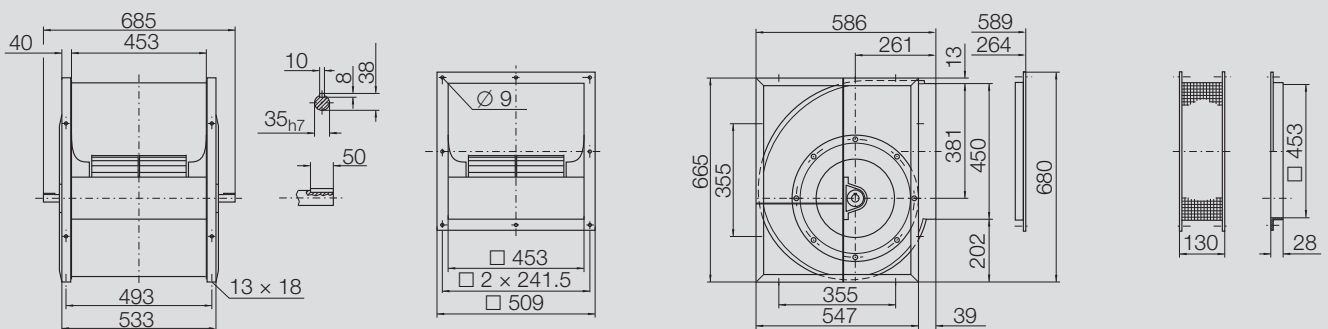
ADH E0-0355 23 kg



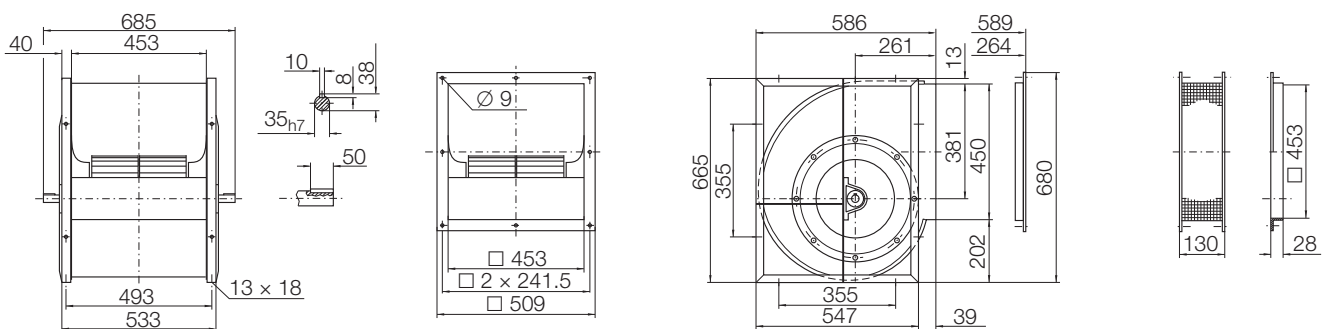
ADH E2-0355 29 kg



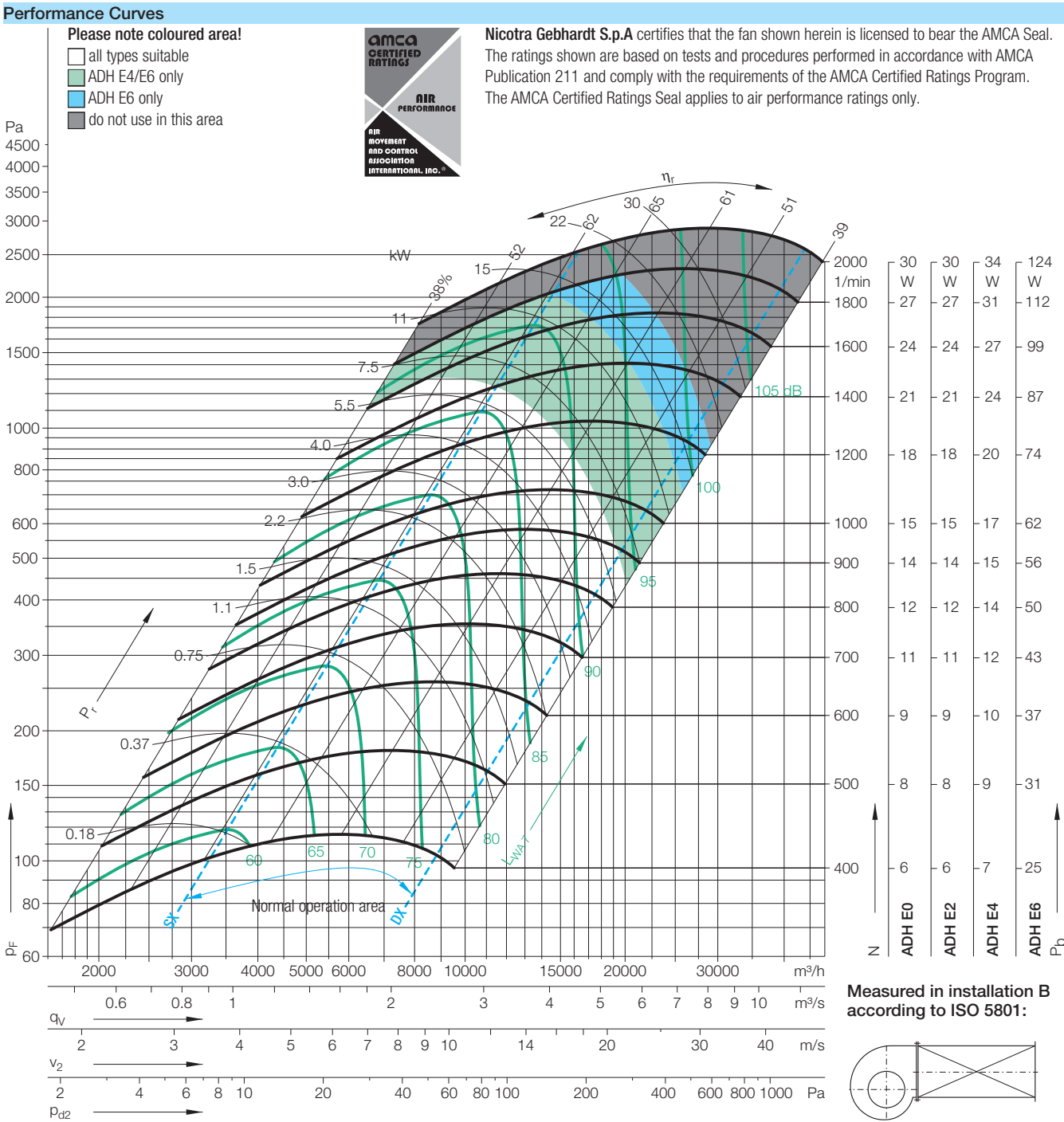
ADH E4-0355 41 kg



ADH E6-0355 42 kg



Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D_r	400	mm		Impeller weight	m	9	kg	
Number of blades	z	38			Density of media	ρ_1	1.2	kg/m ³	
Moment of Inertia	J	0.310	kgm ²		Tolerance class (DIN 24166)		2		



$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	1600	5	4	3	-3	-7	-5	-8	-8	-11	dB	11	10	5	0	1	-6	-9	-8	dB
SX	1000	4	5	0	-5	-4	-6	-7	-9	-14	dB	12	7	2	3	-3	-7	-7	-12	dB
SX	500	3	2	-3	-2	-4	-5	-7	-12	-19	dB	9	4	5	-1	-5	-5	-10	-20	dB
$Q_{V,opt}$	1600	4	-2	-3	-7	-9	-5	-7	-8	-10	dB	5	5	1	-2	1	-5	-8	-7	dB
$Q_{V,opt}$	1000	4	-1	-5	-8	-5	-6	-7	-8	-13	dB	6	3	0	2	-3	-7	-6	-11	dB
$Q_{V,opt}$	500	2	-3	-6	-3	-4	-5	-6	-11	-17	dB	4	1	4	-1	-5	-4	-9	-18	dB
DX	1600	3	-7	-8	-11	-11	-7	-6	-6	-7	dB	2	1	-3	-6	-1	-4	-7	-6	dB
DX	1000	2	-7	-10	-11	-9	-6	-7	-6	-10	dB	2	-3	-4	-2	-3	-6	-6	-9	dB
DX	500	1	-9	-10	-8	-5	-6	-6	-9	-14	dB	-2	-3	-1	-2	-5	-5	-8	-15	dB

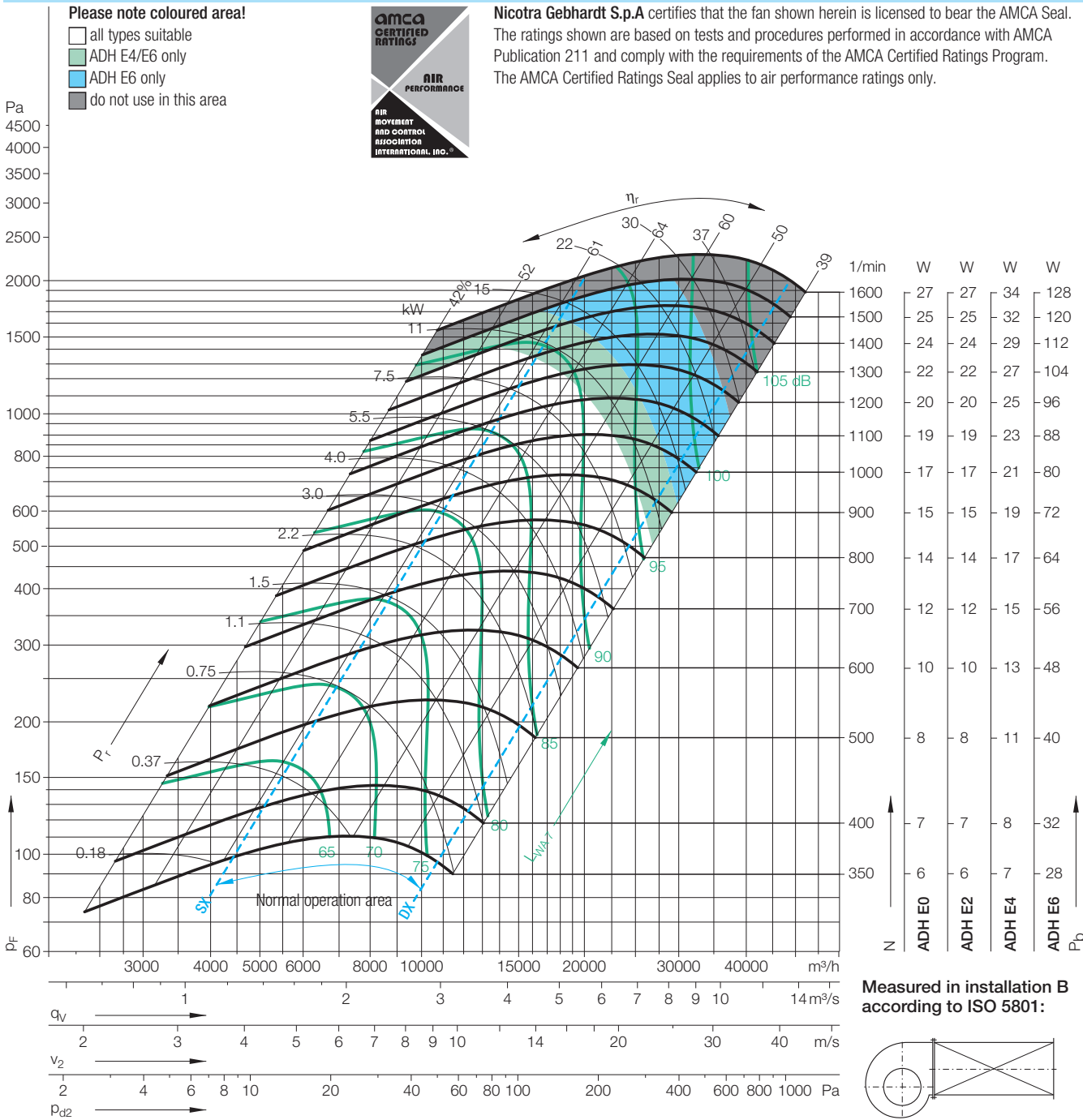
ADH E0-0400 31 kg



Technical Data

Impeller Data			Impeller Data		
Impeller diameter	D_r	450 mm	Impeller weight	m	11 kg
Number of blades	z	42	Density of media	ρ_1	1.2 kg/m ³
Moment of Inertia	J	0.480 kgm ²	Tolerance class (DIN 24166)		2

Performance Curves



Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	1400	3
SX	1000	3
SX	500	2
$Q_{V,opt}$	1400	3
$Q_{V,opt}$	1000	3
$Q_{V,opt}$	500	2
DX	1400	3
DX	1000	2
DX	500	1

Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

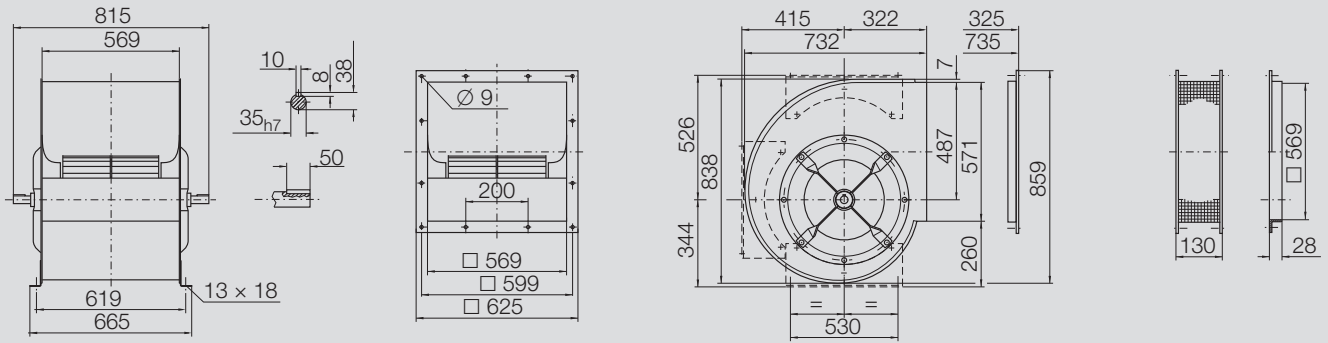
63	125	250	500	1000	2000	4000	8000	Hz
0	1	-4	-8	-4	-8	-9	-12	dB
1	0	-6	-5	-4	-8	-10	-14	dB
2	-4	-3	-2	-6	-8	-12	-18	dB
-3	-2	-6	-9	-3	-8	-9	-12	dB
-3	-2	-7	-5	-4	-8	-9	-12	dB
0	-5	-3	-2	-6	-7	-12	-17	dB
-7	-7	-10	-12	-5	-7	-7	-9	dB
-7	-8	-11	-9	-5	-7	-7	-10	dB
-7	-10	-8	-4	-6	-6	-9	-14	dB

63	125	250	500	1000	2000	4000	8000	Hz
7	6	2	-1	-1	-7	-10	-10	dB
8	5	2	1	-3	-8	-8	-13	dB
7	4	3	0	-6	-6	-11	-18	dB
3	3	0	-1	0	-7	-9	-10	dB
4	2	0	1	-3	-8	-8	-12	dB
4	2	3	-1	-6	-6	-10	-18	dB
3	2	-2	-5	-2	-5	-7	-7	dB
3	0	-3	-3	-2	-6	-7	-9	dB
1	-2	-2	-2	-5	-6	-8	-14	dB

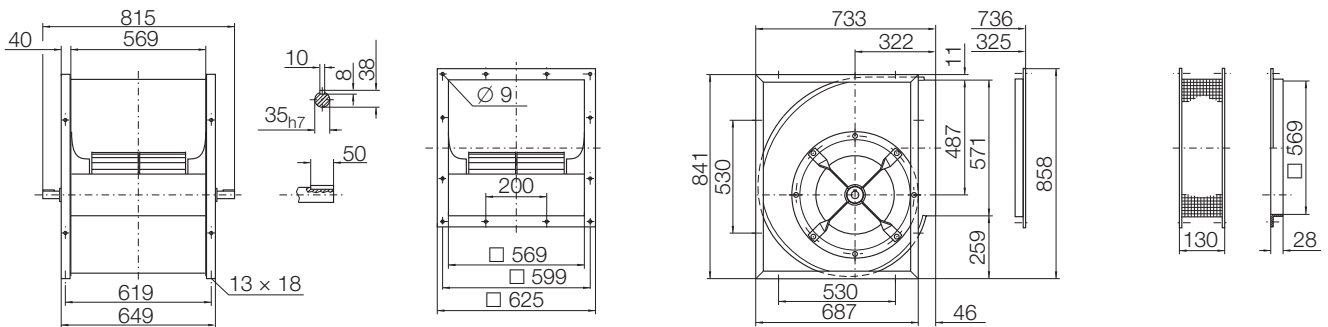
ADH E_-0450

Dimensions in mm, subject to change.

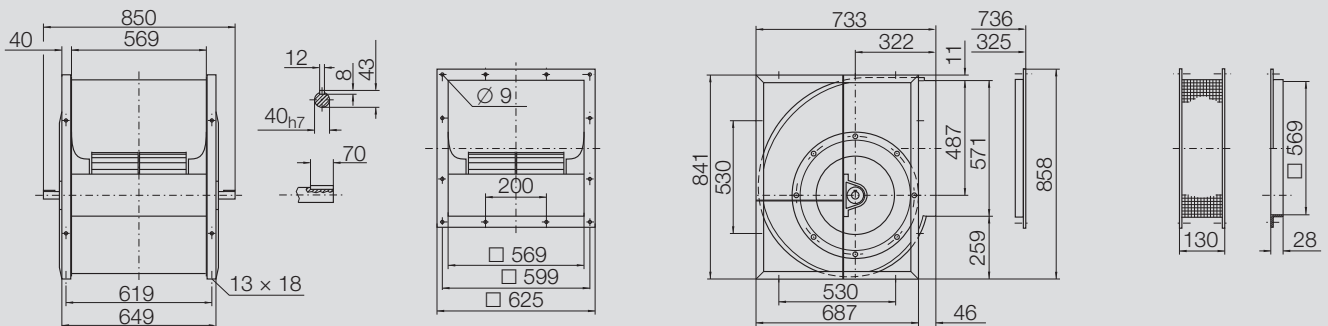
ADH E0-0450 42 kg



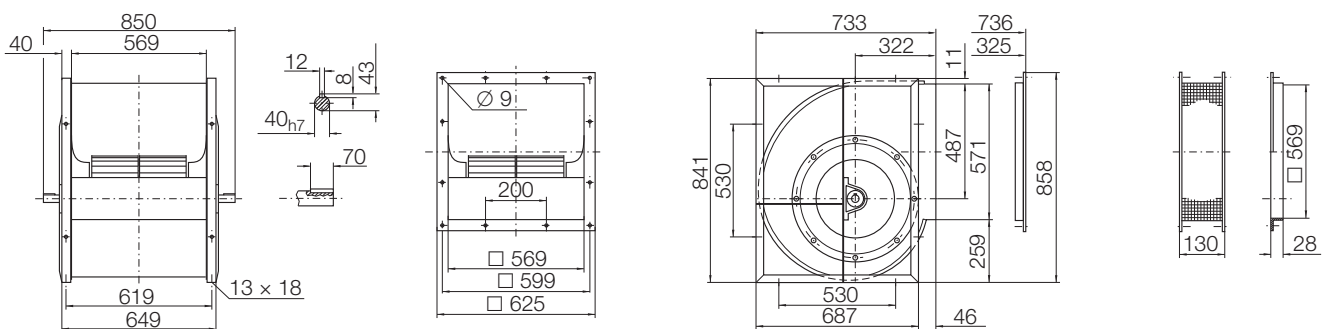
ADH E2-0450 50 kg



ADH E4-0450 66 kg



ADH E6-0450 67 kg



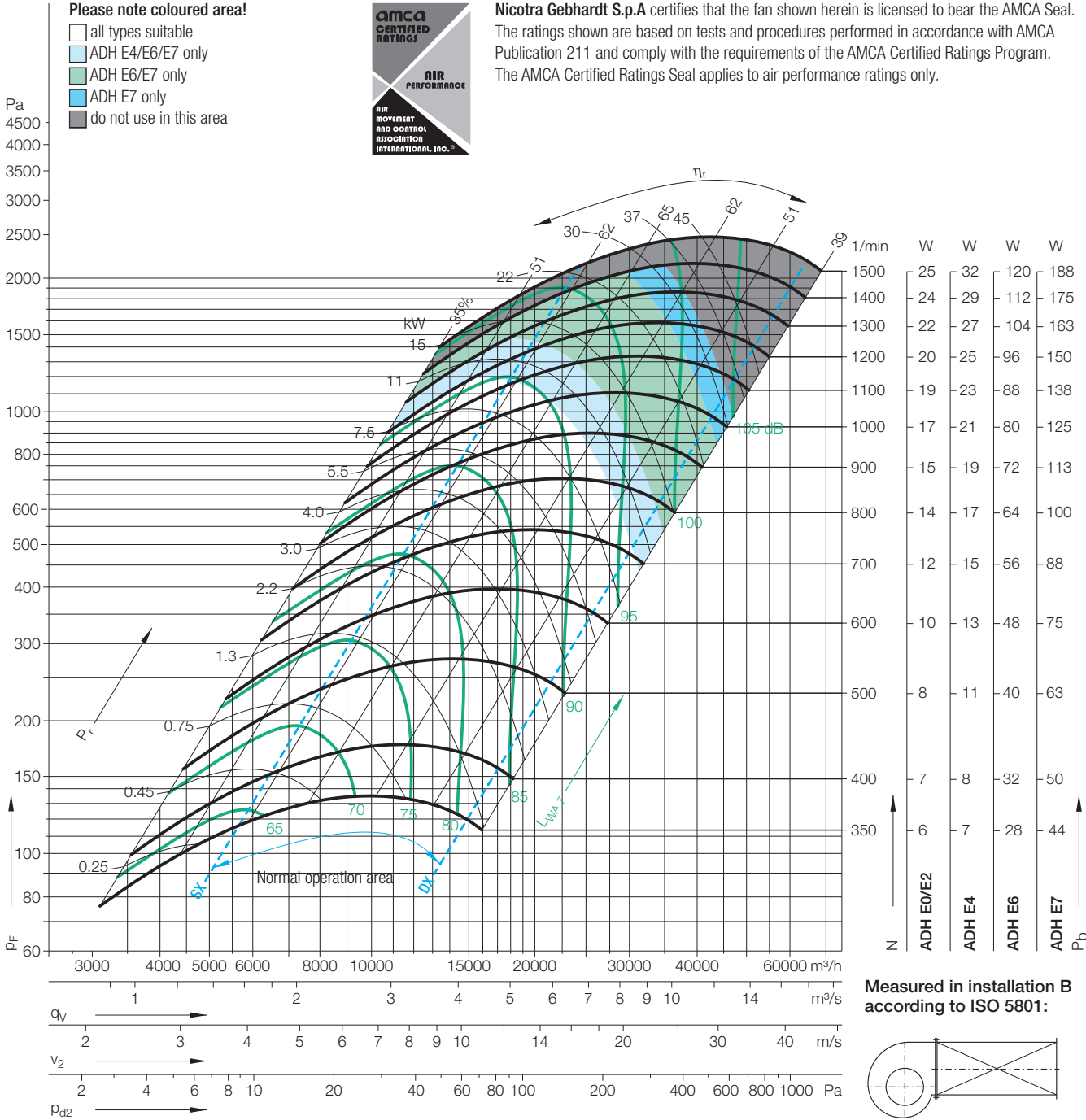
ADH E_-0500

Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data			Impeller Data		
Impeller diameter	D_r	500 mm	Impeller weight	m	18 kg
Number of blades	z	38	Density of media	ρ_1	1.2 kg/m ³
Moment of Inertia	J	0.900 kgm ²	Tolerance class (DIN 24166)		2

Performance Curves

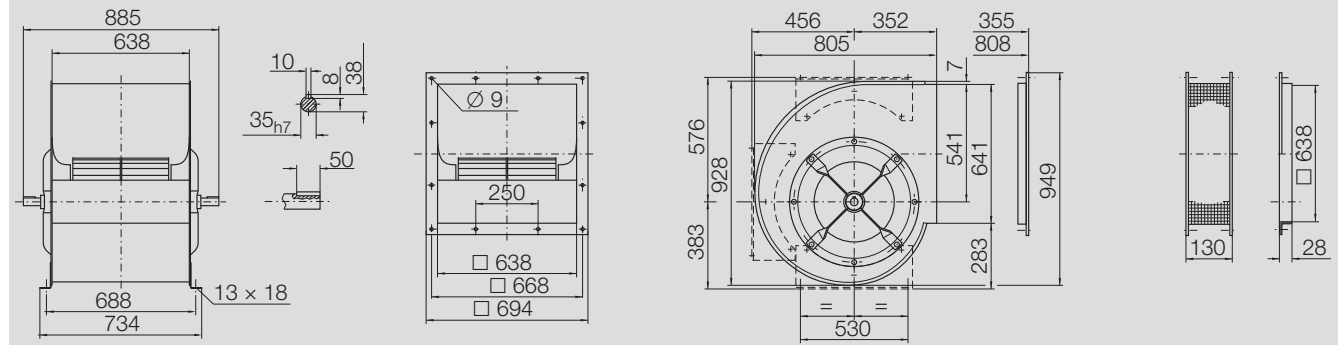


$\Delta L_{Wrel4(A)}$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	1300	3	3	1	-7	-6	-5	-7	-9	-12	dB	7	4	3	-1	-2	-8	-9	-12	dB
SX	800	2	3	-3	-6	-4	-6	-6	-10	-14	dB	7	4	0	1	-6	-8	-9	-16	dB
SX	400	0	-1	-4	-2	-4	-4	-8	-12	-17	dB	6	2	3	-4	-6	-7	-14	-20	dB
$Q_{V,opt}$	1300	3	-4	-5	-11	-7	-5	-7	-8	-10	dB	1	-1	-1	-2	0	-7	-8	-10	dB
$Q_{V,opt}$	800	2	-3	-8	-8	-4	-6	-6	-9	-13	dB	1	0	-3	2	-5	-7	-8	-14	dB
$Q_{V,opt}$	400	1	-6	-7	-2	-5	-4	-7	-11	-18	dB	2	-1	3	-4	-6	-6	-13	-18	dB
DX	1300	2	-8	-10	-15	-11	-6	-6	-7	-8	dB	1	-3	-5	-6	-2	-6	-7	-7	dB
DX	800	1	-9	-13	-12	-6	-7	-6	-7	-9	dB	-1	-4	-7	-2	-5	-8	-7	-9	dB
DX	400	0	-12	-11	-5	-6	-5	-6	-8	-14	dB	-3	-6	-1	-4	-7	-6	-9	-13	dB

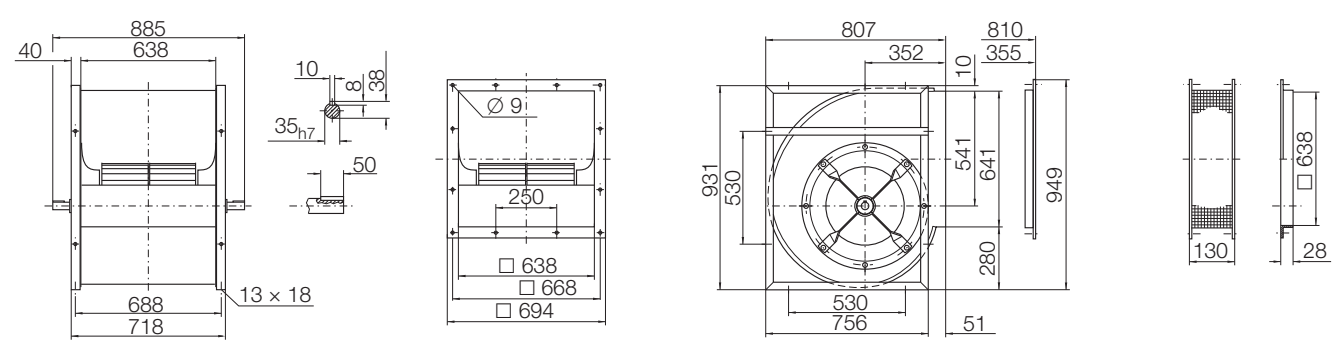
ADH E_-0500

Dimensions in mm, subject to change.

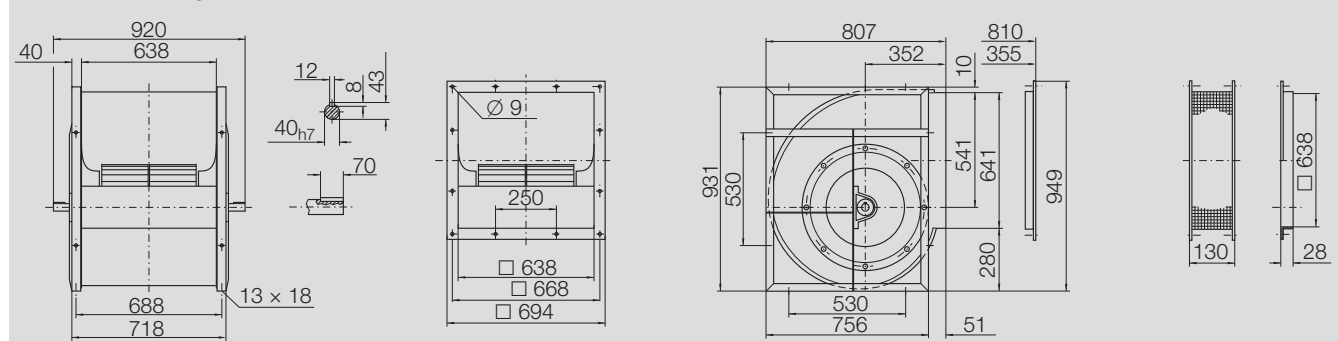
ADH E0-0500 57 kg



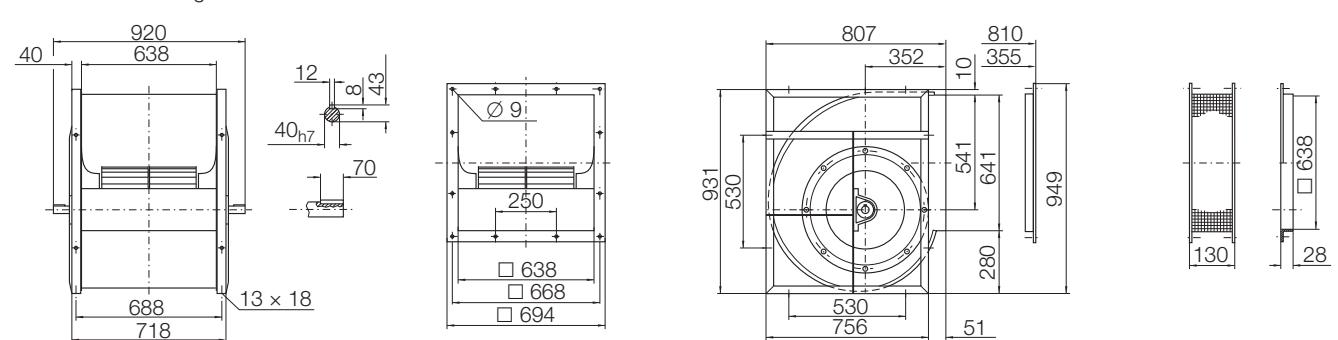
ADH E2-0500 65 kg



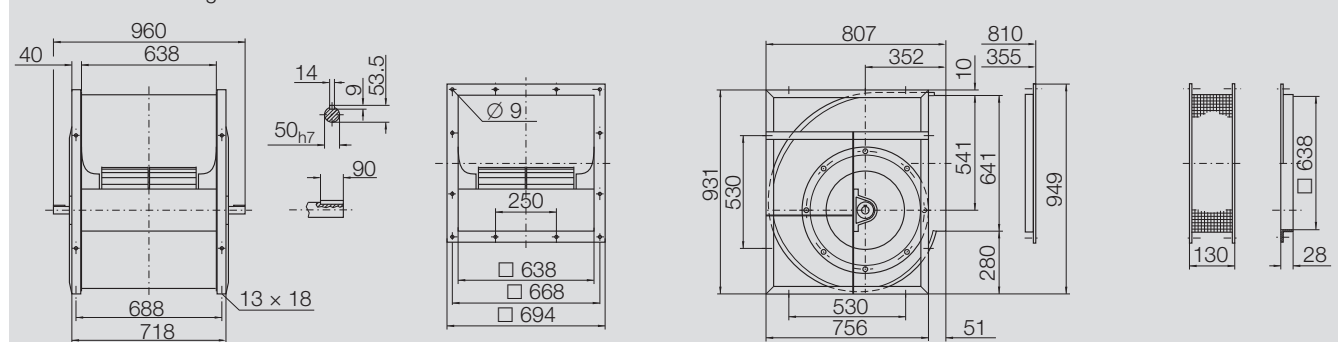
ADH E4-0500 85 kg



ADH E6-0500 86 kg



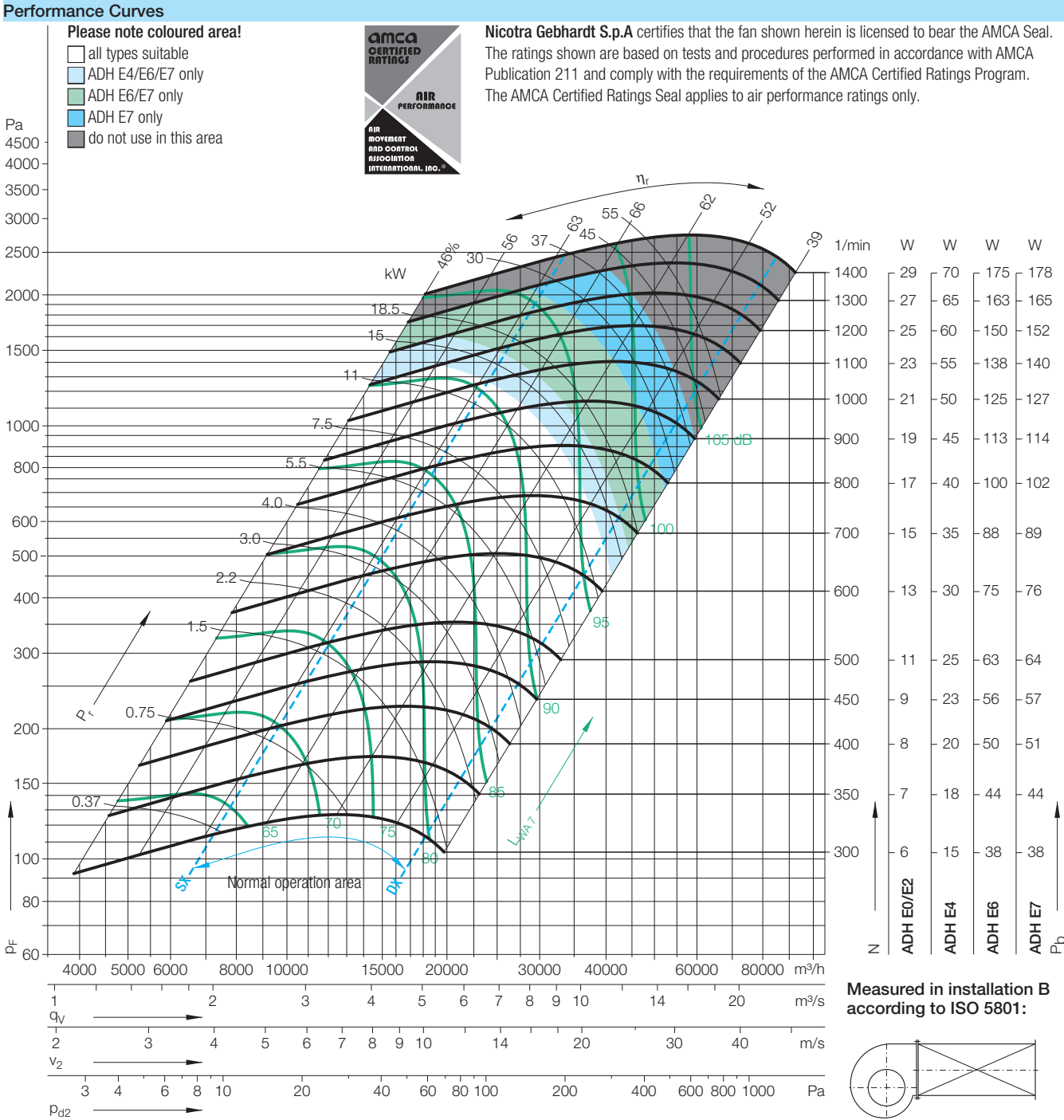
ADH E7-0500 105 kg



ADH E_-0560

Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D_r	560	mm		Impeller weight	m	24	kg	
Number of blades	z	42			Density of media	ρ_1	1.2	kg/m ³	
Moment of Inertia	J	1.560	kgm ²		Tolerance class (DIN 24166)		2		

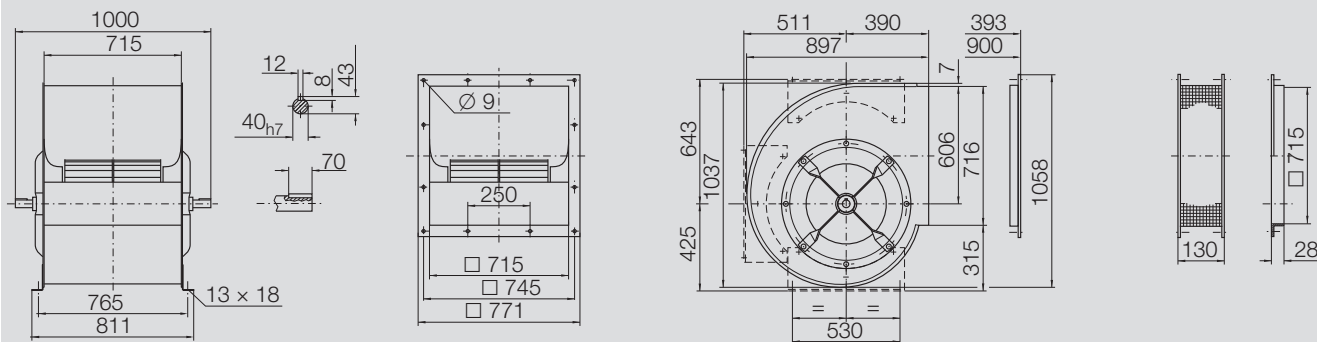


$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c										Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c									
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz		63	125	250	500	1000	2000	4000	8000	Hz	
SX	1200	3	3	3	-2	-8	-5	-8	-8	-11	dB		8	8	2	0	-1	-8	-10	-12	dB	
SX	800	2	4	2	-7	-4	-6	-7	-8	-13	dB		9	5	2	1	-5	-8	-10	-15	dB	
SX	400	1	4	-5	-2	-4	-5	-7	-11	-17	dB		7	4	3	-3	-6	-8	-13	-20	dB	
$Q_{V,opt}$	1200	3	-1	-1	-5	-9	-4	-8	-8	-10	dB		6	6	0	-1	0	-7	-9	-10	dB	
$Q_{V,opt}$	800	2	0	-1	-9	-4	-6	-7	-8	-12	dB		7	3	0	2	-5	-8	-9	-13	dB	
$Q_{V,opt}$	400	1	0	-8	-2	-5	-5	-6	-11	-17	dB		5	2	4	-3	-6	-7	-12	-19	dB	
DX	1200	4	-6	-6	-9	-12	-5	-7	-7	-7	dB		7	7	1	-3	0	-6	-8	-7	dB	
DX	800	3	-6	-6	-13	-6	-6	-7	-7	-9	dB		8	3	-1	1	-5	-7	-7	-8	dB	
DX	400	1	-5	-12	-5	-5	-6	-6	-8	-15	dB		4	0	2	-4	-6	-6	-7	-10	dB	

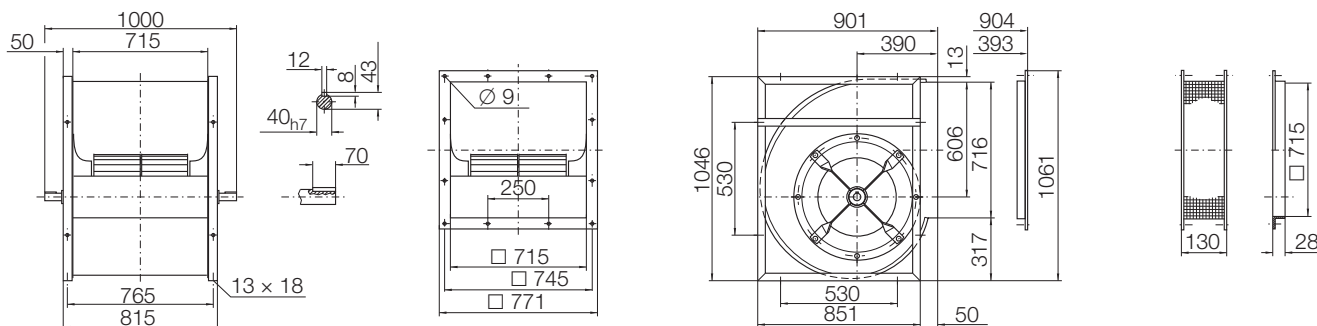
ADH E_-0560

Dimensions in mm, subject to change.

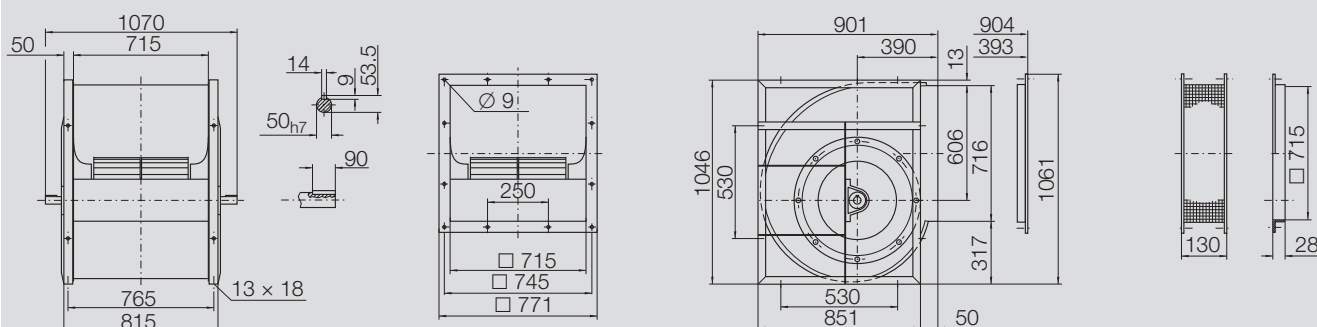
ADH E0-0560 72 kg



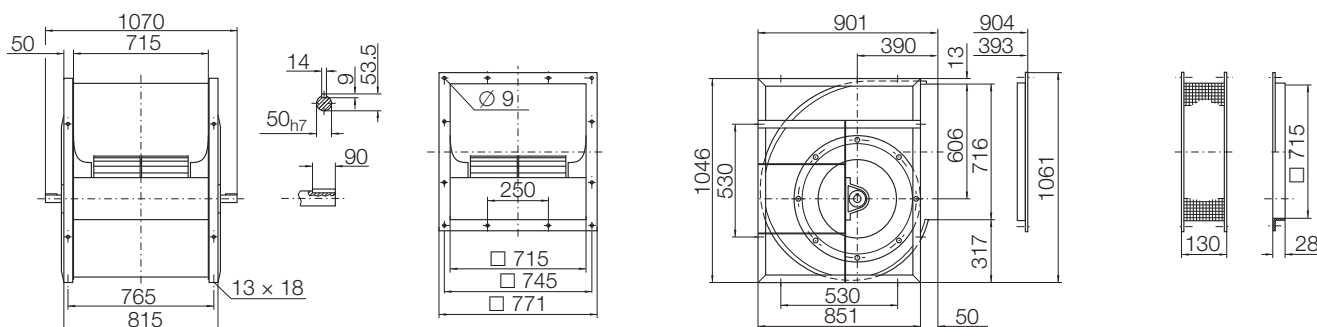
ADH E2-0560 86 kg



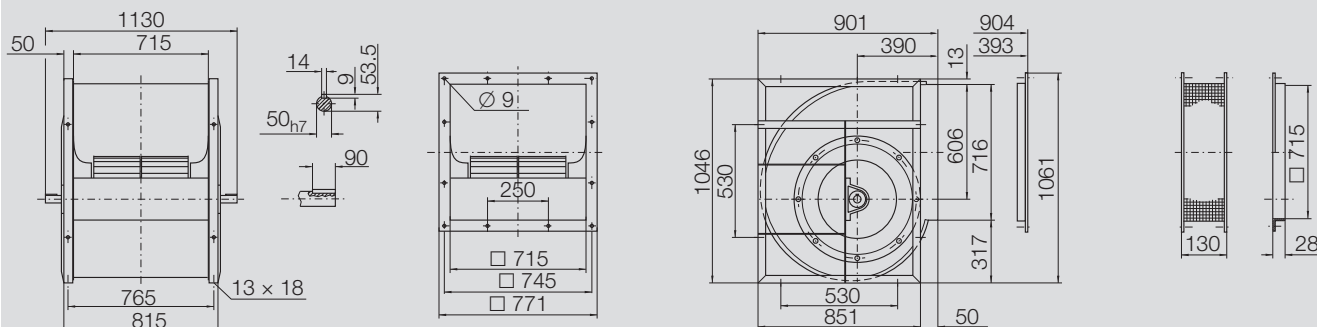
ADH E4-0560 134 kg



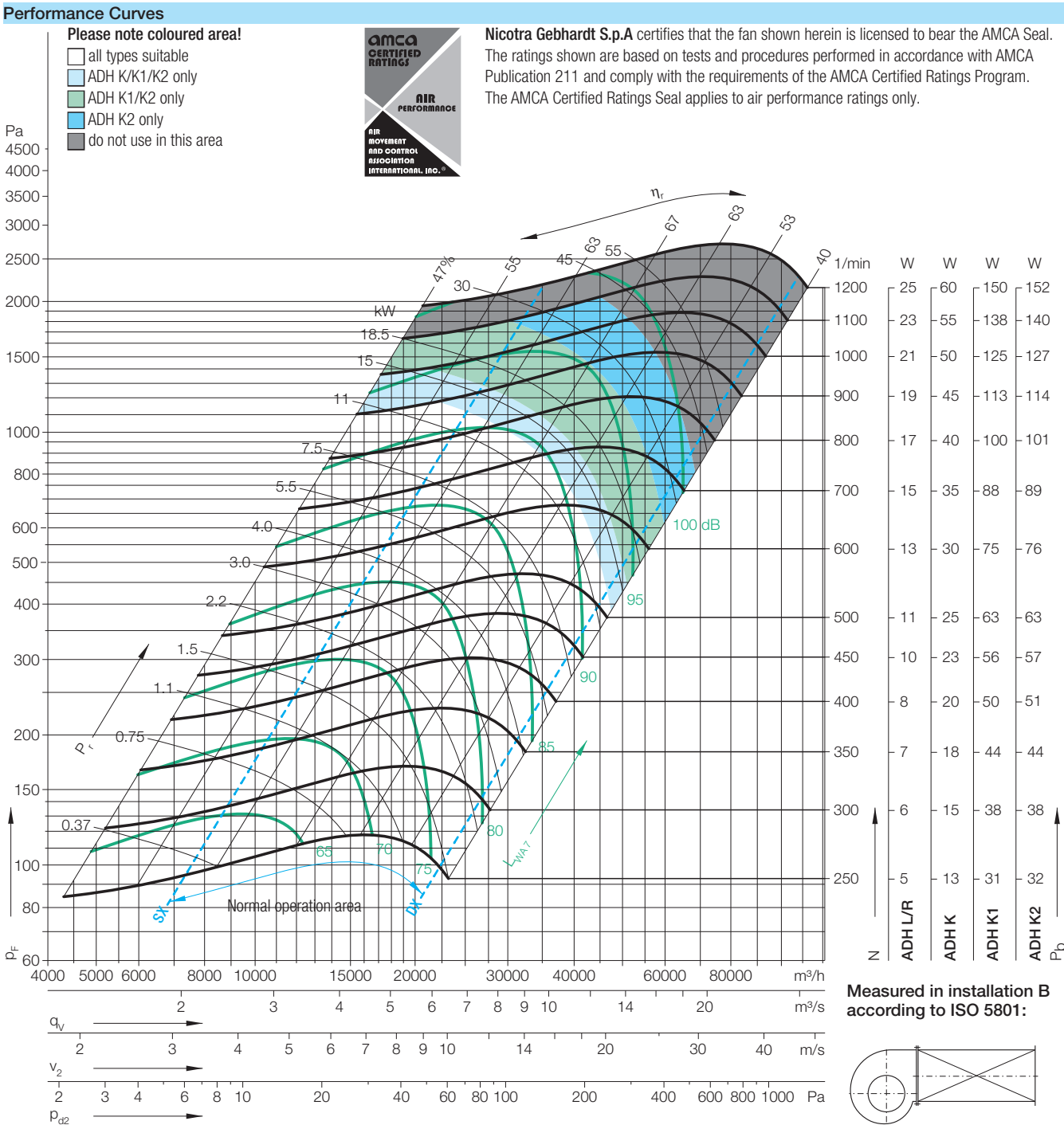
ADH E6-0560 142 kg



ADH E7-0560 150 kg



Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D_r	632	mm		Impeller weight	m	32	kg	
Number of blades	z	38			Density of media	ρ_1	1.2	kg/m ³	
Moment of Inertia	J	2.590	kgm ²		Tolerance class (DIN 24166)		2		

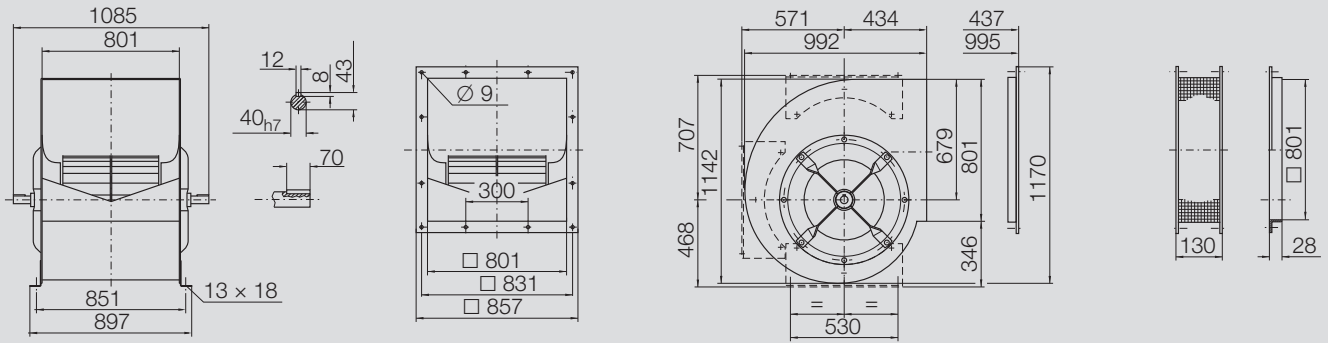


Duty point			Relative sound power level for inlet side L_{wrel4} at octave centre frequencies f_c										Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c									
Speed 1/min		dB	63	125	250	500	1000	2000	4000	8000	Hz		63	125	250	500	1000	2000	4000	8000	Hz	
SX	1000	3	2	2	3	-3	-7	-9	-12	-17	dB	10	10	7	-1	-7	-9	-12	-17		dB	
SX	600	2	4	5	2	-4	-6	-9	-13	-20	dB	12	11	4	-3	-6	-9	-13	-20		dB	
SX	350	1	7	6	0	-3	-5	-9	-16	-22	dB	14	9	1	-3	-5	-9	-16	-22		dB	
q _{V opt}	1000	2	1	1	1	-3	-6	-8	-11	-17	dB	9	9	6	-1	-6	-8	-11	-17		dB	
q _{V opt}	600	1	3	4	1	-3	-6	-9	-13	-20	dB	11	9	3	-2	-5	-9	-13	-20		dB	
q _{V opt}	350	1	6	4	1	-2	-6	-9	-16	-22	dB	12	7	2	-2	-6	-9	-16	-22		dB	
DX	1000	2	3	3	0	-5	-6	-8	-10	-12	dB	11	11	5	-3	-6	-8	-10	-12		dB	
DX	600	1	4	4	-3	-4	-6	-8	-9	-16	dB	12	10	0	-3	-5	-8	-9	-15		dB	
DX	350	1	6	1	-2	-3	-6	-7	-13	-19	dB	13	2	-1	-3	-6	-7	-13	-19		dB	

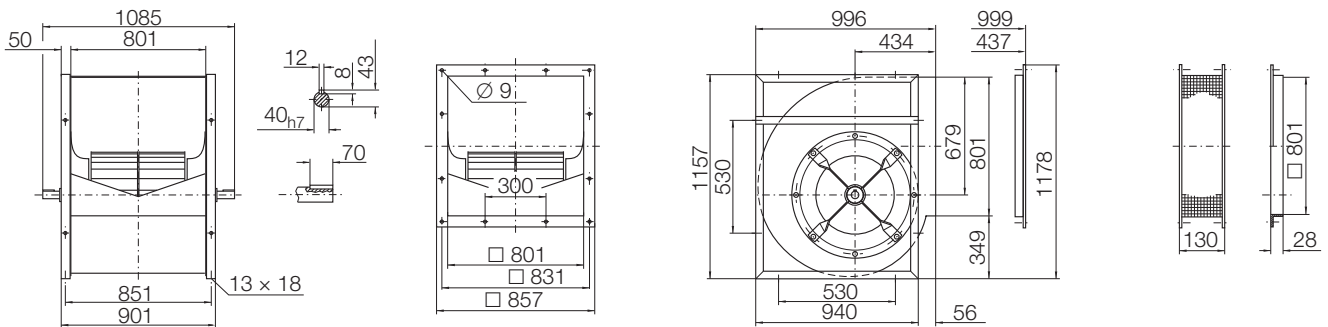
ADH_-0630

Dimensions in mm, subject to change.

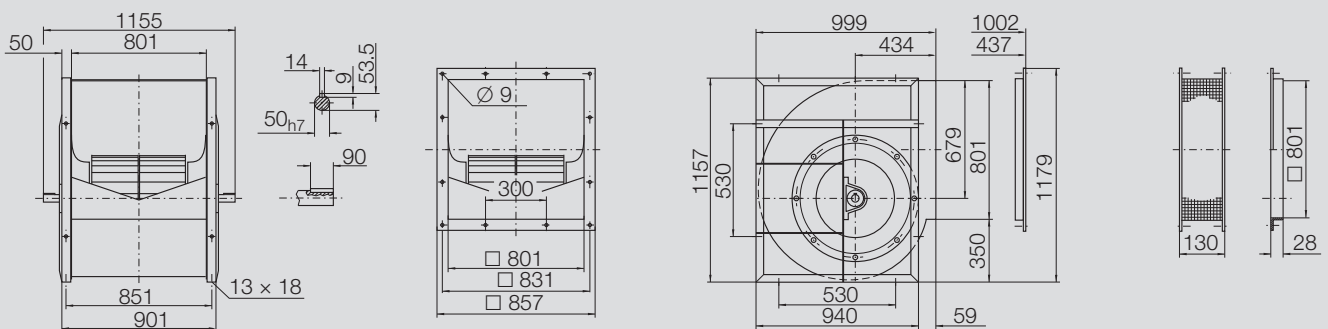
ADH L-0630 91 kg



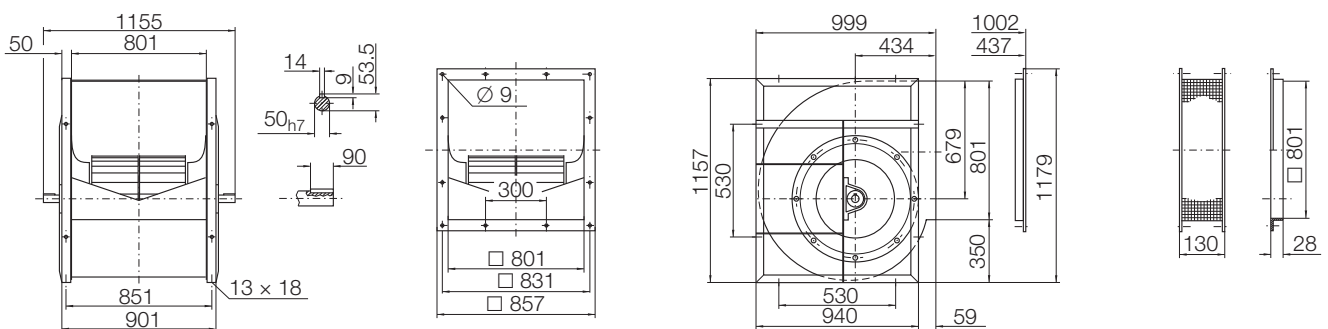
ADH R-0630 106 kg



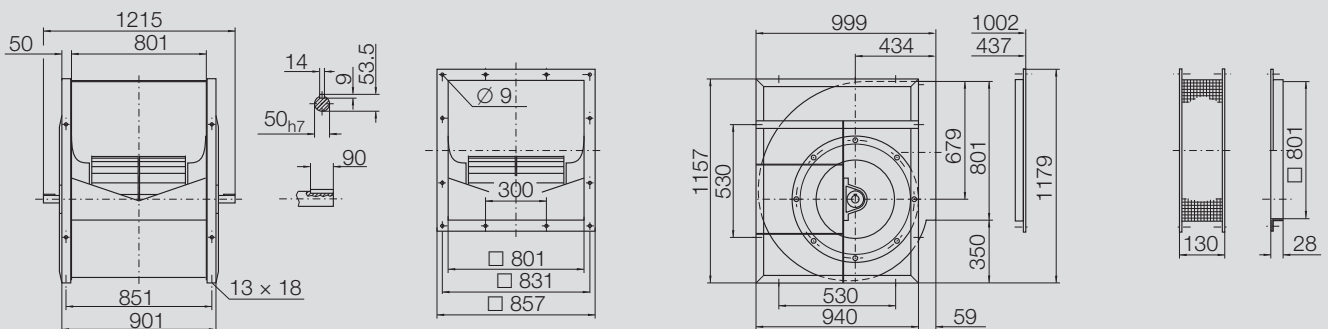
ADH K-0630 170 kg



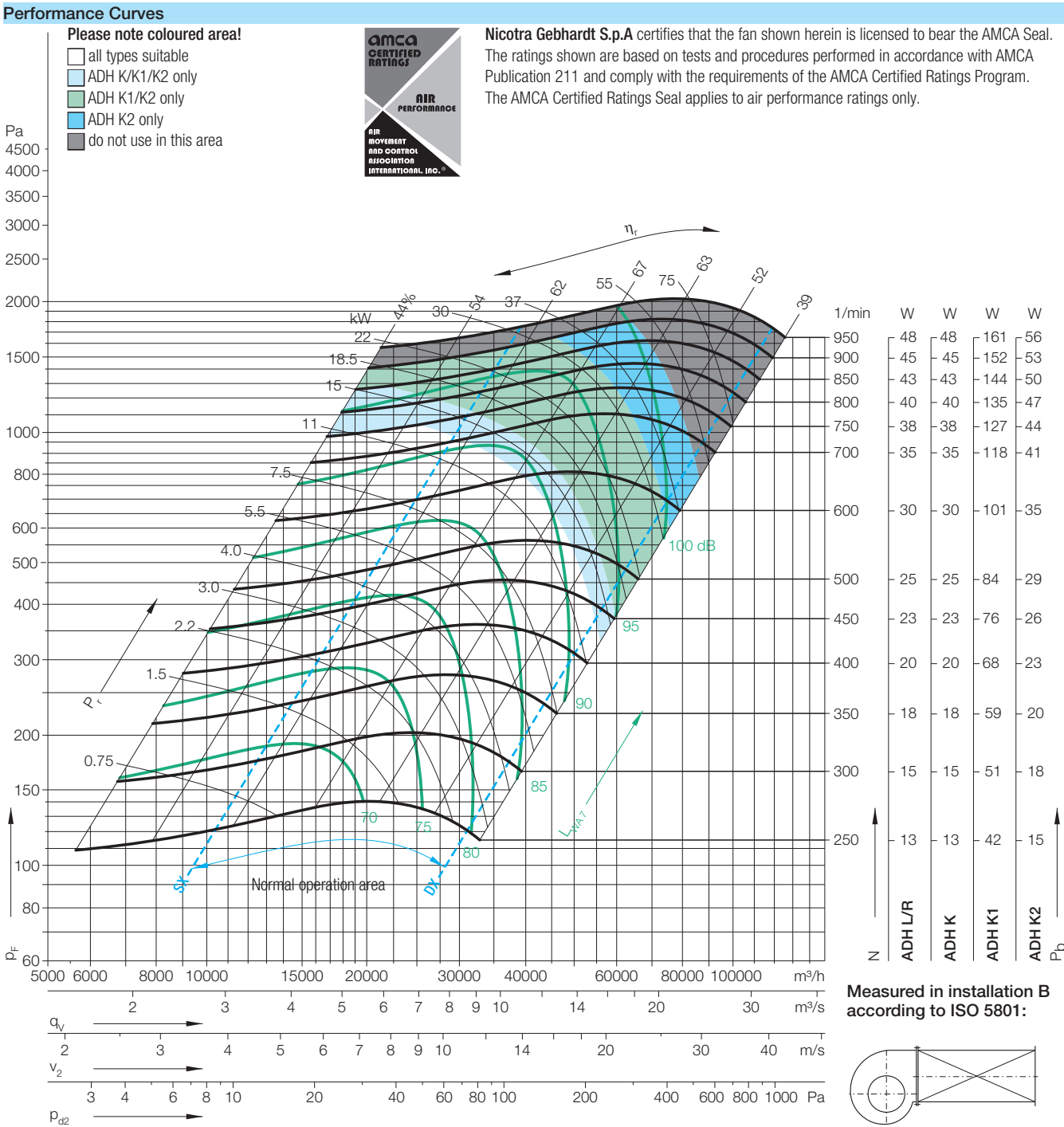
ADH K1-0630 175 kg



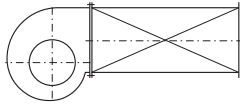
ADH K2-0630 180 kg



Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D_r	712	mm		Impeller weight	m	40	kg	
Number of blades	z	42			Density of media	ρ_1	1.2	kg/m ³	
Moment of Inertia	J	3.970	kgm ²		Tolerance class (DIN 24166)		2		



Measured in installation B according to ISO 5801:

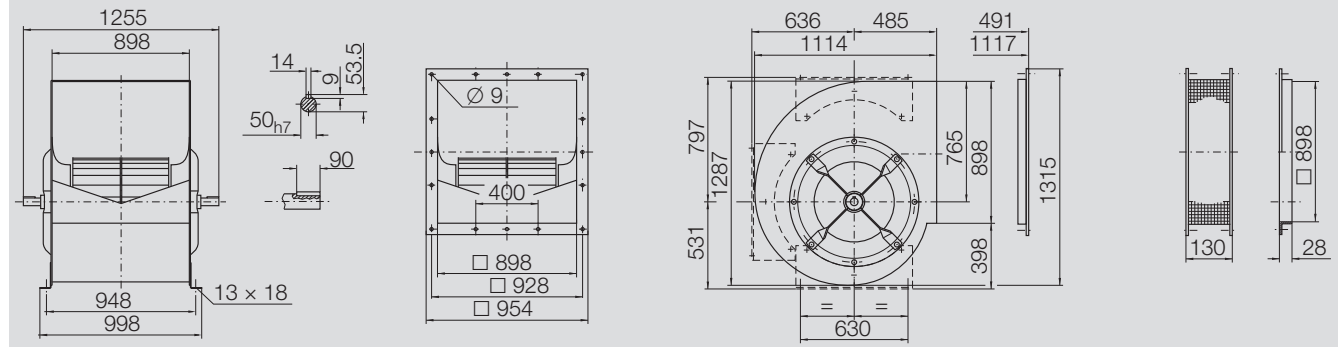


$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c										Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c									
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz		63	125	250	500	1000	2000	4000	8000	Hz	
SX	850	2	4	6	0	-1	-8	-10	-14	-20	dB		12	12	2	0	-7	-10	-14	-20	dB	
SX	500	1	7	6	2	-3	-8	-10	-15	-21	dB		14	10	3	-2	-7	-10	-15	-21	dB	
SX	300	1	11	6	3	-4	-6	-11	-17	-20	dB		15	7	3	-4	-6	-11	-17	-20	dB	
q _{V,opt}	850	2	3	4	-2	-1	-7	-10	-13	-19	dB		10	10	1	0	-7	-10	-13	-19	dB	
q _{V,opt}	500	1	6	4	2	-2	-7	-9	-15	-20	dB		13	7	3	-1	-7	-9	-15	-20	dB	
q _{V,opt}	300	0	9	4	3	-4	-6	-11	-16	-20	dB		13	6	4	-4	-6	-11	-16	-20	dB	
DX	850	2	7	6	-4	-3	-7	-8	-10	-14	dB		14	12	-1	-2	-7	-8	-10	-14	dB	
DX	500	1	9	0	-2	-3	-6	-7	-10	-17	dB		16	4	0	-3	-6	-7	-10	-17	dB	
DX	300	0	6	1	0	-4	-5	-7	-14	-18	dB		10	2	0	-4	-5	-7	-14	-18	dB	

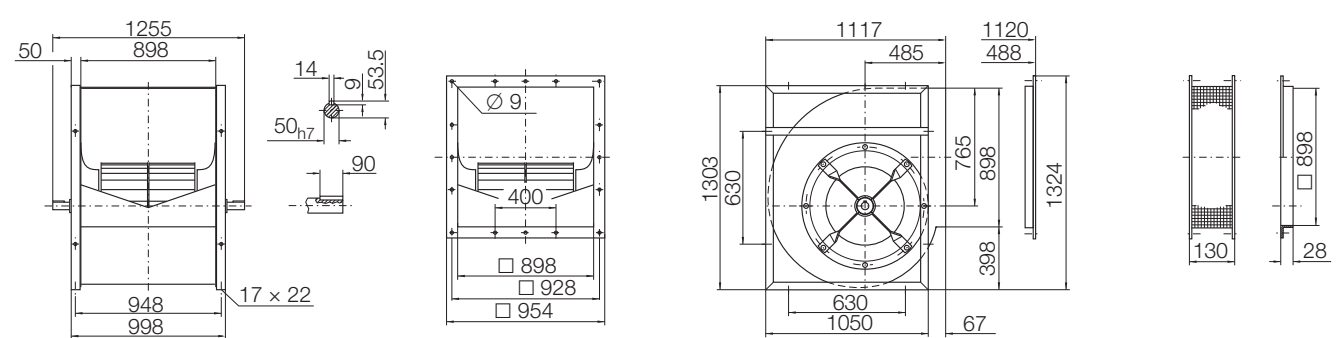
ADH_-0710

Dimensions in mm, subject to change.

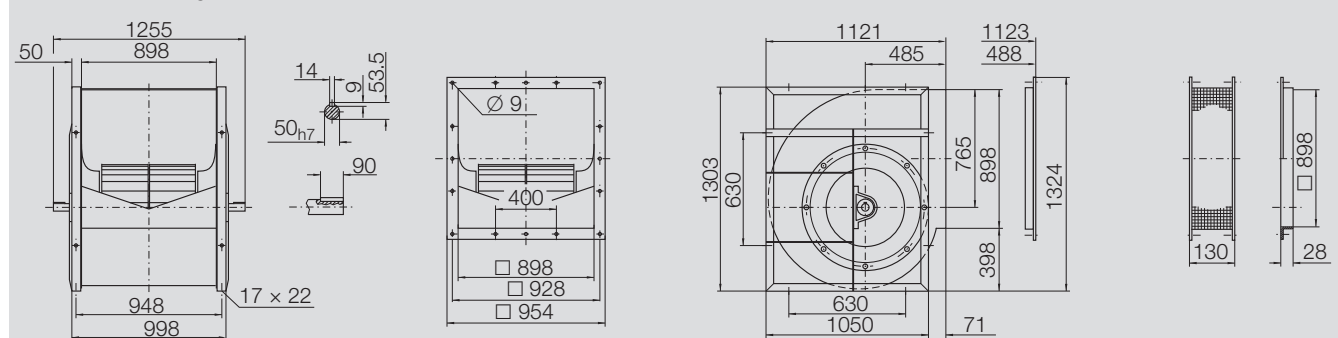
ADH L-0710 118 kg



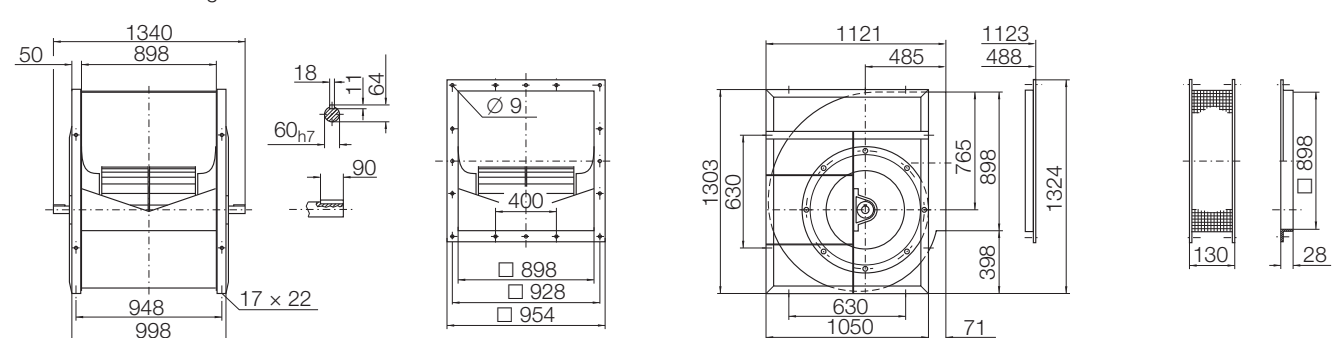
ADH R-0710 135 kg



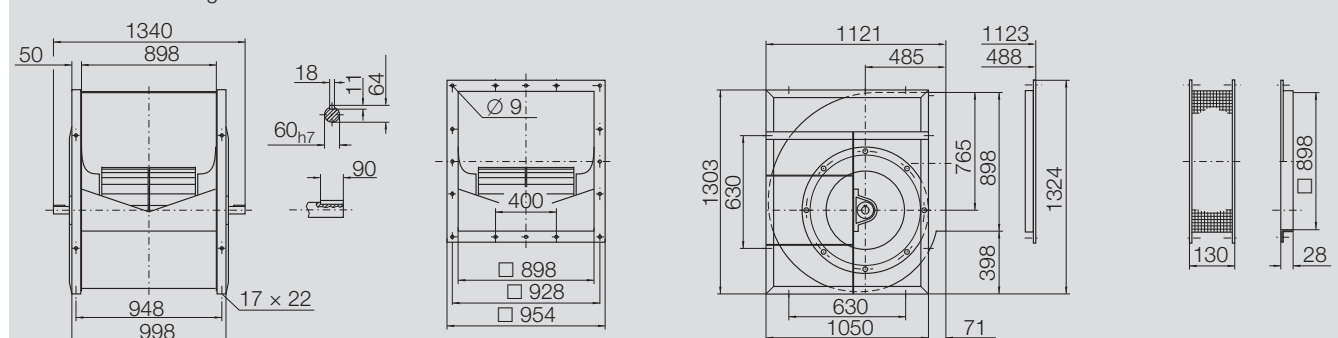
ADH K-0710 201 kg



ADH K1-0710 208 kg



ADH K2-0710 225 kg



ADH _-0800

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	809	mm
Number of blades	z	38	
Moment of Inertia	J	8.340	kgm ²

Impeller Data

Impeller weight	m	63	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

- all types suitable
- ADH K1/K2 only
- ADH K2 only
- do not use in this area

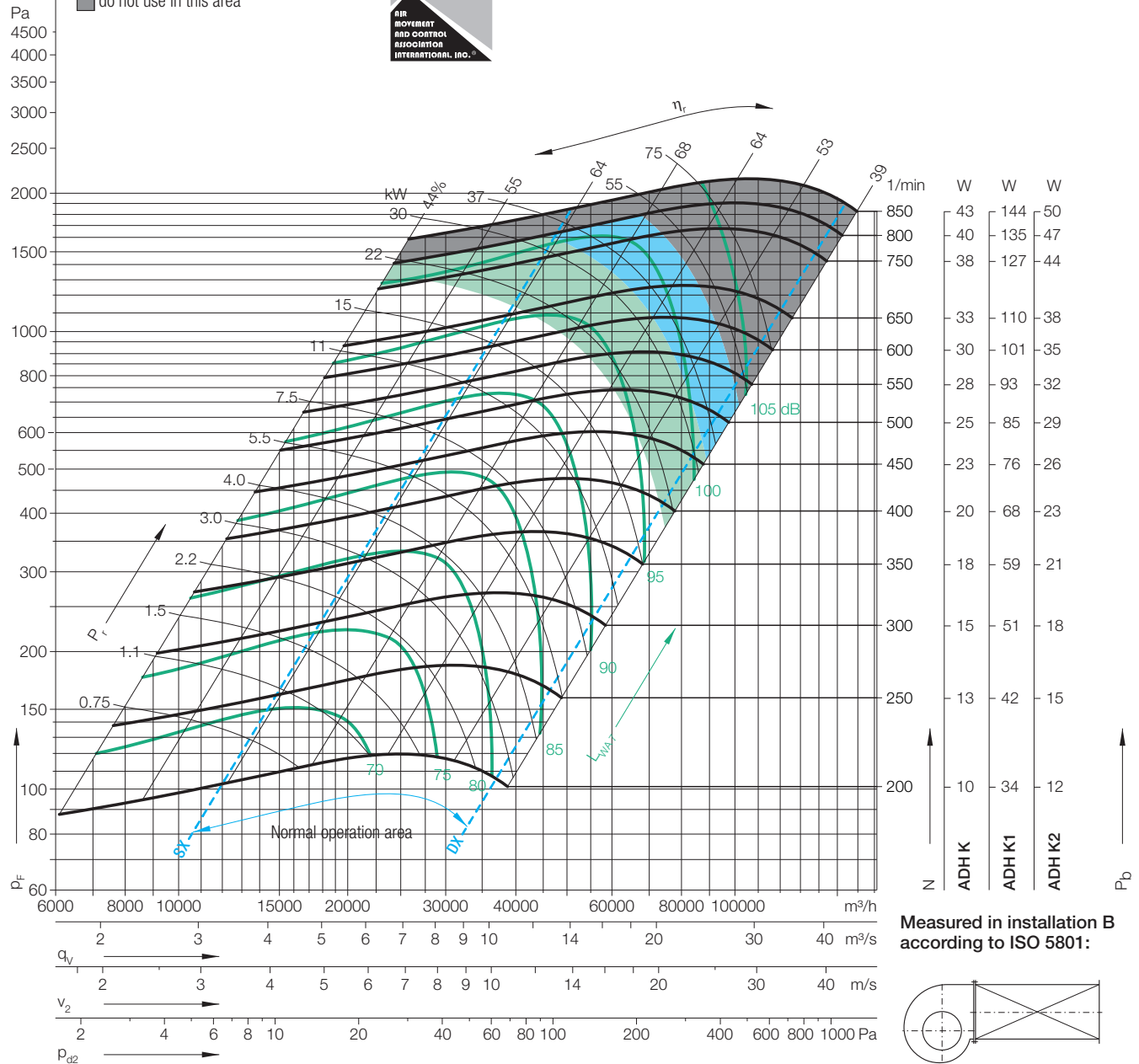


Nicotra Gebhardt S.p.A certifies that the fan shown herein is licensed to bear the AMCA Seal.

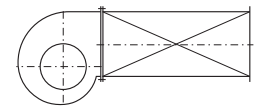
The ratings shown are based on tests and procedures performed in accordance with AMCA

Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to air performance ratings only.



Measured in installation B according to ISO 5801:

 $\Delta L_{Wrel4(A)}$ Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	750	2
SX	500	1
SX	300	1
Q _{V,opt}	750	1
Q _{V,opt}	500	1
Q _{V,opt}	300	1
DX	750	2
DX	500	1
DX	300	0

63	125	250	500	1000	2000	4000	8000	Hz
5	7	-1	-1	-8	-10	-15	-20	dB
7	6	2	-3	-8	-10	-16	-21	dB
11	6	2	-4	-6	-11	-17	-20	dB
3	5	-2	-0	-8	-10	-14	-19	dB
6	4	2	-2	-7	-9	-15	-20	dB
9	4	3	-4	-6	-10	-16	-20	dB
7	5	-4	-3	-7	-8	-10	-15	dB
9	0	-2	-3	-6	-7	-11	-17	dB
6	1	-0	-4	-5	-7	-14	-19	dB

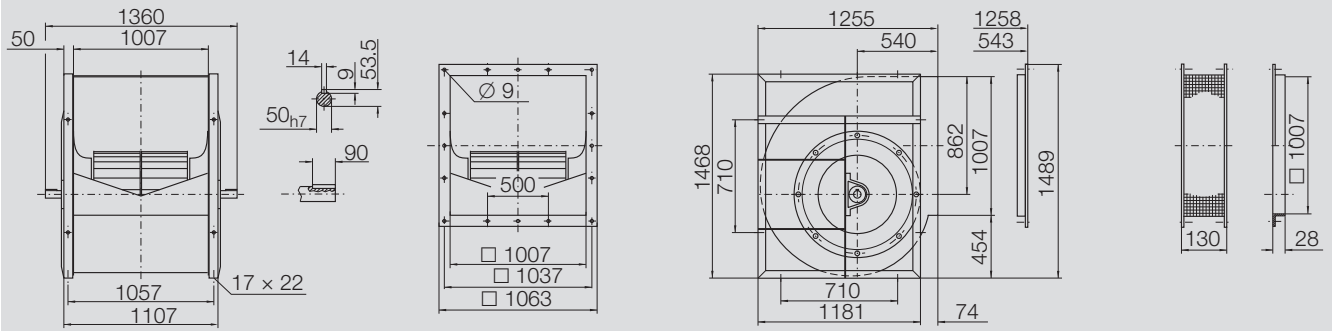
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
12	12	1	0	-8	-10	-15	-20	dB
15	10	3	-2	-7	-10	-16	-21	dB
16	7	3	-4	-6	-11	-17	-20	dB
11	10	0	0	-8	-10	-14	-19	dB
13	7	3	-1	-7	-9	-15	-20	dB
13	6	4	-4	-6	-10	-16	-20	dB
14	11	-2	-2	-7	-8	-10	-15	dB
16	4	-1	-3	-6	-7	-11	-17	dB
10	2	0	-4	-5	-7	-14	-19	dB

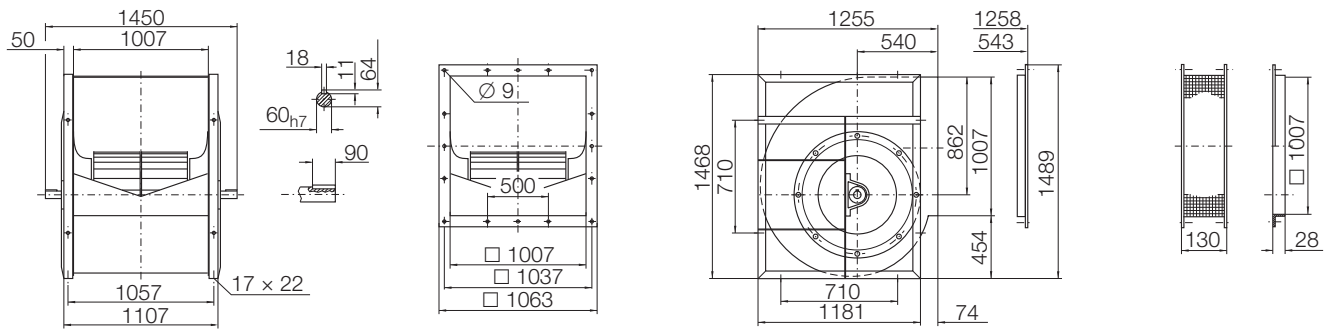
ADH_-0800

Dimensions in mm, subject to change.

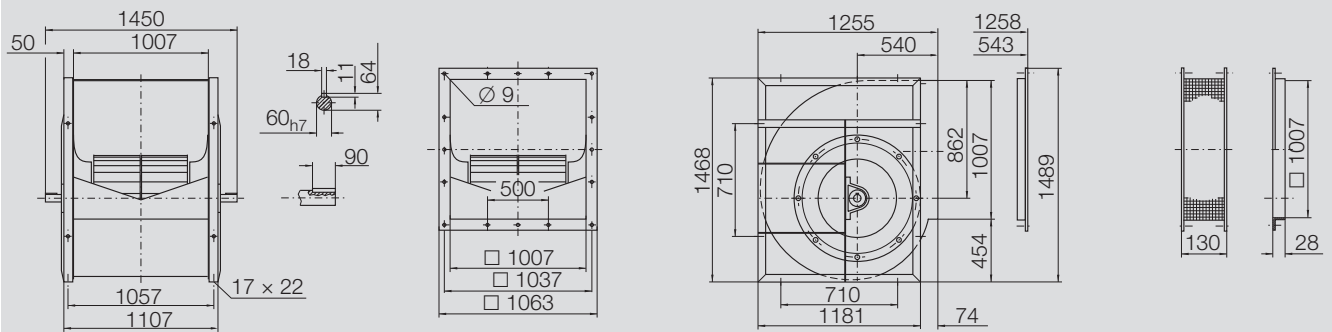
ADH K-0800 249 kg



ADH K1-0800 261 kg



ADH K2-0800 278 kg



Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

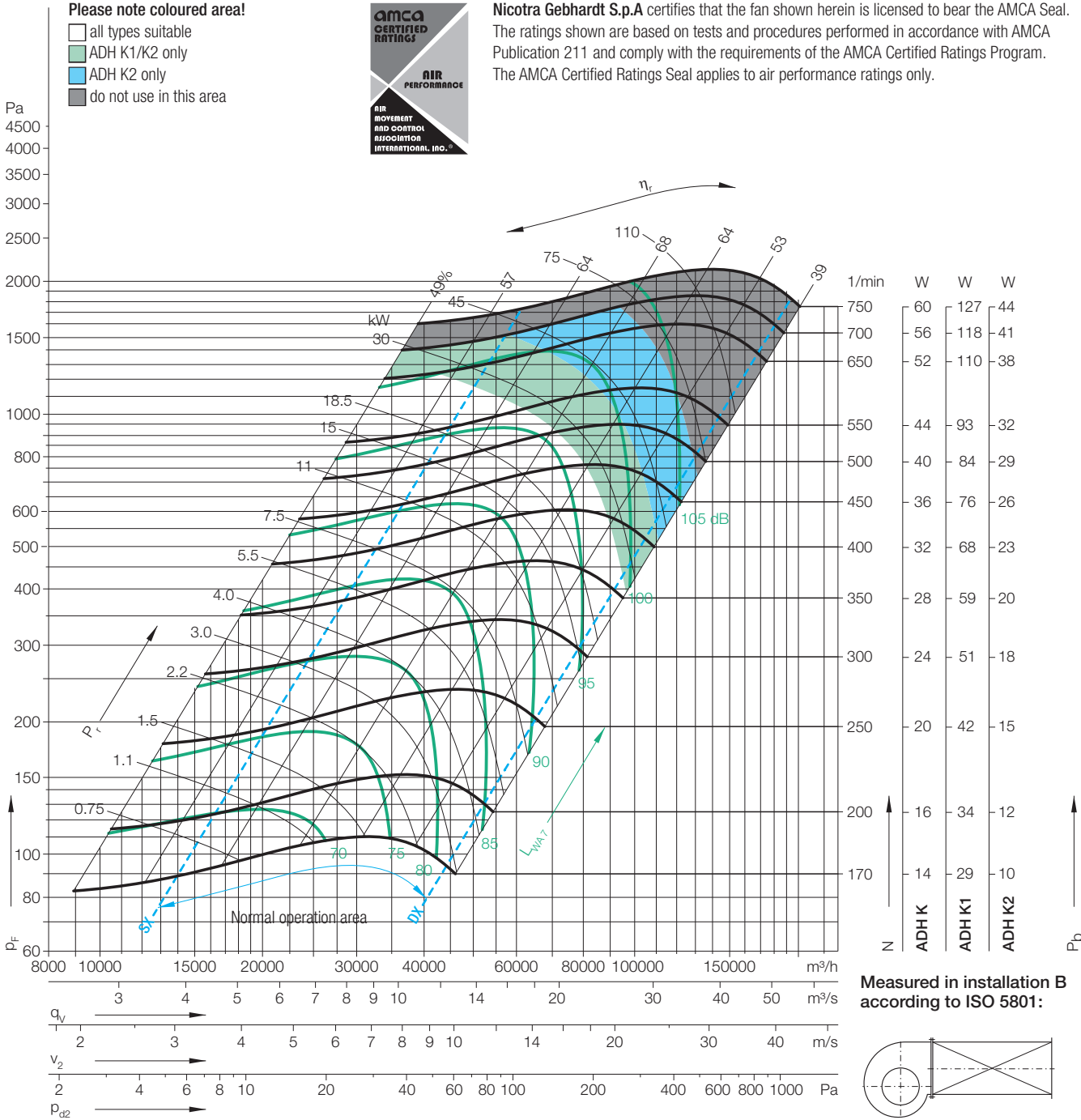
Impeller Data

Impeller diameter	D_r	905	mm
Number of blades	z	42	
Moment of Inertia	J	12.60	kgm ²

Impeller Data

Impeller weight	m	73	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

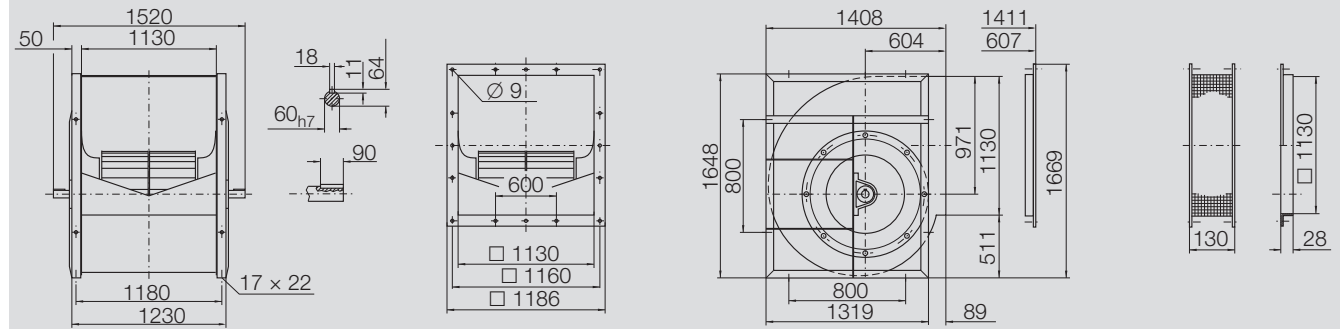


$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c										Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c									
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz		63	125	250	500	1000	2000	4000	8000	Hz	
SX	650	2	6	7	1	-2	-8	-10	-15	-21	dB		13	12	3	-1	-8	-10	-15	-21	dB	
SX	400	1	11	3	4	-4	-6	-11	-16	-20	dB		17	5	4	-4	-6	-11	-16	-20	dB	
SX	250	0	11	6	2	-3	-6	-11	-17	-21	dB		14	8	2	-3	-6	-11	-17	-21	dB	
$Q_{V,opt}$	650	1	4	5	0	-1	-8	-10	-14	-20	dB		11	10	1	0	-8	-10	-14	-20	dB	
$Q_{V,opt}$	400	1	8	1	4	-4	-6	-10	-15	-20	dB		14	4	4	-4	-6	-10	-15	-20	dB	
$Q_{V,opt}$	250	0	8	6	2	-4	-6	-11	-17	-21	dB		11	7	3	-3	-6	-11	-17	-21	dB	
DX	650	1	8	5	-2	-3	-7	-7	-10	-16	dB		15	9	-1	-2	-7	-7	-10	-16	dB	
DX	400	1	8	-2	0	-5	-5	-7	-12	-18	dB		14	1	1	-4	-5	-7	-12	-18	dB	
DX	250	0	3	1	-1	-4	-5	-8	-14	-19	dB		6	2	0	-4	-5	-8	-14	-19	dB	

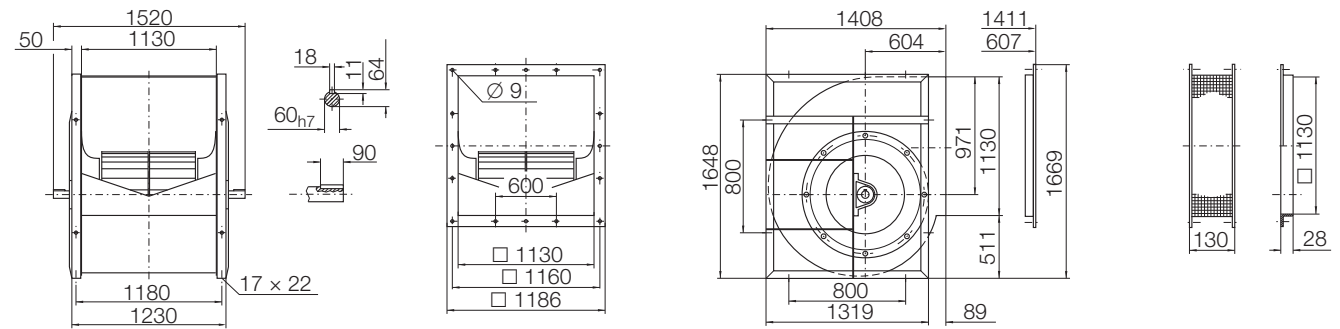
ADH _-0900

Dimensions in mm, subject to change.

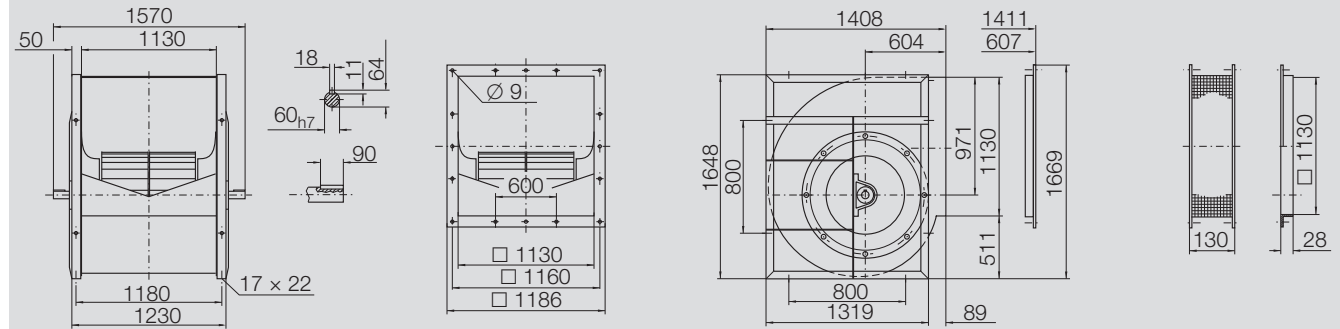
ADH K-0900 306 kg



ADH K1-0900 316 kg



ADH K2-0900 320 kg



ADH _-1000

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	995	mm
Number of blades	z	46	
Moment of Inertia	J	18.70	kgm ²

Impeller Data

Impeller weight	m	89	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

- all types suitable
- ADH K2 only
- do not use in this area

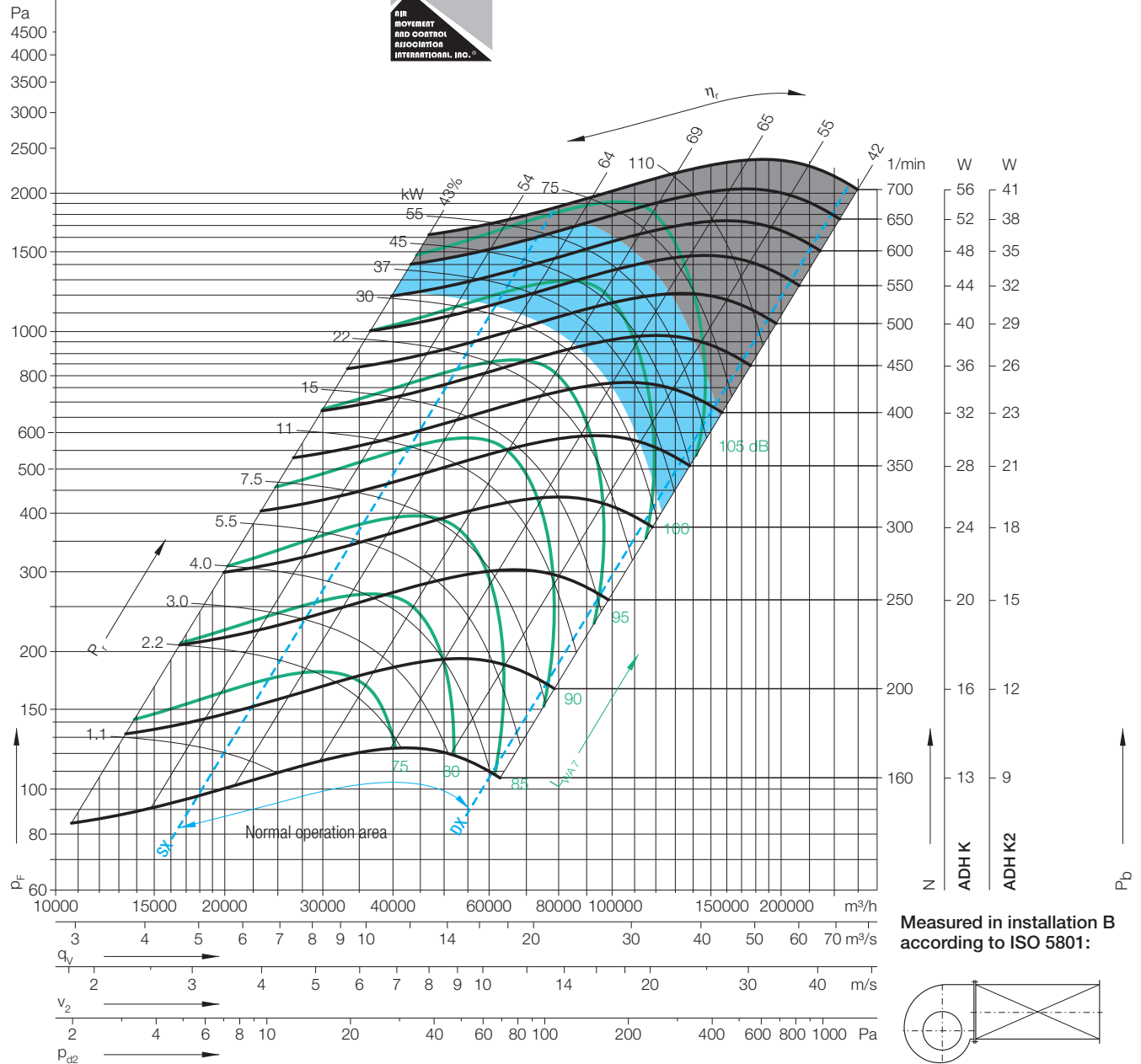


Nicotra Gebhardt S.p.A certifies that the fan shown herein is licensed to bear the AMCA Seal.

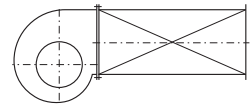
The ratings shown are based on tests and procedures performed in accordance with AMCA

Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to air performance ratings only.



Measured in installation B according to ISO 5801:

 $\Delta L_{Wrel4}(A)$ Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	600	2
SX	400	1
SX	200	0
$Q_{V,opt}$	600	1
$Q_{V,opt}$	400	1
$Q_{V,opt}$	200	0
DX	600	1
DX	400	1
DX	200	0

63	125	250	500	1000	2000	4000	8000	Hz
7	7	1	-2	-8	-10	-15	-21	dB
11	3	4	-4	-6	-11	-16	-20	dB
7	8	0	-2	-6	-12	-16	-22	dB
5	5	0	-1	-8	-10	-15	-20	dB
8	1	4	-4	-6	-10	-15	-20	dB
5	8	0	-2	-6	-11	-16	-22	dB
8	4	-2	-3	-7	-7	-10	-17	dB
8	-2	0	-5	-5	-7	-12	-18	dB
1	3	-2	-2	-5	-9	-15	-20	dB

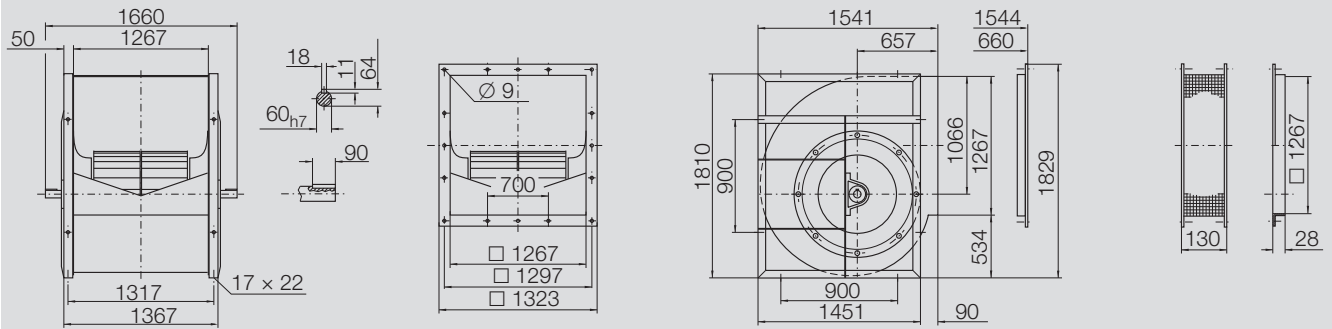
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
14	12	3	-2	-8	-10	-15	-21	dB
17	5	4	-4	-6	-10	-16	-20	dB
9	8	0	-2	-6	-12	-16	-22	dB
12	9	2	-1	-8	-10	-15	-20	dB
14	4	4	-4	-6	-10	-15	-20	dB
8	8	0	-2	-6	-11	-16	-22	dB
15	8	0	-3	-7	-7	-10	-17	dB
14	1	1	-4	-5	-7	-12	-18	dB
3	4	-2	-2	-5	-9	-15	-20	dB

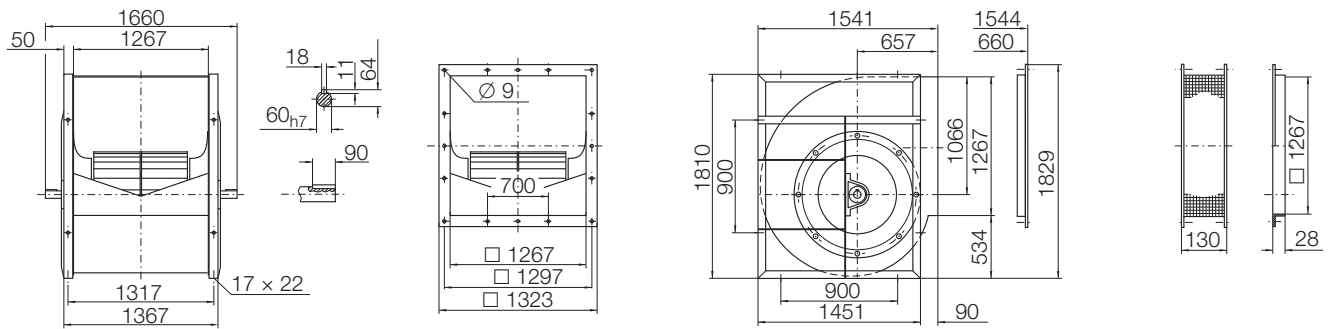
ADH_-1000

Dimensions in mm, subject to change.

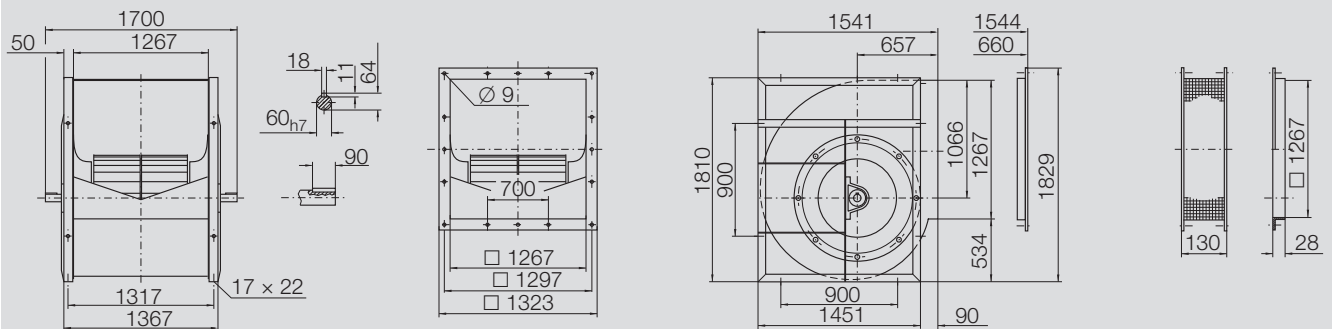
ADH K-1000 333 kg



ADH K1-1000 356 kg



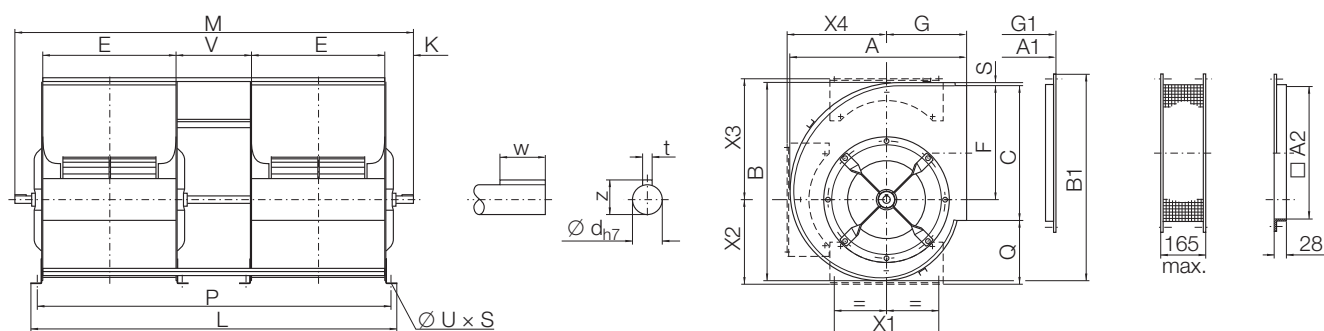
ADH K2-1000 360 kg



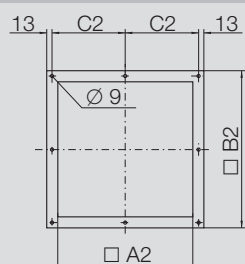
ADH G2E0

Dimensions in mm, subject to change.

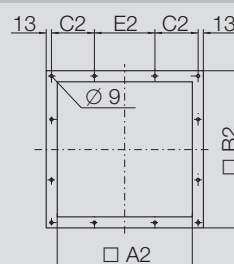
ADH G2E0-0160/-0500



ADH G2E0-0160/-0355



ADH G2E0-0400/-0500



ADH G2E0-0160/-0500

	A	B	C	E	F	G	L	M	P	Q
0160	290	310	205	205	173	141	630	710	600	121
0180	319	344	227	229	195	154	698	780	668	135
0200	348	378	258	256	216	163	772	876	742	144
0225	388	422	287	288	241	182	861	965	831	156
0250	423	467	322	322	268	195	954	1036	924	161
0280	471	524	361	361	302	215	1062	1160	1032	183
0315	522	586	403	404	338	236	1183	1301	1153	202
0355	582	658	450	453	381	261	1341	1451	1301	212
0400	654	745	507	507	432	290	1494	1606	1454	234
0450	732	838	571	569	487	322	1684	1790	1638	260
0500	805	928	641	638	541	352	1872	1986	1826	283

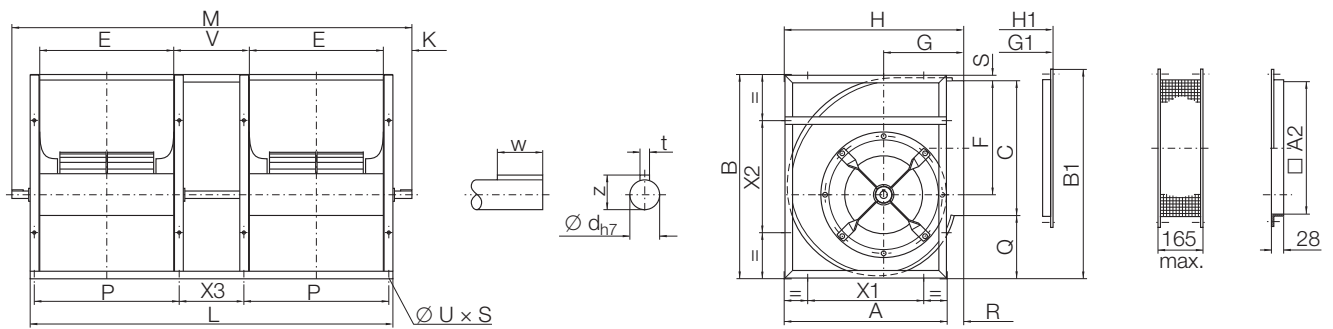
	S	V	K	X1	X2	X3	X4	t	w
0160	7	160	70	180	153	207	153	6	30
0180	7	180	71	180	167	227	167	6	30
0200	6	200	82	224	186	250	189	6	30
0225	7	225	82	224	202	279	209	6	30
0250	7	250	71	224	215	304	232	6	30
0280	6	280	79	280	242	337	261	8	40
0315	7	315	89	280	267	376	289	8	40
0355	7	355	95	355	281	418	327	8	40
0400	7	400	96	355	309	469	366	8	40
0450	7	450	101	530	344	526	415	10	50
0500	7	500	105	530	383	576	456	10	50

	z	Ød	u x s	A1	B1	G1	A2	B2	C2	E2
0160	22.5	20h7	11 x 16	293	331	144	205	261	117.5	—
0180	22.5	20h7	11 x 16	322	365	157	229	285	129.5	—
0200	22.5	20h7	11 x 16	351	400	166	256	312	143	—
0225	22.5	20h7	11 x 16	391	443	185	288	344	159	—
0250	22.5	20h7	11 x 16	426	488	198	322	378	176	—
0280	28	25h7	11 x 16	474	546	218	361	417	195.5	—
0315	28	25h7	11 x 16	525	607	239	404	460	217	—
0355	33	30h7	11 x 16	585	679	264	453	509	241.5	—
0400	33	30h7	11 x 16	657	766	293	507	563	168.5	200
0450	38	35h7	13 x 18	735	859	325	569	625	199.5	200
0500	38	35h7	13 x 18	808	949	355	638	694	209	250

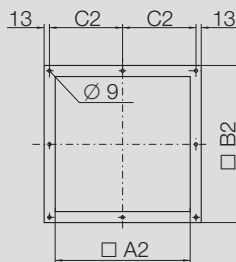
ADH G2E2 / ADH G2R

Dimensions in mm, subject to change.

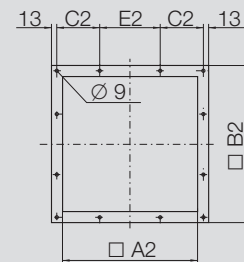
ADH G2E2-0160/-0560 / ADH G2R-0630



ADH G2E2-0160/-0355



ADH G2E2-0400/-0560 / ADH G2R-0630



ADH G2E2-0160/-0560 / ADH G2R-0630

	A	B	C	E	F	G	H	L	M	P
0160	267	315	205	205	173	141	293	610	710	229
0180	294	350	227	229	195	154	322	678	780	253
0200	316	383	258	256	216	163	350	762	876	286
0225	355	429	287	288	241	182	392	851	965	318
0250	390	474	322	322	268	195	427	944	1036	352
0280	439	530	361	361	302	215	474	1062	1164	391
0315	490	592	403	404	338	236	526	1180	1300	434
0355	551	669	450	453	381	261	588	1337	1451	493
0400	618	754	507	507	432	290	659	1494	1606	547
0450	691	845	571	569	487	322	735	1668	1790	619
0500	760	935	641	638	541	352	809	1854	1986	688
0560	855	1050	716	715	606	390	903	2090	2276	765
0630	940	1157	801	801	679	434	996	2332	2575	851

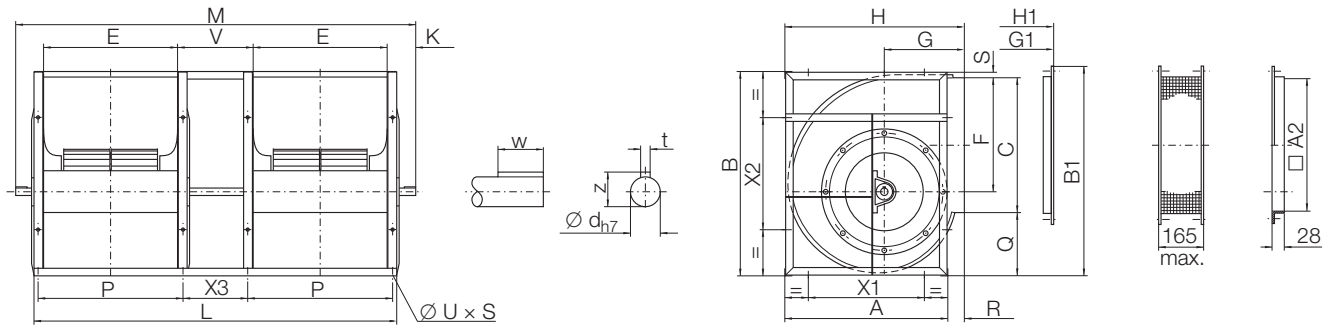
	Q	R	S	V	K	X1	X2	X3	t	w
0160	98	26	10	160	50	180	180	136	6	30
0180	113	28	8	180	51	180	180	156	6	30
0200	115	34	8	200	57	224	224	170	6	30
0225	129	37	11	225	57	224	224	195	6	30
0250	140	37	10	250	46	224	224	220	6	30
0280	158	35	9	280	51	280	280	250	8	40
0315	177	36	10	315	60	280	280	285	8	40
0355	204	37	13	355	57	355	355	315	8	40
0400	234	41	11	400	56	355	355	360	8	40
0450	261	44	11	450	61	530	530	400	10	50
0500	282	49	10	500	66	530	530	450	10	50
0560	319	48	13	560	93	530	530	510	12	70
0630	349	56	7	630	121	530	530	580	12	70

	z	ød	u x s	B1	H1	G1	A2	B2	C2	E2
0160	22.5	20h7	9 x 14	331	296	144	205	261	117.5	—
0180	22.5	20h7	9 x 14	368	325	157	229	285	129.5	—
0200	22.5	20h7	11 x 16	401	353	166	256	312	143	—
0225	22.5	20h7	11 x 16	444	395	185	288	344	159	—
0250	22.5	20h7	11 x 16	490	430	198	322	378	176	—
0280	28	25h7	13 x 18	547	477	218	361	417	195.5	—
0315	28	25h7	13 x 18	608	529	239	404	460	217	—
0355	33	30h7	13 x 18	682	591	264	453	509	241.5	—
0400	33	30h7	13 x 18	769	662	293	507	563	168.5	200
0450	38	35h7	13 x 18	860	738	325	569	625	199.5	200
0500	38	35h7	13 x 18	951	812	355	638	694	209	250
0560	43	40h7	13 x 18	1063	906	393	715	771	247.5	250
0630	43	40h7	13 x 18	1178	999	437	801	857	265.5	300

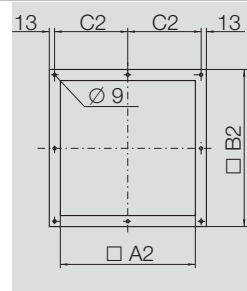
ADH G2E4 / ADH G2K

Dimensions in mm, subject to change.

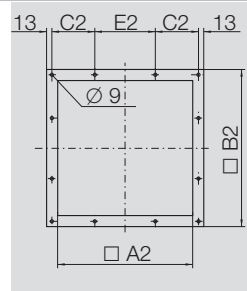
ADH G2E4-0250/-0560 / ADH G2K-0630/-1000



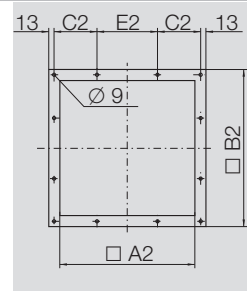
ADH G2E4-0250/-0355



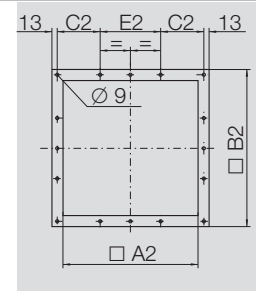
ADH G2E4-0400/-0560



ADH G2K-0630



ADH G2K-0710/-1000



ADH G2E4-0250/-0560 / ADH G2K-0630/-1000

	A	B	C	E	F	G	H	L	M	P
0250	390	474	322	322	268	195	427	943	1085	352
0280	439	530	361	361	302	215	474	1062	1220	391
0315	490	592	403	404	338	236	526	1182	1340	434
0355	551	669	450	453	381	261	588	1341	1505	493
0400	618	754	507	507	432	290	659	1494	1660	547
0450	691	845	571	569	487	322	735	1668	1870	619
0500	760	935	641	638	541	352	809	1856	2060	688
0560	855	1050	716	715	606	390	903	2090	2330	765
0630	940	1157	801	801	679	434	1005	2332	2576	851
0710	1050	1303	898	898	765	485	1121	2606	2898	948
0800	1181	1468	1007	1007	862	540	1255	2914	3257	1057
0900	1319	1648	1130	1130	971	604	1408	3260	3550	1180
1000	1451	1810	1267	1267	1066	657	1541	3634	3927	1317

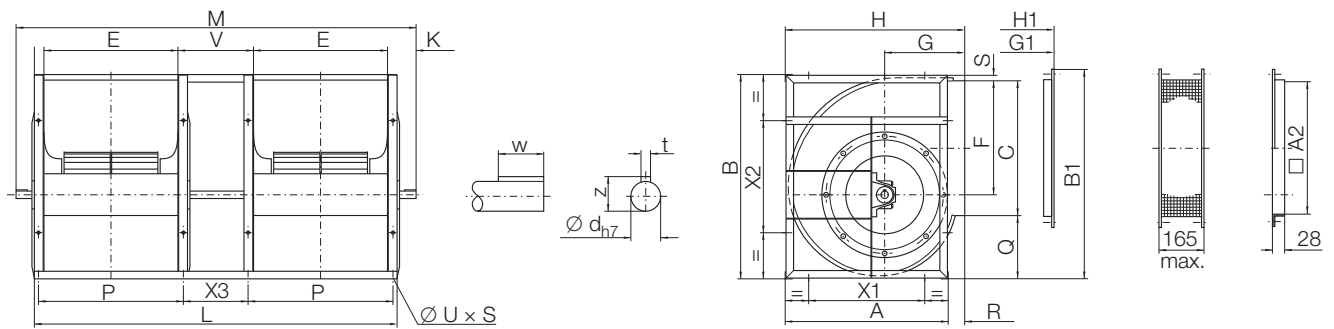
	Q	R	S	V	K	X1	X2	X3	t	t1	w
0250	140	37	10	250	71	224	224	220	8	7	40
0280	158	35	9	280	79	280	280	250	8	7	40
0315	177	36	10	315	79	280	280	285	8	7	40
0355	204	37	13	355	82	355	355	315	10	8	50
0400	234	41	11	400	83	355	355	360	10	8	50
0450	261	44	11	450	101	530	530	400	12	8	70
0500	282	49	10	500	102	530	530	450	12	8	70
0560	319	48	13	560	120	530	530	510	14	9	90
0630	349	59	7	630	122	530	530	580	14	9	90
0710	398	71	7	710	146	630	630	660	18	11	91
0800	453	74	8	800	172	710	710	750	18	11	91
0900	510	89	8	900	145	800	800	850	18	11	91
1000	534	90	9	1000	147	900	900	950	18	11	91

	z	ød	u × s	B1	H1	G1	A2	B2	C2	E2
0250	28	25h7	11 × 16	490	430	198	322	378	176.0	—
0280	33	30h7	13 × 18	547	477	218	361	417	195.5	—
0315	33	30h7	13 × 18	608	529	239	404	460	217.0	—
0355	38	35h7	13 × 18	682	591	264	453	509	241.5	—
0400	38	35h7	13 × 18	769	662	293	507	563	168.5	200
0450	43	40h7	13 × 18	860	738	325	569	625	199.5	200
0500	43	40h7	13 × 18	951	812	355	638	694	209.0	250
0560	53.5	50h7	13 × 18	1063	906	393	715	771	247.5	250
0630	53.5	50h7	13 × 18	1179	1008	437	801	857	265.5	300
0710	64	60h7	17 × 22	1391	1124	488	898	954	264.0	400
0800	64	60h7	17 × 22	1561	1258	543	1007	1063	268.5	500
0900	64	60h7	17 × 22	1748	1411	607	1130	1186	280.0	600
1000	64	60h7	17 × 22	1930	1544	660	1267	1323	298.5	700

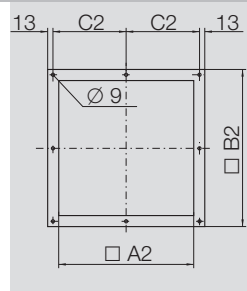
ADH G2E7 / ADH G2K2

Dimensions in mm, subject to change.

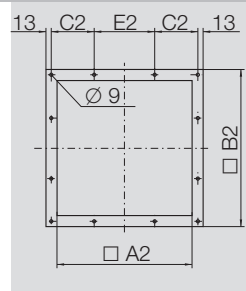
ADH G2E7-0250/-0560 / ADH G2K2-0630/-1000



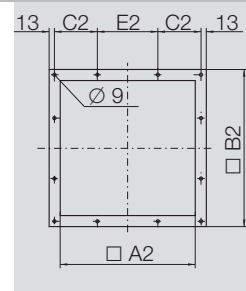
ADH G2E7-0250/-0355



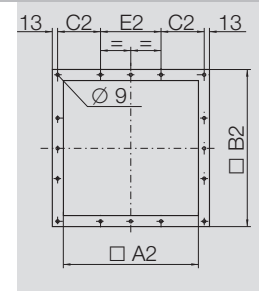
ADH G2E7-0400/-0560



ADH G2K2-0630



ADH G2K2-0710/-1000



ADH G2E7-0250/-0560 / ADH G2K2-0630/-1000

	A	B	C	E	F	G	H	L	M	P
0250	390	474	322	322	268	195	427	943	1085	352
0280	439	530	361	361	302	215	474	1062	1230	391
0315	490	592	403	404	338	236	526	1182	1400	434
0355	551	669	450	453	381	261	588	1341	1545	493
0400	618	754	507	507	432	290	659	1494	1800	547
0450	691	845	571	569	487	322	735	1668	1924	619
0500	760	935	641	638	541	352	809	1856	2146	688
0560	855	1050	716	715	606	390	903	2090	2380	765
0630	940	1157	801	801	679	434	1005	2332	2576	851
0710	1050	1303	898	898	765	485	1121	2606	2898	948
0800	1181	1468	1007	1007	862	540	1255	2914	3257	1057
0900	1319	1648	1130	1130	971	604	1408	3260	3550	1180
1000	1451	1810	1267	1267	1066	657	1541	3634	3927	1317

	Q	R	S	V	K	X1	X2	X3	t	w
0250	140	37	10	250	71	224	224	220	8	40
0280	158	35	9	280	84	280	280	250	10	50
0315	177	36	10	315	109	280	280	285	12	70
0355	204	37	13	355	102	355	355	315	12	70
0400	234	41	11	400	153	355	355	360	14	90
0450	261	44	11	450	128	530	530	400	14	90
0500	282	49	10	500	145	530	530	450	18	90
0560	319	48	13	560	145	530	530	510	18	90
0630	349	59	7	630	122	530	530	580	18	91
0710	398	71	7	710	146	630	630	660	18	91
0800	453	74	8	800	172	710	710	750	18	91
0900	510	89	8	900	145	800	800	850	18	91
1000	534	90	9	1000	147	900	900	950	18	91

	z	ød	u x s	B1	H1	G1	A2	B2	C2	E2
0250	33	30h7	11 x 16	490	430	198	322	378	176.0	—
0280	38	35h7	13 x 18	547	477	218	361	417	195.5	—
0315	43	40h7	13 x 18	608	529	239	404	460	217.0	—
0355	43	40h7	13 x 18	682	591	264	453	509	241.5	—
0400	53.5	50h7	13 x 18	769	662	293	507	563	168.5	200
0450	53.5	50h7	13 x 18	860	738	325	569	625	199.5	200
0500	64	60h7	13 x 18	951	812	355	638	694	209.0	250
0560	64	60h7	13 x 18	1063	906	393	715	771	247.5	250
0630	64	60h7	13 x 18	1179	1008	437	801	857	265.5	300
0710	64	60h7	17 x 22	1391	1124	488	898	954	264.0	400
0800	64	60h7	17 x 22	1561	1258	543	1007	1063	268.5	500
0900	64	60h7	17 x 22	1748	1411	607	1130	1186	280.0	600
1000	64	60h7	17 x 22	1930	1544	660	1267	1323	298.5	700

ADH E0-0160/-0560
ADH L-0630/-0710

ADH G2E0-0160/-0500

Specifications



High performance centrifugal fan ADH E0 / ADH L
Double inlet, belt drive.
Lap jointed scroll of galvanised sheet steel assembled through a standing-seam (Sizes 0160/-0560) or by Pittsburgh lockforming (sizes 0630/-0710).
Multi-position feet and discharge flange as an option.
Impeller with forward curved blades of galvanised sheet steel, balanced in according to ISO 1940.
Straight cut off at fan discharge (sizes 0160/-0560), from size 0630 with V-cut off.
Noise tested, maintenance free, self aligning radial insert ball bearings, mounted in pressed steel housing/strut assemblies with rubber interliners.
Performance data in according to DIN 24166 tolerance class 2.

Twin fan arrangement



Twin fan arrangement
High performance centrifugal fan ADH G2E0
The two single fans ADH E0 are fitted together to a robust assembly by means of 3 U-channels. Both impellers are fitted on a common shaft supported by 3 bearings.

Fan data

Fan type	
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Multi-Position feet
- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guard
- Discharge guard
- Shaft guard for free shaft end
- Matching flange
- Inspection door
- Drain plug R 1/8"
- Increase corrosion protection
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone, or equipped with a copper strip (from size 0630)

ADH E2-0160/-0560
ADH R-0630/-0710

ADH G2E2-0160/-0560
ADH G2R-0630

Specifications



High performance centrifugal fan ADH E2 / ADH R
Double inlet, belt drive.
Lap jointed scroll of galvanised sheet steel assembled through a standing-seam (Sizes 0160/-0560) or by Pittsburgh lockforming (sizes 0630/-0710), discharge flange as an option.
Rectangular side frame of galvanised steel.
Impeller with forward curved blades of galvanised sheet steel, balanced in according to ISO 1940. Straight cut off at fan discharge (sizes 0160/-0560), from size 0630 with V-cut off.
Noise tested, maintenance free, self aligning radial insert ball bearings, mounted in pressed steel housing/strut assemblies with rubber interliners.
Performance data in according to DIN 24166 tolerance class 2.

Twin fan arrangement



Twin fan arrangement
High performance centrifugal fan ADH G2E2 / ADH G2R
The two single fans ADH E2 or ADH R are fitted together to a robust assembly by means of 3 angle bars. Both impellers are fitted on a common shaft supported by 3 bearings.

Fan data

Fan type	
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guard
- Discharge guard
- Shaft guard for free shaft end
- Matching flange
- Inspection door
- Drain plug R 1/8"
- Increase corrosion protection
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone, or equipped with a copper strip (from size 0630)

ADH E4-0200/-0560
ADH K-0630/-1000

ADH G2E4-0250/-0560
ADH G2K-0630/-1000

Specifications



High performance centrifugal fan ADH E4 / ADH K
Double inlet, belt drive.
Lap jointed scroll of galvanised sheet steel assembled through a standing-seam (Sizes 0200/-0560) or by Pittsburgh lockforming (sizes 0630/-1000), discharge flange as an option.
Welded heavy duty reinforced side frames, coated.
Impeller with forward curved blades of galvanised sheet steel, balanced in according to ISO 1940. Straight cut off at fan discharge (sizes 0200/-0560), from size 0630 with V-cut off.
Monobloc pedestal cast iron bearings with relubrication nipple, mounted on a robust pedestal, integrated, self aligning radial insert ball bearings fixed by eccentric clamp.
Performance data in according to DIN 24166 tolerance class 2.

Twin fan arrangement



Twin fan arrangement
High performance centrifugal fanADH G2E4 / G2K
The two single fans ADH E4 or ADH K are fitted together to a robust assembly by means of 3 angle bars. Both impellers are fitted on a common shaft supported by 3 bearings (sizes 0250/-0630) or the fans have separated shafts being connected by an elastic coupling (sizes 0710/-1000).

Fan data

Fan type	
Volume flow	Q_V	m³/h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guard
- Discharge guard
- Shaft guard for free shaft end
- Matching flange
- Inspection door
- Drain plug R 1/8"
- Reinforcing side frame hot dip galvanised
- Increase corrosion protection
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone, or equipped with a copper strip (from size 0630)

ADH E6-0315/-0560
ADH K1-0630/-0900

Specifications



High performance centrifugal fan ADH E6 / ADH K1

Double inlet, belt drive.
Lap jointed scroll of galvanised sheet steel assembled through a standing-seam (Sizes 0315/-0560) or by Pittsburgh lockforming (sizes 0630/-1000), discharge flange as an option.
Welded heavy duty reinforced side frames, coated.
Impeller with forward curved blades of galvanised sheet steel, balanced in according to ISO 1940.
Straight cut off at fan discharge (sizes 0315/-0560), from size 0630 with V-cut off.
Monobloc pedestal cast iron bearings with relubrication nipple, mounted on a robust pedestal, integrated, self aligning radial ball bearings fixed by conical sleeve.
Performance data in according to DIN 24166 tolerance class 2.

Fan data

Fan type	
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guard
- Discharge guard
- Shaft guard for free shaft end
- Matching flange
- Inspection door
- Drain plug R 1/8"
- Reinforcing side frame hot dip galvanised
- Increase corrosion protection
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone, or equipped with a copper strip (from size 0630)

ADH E7-0500/-0560

ADH K2-0630/-1000

Specifications



High performance centrifugal fan ADH E7 / ADH K2

Double inlet, belt drive.

Lap jointed scroll of galvanised sheet steel assembled through a standing-seam (sizes 0500/-0560) or by Pittsburgh lockforming (sizes 0630/-1000), discharge flange as an option.

Welded heavy duty reinforced side frames, coated.

Impeller with forward curved blades of galvanised sheet steel, balanced in according to ISO 1940. Straight cut off at fan discharge (sizes 0500/-0560), from size 0630 with V-cut off.

Size 0500

Monobloc pedestal cast iron bearings with relubrication nipple, mounted on a robust pedestal, integrated, maintenance free, self aligning radial insert ball bearings fixed by conical sleeve

Sizes 0560 up to 0800

Split pedestal cast iron bearings with relubrication nipple, mounted on a robust pedestal, integrated self aligning double row bearings fixed by conical sleeve, lubricated with long life high performance grease.

Sizes 0900 and 1000

Single piece plummer block housing, with grease nipple, mounted on robust pedestal, equipped with self aligning double row roller bearing, fixed to impeller shaft by a concentric shaft tightening, lubricated with long life high performance grease.

Performance data in according to DIN 24166 tolerance class 2.

Fan data

Fan type	.....
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guard
- Discharge guard
- Shaft guard for free shaft end
- Matching flange
- Inspection door
- Drain plug R 1/8"
- Reinforcing side frame hot dip galvanised
- Increase corrosion protection
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Threaded hole for measurement of shock impulse (sizes 0560 up to 1000)
- Aluminium inlet cone
- Copper inlet cone, or equipped with a copper strip (from size 0630)

ADH G2E7-0250/-0560

ADH G2K2-0630/-1000

Specifications



Centrifugal twin fan ADH G2E7 / ADH G2K2

Double inlet, belt drive.

Lap jointed scroll of galvanised sheet steel assembled through a standing-seam (Sizes 0250/-0560) or by Pittsburgh lockforming (sizes 0630/-1000), fitted together to a robust assembly by means of 3 crossbars, discharge flange as an option.

Welded heavy duty reinforced side frames, coated.

Both impellers, with forward curved blades, made of galvanised sheet steel, are fitted on a common shaft supported by 3 bearings (sizes 0250/-0630) or the fans have separated shafts being connected by a flexible coupling (sizes 0710/-1000), balanced in according to ISO 1940.

Straight cut off at fan discharge (sizes 0250/-0560), from size 0630 with V-cut off.

Sizes 0250 up to 0630

Single piece cast iron block housing with relubrication nipple, mounted on a robust pedestal, integrated, maintenance free, self aligning radial insert ball bearings fixed by conical sleeve.

Sizes 0710 up to 1000

Single piece cast iron block housing with relubrication nipple, mounted on a robust pedestal,

outside bearings: integrated self aligning double row roller bearings, fixed by conical sleeve, lubricated with long life high performance grease.

inside bearings: integrated single row ball bearings, fixed by eccentric clamp, lubricated with long life high performance grease.

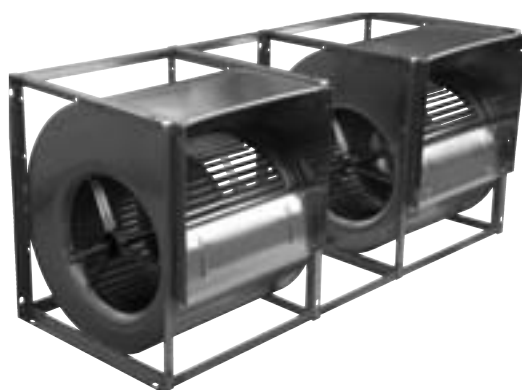
Performance data in according to DIN 24166 tolerance class 2.

Fan data

Fan type	.....
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guard
- Discharge guard
- Shaft guard for free shaft end
- Matching flange
- Inspection door
- Drain plug R 1/8"
- Reinforcing side frame hot dip galvanised
- Increase corrosion protection
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Threaded hole for measurement of shock impulse (sizes 0560 up to 1000)
- Aluminium inlet cone
- Copper inlet cone, or equipped with a copper strip (from size 0630)

**The Nicotra Gebhardt best-sellers, simply!
The series AT**

Fans of AT series don't need any presentation: they have been one of the main strengths in the Nicotra Gebhardt product range for over 35 years and have long been appreciated for their unequalled combination of compactness, efficiency, quietness of operation and versatility, at an extremely affordable price.

News

How we can improve a perfect fan?

We tried, anyway: we developed a new seaming process, to join the back plate to the side plates with a fully automated process.

The result is a new scroll without welding and whatever can become rusty, also providing a better structural strength to vibrations.

And, since we like to be coherent, we even deleted welding of the side frames, which are now screwed to scrolls, and from spars, now riveted.

Searching for excellence

Who have say that a product with a nice price cannot be a nice product?

The success of the AT series confirm is the real proof: the bearings have been selected to achieve, at maximum load and with suitable pulleys, a bearing life of 40.000 hours, a number that can be considerably greater in more common load conditions. Top quality materials, innovative technology of scroll and impeller manufacturing and assembly, high efficiency, options and accessories, everything has been chosen to provide a long operating life time, with the maximum quietness and safety.

Complete range

Aren't you convinced?

Have a look to the range of the AT fans, you immediately realize that, as far as we can, we're doing our best to try and meet all your requirements.

We have single, twin and triple fans, with or without side frames, with one, two or three bearings for light or heavy duty, we have versions with hollow shafts, when there is the need of reducing the weight without reducing the fan performance, and also spark-proof versions.

Do you still think that we don't have the right fan for you?

Product overview range AT

This kind of fans are specially conceived for mechanical ventilation, at temperatures from -20 °C to +40 °C on S, SC, G2L and SC2 models, or up to 100 °C on AR, TIC, G2C, G2C-C2, G3C, G3C-C2 models.

Air performance and sound data have been obtained in a laboratory registered by AMCA for AMCA 210/99 air performance testing and they are within the tolerances allowed by the DIN 24166 standard for Class 2.

Single, twin and triple fans

- Impeller size (diameter/width) from 7/7 to 30/28
- Lap-jointed scroll of galvanized steel assembled with roller-lock seaming (sizes up to 18/18) or with Pittsburgh lock seam (for sizes larger than 18/18)
- Straight cut off plate at fan outlet
- Impeller with forward curved blades of galvanized steel, optimized for the best efficiency and quietness
- Galvanized steel shaft





Single, twin and triple fans.





- Airflow up to 180.000 m³/h
- Total pressure up to 1.400 Pa

The variety

We have the right fan for all your applications!

Depending on the fan size, five single fan versions, four twin fan versions and two triple fan versions are available in the AT range.

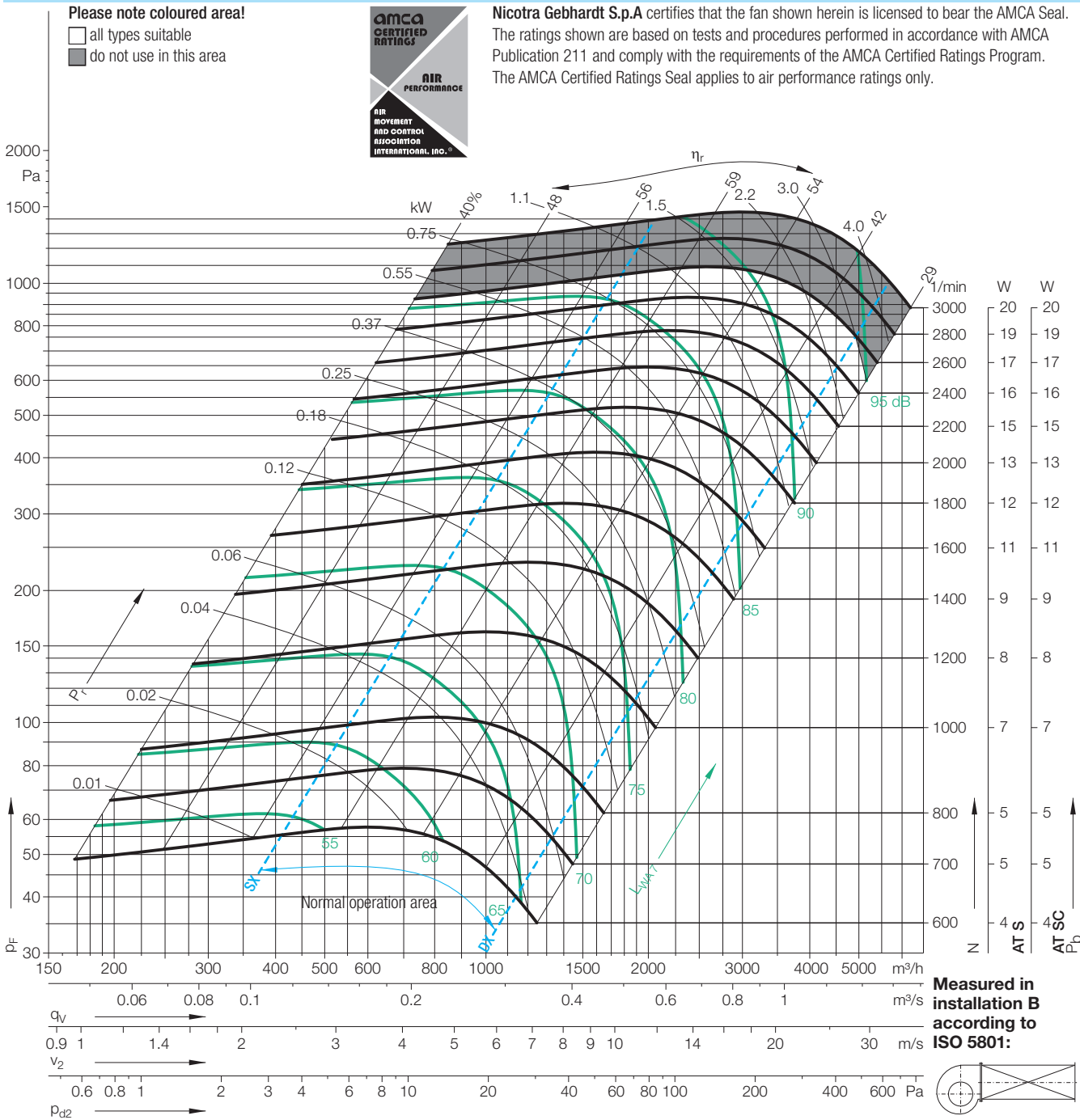
Version	Description	Figure
AT S	Light construction, without feet and outlet flange. Light-duty bearing and pressed steel bearing supporting brackets.	
AT SC	With rectangular side frame and without outlet flange. Light-duty bearing and pressed steel bearing supporting brackets. C version has also three steel bars with the ends welded to three corners of both the side frames.	
AT AR	With heavy duty reinforced side frames, joined by three steel bars in three corners and without outlet flange. Medium duty bearing inside lubricatable, cast iron pillow block, mounted on a robust cross-bar.	
AT TIC	With heavy duty reinforced side frames, joined by four steel bars in four corners and without outlet flange. Medium-heavy duty bearing inside lubricatable, cast iron pillow block, mounted on a robust cross-bar.	

Version	Description	Figure
AT G2L	Two S-version single fans joined together by three U-section spars. The two impellers are mounted on a common shaft, supported by three bearings.	
AT SC2	Two SC-version single fans joined together by three L-section spars. The two impellers are mounted on a common shaft, supported by three bearings.	
AT G2C	Two single fans mounted side-by-side inside a common supporting frame of three L-section spars. The two impellers are mounted on a common shaft, supported at the ends by just two bearings. Use of hollow shafts on the larger sizes.	
AT G2C-C2	Mechanically similar to G2C fans but stronger, thanks to the use of hollow shafts with larger diameter (45 mm) journals and plummer blocks with heavy-duty bearings.	

Technical Data

Impeller Data			Impeller Data		
Impeller diameter	D_r	200 mm	Impeller weight	m	1.25 kg
Number of blades	z	46	Density of media	ρ_1	1.2 kg/m ³
Moment of Inertia	J	0.009 kgm ²	Tolerance class (DIN 24166)		2

Performance Curves

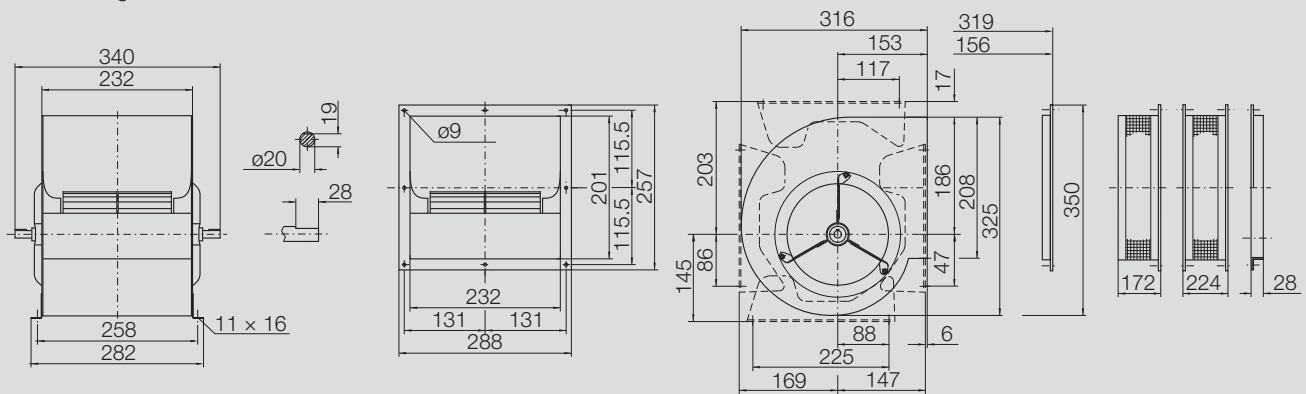


$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	2200	3	-2	-7	0	-8	-8	-6	-7	-12	dB	9	2	6	-4	-5	-4	-5	-10	dB
SX	1400	3	-6	-1	-3	-8	-6	-5	-10	-14	dB	3	6	2	-5	-4	-3	-8	-13	dB
SX	800	2	-2	2	-8	-5	-3	-8	-12	-18	dB	5	7	-5	-3	-2	-6	-10	-16	dB
$Q_{V,opt}$	2200	3	-4	-10	0	-9	-9	-6	-7	-11	dB	6	-2	6	-5	-6	-5	-5	-9	dB
$Q_{V,opt}$	1400	2	-9	-2	-3	-9	-6	-5	-9	-13	dB	0	4	1	-6	-5	-4	-7	-11	dB
$Q_{V,opt}$	800	2	-5	2	-9	-6	-4	-7	-11	-17	dB	2	6	-6	-4	-3	-6	-10	-16	dB
DX	2200	3	-7	-12	-4	-8	-10	-7	-6	-7	dB	3	-4	1	-4	-6	-5	-4	-6	dB
DX	1400	2	-11	-7	-4	-11	-8	-6	-6	-8	dB	-3	-2	0	-7	-5	-4	-5	-7	dB
DX	800	2	-9	-3	-11	-8	-6	-6	-8	-11	dB	-3	2	-7	-5	-3	-4	-6	-11	dB

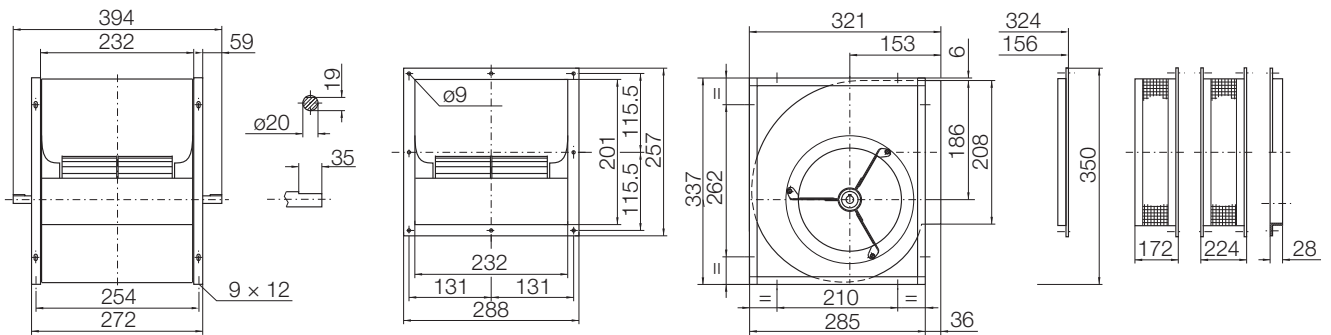
AT 7/7

Dimensions in mm, subject to change.

AT S-7/7 5 kg



AT SC-7/7 6 kg



AT 9/7

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	242	mm
Number of blades	z	43	
Moment of Inertia	J	0.029	kgm ²

Impeller Data

Impeller weight	m	2.3	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

- all types suitable
- AT AR only
- do not use in this area

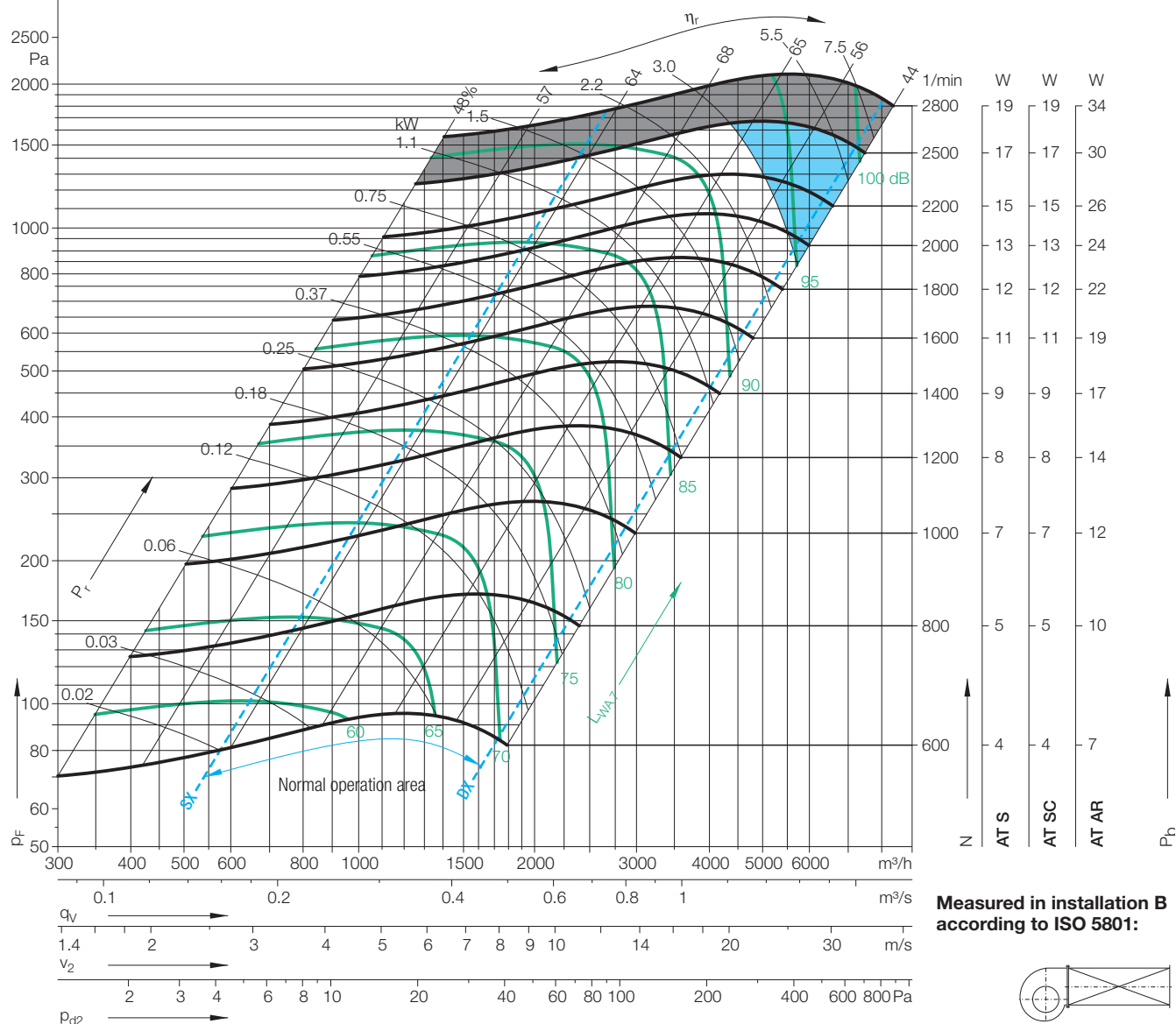


Nicotra Gebhardt S.p.A certifies that the fan shown herein is licensed to bear the AMCA Seal.

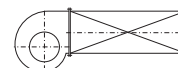
The ratings shown are based on tests and procedures performed in accordance with AMCA

Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to air performance ratings only.



Measured in installation B according to ISO 5801:

 $\Delta L_{Wrel4}(A)$ Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	2200	4
SX	1400	2
SX	800	2
$Q_{V,opt}$	2200	3
$Q_{V,opt}$	1400	2
$Q_{V,opt}$	800	1
DX	2200	2
DX	1400	2
DX	800	2

63	125	250	500	1000	2000	4000	8000	Hz
12	-5	0	-7	-7	-6	-9	-15	dB
2	-1	-3	-7	-4	-6	-11	-18	dB
-2	2	-6	-3	-4	-8	-15	-22	dB
10	-8	0	-8	-8	-6	-8	-12	dB
-1	-3	-3	-7	-5	-6	-9	-15	dB
-6	2	-7	-4	-4	-7	-13	-20	dB
0	-15	-5	-12	-10	-5	-6	-9	dB
-10	-8	-8	-12	-5	-6	-7	-11	dB
-10	-4	-12	-4	-5	-6	-9	-14	dB

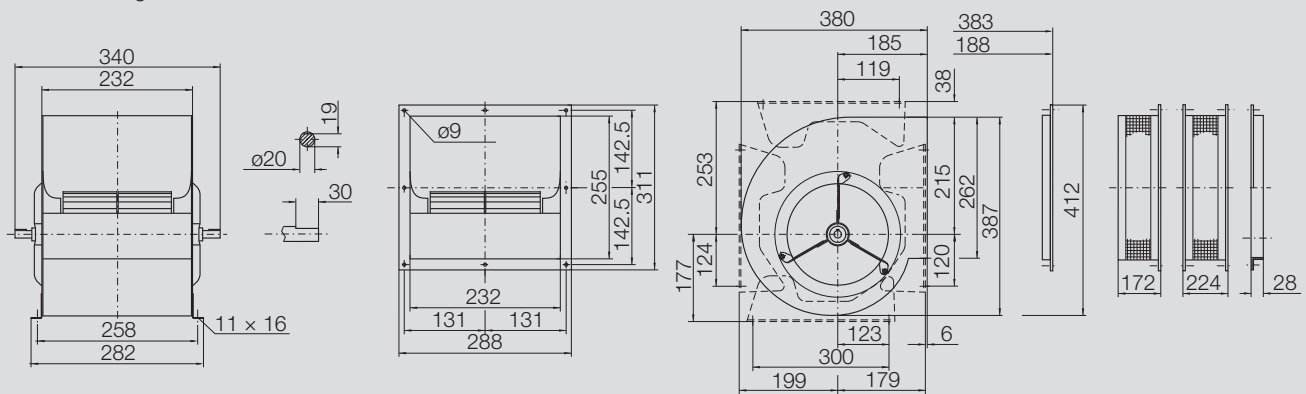
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
24	3	5	-5	-5	-4	-7	-13	dB
11	5	1	-4	-2	-4	-9	-16	dB
5	6	-4	-1	-2	-6	-13	-20	dB
20	0	5	-5	-5	-5	-7	-11	dB
7	2	0	-5	-4	-5	-8	-14	dB
0	6	-4	-3	-3	-6	-11	-18	dB
9	-9	-1	-9	-7	-3	-5	-8	dB
-3	-3	-5	-10	-3	-4	-6	-10	dB
-5	-1	-10	-2	-4	-5	-8	-14	dB

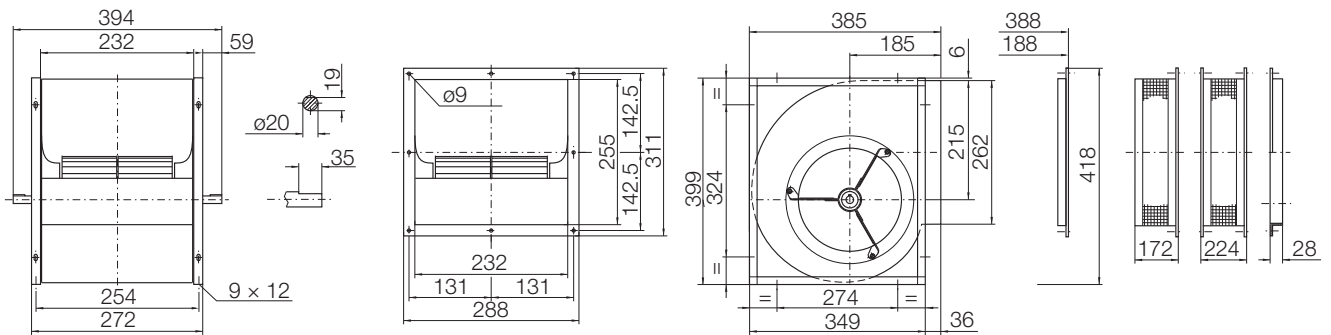
AT 9/7

Dimensions in mm, subject to change.

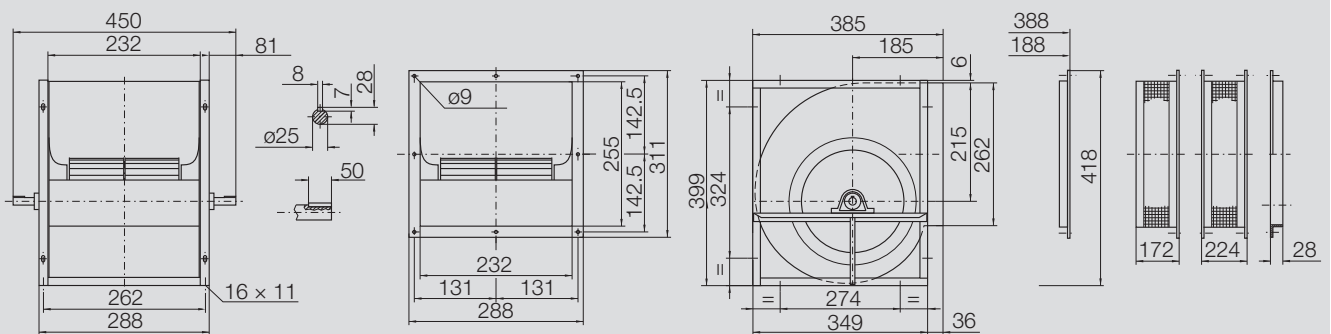
AT S-9/7 6.6 kg



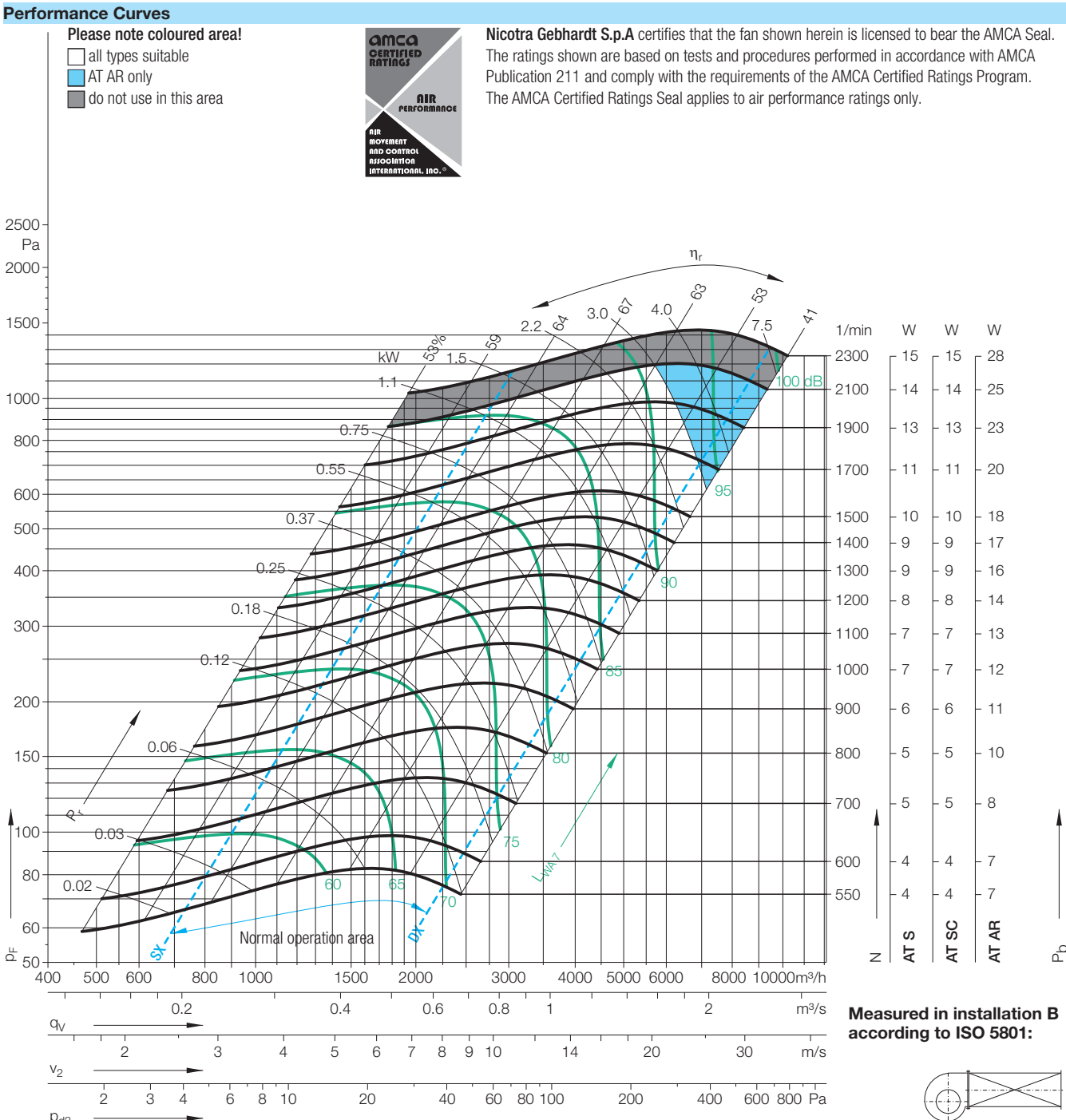
AT SC-9/7 8.3 kg



AT AR-9/7 8.3 kg



Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D_r	242	mm		Impeller weight	m	2.9	kg	
Number of blades	z	43			Density of media	ρ_1	1.2	kg/m ³	
Moment of Inertia	J	0.034	kgm ²		Tolerance class (DIN 24166)		2		

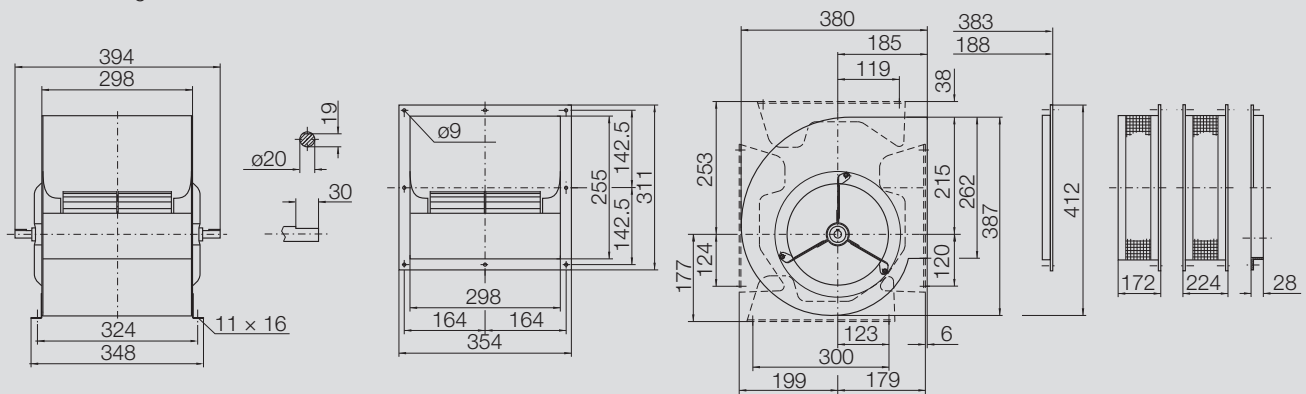


$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c										Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c									
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz		63	125	250	500	1000	2000	4000	8000	Hz	
SX	1900	2	0	-5	2	-8	-7	-6	-10	-16	dB		9	1	6	-5	-4	-5	-8	-14	dB	
SX	1200	2	-4	4	-5	-5	-5	-6	-12	-20	dB		3	8	-2	-3	-3	-5	-10	-18	dB	
SX	700	2	4	0	-4	-3	-4	-8	-16	-23	dB		9	4	-1	-1	-2	-7	-14	-22	dB	
$q_{V,opt}$	1900	2	-5	-8	2	-7	-7	-6	-9	-13	dB		3	-3	4	-5	-5	-6	-8	-12	dB	
$q_{V,opt}$	1200	1	-8	3	-4	-6	-5	-6	-10	-17	dB		-2	6	-2	-4	-4	-5	-9	-16	dB	
$q_{V,opt}$	700	1	2	0	-5	-4	-4	-7	-14	-21	dB		6	3	-2	-3	-3	-6	-12	-20	dB	
DX	1900	2	-9	-12	-3	-12	-10	-6	-6	-7	dB		-2	-8	1	-9	-6	-4	-4	-6	dB	
DX	1200	2	-13	-3	-10	-11	-7	-5	-7	-10	dB		-7	1	-8	-8	-4	-4	-5	-9	dB	
DX	700	2	-5	-6	-11	-7	-5	-6	-8	-14	dB		-1	-4	-8	-4	-3	-4	-7	-14	dB	

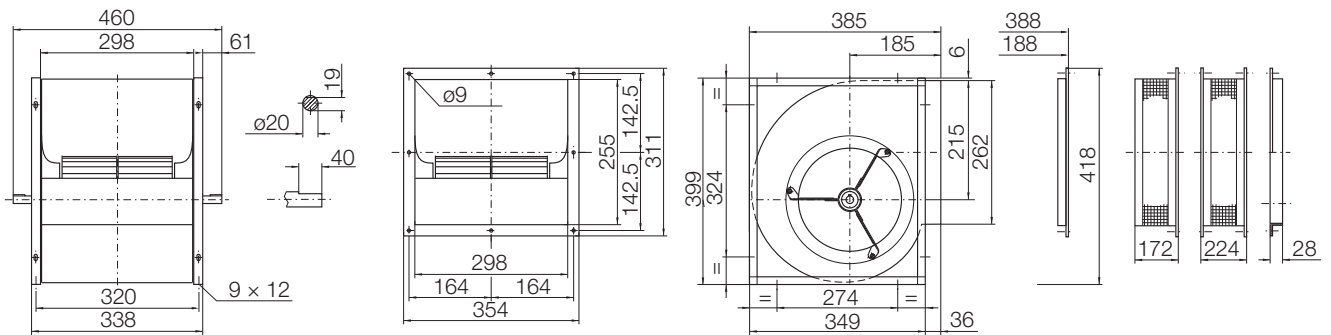
AT 9/9

Dimensions in mm, subject to change.

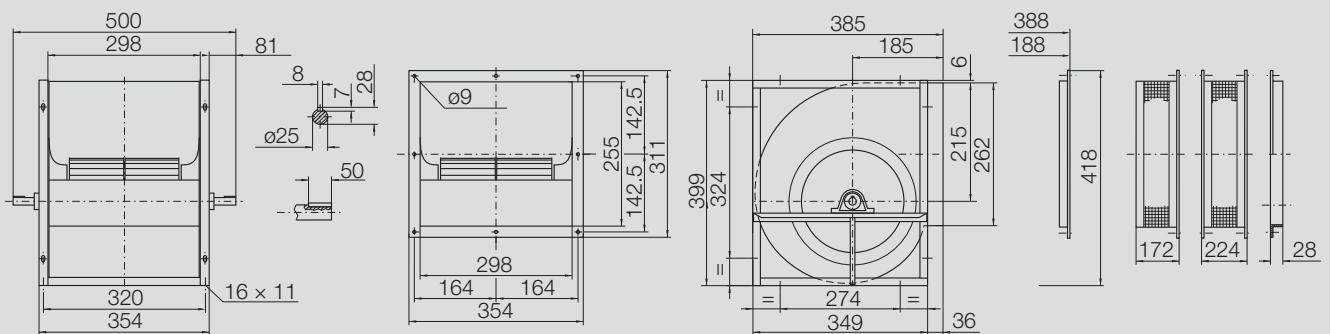
AT S-9/9 7.9 kg



AT SC-9/9 9.5 kg



AT AR-9/9 9.5 kg



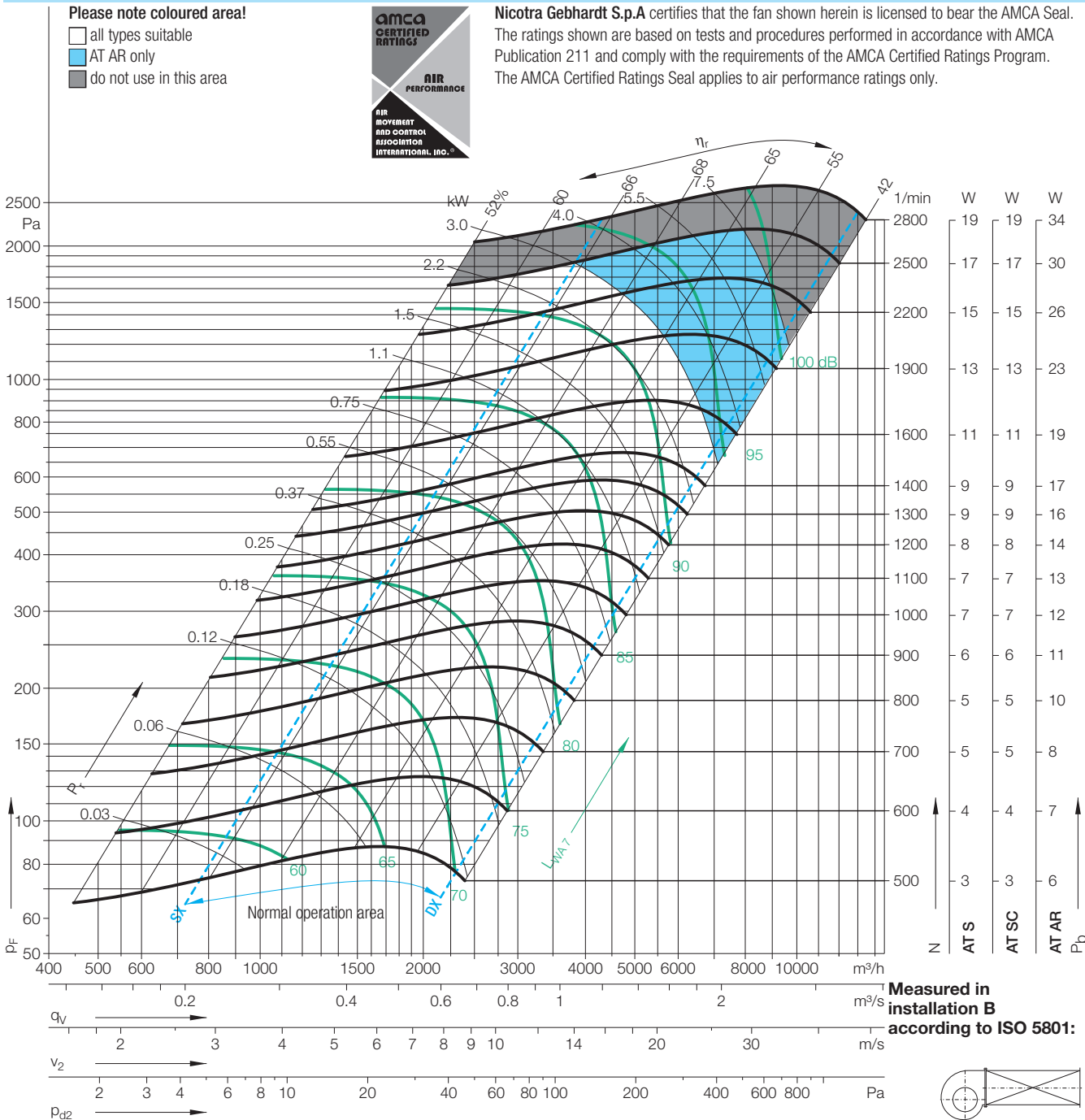
AT 10/8

Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data			Impeller Data		
Impeller diameter	D_r	273 mm	Impeller weight	m	2.8 kg
Number of blades	z	48	Density of media	ρ_1	1.2 kg/m ³
Moment of Inertia	J	0.047 kgm ²	Tolerance class (DIN 24166)		2

Performance Curves

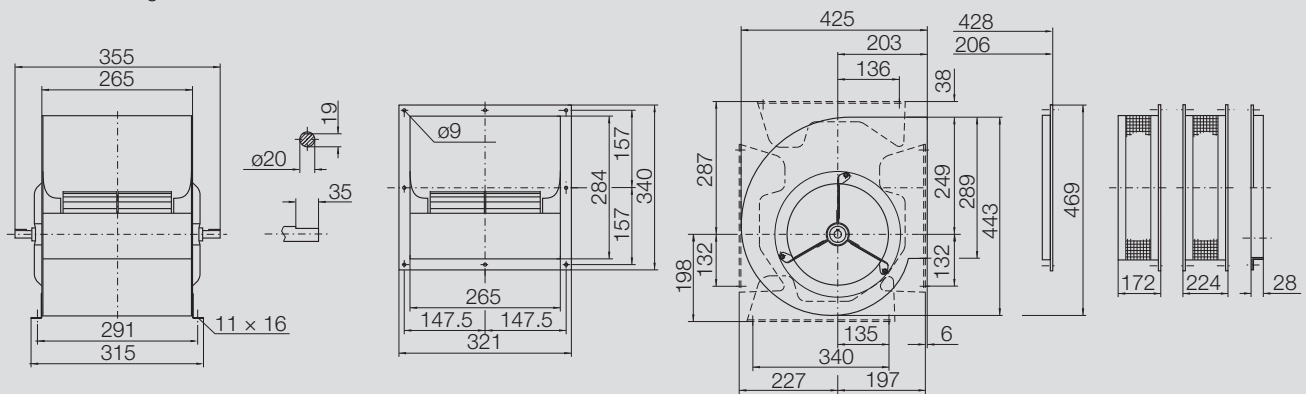


$\Delta L_{Wrel4(A)}$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	1900	3	-9	-8	-2	-8	-6	-5	-9	-14	dB	2	0	4	-4	-3	-3	-7	-12	dB
SX	1200	3	-7	-3	-3	-7	-3	-7	-11	-18	dB	2	3	1	-4	-1	-5	-9	-16	dB
SX	700	2	-3	1	-6	-2	-5	-8	-14	-21	dB	4	5	-3	1	-3	-6	-12	-20	dB
$q_{V,opt}$	1900	2	-12	-11	-3	-7	-7	-5	-8	-12	dB	-2	-4	2	-4	-4	-4	-7	-10	dB
$q_{V,opt}$	1200	2	-10	-5	-3	-9	-4	-7	-10	-15	dB	-2	0	1	-6	-2	-6	-8	-14	dB
$q_{V,opt}$	700	2	-6	0	-8	-2	-5	-8	-12	-19	dB	0	4	-5	0	-4	-6	-11	-18	dB
DX	1900	2	-12	-12	-7	-11	-10	-6	-6	-7	dB	-4	-6	-2	-8	-6	-3	-4	-6	dB
DX	1200	2	-12	-9	-8	-13	-6	-6	-7	-9	dB	-5	-4	-5	-9	-4	-4	-5	-8	dB
DX	700	2	-11	-6	-13	-6	-5	-6	-8	-13	dB	-5	-3	-9	-4	-3	-5	-6	-13	dB

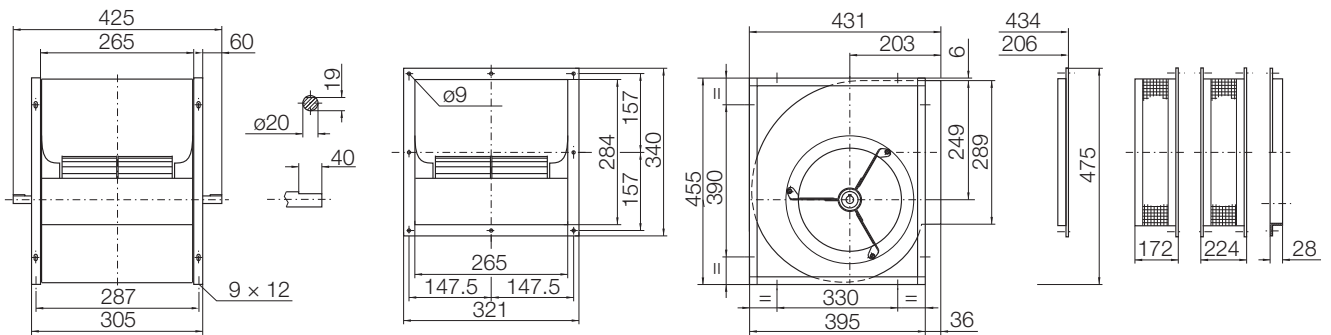
AT 10/8

Dimensions in mm, subject to change.

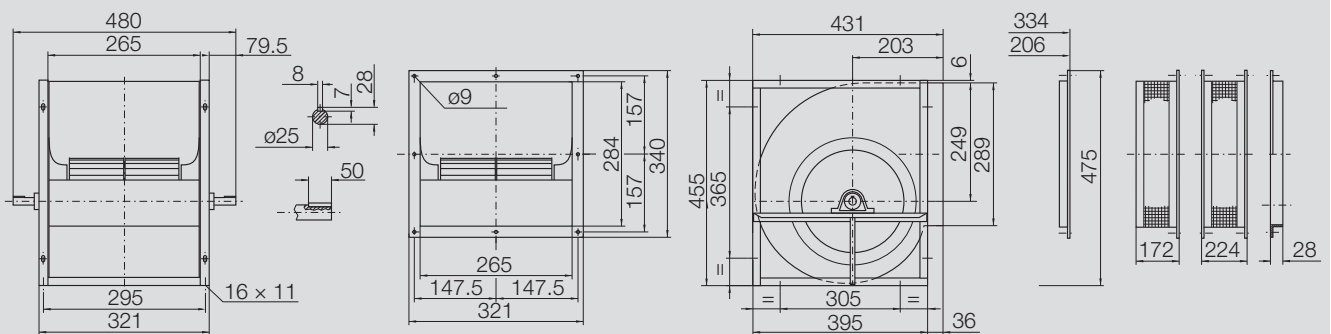
AT S-10/8 8.3 kg



AT SC-10/8 9.8 kg



AT AR-10/8 9.8 kg



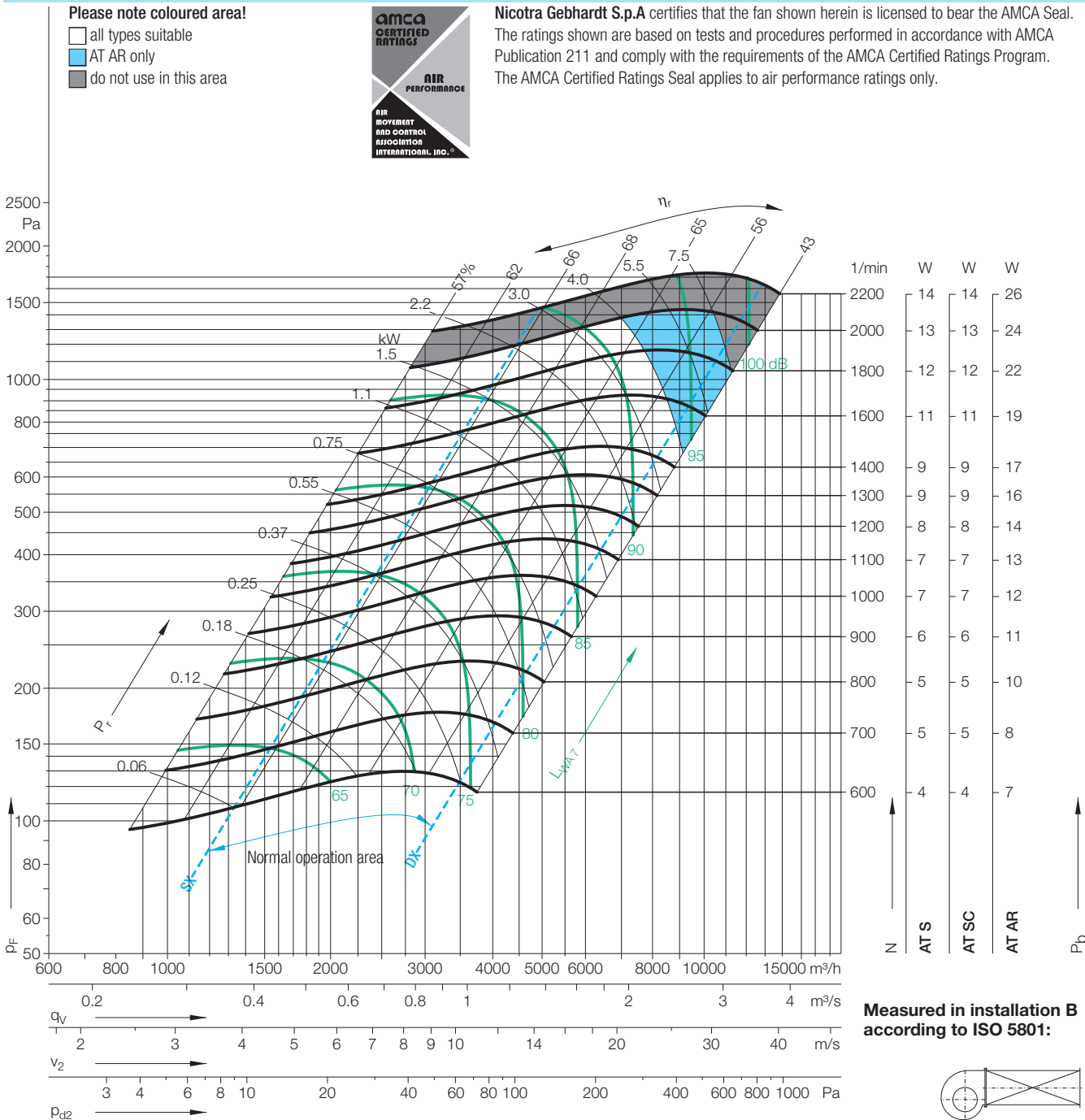
AT 10/10

Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data			Impeller Data		
Impeller diameter	D_r	273 mm	Impeller weight	m	3.5 kg
Number of blades	z	48	Density of media	ρ_1	1.2 kg/m ³
Moment of Inertia	J	0.055 kgm ²	Tolerance class (DIN 24166)		2

Performance Curves

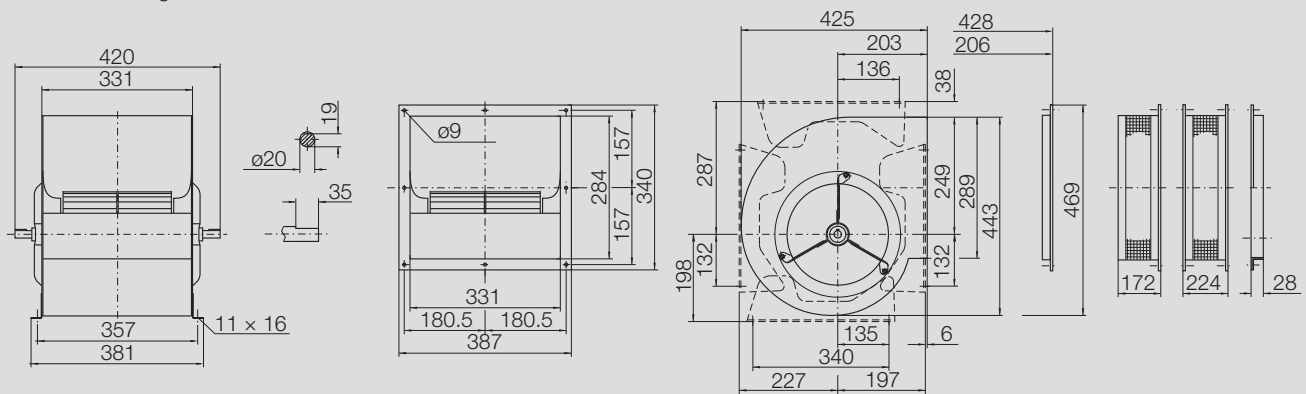


$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	1800	3	0	-4	1	-7	-7	-7	-9	-14	dB	9	3	5	-3	-4	-5	-7	-12	dB
SX	1200	2	-1	0	0	-7	-5	-6	-10	-17	dB	8	5	4	-4	-4	-5	-8	-15	dB
SX	700	2	-1	3	-4	-4	-4	-7	-13	-21	dB	5	7	-1	-2	-3	-6	-12	-20	dB
qv,opt	1800	2	-4	-8	-1	-8	-7	-6	-8	-11	dB	4	-2	3	-5	-4	-5	-6	-10	dB
qv,opt	1200	2	-6	-3	-2	-7	-6	-6	-9	-14	dB	2	2	1	-4	-4	-5	-7	-13	dB
qv,opt	700	2	-4	0	-6	-4	-4	-7	-11	-19	dB	1	4	-3	-3	-3	-5	-10	-18	dB
DX	1800	3	-1	-5	-3	-9	-8	-7	-7	-8	dB	7	1	1	-5	-5	-4	-5	-7	dB
DX	1200	2	-2	-4	-4	-9	-7	-6	-7	-10	dB	5	0	-1	-6	-4	-4	-6	-8	dB
DX	700	2	-5	-2	-9	-7	-6	-6	-8	-13	dB	0	1	-5	-4	-4	-4	-7	-13	dB

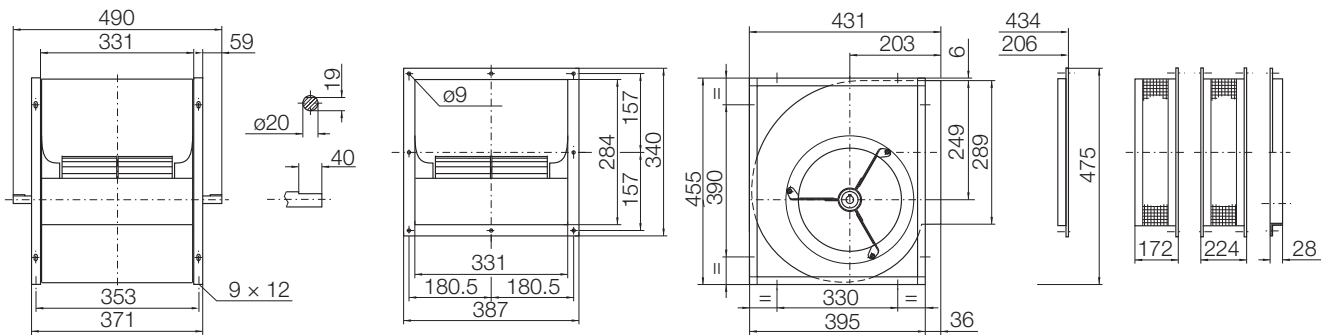
AT 10/10

Dimensions in mm, subject to change.

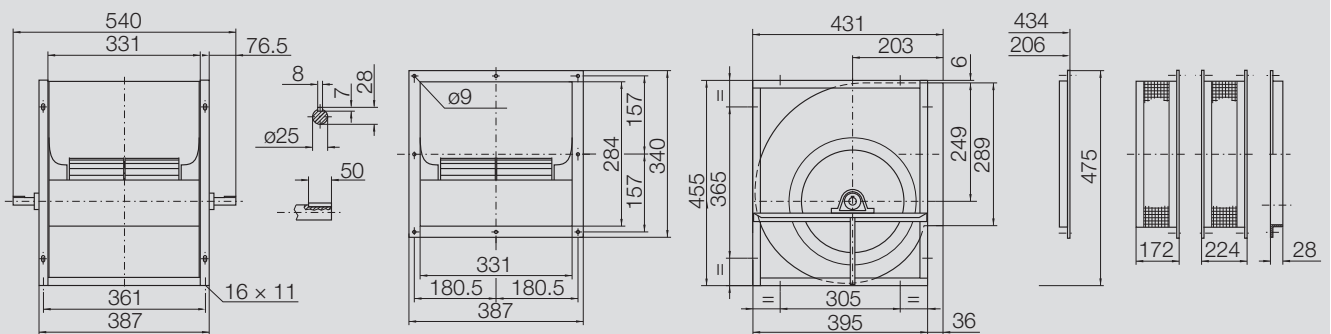
AT S-10/10 9.3 kg



AT SC-10/10 11 kg



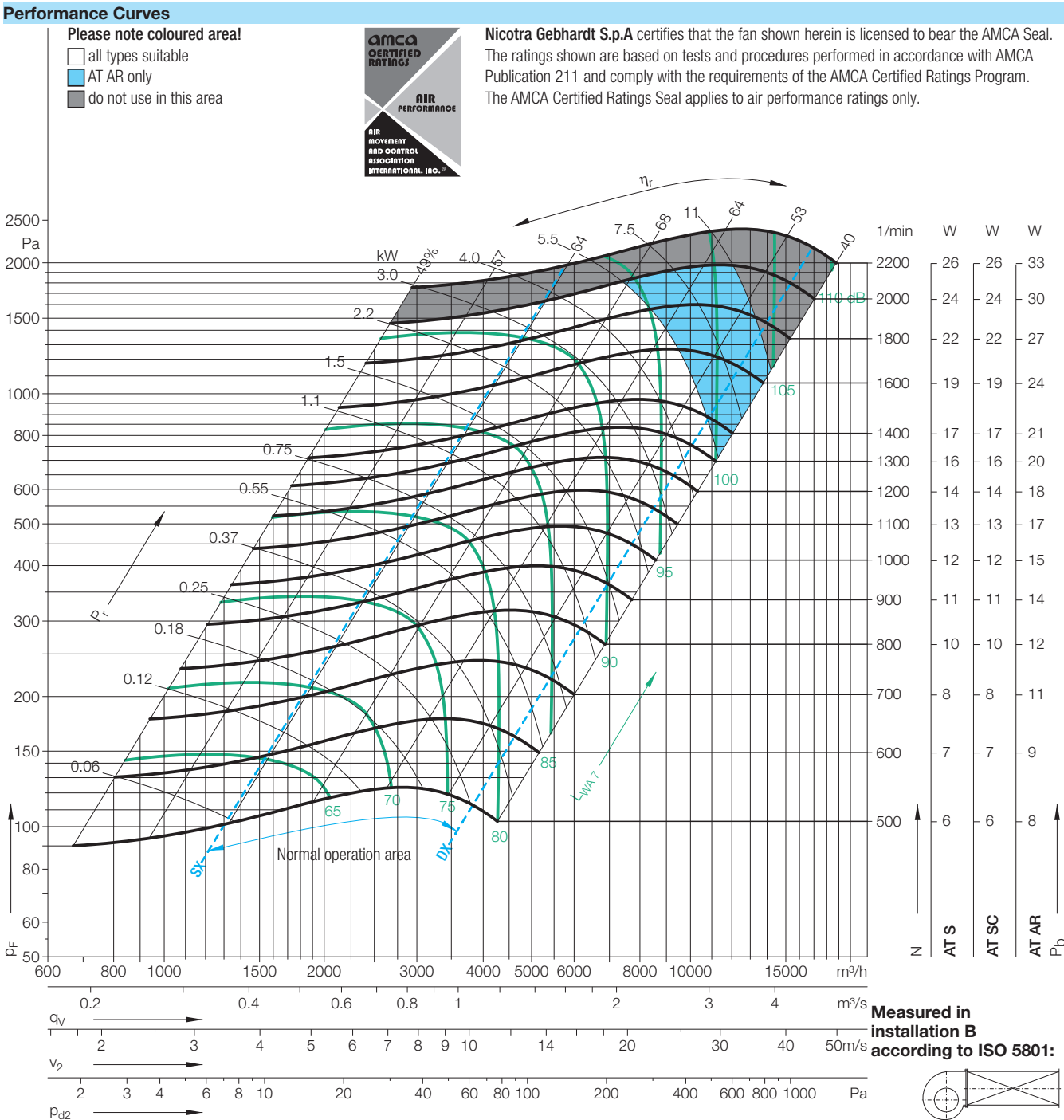
AT AR-10/10 11 kg



AT 12/9

Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D_r	322	mm		Impeller weight	m	4.4	kg	
Number of blades	z	43			Density of media	ρ_1	1.2	kg/m ³	
Moment of Inertia	J	0.097	kgm ²		Tolerance class (DIN 24166)		2		

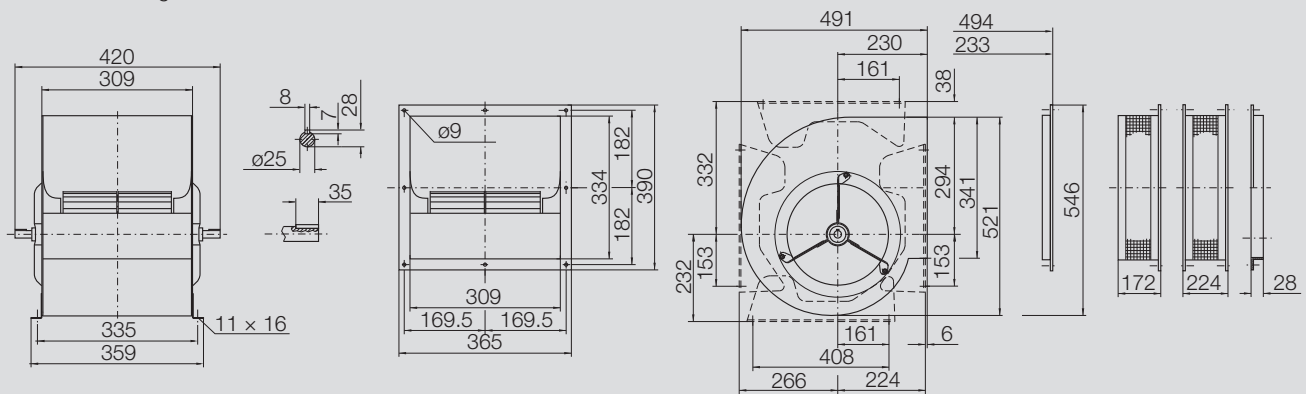


$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c										Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c									
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz		63	125	250	500	1000	2000	4000	8000	Hz	
SX	1800	2	1	-2	0	-8	-6	-6	-9	-13	dB		10	4	3	-6	-4	-4	-7	-10	dB	
SX	1200	2	0	2	-5	-7	-4	-7	-10	-16	dB		7	6	-3	-5	-3	-5	-7	-14	dB	
SX	700	2	3	-1	-5	-3	-5	-7	-13	-18	dB		7	2	-3	-1	-3	-5	-10	-16	dB	
$Q_{V,opt}$	1800	1	0	-7	-5	-9	-6	-5	-8	-11	dB		8	-2	-2	-7	-5	-5	-6	-9	dB	
$Q_{V,opt}$	1200	1	-1	-5	-8	-8	-4	-6	-9	-14	dB		6	-1	-6	-5	-4	-5	-7	-12	dB	
$Q_{V,opt}$	700	1	-4	-5	-6	-3	-5	-7	-11	-17	dB		0	-3	-4	-2	-4	-5	-10	-16	dB	
DX	1800	2	-10	-10	-7	-12	-9	-4	-7	-10	dB		-4	-5	-4	-9	-6	-2	-5	-8	dB	
DX	1200	2	-10	-6	-10	-12	-5	-5	-8	-11	dB		-5	-3	-8	-8	-3	-4	-6	-10	dB	
DX	700	2	-6	-7	-11	-5	-4	-7	-10	-13	dB		-3	-5	-8	-3	-2	-5	-8	-13	dB	

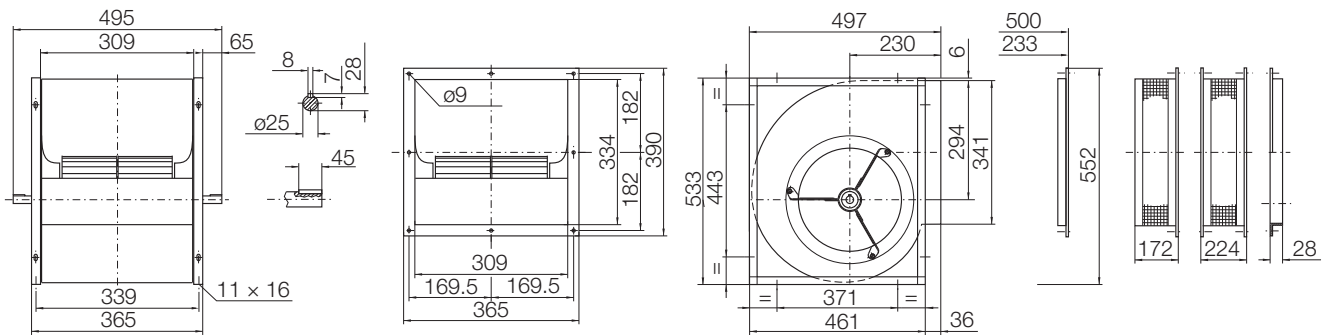
AT 12/9

Dimensions in mm, subject to change.

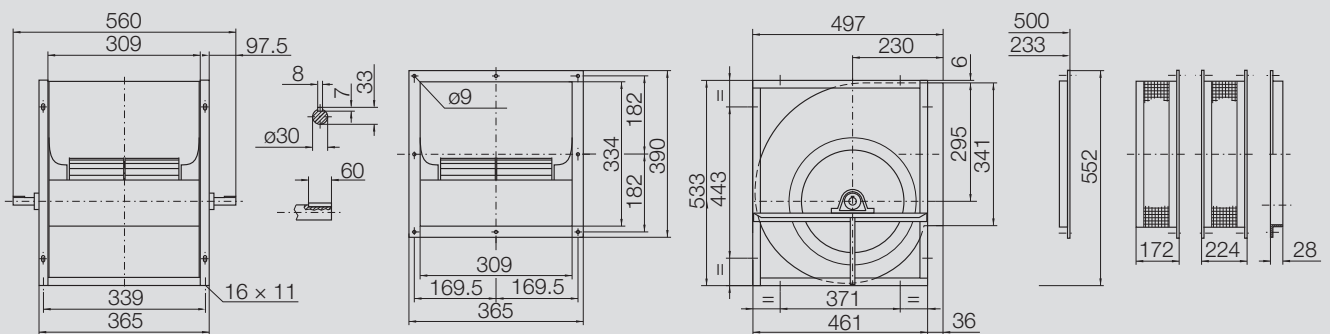
AT S-12/9 12.7 kg



AT SC-12/9 16 kg



AT AR-12/9 16 kg



AT 12/12

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	322	mm
Number of blades	z	43	
Moment of Inertia	J	0.118	kgm ²

Impeller Data

Impeller weight	m	5.2	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

- ☐ all types suitable
- ☒ AT AR only
- ☐ do not use in this area

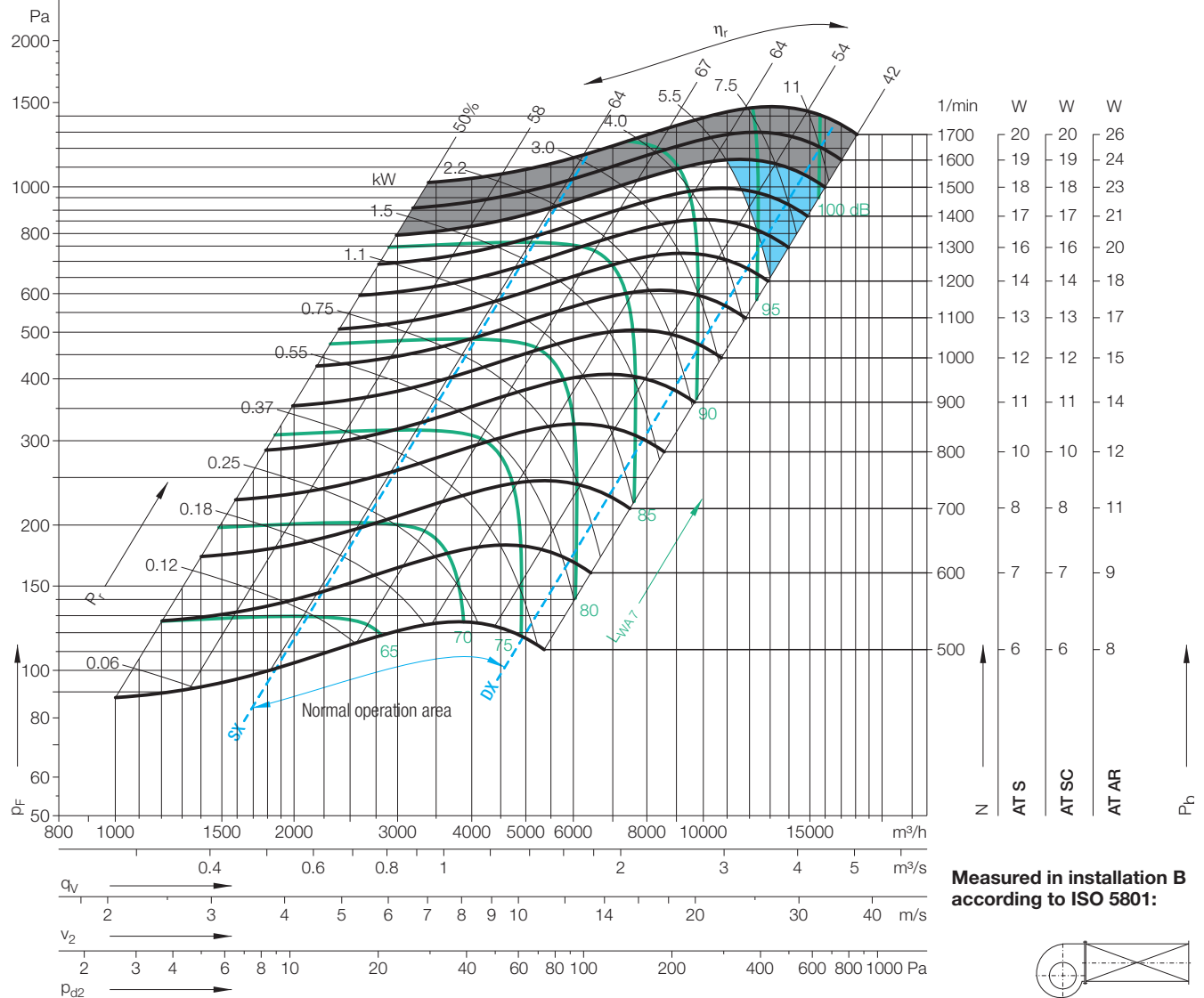


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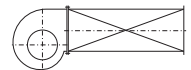
The ratings shown are based on tests and procedures performed in accordance with AMCA

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The AMCA Certified Ratings Seal applies to air performance ratings only.



Measured in installation B according to ISO 5801:

 $\Delta L_{Wrel4}(A)$ Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	1400	2
SX	900	2
SX	600	2
q _{V,opt}	1400	2
q _{V,opt}	900	2
q _{V,opt}	600	1
DX	1400	2
DX	900	2
DX	600	2

63	125	250	500	1000	2000	4000	8000	Hz
-6	1	2	-7	-7	-7	-9	-14	dB
-2	5	-4	-6	-5	-7	-10	-18	dB
5	3	-5	-4	-4	-7	-14	-21	dB
-3	-2	-1	-7	-7	-6	-8	-13	dB
-2	2	-5	-6	-5	-6	-9	-17	dB
2	0	-5	-5	-4	-7	-12	-20	dB
-4	-4	-3	-9	-8	-6	-7	-10	dB
-4	-2	-6	-8	-6	-6	-8	-12	dB
-2	-3	-8	-6	-4	-7	-10	-14	dB

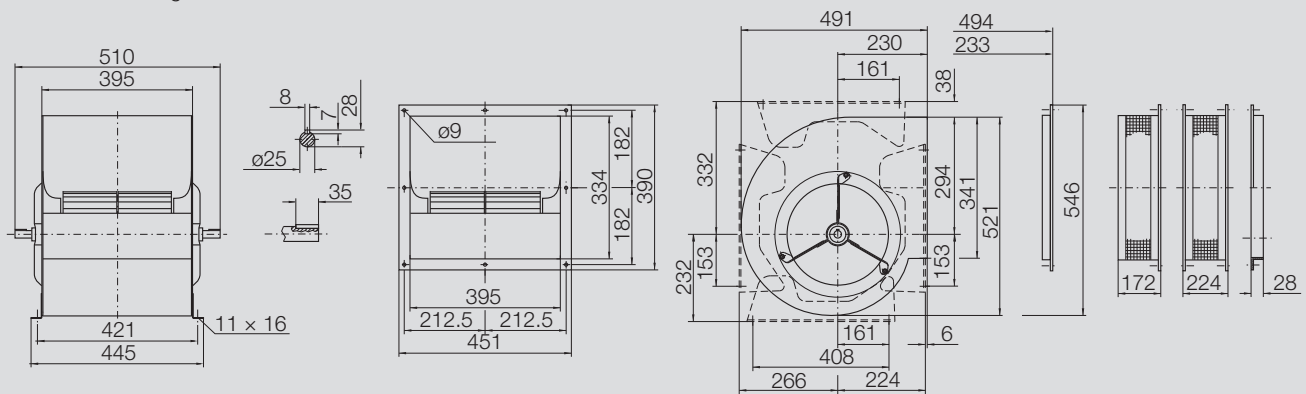
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
2	6	6	-5	-6	-5	-7	-13	dB
4	9	-1	-4	-4	-5	-8	-17	dB
10	7	-2	-3	-3	-5	-12	-20	dB
4	3	3	-5	-5	-5	-7	-11	dB
3	5	-2	-4	-4	-5	-8	-16	dB
6	3	-3	-3	-3	-6	-11	-20	dB
2	1	0	-5	-5	-4	-6	-9	dB
2	2	-3	-4	-4	-4	-7	-11	dB
2	1	-4	-3	-3	-5	-8	-15	dB

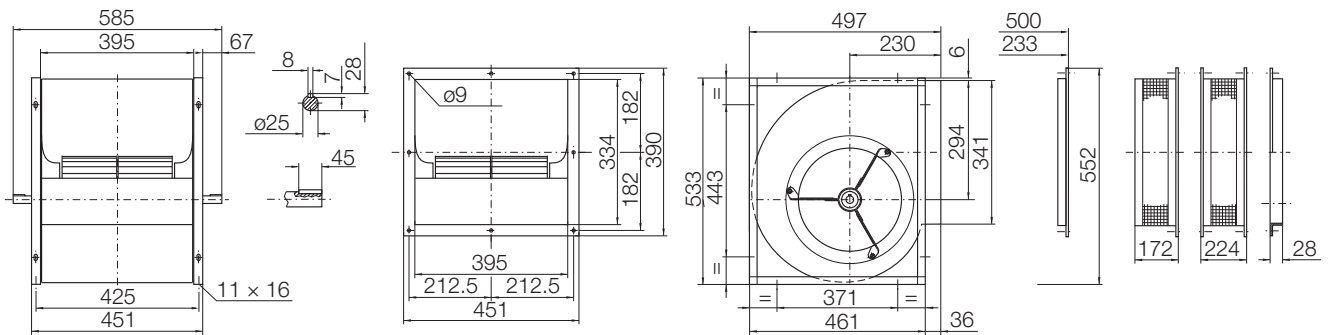
AT 12/12

Dimensions in mm, subject to change.

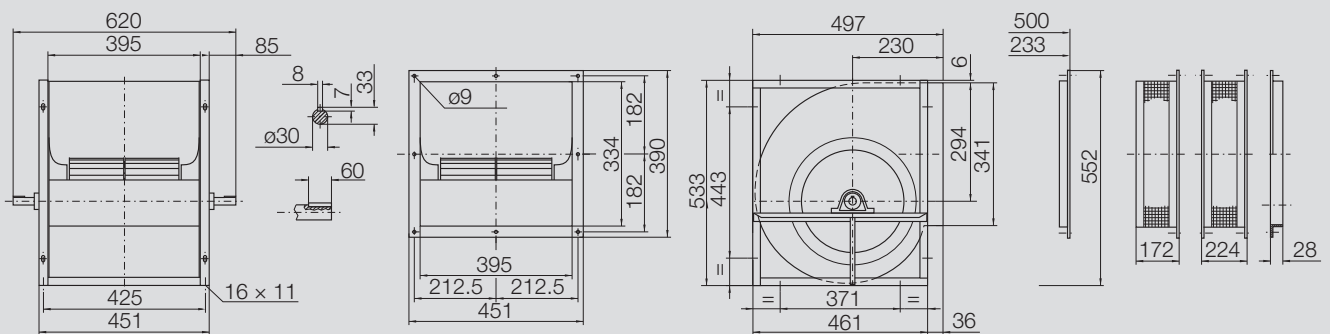
AT S-12/12 15.2 kg



AT SC-12/12 18.4 kg



AT AR-12/12 18.4 kg



AT 15/11

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	381	mm
Number of blades	z	51	
Moment of Inertia	J	0.186	kgm ²

Impeller Data

Impeller weight	m	6.2	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

- all types suitable
- AT AR only
- do not use in this area

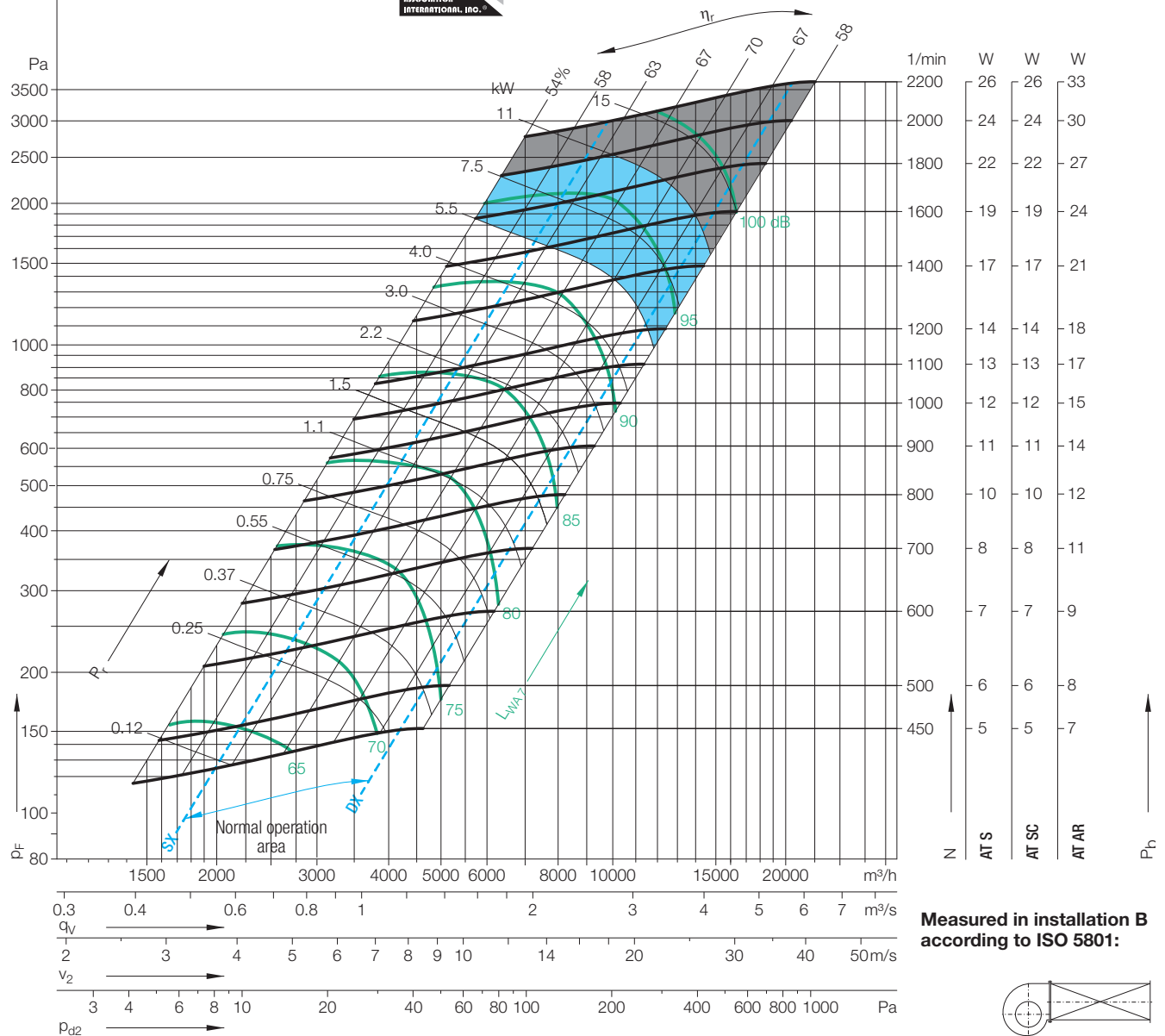


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 $\Delta L_{Wrel4}(A)$ Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	1600	3
SX	1000	3
SX	600	2
$q_{V,opt}$	1600	2
$q_{V,opt}$	1000	2
$q_{V,opt}$	600	1
DX	1600	2
DX	1000	2
DX	600	2

	63	125	250	500	1000	2000	4000	8000	Hz
-6	2	0	-5	-6	-8	-9	-12		dB
-1	4	-3	-4	-6	-7	-9	-15		dB
6	0	-2	-3	-6	-7	-12	-18		dB
-6	2	-2	-5	-6	-8	-8	-11		dB
-2	1	-3	-5	-6	-7	-9	-13		dB
4	-1	-3	-4	-5	-6	-11	-17		dB
-7	-5	-5	-8	-8	-7	-6	-8		dB
-6	-4	-7	-8	-7	-6	-7	-10		dB
-3	-6	-7	-6	-6	-6	-8	-12		dB

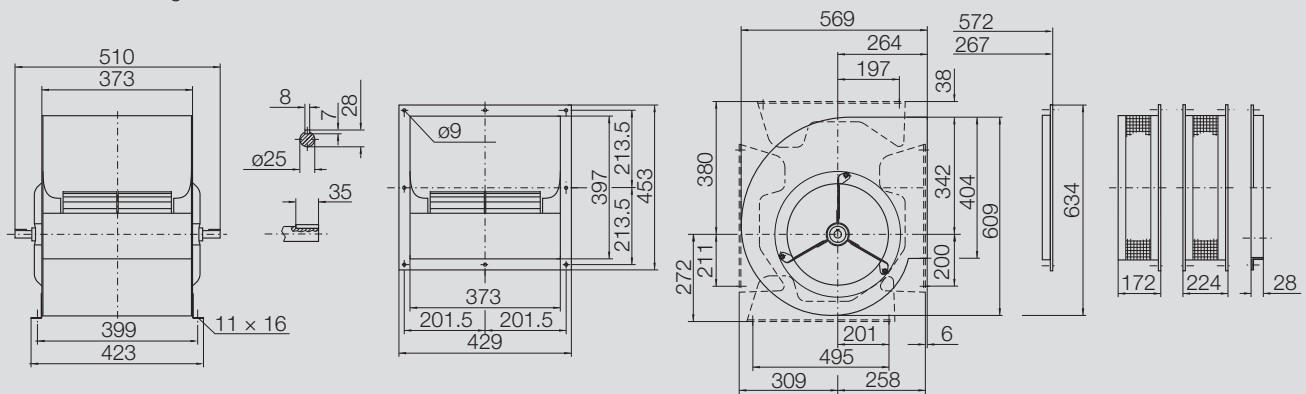
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

	63	125	250	500	1000	2000	4000	8000	Hz
3	8	4	-2	-4	-6	-7	-10		dB
6	8	1	-2	-4	-5	-7	-13		dB
11	3	1	-1	-4	-5	-10	-17		dB
1	7	1	-3	-5	-7	-6	-9		dB
4	5	0	-3	-6	-5	-7	-12		dB
9	2	-1	-4	-4	-5	-9	-16		dB
-1	0	-1	-5	-5	-5	-5	-7		dB
0	0	-5	-5	-5	-4	-6	-9		dB
1	-3	-4	-4	-4	-4	-7	-12		dB

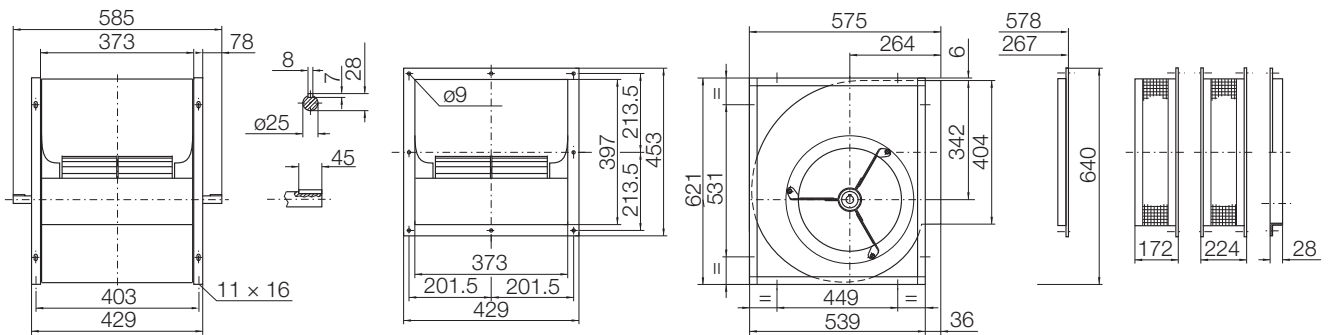
AT 15/11

Dimensions in mm, subject to change.

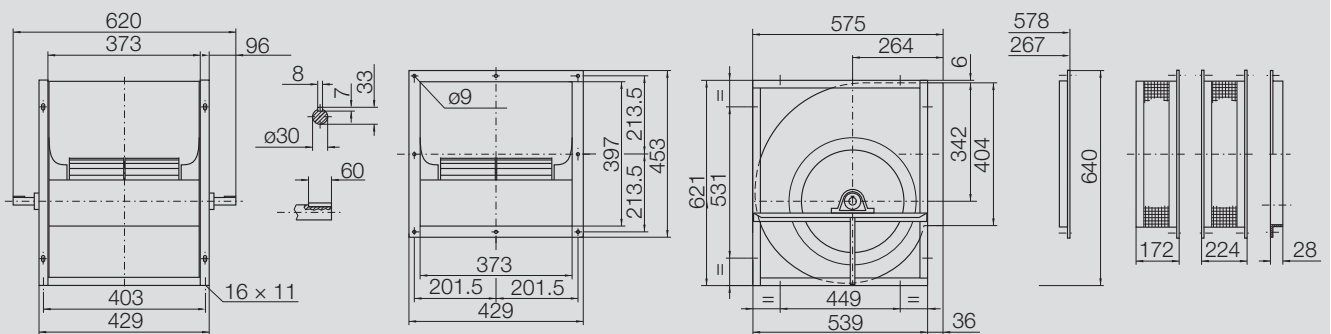
AT S-15/11 17.7 kg



AT SC-15/11 20.9 kg



AT AR-15/11 20.9 kg



AT 15/15

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	381	mm
Number of blades	z	51	
Moment of Inertia	J	0.233	kgm ²

Impeller Data

Impeller weight	m	7.5	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

- all types suitable
- AT AR only
- do not use in this area

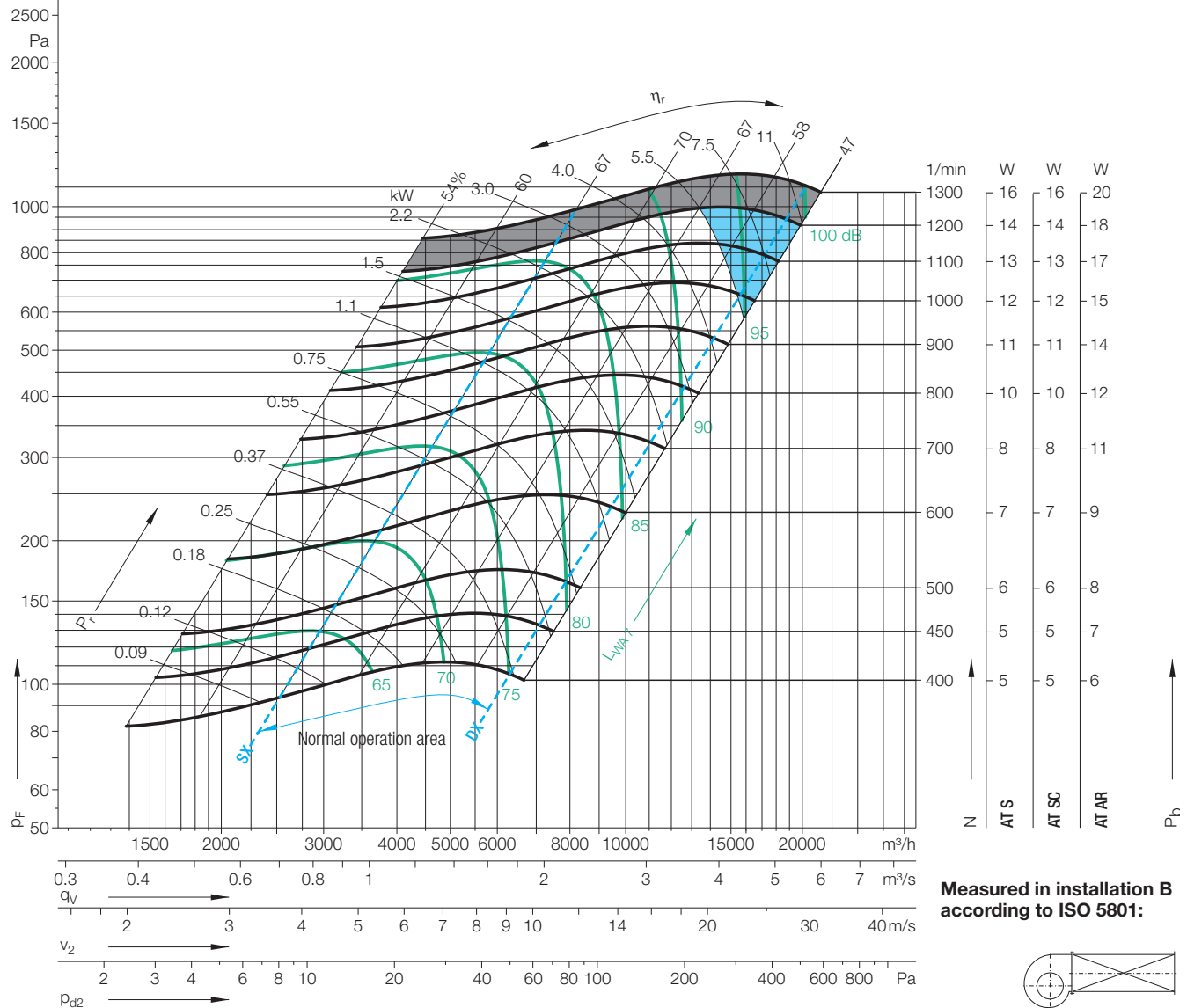


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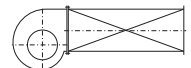
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The AMCA Certified Ratings Seal applies to air performance ratings only.



Measured in installation B according to ISO 5801:

 $\Delta L_{wrel4(A)}$ Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	1100	2
SX	800	2
SX	500	1
$Q_{V,opt}$	1100	2
$Q_{V,opt}$	800	2
$Q_{V,opt}$	500	2
DX	1100	2
DX	800	2
DX	500	2

63	125	250	500	1000	2000	4000	8000	Hz
-4	2	-3	-3	-7	-8	-9	-14	dB
1	2	-2	-5	-6	-7	-10	-16	dB
5	-1	-1	-4	-5	-7	-12	-19	dB
-8	-1	-5	-4	-7	-7	-8	-12	dB
-3	-1	-3	-5	-6	-6	-9	-14	dB
1	-3	-2	-5	-5	-6	-11	-17	dB
-4	-2	-6	-6	-7	-7	-7	-10	dB
-1	-2	-5	-7	-7	-6	-8	-11	dB
0	-6	-4	-7	-5	-6	-9	-14	dB

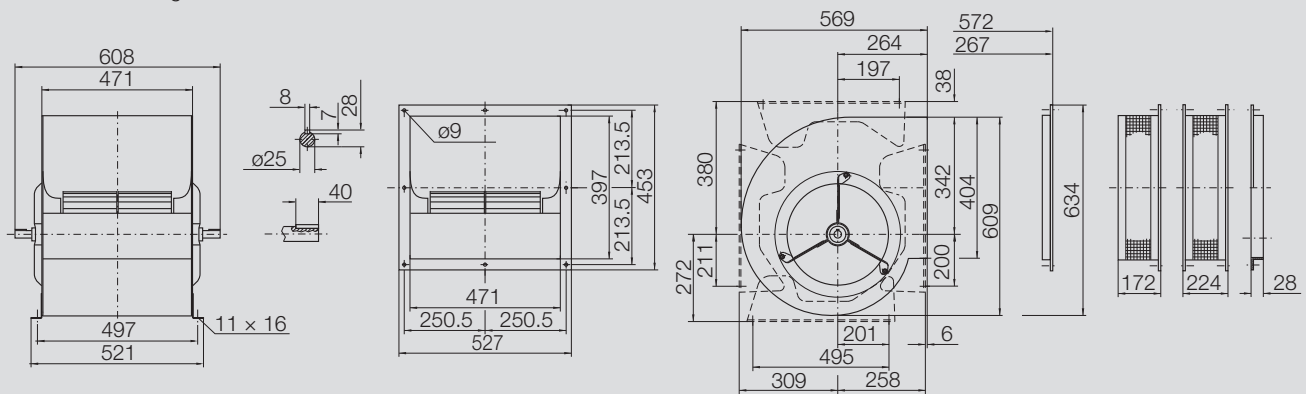
Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
2	6	0	-1	-6	-6	-7	-12	dB
6	5	1	-4	-5	-5	-8	-15	dB
8	2	1	-4	-4	-5	-11	-19	dB
-2	2	-2	-1	-5	-6	-7	-11	dB
2	2	0	-3	-5	-5	-8	-13	dB
4	0	1	-4	-4	-5	-10	-17	dB
2	2	-3	-2	-5	-5	-6	-9	dB
3	1	-3	-4	-4	-4	-6	-11	dB
3	-3	-1	-4	-3	-5	-8	-14	dB

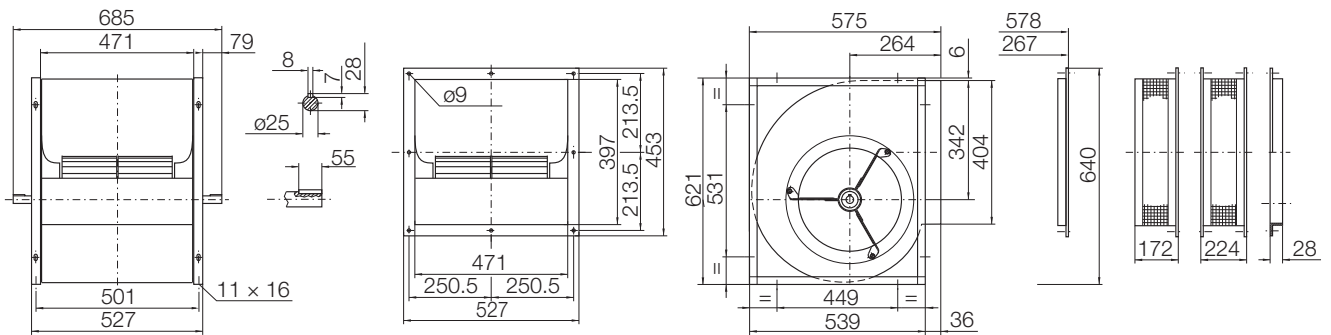
AT 15/15

Dimensions in mm, subject to change.

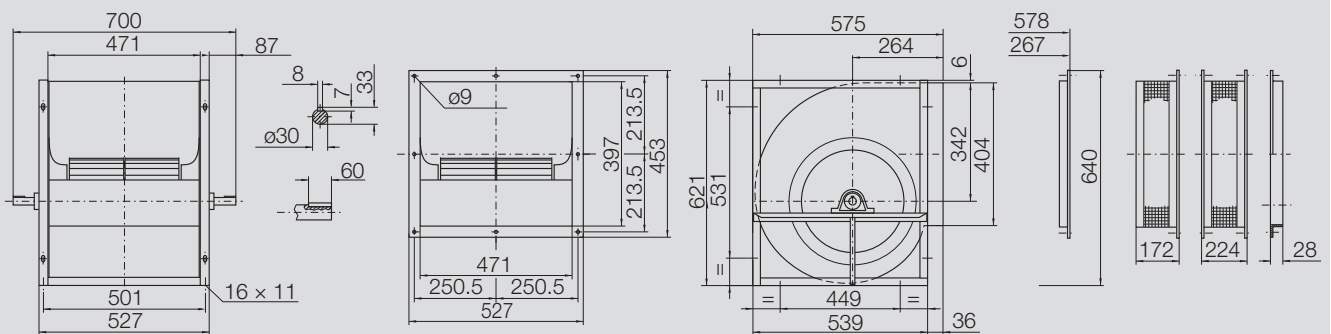
AT S-15/15 20.6 kg



AT SC-15/15 24.5 kg



AT AR-15/15 24.5 kg



AT 18/13

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	459	mm
Number of blades	z	48	
Moment of Inertia	J	0.463	kgm ²

Impeller Data

Impeller weight	m	10.5	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

- all types suitable
- AT AR only
- do not use in this area

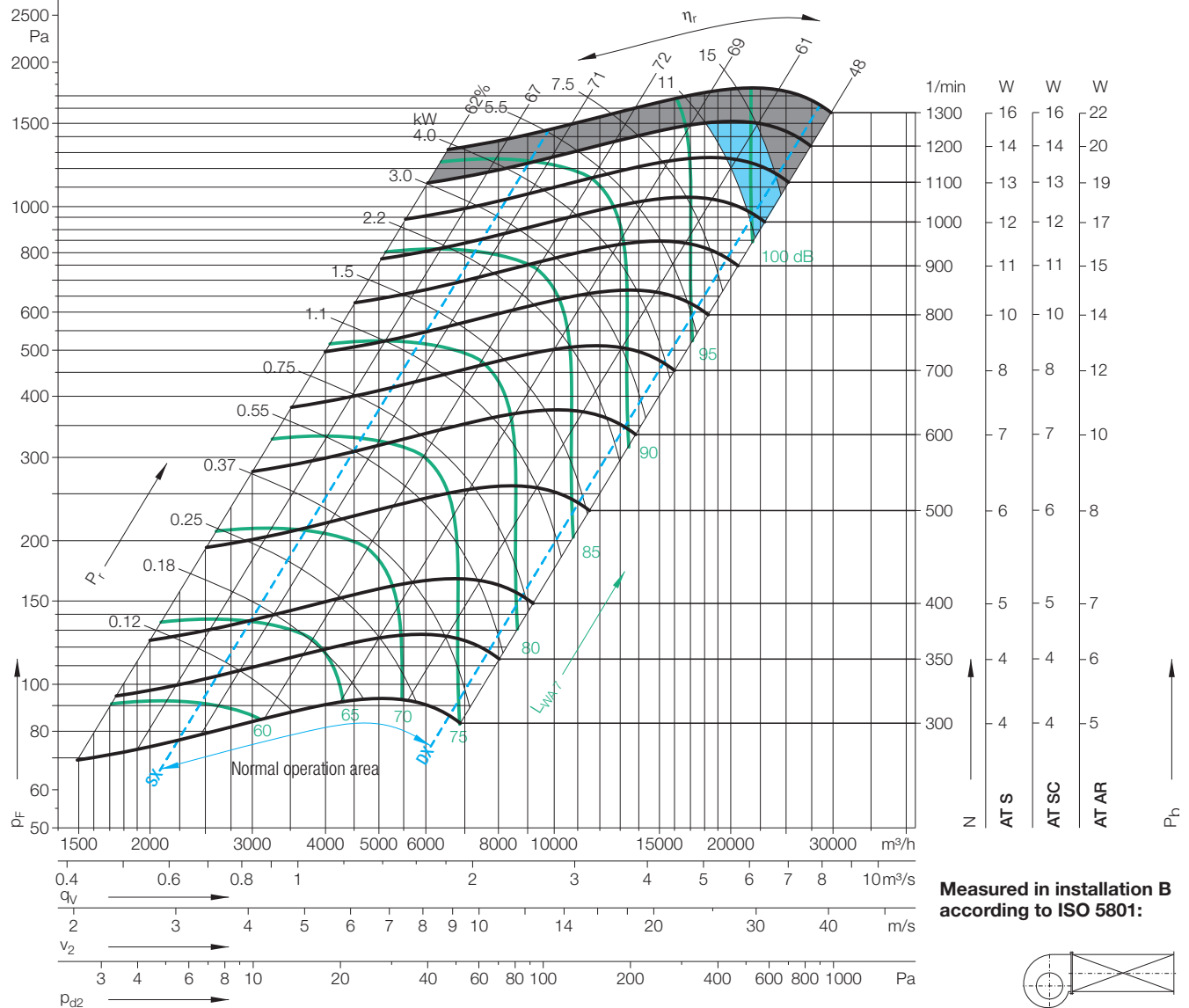


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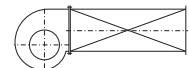
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Measured in installation B according to ISO 5801:

 $\Delta L_{Wrel4}(A)$ Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	1100	3
SX	700	2
SX	400	2
$Q_{V,opt}$	1100	2
$Q_{V,opt}$	700	2
$Q_{V,opt}$	400	2
DX	1100	2
DX	700	2
DX	400	2

63	125	250	500	1000	2000	4000	8000	Hz
1	6	0	-7	-6	-9	-9	-14	dB
7	5	-4	-4	-7	-7	-10	-17	dB
8	-1	-3	-4	-5	-7	-13	-21	dB
-3	1	1	-7	-6	-8	-8	-12	dB
2	3	-5	-5	-7	-6	-9	-15	dB
6	-2	-3	-5	-5	-6	-13	-19	dB
-8	-3	-7	-10	-5	-7	-6	-10	dB
-3	-4	-9	-5	-7	-6	-8	-12	dB
-2	-8	-4	-6	-5	-6	-10	-15	dB

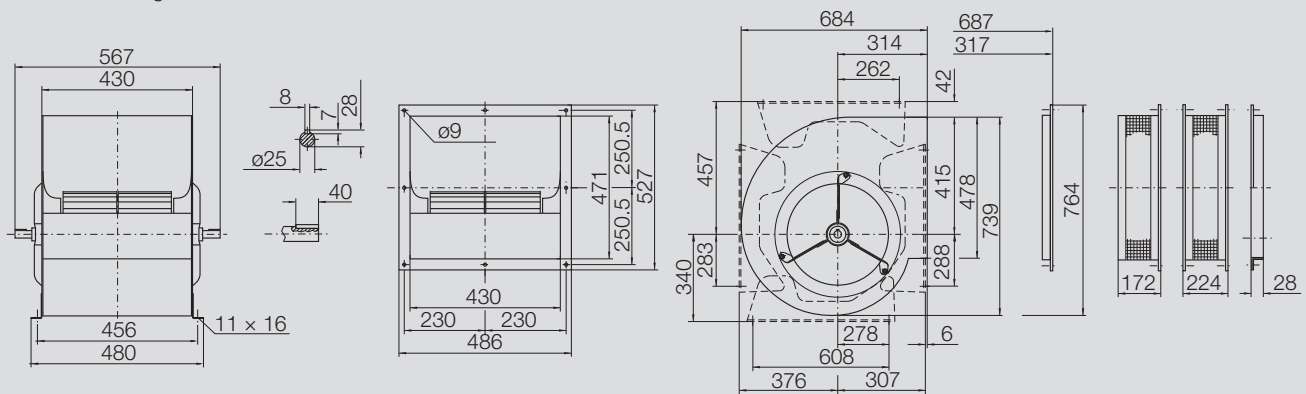
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
8	11	3	-5	-4	-6	-6	-11	dB
13	9	-2	-3	-5	-4	-7	-15	dB
12	1	-1	-2	-3	-4	-12	-21	dB
5	6	4	-4	-5	-7	-6	-11	dB
8	7	-2	-3	-6	-4	-7	-14	dB
10	1	-2	-4	-3	-5	-11	-20	dB
-2	2	-3	-6	-3	-6	-5	-9	dB
2	-1	-6	-2	-5	-4	-7	-12	dB
2	-4	-1	-4	-3	-5	-10	-16	dB

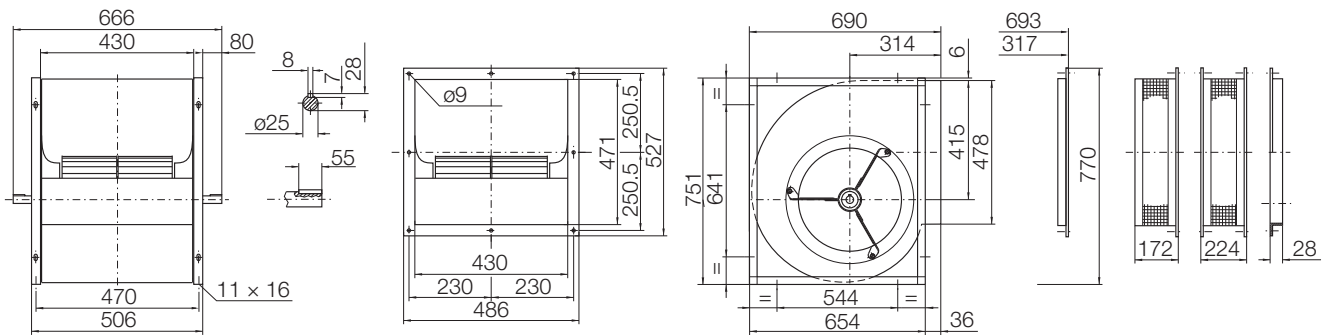
AT 18/13

Dimensions in mm, subject to change.

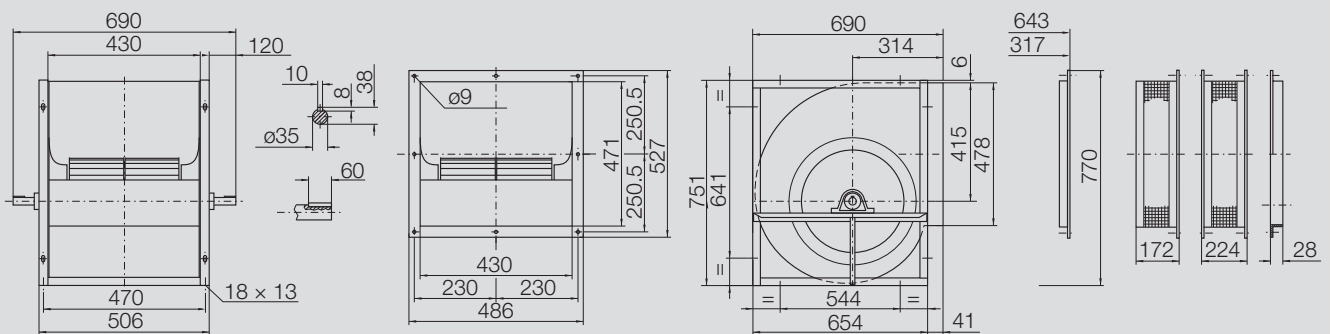
AT S-18/13 27 kg



AT SC-18/13 33 kg



AT AR-18/13 33 kg



AT 18/18

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	459	mm
Number of blades	z	48	
Moment of Inertia	J	0.568	kgm ²

Impeller Data

Impeller weight	m	15.2	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

- ☐ all types suitable
☒ AT AR only
☐ do not use in this area

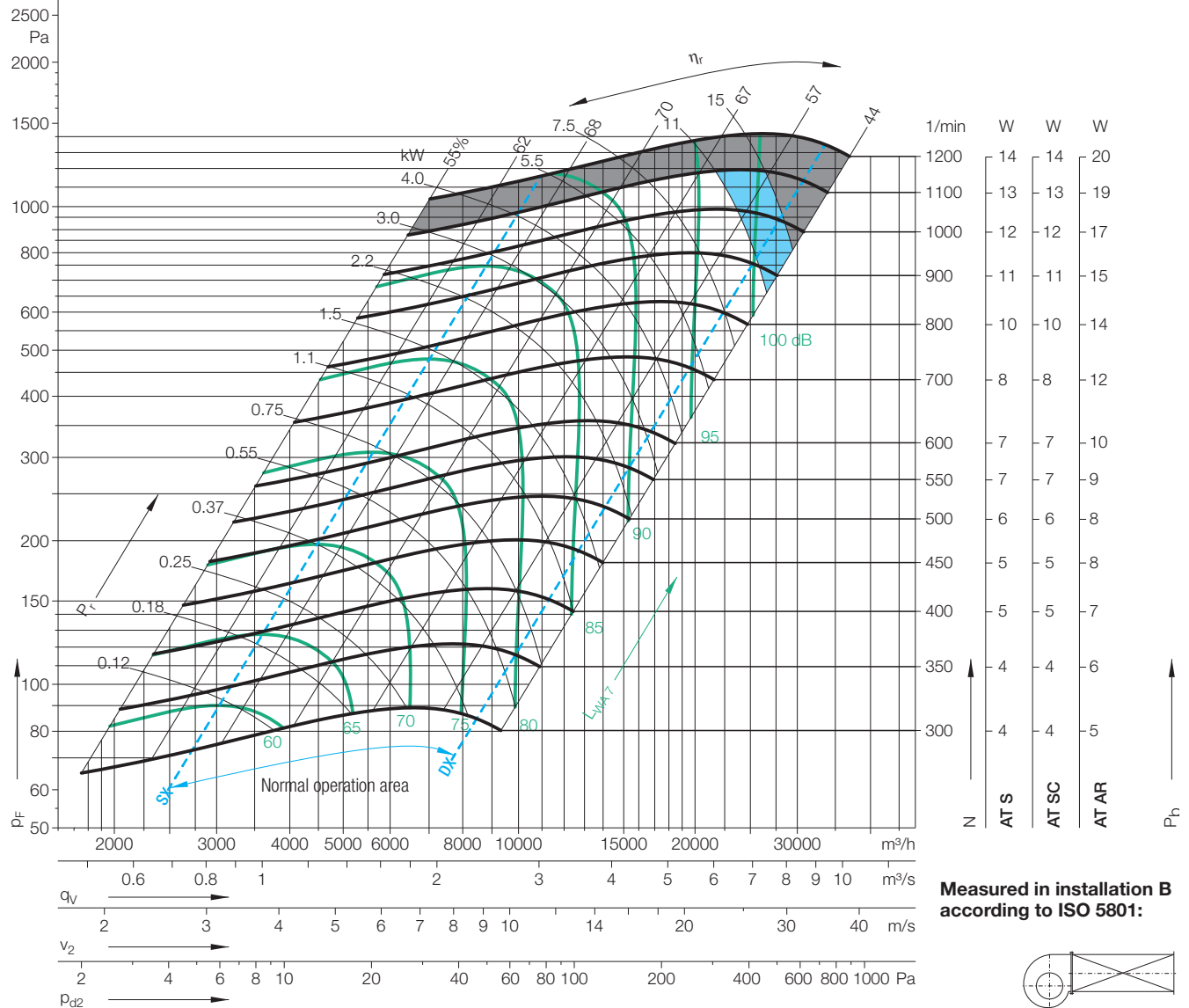


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The AMCA Certified Ratings Seal applies to air performance ratings only.

 $\Delta L_{Wrel4}(A)$ Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	1000	2
SX	700	2
SX	400	2
$Q_{V,opt}$	1000	2
$Q_{V,opt}$	700	2
$Q_{V,opt}$	400	1
DX	1000	2
DX	700	2
DX	400	1

63	125	250	500	1000	2000	4000	8000	Hz
2	5	-1	-5	-6	-8	-10	-15	dB
6	4	-2	-4	-6	-8	-10	-17	dB
7	1	-2	-3	-5	-7	-13	-21	dB
-3	0	-2	-5	-6	-7	-8	-13	dB
0	0	-3	-4	-6	-7	-9	-16	dB
2	-1	-3	-4	-5	-6	-13	-20	dB
-5	-6	-8	-7	-6	-7	-6	-9	dB
-5	-7	-8	-6	-7	-6	-7	-11	dB
-6	-7	-5	-6	-5	-6	-9	-16	dB

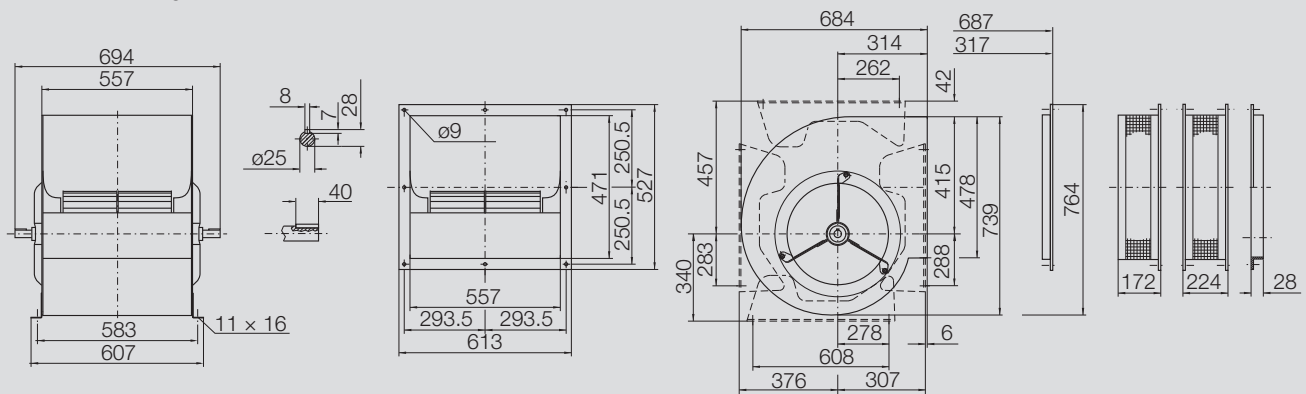
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
8	10	3	-2	-4	-7	-8	-13	dB
12	8	2	-2	-4	-6	-9	-16	dB
11	4	0	-2	-4	-6	-12	-21	dB
3	4	1	-2	-5	-6	-7	-12	dB
5	3	0	-3	-5	-5	-8	-15	dB
5	2	-1	-3	-3	-5	-12	-21	dB
1	-2	-4	-4	-4	-5	-5	-8	dB
0	-3	-4	-3	-5	-5	-6	-11	dB
-2	-4	-2	-4	-4	-4	-9	-17	dB

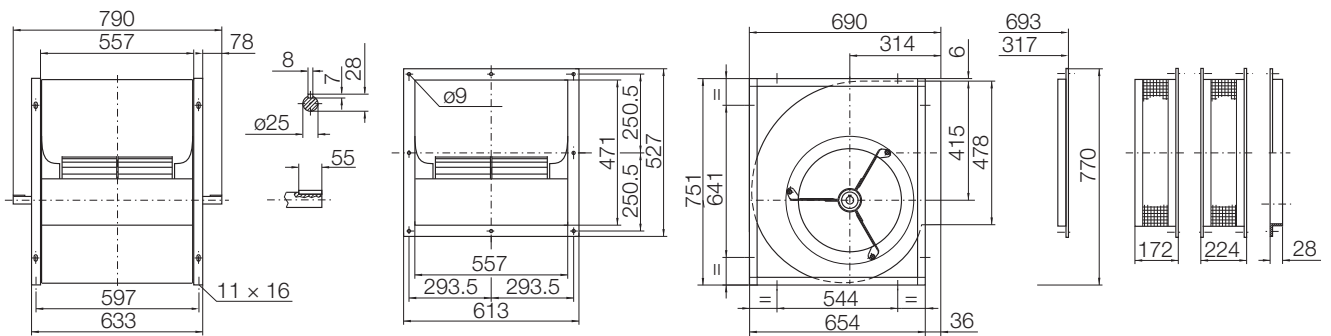
AT 18/18

Dimensions in mm, subject to change.

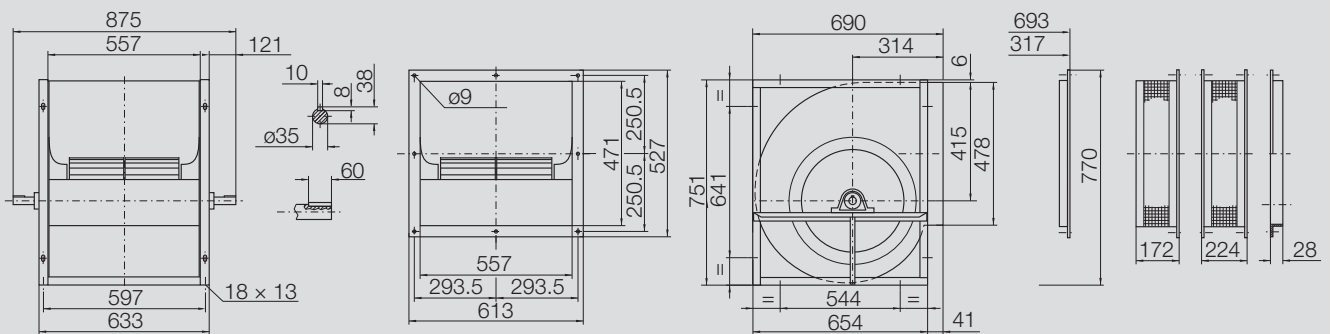
AT S-18/18 32.5 kg



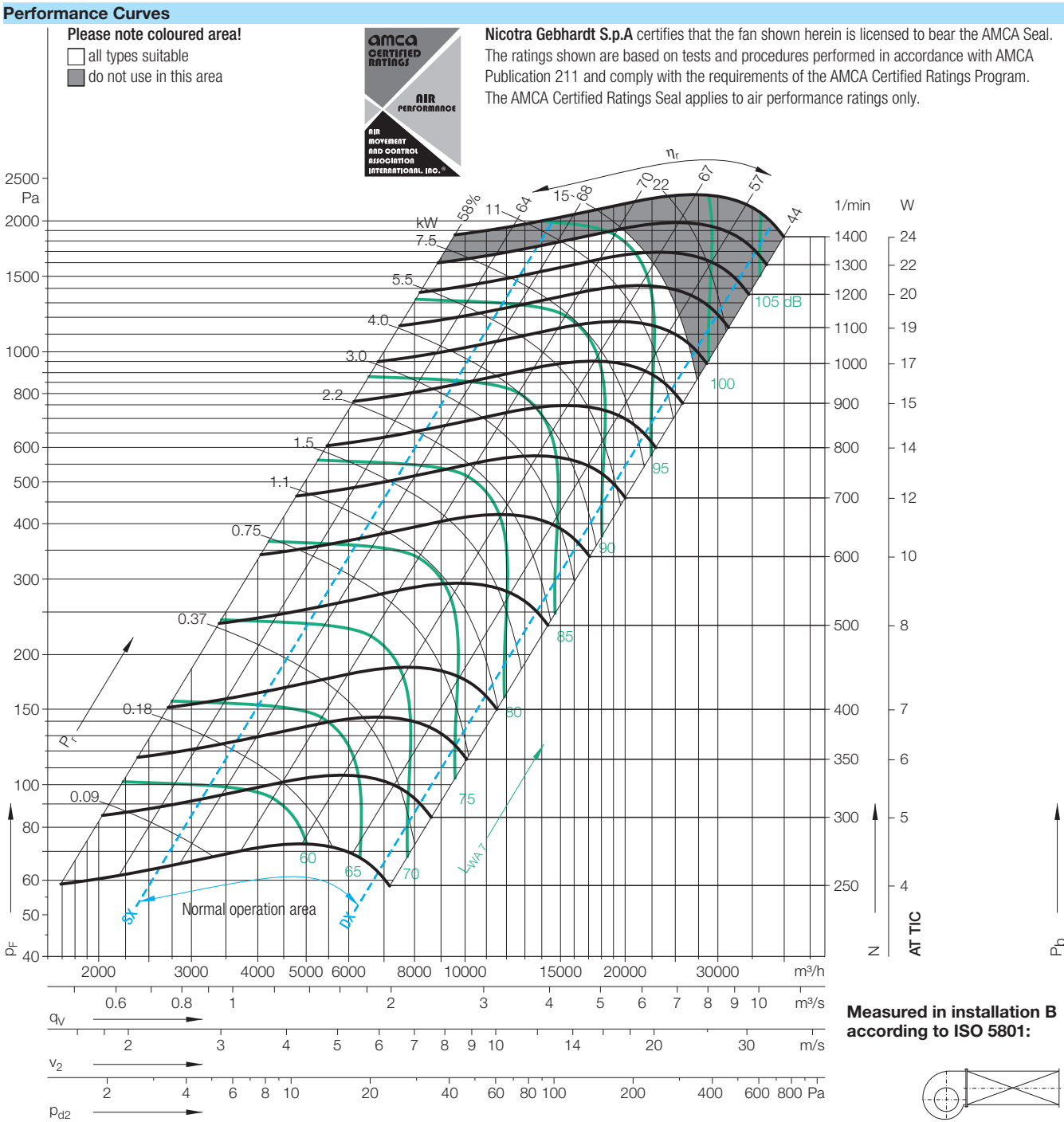
AT SC-18/18 38.2 kg



AT AR-18/18 38.2 kg



Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D_r	516	mm		Impeller weight	m	17.7	kg	
Number of blades	z	42			Density of media	ρ_1	1.2	kg/m ³	
Moment of Inertia	J	1.026	kgm ²		Tolerance class (DIN 24166)		2		

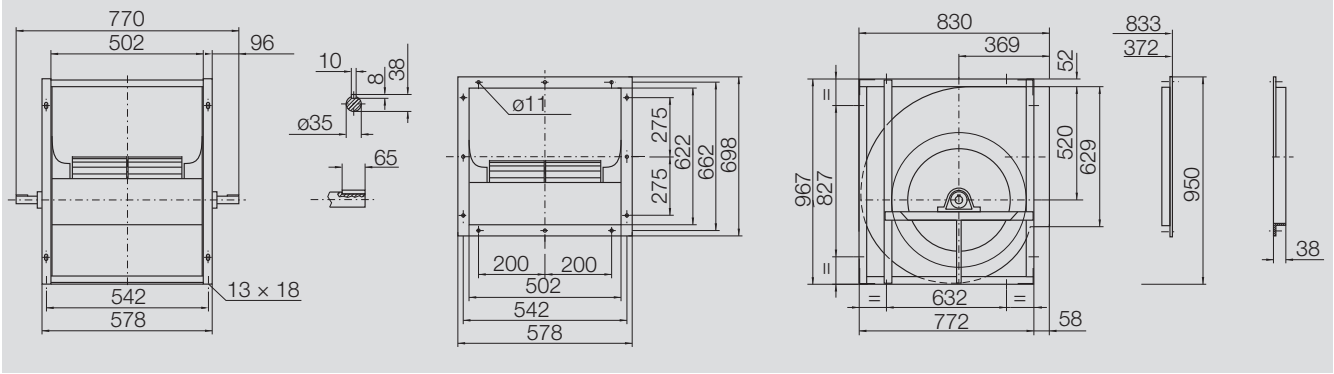


$\Delta L_{Wrel4(A)}$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	1100	3	3	4	3	-4	-7	-10	-11	-14	dB	10	10	6	-1	-5	-8	-9	-12	dB
SX	700	3	6	6	-1	-4	-7	-8	-11	-16	dB	12	10	2	-2	-4	-6	-8	-14	dB
SX	400	2	9	1	-1	-4	-5	-8	-12	-18	dB	13	4	2	-2	-3	-5	-11	-18	dB
qV _{opt}	1100	2	0	1	0	-4	-6	-9	-10	-13	dB	5	6	4	-1	-5	-8	-9	-12	dB
qV _{opt}	700	2	2	4	-1	-3	-7	-8	-10	-15	dB	7	7	1	-2	-5	-6	-9	-14	dB
qV _{opt}	400	2	6	1	0	-4	-5	-8	-12	-17	dB	10	3	2	-3	-4	-6	-11	-17	dB
DX	1100	2	-1	-4	-4	-4	-5	-8	-10	-13	dB	4	1	0	-1	-3	-6	-8	-11	dB
DX	700	2	-2	-1	-3	-3	-6	-7	-11	-14	dB	3	2	0	0	-4	-6	-9	-14	dB
DX	400	2	1	-2	0	-4	-5	-8	-11	-16	dB	4	1	2	-2	-4	-7	-11	-18	dB

AT 20/15

Dimensions in mm, subject to change.

AT TIC-20/15 71 kg

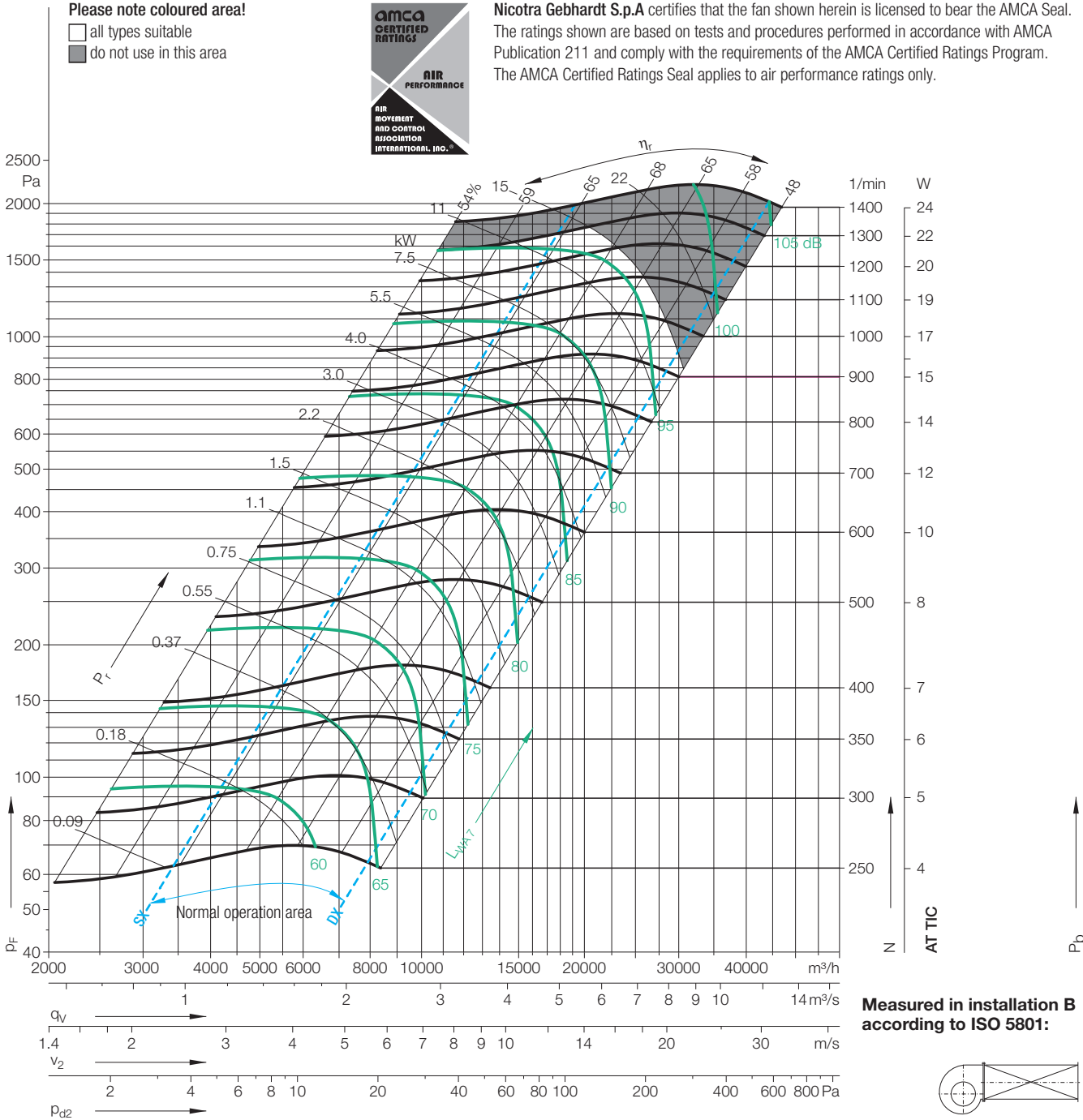


Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

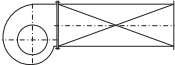
Technical Data

Impeller Data			Impeller Data		
Impeller diameter	D_r	516 mm	Impeller weight	m	20 kg
Number of blades	z	42	Density of media	ρ_1	1.2 kg/m ³
Moment of Inertia	J	1.175 kgm ²	Tolerance class (DIN 24166)		2

Performance Curves



Measured in installation B according to ISO 5801:

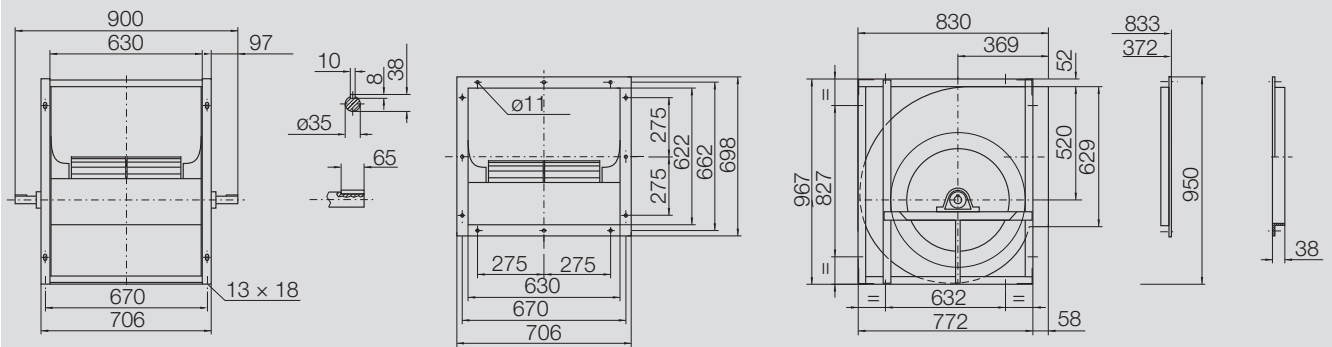


$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	1100	3	8	2	5	-4	-9	-12	-14	-18	dB	13	8	9	-1	-8	-11	-12	-16	dB
SX	700	3	11	8	-1	-2	-9	-10	-13	-19	dB	17	13	2	0	-8	-8	-11	-18	dB
SX	400	2	12	4	2	-5	-6	-8	-14	-20	dB	16	7	4	-4	-4	-7	-13	-21	dB
$Q_{V,opt}$	1100	3	3	-1	5	-4	-8	-11	-12	-17	dB	8	4	9	-1	-6	-10	-11	-15	dB
$Q_{V,opt}$	700	2	6	7	-1	-2	-8	-9	-12	-18	dB	12	12	2	0	-7	-8	-11	-17	dB
$Q_{V,opt}$	400	2	10	3	2	-4	-6	-8	-13	-20	dB	15	6	4	-3	-5	-7	-12	-21	dB
DX	1100	3	-2	-5	1	-3	-6	-9	-10	-14	dB	1	1	5	0	-4	-7	-8	-14	dB
DX	700	2	0	2	-2	-3	-6	-7	-11	-16	dB	5	7	2	0	-4	-6	-10	-15	dB
DX	400	2	4	0	0	-4	-5	-8	-12	-18	dB	9	4	3	-2	-4	-7	-12	-19	dB

AT 20/20

Dimensions in mm, subject to change.

AT TIC-20/20 78 kg



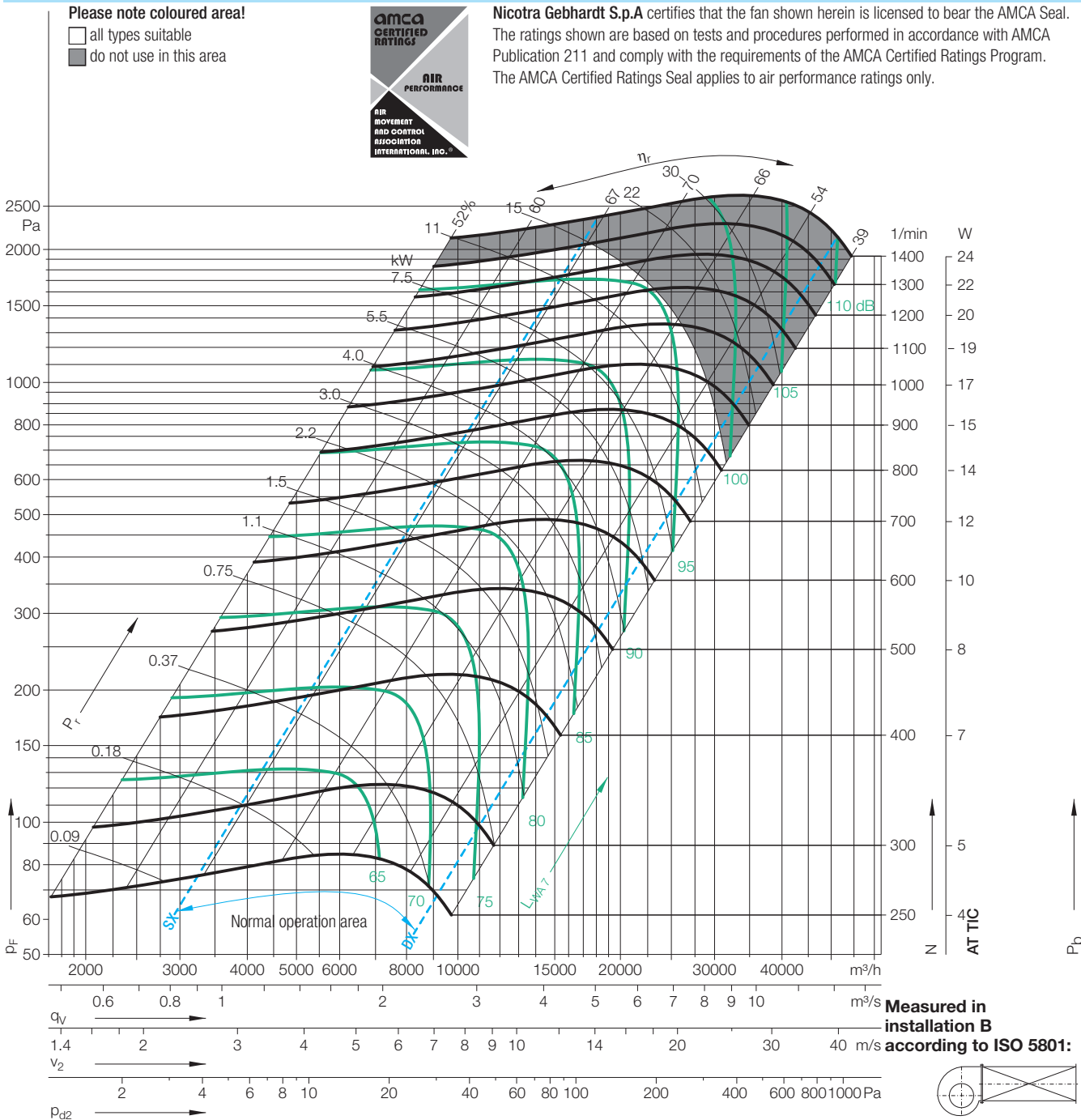
AT 22/15

Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data			Impeller Data		
Impeller diameter	D_r	566 mm	Impeller weight	m	20 kg
Number of blades	z	48	Density of media	ρ_1	1.2 kg/m ³
Moment of Inertia	J	1.370 kgm ²	Tolerance class (DIN 24166)		2

Performance Curves



$\Delta L_{Wrel4}(A)$

Duty point	Speed 1/min	dB
SX	1100	3
SX	700	3
SX	400	2
qV _{opt}	1100	2
qV _{opt}	700	2
qV _{opt}	400	2
DX	1100	2
DX	700	2
DX	400	2

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
2	3	3	-6	-6	-9	-11	-15	dB
4	6	-3	-3	-6	-8	-12	-17	dB
9	1	-1	-3	-5	-9	-13	-18	dB
0	0	1	-5	-5	-9	-11	-14	dB
2	3	-3	-2	-6	-8	-11	-15	dB
6	0	0	-3	-6	-8	-12	-16	dB
-5	-4	-2	-6	-4	-8	-9	-13	dB
-4	0	-5	-2	-6	-7	-10	-13	dB
2	-3	-1	-3	-6	-8	-10	-14	dB

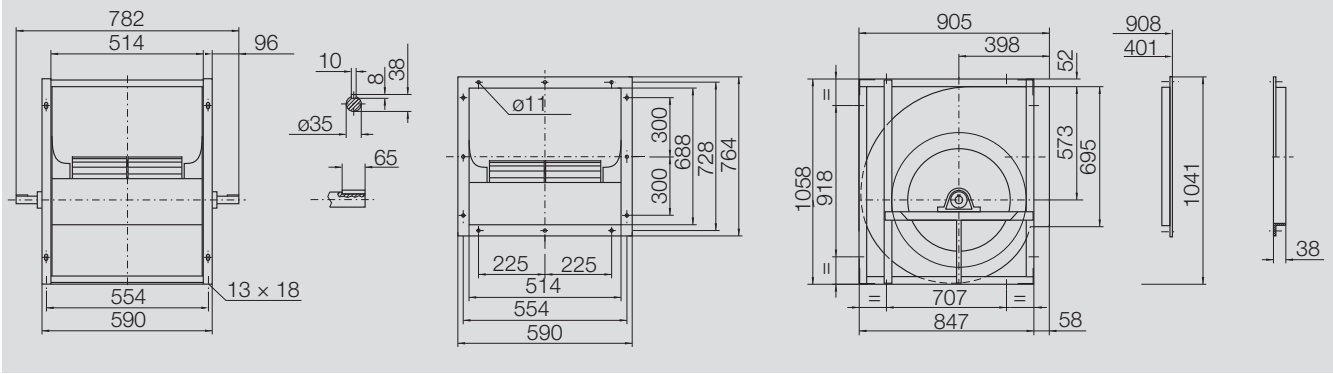
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
8	9	7	-3	-4	-6	-9	-13	dB
11	11	0	-1	-4	-6	-9	-15	dB
14	4	1	-1	-3	-6	-11	-18	dB
5	6	5	-2	-4	-7	-9	-12	dB
8	8	0	-1	-5	-7	-9	-14	dB
11	3	1	-2	-4	-7	-11	-17	dB
11	3	1	-2	-4	-7	-11	-17	dB
2	4	-2	0	-4	-6	-9	-12	dB
7	1	2	-1	-4	-7	-10	-16	dB

AT 22/15

Dimensions in mm, subject to change.

AT TIC-22/15 73 kg



Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	566	mm
Number of blades	z	48	
Moment of Inertia	J	1.729	kgm ²


Impeller Data

Impeller weight	m	26	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

☐ all types suitable

 all types suitable
 do not use in this area

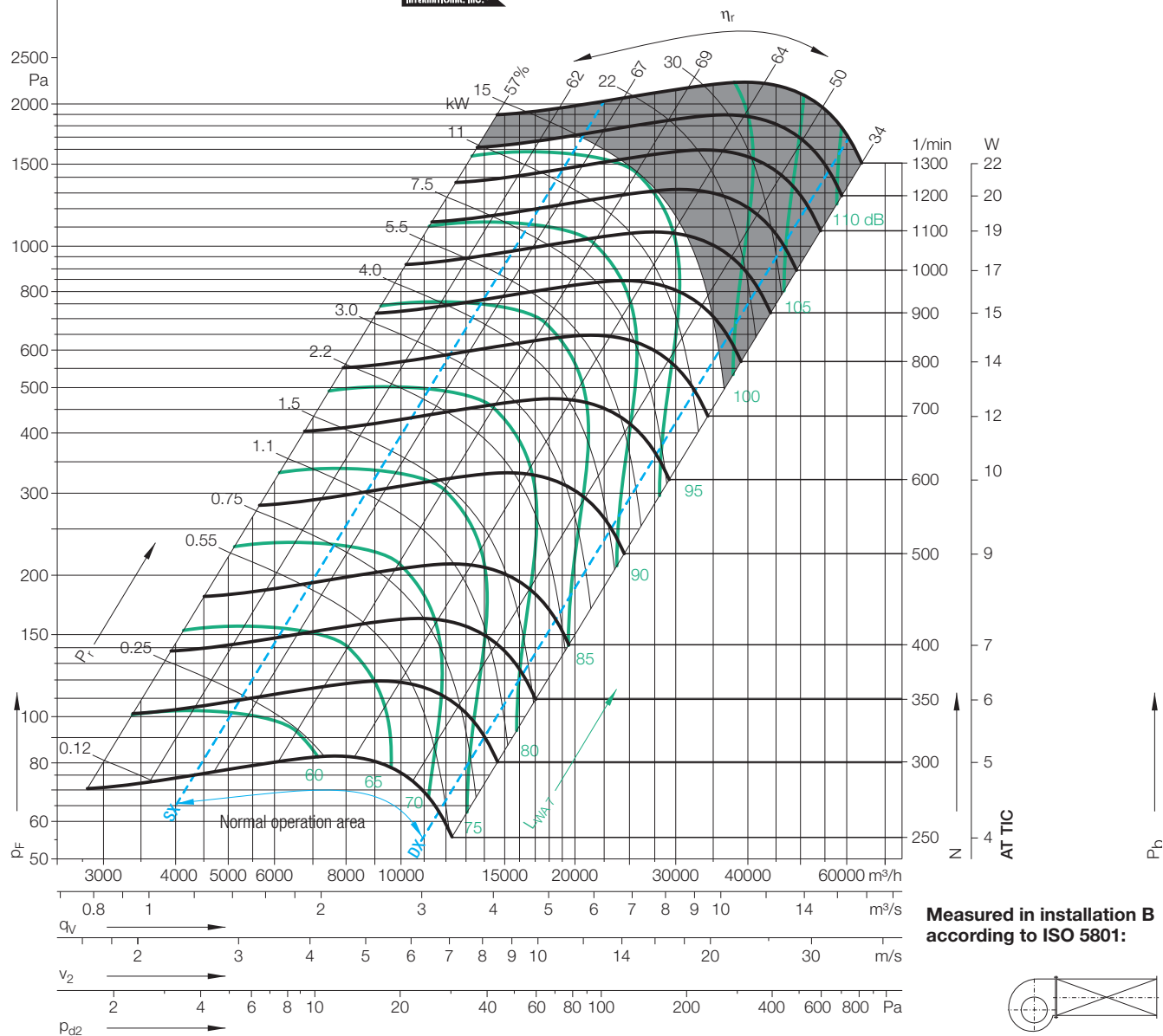


Nicotra Gebhardt S.p.A certifies that the fan shown herein is licensed to bear the AMCA Seal.

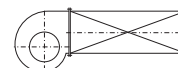
The ratings shown are based on tests and procedures performed in accordance with AMCA

The ratings shown are based on tests and procedures performed in accordance with AMCA International Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to air performance ratings only.



**Measured in installation B
according to ISO 5801:**


$$\Delta L_{Wrel4}(A)$$

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Relative sound power level for discharge side L_{Wrel} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	1100	3
SX	700	3
SX	400	2
qv _{opt}	1100	3
qv _{opt}	700	3
qv _{opt}	400	2
DX	1100	3
DX	700	3
DX	400	2

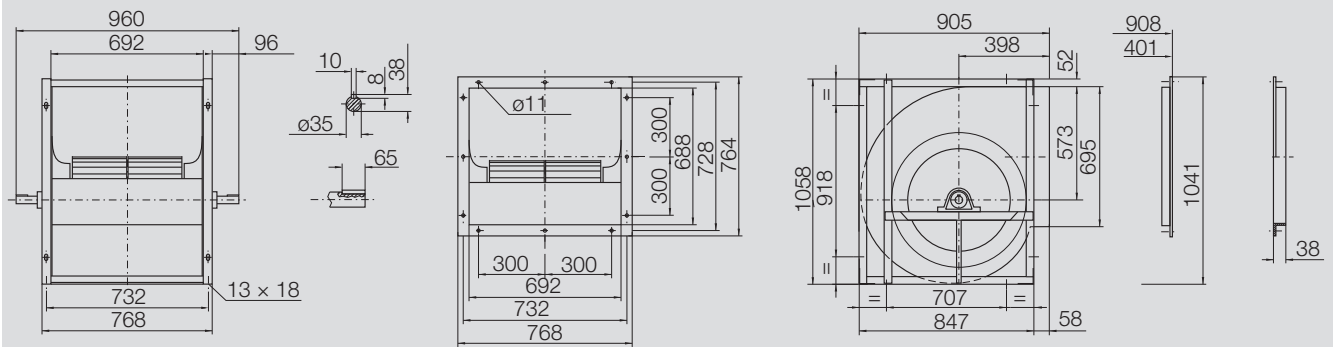
63	125	250	500	1000	2000	4000	8000	Hz
3	3	5	-4	-9	-13	-14	-17	dB
6	9	1	-4	-9	-10	-13	-18	dB
13	6	1	-5	-6	-9	-13	-22	dB
1	2	5	-4	-8	-13	-14	-17	dB
4	9	1	-3	-8	-10	-13	-18	dB
13	6	1	-4	-6	-8	-13	-21	dB
-1	0	3	-7	-6	-8	-10	-13	dB
1	5	-4	-4	-6	-7	-10	-14	dB
8	-1	-2	-4	-5	-8	-11	-17	dB

63	125	250	500	1000	2000	4000	8000	Hz
7	9	9	-1	-8	-11	-12	-16	dB
12	14	4	-2	-7	-8	-11	-17	dB
18	9	3	-3	-5	-7	-12	-22	dB
5	7	9	-1	-7	-11	-12	-16	dB
10	13	4	-1	-7	-9	-11	-17	dB
17	9	3	-3	-5	-7	-12	-22	dB
3	5	7	-2	-3	-6	-8	-12	dB
6	10	0	-1	-4	-5	-9	-14	dB
12	3	1	-2	-3	-6	-10	-18	dB

AT 22/22

Dimensions in mm, subject to change.
AT T10 00/00 00.51

AT TIC-22/22 82.5 kg

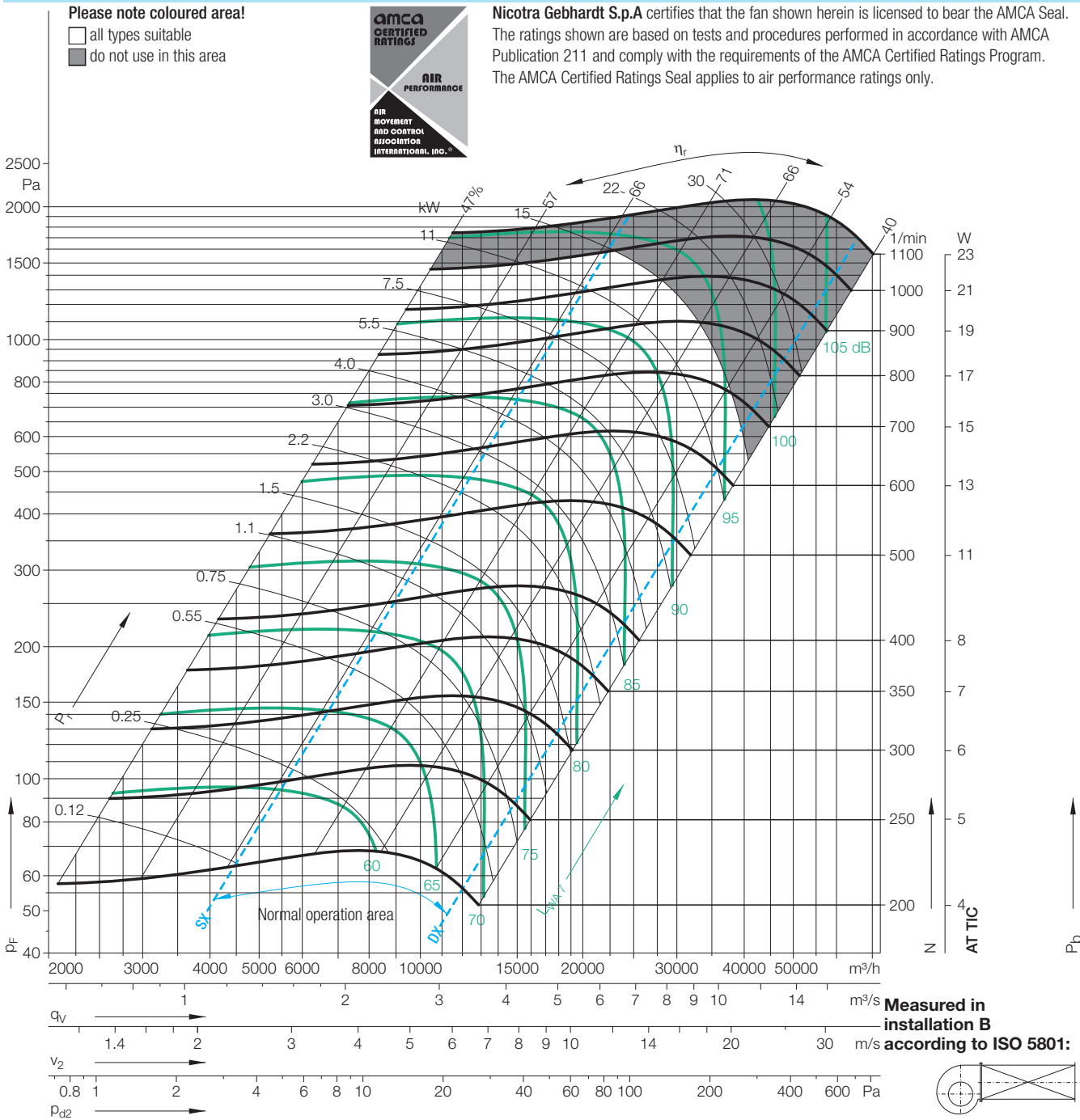


Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data			Impeller Data		
Impeller diameter	D_r	636 mm	Impeller weight	m	29 kg
Number of blades	z	56	Density of media	ρ_1	1.2 kg/m ³
Moment of Inertia	J	2.475 kgm ²	Tolerance class (DIN 24166)		2

Performance Curves



$\Delta L_{Wrel4}(A)$

Duty point	Speed 1/min	dB
SX	900	4
SX	600	3
SX	300	2
QV _{opt}	900	2
QV _{opt}	600	2
QV _{opt}	300	1
DX	900	3
DX	600	2
DX	300	2

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
5	8	2	-4	-7	-11	-14	-15	dB
7	9	1	-4	-7	-10	-12	-17	dB
13	4	0	-3	-6	-8	-13	-21	dB
2	5	1	-5	-5	-10	-13	-16	dB
4	7	-1	-2	-7	-9	-12	-17	dB
10	3	1	-3	-6	-9	-14	-21	dB
-2	0	-2	-6	-4	-8	-10	-14	dB
-1	1	-4	-3	-5	-8	-11	-15	dB
4	-1	0	-3	-5	-8	-12	-18	dB

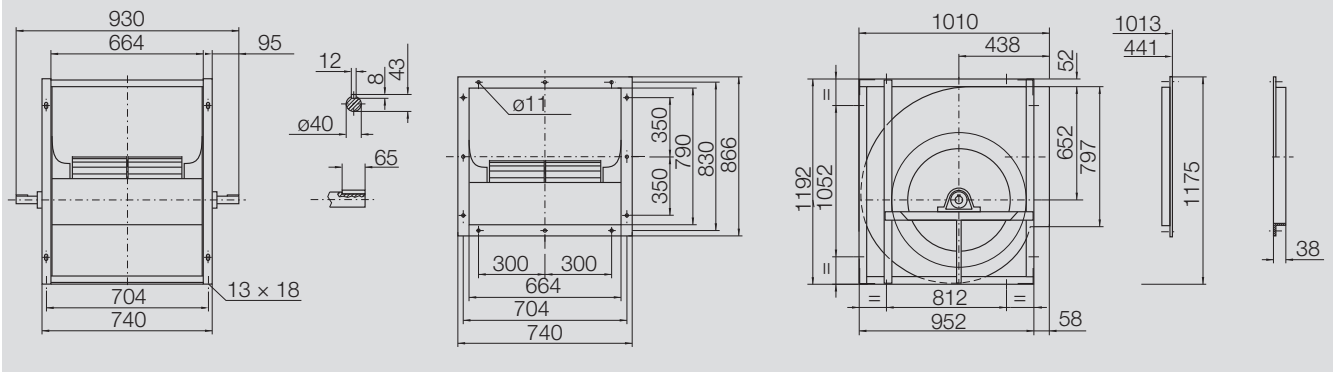
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
10	14	6	-1	-5	-9	-11	-13	dB
14	13	4	-2	-5	-8	-10	-15	dB
17	8	2	-1	-4	-6	-11	-22	dB
6	10	4	-3	-4	-9	-11	-15	dB
9	11	2	-2	-6	-8	-11	-17	dB
14	5	2	-2	-5	-7	-13	-23	dB
2	5	2	-2	-2	-6	-9	-13	dB
5	5	0	0	-4	-6	-10	-15	dB
8	3	2	-1	-4	-7	-12	-20	dB

AT 25/20

Dimensions in mm, subject to change.

AT TIC-25/20 93 kg

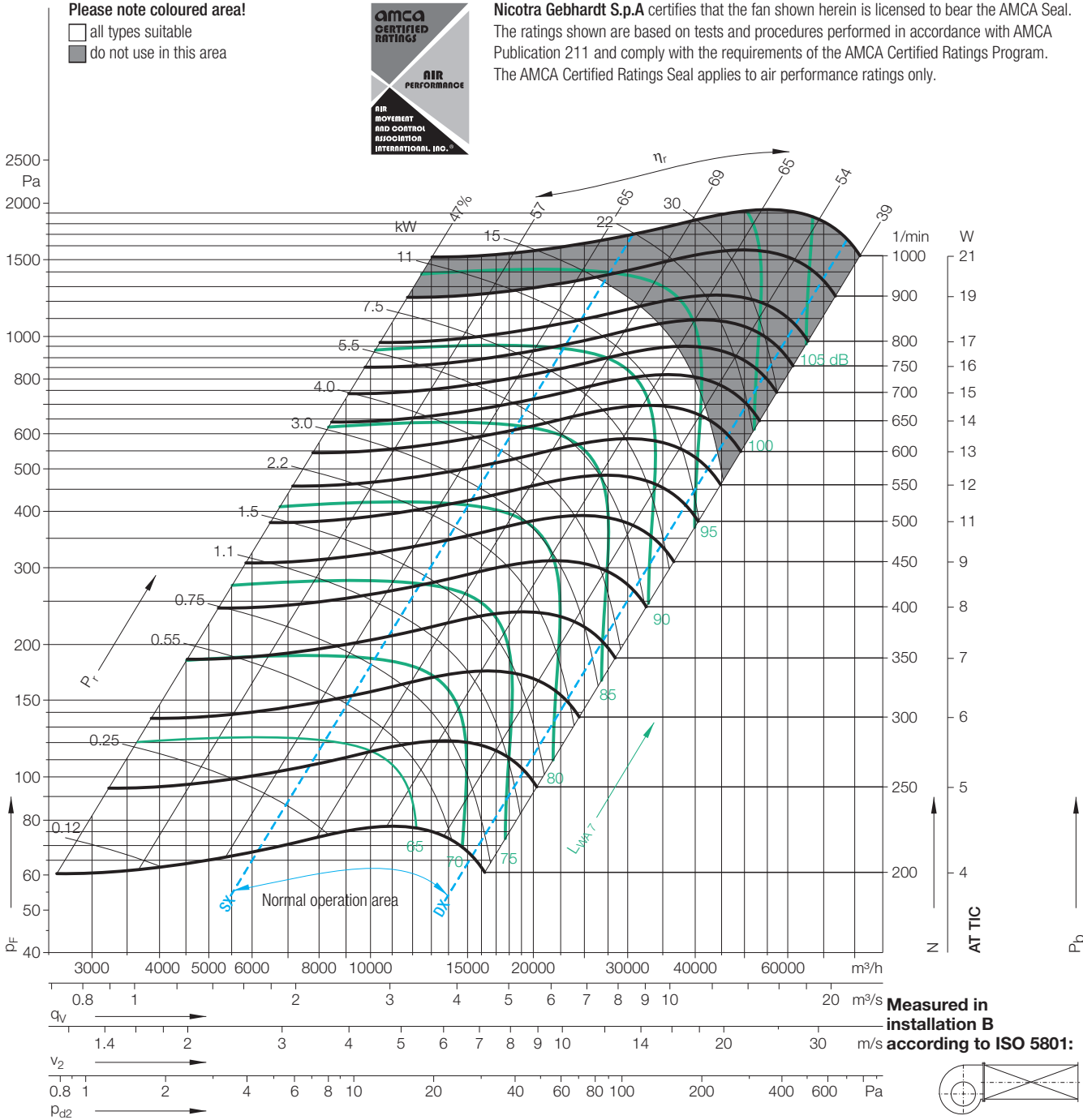


Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data			Impeller Data		
Impeller diameter	D_r	636 mm	Impeller weight	m	33 kg
Number of blades	z	56	Density of media	ρ_1	1.2 kg/m ³
Moment of Inertia	J	2.753 kgm ²	Tolerance class (DIN 24166)		2

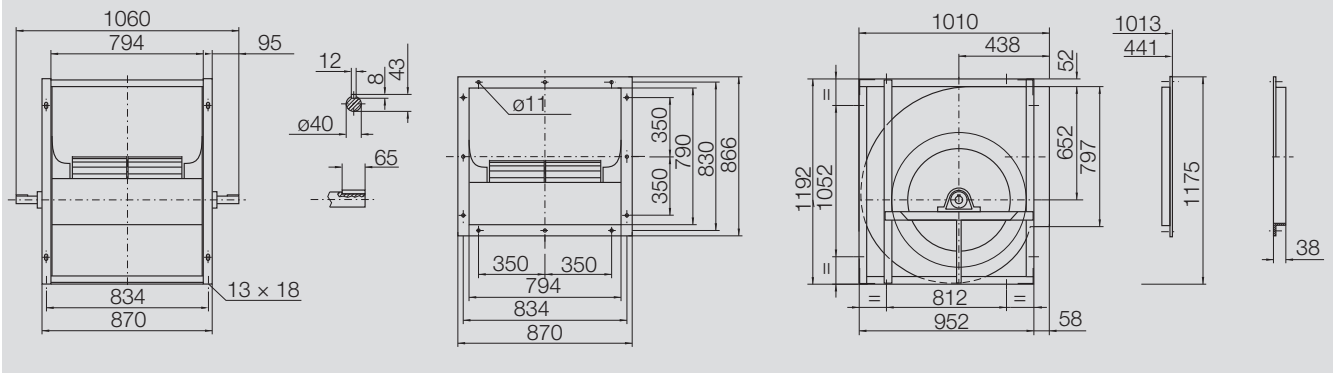
Performance Curves



$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	800	3	5	7	3	-5	-7	-10	-11	-17	dB	9	12	6	-3	-7	-8	-10	-16	dB
SX	500	2	8	8	-2	-3	-7	-7	-13	-19	dB	14	12	1	-3	-6	-6	-11	-19	dB
SX	300	2	12	3	0	-4	-5	-9	-15	-21	dB	17	6	1	-3	-3	-7	-14	-23	dB
qV _{opt}	800	3	4	6	2	-5	-7	-10	-11	-17	dB	8	11	6	-2	-5	-8	-10	-16	dB
qV _{opt}	500	2	7	7	-2	-3	-7	-7	-13	-19	dB	12	11	2	-2	-6	-6	-11	-19	dB
qV _{opt}	300	2	12	3	0	-4	-5	-8	-15	-21	dB	16	7	2	-2	-3	-7	-14	-23	dB
DX	800	2	3	3	-1	-5	-6	-7	-9	-13	dB	6	8	3	-2	-4	-6	-8	-13	dB
DX	500	2	4	2	-5	-4	-6	-7	-10	-15	dB	9	6	-1	-1	-4	-5	-10	-15	dB
DX	300	2	5	1	-2	-4	-5	-8	-11	-18	dB	10	4	1	-2	-3	-7	-12	-21	dB

AT 25/25

Dimensions in mm, subject to change.
AT TIC-25/25 105 kg



AT 28/20

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data**Impeller Data**

Impeller diameter	D_r	710	mm
Number of blades	z	56	
Moment of Inertia	J	3.204	kgm ²

Impeller Data

Impeller weight	m	31	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

- ☐ all types suitable
☒ do not use in this area

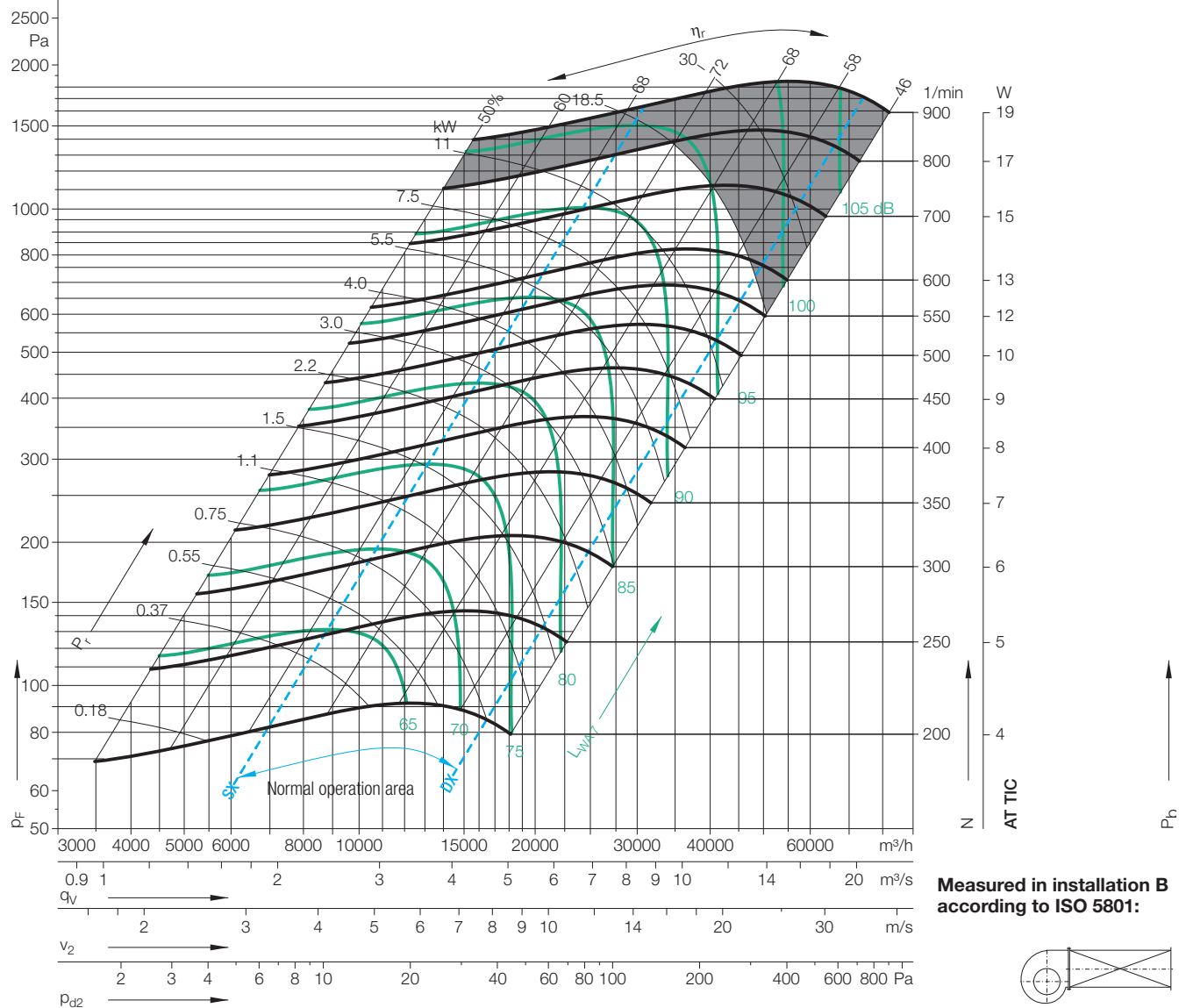


Nicotra Gebhardt S.p.A certifies that the fan shown herein is licensed to bear the AMCA Seal.

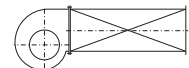
The ratings shown are based on tests and procedures performed in accordance with AMCA

Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to air performance ratings only.



Measured in installation B according to ISO 5801:

 $\Delta L_{Wrel4}(A)$ Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	700	3
SX	450	3
SX	250	2
$Q_{V,opt}$	700	2
$Q_{V,opt}$	450	2
$Q_{V,opt}$	250	2
DX	700	2
DX	450	1
DX	250	1

63	125	250	500	1000	2000	4000	8000	Hz
5	7	0	-1	-8	-11	-12	-17	dB
8	4	2	-2	-8	-9	-12	-19	dB
8	5	2	-5	-5	-9	-15	-22	dB
1	5	-1	-2	-7	-10	-11	-15	dB
5	3	1	-2	-8	-8	-12	-18	dB
8	3	2	-5	-5	-8	-14	-21	dB
3	1	-5	-4	-7	-6	-9	-12	dB
3	-3	-4	-4	-6	-7	-11	-13	dB
0	-2	-2	-4	-4	-8	-11	-16	dB

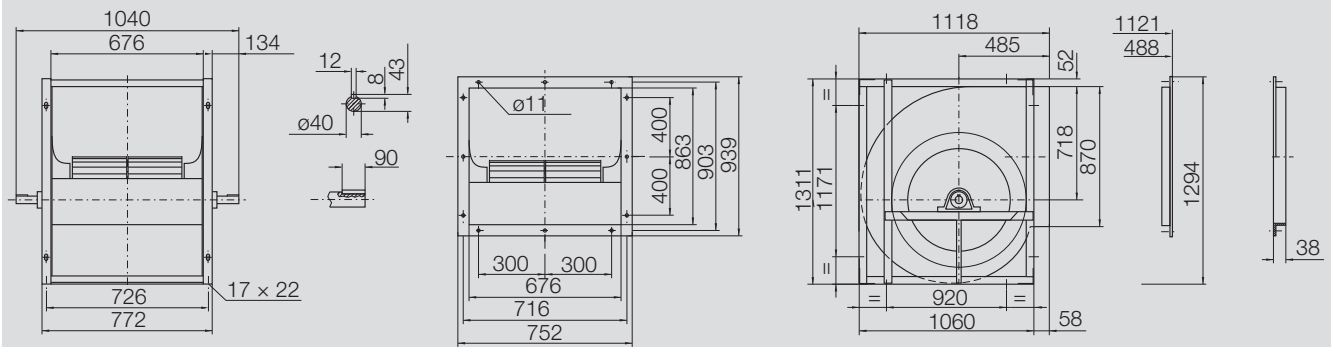
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
11	12	4	1	-6	-8	-10	-15	dB
15	8	5	0	-6	-7	-10	-18	dB
13	8	4	-3	-3	-6	-14	-24	dB
6	10	2	0	-6	-8	-9	-14	dB
10	7	3	-1	-6	-7	-10	-18	dB
12	7	3	-3	-4	-6	-14	-24	dB
6	6	-1	-1	-5	-5	-8	-12	dB
8	1	-1	-2	-4	-6	-10	-14	dB
4	1	0	-3	-3	-8	-12	-19	dB

AT 28/20

Dimensions in mm, subject to change.

AT TIC-28/20 120 kg



AT 28/28

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data**Impeller Data**

Impeller diameter	D_r	710	mm
Number of blades	z	56	
Moment of Inertia	J	3.867	kgm ²

Impeller Data

Impeller weight	m	35	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves

Please note coloured area!

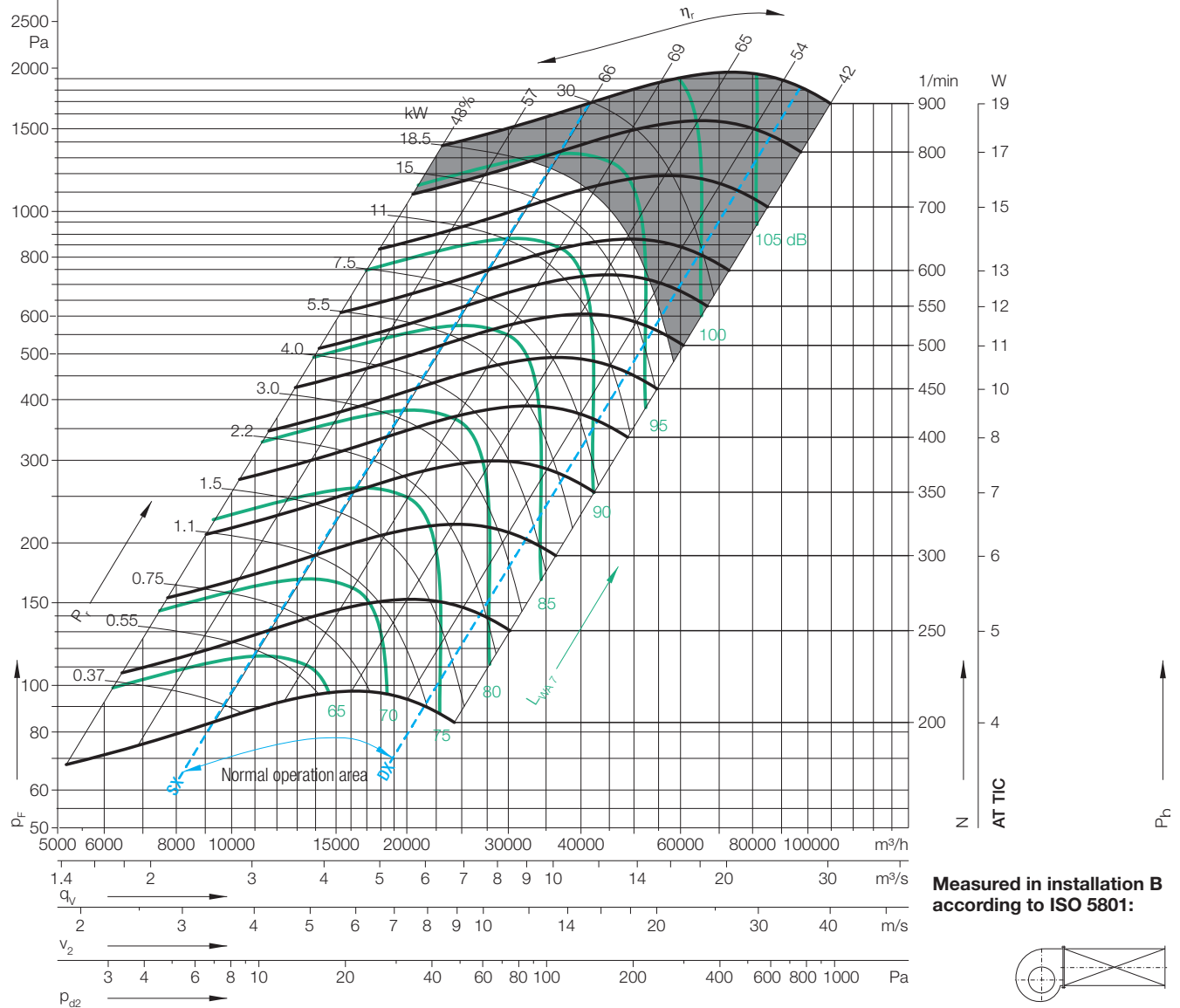
- ☐ all types suitable
☒ do not use in this area



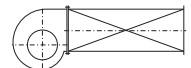
Nicotra Gebhardt S.p.A certifies that the fan shown herein is licensed to bear the AMCA Seal.

The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to air performance ratings only.



Measured in installation B according to ISO 5801:

 $\Delta L_{wrel4(A)}$ Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	600	3
SX	400	2
SX	250	2
$q_{V,opt}$	600	2
$q_{V,opt}$	400	2
$q_{V,opt}$	250	1
DX	600	2
DX	400	2
DX	250	1

63	125	250	500	1000	2000	4000	8000	Hz
9	10	-1	-3	-9	-11	-13	-19	dB
14	2	1	-3	-7	-9	-14	-18	dB
12	3	2	-4	-6	-9	-15	-19	dB
7	8	-1	-2	-8	-9	-12	-16	dB
11	0	1	-3	-6	-8	-12	-18	dB
8	3	1	-4	-5	-9	-14	-19	dB
7	5	-2	-5	-7	-7	-10	-13	dB
8	-1	-1	-5	-5	-7	-10	-14	dB
4	1	-3	-4	-5	-8	-11	-17	dB

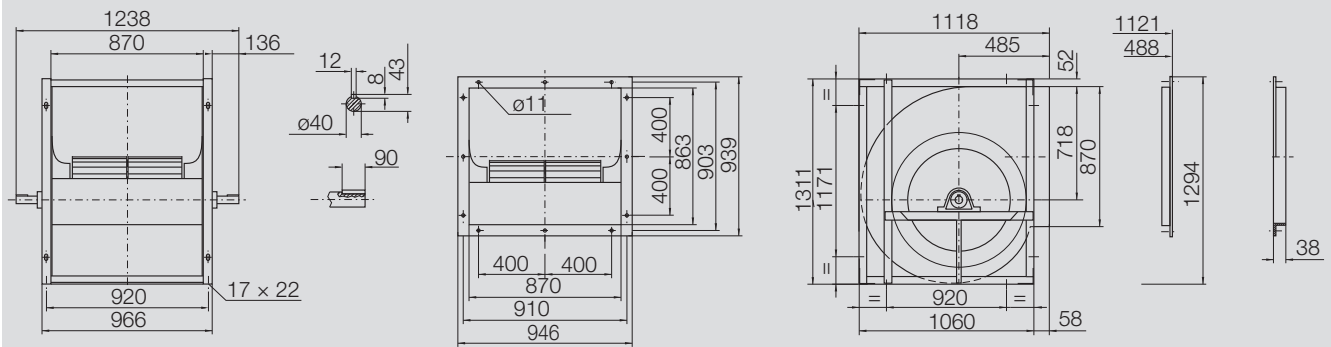
Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
13	14	2	-1	-7	-9	-12	-18	dB
18	5	3	-1	-5	-8	-13	-19	dB
16	6	3	-2	-4	-8	-15	-22	dB
11	11	2	-1	-6	-8	-11	-16	dB
15	3	3	-1	-5	-7	-12	-19	dB
12	6	3	-2	-4	-8	-14	-22	dB
11	9	2	-2	-5	-6	-9	-13	dB
12	2	2	-3	-4	-6	-10	-16	dB
7	4	0	-2	-3	-7	-12	-20	dB

AT 28/28

Dimensions in mm, subject to change.

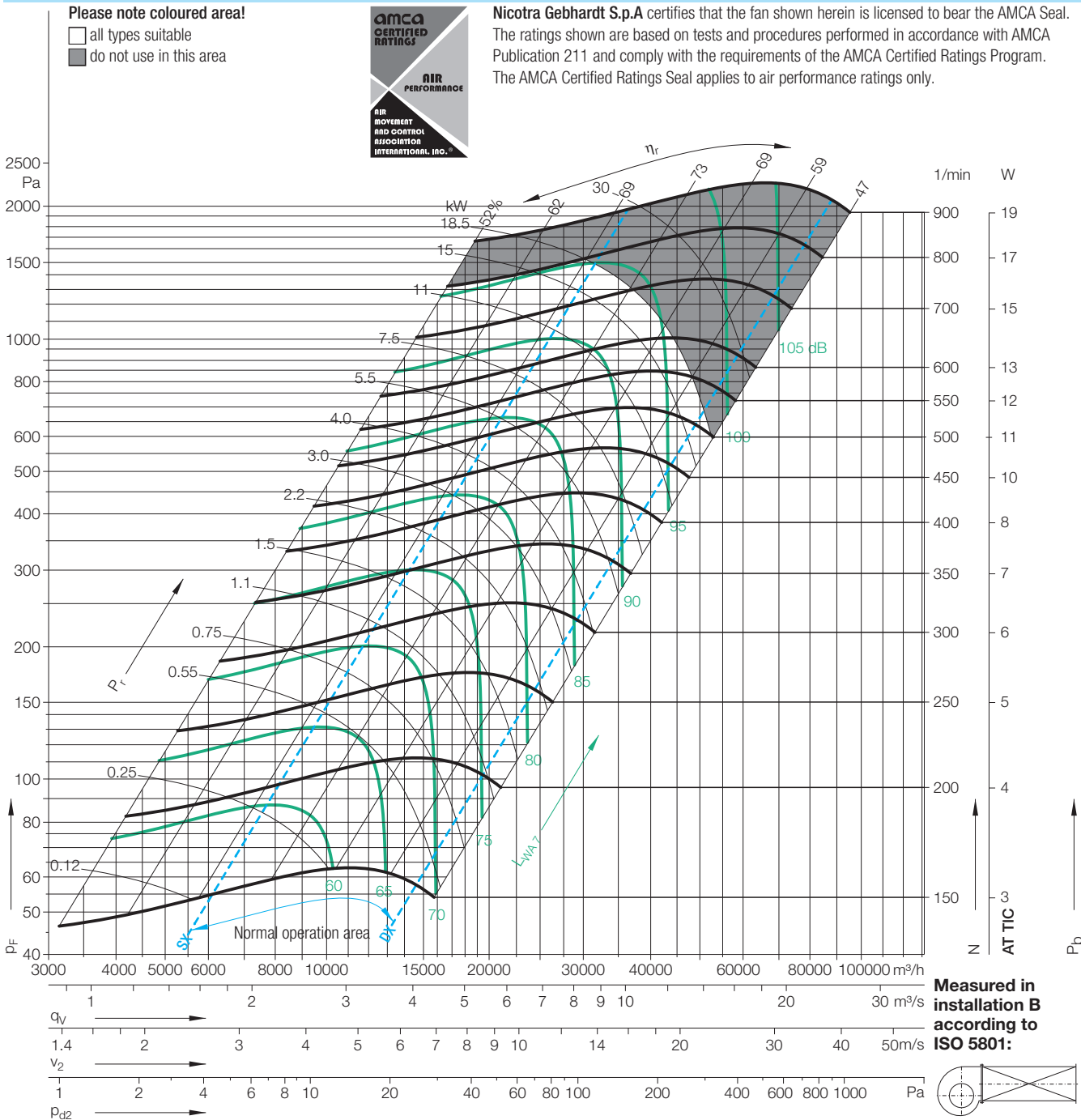
AT TIC-28/28 127 kg



Technical Data

Impeller Data			Impeller Data		
Impeller diameter	D_r	762 mm	Impeller weight	m	34 kg
Number of blades	z	64	Density of media	ρ_1	1.2 kg/m ³
Moment of Inertia	J	4.378 kgm ²	Tolerance class (DIN 24166)		2

Performance Curves

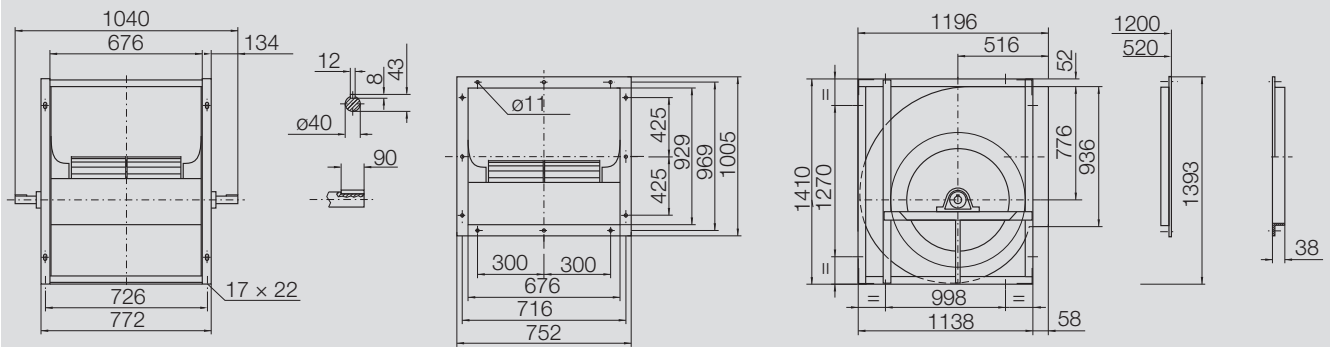


$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	600	3	6	7	2	-2	-10	-11	-12	-18	dB	12	13	6	0	-8	-9	-10	-16	dB
SX	400	3	9	6	3	-3	-9	-9	-13	-20	dB	15	10	5	-1	-6	-7	-11	-20	dB
SX	250	2	11	7	2	-6	-6	-8	-15	-21	dB	16	10	4	-4	-4	-6	-14	-23	dB
$Q_{V,opt}$	600	2	7	6	1	-2	-8	-10	-12	-16	dB	12	11	5	-1	-7	-9	-10	-16	dB
$Q_{V,opt}$	400	2	8	4	2	-3	-8	-9	-12	-18	dB	14	9	4	-2	-7	-7	-11	-19	dB
$Q_{V,opt}$	250	2	9	5	2	-5	-6	-8	-13	-20	dB	13	8	3	-4	-4	-6	-13	-23	dB
DX	600	2	8	3	-3	-4	-7	-7	-10	-12	dB	13	8	2	-2	-5	-5	-9	-12	dB
DX	400	2	8	-2	-3	-4	-6	-7	-10	-13	dB	13	3	0	-2	-4	-6	-10	-14	dB
DX	250	1	2	-1	-2	-5	-5	-8	-10	-15	dB	7	3	1	-3	-3	-7	-11	-18	dB

AT 30/20

Dimensions in mm, subject to change.

AT TIC-30/20 131 kg



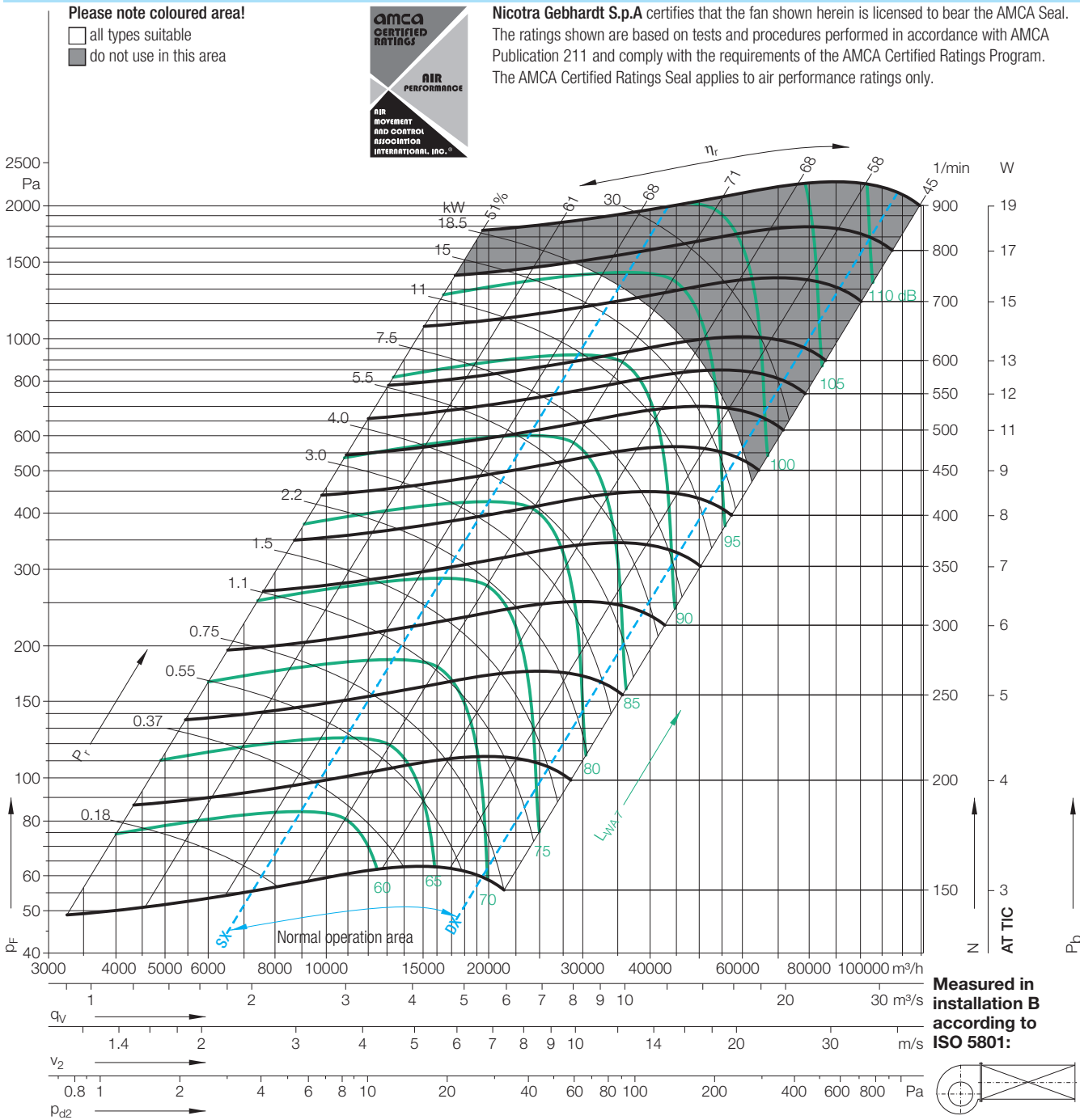
AT 30/28

Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data			Impeller Data		
Impeller diameter	D_r	762 mm	Impeller weight	m	40 kg
Number of blades	z	64	Density of media	ρ_1	1.2 kg/m ³
Moment of Inertia	J	5.07 kgm ²	Tolerance class (DIN 24166)		2

Performance Curves



$\Delta L_{Wrel4}(A)$

Duty point	Speed 1/min	dB
SX	600	3
SX	400	2
SX	250	2
qV _{opt}	600	3
qV _{opt}	400	2
qV _{opt}	250	2
DX	600	3
DX	400	2
DX	250	2

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
9	11	-2	-5	-7	-11	-13	-19	dB
14	5	-2	-3	-6	-9	-13	-19	dB
14	2	0	-2	-6	-9	-15	-21	dB
8	10	-2	-4	-7	-10	-12	-17	dB
12	4	-1	-3	-6	-9	-12	-18	dB
13	2	0	-3	-6	-9	-14	-20	dB
9	8	-2	-5	-7	-8	-11	-13	dB
11	2	-2	-4	-6	-8	-10	-14	dB
8	1	-2	-3	-5	-8	-10	-17	dB

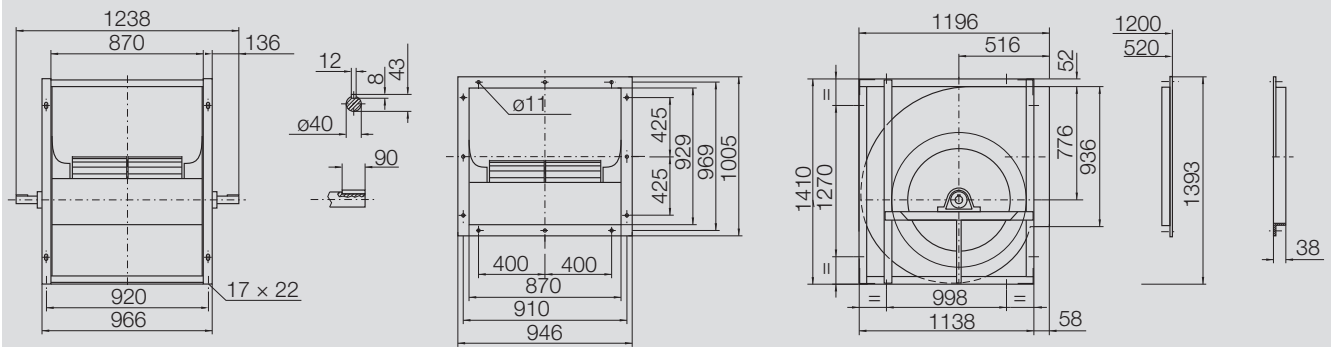
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
14	15	1	-4	-5	-9	-12	-18	dB
18	9	0	-1	-5	-8	-12	-20	dB
18	5	1	0	-5	-8	-15	-24	dB
12	14	1	-2	-5	-9	-11	-16	dB
16	8	1	-1	-5	-7	-11	-19	dB
17	5	2	-1	-5	-7	-14	-23	dB
13	12	2	-2	-5	-7	-9	-13	dB
15	5	2	-2	-4	-6	-10	-15	dB
12	4	1	-1	-4	-7	-11	-20	dB

AT 30/28

Dimensions in mm, subject to change.

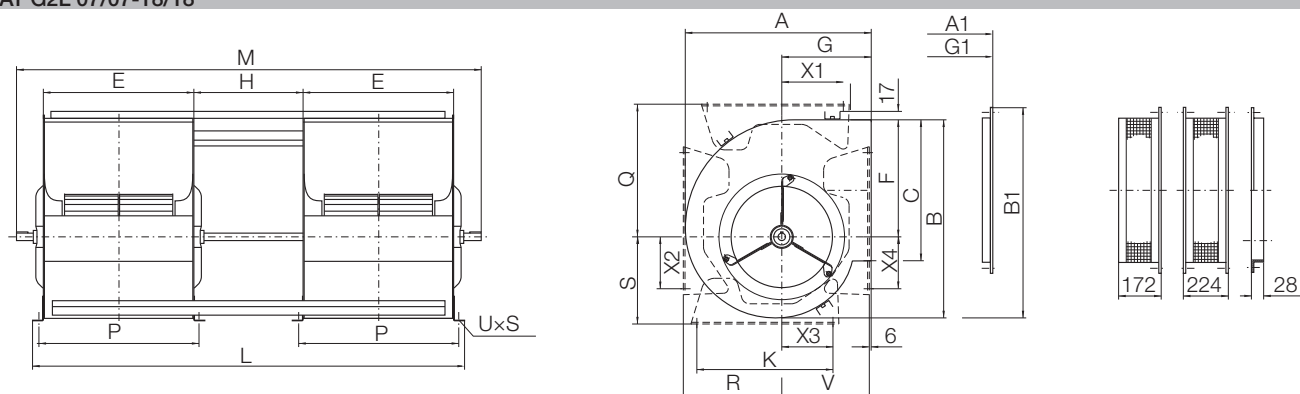
AT TIC-30/28 138 kg



AT G2E0

Dimensions in mm, subject to change.

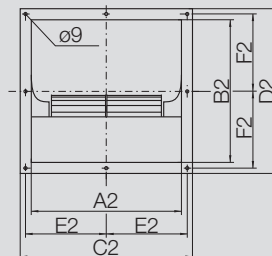
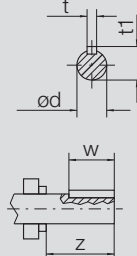
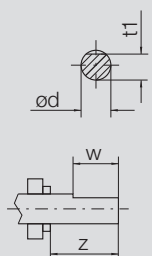
AT G2L 07/07-18/18



AT G2L 07/07-10/10

AT G2L 12/09-18/18

AT G2L 07/07-18/18



AT G2L 07/07-18/18

	A	B	C	E	F	G	H	L	M	P	Q	R
7/7	316	325	208	232	186	153	184	698	808	258	203	169
9/7	380	387	262	232	215	185	184	698	808	258	253	199
9/9	380	387	262	298	215	185	244	890	1000	324	253	199
10/8	425	443	289	265	249	203	214	794	904	291	287	227
10/10	425	443	289	331	249	203	264	976	1086	357	287	227
12/09	491	521	341	309	294	230	244	912	1082	335	332	266
12/12	491	521	341	395	294	230	324	1164	1334	425	332	266
15/11	569	609	404	373	342	264	294	1190	1260	399	380	309
15/15	569	609	404	471	342	264	384	1376	1546	497	380	309
18/13	684	739	478	430	415	314	343	1253	1423	456	457	376
18/18	684	739	478	557	415	314	458	1622	1792	583	457	376

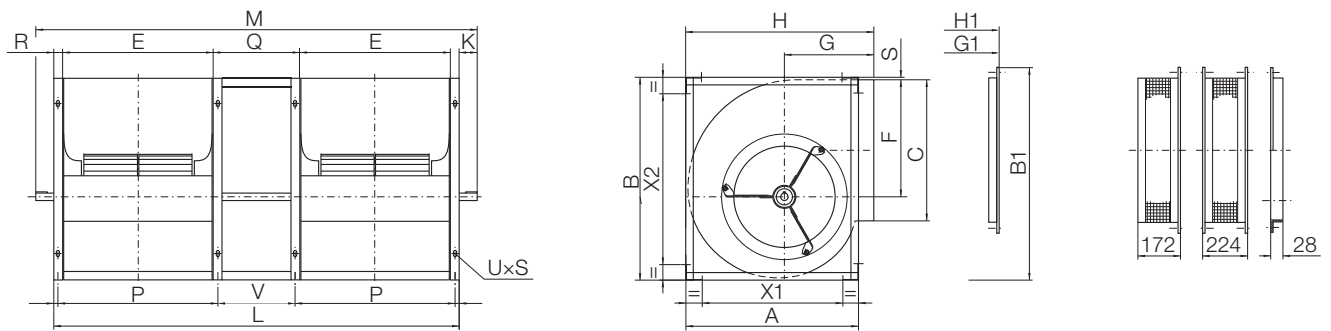
	S	V	K	X1	X2	X3	X4	UxS	t	t1	w	z	d
7/7	145	147	225	117	86	88	47	11×16	—	19	60	65	20
9/7	177	179	300	119	124	123	120	11×16	—	19	60	65	20
9/9	177	179	300	119	124	123	120	11×16	—	19	60	65	20
10/8	198	197	340	136	132	135	132	11×16	—	19	60	73	20
10/10	198	197	340	136	132	135	132	11×16	—	19	60	73	20
12/09	232	224	408	161	153	161	153	11×16	8	28	90	105	25
12/12	232	224	408	161	153	161	153	11×16	8	28	90	105	25
15/11	272	258	495	197	211	201	200	11×16	8	28	90	105	25
15/15	272	258	495	197	211	201	200	11×16	8	28	90	105	25
18/13	340	307	608	262	283	278	288	11×16	8	28	90	110	25
18/18	340	307	608	262	283	278	288	11×16	8	28	90	110	25

	A1	B1	G1	A2	B2	C2	D2	E2	F2
7/7	319	350	156	232	201	288	257	131.0	115.5
9/7	383	412	188	232	255	288	311	131.0	142.5
9/9	383	412	188	298	255	354	311	164.0	142.5
10/8	428	469	206	265	284	321	340	147.5	157.0
10/10	428	469	206	331	284	387	340	180.5	157.0
12/09	494	546	233	309	334	365	390	169.5	182.0
12/12	494	546	233	395	334	451	390	212.5	182.0
15/11	572	634	267	373	397	429	453	201.5	213.5
15/15	572	634	267	471	397	527	453	250.5	213.5
18/13	687	764	317	430	471	486	527	230.0	250.5
18/18	687	764	317	557	471	316	527	293.5	250.5

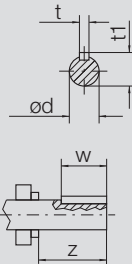
AT G2E2 / AT G2R

Dimensions in mm, subject to change.

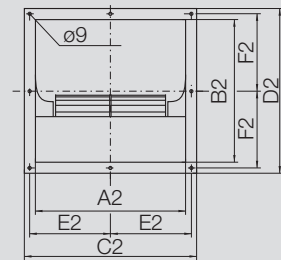
AT SC2 7/7-18/18



AT SC2 7/7-18/18



AT SC2 7/7-18/18



AT SC2 7/7-18/18

	A	B	C	E	F	G	H	L	M	P	Q	R
7/7	285	337	208	232	186	153	321	686	843	254	182	20
9/7	349	399	262	232	215	185	385	684	843	254	180	20
9/9	349	399	262	298	215	185	385	872	1033	320	236	20
10/8	395	455	289	265	249	203	431	773	950	287	203	20
10/10	395	455	289	331	249	203	431	957	1134	353	255	20
12/9	461	533	341	309	294	230	497	913	1066	339	239	28
12/12	461	533	341	395	294	230	497	1165	1316	425	319	28
15/11	539	621	404	373	342	264	575	1094	1243	403	292	28
15/15	539	621	404	471	342	264	575	1384	1537	501	386	28
18/13	654	751	477	430	415	314	690	1262	1425	470	326	38
18/18	654	751	477	557	415	314	690	1647	1805	597	457	38

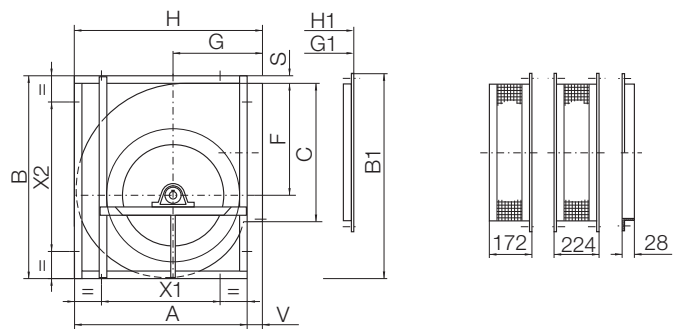
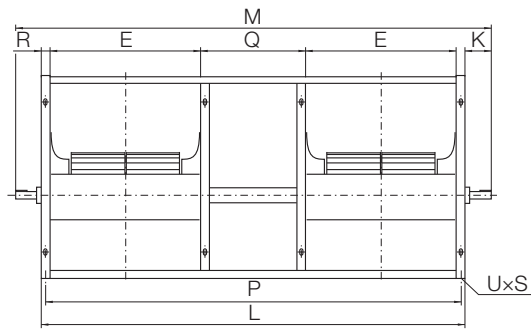
	S	V	K	X1	X2	UxS	t	t1	w	z	d
7/7	6	160	78.5	210	262	9x12	6	23	60	75.5	20
9/7	6	158	79.5	274	324	9x12	6	23	60	76.5	20
9/9	6	214	80.5	274	324	9x12	6	23	60	77.5	20
10/8	6	181	88.5	330	390	9x12	6	23	60	85.5	20
10/10	6	233	88.5	330	390	9x12	6	23	60	85.5	20
12/9	6	209	76.5	371	443	11x16	8	28	65	79.5	25
12/12	6	289	75.5	371	443	11x16	8	28	65	78.5	25
15/11	6	262	74.5	449	531	11x16	8	28	65	77.5	25
15/15	6	356	76.5	449	531	11x16	8	28	65	79.5	25
18/13	6	286	81.5	544	641	11x16	8	28	65	84.5	25
18/18	6	417	79.0	544	641	11x16	8	28	65	82.0	25

	B1	G1	H1	A2	B2	C2	D2	E2	F2
7/7	350	156	324	232	201	288	257	131.0	115.5
9/7	418	188	388	232	255	288	311	131.0	142.5
9/9	418	188	388	298	255	354	311	164.0	142.5
10/8	475	206	434	265	284	321	340	147.5	157.0
10/10	475	206	434	331	284	387	340	180.5	157.0
12/9	552	233	500	309	334	365	390	169.5	182.0
12/12	552	233	500	395	334	451	390	212.5	182.0
15/11	640	267	578	373	397	429	453	201.5	213.5
15/15	640	267	578	471	397	527	453	250.5	213.5
18/13	770	317	693	430	471	486	527	230.0	250.5
18/18	770	317	693	557	471	613	527	293.5	250.5

AT G2E4 / AT G2K

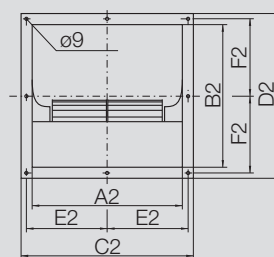
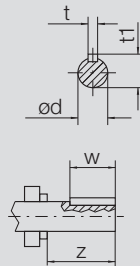
Dimensions in mm, subject to change.

AT G2C 09/07-18/18



AT G2C 09/07-18/18

AT G2C 09/07-18/18



AT G2C-C2 09/07-18/18

	A	B	C	E	F	G	H	L	M	P	Q	R
9/07	347	423	262	232	215	185	385	704	864	678	184	28
9/9	347	423	262	298	215	185	385	896	1056	870	244	28
10/8	393	479	289	265	249	203	431	800	960	774	214	28
10/10	393	479	289	331	249	203	431	982	1142	956	264	28
12/09	457	580	341	309	294	230	497	938	1158	902	244	38
12/12	457	580	341	395	294	230	497	1190	1410	1154	324	38
15/11	533	667	404	373	342	264	575	1116	1336	1080	294	38
15/15	533	667	404	471	342	264	575	1402	1622	1366	384	38
18/13	646	797	478	430	415	314	690	1299	1519	1253	343	48
18/18	646	797	478	557	415	314	690	1668	1888	1622	458	48

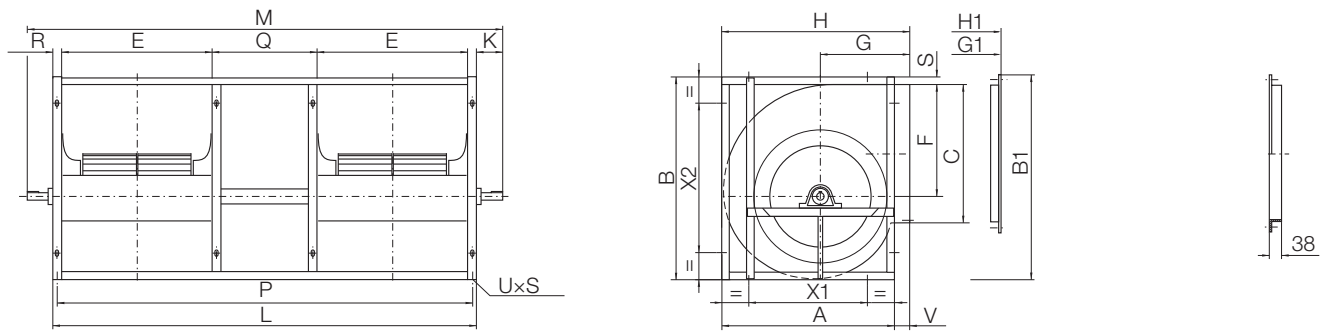
	S	V	K	X1	X2	t	t1	w	z	d	u x s
9/7	31	38	80	257	333	8	33	55	60	30	13x18
9/9	31	38	80	257	333	8	33	55	60	30	13x18
10/8	31	38	80	289	375	8	33	55	60	30	13x18
10/10	31	38	80	289	375	8	33	55	60	30	13x18
12/09	52	40	110	327	450	10	38	90	91	35	13x18
12/12	52	40	110	327	450	10	38	90	91	35	13x18
15/11	52	42	110	403	537	10	38	90	91	35	13x18
15/15	52	42	110	403	537	10	38	90	91	35	13x18
18/13	52	44	110	506	657	12	43	90	97	40	17x22
18/18	52	44	110	506	657	12	43	90	97	40	17x22

	B1	G1	H1	A2	B2	C2	D2	E2	F2
9/7	418	188	388	232	255	288	311	131.0	142.5
9/9	418	188	388	298	255	354	311	164.0	142.5
10/8	475	206	434	265	284	321	340	147.5	157.0
10/10	475	206	434	331	284	387	340	180.5	157.0
12/09	553	233	500	309	334	365	390	169.5	182.0
12/12	553	233	500	395	334	451	390	212.5	182.0
15/11	640	267	578	373	397	429	453	201.5	213.5
15/15	640	267	578	471	397	527	453	250.5	213.5
18/13	770	317	693	430	471	486	527	230.0	250.5
18/18	770	317	693	557	471	613	527	293.5	250.5

AT G2E7 / AT G2K2

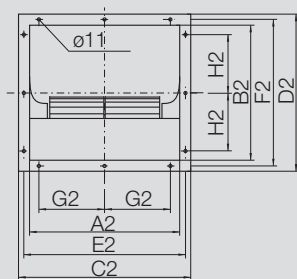
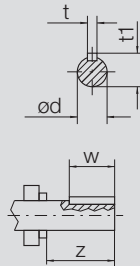
Dimensions in mm, subject to change.

AT G2C 20/15-30/28



AT G2C 20/15-30/28

AT G2C 20/15-30/28



AT G2C 20/15-30/28

	A	B	C	E	F	G	H	L	M	P	Q	R
20/15	772	967	629	502	520	369	830	1470	1730	1424	370	48
20/20	772	967	629	630	520	369	830	1866	2126	1820	510	48
22/15	847	1058	695	514	573	398	905	1470	1730	1424	346	48
22/22	847	1058	695	692	573	398	905	2050	2310	2004	570	48
25/20	952	1192	797	664	652	438	1010	1934	2194	1888	510	48
25/25	952	1192	797	794	652	438	1010	2240	2500	2194	556	48
28/20	1060	1311	870	676	718	485	1118	1958	2220	1912	510	48
28/28	1060	1311	870	870	718	485	1118	2550	2810	2504	714	48
30/20	1138	1410	936	676	776	516	1196	1958	2220	1912	510	48
30/28	1138	1410	936	870	776	516	1196	2550	2810	2504	714	48

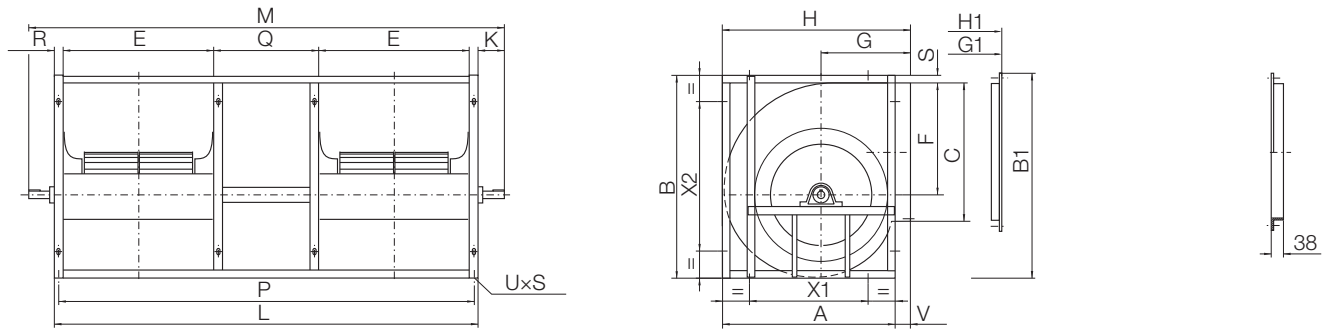
	S	V	K	X1	X2	UxS	t	t1	w	z	d
20/15	52	58	130	632	827	17x22	12	43	90	117	40
20/20	52	58	130	632	827	17x22	12	43	90	117	40
22/15	52	58	130	707	918	17x22	12	43	90	117	40
22/22	52	58	130	707	918	17x22	12	43	90	117	40
25/20	52	58	130	812	1052	17x22	12	43	90	117	40
25/25	52	58	130	812	1052	17x22	12	43	90	117	40
28/20	52	58	131	920	1171	17x22	12	43	90	118	40
28/28	52	58	130	920	1171	17x22	12	43	90	117	40
30/20	52	58	131	998	1270	17x22	12	43	90	118	40
30/28	52	58	130	998	1270	17x22	12	43	90	117	40

	B1	G1	H1	A2	B2	C2	D2	E2	F2	G2	H2
20/15	950	372	833	502	622	578	698	542	662	200	275
20/20	950	372	833	630	622	706	698	670	662	275	275
22/15	1041	401	908	514	688	590	764	554	728	225	300
22/22	1041	401	908	692	688	768	764	732	728	300	300
25/20	1175	441	1013	664	790	740	866	704	830	300	350
25/25	1175	441	1013	794	790	870	866	834	830	350	350
28/20	1293	488	1121	676	863	752	939	716	903	300	400
28/28	1293	488	1121	870	863	946	939	910	903	400	400
30/20	1393	520	1200	676	929	752	1005	716	969	300	425
30/28	1393	520	1200	870	929	946	1005	910	969	400	425

AT G2E4 / AT G2K

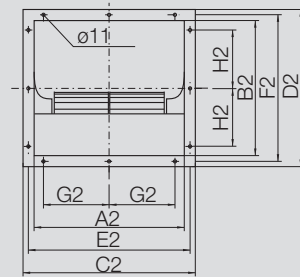
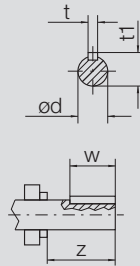
Dimensions in mm, subject to change.

AT G2C-C2 20/15-30/28



AT G2C-C2 20/15-30/28

AT G2C-C2 20/15-30/28



AT G2C-C2 20/15-30/28

	A	B	C	E	F	G	H	L	M	P	Q	R
20/15	772	967	629	502	520	369	830	1470	1816	1424	370	48
20/20	772	967	629	630	520	369	830	1866	2212	1820	510	48
22/15	847	1058	695	514	573	398	905	1470	1816	1424	346	48
22/22	847	1058	695	692	573	398	905	2050	2396	2004	570	48
25/20	952	1192	797	664	652	438	1010	1934	2280	1888	510	48
25/25	952	1192	797	794	652	438	1010	2240	2586	2194	556	48
28/20	1060	1311	870	676	718	485	1118	1958	2304	1912	510	48
28/28	1060	1311	870	870	718	485	1118	2550	2896	2504	714	48
30/20	1138	1410	936	676	776	516	1196	1958	2304	1912	510	48
30/28	1138	1410	936	870	776	516	1196	2550	2896	2504	714	48

	S	V	K	X1	X2	UxS	t	t1	w	z	d
20/15	52	58	173	632	827	17×22	14	48	90	130	45
20/20	52	58	173	632	827	17×22	14	48	90	130	45
22/15	52	58	173	707	918	17×22	14	48	90	130	45
22/22	52	58	173	707	918	17×22	14	48	90	130	45
25/20	52	58	173	812	1052	17×22	14	48	90	130	45
25/25	52	58	173	812	1052	17×22	14	48	90	130	45
28/20	52	58	173	920	1171	17×22	14	48	90	130	45
28/28	52	58	173	920	1171	17×22	14	48	90	130	45
30/20	52	58	173	998	1270	17×22	14	48	90	130	45
30/28	52	58	173	998	1270	17×22	14	48	90	130	45

	B1	G1	H1	A2	B2	C2	D2	E2	F2	G2	H2
20/15	950	372	833	502	622	578	698	542	662	200	275
20/20	950	372	833	630	622	706	698	670	662	275	275
22/15	1041	401	908	514	688	590	764	554	728	225	300
22/22	1041	401	908	692	688	768	764	732	728	300	300
25/20	1175	441	1013	664	790	740	866	704	830	300	350
25/25	1175	441	1013	794	790	870	866	834	830	350	350
28/20	1293	488	1121	676	863	752	939	716	903	300	400
28/28	1293	488	1121	870	863	946	939	910	903	400	400
30/20	1393	520	1200	676	929	752	1005	716	969	300	425
30/28	1393	520	1200	870	929	946	1005	910	969	400	425

Notes

Notes

Specifications



High performance centrifugal fan AT S

Double width double inlet (DWDI) belt driven fan, with forward curved blades.

Lap-jointed scroll of galvanized steel EN 10142 assembled with roller-lock seaming.

Straight cut off plate at fan outlet.

Impeller with forward curved blades of galvanized steel EN 10142, statically and dynamically balanced to grade G4, according to UNI ISO 1940.

Light construction, without side frames.

Single row, deep groove, self-aligning ball bearings, lubricated and sealed for life, with eccentric collar locking. Bearings are mounted inside conductive rubber vibration absorbers on bearing supporting spiders.

The mounting feet, which allow the fan to be installed in the 4 positions 0, 90, 180 and 270, as well as the outlet flange, are available on request.

For sizes from 7/7 to 10/10, in addition to the standard construction version with flats on shaft ends ("type 1"), it is also available a version with keyways ("type 2").

Shaft ends of larger sizes are only of "Type 2".

Fan data

Fan type	
Volume flow	q_v	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Mounting feet
 - Motor brackets (Pick-A-Back)
 - Discharge flange
 - Discharge flex with flexible sleeve
 - Inlet guards
 - Discharge guard
 - Shaft guard for free shaft end
 - Matching flange
- Options may be available only for orders of a minimum quantity, to be previously agreed
- Inspection door
 - Drain plug
 - Single or double thickness powder coating
 - Shaft made of stainless steel
 - Nuts and bolts and fastening elements made of stainless steel
 - Aluminium inlet cone
 - Copper inlet cone

AT SC 7/7-18/18

AT C 7/7-18/18

Specifications



High performance centrifugal fan AT SC and AT C

Double width double inlet (DWDI) belt driven fan, with forward curved blades. Lap-jointed scroll of galvanized steel EN 10142 assembled through roller-lock seaming.

Straight cut off plate at fan outlet.

Impeller with forward curved blades of galvanized steel EN 10142, statically and dynamically balanced to grade G4, according to UNI ISO 1940.

Construction with two side frames, made of cold-formed galvanized steel angular sections welded to the side plates, for a better strength and stiffness of the fan structure.

Single row, deep groove, self-aligning ball bearings, lubricated and sealed for life, with eccentric collar locking. Bearings are mounted inside conductive rubber vibration absorbers on bearing supporting spiders.

It can be easily installed in four different positions.

Discharge flange on request.

Where an even better mechanical strength is required, e.g. when the fan itself is used as a stiffening element of the base frame, a further reinforced version is available. It is identified by the letter C.

This version is available in the same sizes as the SC version, with the same dimensions and the same performance limits. With the addition of three steel bars, welded between three corners of the side frames, the frames of these fans are joined to form a closed, box-like supporting structure.

For sizes from 7/7 to 10/10, in addition to the standard construction version with flats on shaft ends ("type 1"), it is also available a version with keyways ("type 2").

Shaft ends of larger sizes are only of "Type 2".

Fan data

Fan type	.....
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Mounting feet
- Motor brackets (Pick-A-Back)
- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guards
- Discharge guard
- Shaft guard for free shaft end
- Matching flange

Options may be available only for orders of a minimum quantity, to be previously agreed

- Inspection door
- Drain plug
- Single or double thickness powder coating
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone

Specifications



High performance centrifugal fan AT AR

Double width double inlet (DWDI) belt driven fan, with forward curved blades.

Lap-jointed scroll of galvanized steel EN 10142 assembled with roller-lock seaming.

Straight cut off plate at fan outlet.

Impeller with forward curved blades of galvanized steel EN 10142, statically and dynamically balanced to grade G4, according to UNI ISO 1940.

For applications requiring even higher installed power, or where there is a requirement for re-lubricatable bearings, the AR version is the correct solution.

The reinforced side-frames are made of galvanized steel sections, welded to the sides of the scroll and joined together in three corners.

Single row, deep groove, self-aligning ball bearings, re-lubricatable and reinforced, with eccentric collar locking. Bearings are mounted inside a single-piece cast iron pillow block.

It can be easily installed in four different positions.

Discharge flange on request.

Fan data

Fan type	
Volume flow	q_v	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Mounting feet
 - Motor brackets (Pick-A-Back)
 - Discharge flange
 - Discharge flex with flexible sleeve
 - Inlet guards
 - Discharge guard
 - Shaft guard for free shaft end
 - Matching flange
- Options may be available only for orders of a minimum quantity, to be previously agreed
- Inspection door
 - Drain plug
 - Single or double thickness powder coating
 - Shaft made of stainless steel
 - Nuts and bolts and fastening elements made of stainless steel
 - Aluminium inlet cone
 - Copper inlet cone

AT TIC 20/15-30/28

Specifications



High performance centrifugal fan AT TIC

Double width double inlet (DWDI) belt driven fan, with forward curved blades. Lap-jointed scroll of galvanized steel EN 10142 assembled with Pittsburgh lock seam. Straight cut off plate at fan outlet.

Impeller with forward curved blades of galvanized steel EN 10142, statically and dynamically balanced with grade G4, according to UNI ISO 1940.

Mechanically designed in a way very similar to the previous version, apart for the larger sized impeller and a fourth traverse, so the frames on the sides are joined together in all the four corners.

Single row, deep groove, self-aligning ball bearings, re-lubricatable and reinforced, with eccentric collar locking. Bearings are mounted inside a single-piece cast iron pillow block.

It can be easily installed in four different positions.

Discharge flange on request.

Fan data

Fan type	.....
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

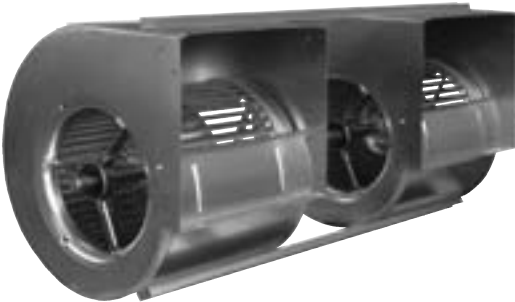
- Mounting feet
- Motor brackets (Pick-A-Back)
- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guards
- Discharge guard
- Shaft guard for free shaft end

Options may be available only for orders of a minimum quantity, to be previously agreed

- Matching flange
- Inspection door
- Drain plug
- Single or double thickness powder coating
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone

AT G2L 7/7-18/18

Specifications



High performance centrifugal twin fan AT G2L
(size from 7/7 to 18/18)
Lap-jointed scroll of galvanized steel EN 10142 assembled with roller-lock seaming. This twin version is made with two S version single fans, connected through three U-section spars and is fitted with two double-inlet impellers mounted on a common shaft, supported by three bearings.

Fan data

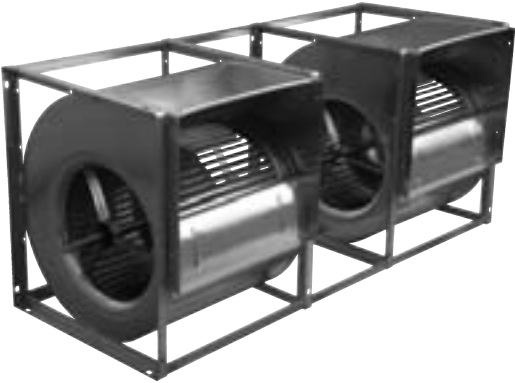
Fan type	.....
Volume flow	q_v	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Mounting feet
 - Motor brackets (Pick-A-Back)
 - Discharge flange
 - Discharge flex with flexible sleeve
 - Inlet guards
 - Discharge guard
 - Shaft guard for free shaft end
 - Matching flange
- Options may be available only for orders of a minimum quantity, to be previously agreed
- Inspection door
 - Drain plug
 - Single or double thickness powder coating
 - Shaft made of stainless steel
 - Nuts and bolts and fastening elements made of stainless steel
 - Aluminium inlet cone
 - Copper inlet cone

AT SC2 7/7-18/18

Specifications



High performance centrifugal twin fan AT-SC2

(size from 7/7 to 18/18)
Lap-jointed scroll of galvanized steel EN 10142 assembled with roller-lock seaming.
Twin version, made of two SC version fans, joined by three L-section spars, welded in the corners of the side frames.
Two double-inlet impellers are mounted on a single shaft, supported by three bearings on rubber shock absorbers and inlet-mounted supporting spiders.
The SC2 fans have the same characteristics of the G2L versions but with the additional stiffness provided by the welded frame.

Fan data

Fan type	
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

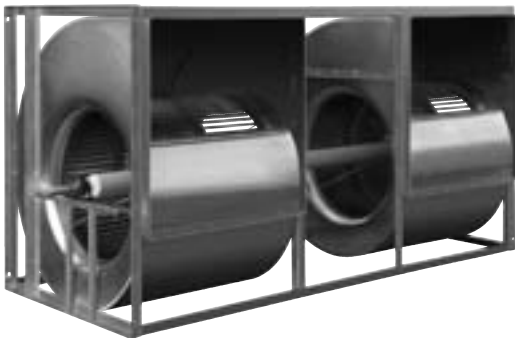
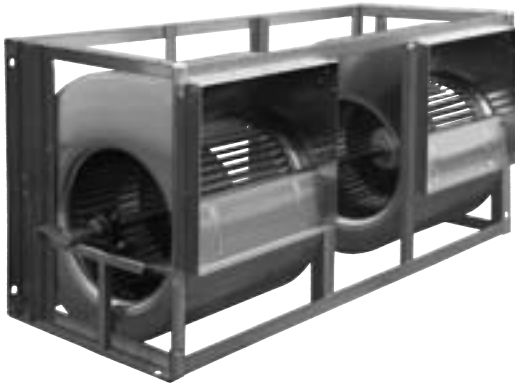
Fittings / Accessories

- Mounting feet
 - Motor brackets (Pick-A-Back)
 - Discharge flange
 - Discharge flex with flexible sleeve
 - Inlet guards
 - Discharge guard
 - Shaft guard for free shaft end
 - Matching flange
- Options may be available only for orders of a minimum quantity, to be previously agreed
- Inspection door
 - Drain plug
 - Single or double thickness powder coating
 - Shaft made of stainless steel
 - Nuts and bolts and fastening elements made of stainless steel
 - Aluminium inlet cone
 - Copper inlet cone

AT G2C 9/7-30/28

AT G2C-C2 20/15-30/28

Specifications



High performance centrifugal twin fan AT-G2C

(size from 9/7 to 30/28)
Lap-jointed scroll of galvanized steel EN 10142 assembled with roller-lock seaming (size up to 18/18) or with Pittsburgh lock seam (for sizes larger than 18/18). Inside a common supporting frame, made of galvanized steel sections, two double-inlet fans are mounted side-by-side.
They are joined by a single shaft, supported at the ends by two pillow-block bearings, bolted on the side frames.
This particular design doesn't need a third bearing between the impellers, and weight is kept low thanks to the use of large section, hollow shafts on the larger sizes.

High performance centrifugal twin fan AT-G2C-C2

(size from 20/15 to 30/28)
Lap-jointed scroll of galvanized steel EN 10142 assembled with Pittsburgh lock seam. The G2C-C2 fan is a reinforced twin unit, suitable to achieve higher speed and power levels than the G2C.
Mechanical design is similar to that of the G2C fans, but hollow shafts with larger diameter (45 mm) journals and heavy duty split-block bearings make them stronger. The G2C-C2 fans retain the other characteristics of the G2C fans.

Fan data

Fan type	
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Mounting feet
- Motor brackets (Pick-A-Back)
- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guards
- Discharge guard
- Shaft guard for free shaft end
- Matching flange

Options may be available only for orders of a minimum quantity, to be previously agreed

- Inspection door
- Drain plug
- Single or double thickness powder coating
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone

AT SC2 7/7-18/18

Specifications

High performance centrifugal tripple fan AT G3C

(size from 12/9 to 30/28)

Lap-jointed scroll of galvanized steel EN 10142 assembled with roller-lock seaming (size up to 18/18) or with Pittsburgh lock seam (for sizes larger than 18/18)

The G3C is a triple fan: three identical double-inlet units are mounted inside a common frame of steel sections.

The single, common shaft is supported by just two pillow-block bearings, bolted on the end frames.

This special version is particularly suited when a large airflow must be distributed on a wide surface, or when a fan of particularly limited height can be useful.

Other advantages of this design are the use of a single motor, operation without bearings installed between the impellers, and low weight thanks to the use of hollow shafts.

Using a common shaft, without intermediate bearings and couplings, provides also a reliable and smooth operation, with limited operating noise.

High performance centrifugal tripple fan AT G3C-C2

(size from 20/15 to 30/28)

Lap-jointed scroll of galvanized steel EN 10142 assembled with Pittsburgh lock seam.

Of similar construction to the G3C version, but employs larger diameter hollow shafts, with larger diameter journals and heavy-duty bearings on split-type pillow blocks.

These improvements allow operation at higher speed and power levels.

The G3C-C2 fans keep unchanged all the other characteristics of the G3C fans.

Fan data

Fan type	.....
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Mounting feet
- Motor brackets (Pick-A-Back)
- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guards
- Discharge guard
- Shaft guard for free shaft end
- Matching flange

Options may be available only for orders of a minimum quantity, to be previously agreed

- Inspection door
- Drain plug
- Single or double thickness powder coating
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone



Working towards perfection: The RDH E and RDH series

Like the ADH E range, with the serie RDH E we have taken the next logical step in further developing our successful RDH range of models.

The aim of our development work is to ensure that the dimensions of all casing for the RDH E and RDH range are compatible with the relevant sister models from the forward-curved series (ADH E and ADH). In future, we will also ensure compatibility with the hollow aerofoil impeller types from the RZR series.

As part of the development work being undertaken across all product ranges, the quality of the RDH E series has also been improved. For example, it now has standing seam casing which is manufactured during a fully automatic process, and the impeller shaft is galvanised.

New choice of models

Whether you are looking for single or twin fans, the new RDH E series offers impressive further improvements in terms of functionality and potential uses, whatever the application.

The ultimate in compatibility

The RDH E and RDH also entail minimised design effort for you, which means that:

- All accessories and equipment are carefully coordinated (and identical with the ADH E/ADH).
- The connection dimensions for RDH E (sizes 0180 to 0560) are identical with the corresponding models from the old range RDH and the ranges ADH/ADH E.
- The models for sizes RDH 0630 to 1000 remain unchanged.
- All RDH E models up to size 0500 are compatible with the new compact base frame – a unique feature which makes completing your system ultra simple and affordable!

Top quality for performance and a long service life!

Alongside an intelligent construction, aspects such as the quality of materials and workmanship play a crucial role in ensuring a long life cycle. That's why – like the ADH E – we have made the casing of the new RDH E even sturdier by means of a standing seam construction. Apart from that, the tried and tested quality of our successful, long-standing RDH series remains the same. And that means robust impeller constructions, non-corrosive impeller shafts and quality bearings – for a long life with minimum noise.

The product range at a glance:

The technical specifications of the RDH E and RDH series.

The standard series are designed for permanent ventilation at up to +80 °C resp. +100 °C. According to DIN 24166, the specifications conform to accuracy class 1 (for all sizes from 0355 to 1000) and accuracy class 2 (for all sizes from 0180 to 315).

RDH E and RDH G2E series

- Sizes 0180 to 0560
- Scroll of galvanised sheet steel with standing seam and V-cut off
- Centrifugal impeller with 11 backward inclined blades made of sheet steel (0250-0560), welded and coated
- with galvanised shaft
- Volume up to 90.000 m³/h
- Pressure up to 3.500 Pa






RDH and RDH G2-0630/-1000 series



- Sizes 0630 up to 1000
- Lap jointed scroll of galvanised sheet steel assembled by Pittsburgh lockforming, with V-cut off.
- High performance radial impeller with 11 backward inclined blades made of sheet steel, welded and painted, balanced acc. to ISO 1940.
- Volume up to 290.000 m³/h
- Pressure up to 3.500 Pa

The RDH E and RDH range of models:

The right fan for every specification!

Depending on the fan size, the RDH E and RDH series have up to 5 mechanical versions of the single fan and up to 2 additional twin fan options. In this way, we ensure that we have the perfect model for all requirements and any application.

Version	Description	Figure
RDH E0	Lap jointed scroll without feet and discharge flange. Light duty bearing execution with pressed steel housing/strut assemblies.	
RDH E2 / RDH R	Lap jointed scroll with rectangular side frame, without discharge flange. Light duty bearing execution with pressed steel housing/strut assemblies.	
RDH E4 / RDH K	Lap jointed scroll with heavy duty reinforced side frames, without discharge flange. Medium duty bearing execution with cast iron pillow block, mounted on a robust pedestal.	
RDH E6 / RDH K1	Lap jointed scroll with heavy duty reinforced side frames, without discharge flange. Medium-heavy duty bearing execution with cast iron pillow block, mounted on a robust pedestal.	
RDH E7 / RDH K2	Lap jointed scroll with heavy duty reinforced side frames, without discharge flange. Heavy duty bearing execution with single-piece resp. split-type plummer block, mounted on a robust pedestal.	

Version	Description	Figure
RDH G2E4 / RDH G2K	The two single fans RDH E4 or RDH K are fitted together to a robust assembly by means of 3 angle bars. Both impellers are fitted on a common shaft supported by 3 bearings (sizes 0250/-0630) or the fans have separated shafts being connected by a elastic coupling (sizes 0710/-1000).	
RDH G2E7 / RDH G2K2	The two single fans RDH E7 or RDH K2 are fitted together to a robust assembly by means of 3 angle bars. Both impellers are fitted on a common shaft supported by 3 bearings (sizes 0250/-0630) or the fans have separated shafts being connected by a elastic coupling (sizes 0710/-1000).	

RDH E_-0180

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

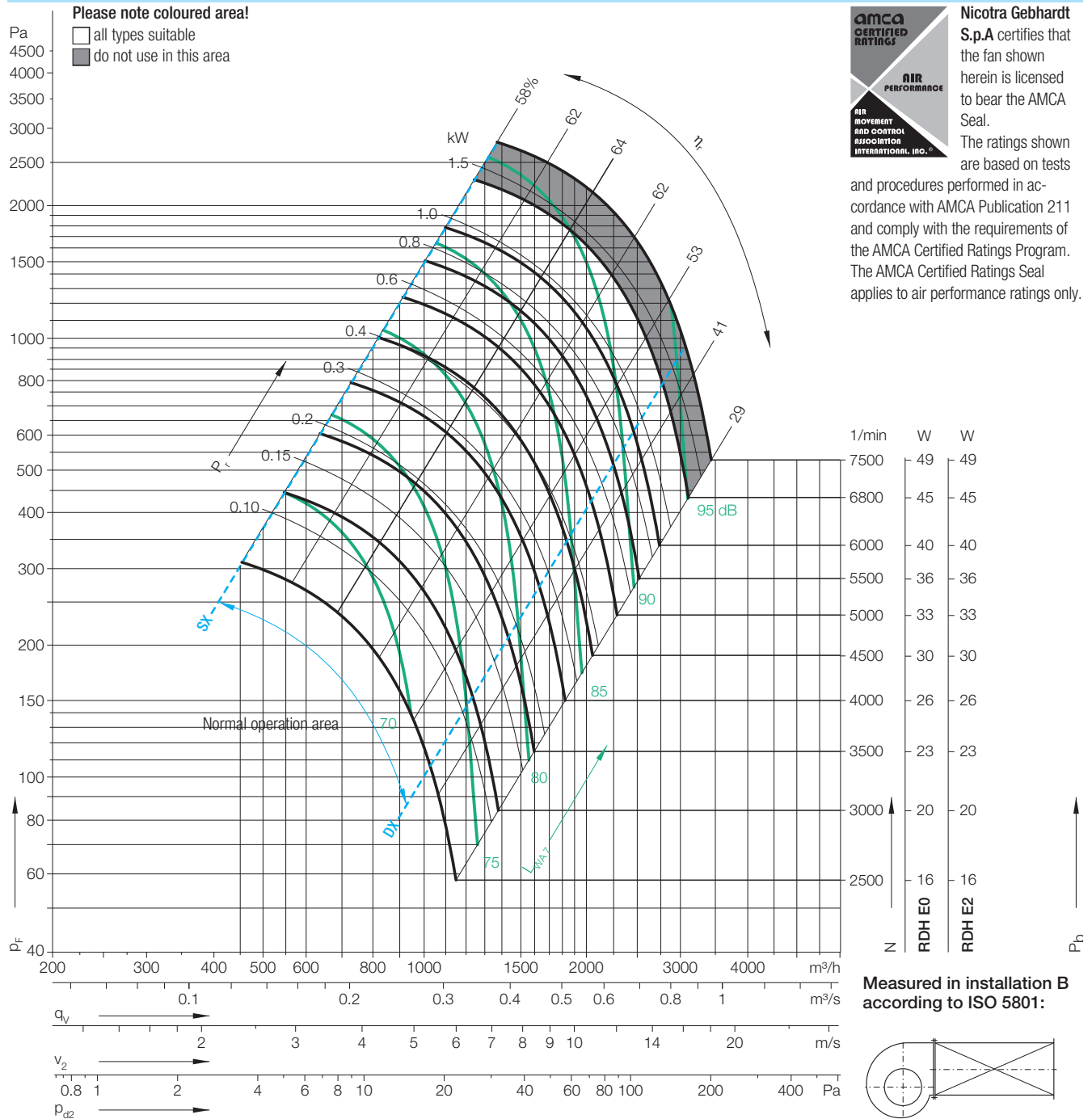
Impeller Data

Impeller diameter	D_r	180	mm
Number of blades	z	8	
Moment of Inertia	J	0,003	kgm ²

Impeller Data

Impeller weight	m	0,62	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves



Nicotra Gebhardt S.p.A. certifies that the fan shown herein is licensed to bear the AMCA Seal.

The ratings shown are based on tests

and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance ratings only.

Duty point	Speed 1/min	$\Delta L_{Wrel4}(A)$ dB
SX	6000	4
SX	4500	3
SX	3000	2
$Q_{V,opt}$	6000	3
$Q_{V,opt}$	4500	2
$Q_{V,opt}$	3000	1
DX	6000	2
DX	4500	1
DX	3000	1

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
-14	-6	-2	-5	-5	-6	-11	-17	dB
-9	-2	-3	-3	-5	-8	-12	-18	dB
-3	0	-3	-3	-4	-9	-15	-21	dB
-17	-8	-3	-5	-6	-5	-12	-17	dB
-11	-4	-3	-4	-4	-8	-13	-18	dB
-5	-0	-3	-4	-3	-10	-15	-22	dB
-21	-11	-6	-4	-6	-5	-11	-16	dB
-15	-7	-5	-4	-4	-8	-12	-17	dB
-9	-4	-2	-4	-3	-9	-14	-21	dB

Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
15	8	3	3	-5	-6	-10	-17	dB
16	5	5	2	-6	-6	-12	-19	dB
10	6	5	-3	-4	-8	-15	-22	dB
8	6	5	1	-7	-6	-12	-21	dB
10	6	5	0	-6	-7	-16	-22	dB
8	7	3	-5	-4	-10	-19	-25	dB
5	3	-2	1	-7	-6	-9	-19	dB
7	1	0	-1	-6	-6	-12	-21	dB
5	0	3	-5	-4	-7	-17	-26	dB

RDH E_-0200

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

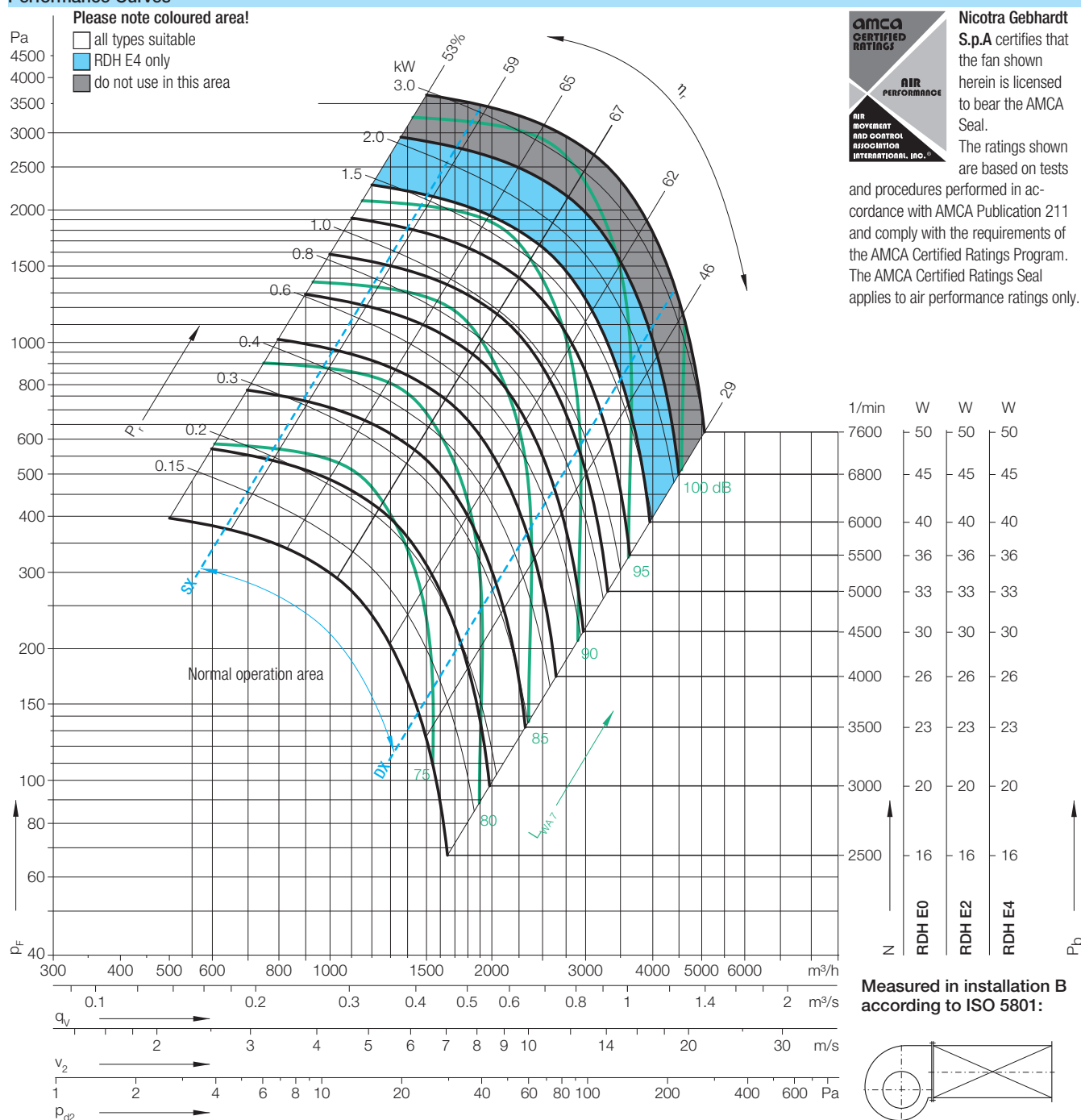
Impeller Data

Impeller diameter	D_r	200	mm
Number of blades	z	8	
Moment of Inertia	J	0,006	kgm ²

Impeller Data

Impeller weight	m	0,84	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves



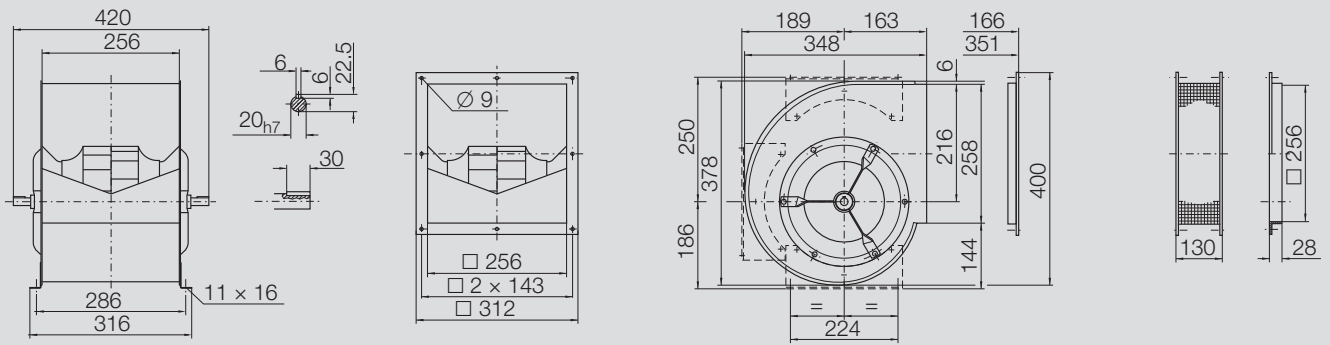
$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	
SX	5500	5	-5	-5	-5	-3	-5	-8	-11	-17	dB	
SX	4500	4	-5	-5	-5	-3	-5	-8	-11	-17	dB	
SX	3000	3	-5	-5	-5	-3	-5	-8	-11	-17	dB	
$Q_{V,opt}$	5500	4	-4	-2	-1	-4	-6	-7	-9	-13	dB	
$Q_{V,opt}$	4500	3	-3	-1	-2	-3	-6	-9	-9	-14	dB	
$Q_{V,opt}$	3000	1	-0	1	-2	-4	-5	-8	-10	-18	dB	
DX	5500	2	-7	-4	-3	-5	-6	-6	-10	-13	dB	
DX	4500	2	-6	-3	-4	-4	-5	-8	-11	-11	dB	
DX	3000	0	-3	-2	-4	-4	-4	-8	-12	-12	dB	

Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c									
63	125	250	500	1000	2000	4000	8000	Hz	
25	10	5	4	-6	-7	-11	-17	dB	
22	7	7	2	-7	-7	-12	-18	dB	
14	7	7	-2	-5	-8	-14	-18	dB	
19	11	7	1	-8	-7	-11	-17	dB	
16	10	6	-1	-8	-8	-13	-18	dB	
14	9	3	-5	-6	-9	-15	-21	dB	
19	7	0	-1	-8	-5	-8	-17	dB	
18	3	1	-1	-7	-6	-11	-16	dB	
10	2	1	-6	-5	-6	-15	-17	dB	

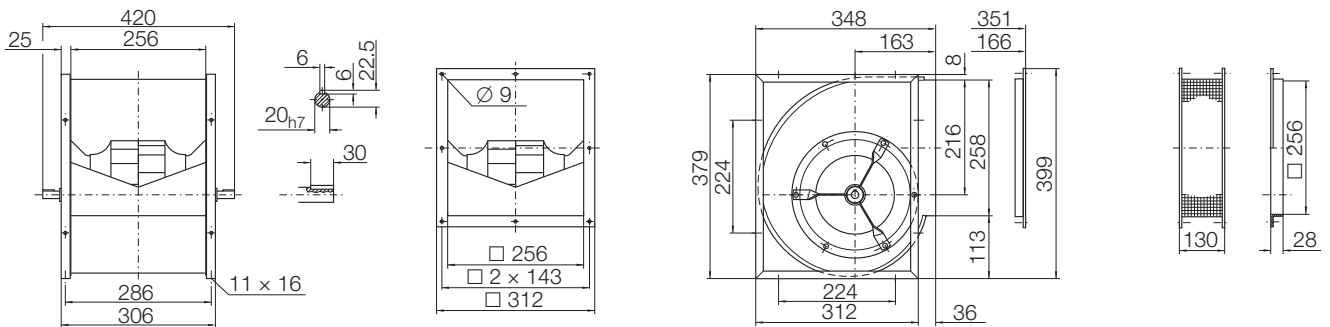
RDH E_-0200

Dimensions in mm, subject to change.

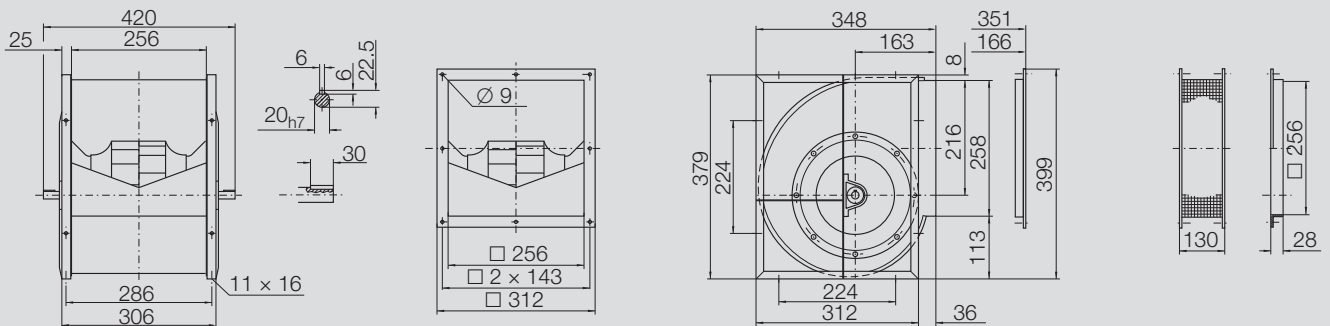
RDH E0-0200 6.6 kg



RDH E2-0200 8.5 kg



RDH E4-0200 11.8 kg



RDH E_-0225

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

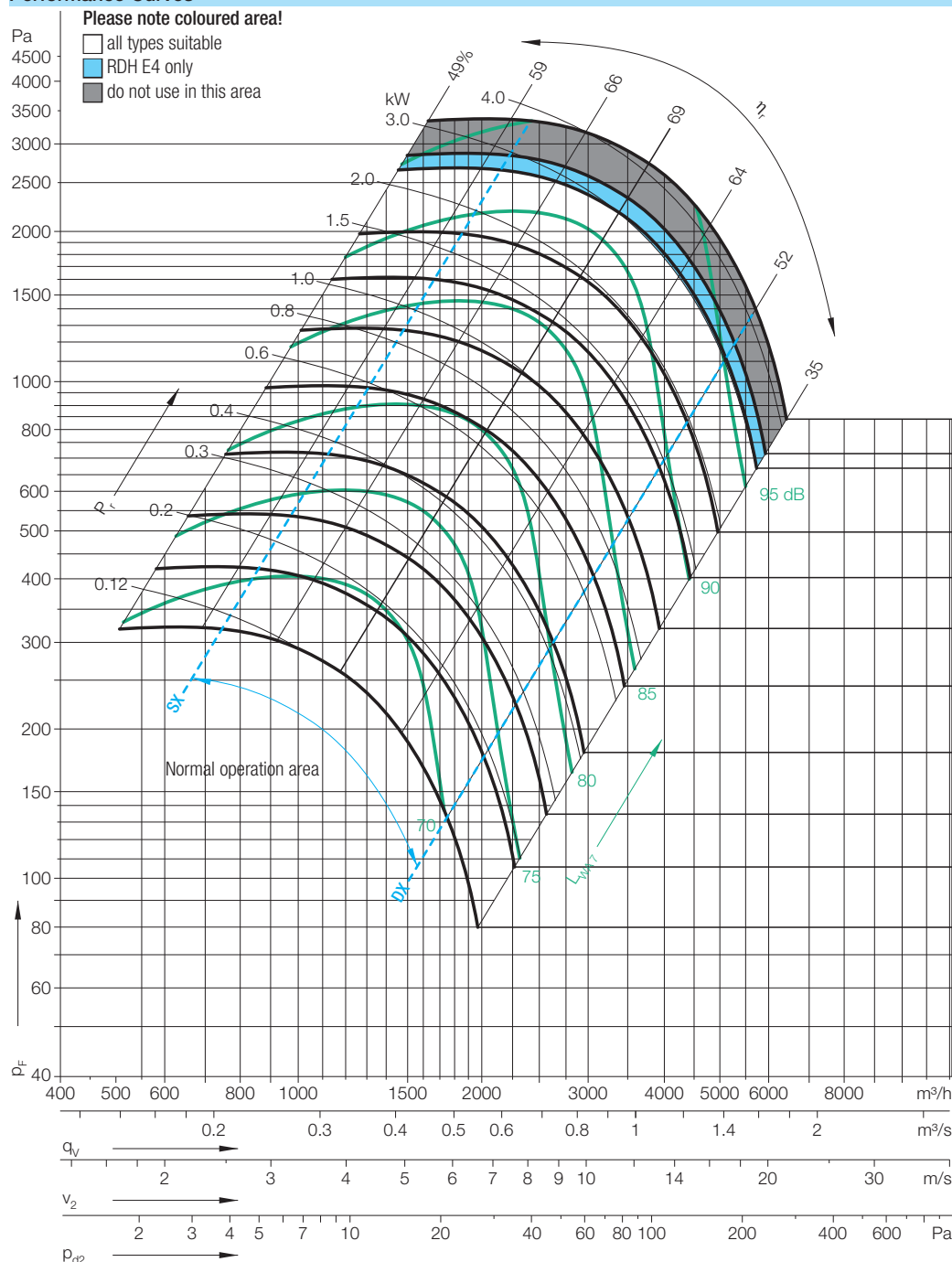
Impeller Data

Impeller diameter	D_r	225	mm
Number of blades	z	8	
Moment of Inertia	J	0,011	kgm ²

Impeller Data

Impeller weight	m	1,3	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves



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and procedures based in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance ratings only.

Duty point	Speed 1/min	dB
SX	5000	5
SX	3500	3
SX	2300	2
q _{V,opt}	5000	3
q _{V,opt}	3500	1
q _{V,opt}	2300	1
DX	5000	2
DX	3500	1
DX	2300	1

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
-6	-0	0	-2	-6	-8	-13	-17	dB
-4	3	-1	-2	-5	-10	-13	-19	dB
4	3	1	-3	-6	-10	-14	-20	dB
-6	-1	-1	-2	-6	-7	-12	-16	dB
-4	2	-3	-1	-5	-9	-13	-17	dB
3	1	1	-3	-5	-9	-13	-20	dB
-11	-4	-2	-4	-6	-6	-12	-16	dB
-8	0	-4	-3	-4	-9	-13	-16	dB
0	-1	-1	-3	-4	-10	-13	-18	dB

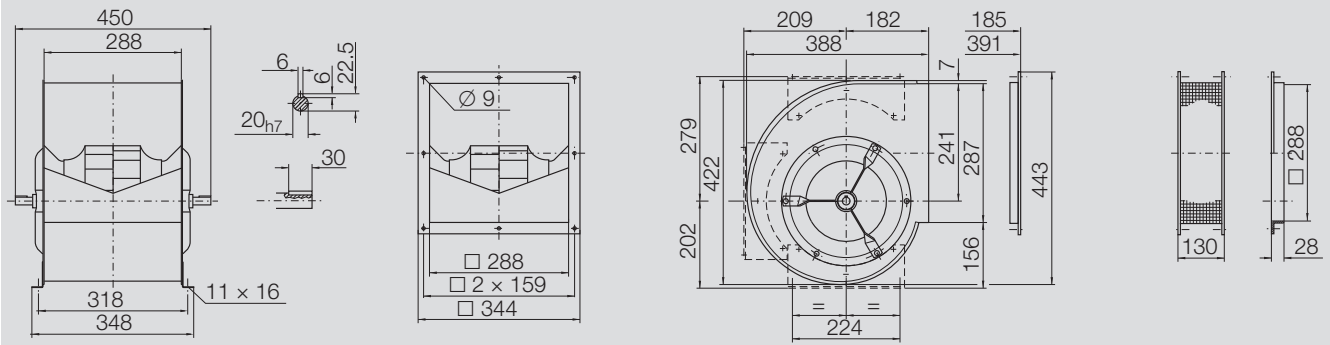
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
21	8	7	4	-7	-7	-13	-17	dB
14	8	7	0	-6	-9	-14	-19	dB
11	10	6	-4	-4	-10	-15	-21	dB
16	11	6	1	-9	-7	-14	-21	dB
12	10	3	-1	-7	-9	-18	-21	dB
14	8	4	-6	-4	-12	-18	-22	dB
14	6	2	0	-8	-5	-11	-20	dB
10	5	1	-3	-6	-7	-15	-21	dB
8	4	2	-5	-3	-10	-18	-21	dB

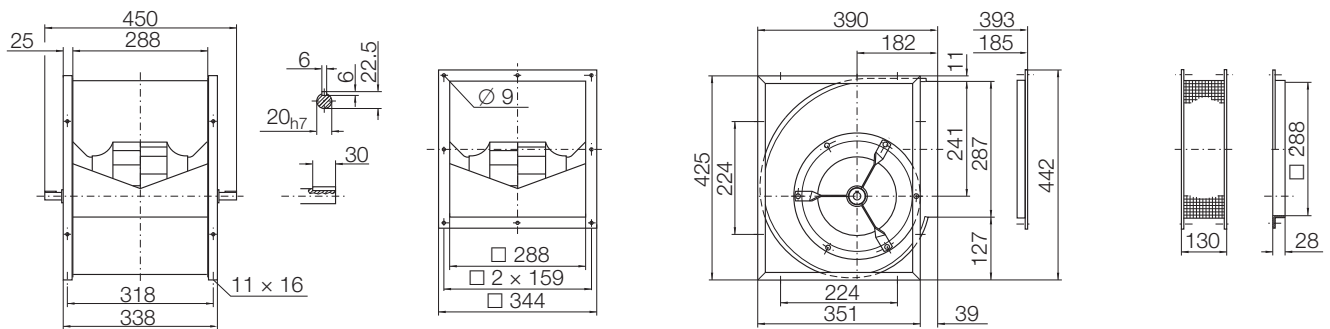
RDH E_-0225

Dimensions in mm, subject to change.

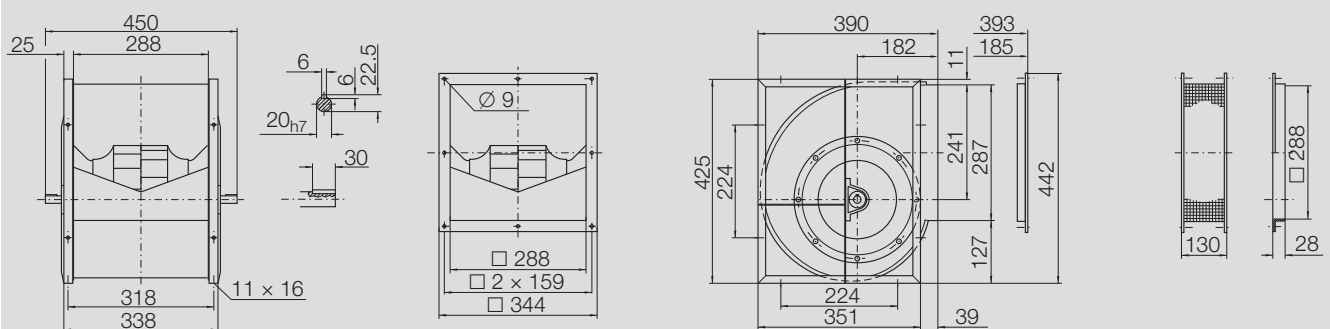
RDH E0-0225 7.8 kg



RDH E2-0225 9.9 kg



RDH E4-0225 13.6 kg



RDH E_-0250

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

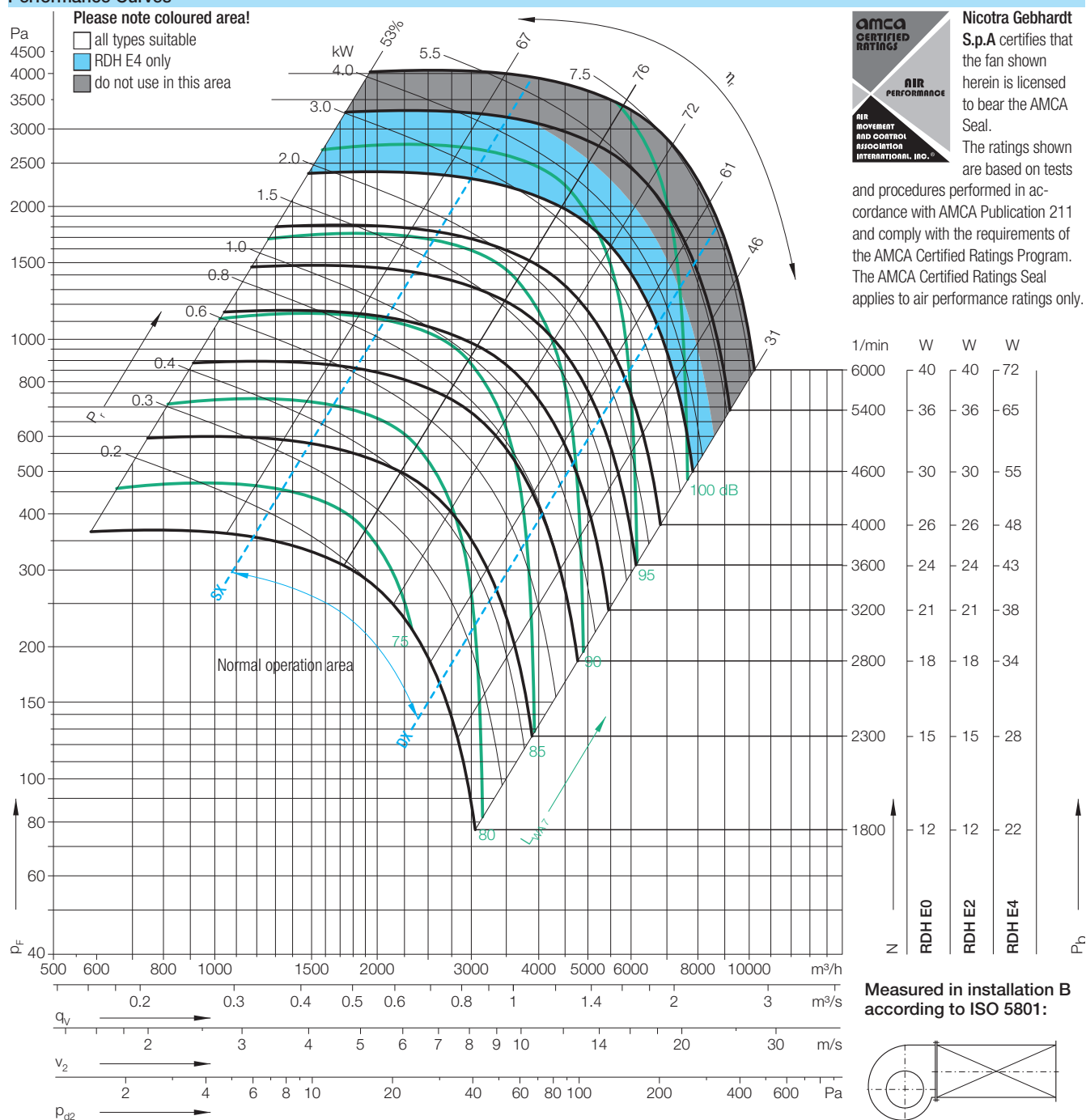
Impeller Data

Impeller diameter	D_r	252 mm
Number of blades	z	11
Moment of Inertia	J	0,044 kgm ²

Impeller Data

Impeller weight	m	4,87 kg
Density of media	ρ_1	1,2 kg/m ³
Tolerance class (DIN 24166)		2

Performance Curves



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 $\Delta L_{Wrel4}(A)$

Duty point	Speed 1/min	dB
SX	4600	3
SX	3200	3
SX	2300	2
$q_{V,opt}$	4600	4
$q_{V,opt}$	3200	4
$q_{V,opt}$	2300	3
DX	4600	3
DX	3200	3
DX	2300	3

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
-8	-7	-5	-4	-4	-9	-13	-18	dB
-7	-3	-4	0	-8	-9	-13	-19	dB
-4	-3	-3	-1	-6	-10	-15	-20	dB
-10	-10	-8	-8	-3	-7	-10	-17	dB
-9	-8	-7	-1	-7	-7	-12	-19	dB
-8	-6	-7	-1	-5	-8	-15	-21	dB
-10	-9	-9	-7	-5	-6	-9	-15	dB
-7	-8	-8	-3	-6	-6	-10	-19	dB
-7	-7	-8	-3	-4	-7	-13	-21	dB

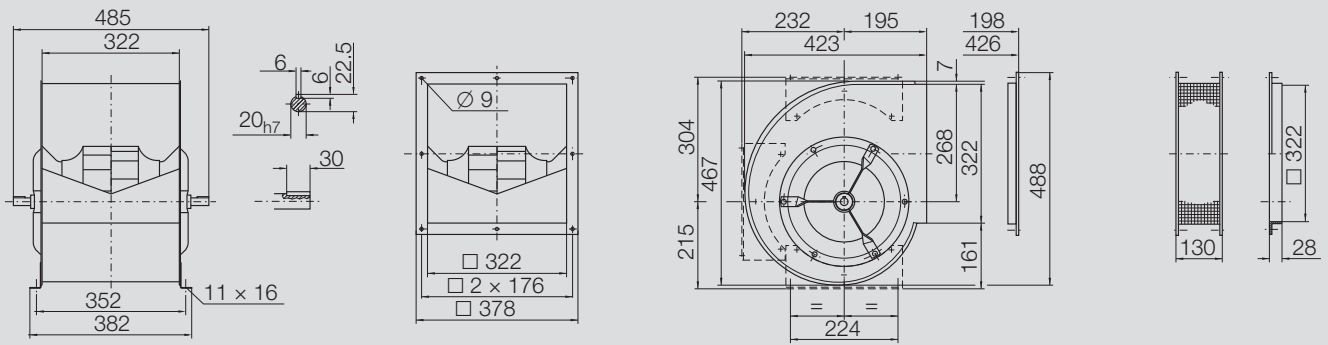
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
6	7	3	-2	-4	-6	-8	-16	dB
9	7	3	0	-7	-4	-11	-18	dB
10	6	2	-1	-3	-5	-13	-19	dB
6	5	0	-5	-4	-3	-5	-15	dB
7	4	-1	-2	-5	-1	-9	-18	dB
6	2	-2	-2	-1	-3	-13	-20	dB
5	4	-2	-4	-4	-2	-4	-13	dB
7	3	-2	-2	-5	-1	-8	-16	dB
6	1	-2	-3	-1	-3	-11	-19	dB

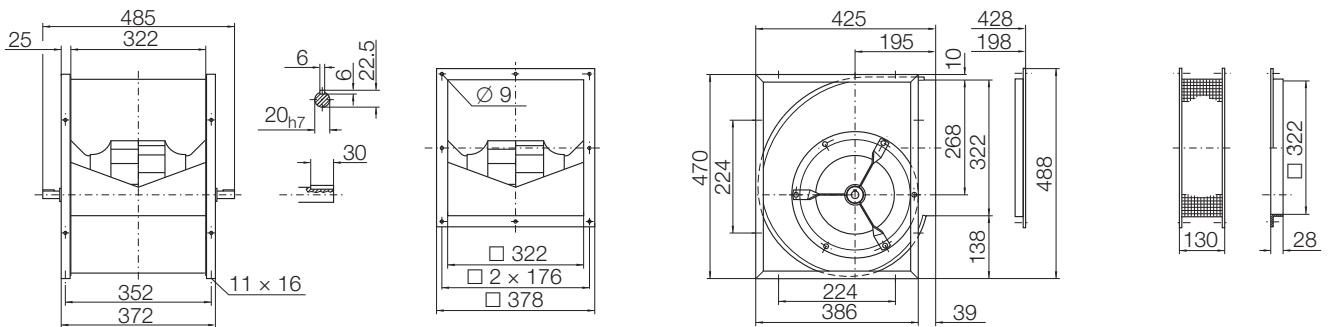
RDH E_-0250

Dimensions in mm, subject to change.

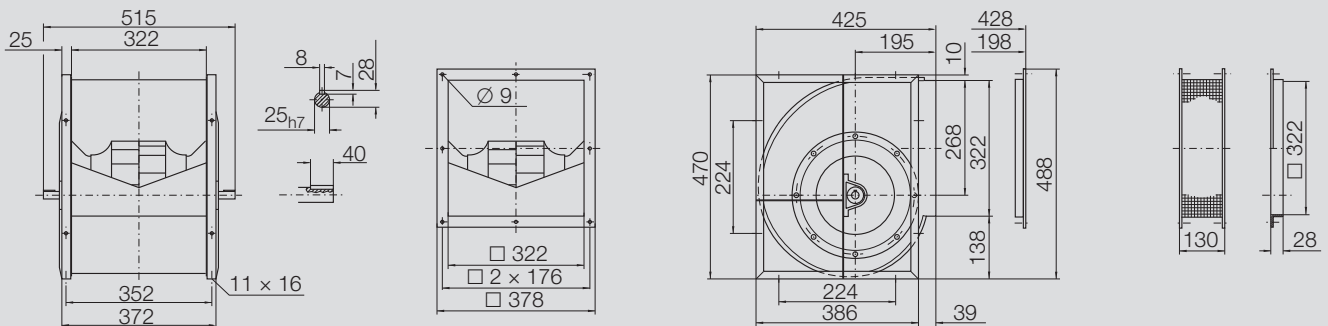
RDH E0-0250 13.3 kg



RDH E2-0250 15.7 kg



RDH E4-0250 21 kg



RDH E_-0280

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

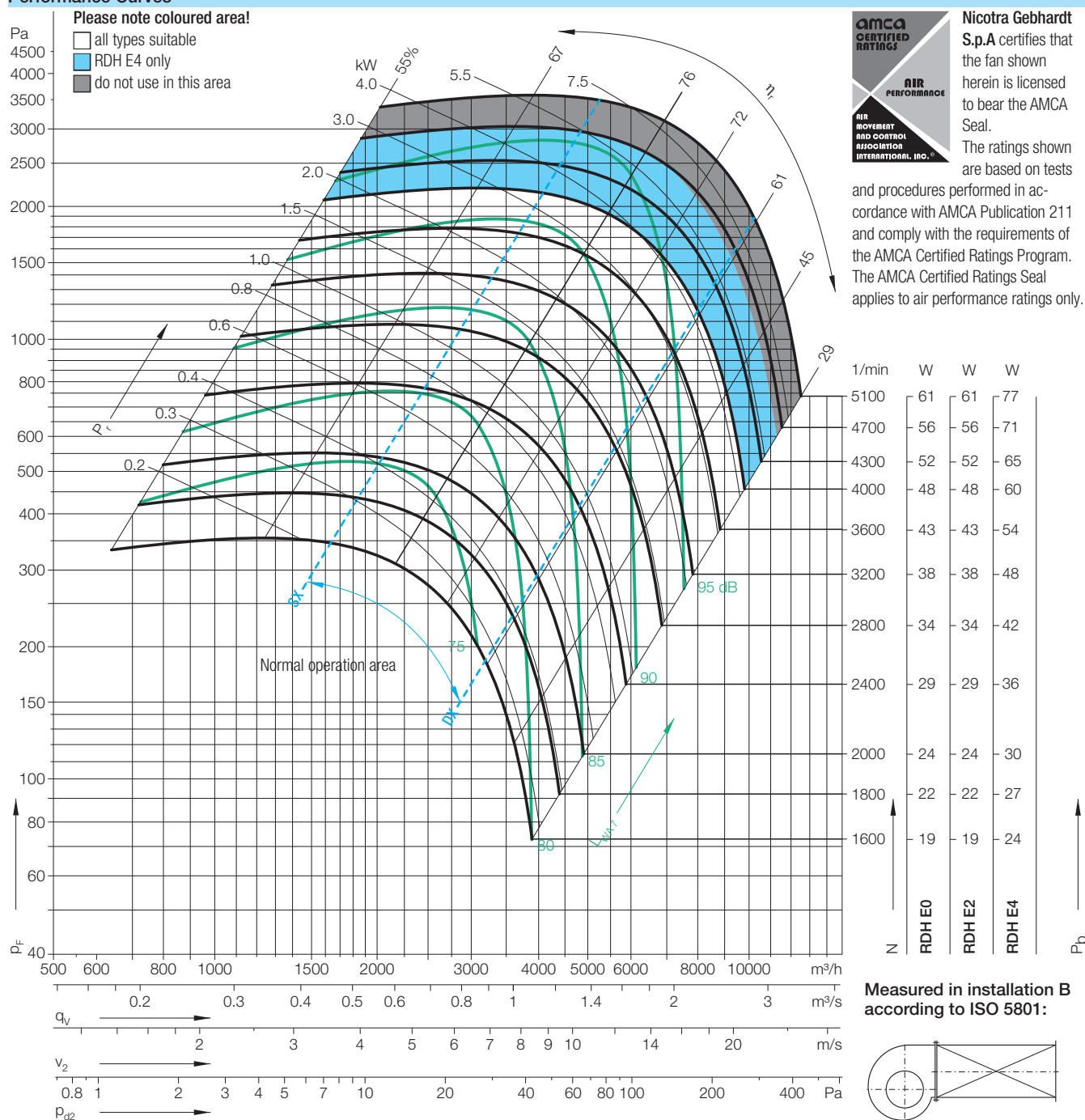
Impeller Data

Impeller diameter	D_r	282	mm
Number of blades	z	11	
Moment of Inertia	J	0,069	kgm ²

Impeller Data

Impeller weight	m	5,89	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves



Duty point	Speed 1/min	$\Delta L_{Wrel4}(A)$ dB
SX	4300	3
SX	2800	3
SX	1800	3
$q_{V,opt}$	4300	4
$q_{V,opt}$	2800	3
$q_{V,opt}$	1800	4
DX	4300	3
DX	2800	4
DX	1800	4

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
-8	-6	-5	-5	-4	-9	-12	-16	dB
-7	-4	-4	-1	-8	-8	-13	-18	dB
-1	-1	0	-4	-5	-8	-14	-19	dB
-10	-9	-8	-8	-4	-7	-10	-15	dB
-9	-7	-7	-1	-7	-6	-12	-18	dB
-6	-5	-2	-5	-4	-7	-14	-20	dB
-9	-9	-9	-8	-4	-6	-8	-14	dB
-7	-8	-8	-3	-7	-5	-11	-18	dB
-6	-6	-3	-5	-4	-6	-14	-22	dB

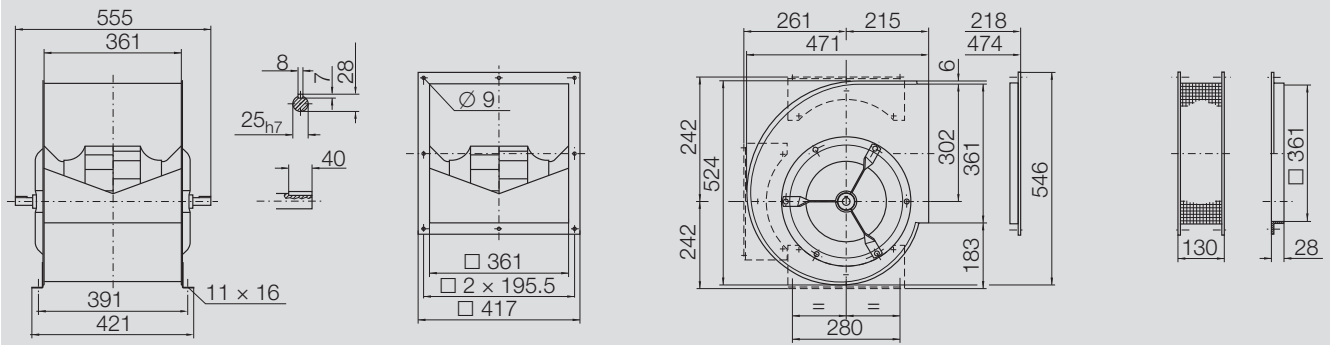
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
7	7	3	-3	-4	-4	-8	-15	dB
10	6	2	-1	-5	-3	-11	-17	dB
11	7	5	-3	0	-5	-13	-18	dB
7	5	0	-6	-5	-2	-5	-14	dB
7	3	-1	-3	-4	0	-10	-17	dB
7	2	2	-4	1	-4	-13	-19	dB
6	4	-1	-4	-3	-2	-4	-12	dB
7	2	-2	-1	-4	0	-8	-16	dB
7	2	3	-3	1	-3	-11	-19	dB

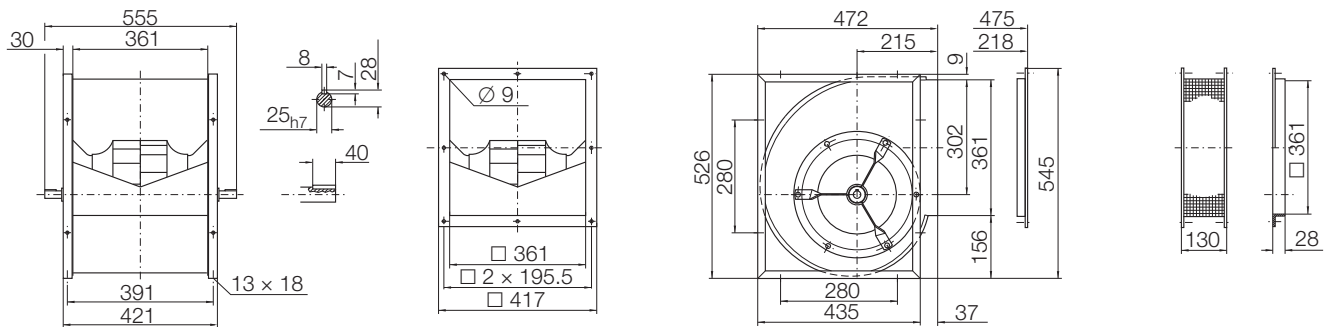
RDH E_-0280

Dimensions in mm, subject to change.

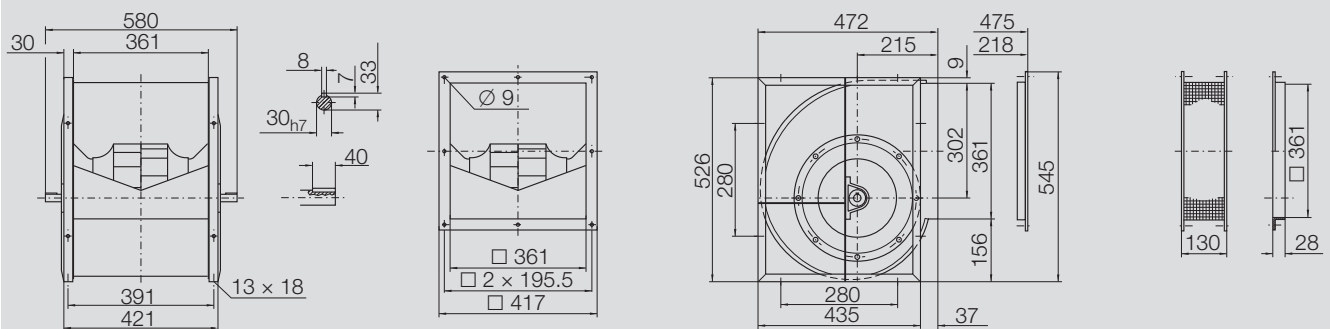
RDH E0-0280 17.8 kg



RDH E2-0280 21 kg



RDH E4-0280 28 kg



RDH E_-0315

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

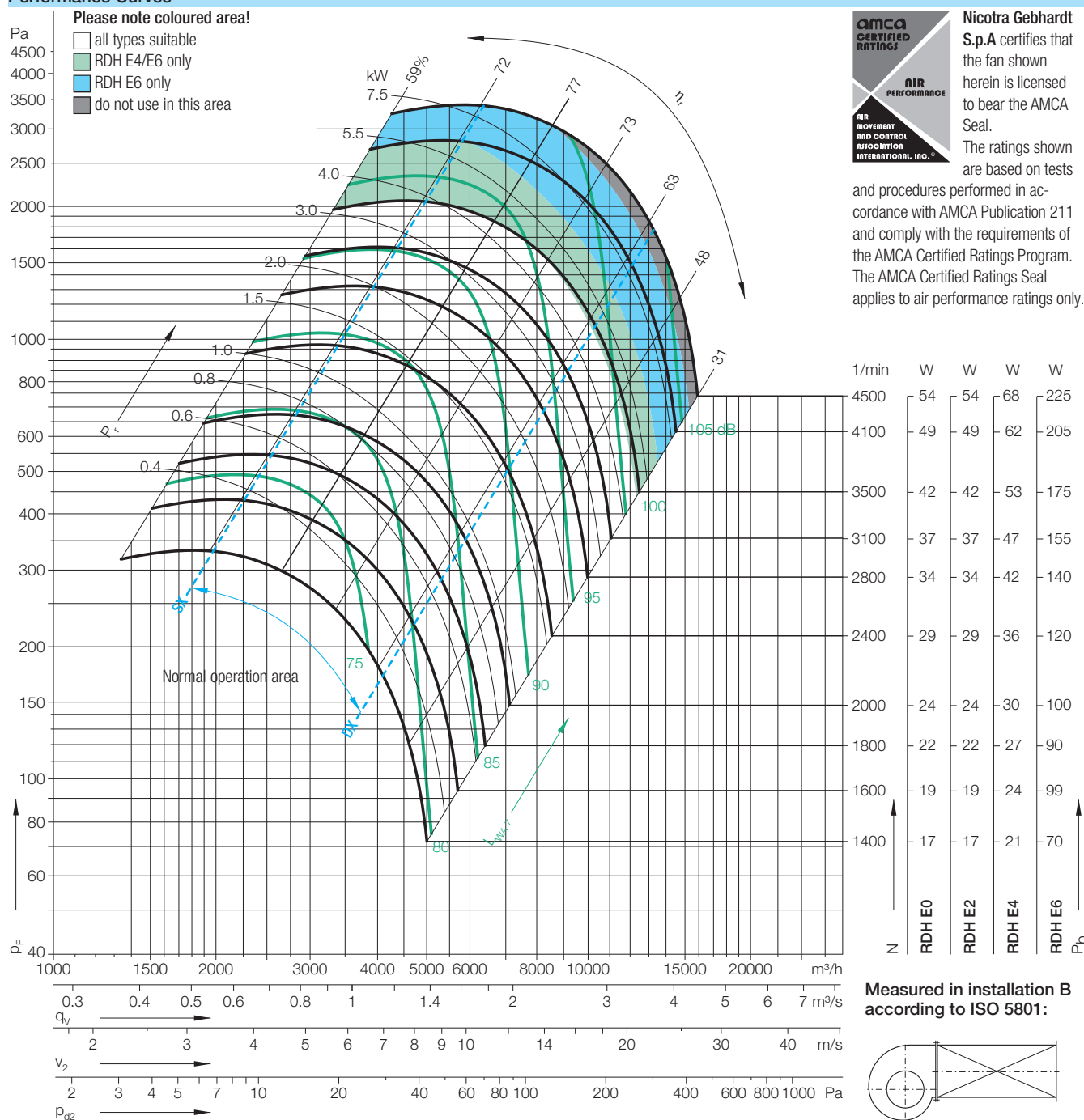
Impeller Data

Impeller diameter	D_r	317	mm
Number of blades	z	11	
Moment of Inertia	J	0,110	kgm ²

Impeller Data

Impeller weight	m	7,14	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		2	

Performance Curves



Duty point	Speed 1/min	dB
SX	4100	4
SX	2800	4
SX	1600	3
$q_{V,opt}$	4100	4
$q_{V,opt}$	2800	4
$q_{V,opt}$	1600	4
DX	4100	3
DX	2800	3
DX	1600	3

Relative sound power level for inlet side L_{wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
-7	-5	-4	-4	-3	-11	-15	-18	dB
-7	-4	-4	-0	-6	-12	-14	-18	dB
0	-1	2	-2	-8	-10	-14	-18	dB
-9	-9	-8	-6	-3	-11	-14	-18	dB
-9	-7	-7	-1	-8	-11	-13	-19	dB
-5	-5	0	-4	-7	-9	-14	-20	dB
-9	-9	-9	-7	-2	-10	-12	-16	dB
-7	-8	-8	0	-7	-10	-12	-19	dB
-6	-5	0	-3	-6	-8	-15	-22	dB

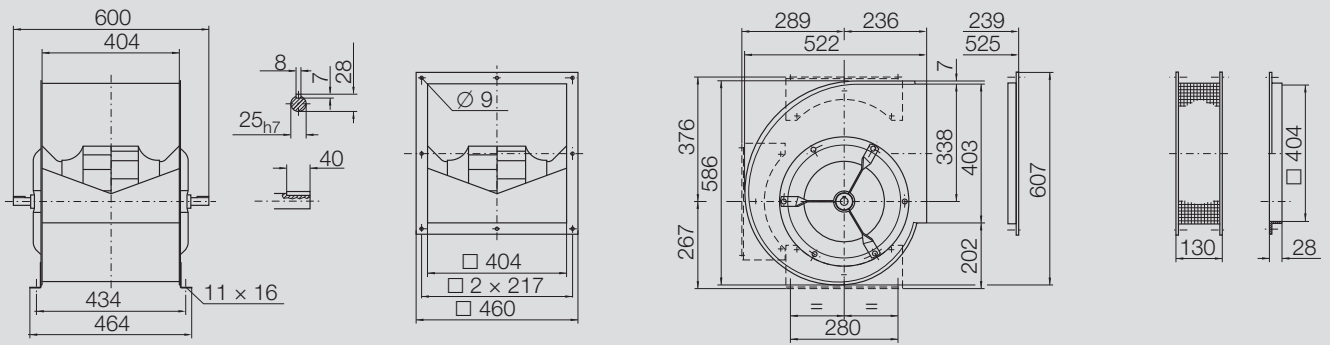
Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
8	8	4	-1	-3	-6	-11	-17	dB
11	7	3	-1	-3	-7	-12	-17	dB
11	7	6	0	-2	-7	-13	-18	dB
7	5	0	-3	-3	-6	-10	-16	dB
7	3	-1	0	-4	-6	-11	-18	dB
7	2	4	-2	-1	-6	-13	-19	dB
6	4	-2	-3	-1	-5	-8	-14	dB
6	2	-2	1	-3	-5	-9	-17	dB
6	2	5	-1	-1	-5	-12	-20	dB

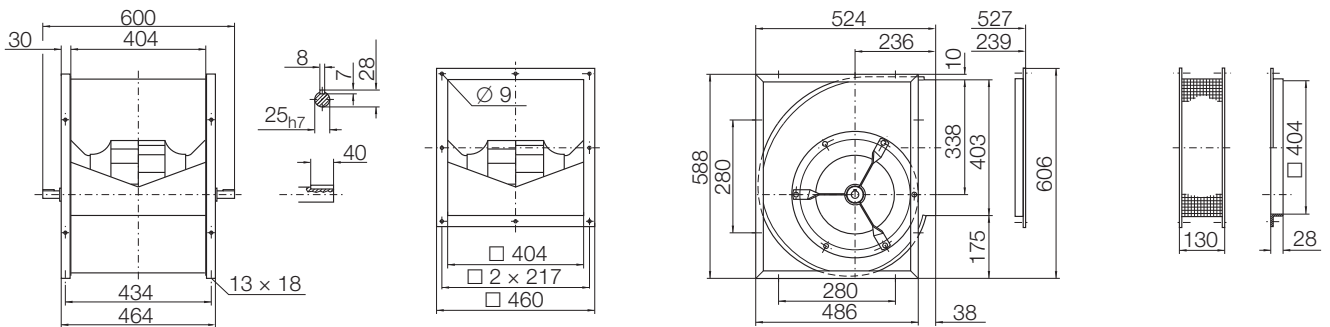
RDH E_-0315

Dimensions in mm, subject to change.

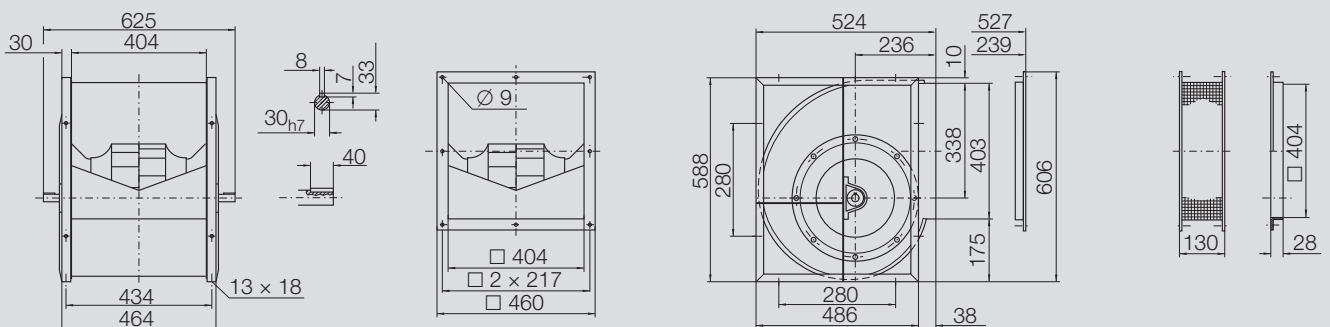
RDH E0-0315 21 kg



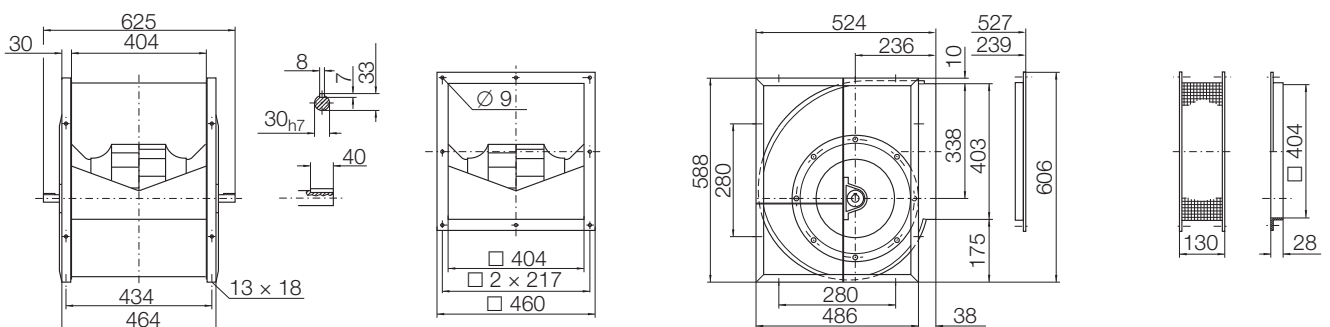
RDH E2-0315 25 kg



RDH E4-0315 32 kg



RDH E6-0315 34 kg



RDH E_-0355

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

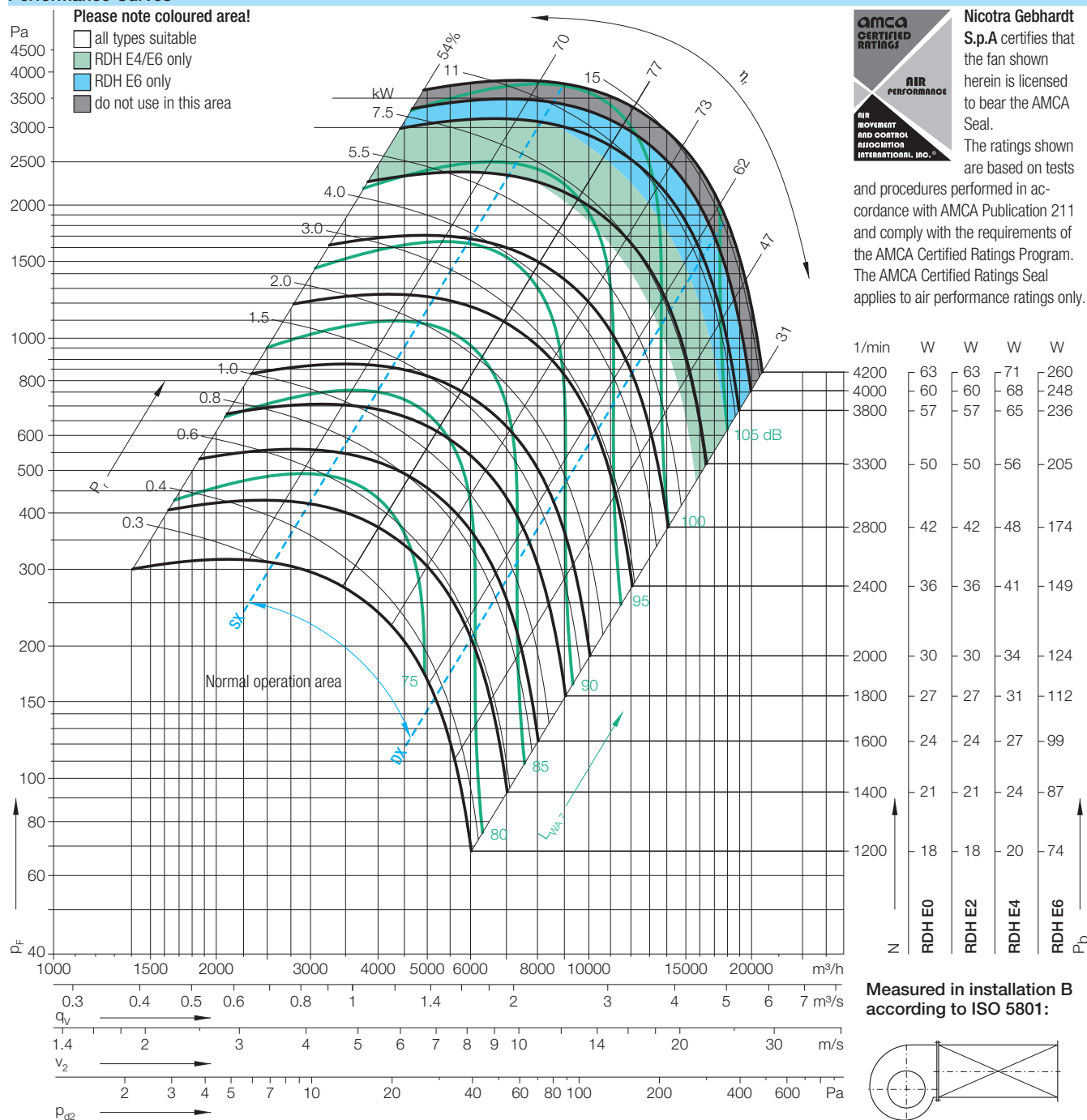
Impeller Data

Impeller diameter	D_r	357	mm
Number of blades	z	11	
Moment of Inertia	J	0,200	kgm ²

Impeller Data

Impeller weight	m	10,2	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		1	

Performance Curves



Duty point	Speed 1/min	dB
SX	3800	5
SX	2400	4
SX	1400	4
q _{V,opt}	3800	6
q _{V,opt}	2400	4
q _{V,opt}	1400	4
DX	3800	4
DX	2400	3
DX	1400	3

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
-7	-5	-4	-2	-6	-11	-14	-17	dB
-5	-3	-3	-1	-7	-12	-14	-18	dB
0	0	3	-3	-7	-9	-14	-18	dB
-9	-8	-7	-3	-5	-10	-12	-17	dB
-8	-7	-7	-1	-6	-11	-13	-18	dB
-4	-4	2	-3	-7	-9	-14	-19	dB
-8	-8	-8	-3	-5	-9	-11	-17	dB
-7	-8	-8	0	-6	-10	-13	-20	dB
-5	-5	2	-3	-6	-9	-16	-22	dB

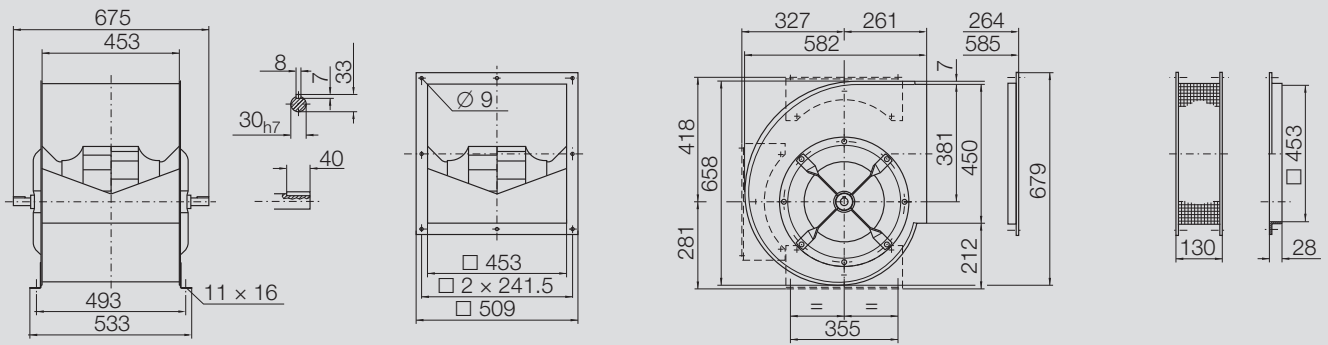
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
11	9	5	1	-5	-6	-10	-16	dB
11	7	4	0	-3	-7	-12	-17	dB
11	7	7	0	-2	-7	-13	-18	dB
9	7	2	0	-4	-4	-9	-15	dB
7	3	-1	-1	-2	-6	-11	-17	dB
7	2	6	0	-1	-6	-13	-19	dB
7	4	-1	0	-3	-4	-8	-14	dB
6	1	-2	1	-2	-6	-10	-17	dB
5	2	7	0	-1	-6	-13	-20	dB

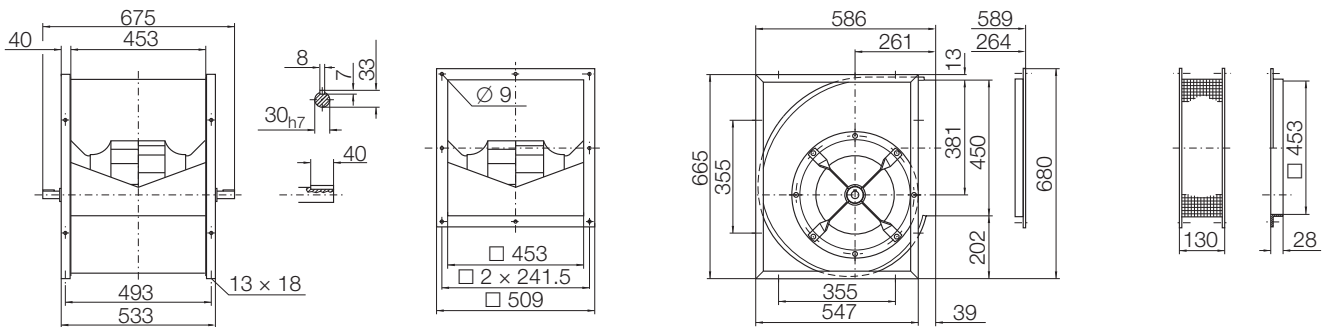
RDH E_-0355

Dimensions in mm, subject to change.

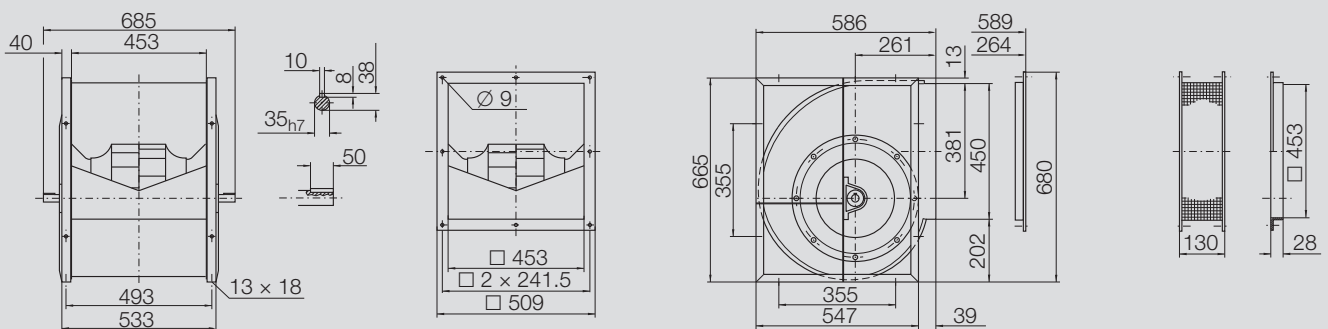
RDH E0-0355 29 kg



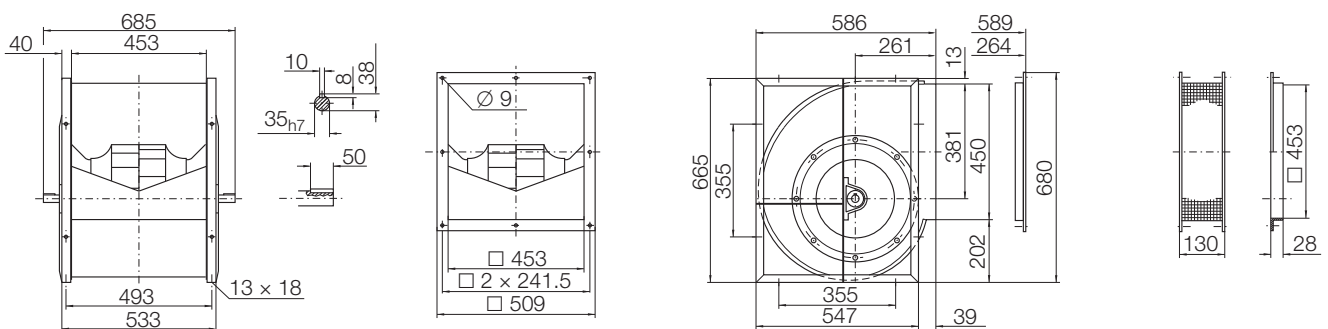
RDH E2-0355 34 kg



RDH E4-0355 46 kg



RDH E6-0355 47 kg



RDH E_-0400

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

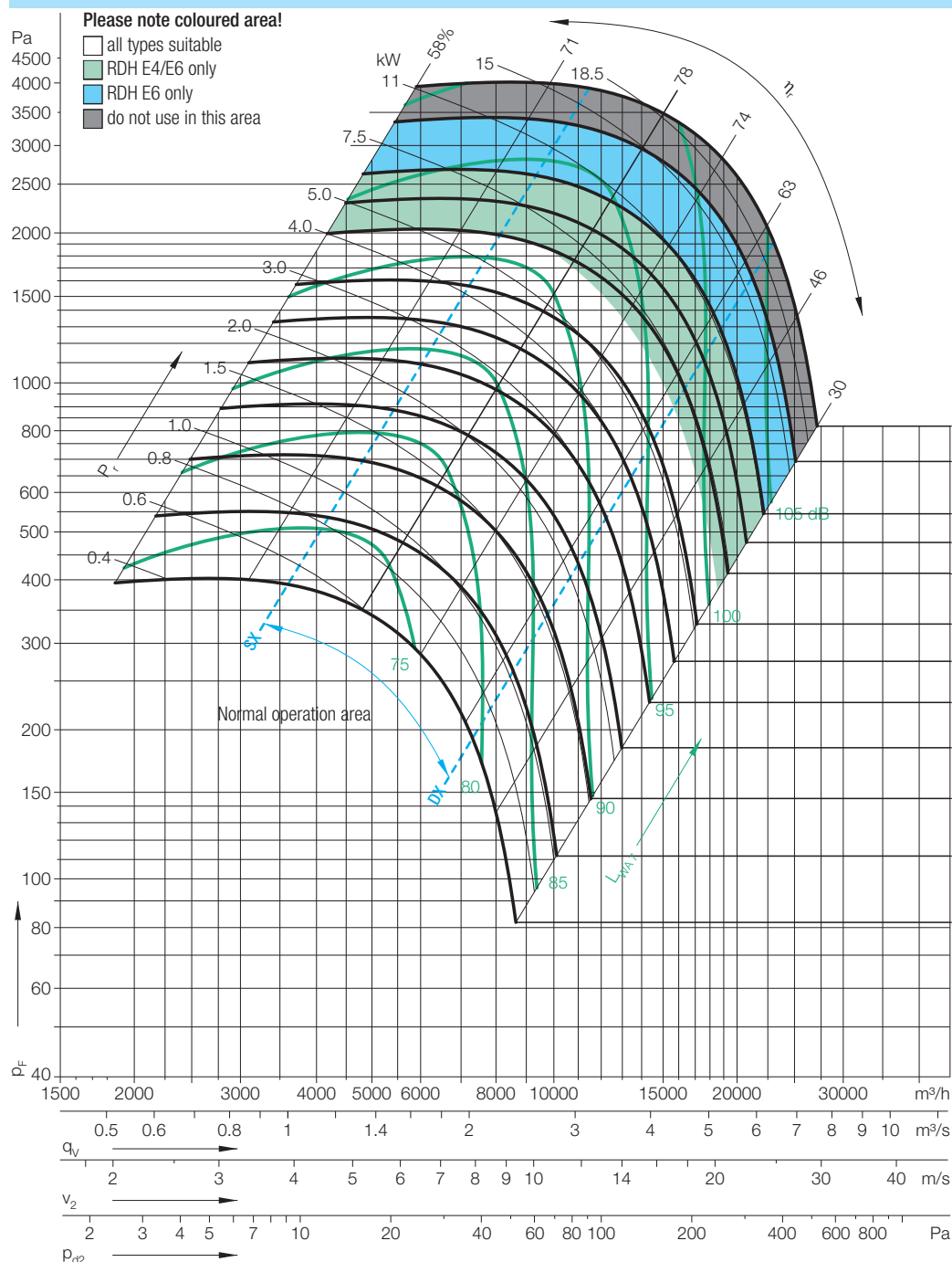
Impeller Data

Impeller diameter	D_r	402	mm
Number of blades	z	11	
Moment of Inertia	J	0,330	kgm ²

Impeller Data

Impeller weight	m	12,7	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		1	

Performance Curves



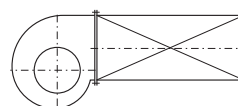
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and procedures based in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance ratings only.

1/min	W	W	W	W
3800	57	57	65	236
3500	53	53	60	217
3100	47	47	53	192
2900	44	44	49	180
2700	41	41	46	167
2400	36	36	41	149
2200	33	33	37	136
2000	30	30	34	124
1800	27	27	31	112
1600	24	24	27	99
1400	21	21	24	87
1200	18	18	20	74
	RDH E0	RDH E2	RDH E4	RDH E6

Measured in installation B according to ISO 5801:


 $\Delta L_{Wrel4}(A)$

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	3100	3
SX	2400	3
SX	1400	3
$q_{V,opt}$	3100	3
$q_{V,opt}$	2400	3
$q_{V,opt}$	1400	3
DX	3100	2
DX	2400	3
DX	1400	3

63	125	250	500	1000	2000	4000	8000	Hz
-7	-3	-4	-1	-6	-10	-11	-16	dB
-5	-3	-3	-1	-6	-8	-13	-17	dB
0	0	3	-3	-6	-9	-13	-17	dB
-9	-7	-7	-1	-6	-9	-10	-17	dB
-8	-7	-7	-1	-6	-8	-13	-18	dB
-4	-4	2	-4	-5	-8	-14	-18	dB
-7	-8	-8	-1	-7	-9	-10	-17	dB
-7	-8	-8	0	-7	-8	-12	-20	dB
-5	-5	2	-4	-5	-8	-15	-21	dB

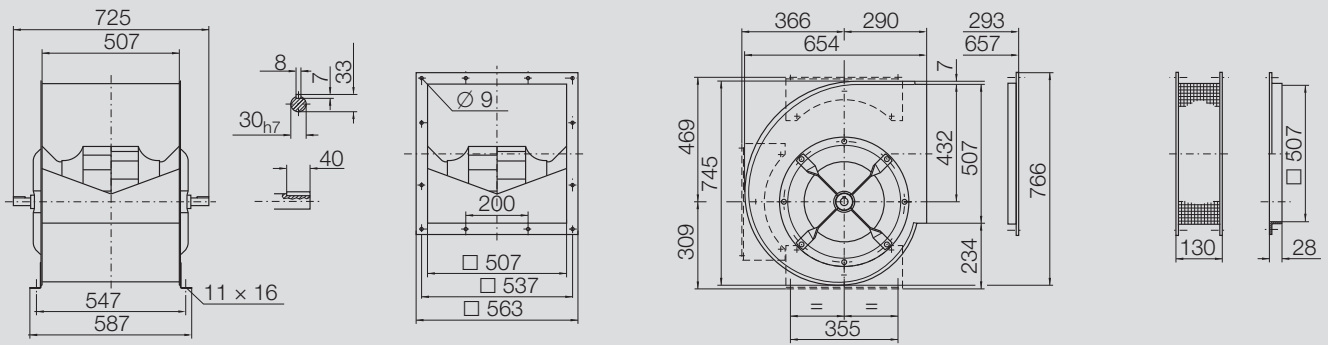
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
10	7	3	-1	-4	-4	-8	-15	dB
10	6	2	-2	-2	-4	-11	-16	dB
10	6	6	0	-1	-7	-12	-16	dB
7	4	-1	0	-4	-3	-8	-15	dB
10	7	3	0	-2	-3	-11	-17	dB
6	2	6	-1	0	-6	-13	-18	dB
6	2	-2	0	-4	-4	-7	-15	dB
5	0	-3	0	-4	-3	-10	-17	dB
5	1	6	-1	-1	-5	-13	-19	dB

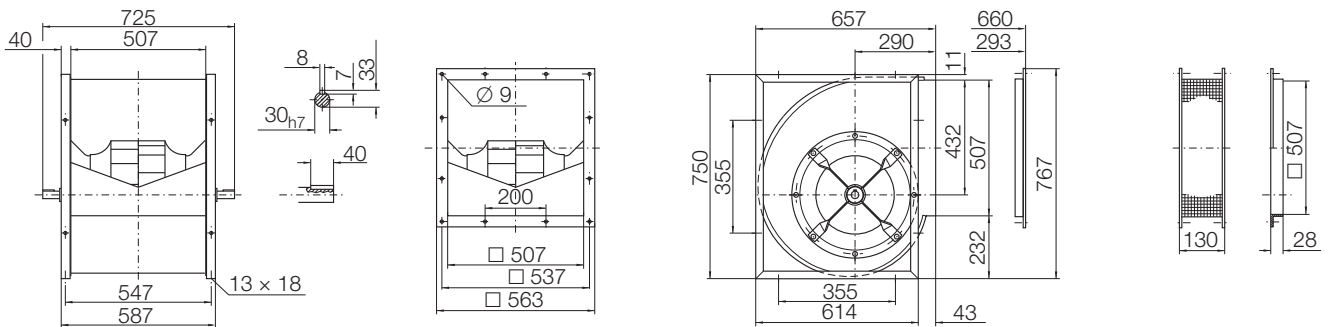
RDH E_-0400

Dimensions in mm, subject to change.

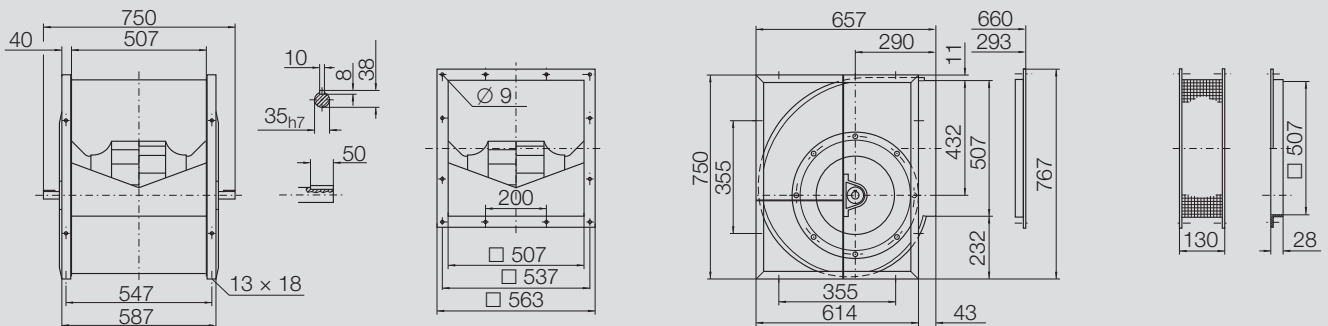
RDH E0-0400 36 kg



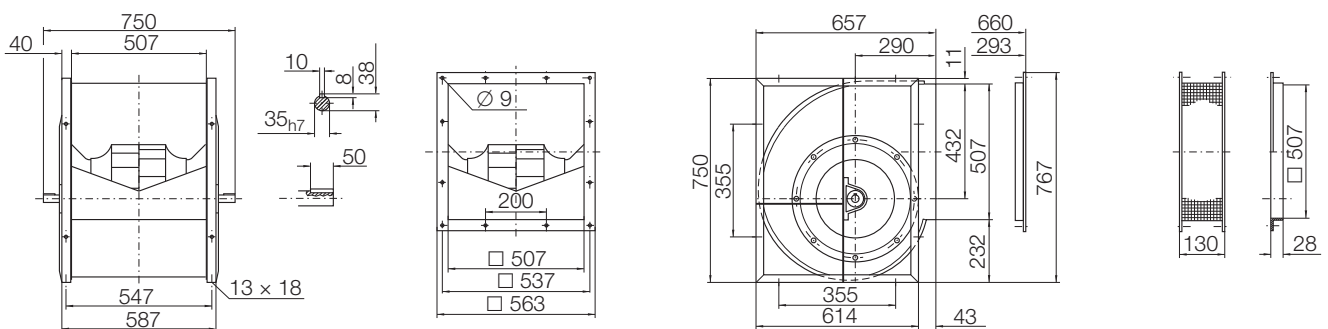
RDH E2-0400 42 kg



RDH E4-0400 57 kg



RDH E6-0400 58 kg



Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

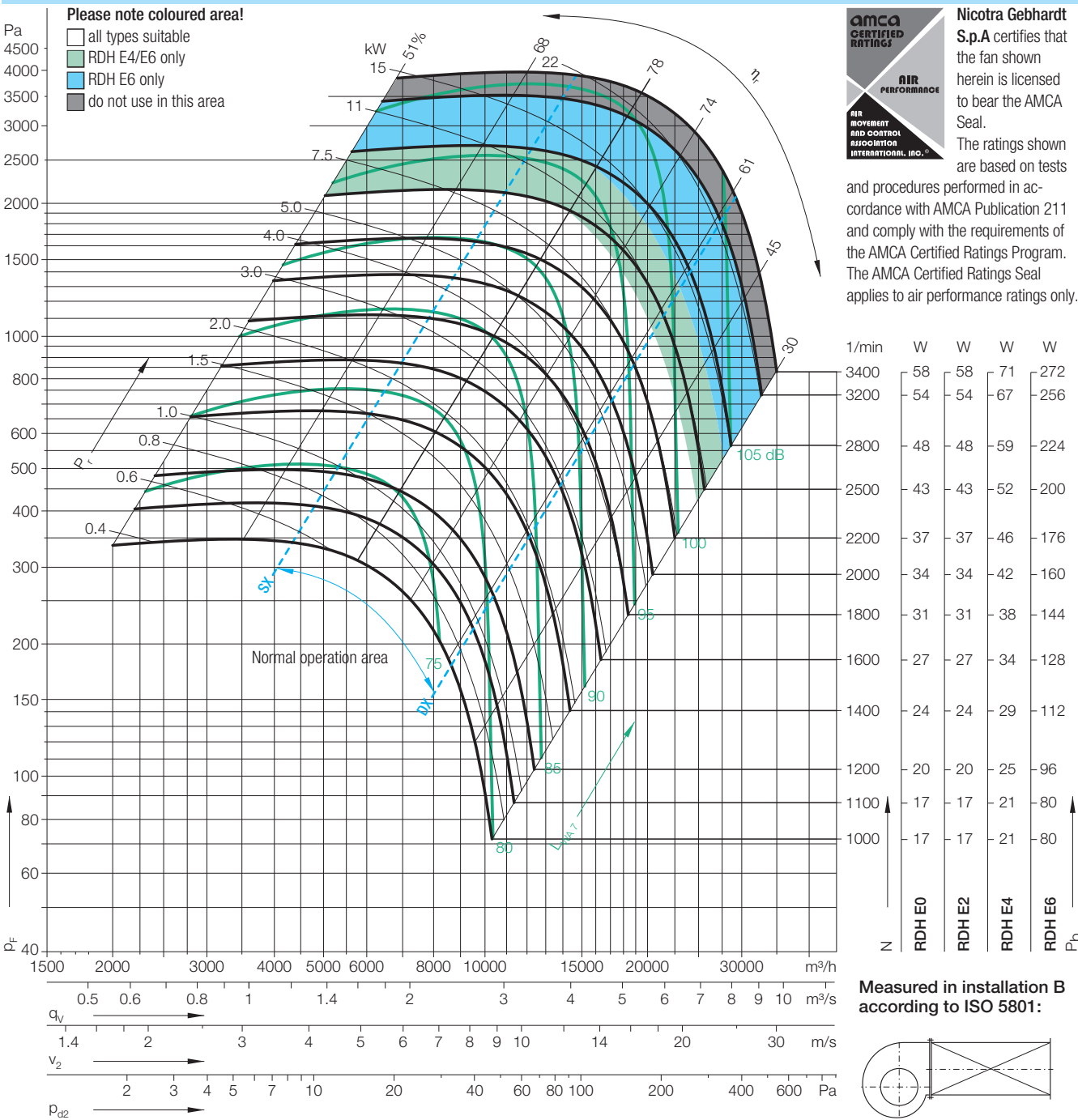
Impeller Data

Impeller diameter	D_r	452	mm
Number of blades	z	11	
Moment of Inertia	J	0,520	kgm ²

Impeller Data

Impeller weight	m	17,6	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		1	

Performance Curves



Duty point	Speed 1/min	$\Delta L_{Wrel4}(A)$ dB
SX	2800	3
SX	2000	3
SX	1200	3
$Q_{V,opt}$	2800	3
$Q_{V,opt}$	2000	3
$Q_{V,opt}$	1200	3
DX	2800	3
DX	2000	3
DX	1200	3

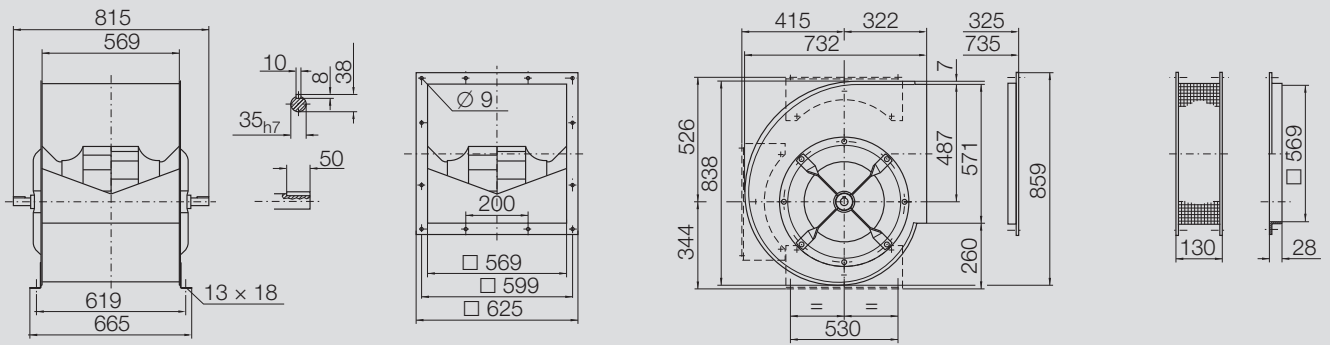
Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c								
63	125	250	500	1000	2000	4000	8000	Hz
-7	-4	-4	0	-7	-10	-13	-17	dB
-3	-2	-1	-1	-6	-10	-13	-19	dB
1	0	3	-3	-7	-10	-15	-20	dB
-9	-7	-7	-1	-6	-9	-12	-17	dB
-7	-5	-4	-1	-5	-9	-13	-19	dB
-4	-4	3	-2	-6	-10	-15	-21	dB
-7	-8	-8	0	-7	-9	-13	-19	dB
-7	-6	-5	-1	-6	-9	-14	-21	dB
-5	-5	3	-3	-6	-10	-17	-24	dB

Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
63	125	250	500	1000	2000	4000	8000	Hz
10	6	2	0	-4	-5	-11	-16	dB
10	6	3	0	-2	-6	-12	-18	dB
6	0	0	1	-2	-8	-14	-20	dB
6	2	-2	-2	-3	-3	-10	-16	dB
6	2	0	-2	0	-5	-12	-19	dB
6	2	6	2	-1	-8	-15	-21	dB
6	1	-3	1	-4	-4	-10	-17	dB
6	0	0	0	-1	-5	-12	-19	dB
4	1	6	1	-2	-8	-15	-22	dB

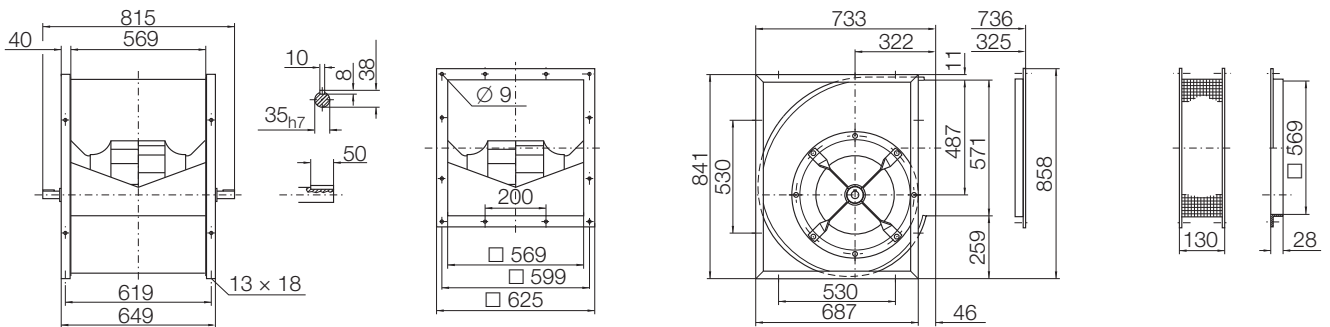
RDH E_-0450

Dimensions in mm, subject to change.

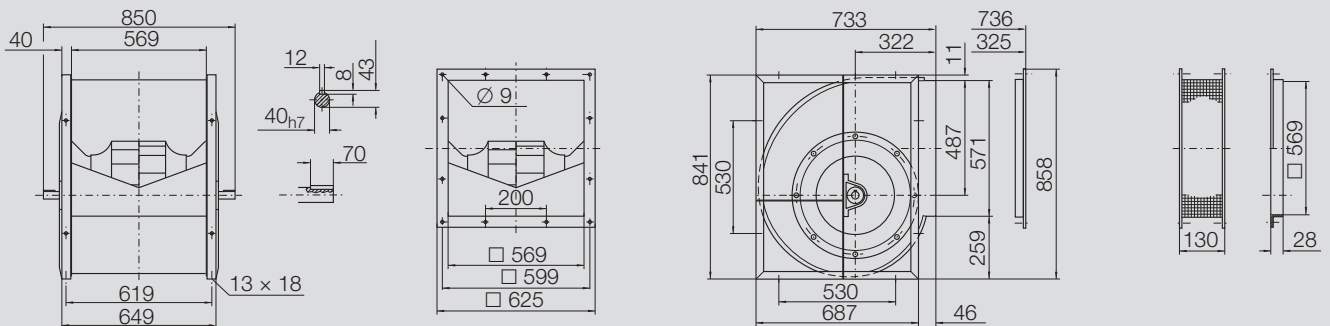
RDH E0-0450 50 kg



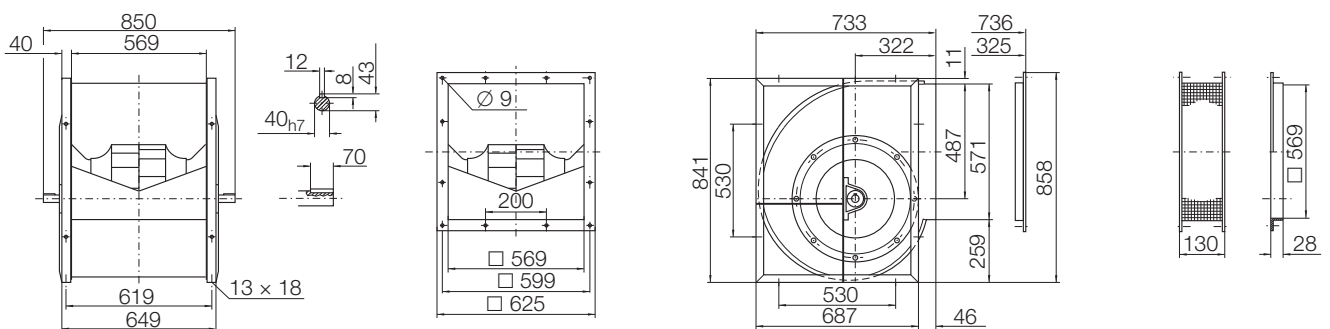
RDH E2-0450 57 kg



RDH E4-0450 73 kg



RDH E6-0450 75 kg



RDH E_-0500

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

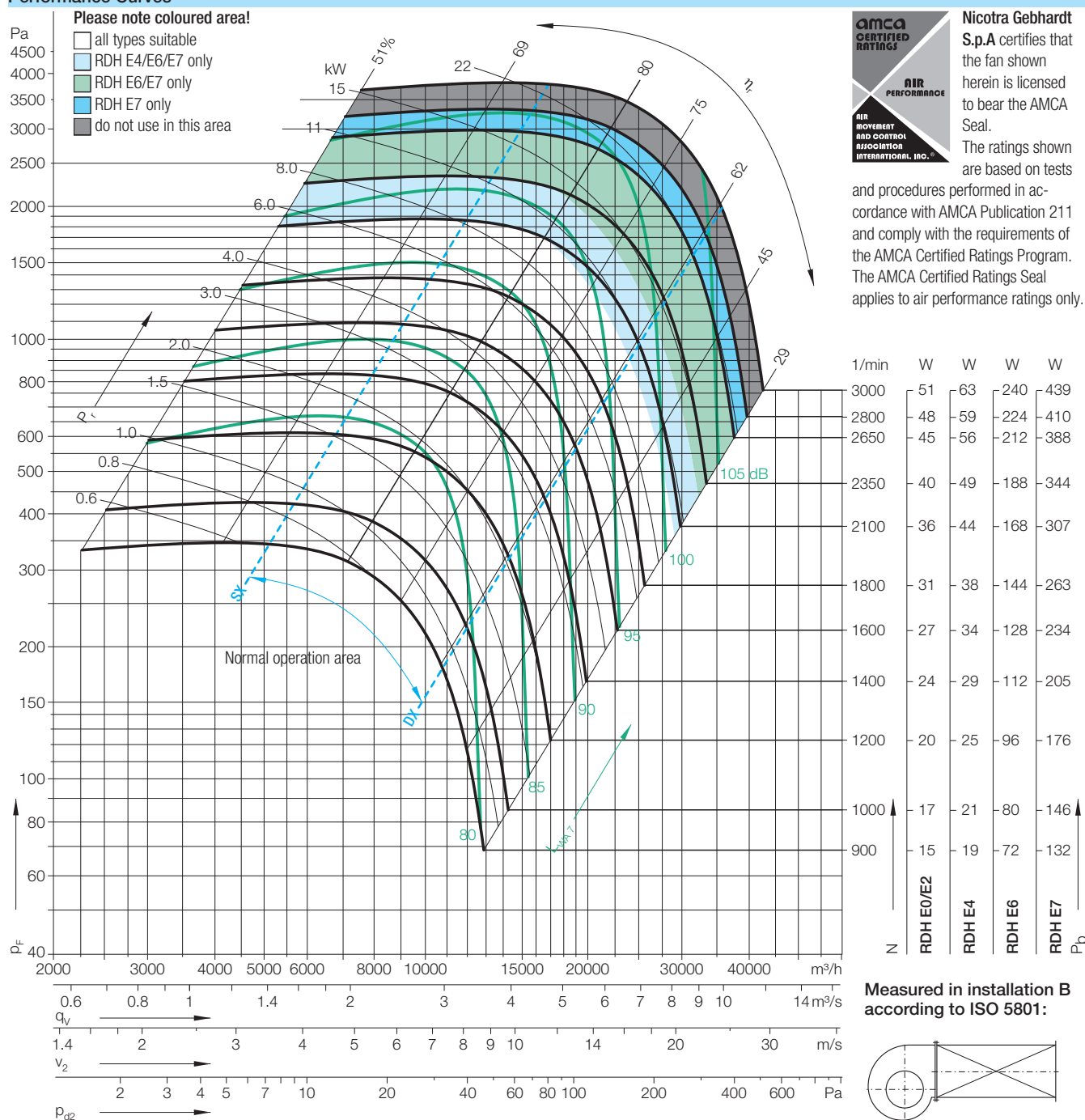
Impeller Data

Impeller diameter	D_r	502	mm
Number of blades	z	11	
Moment of Inertia	J	0,890	kgm ²

Impeller Data

Impeller weight	m	23,5	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		1	

Performance Curves



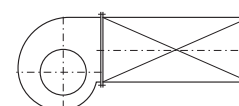
Nicotra Gebhardt S.p.A certifies that the fan shown herein is licensed to bear the AMCA Seal.

The ratings shown are based on tests

and procedures based in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance ratings only.

1/min	W	W	W	W
3000	51	63	240	439
2800	48	59	224	410
2650	45	56	212	388
2350	40	49	188	344
2100	36	44	168	307
1800	31	38	144	263
1600	27	34	128	234
1400	24	29	112	205
1200	20	25	96	176
1000	17	21	80	146
900	15	19	72	132
	RDH E0/E2	RDH E4	RDH E6	RDH E7

Measured in installation B according to ISO 5801:


 $\Delta L_{Wrel4}(A)$

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Duty point	Speed 1/min	dB
SX	2600	2
SX	1800	3
SX	1000	3
$q_{V,opt}$	2600	1
$q_{V,opt}$	1800	2
$q_{V,opt}$	1000	3
DX	2600	2
DX	1800	3
DX	1000	3

63	125	250	500	1000	2000	4000	8000	Hz
-6	-4	-4	1	-9	-13	-14	-18	dB
-1	-1	0	-2	-9	-11	-15	-18	dB
2	2	2	-5	-7	-11	-14	-18	dB
-9	-7	-8	1	-9	-12	-14	-19	dB
-6	-5	-2	-1	-8	-10	-15	-19	dB
-2	-1	2	-4	-7	-11	-15	-19	dB
-8	-8	-8	1	-7	-11	-13	-19	dB
-6	-6	-3	-1	-7	-9	-14	-19	dB
-3	-2	2	-3	-6	-10	-15	-21	dB

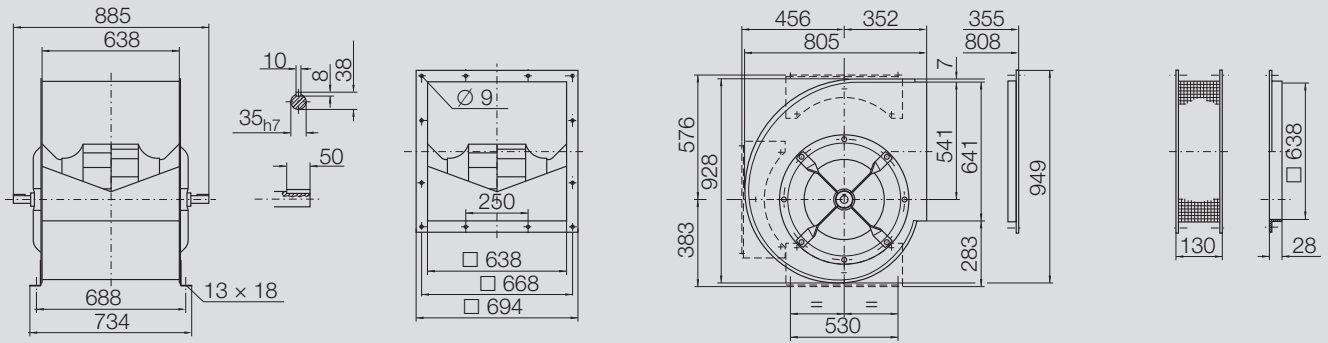
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
9	5	1	1	-6	-8	-13	-17	dB
10	6	4	0	-4	-8	-13	-18	dB
10	7	5	0	-3	-9	-13	-18	dB
8	5	1	1	-5	-7	-12	-18	dB
10	6	4	0	-3	-7	-13	-18	dB
5	3	5	1	-3	-9	-14	-19	dB
5	0	-3	1	-4	-6	-10	-16	dB
6	1	2	0	-2	-6	-12	-17	dB
5	4	5	1	-3	-8	-13	-20	dB

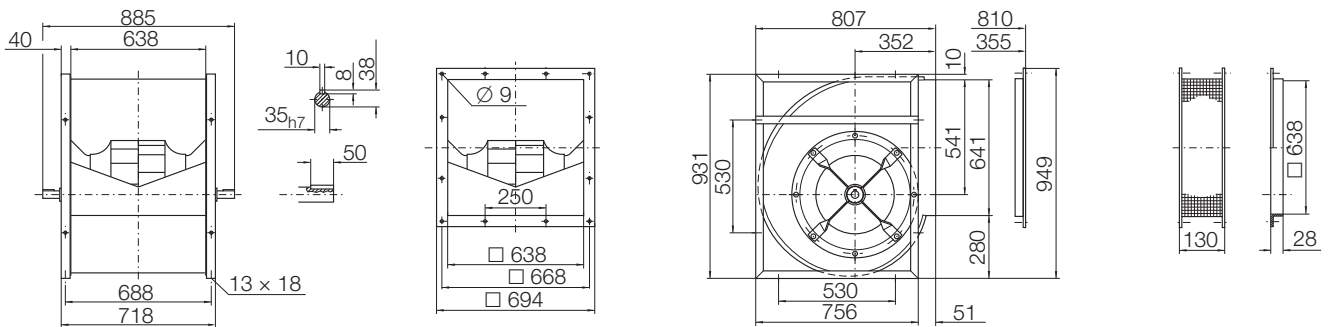
RDH E_-0500

Dimensions in mm, subject to change.

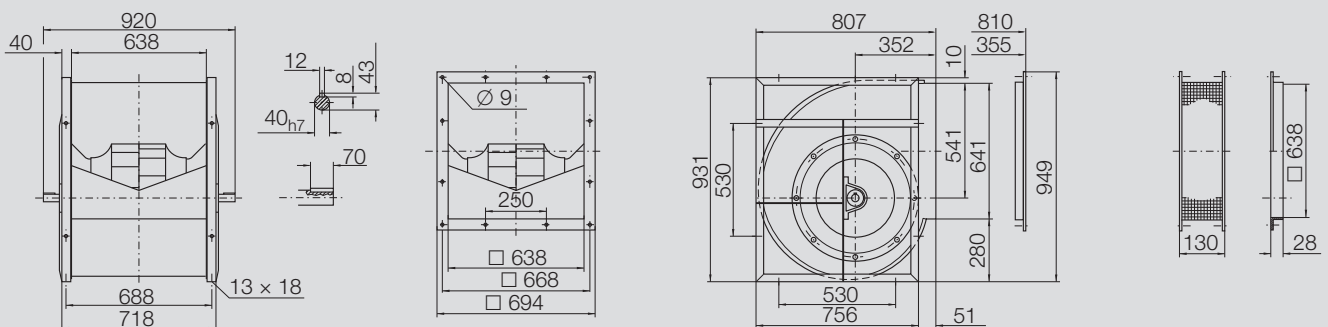
RDH E0-0500 62 kg



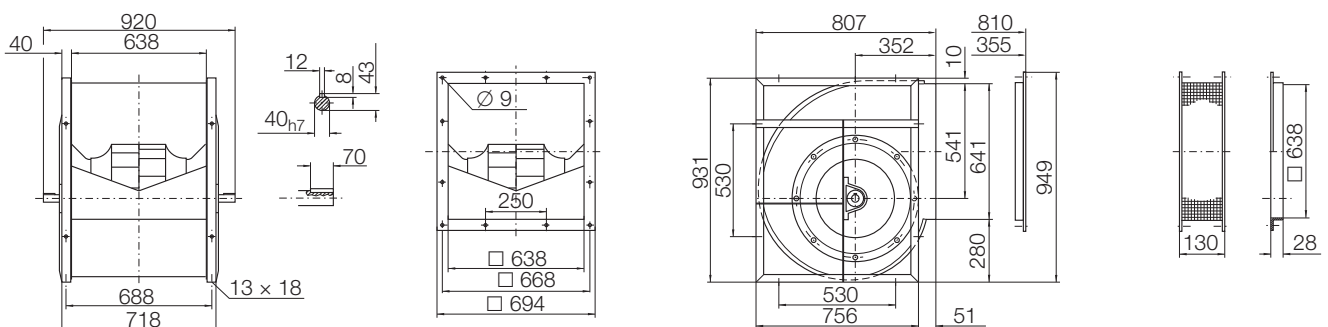
RDH E2-0500 70 kg



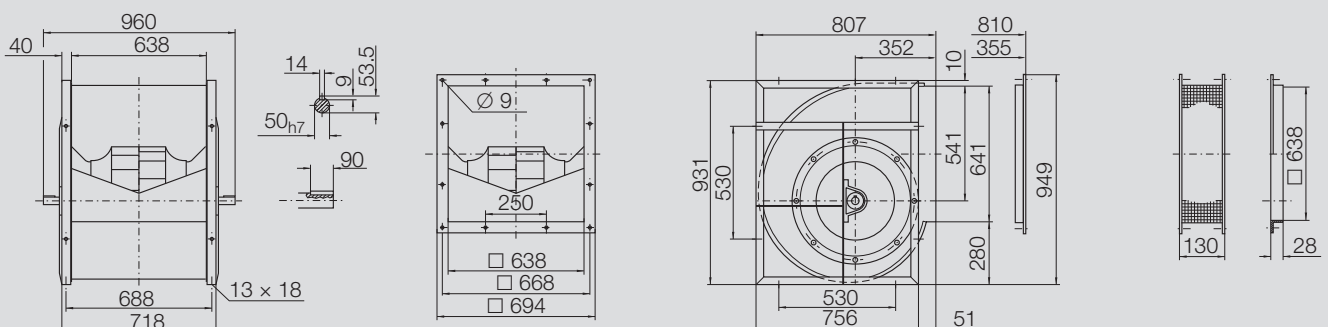
RDH E4-0500 90 kg



RDH E6-0500 92 kg



RDH E7-0500 110 kg



Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
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Technical Data

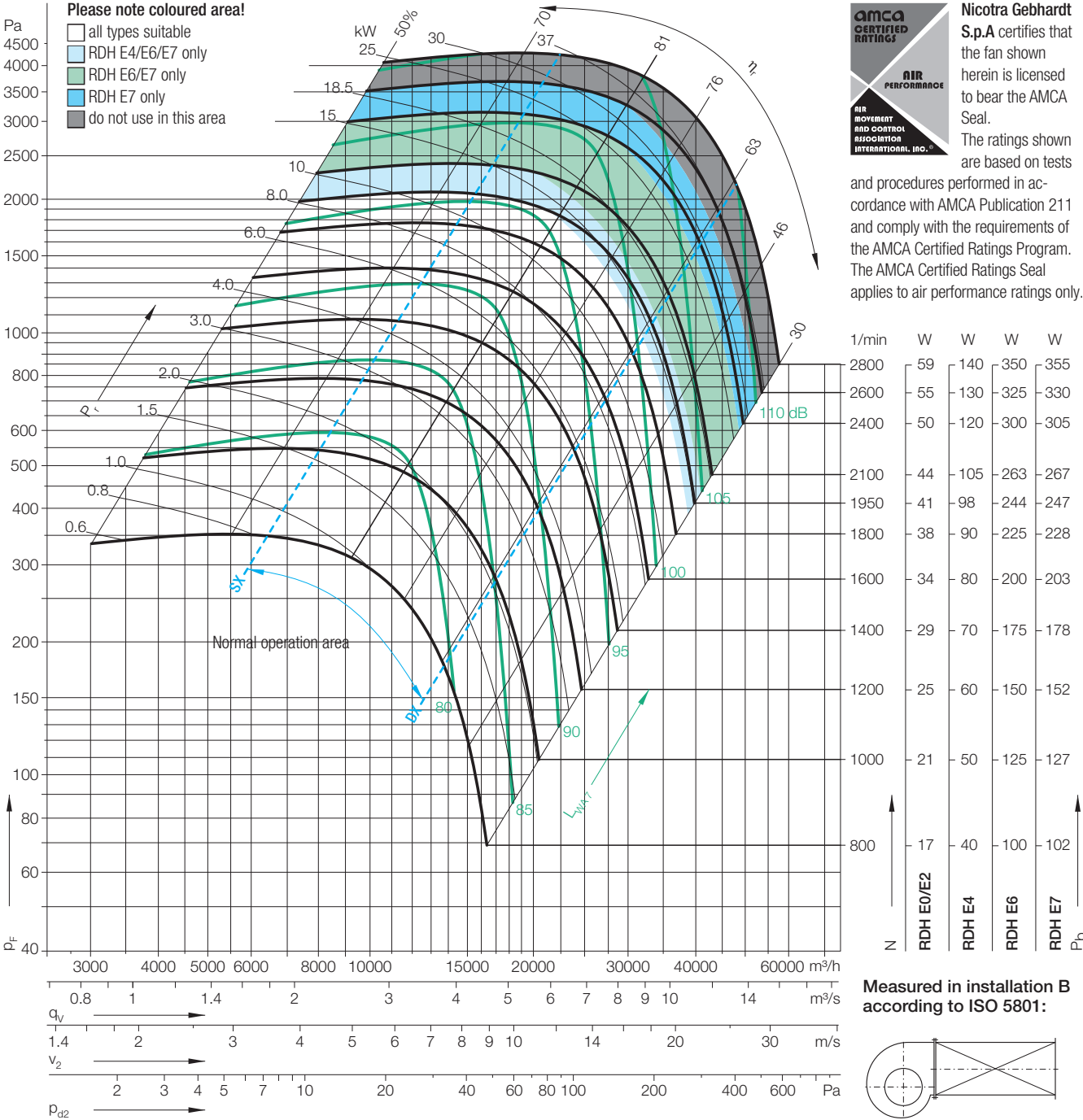
Impeller Data

Impeller diameter	D_r	562	mm
Number of blades	z	11	
Moment of Inertia	J	1,410	kgm ²

Impeller Data

Impeller weight	m	28,8	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		1	

Performance Curves

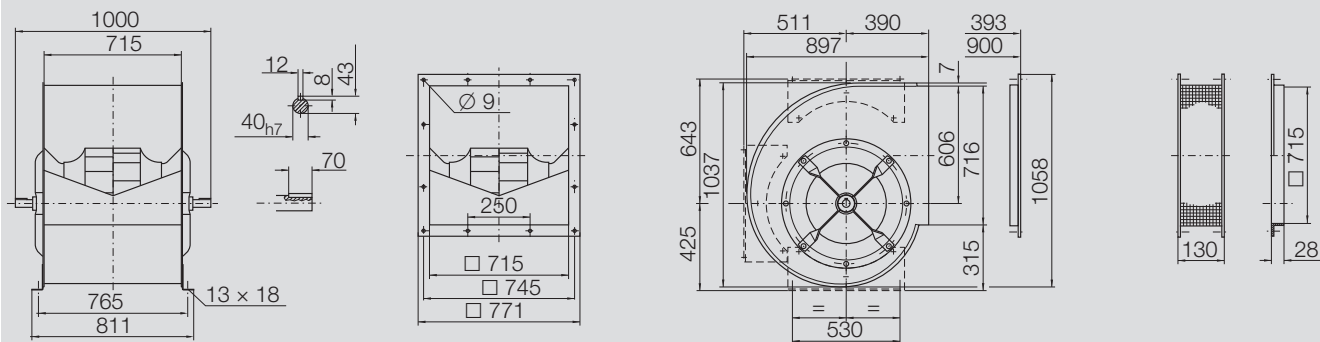


$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c									Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	2400	3	-5	-3	-3	-1	-7	-12	-13	-15	dB	10	6	2	0	-3	-7	-11	-14	dB
SX	1800	3	-1	-1	0	-1	-8	-10	-12	-16	dB	6	1	-2	0	-3	-7	-11	-15	dB
SX	1000	3	2	2	2	-4	-7	-9	-12	-18	dB	10	7	5	0	-3	-7	-11	-19	dB
$q_{V,opt}$	2400	3	-8	-7	-7	-1	-6	-11	-11	-14	dB	6	2	-2	-2	-2	-6	-10	-13	dB
$q_{V,opt}$	1800	3	-1	-1	0	-2	-7	-9	-11	-14	dB	6	2	2	-1	-2	-6	-10	-14	dB
$q_{V,opt}$	1000	3	-2	-1	2	-4	-7	-8	-11	-17	dB	5	4	5	1	-2	-7	-10	-17	dB
DX	2400	2	-7	-8	-8	1	-7	-11	-13	-16	dB	5	0	-3	1	-3	-7	-11	-14	dB
DX	1800	3	-6	-6	-3	-1	-7	-10	-13	-15	dB	6	1	2	1	-2	-7	-11	-13	dB
DX	1000	3	-3	-2	2	-4	-7	-10	-12	-16	dB	4	4	6	1	-3	-7	-10	-15	dB

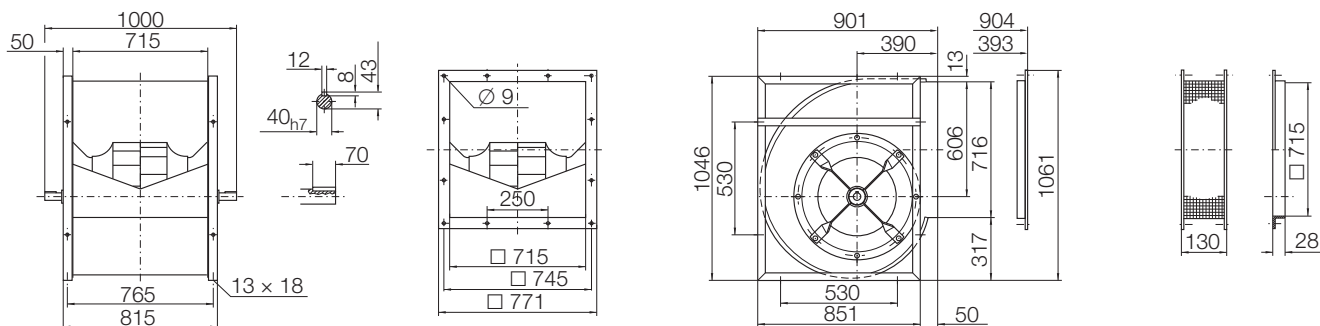
RDH E_-0560

Dimensions in mm, subject to change.

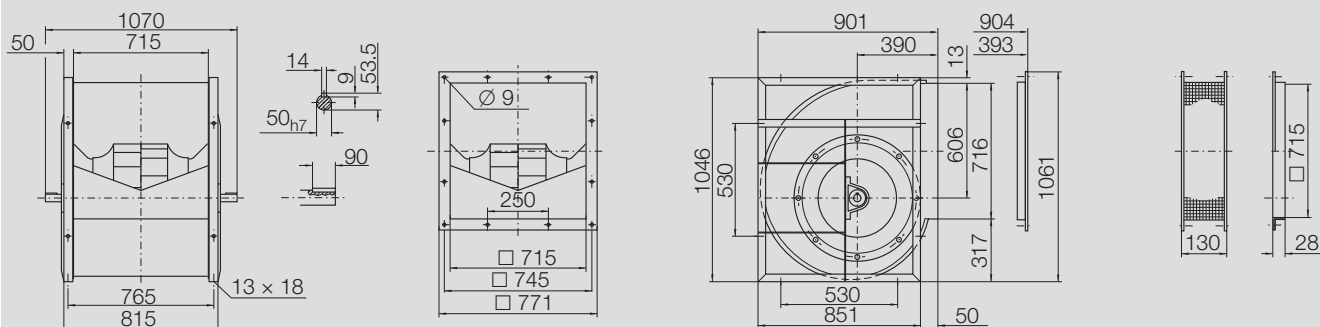
RDH E0-0560 79 kg



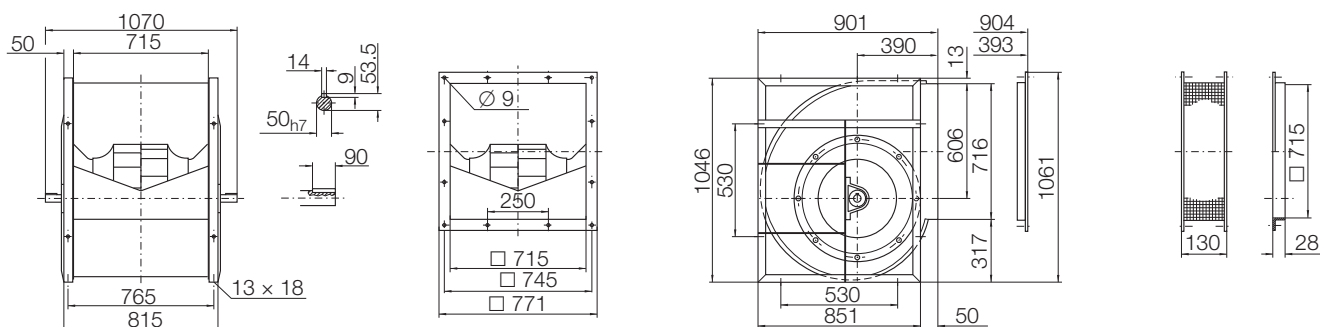
RDH E2-0560 92 kg



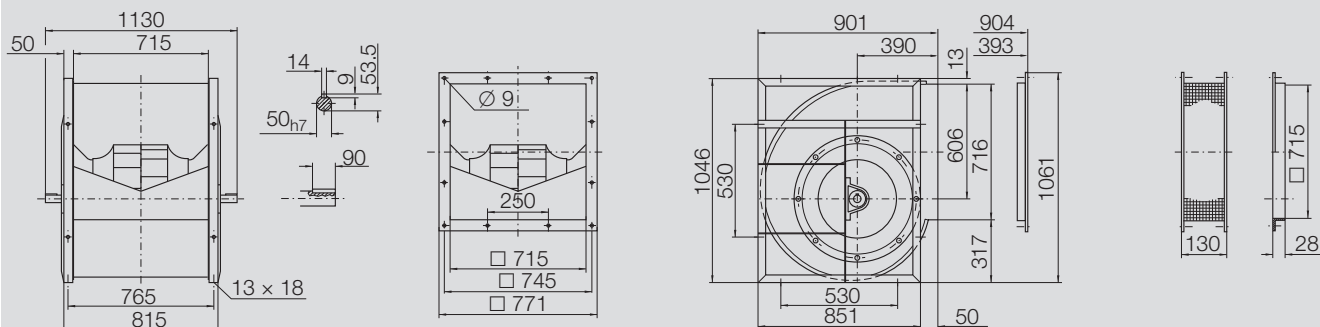
RDH E4-0560 141 kg



RDH E6-0560 148 kg



RDH E7-0560 153 kg



Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

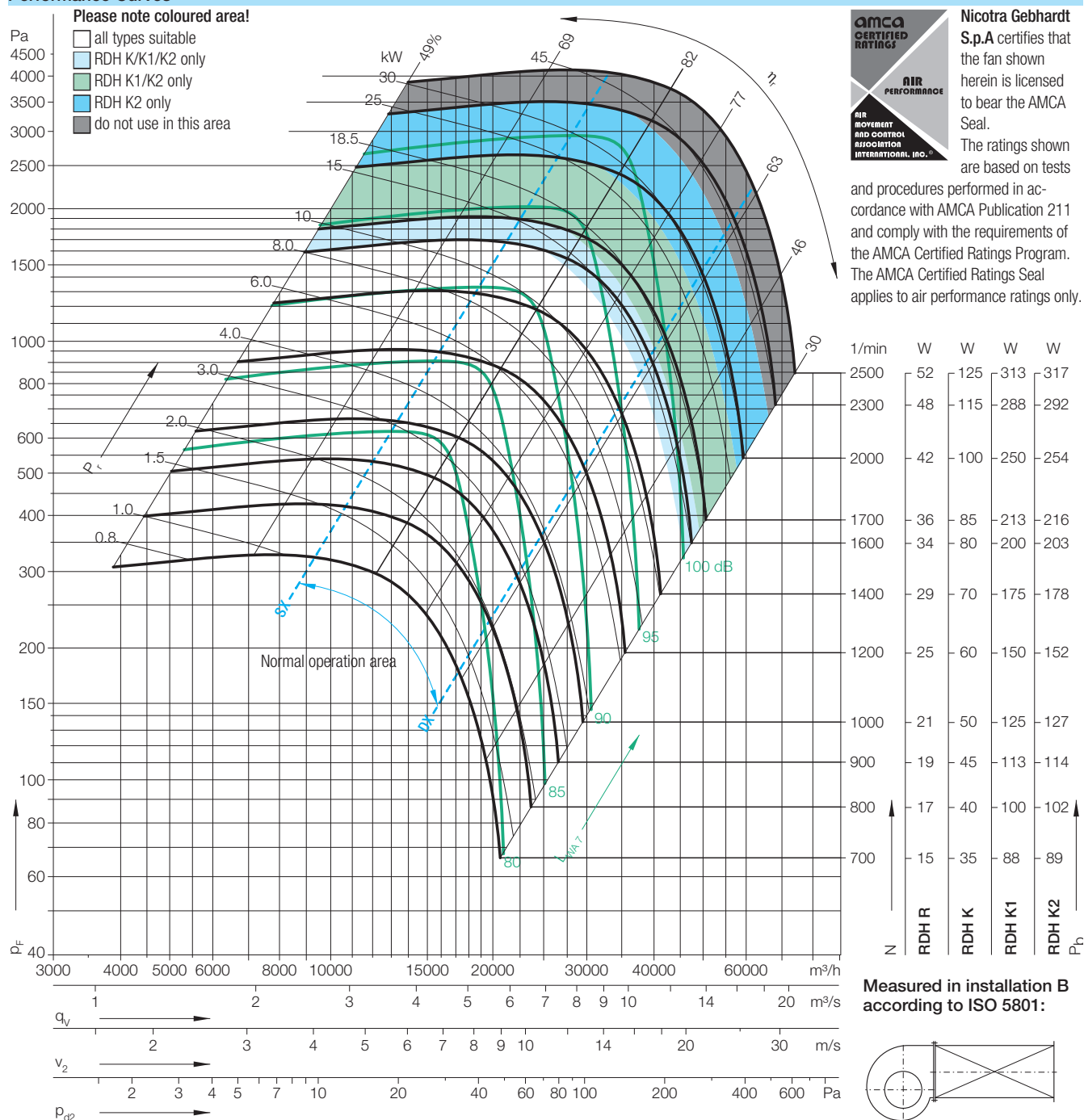
Impeller Data

Impeller diameter	D_r	632	mm
Number of blades	z	11	
Moment of Inertia	J	2,320	kgm ²

Impeller Data

Impeller weight	m	36,7	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		1	

Performance Curves



Duty point	Speed 1/min	dB
SX	2000	3
SX	1400	3
SX	800	3
qV _{opt}	2000	3
qV _{opt}	1400	3
qV _{opt}	800	3
DX	2000	3
DX	1400	3
DX	800	3

Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
3	3	1	-1	-7	-12	-15	-18	dB
5	4	3	-1	-8	-12	-16	-18	dB
8	7	3	-4	-7	-12	-13	-21	dB
0	-1	-2	-1	-6	-11	-14	-17	dB
2	-2	3	-2	-7	-11	-15	-17	dB
3	6	3	-3	-7	-11	-13	-20	dB
-4	-4	-2	-1	-6	-11	-13	-19	dB
-2	-3	2	-1	-7	-10	-16	-21	dB
1	6	3	-3	-6	-11	-16	-21	dB

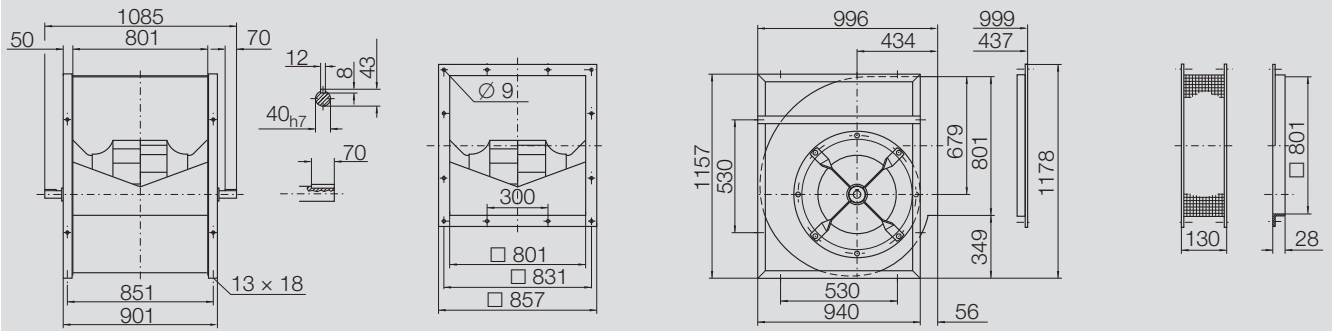
Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
14	11	4	0	-2	-8	-14	-18	dB
14	10	4	2	-3	-9	-15	-18	dB
15	8	6	2	-4	-11	-13	-21	dB
9	6	1	0	-1	-7	-13	-17	dB
10	5	2	2	-1	-9	-14	-17	dB
9	6	5	3	-4	-10	-12	-20	dB
10	4	2	1	-1	-7	-11	-17	dB
8	4	4	2	-2	-8	-13	-19	dB
8	8	5	2	-3	-8	-14	-22	dB

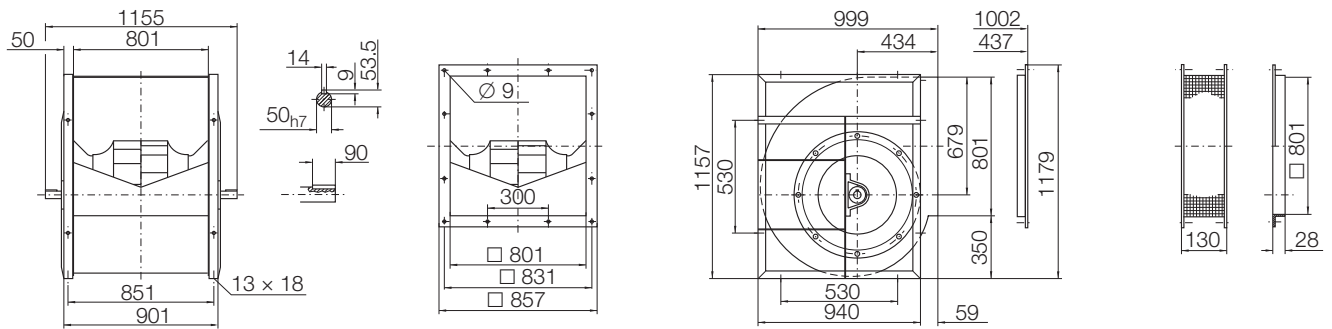
RDH _-0630

Dimensions in mm, subject to change.

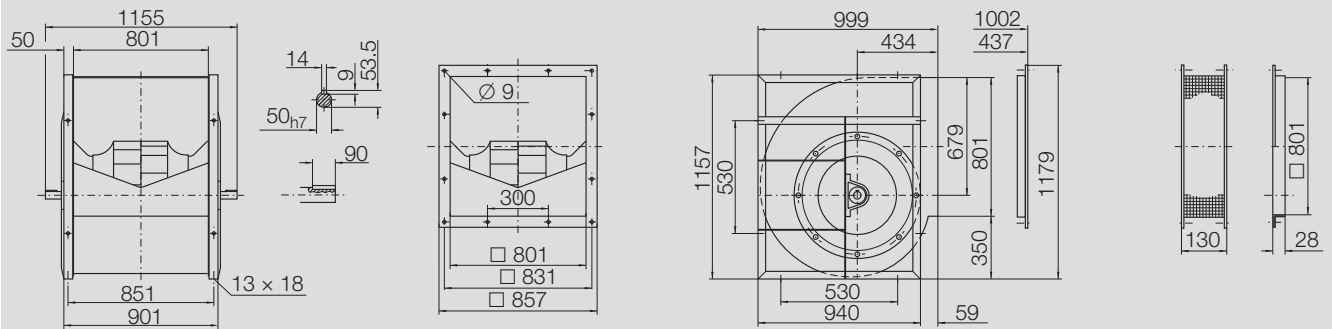
RDH R-0630 119 kg



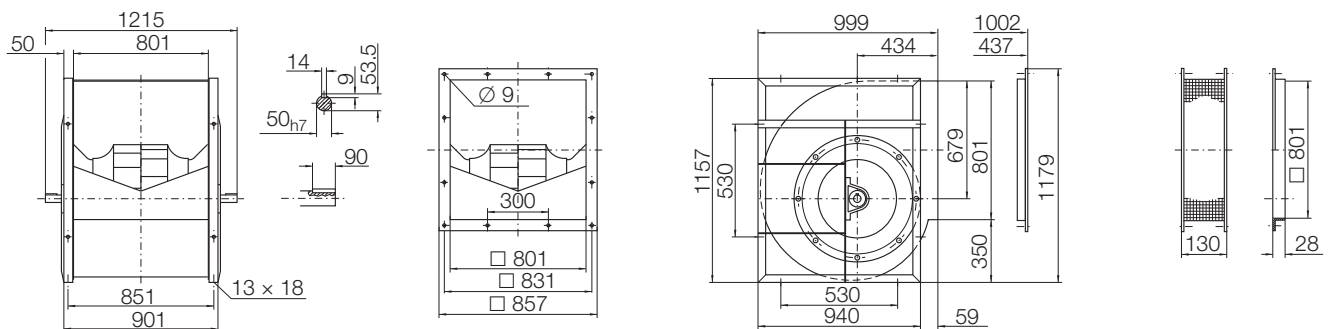
RDH K-0630 173 kg



RDH K1-0630 180 kg



RDH K2-0630 185 kg



RDH _-0710

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

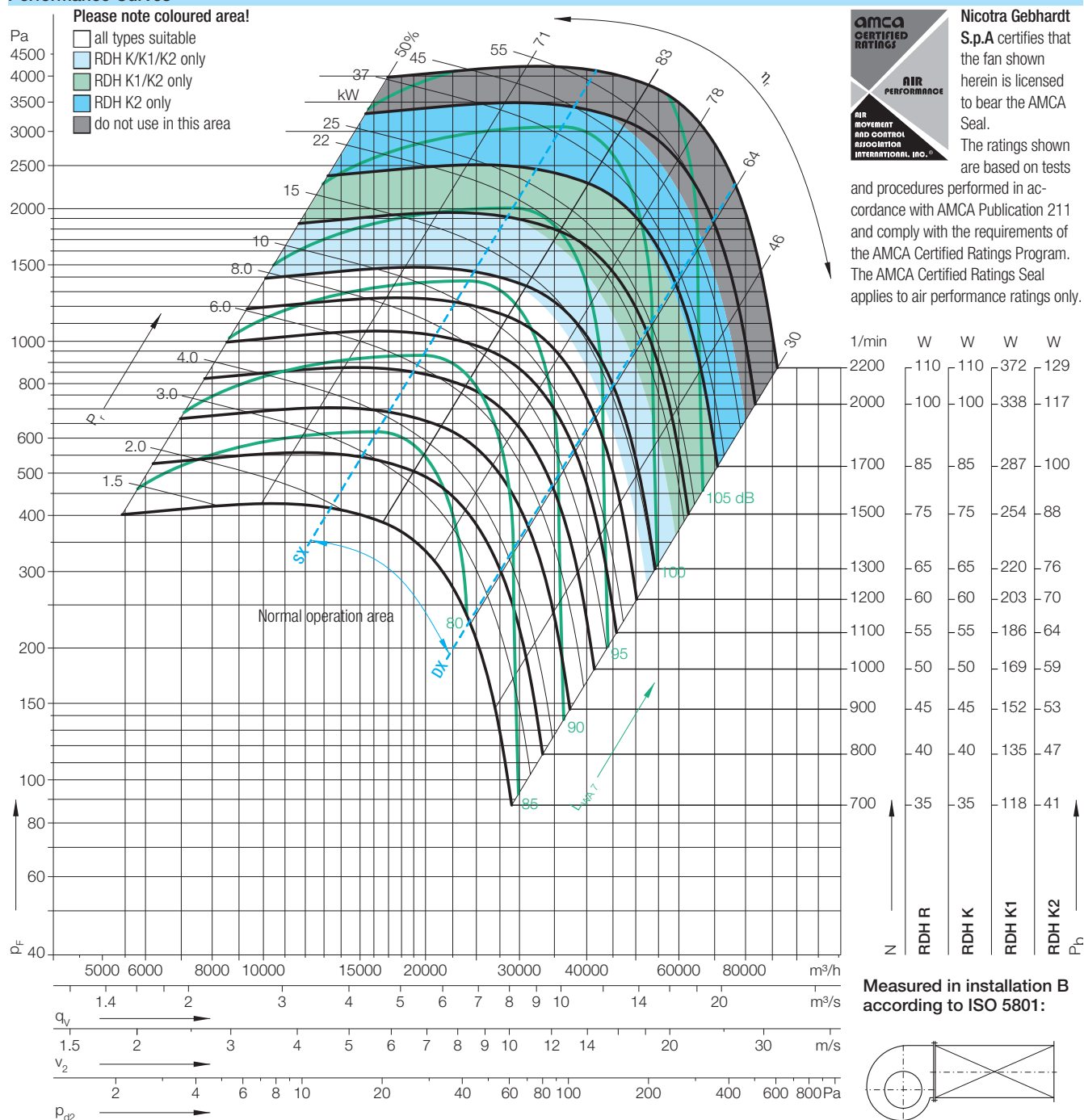
Impeller Data

Impeller diameter	D_r	712	mm
Number of blades	z	11	
Moment of Inertia	J	4,940	kgm ²

Impeller Data

Impeller weight	m	60	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		1	

Performance Curves



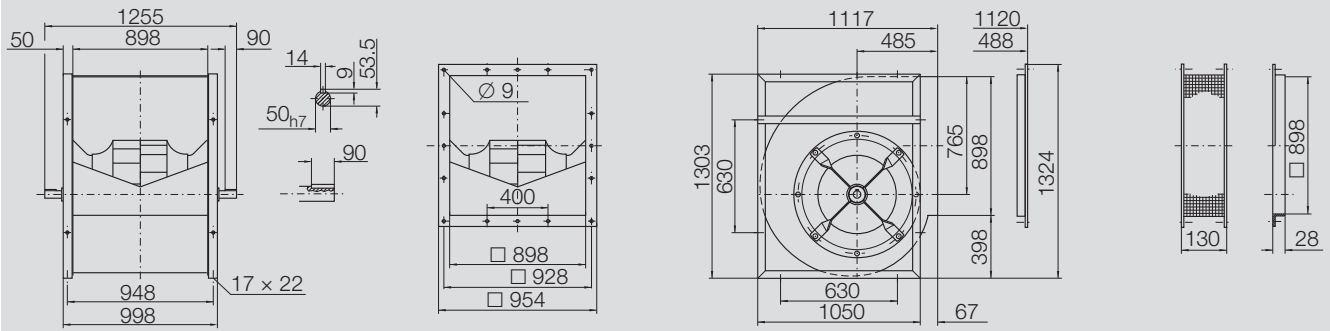
$\Delta L_{Wrel4}(A)$			Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c								
Duty point	Speed 1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz
SX	2000	3	1	1	0	0	-8	-11	-14	-19	dB
SX	1500	3	3	2	3	-2	-8	-10	-15	-19	dB
SX	800	3	6	7	3	-4	-6	-11	-15	-19	dB
$q_{V,opt}$	2000	3	-1	-1	-1	0	-7	-10	-14	-19	dB
$q_{V,opt}$	1500	3	0	0	3	-3	-7	-9	-15	-19	dB
$q_{V,opt}$	800	3	4	7	2	-4	-6	-11	-15	-20	dB
DX	2000	3	-1	-1	-1	0	-8	-10	-14	-21	dB
DX	1500	3	1	0	4	-3	-8	-9	-16	-22	dB
DX	800	3	4	7	2	-4	-5	-12	-18	-23	dB

Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c										
63	125	250	500	1000	2000	4000	8000	Hz		
11	8	3	1	-3	-7	-13	-19	dB		
11	8	4	1	-3	-7	-14	-19	dB		
12	8	5	1	-3	-10	-15	-19	dB		
7	6	2	0	-2	-6	-13	-18	dB		
8	6	3	0	-2	-7	-14	-19	dB		
10	7	4	2	-3	-10	-15	-20	dB		
12	7	3	1	-3	-6	-12	-19	dB		
11	7	6	0	-2	-7	-14	-21	dB		
11	9	4	2	-2	-10	-16	-23	dB		

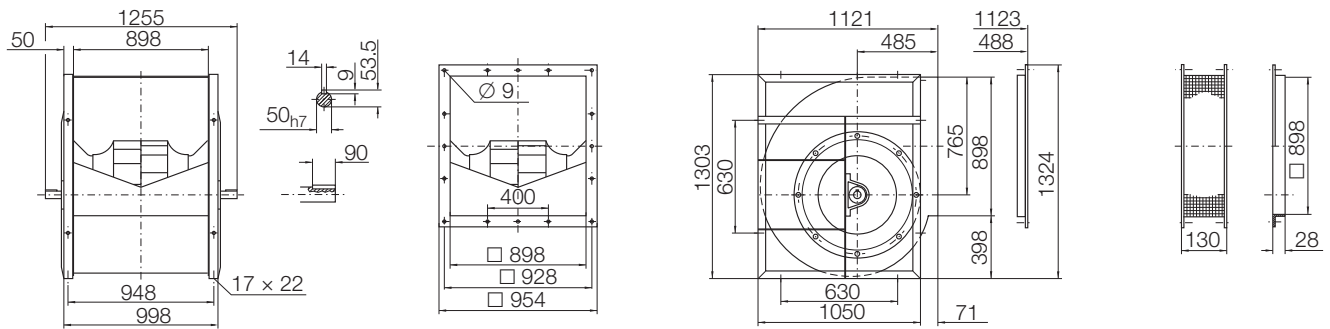
RDH _-0710

Dimensions in mm, subject to change.

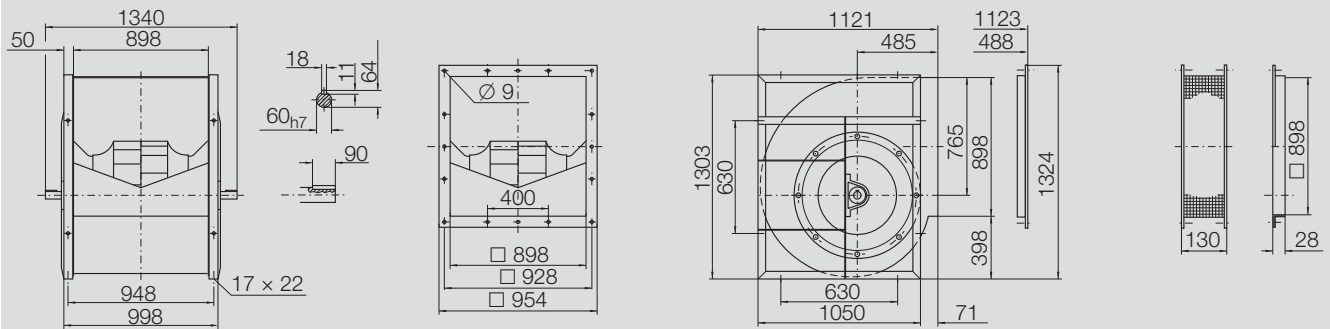
RDH R-0710 165 kg



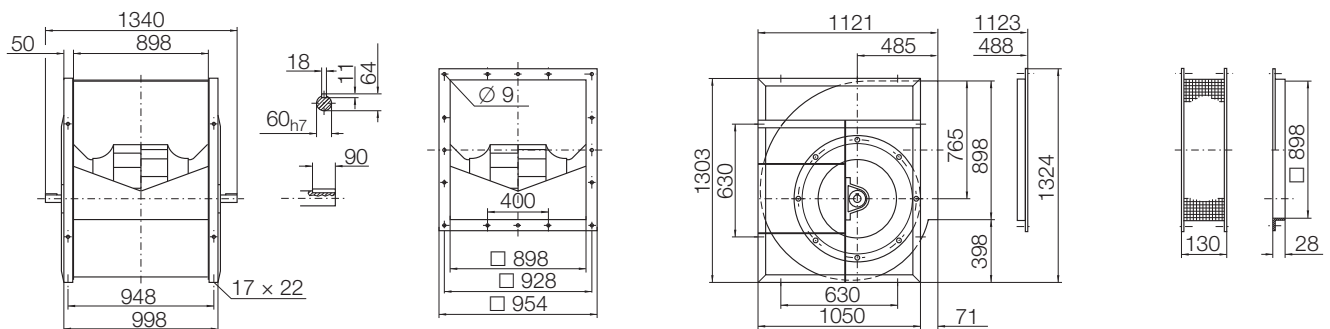
RDH K-0710 220 kg



RDH K1-0710 240 kg



RDH K2-0710 250 kg



Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

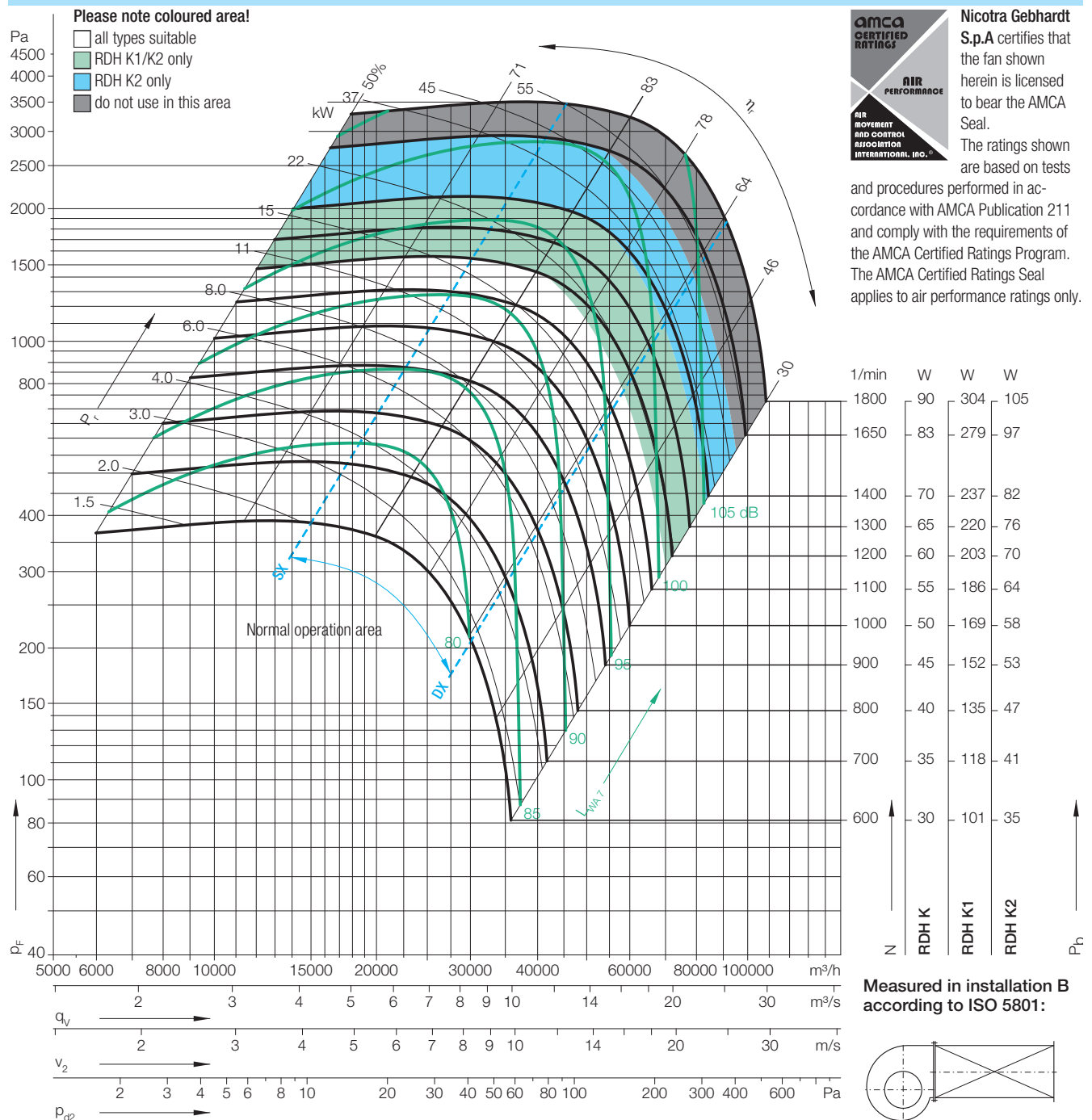
Impeller Data

Impeller diameter	D_r	802	mm
Number of blades	z	11	
Moment of Inertia	J	8,250	kgm ²

Impeller Data

Impeller weight	m	86	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		1	

Performance Curves



Duty point	Speed 1/min	dB
SX	1400	3
SX	1100	3
SX	700	3
$q_{V,opt}$	1400	3
$q_{V,opt}$	1100	3
$q_{V,opt}$	700	3
DX	1400	3
DX	1100	3
DX	700	3

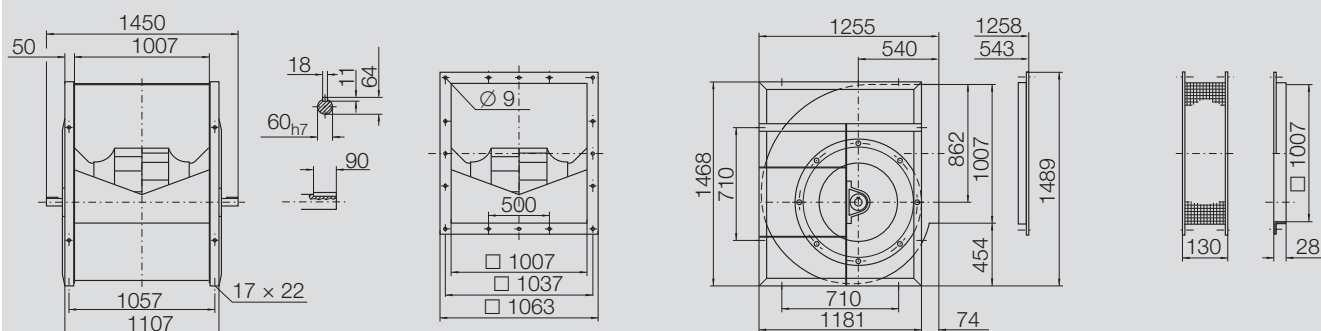
Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
4	3	3	-2	-8	-10	-16	-19	dB
5	3	4	-4	-8	-10	-16	-19	dB
7	8	2	-4	-6	-12	-15	-20	dB
0	0	4	-3	-7	-9	-15	-20	dB
1	0	4	-3	-7	-10	-16	-20	dB
4	8	1	-3	-6	-12	-16	-20	dB
2	0	4	-3	-7	-9	-17	-23	dB
2	0	5	-4	-7	-10	-18	-23	dB
4	8	1	-3	-5	-12	-18	-23	dB

Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
12	8	4	1	-3	-8	-15	-19	dB
12	6	5	1	-3	-8	-15	-20	dB
12	8	5	1	-3	-11	-15	-19	dB
8	6	3	0	-2	-7	-14	-19	dB
8	3	4	1	-2	-9	-15	-21	dB
9	7	4	2	-3	-10	-15	-20	dB
11	7	5	0	-2	-7	-14	-21	dB
10	4	6	1	-3	-8	-16	-22	dB
11	9	4	2	-3	-10	-17	-23	dB

RDH K-0800 270 kg



Performance certified is for installation type B - free inlet, ducted outlet.
Power rating (kW) does not include transmission losses.
Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

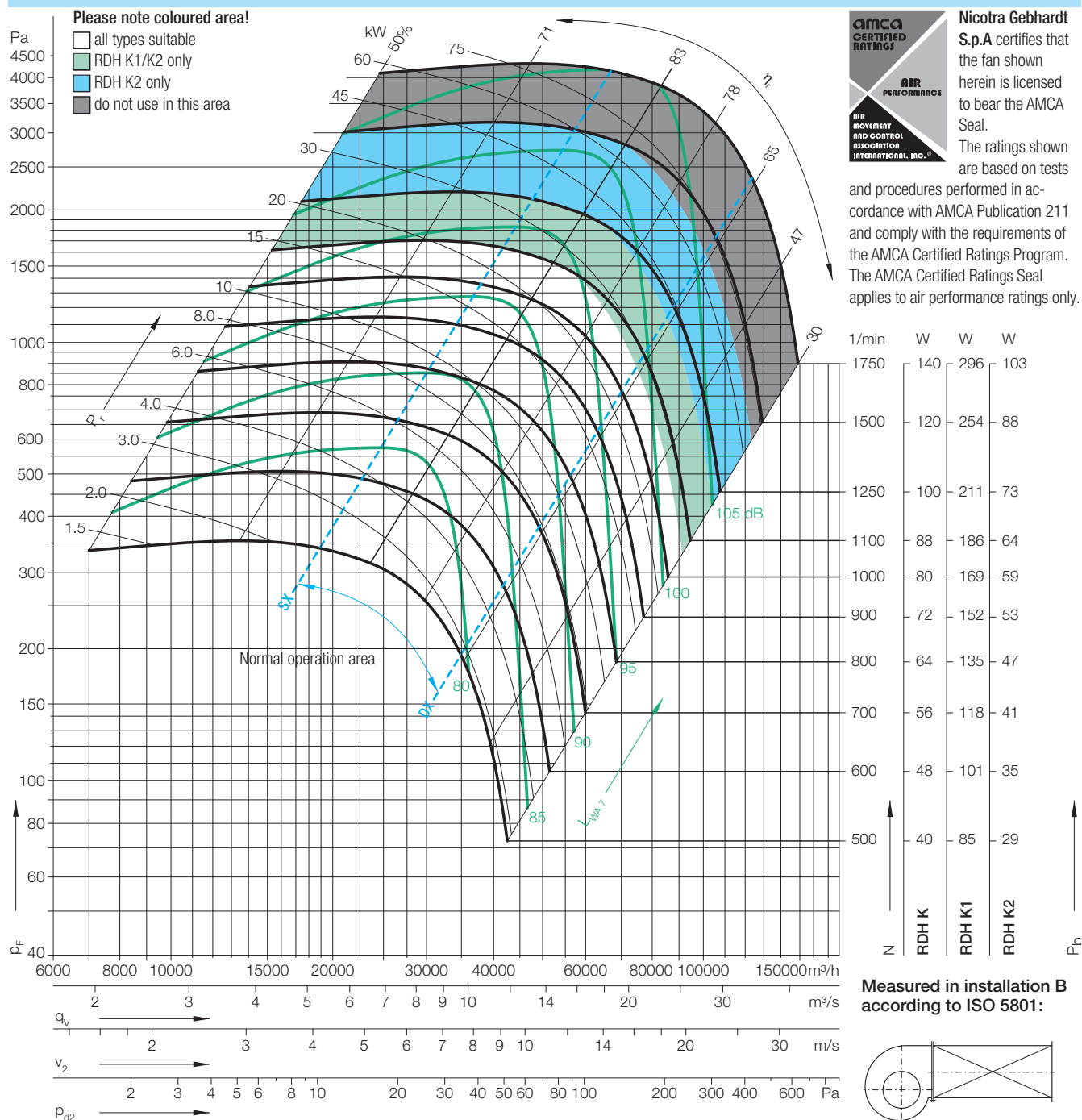
Impeller Data

Impeller diameter	D_r	902	mm
Number of blades	z	11	
Moment of Inertia	J	12,80	kgm ²

Impeller Data

Impeller weight	m	102	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		1	

Performance Curves



Duty point	Speed 1/min	dB
SX	1250	3
SX	1000	3
SX	600	3
qv,opt	1250	3
qv,opt	1000	3
qv,opt	600	3
DX	1250	3
DX	1000	3
DX	600	3

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
4	2	4	-3	-8	-10	-16	-19	dB
5	4	4	-4	-7	-10	-16	-19	dB
6	8	1	-4	-6	-12	-15	-20	dB
1	-1	4	-3	-7	-10	-16	-20	dB
3	3	4	-4	-6	-10	-15	-20	dB
3	8	1	-3	-6	-12	-16	-21	dB
1	-1	5	-4	-7	-10	-18	-24	dB
3	3	4	-4	-6	-11	-18	-23	dB
4	9	1	-3	-6	-14	-19	-24	dB

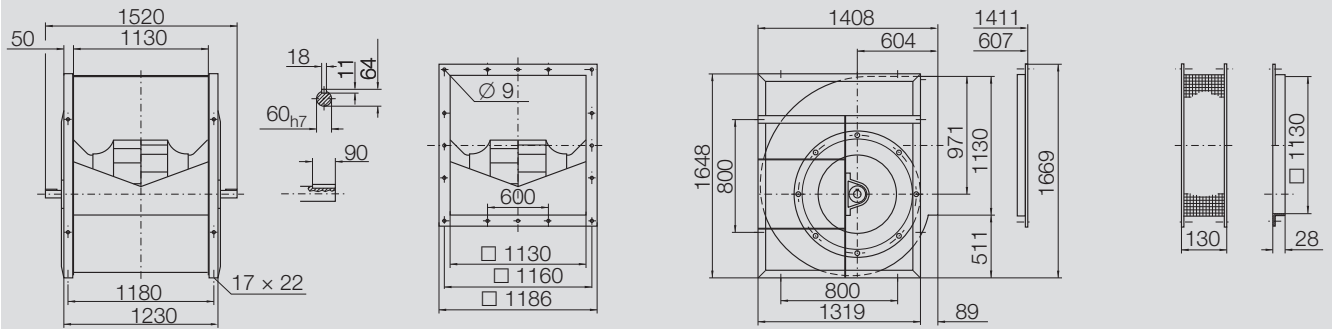
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
11	7	4	1	-3	-8	-15	-19	dB
12	7	5	1	-3	-9	-15	-19	dB
10	9	5	1	-4	-11	-15	-20	dB
8	4	4	1	-2	-8	-15	-20	dB
9	5	4	2	-2	-9	-15	-20	dB
8	8	5	2	-4	-11	-16	-21	dB
10	5	6	0	-3	-7	-15	-22	dB
10	7	5	1	-2	-8	-16	-22	dB
9	10	5	2	-3	-11	-18	-24	dB

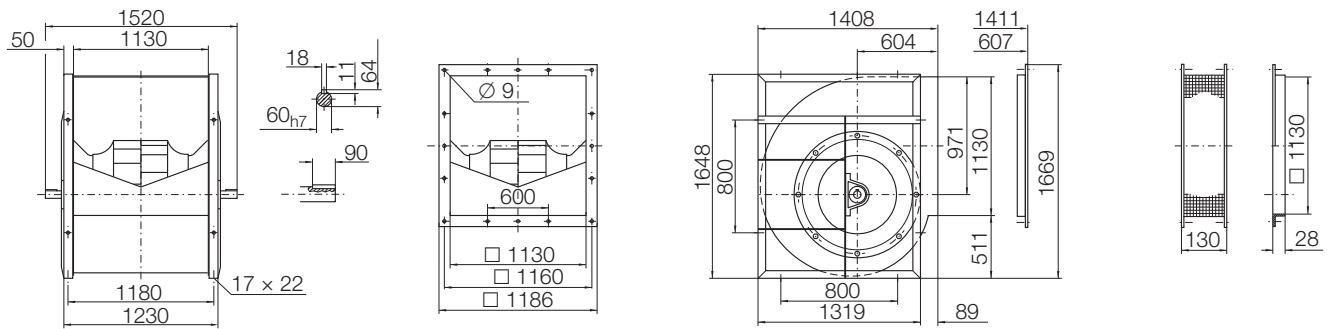
RDH _-0900

Dimensions in mm, subject to change.

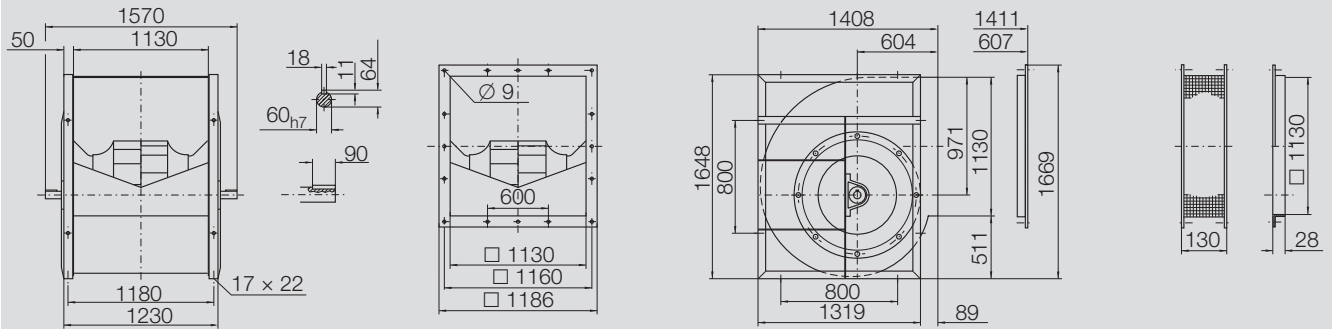
RDH K-0900 343 kg



RDH K1-0900 355 kg



RDH K2-0900 375 kg



RDH _-1000

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

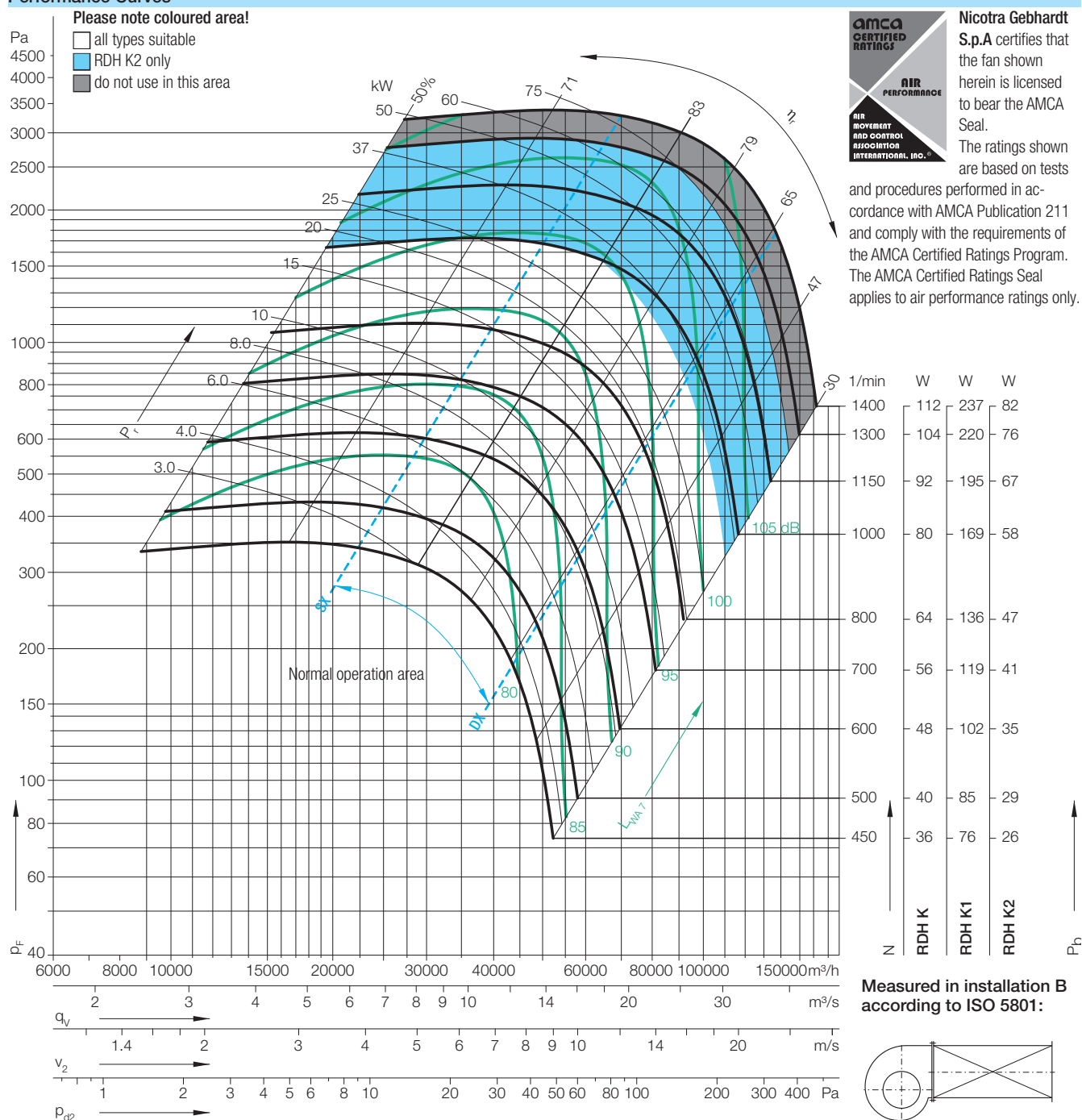
Impeller Data

Impeller diameter	D_r	1002	mm
Number of blades	z	11	
Moment of Inertia	J	24,80	kgm ²

Impeller Data

Impeller weight	m	146	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		1	

Performance Curves



Duty point	Speed 1/min	dB
SX	1150	3
SX	800	3
SX	500	3
qV _{opt}	1150	3
qV _{opt}	800	3
qV _{opt}	500	3
DX	1150	3
DX	800	3
DX	500	3

Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
4	2	4	-4	-8	-10	-16	-19	dB
7	7	3	-4	-6	-11	-15	-19	dB
8	8	0	-3	-6	-11	-15	-20	dB
1	-1	4	-3	-7	-10	-16	-20	dB
4	7	2	-4	-5	-11	-15	-20	dB
7	7	0	-2	-6	-12	-16	-21	dB
2	-1	5	-4	-7	-10	-18	-24	dB
4	7	2	-4	-5	-12	-18	-23	dB
7	8	1	-2	-6	-13	-19	-23	dB

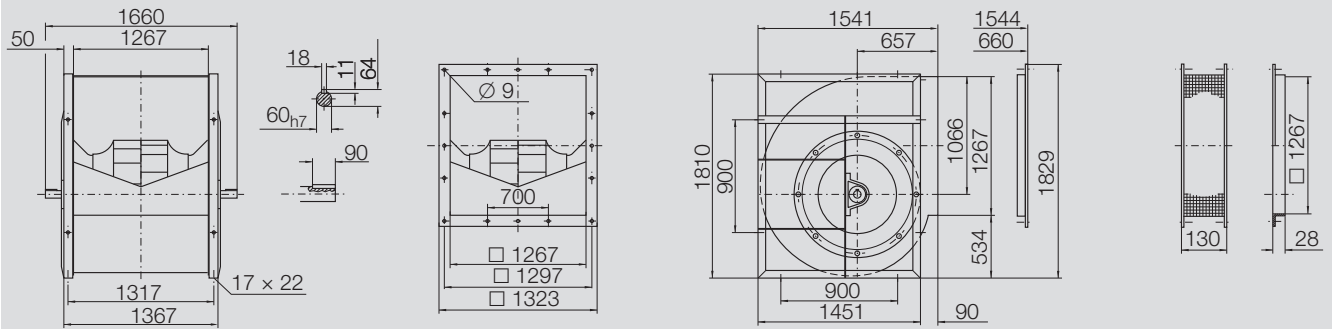
Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
12	6	5	1	-3	-8	-15	-20	dB
12	8	5	1	-3	-10	-15	-19	dB
11	9	5	1	-5	-11	-15	-20	dB
8	3	4	1	-3	-8	-15	-21	dB
10	7	4	2	-3	-10	-15	-20	dB
9	8	6	2	-5	-11	-16	-20	dB
10	4	6	0	-3	-8	-16	-22	dB
11	9	4	1	-3	-10	-16	-23	dB
11	9	5	2	-4	-11	-18	-24	dB

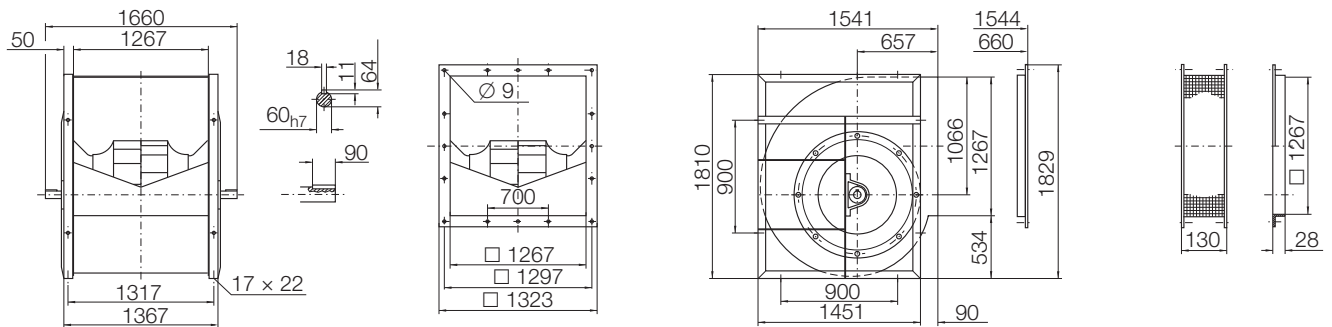
RDH _-1000

Dimensions in mm, subject to change.

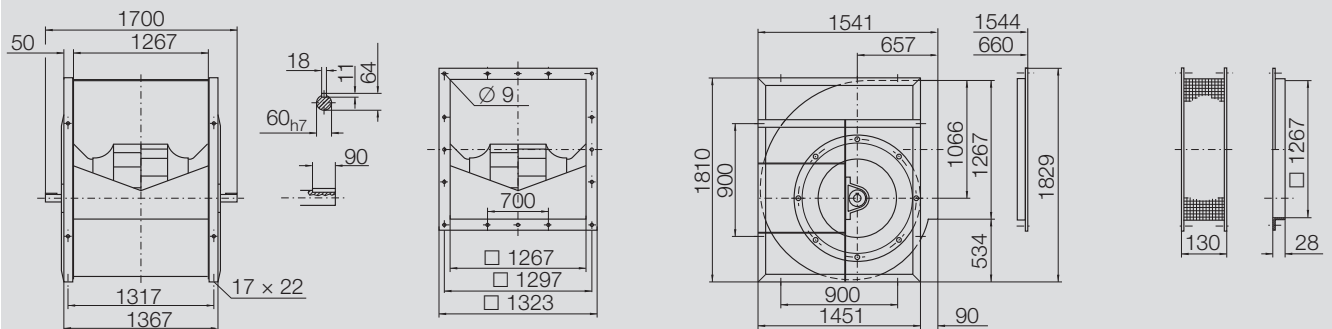
RDH K-1000 415 kg



RDH K1-1000 430 kg



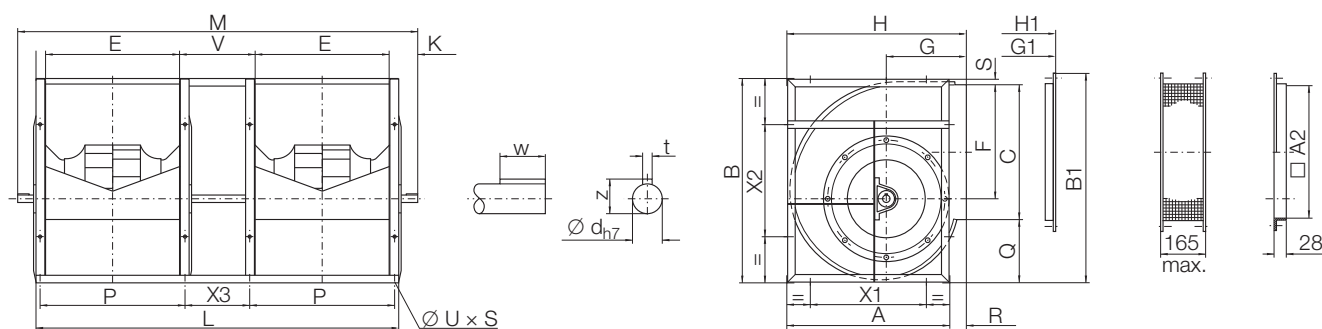
RDH K2-1000 450 kg



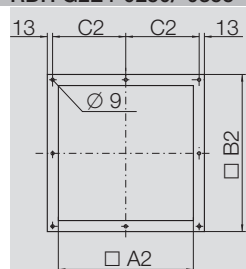
RDH G2E4 / RDH G2K

Dimensions in mm, subject to change.

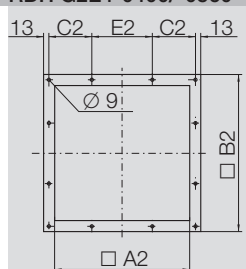
RDH G2E4-0250/-0560 / RDH G2K-0630/-1000



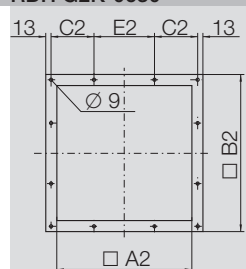
RDH G2E4-0250/-0355



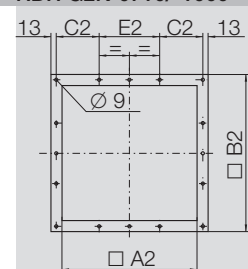
RDH G2E4-0400/-0560



RDH G2K-0630



RDH G2K-0710/-1000



RDH G2E4-0250/-0560 / RDH G2K-0630/-1000

	A	B	C	E	F	G	H	L	M	P
0250	390	474	322	322	268	195	427	943	1085	352
0280	439	530	361	361	302	215	474	1062	1220	391
0315	490	592	403	404	338	236	526	1182	1340	434
0355	551	669	450	453	381	261	588	1341	1505	493
0400	618	754	507	507	432	290	659	1494	1660	547
0450	691	845	571	569	487	322	735	1668	1870	619
0500	760	935	641	638	541	352	809	1856	2060	688
0560	855	1050	716	715	606	390	903	2090	2330	765
0630	940	1157	801	801	679	434	1005	2332	2576	851
0710	1050	1303	898	898	765	485	1121	2606	2898	948
0800	1181	1468	1007	1007	862	540	1255	2914	3257	1057
0900	1319	1648	1130	1130	971	604	1408	3260	3550	1180
1000	1451	1810	1267	1267	1066	657	1541	3634	3927	1317

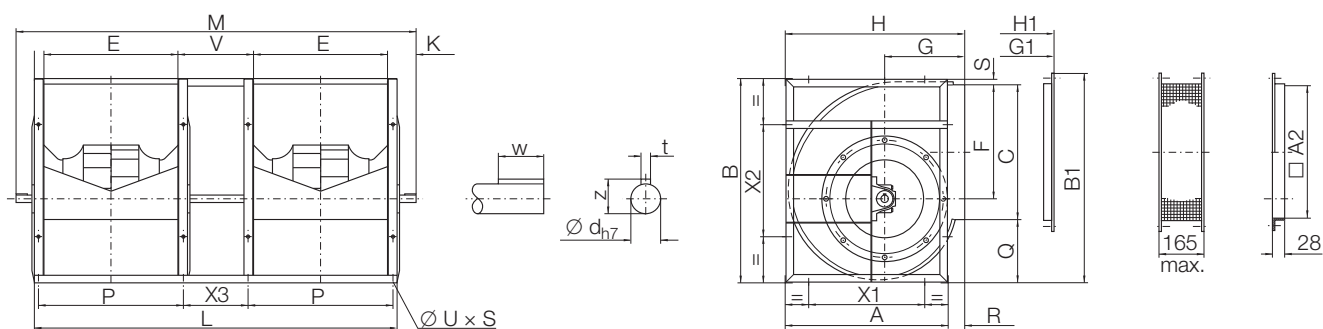
	Q	R	S	V	K	X1	X2	X3	t	w
0250	140	37	10	250	71	224	224	220	8	40
0280	158	35	9	280	79	280	280	250	8	40
0315	177	36	10	315	79	280	280	285	8	40
0355	204	37	13	355	82	355	355	315	10	50
0400	234	41	11	400	83	355	355	360	10	50
0450	261	44	11	450	101	530	530	400	12	70
0500	282	49	10	500	102	530	530	450	12	70
0560	319	48	13	560	120	530	530	510	14	90
0630	349	59	7	630	122	530	530	580	14	90
0710	398	71	7	710	146	630	630	660	18	91
0800	453	74	8	800	172	710	710	750	18	91
0900	510	89	8	900	145	800	800	850	18	91
1000	534	90	9	1000	147	900	900	950	18	91

	z	ød	u x s	B1	H1	G1	A2	B2	C2	E2
0250	28	25h7	11 x 16	490	430	198	322	378	176.0	—
0280	33	30h7	13 x 18	547	477	218	361	417	195.5	—
0315	33	30h7	13 x 18	608	529	239	404	460	217.0	—
0355	38	35h7	13 x 18	682	591	264	453	509	241.5	—
0400	38	35h7	13 x 18	769	662	293	507	563	168.5	200
0450	43	40h7	13 x 18	860	738	325	569	625	199.5	200
0500	43	40h7	13 x 18	951	812	355	638	694	209.0	250
0560	53.5	50h7	13 x 18	1063	906	393	715	771	247.5	250
0630	53.5	50h7	13 x 18	1179	1008	437	801	857	265.5	300
0710	64	60h7	17 x 22	1391	1124	488	898	954	264.0	400
0800	64	60h7	17 x 22	1561	1258	543	1007	1063	268.5	500
0900	64	60h7	17 x 22	1748	1411	607	1130	1186	280.0	600
1000	64	60h7	17 x 22	1930	1544	660	1267	1323	298.5	700

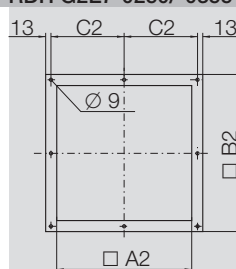
RDH G2E7 / RDH G2K2

Dimensions in mm, subject to change.

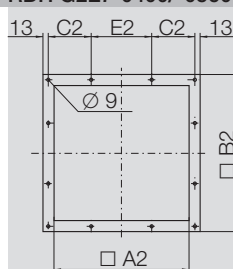
RDH G2E7-0250/-0560 / RDH G2K2-0630/-1000



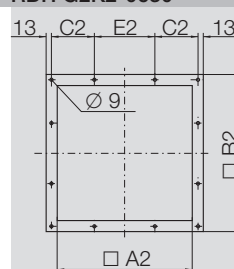
RDH G2E7-0250/-0355



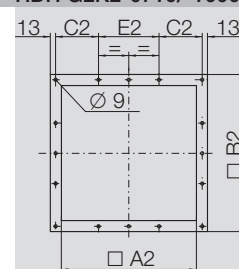
RDH G2E7-0400/-0560



RDH G2K2-0630



RDH G2K2-0710/-1000



RDH G2E7-0250/-0560 / RDH G2K2-0630/-1000

	A	B	C	E	F	G	H	L	M	P
0250	390	474	322	322	268	195	427	943	1085	352
0280	439	530	361	361	302	215	474	1062	1230	391
0315	490	592	403	404	338	236	526	1182	1400	434
0355	551	669	450	453	381	261	588	1341	1545	493
0400	618	754	507	507	432	290	659	1494	1800	547
0450	691	845	571	569	487	322	735	1668	1924	619
0500	760	935	641	638	541	352	809	1856	2146	688
0560	855	1050	716	715	606	390	903	2090	2380	765
0630	940	1157	801	801	679	434	1005	2332	2576	851
0710	1050	1303	898	898	765	485	1121	2606	2898	948
0800	1181	1468	1007	1007	862	540	1255	2914	3257	1057
0900	1319	1648	1130	1130	971	604	1408	3260	3550	1180
1000	1451	1810	1267	1267	1066	657	1541	3634	3927	1317

	Q	R	S	V	K	X1	X2	X3	t	w
0250	140	37	10	250	71	224	224	220	8	40
0280	158	35	9	280	84	280	280	250	10	50
0315	177	36	10	315	109	280	280	285	12	70
0355	204	37	13	355	102	355	355	315	12	70
0400	234	41	11	400	153	355	355	360	14	90
0450	261	44	11	450	128	530	530	400	14	90
0500	282	49	10	500	145	530	530	450	18	90
0560	319	48	13	560	145	530	530	510	18	90
0630	349	59	7	630	122	530	530	580	18	91
0710	398	71	7	710	146	630	630	660	18	91
0800	453	74	8	800	172	710	710	750	18	91
0900	510	89	8	900	145	800	800	850	18	91
1000	534	90	9	1000	147	900	900	950	18	91

	z	ød	u x s	B1	H1	G1	A2	B2	C2	E2
0250	33	30h7	11 x 16	490	430	198	322	378	176	—
0280	38	35h7	13 x 18	547	477	218	361	417	195.5	—
0315	43	40h7	13 x 18	608	529	239	404	460	217	—
0355	43	40h7	13 x 18	682	591	264	453	509	241.5	—
0400	53.5	50h7	13 x 18	769	662	293	507	563	168.5	200
0450	53.5	50h7	13 x 18	860	738	325	569	625	199.5	200
0500	64	60h7	13 x 18	951	812	355	638	694	209	250
0560	64	60h7	13 x 18	1063	906	393	715	771	247.5	250
0630	64	60h7	13 x 18	1179	1008	437	801	857	265.5	300
0710	64	60h7	17 x 22	1391	1124	488	898	954	264.0	400
0800	64	60h7	17 x 22	1561	1258	543	1007	1063	268.5	500
0900	64	60h7	17 x 22	1748	1411	607	1130	1186	280.0	600
1000	64	60h7	17 x 22	1930	1544	660	1267	1323	298.5	700

Specifications



High performance centrifugal fan RDH E0
Double inlet belt drive.
Lap jointed scroll of galvanised sheet steel assembled through a standing-seam.
Multi-position feet and discharge flange as an option.
Centrifugal impeller with 8 backward inclined blades made of fibreglass reinforced polyamide (sizes 0180/-0225) or with 11 backward inclined blades made of sheet steel, welded and coated, balanced in according to ISO 1940.
Throat plate inclined to blade trasling edge.
Noise tested, maintenance free, self aligning radial insert ball bearings, mounted in pressed steel housing/strut assemblies with rubber interliners.
Performance data in according to DIN 24166 tolerance class 2 (sizes 0180/-0315) tolerance class 1 (sizes 0355/-0560).

Fan data

Fan type	
Volume flow	Q _V	m³/h
Total pressure increase	p _F	Pa
Static pressure	p _{sF}	Pa
Air density at fan inlet	ρ ₁	kg/m³
Air medium temperature	t	°C
Shaft power	P _a	kW
Efficiency	(η _a)	
Speed	N	1/min
Sound power level (A weighted)	L _{WA}	dB
Weight	m	kg

Fittings / Accessories

- Multi-Position feet
- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guard
- Discharge guard
- Shaft guard for free shaft end
- Matching flange
- Inspection door
- Drain plug R 1/8"
- Increase corrosion protection
- Volumeter
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone

RDH E2-0180/-0560
RDH R-0630/-0710

Specifications



High performance centrifugal fan RDH E2 / RDH R

Double inlet belt drive.
Lap jointed scroll of galvanised sheet steel assembled through a standing-seam (sizes 0160/-0560) or by Pittsburgh lockforming (sizes 0630/-0710), discharge flange as an option.
Rectangular side frame of galvanised steel.
Centrifugal impeller with 8 backward inclined blades made of fibreglass reinforced polyamide (sizes 0180/-0225) or with 11 backward inclined blades made of sheet steel, welded and coated, balanced in according to ISO 1940.
Throat plate inclined to blade trasling edge.
Noise tested, maintenance free, self aligning radial insert ball bearings, mounted in pressed steel housing/strut assemblies with rubber interliners.
Performance data in according to DIN 24166 tolerance class 2 (sizes 0180/-0315) or tolerance class 1 (sizes 0355/-0710).

Fan data

Fan type	
Volume flow	q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Multi-Position feet
- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guard
- Discharge guard
- Shaft guard for free shaft end
- Matching flange
- Inspection door
- Drain plug R 1/8"
- Increase corrosion protection
- Volumeter
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone, or equipped with a copper strip (from size 0630)

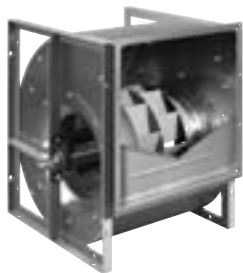
RDH E4-0200/-0560

RDH K-0630/-1000

RDH G2E4-0250/-0560

RDH G2K-0630/-1000

Specifications



High performance centrifugal fan RDH E4 / RDH K

Double inlet, belt drive.

Lap jointed scroll of galvanised sheet steel assembled through a standing-seam (Sizes 0200/-0560) or by Pittsburgh lockforming (sizes 0630/-1000), discharge flange as an option.

Welded heavy duty reinforced side frames, coated.

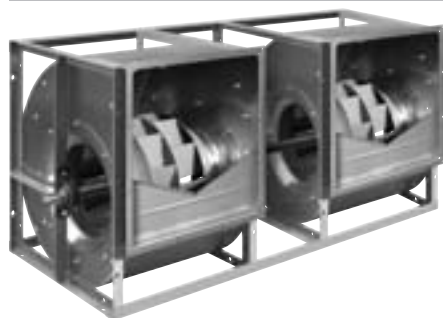
Centrifugal impeller with 8 backward inclined blades made of fibreglass reinforced polyamide (sizes 0200/-0225) or with 11 backward inclined blades made of sheet steel, welded and coated (sizes 0250/-1000), balanced in according to ISO 1940.

Throat plate inclined to blade trailing edge.

Monobloc pedestal cast iron bearings with relubrication nipple, mounted on a robust pedestal, integrated, self aligning radial insert ball bearings fixed by eccentric clamp.

Performance data in according to DIN 24166 tolerance class 2 (sizes 0200/-0315) or tolerance class 1 (sizes 0355/-1000).

Twin fan arrangement



Twin fan arrangement

High performance centrifugal fan RDH G2E4/RDH G2K

The two single fans RDH E4 or RDH K are fitted together to a robust assembly by means of 3 crossbars. Both impellers are fitted on a common shaft supported by 3 bearings. (sizes 0250/-0630) or the fans have separated shafts being connected by a flexible coupling (sizes 0710/-1000).

Fan data

Fan type	.....
Volume flow	Q _V	m³/h
Total pressure increase	p _F	Pa
Static pressure	p _{sF}	Pa
Air density at fan inlet	ρ ₁	kg/m³
Air medium temperature	t	°C
Shaft power	P _a	kW
Efficiency	(η _a)	
Speed	N	1/min
Sound power level (A weighted)	L _{WA}	dB
Weight	m	kg

Fittings / Accessories

- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guard
- Discharge guard
- Shaft guard for free shaft end
- Matching flange
- Inspection door
- Drain plug R 1/8"
- Reinforcing side frame hot dip galvanised
- Increase corrosion protection
- Volumeter
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone, or equipped with a copper strip (as from size 0630)

RDH E6-0315/-0560

RDH K1-0630/-0900

Specifications



High performance centrifugal fan RDH E6 / RDH K1

Double inlet, belt drive.
 Lap jointed scroll of galvanised sheet steel assembled through a standing-seam or by Pittsburgh lockforming (sizes 0630/-1000), discharge flange as an option.
 Welded heavy duty reinforced side frames, coated.
 Centrifugal impeller with 11 backward inclined blades made of sheet steel, welded and coated, balanced in according to ISO 1940.
 Throat plate inclined to blade trasling edge.
 Monobloc pedestal cast iron bearings with relubrication nipple, mounted on a robust pedestal, integrated, self aligning radial insert ball bearings fixed by conical sleeve.
 Performance data in according to DIN 24166 tolerance class 2 (size 0315) or tolerance class 1 (sizes 0355/-1000).

Fan data

Fan type	.....
Volume flow	q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guard
- Discharge guard
- Shaft guard for free shaft end
- Matching flange
- Inspection door
- Drain plug R 1/8"
- Reinforcing side frame hot dip galvanised
- Increase corrosion protection
- Volumeter
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone, or equipped with a copper strip (from size 0630)

RDH E7-0500/-0560

RDH K2-0630/-1000

Specifications



High performance centrifugal fan RDH E7 / RDH K2

Double inlet belt drive.

Lap jointed scroll of galvanised sheet steel assembled through a standing-seam (Sizes 0500/-0560) or by Pittsburgh lockforming (sizes 0630/-1000), discharge flange as an option.

Welded heavy duty reinforced side frames, coated.

Centrifugal impeller with 11 backward inclined blades made of sheet steel, welded and coated, balanced in according to ISO 1940.

Throat plate inclined to blade trailing edge.

Size 0500

Monobloc pedestal cast iron bearings with relubrication nipple, mounted on a robust pedestal, integrated, self aligning radial insert ball bearings fixed by conical sleeve

Sizes 0560 up to 0800

Split pedestal cast iron bearings with relubrication nipple, mounted on a robust pedestal, integrated self aligning double row bearings fixed by conical sleeve, lubricated with long life high performance grease.

Sizes 0900 and 1000

Single-piece pillar blocks with relubrication nipple, mounted on a robust pedestal, integrated double row, self aligning roller bearings fixed by conical sleeve, lubricated with long life high performance grease.

Performance data in according to DIN 24166 tolerance class 1.

Fan data

Fan type	.....
Volume flow	Q _V	m³/h
Total pressure increase	p _F	Pa
Static pressure	p _{sF}	Pa
Air density at fan inlet	ρ ₁	kg/m³
Air medium temperature	t	°C
Shaft power	P _a	kW
Efficiency	(η _a)	
Speed	N	1/min
Sound power level (A weighted)	L _{WA}	dB
Weight	m	kg

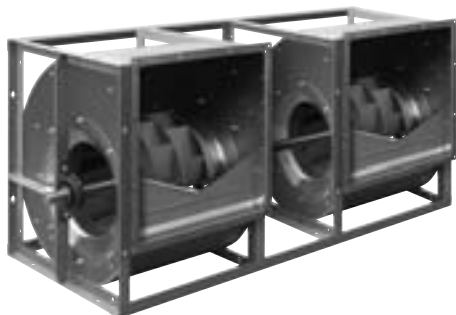
Fittings / Accessories

- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guard
- Discharge guard
- Shaft guard for free shaft end
- Matching flange
- Inspection door
- Drain plug R 1/8"
- Reinforcing side frame hot dip galvanised
- Increase corrosion protection
- Volumeter
- Threaded hole for measurement of shock impulse (sizes 0560 up to 1000)
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone, or equipped with a copper strip (from size 0630)

RDH G2E7-0250/-0560

RDH G2K2-0630/-1000

Specifications



Centrifugal twin fan RDH G2E7 / RDH G2K2

Double inlet belt drive.

Lap jointed scroll of galvanised sheet steel assembled through a standing-seam (sizes 0250/-0560) or by Pittsburgh lockforming (sizes 0630/-1000), fitted together to a robust assembly by means of 3 crossbars, discharge flange as an option.

Welded heavy duty reinforced side frames, coated.

Both impellers, with 11 backward inclined blades made of sheet steel, welded and coated, are fitted on a common shaft supported by 3 bearings (sizes 0250/-0630) or the fans have separated shafts being connected by an elastic coupling (sizes 0710/-1000), balanced in according to ISO 1940.

Throat plate inclined to blade trailing edge.

Sizes 0250 up to 0630

Single piece cast iron block housing with relubrication nipple, mounted on a robust pedestal, integrated, maintenance free, self aligning radial insert ball bearings fixed by eccentric clamp.

Sizes 0710 up to 1000

Split pedestal cast iron block housing with relubrication nipple, mounted on a robust pedestal,

outside bearings: integrated self aligning double row roller bearings, fixed by conical tightening sleeve, lubricated with long life high performance grease.

inside bearings: integrated single row ball bearings, fixed by eccentric clamp, lubricated with long life high performance grease.

Performance data in according to DIN 24166 tolerance class 2 (sizes 0250/-0315) or to tolerance class 1 (Sizes 0355/-1000).

Fan data

Fan type	.....
Volume flow	q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Discharge flange
- Discharge flex with flexible sleeve
- Inlet guard
- Discharge guard
- Shaft guard for free shaft end
- Matching flange
- Inspection door
- Drain plug R 1/8"
- Reinforcing side frame hot dip galvanised
- Increase corrosion protection
- Volumeter
- Threaded hole for measurement of shock impulse (sizes 0560 up to 1000)
- Shaft made of stainless steel
- Nuts and bolts and fastening elements made of stainless steel
- Aluminium inlet cone
- Copper inlet cone, or equipped with a copper strip (from size 0630)



**Highest system performance and best energy efficiency:
The RZR series**

It is not difficult to make a centrifugal fan for an air conditioning unit a few euros cheaper.
But to construct it so that it saves valuable energy during operation is a real technological challenge.
In this respect, the RZR from Nicotra Gebhardt continues to provide the technology with the highest level of system performance and with that, the best solution where energy efficiency counts.
rotavent – the efficient fan technology with centrifugal impeller and airfoil blades.

Top quality for performance and a long service life!

The advantages:

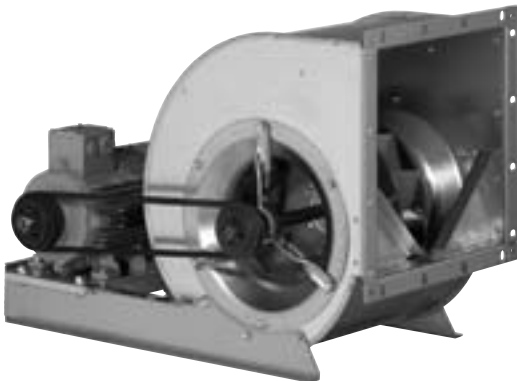
- Wide range of application even for high pressures
- Easy adaption to changed operating conditions thanks to the belt drive
- Easy and reliable layout, performance data complying with tolerance class 1
- High degree of performance density at the best efficiency
- Low level of noise thanks to the blade profile, a patented blade positioning and the V-cut off
- Easy selection via the proSELECTA II electronic catalogue

We do it very precisely!

Or

Why you should not compare apples with pears!

Nicotra-Gebhardt manufactures its centrifugal fans RZR with tolerance class1 in compliance with DIN 24166.
This gives you the necessary degree of security that you need when designing and planning ventilation installations. The tolerance class is also an important criterion for the objective comparison of fans.
If you compare the price/performance ratio of two fans, you should also always take the tolerance class of each into account, only then do you avoid comparing "apples with pears"!



Performance data		Deviations per tolerance class		
		1	2	3
Volume flow	q_v	2.5 %	5 %	10 %
Pressure increase	p_F	2.5 %	5 %	10 %
Power consumption	P	+3 %	+8 %	+16 %
Efficiency	η	-2 %	-5 %	-
Sound power level (A weighted)	L_{WA}	+3 dB	+4 dB	+6 dB

**Variety has a name:
RZR rotavent**

RZR fans, double inlet with patented impeller geometry and tapered trailing airfoil blades are the leading edge for standard fans for ventilation and air conditioning units.

Series RZR






- Sizes 0200/-1600
- Lap jointed scroll of galvanised sheet steel with V-Cut off (RZR 11; 12; 14; 15; 18)
- Scroll casing stitch welded and coated, with V-cut off (RZR 13; 19)
- Centrifugal impeller with 11 backward inclined steel blades, welded and coated (0200/-0280)
- High performance impeller with 12 hollow section true airfoil blades (0315/-1600)





Series RZR

- Volume up to 300,000 m³/h
- Pressure up to 3,500 Pa

**The RZR range of models:
The right fan for every specification!**

Depending on the fan size, the RZR series have up to 7 mechanical versions of the single fan. In this way, we ensure that we have the perfect model for all requirements and any application.

Version	Description	Figure
RZR 11-0200/-0710	Lap jointed scroll with multi-position feet and discharge flange. Light duty bearing execution with pressed steel housing/strut assemblies.	
RZR 12-0200/-0710	Lap jointed scroll with rectangular side frame and discharge flange. Light duty bearing execution with pressed steel housing/strut assemblies.	
RZR 14-0315/-1000	Lap jointed scroll with heavy duty reinforced side frames and discharge flange. Medium duty bearing execution with cast iron pillow block, mounted on a robust pedestal.	
RZR 15-0400/-1000	Lap jointed scroll with heavy duty reinforced side frames and discharge flange. Medium-heavy duty bearing execution with cast iron housing/strut assemblies.	
RZR 18-0400/-1000	Lap jointed scroll with discharge flange and heavy duty reinforced side frames. Heavy duty bearing execution with split-type plummer block, mounted on robust pedestal.	

Version	Description	Figure
RZR 19-0200/-0355	Scroll casing stitch welded with discharge flange and multi-position feet. Medium-heavy bearing execution with cast iron housing and tubular struts.	
RZR 19-0400/-1000	Scroll casing stitch welded with discharge flange, and heavy duty reinforced side frames, epoxy coated. Medium-heavy bearing execution with cast iron housing and tubular struts.	
RZR 13-0400/-1000	Scroll casing stitch welded with discharge flange and heavy duty reinforced side frames, epoxy coated. Heavy duty bearing execution with split-type plummer blocks, mounted on robust pedestal.	
RZR 13-1120/-1600	Heavy duty casing of sheet steel with stiffening members, step welded and painted, with discharge flange. Casing is split on one axis (Size 1120), split on two axis (Sizes 1250, 1400, 1600). Heavy duty bearing execution with split-type plummer blocks, mounted on robust pedestal.	

RZR _-0200

Technical Data

Impeller Data

Impeller diameter	D_r	204	mm
Number of blades	z	11	
Moment of Inertia	J	0.020	kgm ²

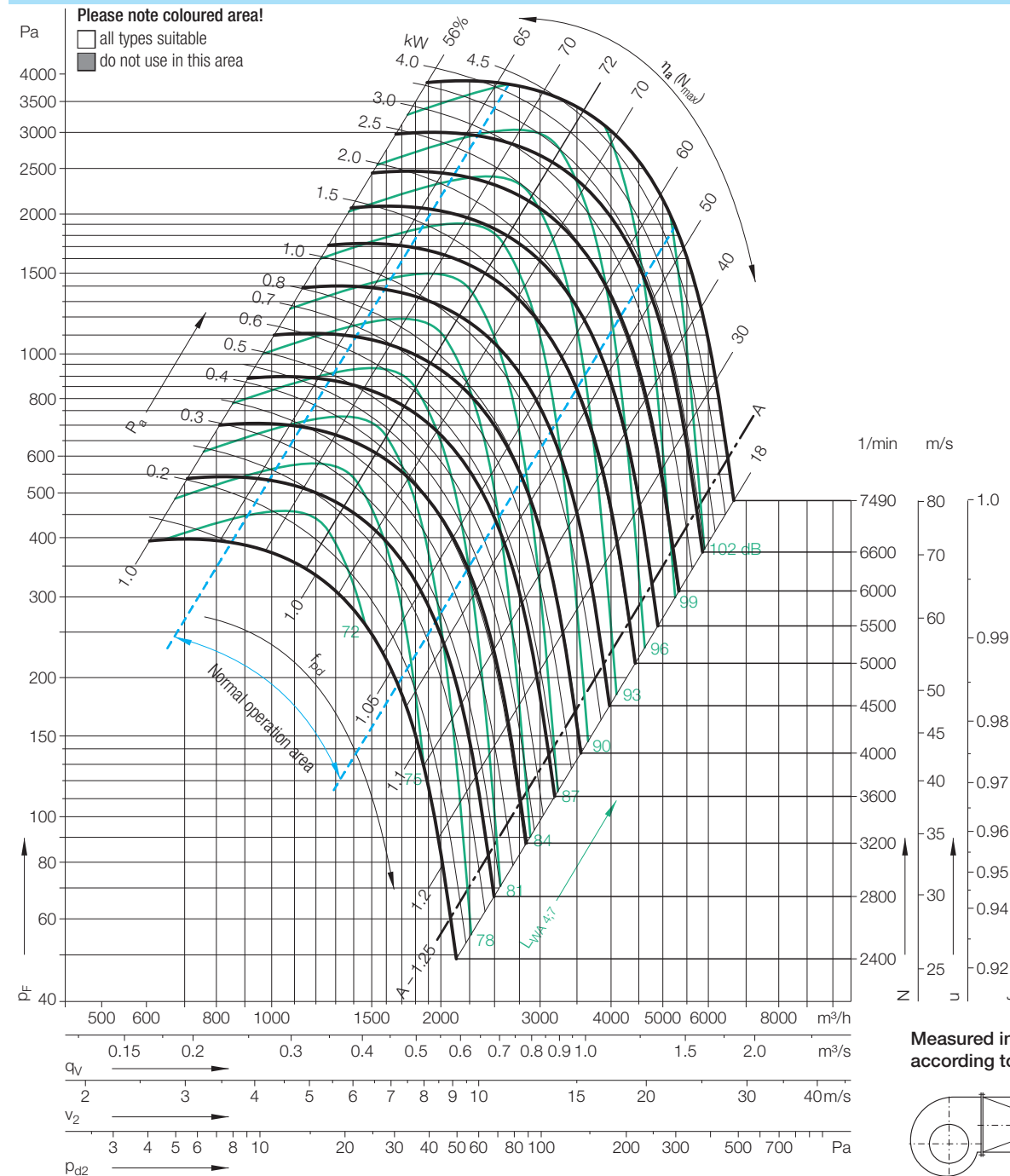
Impeller Data

Impeller weight	m	2.7	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Speed limits N_{max} for ATEX execution

RZR 11/12/19	6513	1/min
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Performance Curves



Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c

Speed	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
≤ 3745 1/min	$\leq 0.8 q_{Vopt}$	-4	2	0	-2	-5	-10	-14	-21	dB
	$> 0.8 - 1.2 q_{Vopt}$	-7	0	-2	-2	-5	-9	-14	-22	dB
	$> 1.2 - 1.6 q_{Vopt}$	-10	-4	-4	-2	-4	-8	-15	-24	dB
	$> 1.6 q_{Vopt}$	-12	-7	-6	-2	-4	-8	-13	-24	dB
Speed	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
> 3745 1/min	$\leq 0.8 q_{Vopt}$	-7	-1	-2	-2	-4	-10	-16	-23	dB
	$> 0.8 - 1.2 q_{Vopt}$	-12	-4	-5	-3	-4	-10	-15	-23	dB
	$> 1.2 - 1.6 q_{Vopt}$	-14	-7	-8	-4	-4	-9	-12	-21	dB
	$> 1.6 q_{Vopt}$	-15	-10	-11	-4	-4	-9	-12	-19	dB

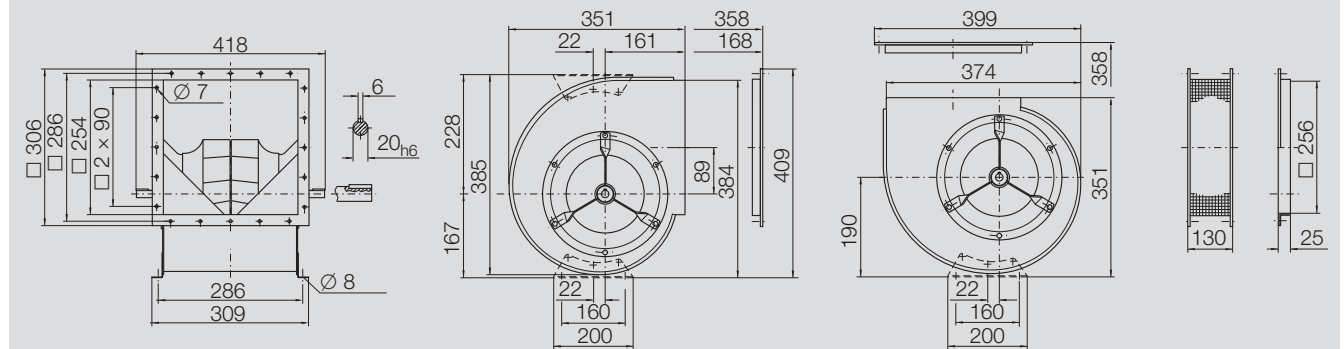
Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
11	8	3	-2	-8	-13	-19	-29	dB
7	5	1	-1	-7	-11	-18	-29	dB
5	3	-1	-1	-6	-9	-17	-20	dB
6	1	-2	-2	-6	-8	-14	-29	dB
63	125	250	500	1000	2000	4000	8000	Hz
8	7	2	-2	-6	-11	-19	-28	dB
4	3	-2	-4	-6	-8	-15	-26	dB
2	0	-4	-5	-6	-8	-13	-24	dB
4	0	-4	-6	-6	-8	-12	-21	dB

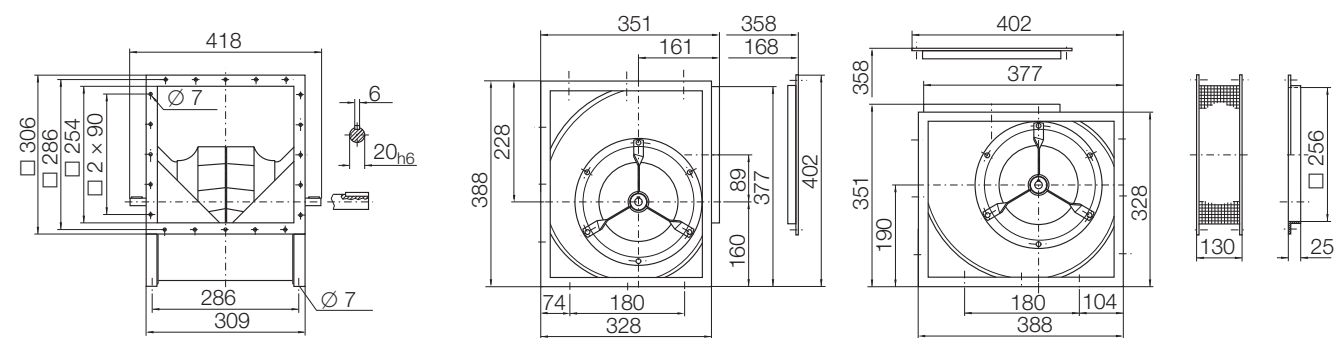
RZR_-0200

Dimensions in mm, subject to change.

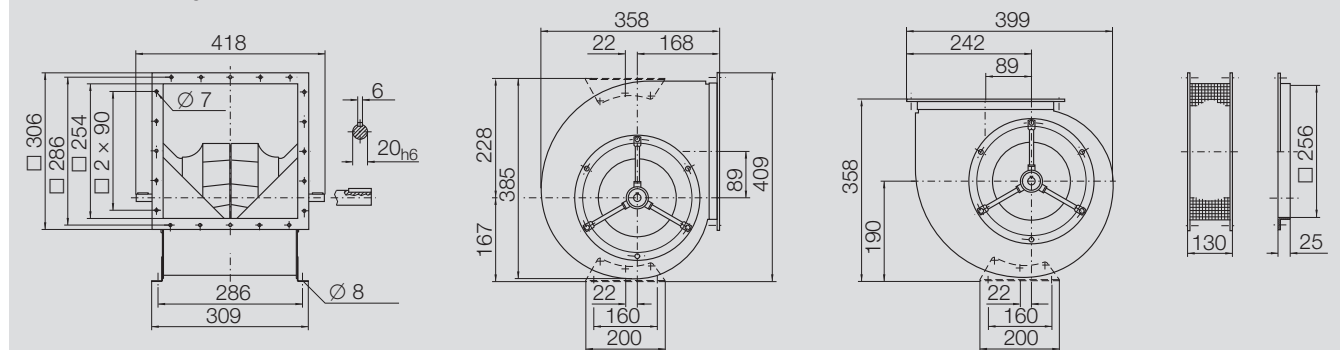
RZR 11-0200 11 kg



RZR 12-0200 12 kg



RZR 19-0200 13 kg



RZR_-0225

Technical Data

Impeller Data			
Impeller diameter	D_r	230	mm
Number of blades	z	11	
Moment of Inertia	J	0.030	kgm ²

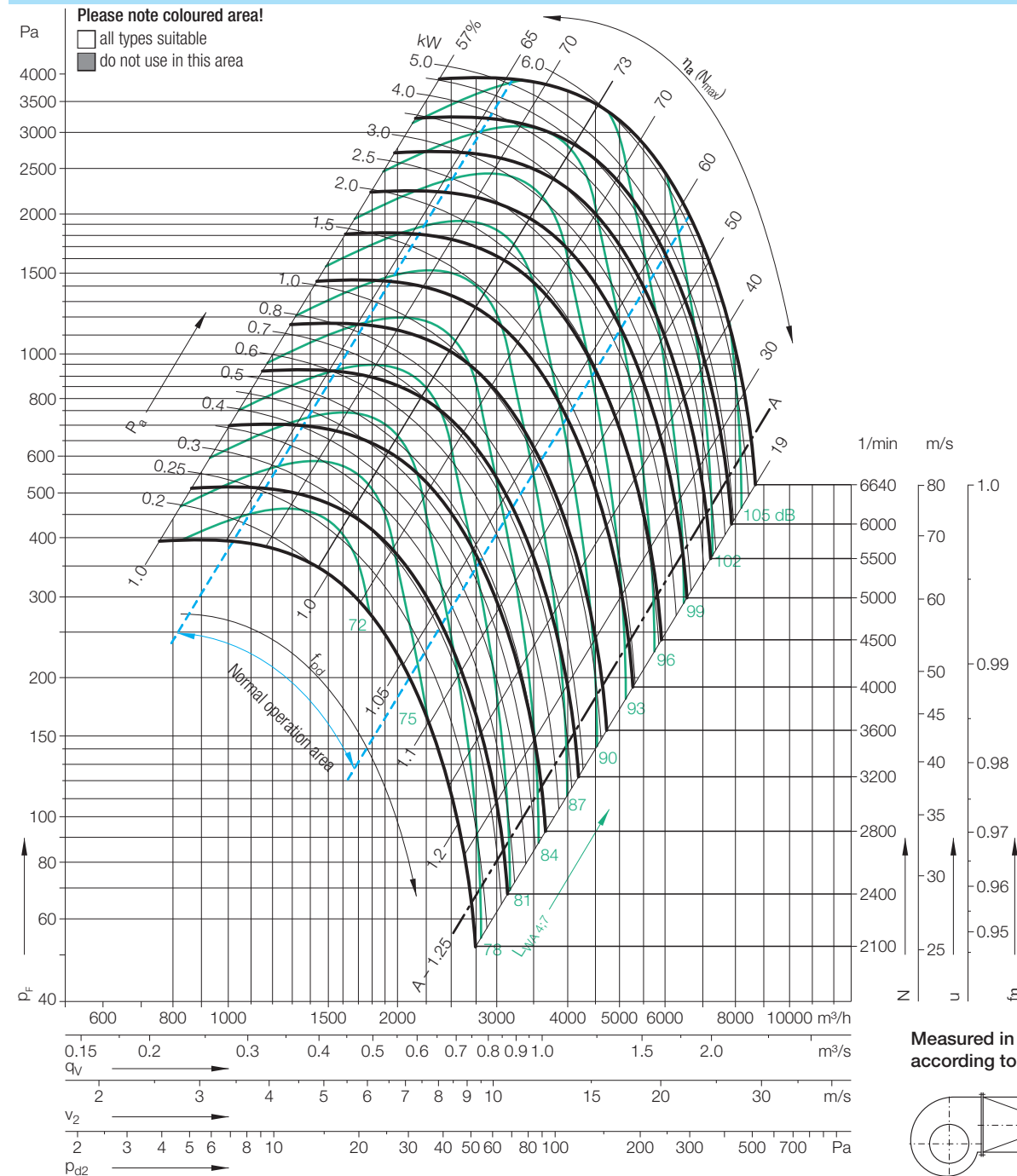
Impeller Data

Impeller weight	m	3.5	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

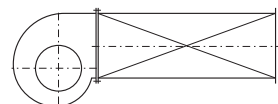
Speed limits N_{\max} for ATEX execution

RZR 11/12/19	5774	1/min
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Performance Curves



Measured in installation B
according to ISO 5801:



Speed	Duty point
≤3321 1/min	≤0.8 q _{Vopt}
	>0.8-1.2 q _{Vopt}
	>1.2-1.6 q _{Vopt}
	>1.6 q _{Vopt}
Speed	Duty point
>3321 1/min	≤0.8 q _{Vopt}
	>0.8-1.2 q _{Vopt}
	>1.2-1.6 q _{Vopt}
	>1.6 q _{Vopt}

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
-4	2	0	-2	-5	-10	-14	-21	dB
-7	0	-2	-2	-5	-9	-14	-22	dB
-10	-4	-4	-2	-4	-8	-15	-24	dB
-12	-7	-6	-2	-4	-8	-13	-24	dB
63	125	250	500	1000	2000	4000	8000	Hz
-7	-1	-2	-2	-4	-10	-16	-23	dB
-12	-4	-5	-3	-4	-10	-15	-23	dB
-14	-7	-8	-4	-4	-9	-12	-21	dB
-15	-10	-11	-4	-4	-9	-12	-19	dB

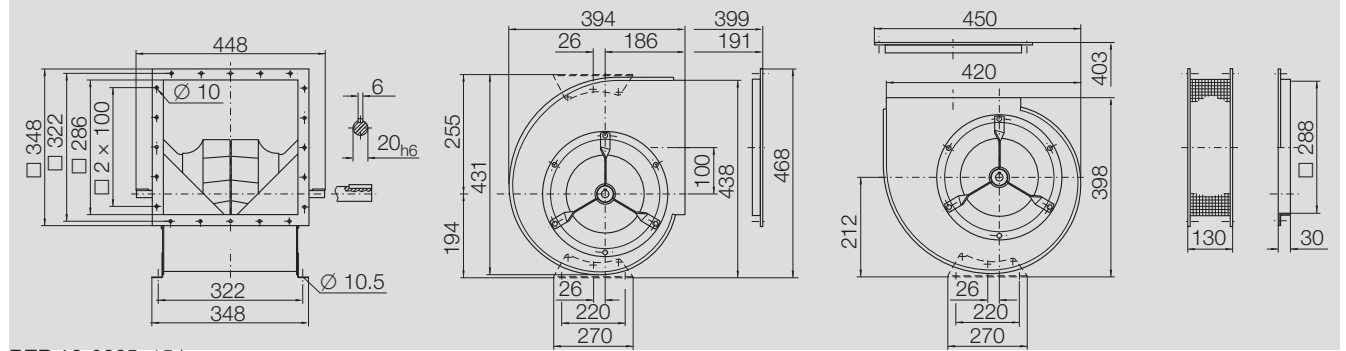
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
11	8	3	-2	-8	-13	-19	-29	dB
7	5	1	-1	-7	-11	-18	-29	dB
5	3	-1	-1	-6	-9	-17	-20	dB
6	1	-2	-2	-6	-8	-14	-29	dB
63	125	250	500	1000	2000	4000	8000	Hz
8	7	2	-2	-6	-11	-19	-28	dB
4	3	-2	-4	-6	-8	-15	-26	dB
2	0	-4	-5	-6	-8	-13	-24	dB
4	0	-4	-6	-6	-8	-12	-21	dB

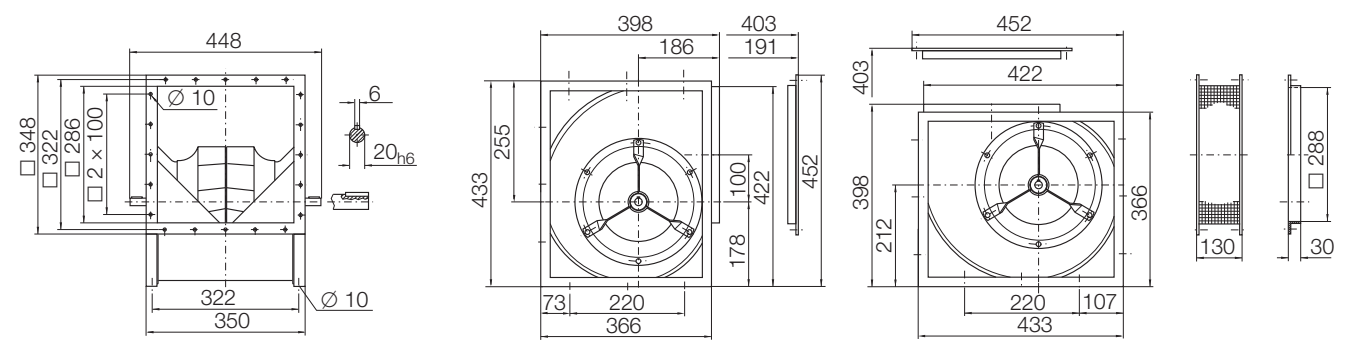
RZR_-0225

Dimensions in mm, subject to change.

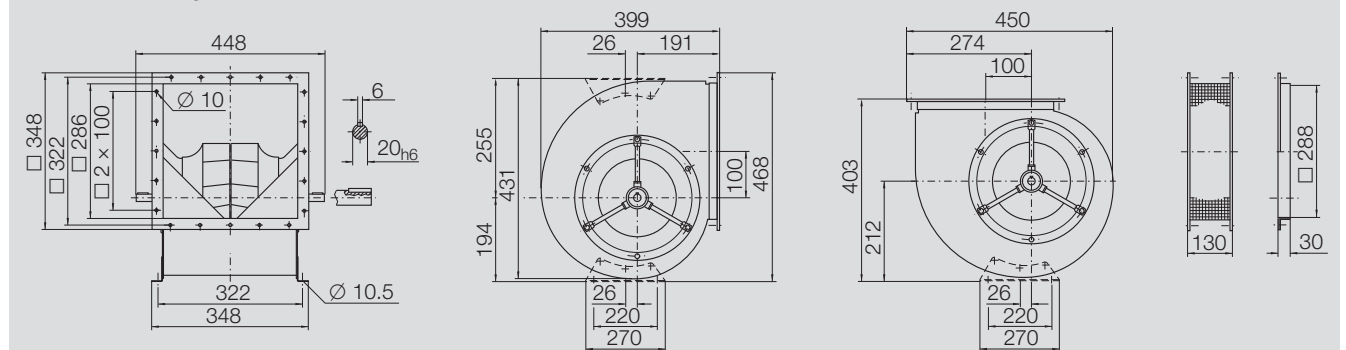
RZR 11-0225 13 kg



RZR 12-0225 15 kg



RZR 19-0225 16 kg



Technical Data

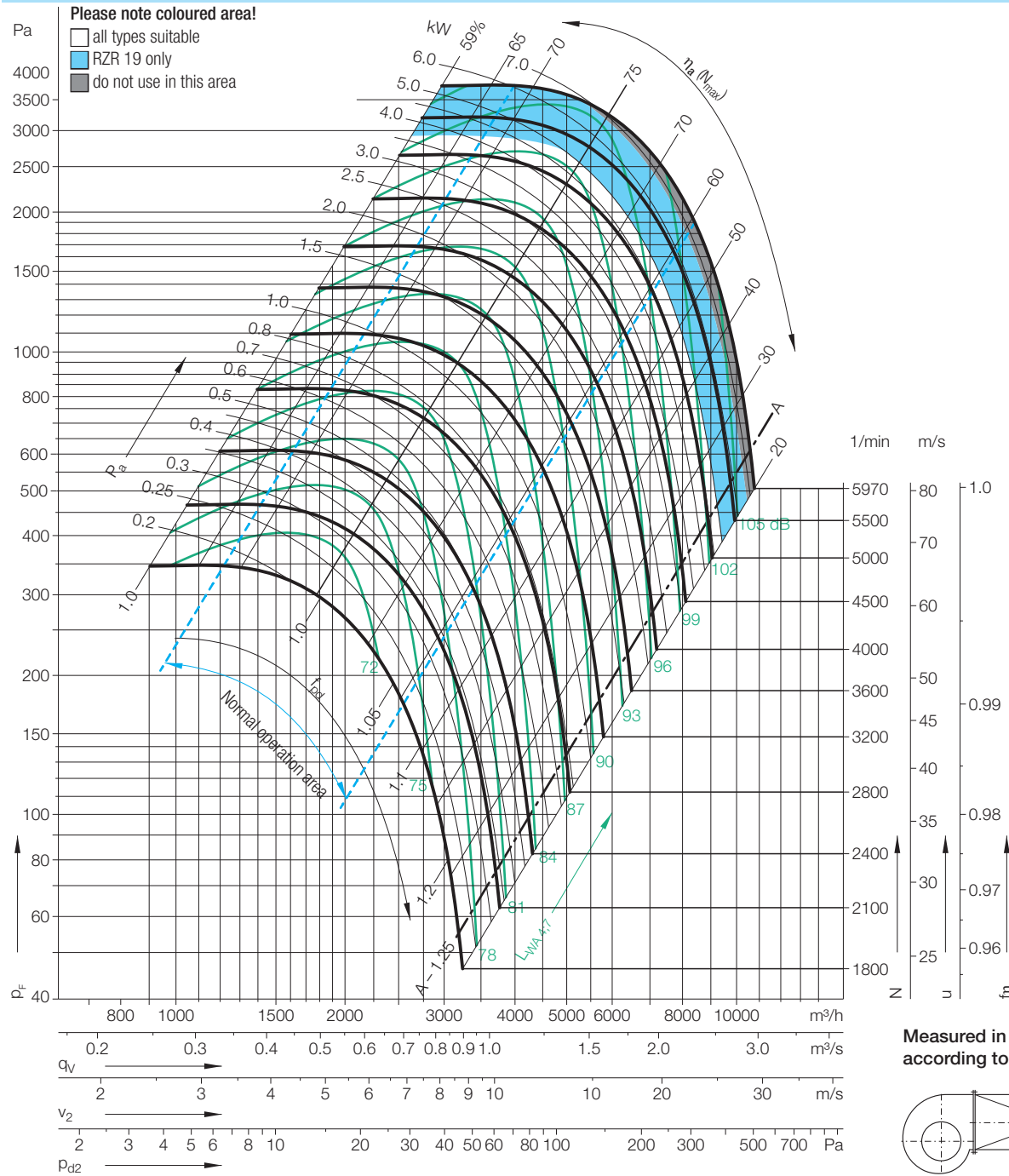
Impeller Data			
Impeller diameter	D_r	256	mm
Number of blades	z	11	
Moment of Inertia	J	0.052	kgm ²

Impeller Data			
Impeller weight	m	4.8	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		2	

Speed limits N_{max} for ATEX execution

RZR 11/12	4620	1/min
RZR 19	5076	1/min

Performance Curves



Speed	Duty point
≤ 2984 1/min	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$
Speed	Duty point
> 2984 1/min	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

	63	125	250	500	1000	2000	4000	8000	Hz
≤ 2984 1/min	-4	2	0	-2	-5	-10	-14	-21	dB
	-7	0	-2	-2	-5	-9	-14	-22	dB
	-10	-4	-4	-2	-4	-8	-15	-24	dB
	-12	-7	-6	-2	-4	-8	-13	-24	dB
	63	125	250	500	1000	2000	4000	8000	Hz
> 2984 1/min	-7	-1	-2	-2	-4	-10	-16	-23	dB
	-12	-4	-5	-3	-4	-10	-15	-23	dB
	-14	-7	-8	-4	-4	-9	-12	-21	dB
	-15	-10	-11	-4	-4	-9	-12	-19	dB

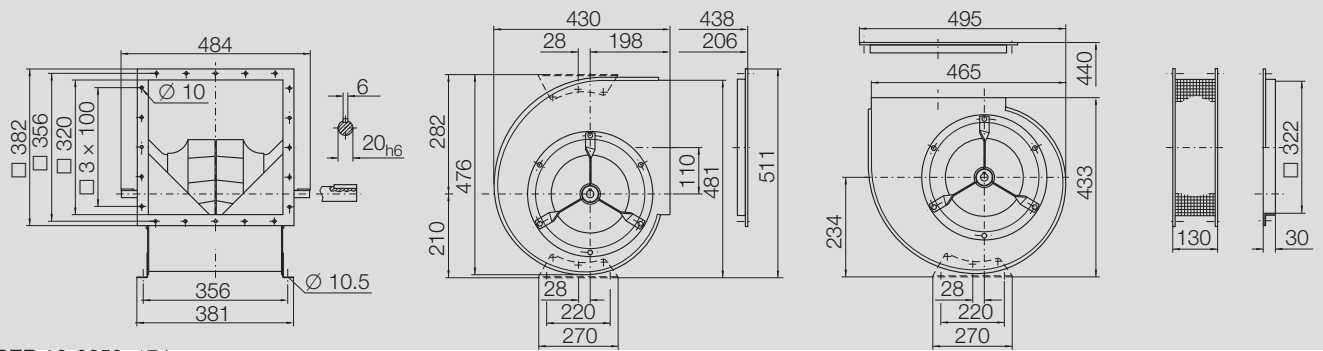
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

	63	125	250	500	1000	2000	4000	8000	Hz
≤ 2984 1/min	11	8	3	-2	-8	-13	-19	-29	dB
	7	5	1	-1	-7	-11	-18	-29	dB
	5	3	-1	-1	-6	-9	-17	-20	dB
	6	1	-2	-2	-6	-8	-14	-29	dB
	63	125	250	500	1000	2000	4000	8000	Hz
> 2984 1/min	8	7	2	-2	-6	-11	-19	-28	dB
	4	3	-2	-4	-6	-8	-15	-26	dB
	2	0	-4	-5	-6	-8	-13	-24	dB
	4	0	-4	-6	-6	-8	-12	-21	dB

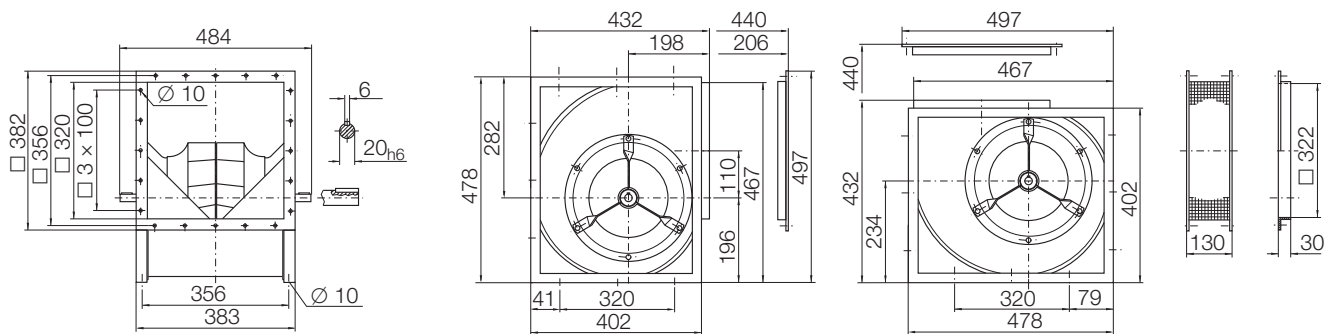
RZR_-0250

Dimensions in mm, subject to change.

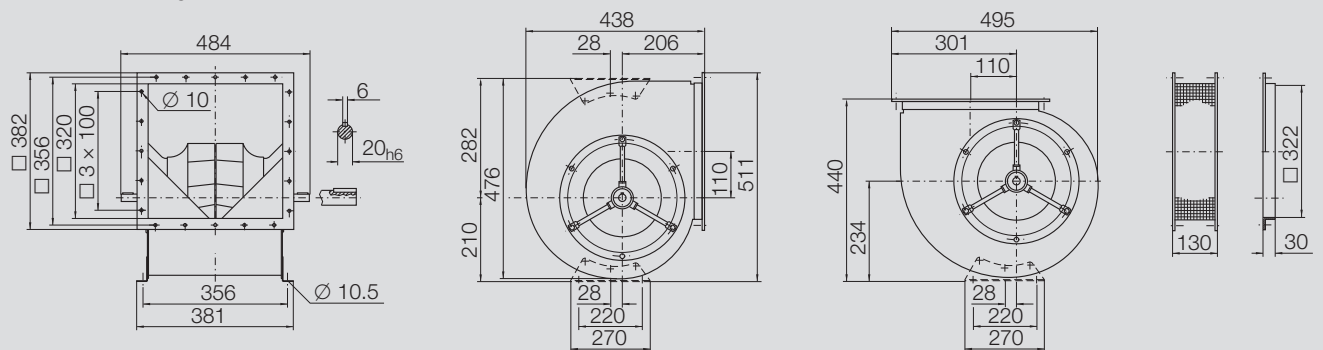
RZR 11-0250 15 kg



RZR 12-0250 17 kg



RZR 19-0250 17 kg



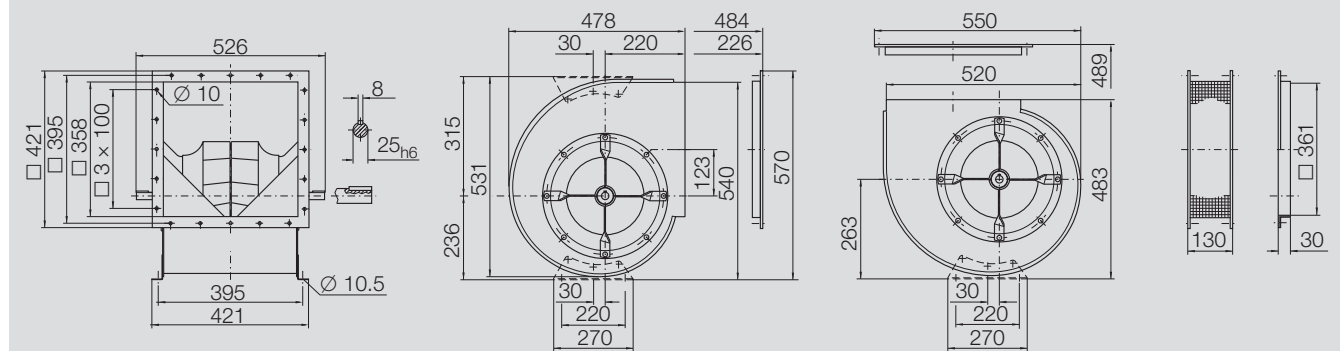
RZR 11/12/19	4582	1/min
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63	125	250	500	1000	2000	4000	8000	Hz
11	8	3	-2	-8	-13	-19	-29	dB
7	5	1	-1	-7	-11	-18	-29	dB
5	3	-1	-1	-6	-9	-17	-20	dB
6	1	-2	-2	-6	-8	-14	-29	dB
63	125	250	500	1000	2000	4000	8000	Hz
8	7	2	-2	-6	-11	-19	-28	dB
4	3	-2	-4	-6	-8	-15	-26	dB
2	0	-4	-5	-6	-8	-13	-24	dB
4	0	-4	-6	-6	-8	-12	-21	dB

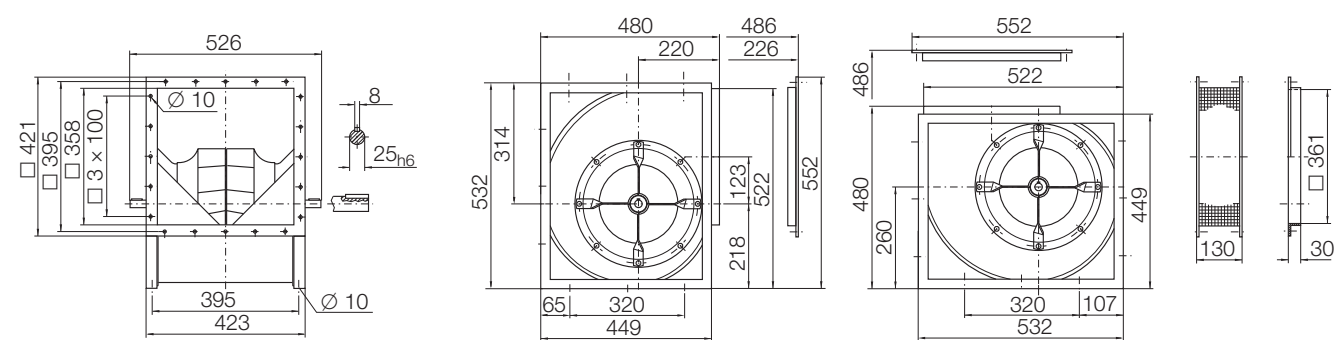
RZR_-0280

Dimensions in mm, subject to change.

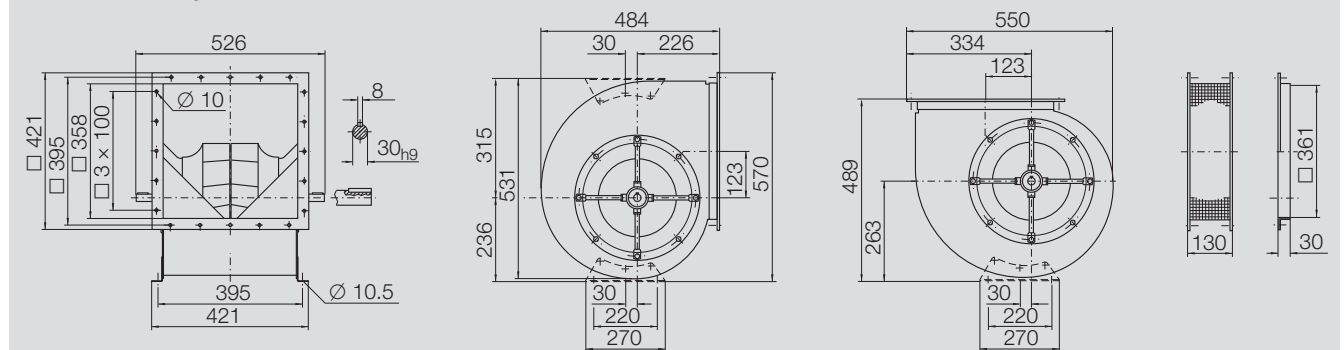
RZR 11-0280 20 kg



RZR 12-0280 23 kg



RZR 19-0280 23 kg



RZR _-0315

Technical Data

Impeller Data

Impeller diameter	D_r	323	mm
Number of blades	z	12	
Moment of Inertia	J	0.126	kgm ²

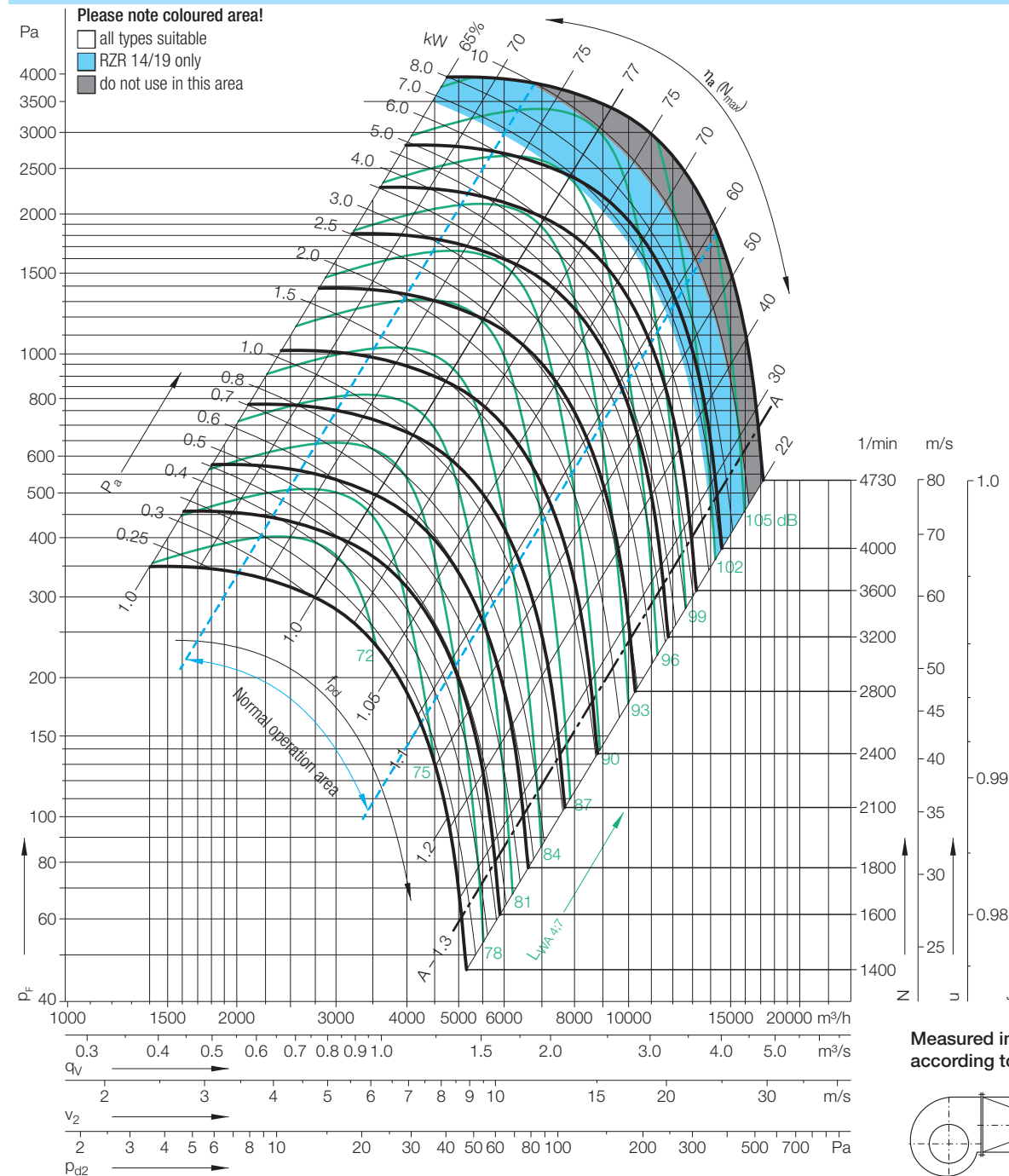
Impeller Data

Impeller weight	m	7.1	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		1	

Speed limits N_{max} for ATEX execution

RZR 11/12	3793	1/min
RZR 19	4113	1/min

Performance Curves



Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
0	2	0	-3	-6	-9	-12	-19	dB
-2	1	-2	-3	-6	-8	-14	-20	dB
-3	0	-1	-3	-6	-8	-14	-21	dB
-5	-3	-3	-3	-6	-7	-13	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-2	-1	-3	-1	-6	-10	-15	-21	dB
-7	-4	-5	-1	-6	-9	-14	-21	dB
-10	-7	-8	-1	-5	-8	-13	-21	dB
-10	-8	-8	-2	-6	-8	-11	-18	dB

Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

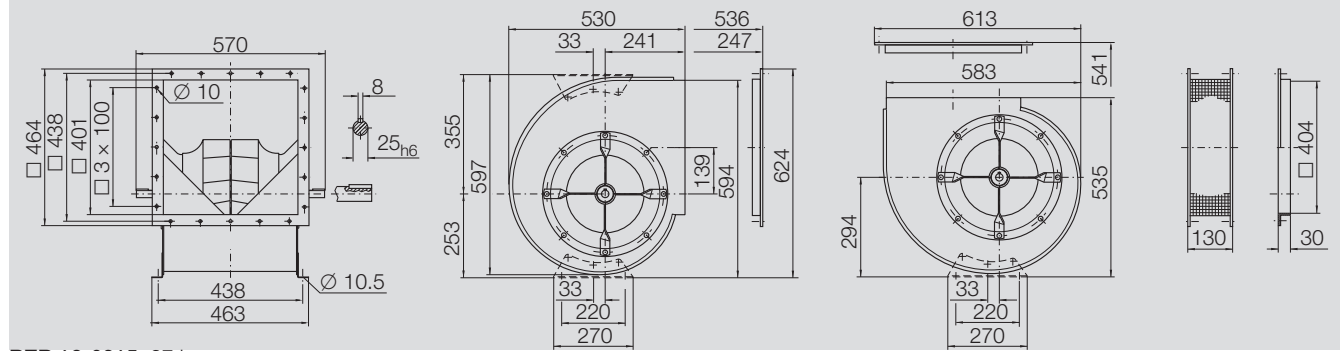
63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

Speed	Duty point
≤ 2365 1/min	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$
Speed	Duty point
> 2365 1/min	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$

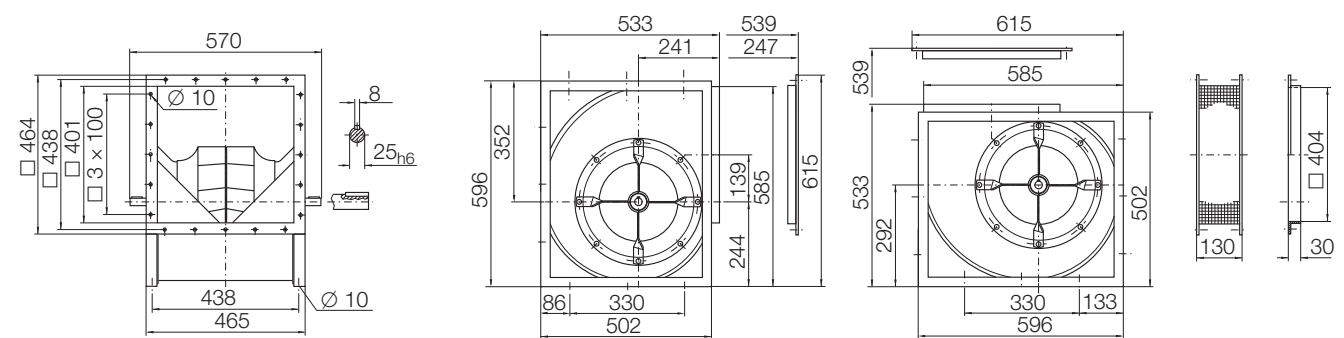
RZR_-0315

Dimensions in mm, subject to change.

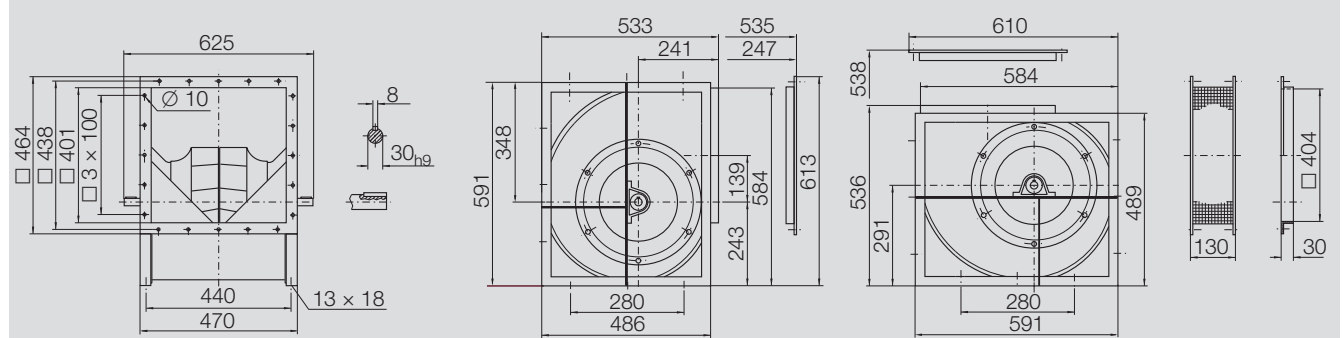
RZR 11-0315 24 kg



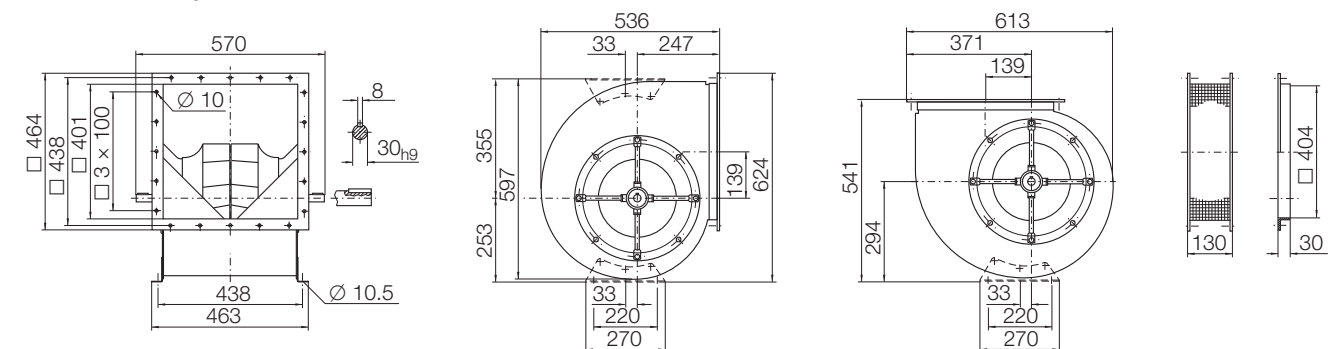
RZR 12-0315 27 kg



RZR 14-0315 35 kg



RZR 19-0315 28 kg



RZR _-0355

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	363	mm
Number of blades	z	12	
Moment of Inertia	J	0.220	kgm ²

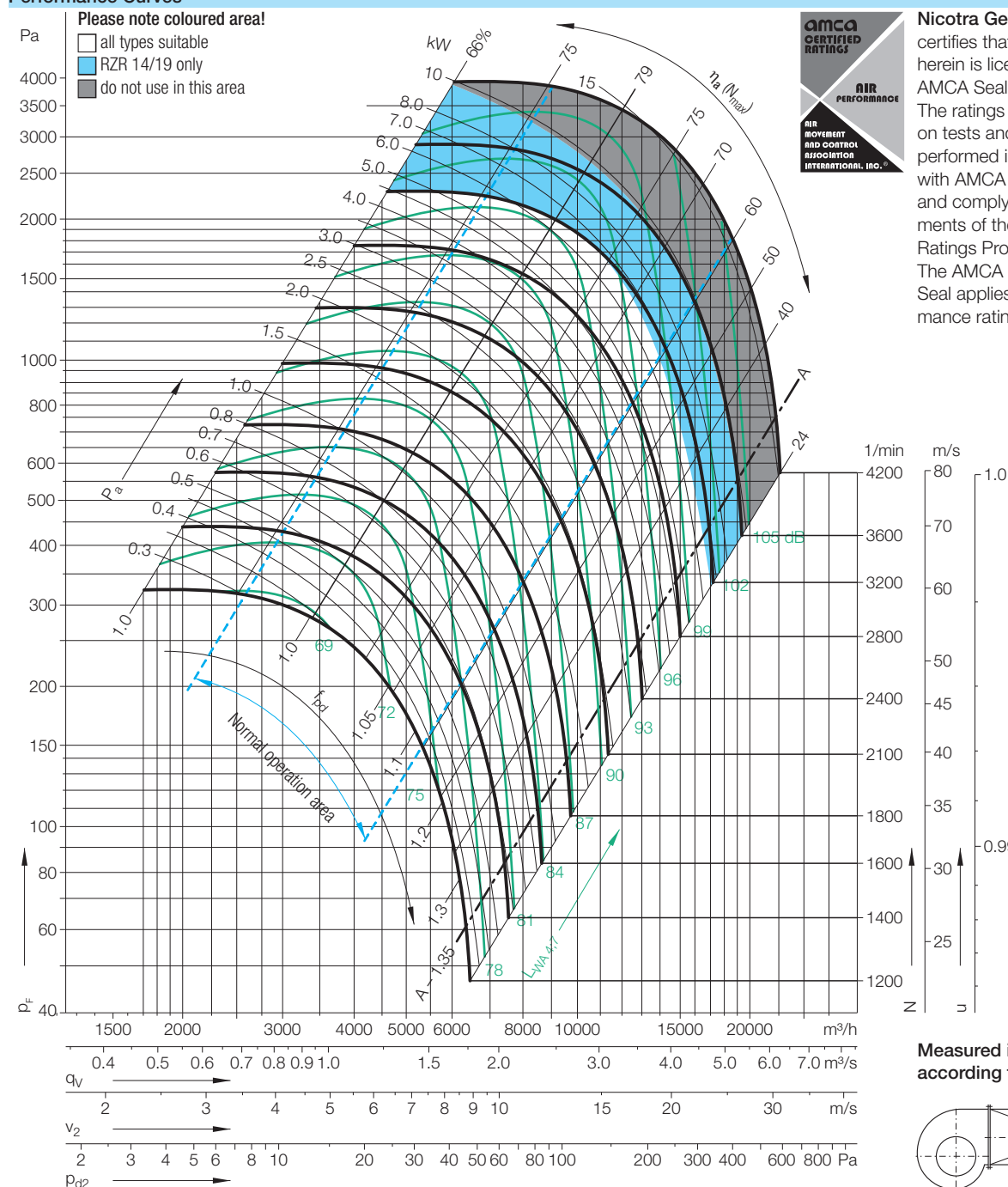
Impeller Data

Impeller weight	m	9.1	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		1	

Speed limits N_{max} for ATEX execution

RZR 11/12	3110	1/min
RZR 19	3555	1/min

Performance Curves



Nicotra Gebhardt GmbH

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Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Speed	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
≤2105 1/min	≤0.8 q_{Vopt}	0	2	0	-3	-6	-9	-12	-19	dB
	>0.8-1.2 q_{Vopt}	-2	1	-2	-3	-6	-8	-14	-20	dB
	>1.2-1.6 q_{Vopt}	-3	0	-1	-3	-6	-8	-14	-21	dB
	>1.6 q_{Vopt}	-5	-3	-3	-3	-6	-7	-13	-21	dB
Speed	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
>2105 1/min	≤0.8 q_{Vopt}	-2	-1	-3	-1	-6	-10	-15	-21	dB
	>0.8-1.2 q_{Vopt}	-7	-4	-5	-1	-6	-9	-14	-21	dB
	>1.2-1.6 q_{Vopt}	-10	-7	-8	-1	-5	-8	-13	-21	dB
	>1.6 q_{Vopt}	-10	-8	-8	-2	-6	-8	-11	-18	dB

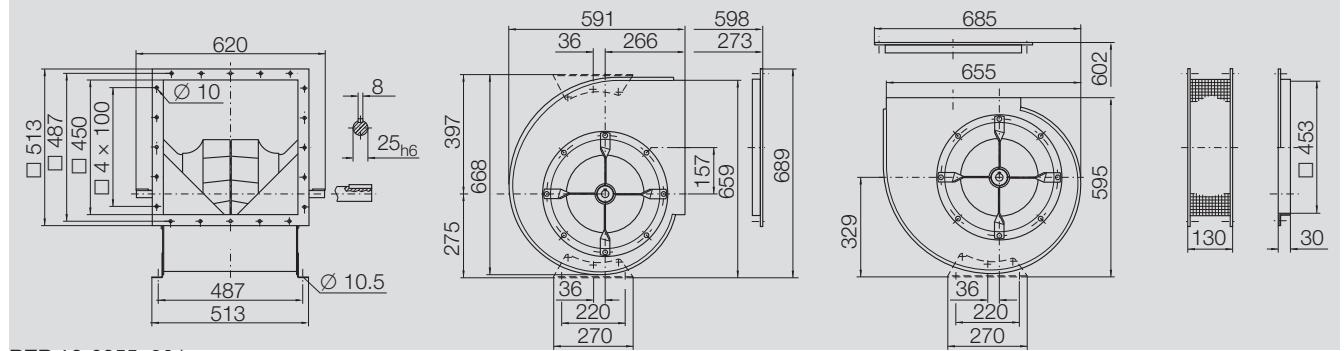
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

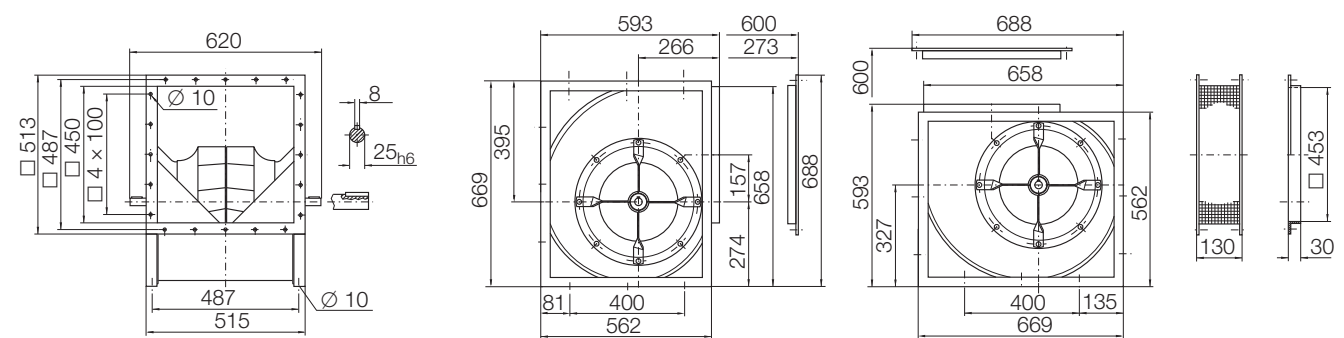
RZR_-0355

Dimensions in mm, subject to change.

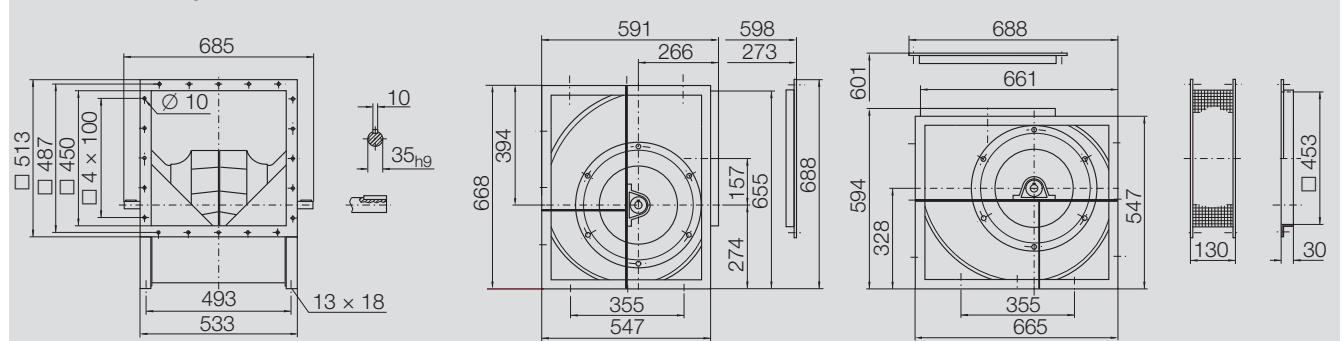
RZR 11-0355 33 kg



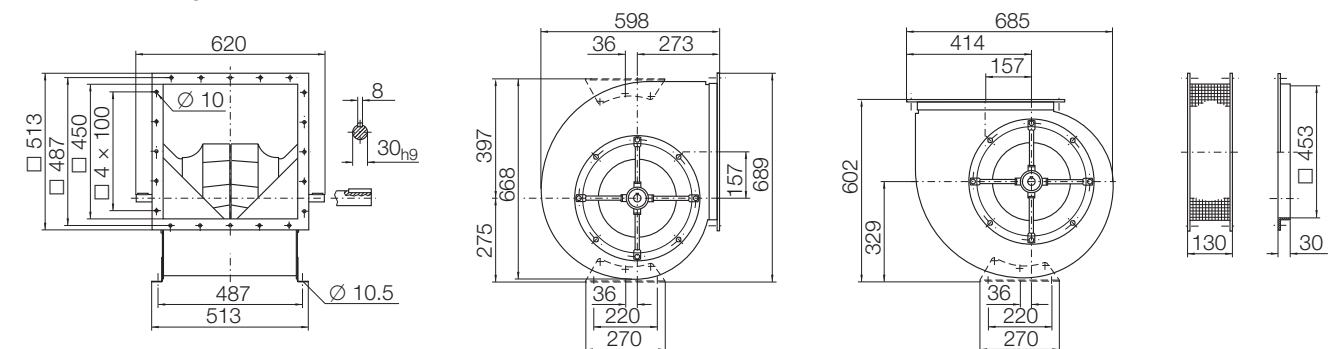
RZR 12-0355 36 kg



RZR 14-0355 50 kg



RZR 19-0355 39 kg



RZR _-0400

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	406	mm
Number of blades	z	12	
Moment of Inertia	J	0.33	kgm ²

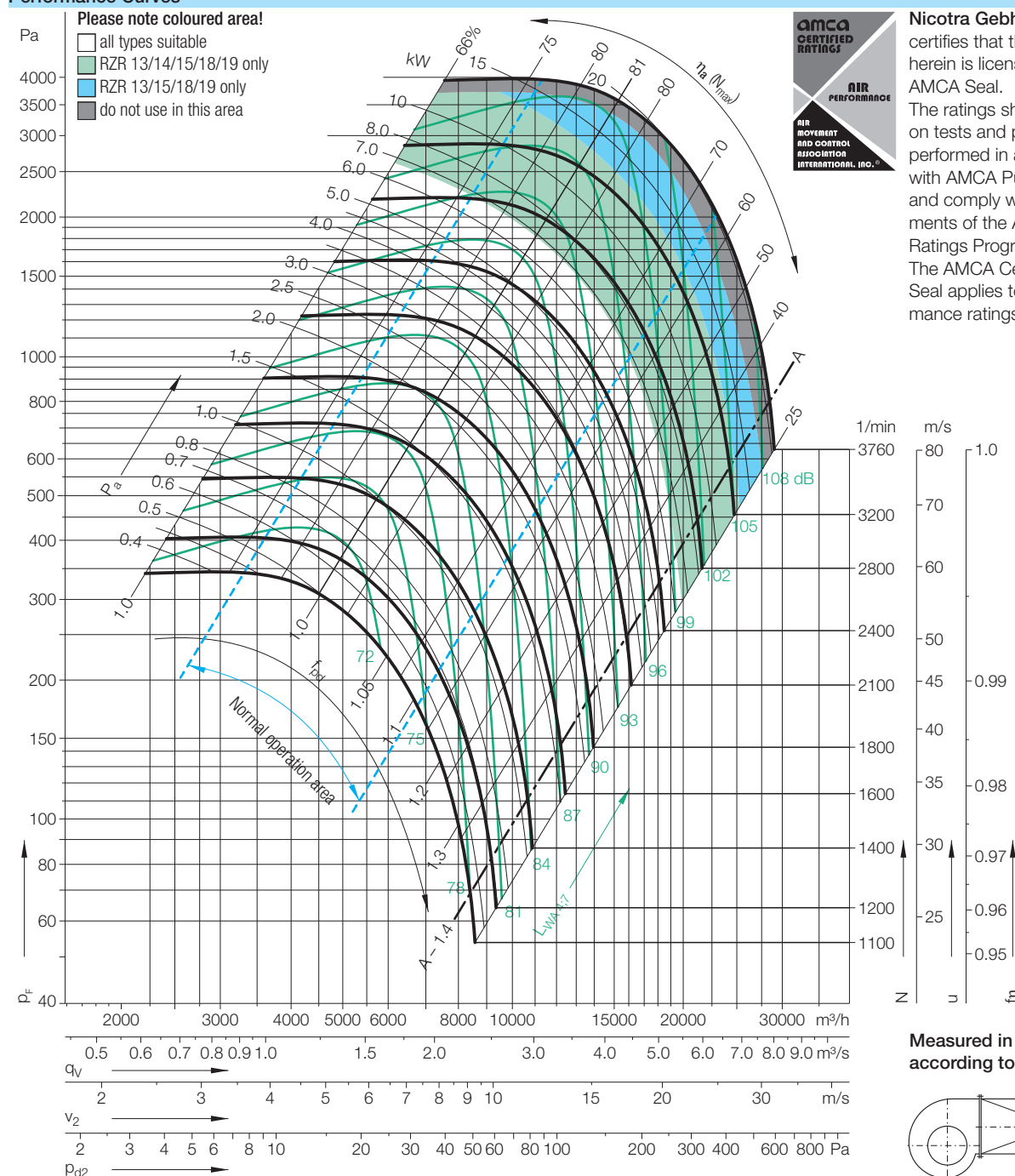
Impeller Data

Impeller weight	m	10.5	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		1	

Speed limits N_{max} for ATEX execution

RZR 11/12	2552	1/min
RZR 18	2913	1/min
RZR 13	3145	1/min

Performance Curves



Nicotra Gebhardt GmbH

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The AMCA Certified Ratings Seal applies to air performance ratings only.

Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
0	2	0	-3	-6	-9	-12	-19	dB
-2	1	-2	-3	-6	-8	-14	-20	dB
-3	0	-1	-3	-6	-8	-14	-21	dB
-5	-3	-3	-3	-6	-7	-13	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-2	-1	-3	-1	-6	-10	-15	-21	dB
-7	-4	-5	-1	-6	-9	-14	-21	dB
-10	-7	-8	-1	-5	-8	-13	-21	dB
-10	-8	-8	-2	-6	-8	-11	-18	dB

Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

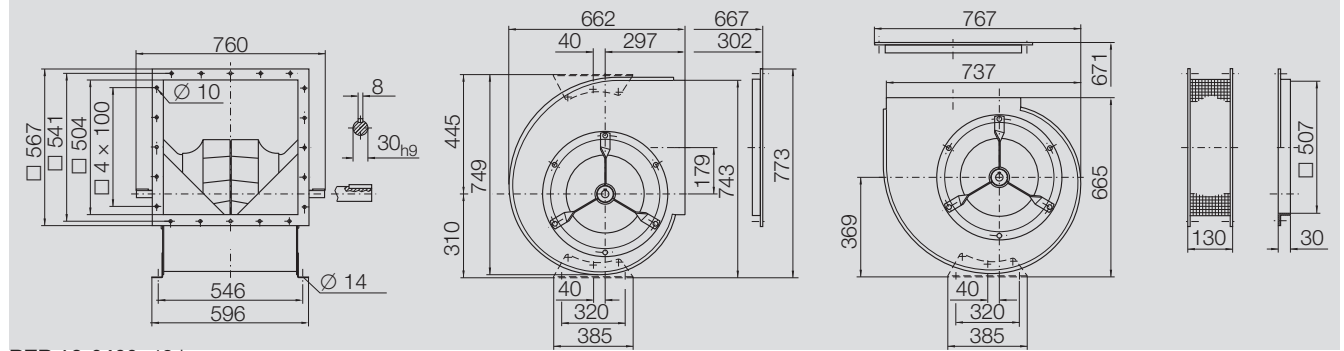
63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

Speed	Duty point
≤1882 1/min	≤0.8 q_{Vopt}
	>0.8-1.2 q_{Vopt}
	>1.2-1.6 q_{Vopt}
	>1.6 q_{Vopt}
Speed	Duty point
>1882 1/min	≤0.8 q_{Vopt}
	>0.8-1.2 q_{Vopt}
	>1.2-1.6 q_{Vopt}
	>1.6 q_{Vopt}

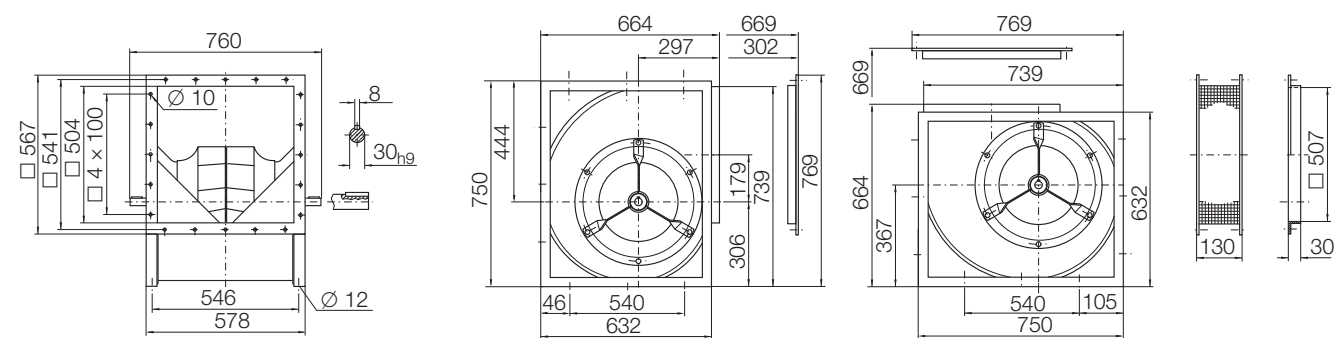
RZR_-0400

Dimensions in mm, subject to change.

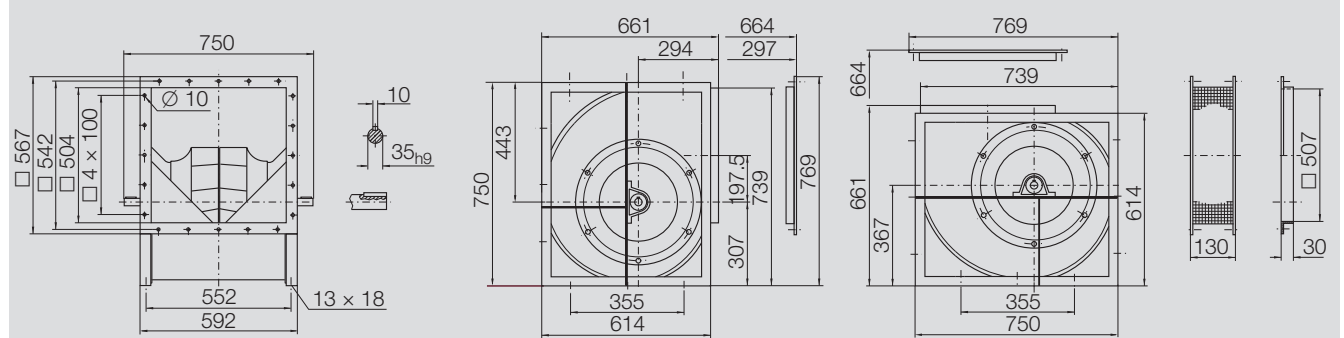
RZR 11-0400 43 kg



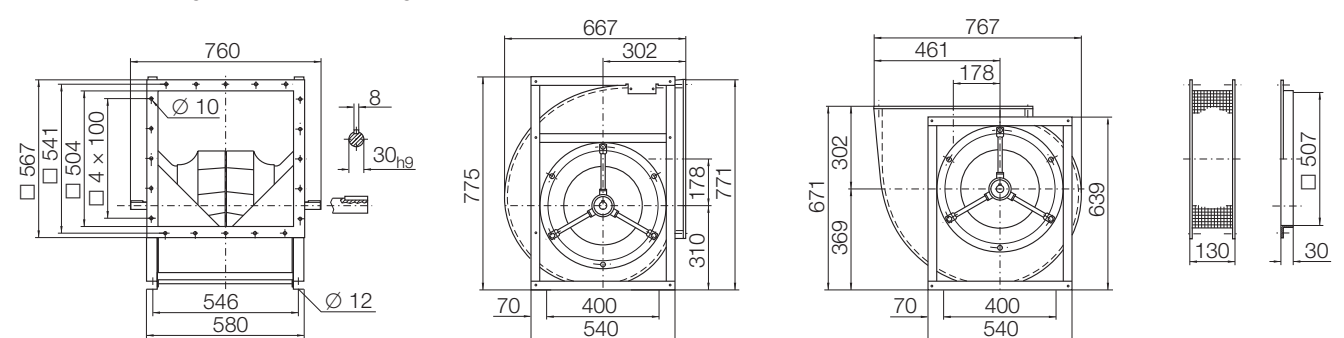
RZR 12-0400 49 kg



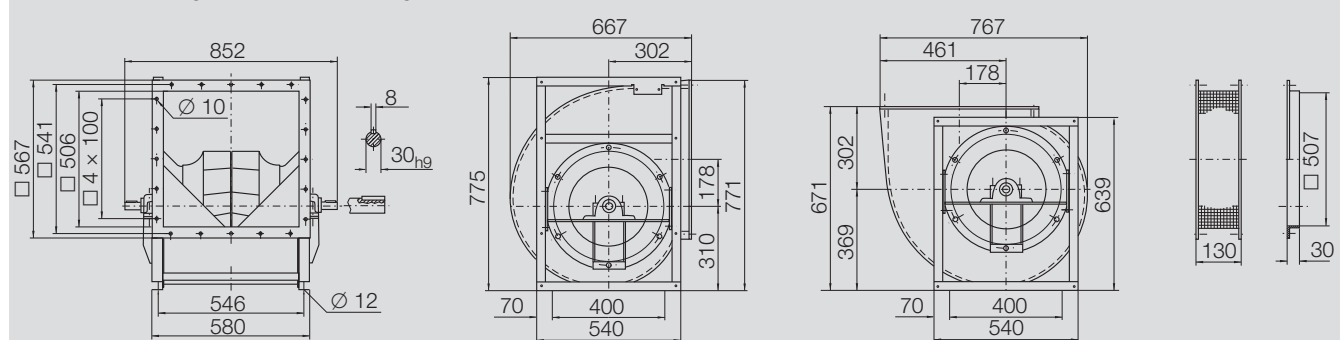
RZR 14-0400 56 kg



RZR 15-0400 61 kg RZR 19-0400 66 kg



RZR 18-0400 70 kg RZR 13-0400 75 kg



RZR _-0450

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	455	mm
Number of blades	z	12	
Moment of Inertia	J	0.6	kgm ²

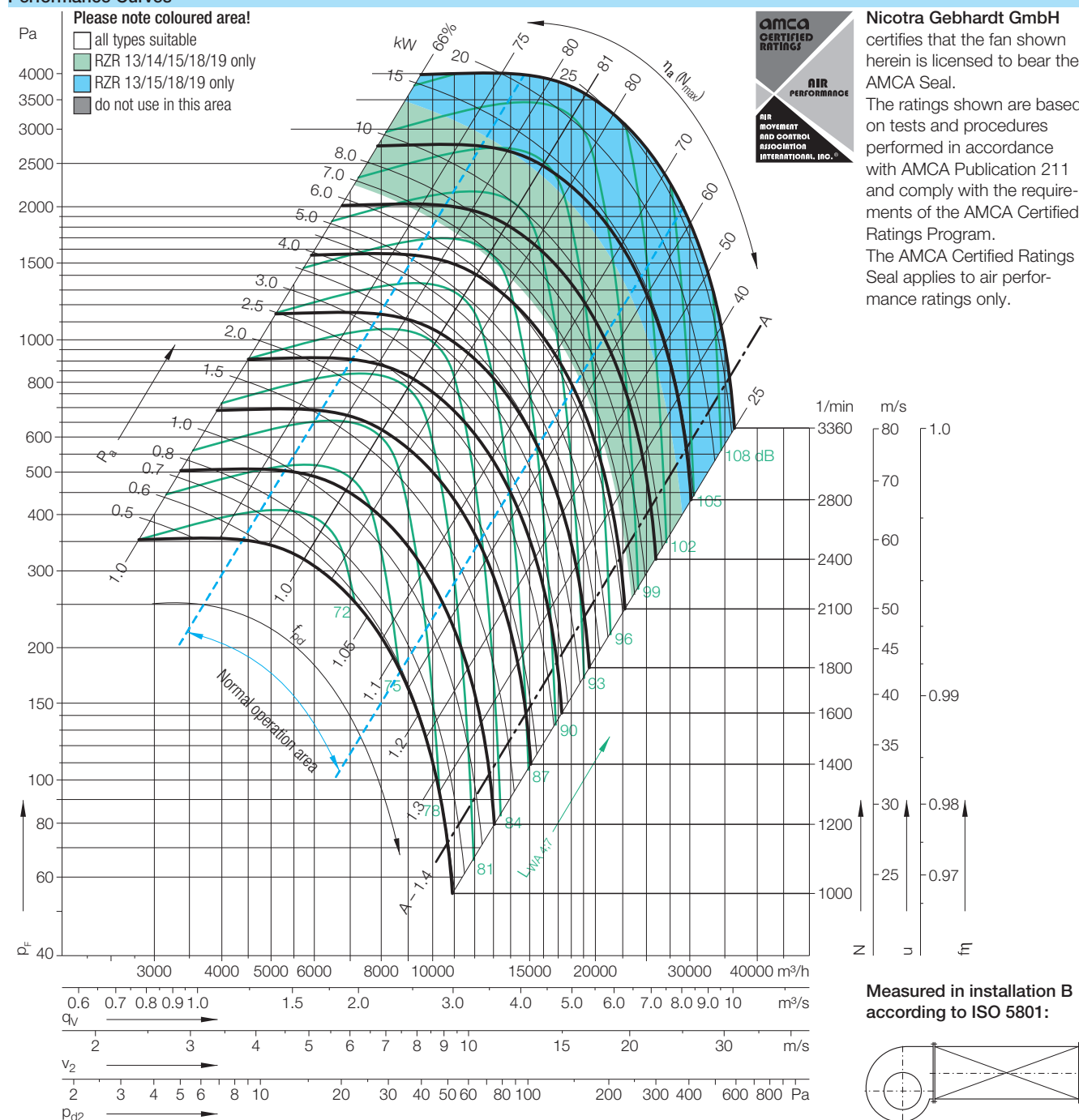
Impeller Data

Impeller weight	m	15.8	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		1	

Speed limits N_{max} for ATEX execution

RZR 11/12	2111	1/min
RZR 18	2410	1/min
RZR 13	2922	1/min

Performance Curves

Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
0	2	0	-3	-6	-9	-12	-19	dB
-2	1	-2	-3	-6	-8	-14	-20	dB
-3	0	-1	-3	-6	-8	-14	-21	dB
-5	-3	-3	-3	-6	-7	-13	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-2	-1	-3	-1	-6	-10	-15	-21	dB
-7	-4	-5	-1	-6	-9	-14	-21	dB
-10	-7	-8	-1	-5	-8	-13	-21	dB
-10	-8	-8	-2	-6	-8	-11	-18	dB

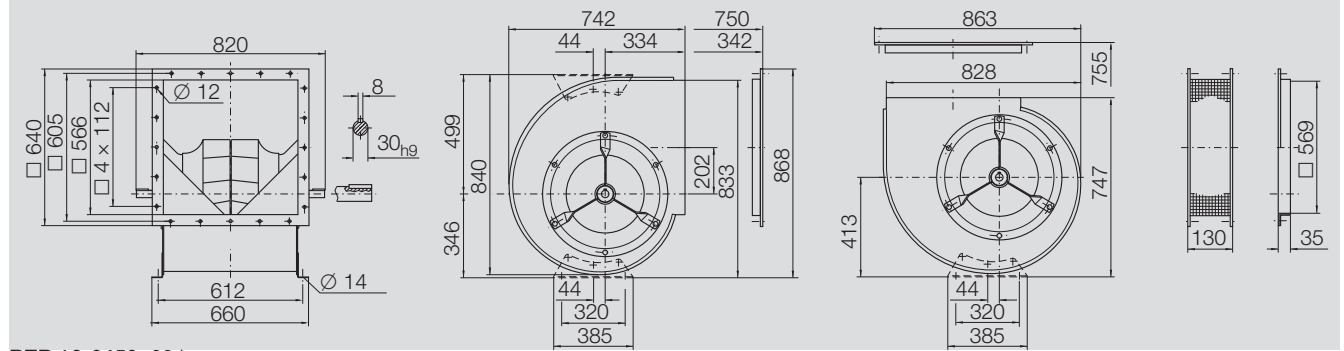
Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

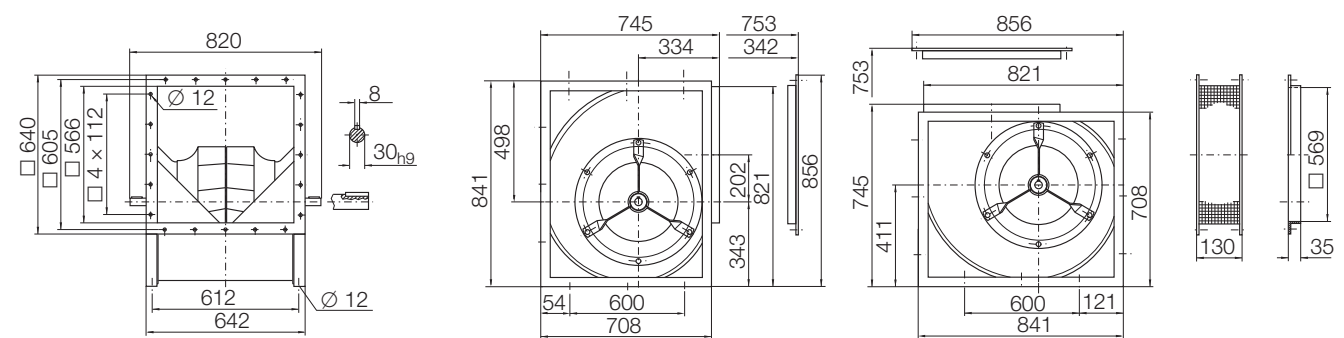
RZR_-0450

Dimensions in mm, subject to change.

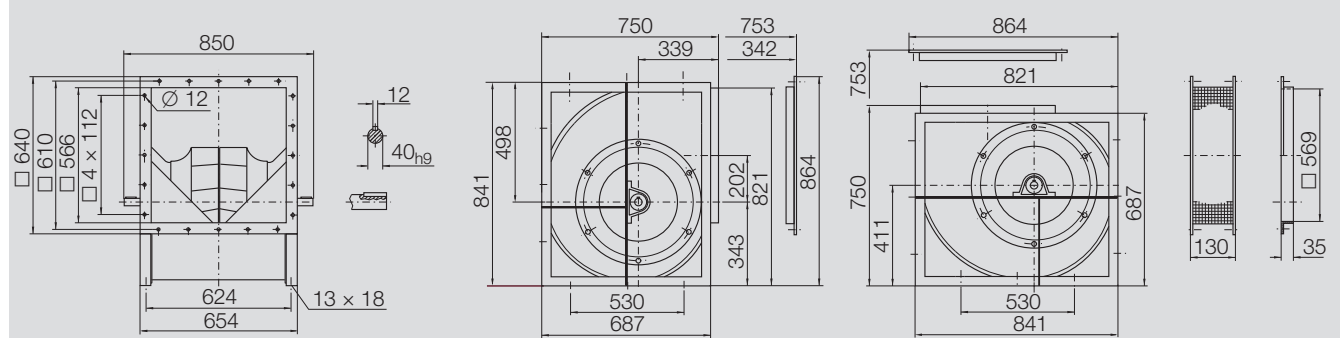
RZR 11-0450 54 kg



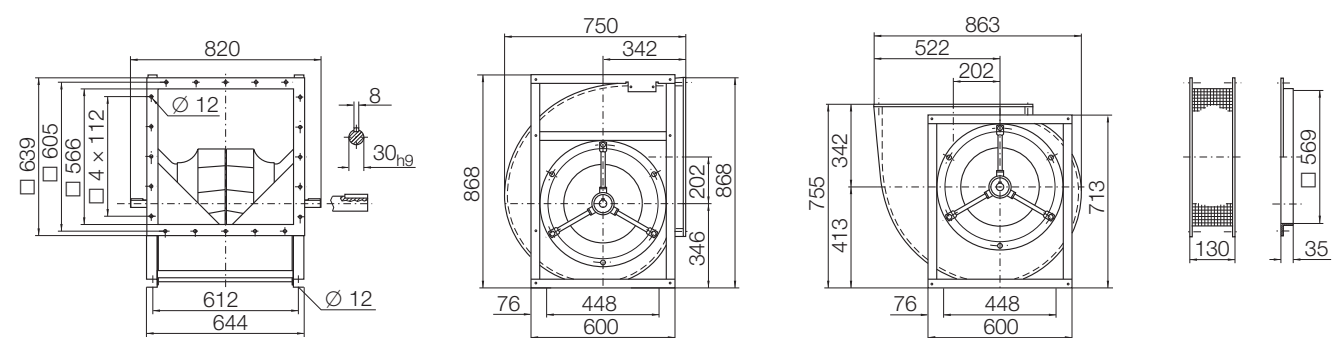
RZR 12-0450 60 kg



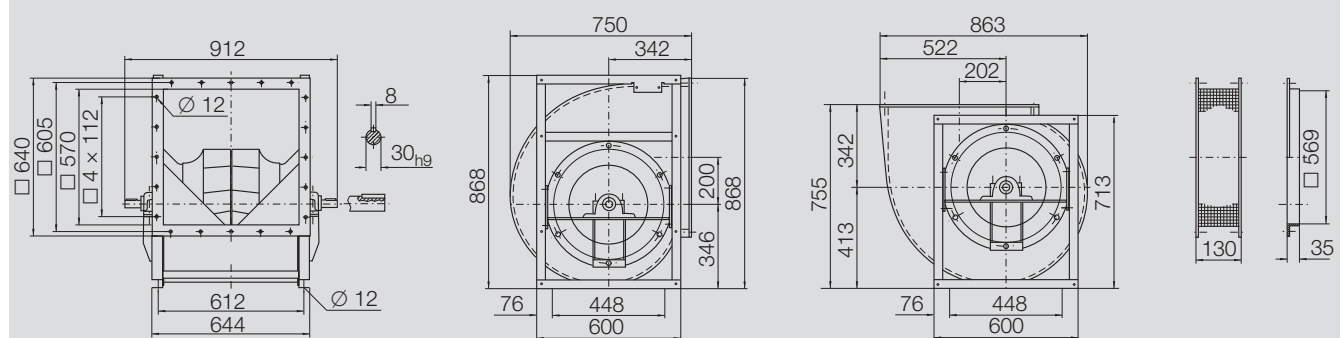
RZR 14-0450 82 kg



RZR 15-0450 73 kg RZR 19-0450 82 kg



RZR 18-0450 83 kg RZR 13-0450 92 kg



RZR _-0500

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	510	mm
Number of blades	z	12	
Moment of Inertia	J	0.9	kgm ²

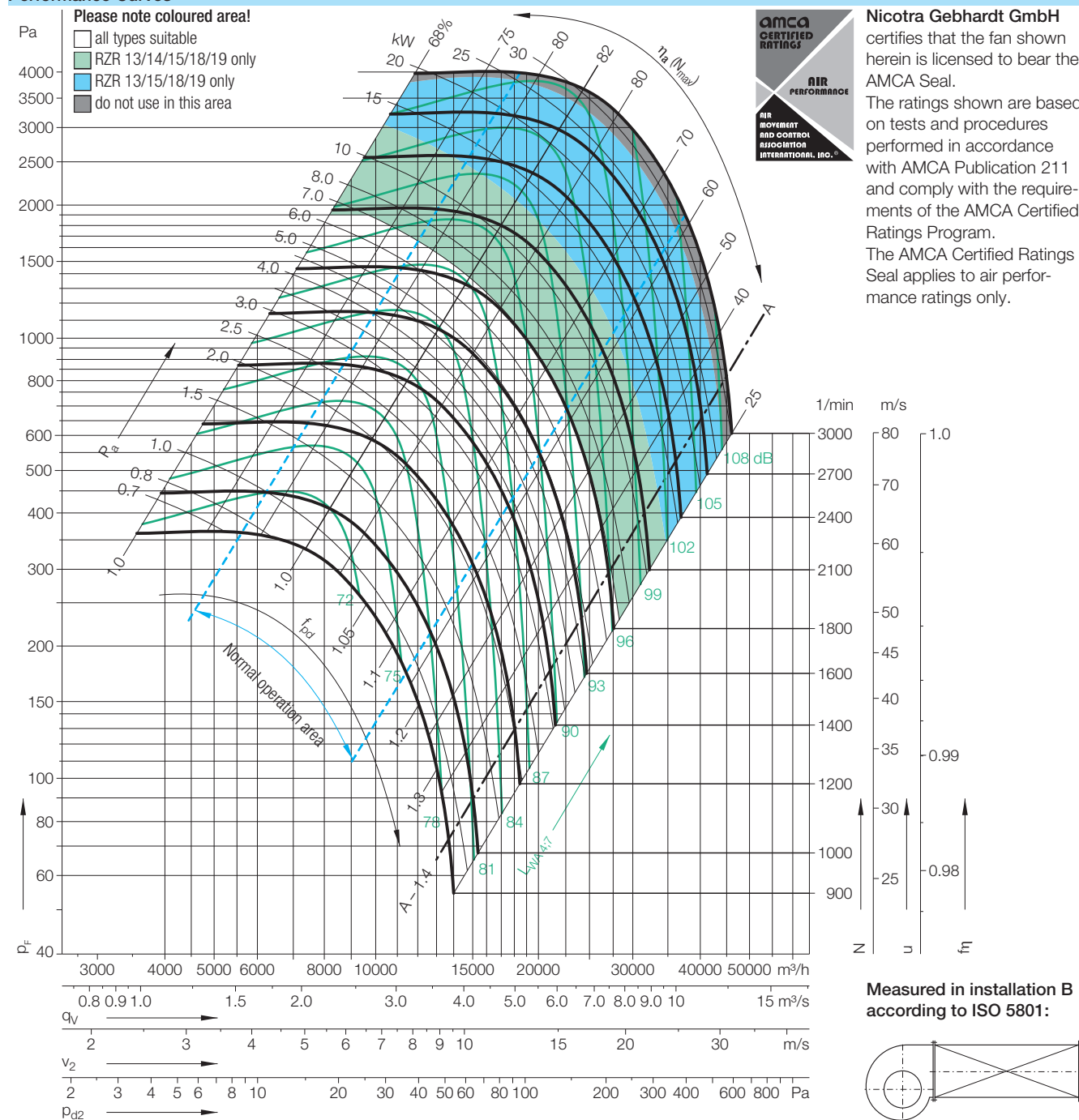
Impeller Data

Impeller weight	m	19.9	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		1	

Speed limits N_{max} for ATEX execution

RZR 11/12	1752	1/min
RZR 18	2000	1/min
RZR 13	2534	1/min

Performance Curves

Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
0	2	0	-3	-6	-9	-12	-19	dB
-2	1	-2	-3	-6	-8	-14	-20	dB
-3	0	-1	-3	-6	-8	-14	-21	dB
-5	-3	-3	-3	-6	-7	-13	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-2	-1	-3	-1	-6	-10	-15	-21	dB
-7	-4	-5	-1	-6	-9	-14	-21	dB
-10	-7	-8	-1	-5	-8	-13	-21	dB
-10	-8	-8	-2	-6	-8	-11	-18	dB

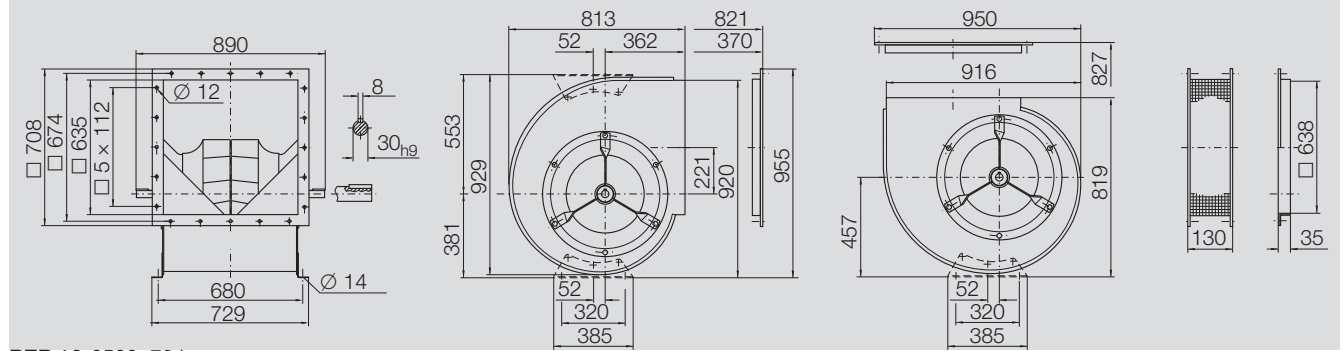
Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

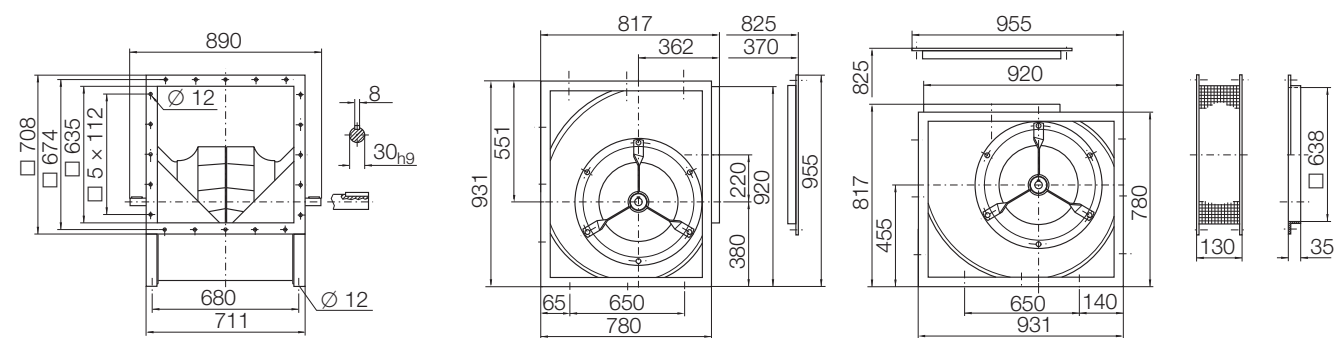
RZR_-0500

Dimensions in mm, subject to change.

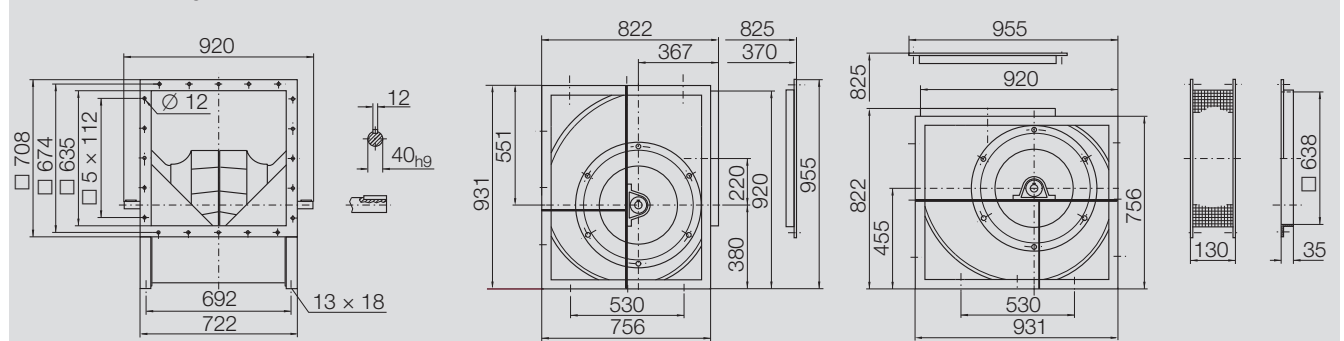
RZR 11-0500 65 kg



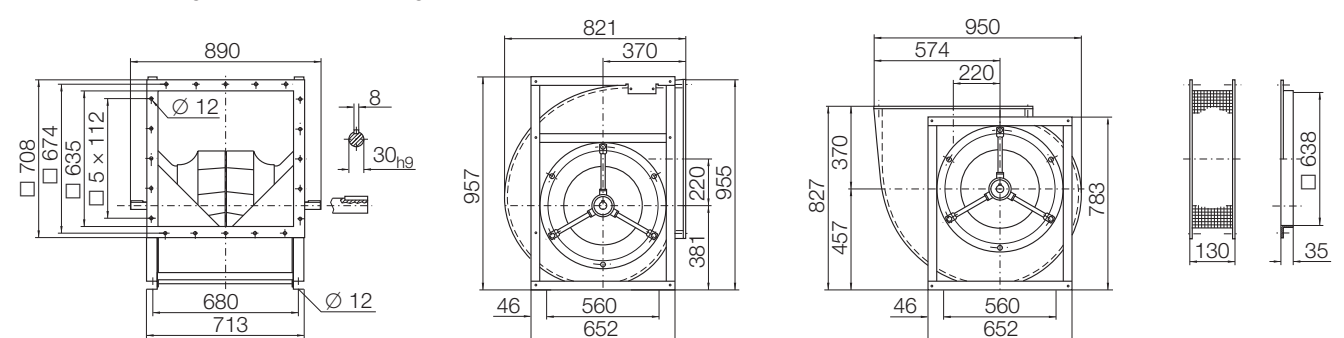
RZR 12-0500 72 kg



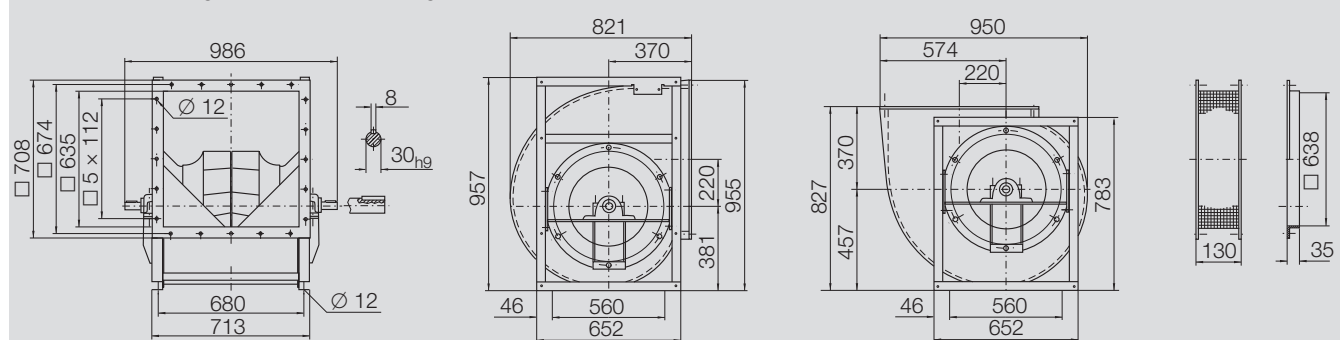
RZR 14-0500 98 kg



RZR 15-0500 94 kg RZR 19-0500 105 kg



RZR 18-0500 105 kg RZR 13-0500 116 kg



RZR _-0560

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	570	mm
Number of blades	z	12	
Moment of Inertia	J	1.7	kgm ²

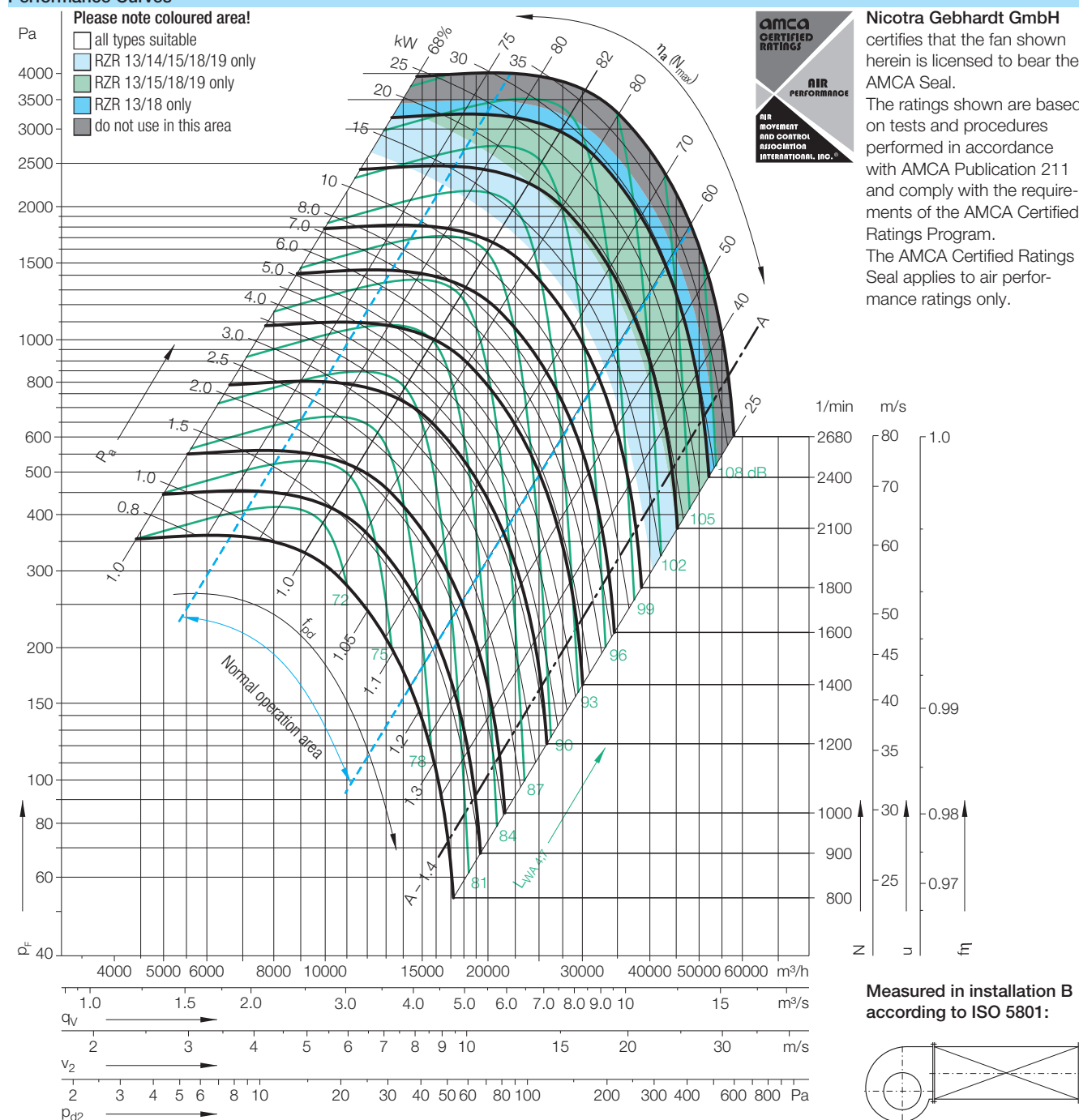
Impeller Data

Impeller weight	m	30	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		1	

Speed limits N_{max} for ATEX execution

RZR 11/12/18	1660	1/min
RZR 13	2163	1/min

Performance Curves

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
0	2	0	-3	-6	-9	-12	-19	dB
-2	1	-2	-3	-6	-8	-14	-20	dB
-3	0	-1	-3	-6	-8	-14	-21	dB
-5	-3	-3	-3	-6	-7	-13	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-2	-1	-3	-1	-6	-10	-15	-21	dB
-7	-4	-5	-1	-6	-9	-14	-21	dB
-10	-7	-8	-1	-5	-8	-13	-21	dB
-10	-8	-8	-2	-6	-8	-11	-18	dB

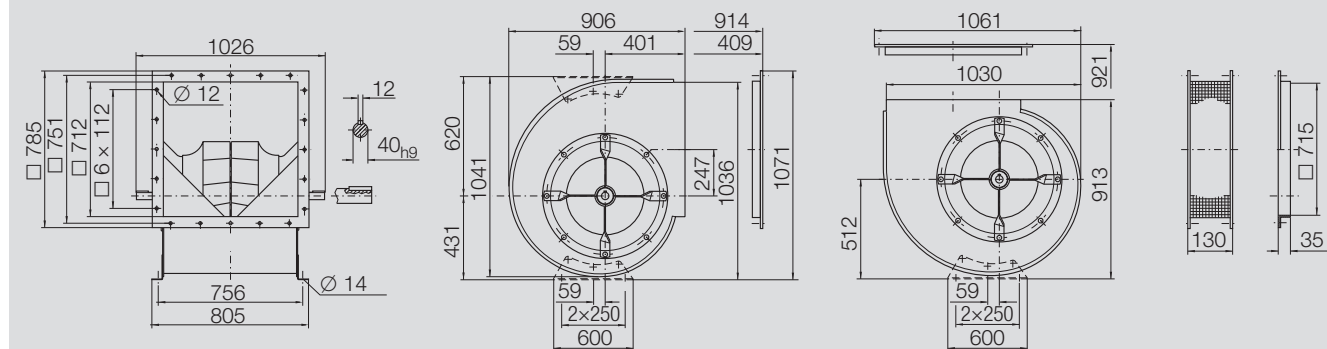
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

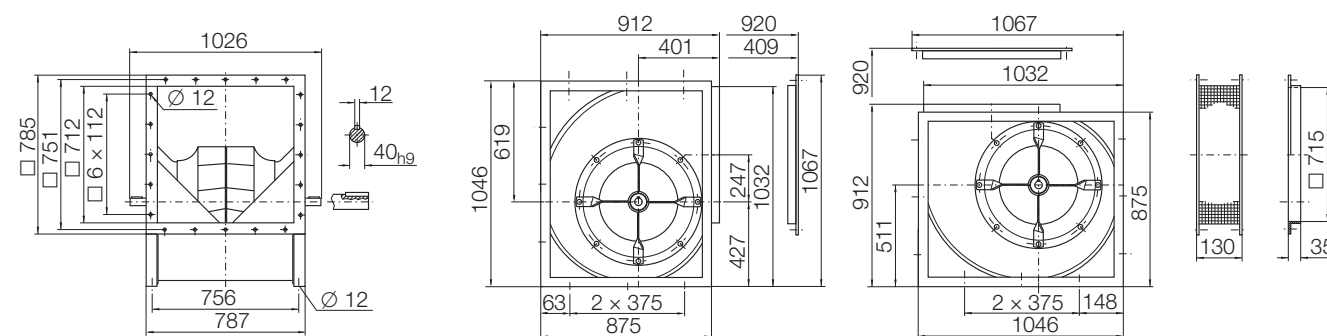
RZR_-0560

Dimensions in mm, subject to change.

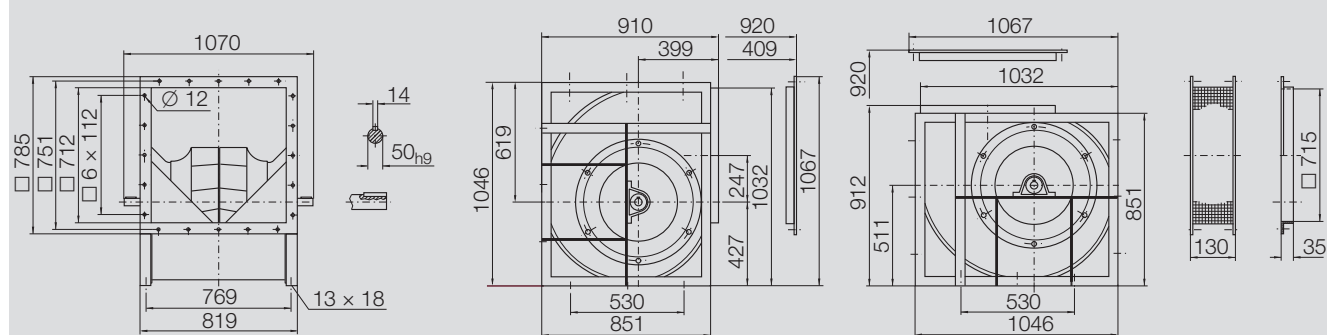
RZR 11-0560 103 kg



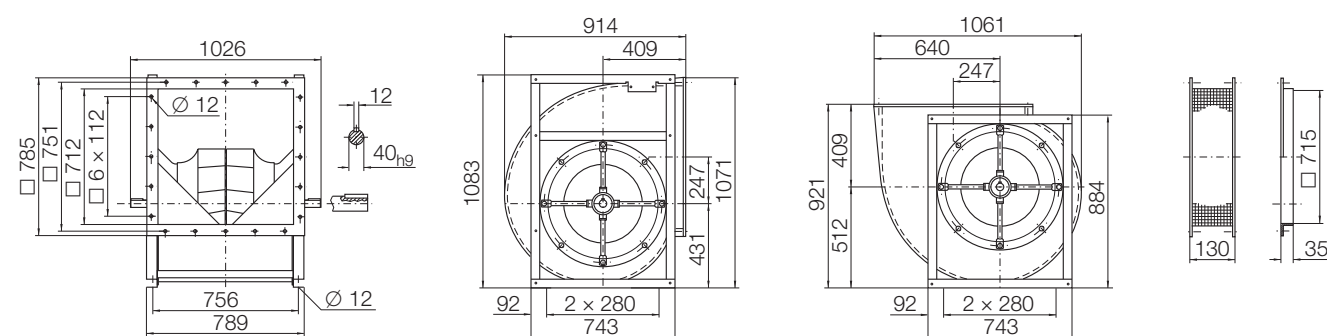
RZR 12-0560 109 kg



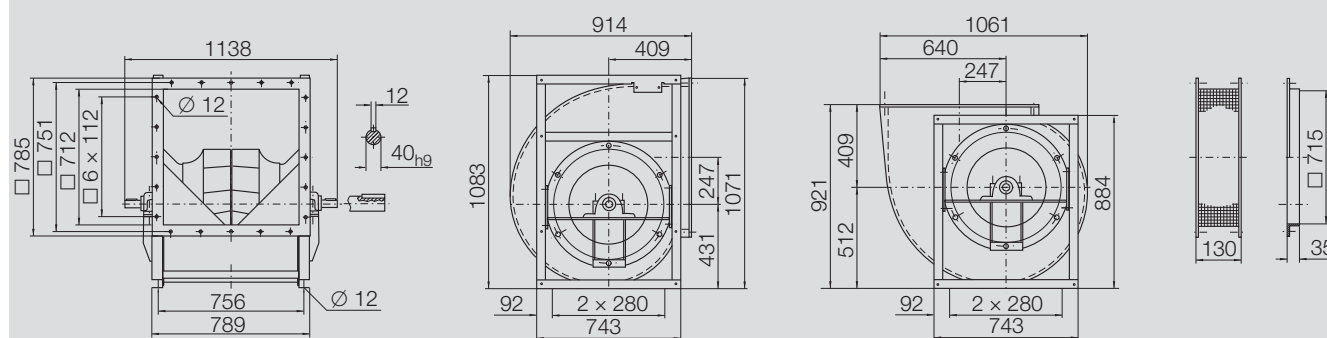
RZR 14-0560 156 kg



RZR 15-0560 125 kg RZR 19-0560 136 kg



RZR 18-0560 140 kg RZR 13-0560 151 kg



RZR _-0630

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	640	mm
Number of blades	z	12	
Moment of Inertia	J	2.4	kgm ²

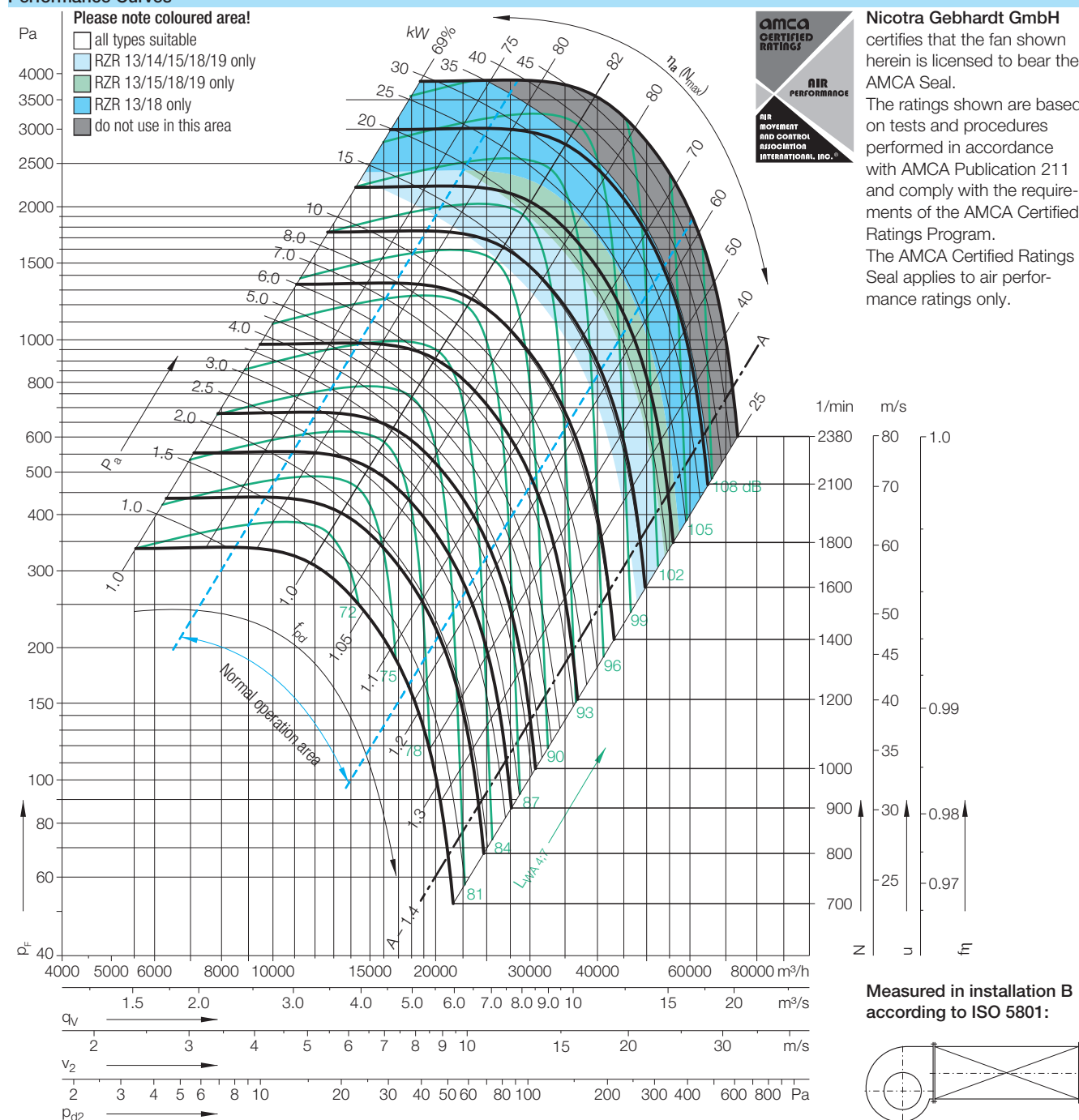
Impeller Data

Impeller weight	m	38	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		1	

Speed limits N_{max} for ATEX execution

RZR 11/12/18	1367	1/min
RZR 13	2055	1/min

Performance Curves



Nicotra Gebhardt GmbH

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Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
0	2	0	-3	-6	-9	-12	-19	dB
-2	1	-2	-3	-6	-8	-14	-20	dB
-3	0	-1	-3	-6	-8	-14	-21	dB
-5	-3	-3	-3	-6	-7	-13	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-2	-1	-3	-1	-6	-10	-15	-21	dB
-7	-4	-5	-1	-6	-9	-14	-21	dB
-10	-7	-8	-1	-5	-8	-13	-21	dB
-10	-8	-8	-2	-6	-8	-11	-18	dB

Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

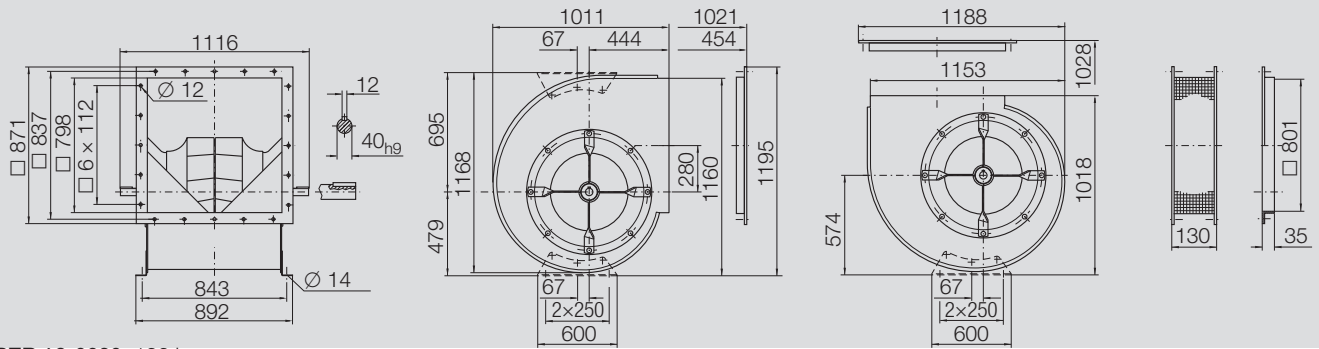
63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

Speed	Duty point
≤1194 1/min	≤0.8 q_{Vopt}
	>0.8-1.2 q_{Vopt}
	>1.2-1.6 q_{Vopt}
	>1.6 q_{Vopt}
Speed	Duty point
>1194 1/min	≤0.8 q_{Vopt}
	>0.8-1.2 q_{Vopt}
	>1.2-1.6 q_{Vopt}
	>1.6 q_{Vopt}

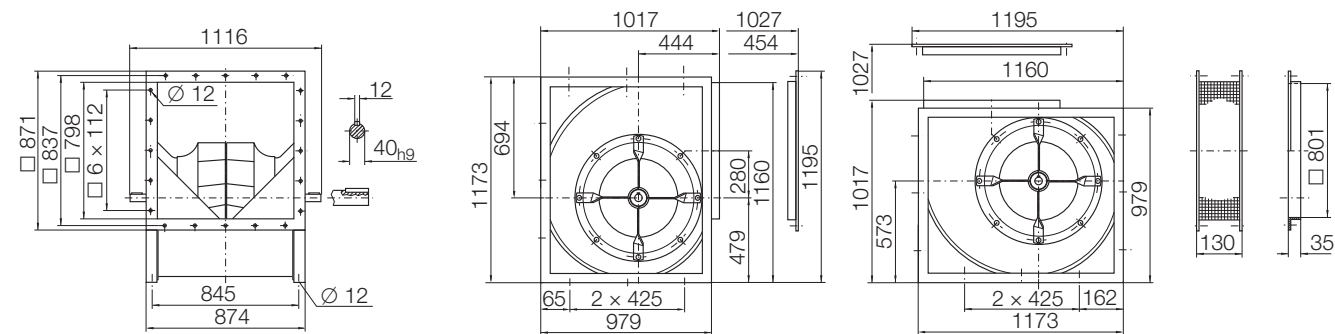
RZR_-0630

Dimensions in mm, subject to change.

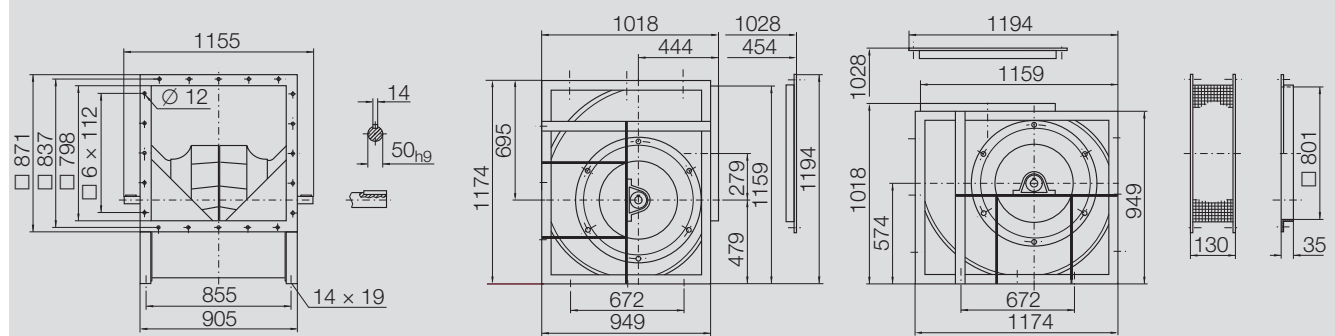
RZR 11-0630 124 kg



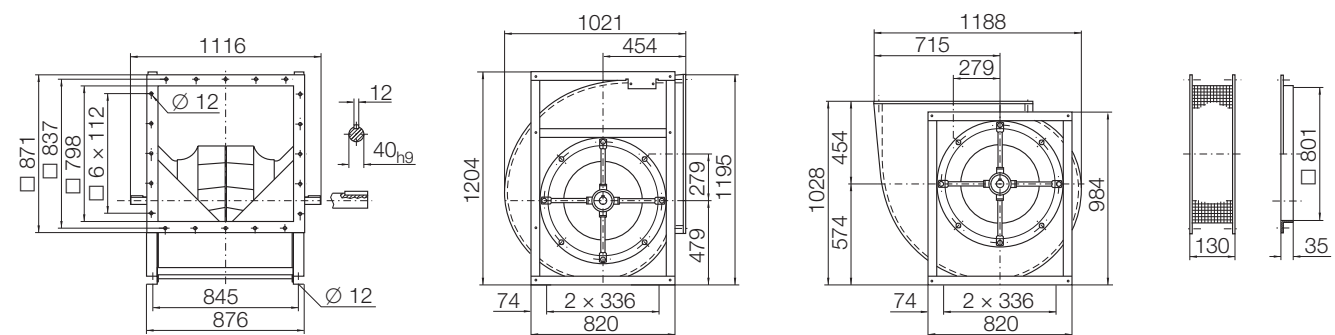
RZR 12-0630 132 kg



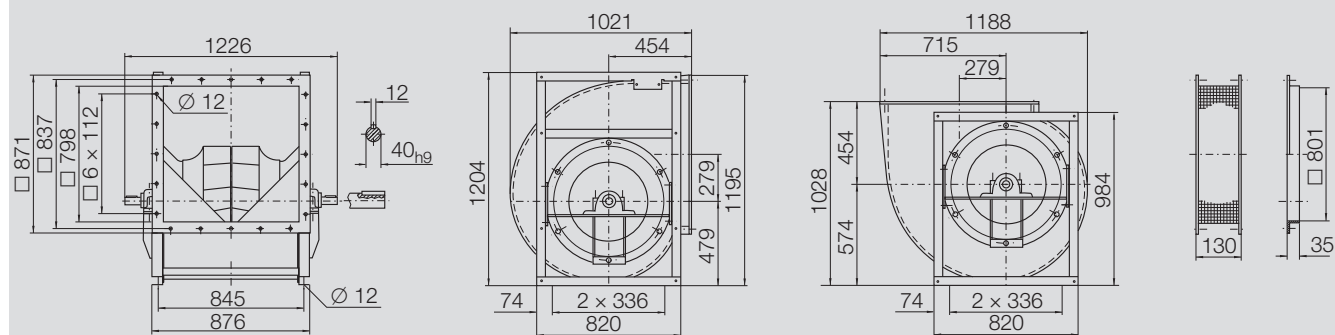
RZR 14-0630 185 kg



RZR 15-0630 149 kg RZR 19-0630 162 kg



RZR 18-0630 167 kg RZR 13-0630 180 kg



RZR _-0710

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	718	mm
Number of blades	z	12	
Moment of Inertia	J	4.8	kgm ²

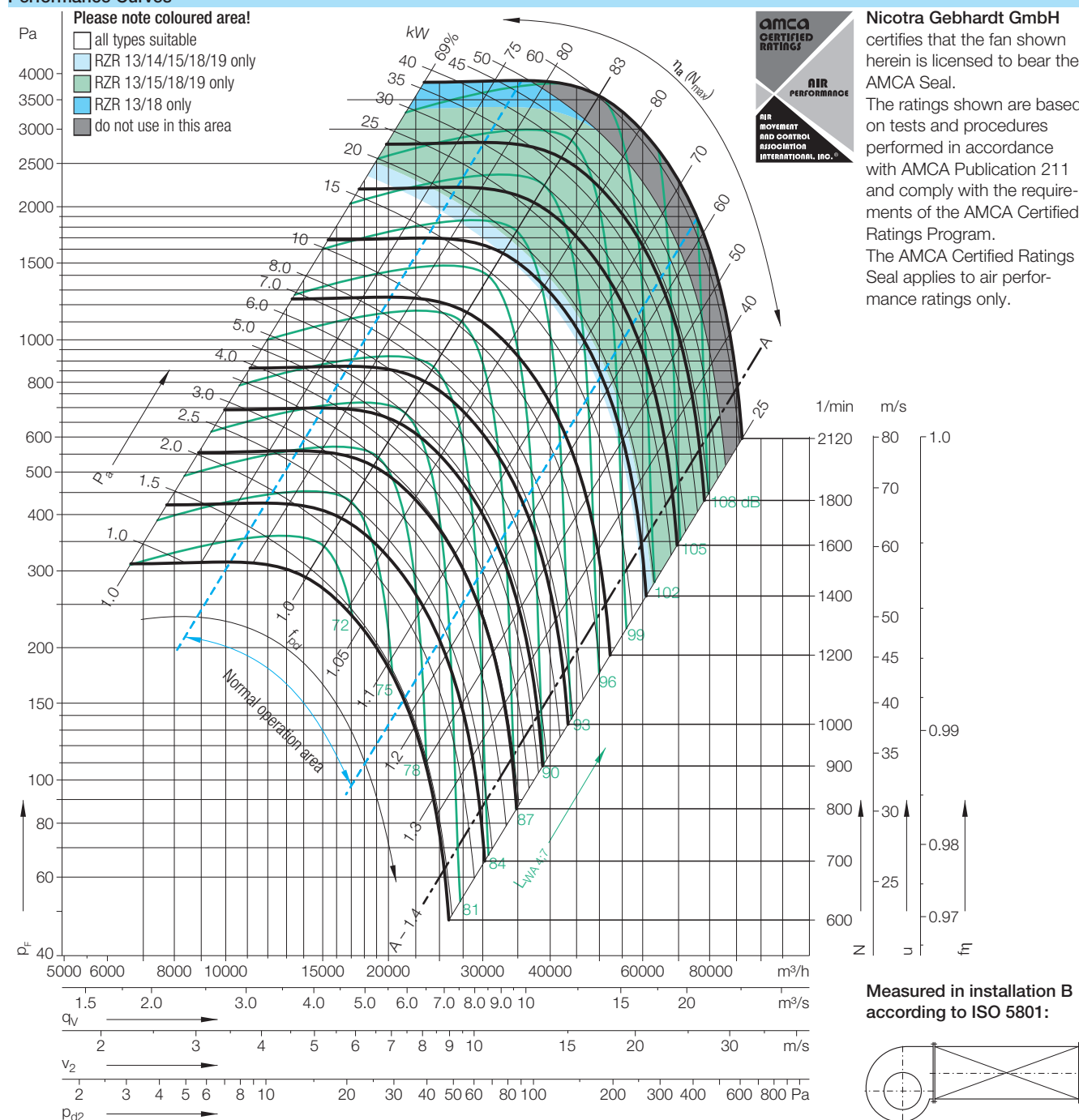
Impeller Data

Impeller weight	m	52	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		1	

Speed limits N_{max} for ATEX execution

RZR 11/12/18	1128	1/min
RZR 13	1825	1/min

Performance Curves



Speed	Duty point
≤1064 1/min	≤0.8 q_{Vopt}
	>0.8-1.2 q_{Vopt}
	>1.2-1.6 q_{Vopt}
	>1.6 q_{Vopt}
Speed	Duty point
>1064 1/min	≤0.8 q_{Vopt}
	>0.8-1.2 q_{Vopt}
	>1.2-1.6 q_{Vopt}
	>1.6 q_{Vopt}

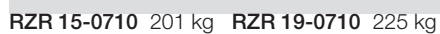
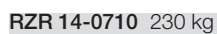
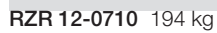
Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
0	2	0	-3	-6	-9	-12	-19	dB
-2	1	-2	-3	-6	-8	-14	-20	dB
-3	0	-1	-3	-6	-8	-14	-21	dB
-5	-3	-3	-3	-6	-7	-13	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-2	-1	-3	-1	-6	-10	-15	-21	dB
-7	-4	-5	-1	-6	-9	-14	-21	dB
-10	-7	-8	-1	-5	-8	-13	-21	dB
-10	-8	-8	-2	-6	-8	-11	-18	dB

Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

RZR 11-0710 177 kg



RZR _-0800

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	808	mm
Number of blades	z	12	
Moment of Inertia	J	6.85	kgm ²

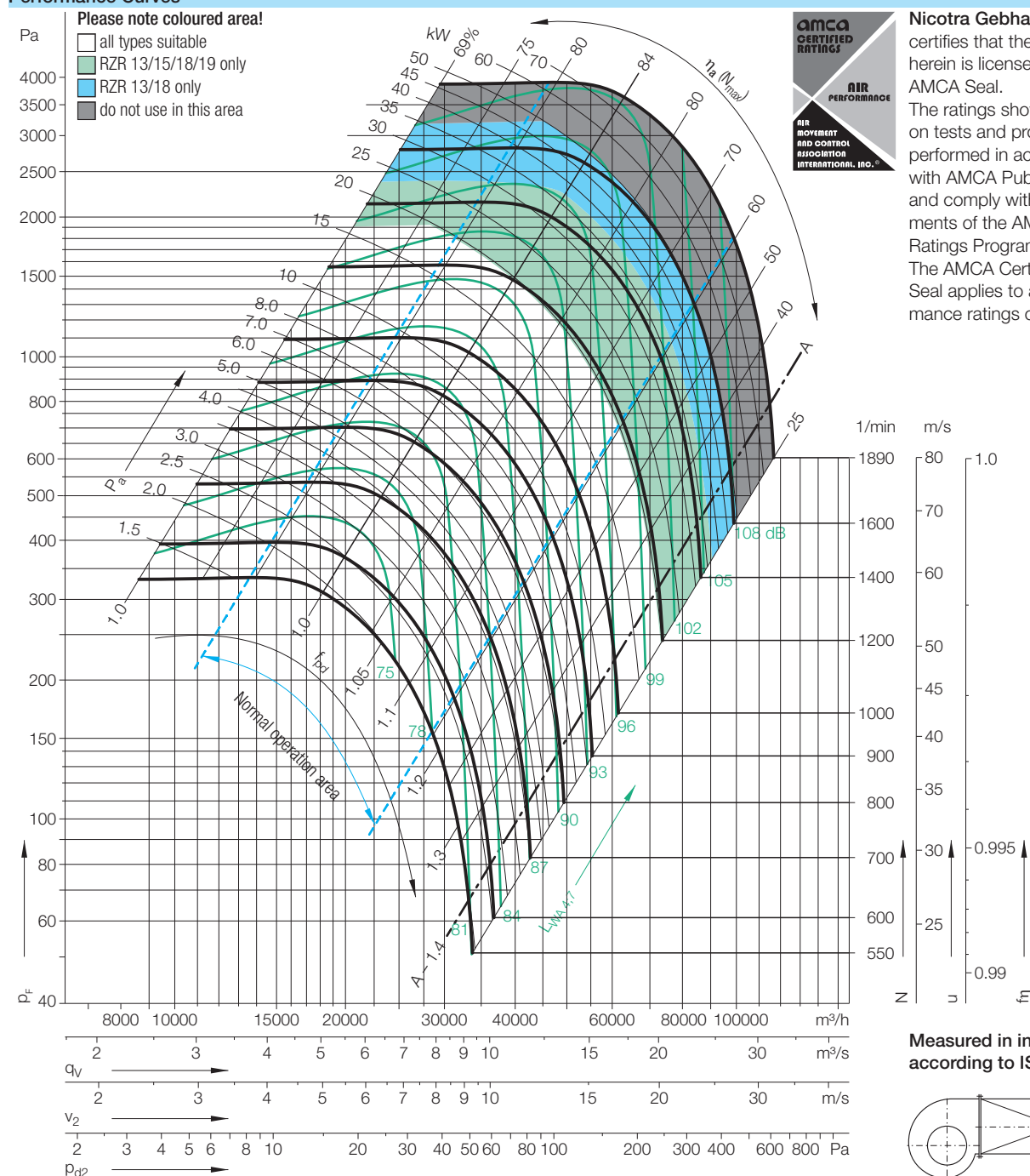
Impeller Data

Impeller weight	m	69	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		1	

Speed limits N_{max} for ATEX execution

RZR 11/18	927	1/min
RZR 13	1474	1/min

Performance Curves



Nicotra Gebhardt GmbH

certifies that the fan shown herein is licensed to bear the AMCA Seal.

The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to air performance ratings only.

Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
0	2	0	-3	-6	-9	-12	-19	dB
-2	1	-2	-3	-6	-8	-14	-20	dB
-3	0	-1	-3	-6	-8	-14	-21	dB
-5	-3	-3	-3	-6	-7	-13	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-2	-1	-3	-1	-6	-10	-15	-21	dB
-7	-4	-5	-1	-6	-9	-14	-21	dB
-10	-7	-8	-1	-5	-8	-13	-21	dB
-10	-8	-8	-2	-6	-8	-11	-18	dB

Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

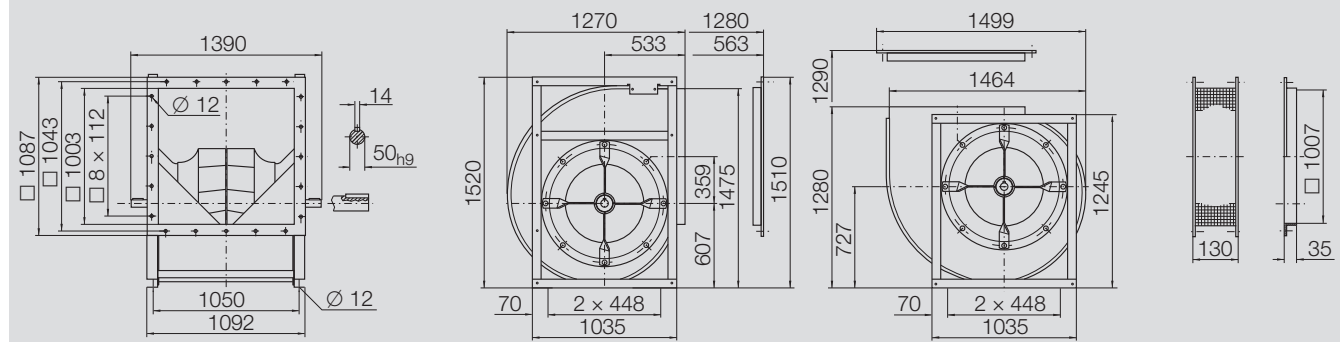
63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

Speed	Duty point
≤ 945 1/min	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$
Speed	Duty point
> 945 1/min	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$

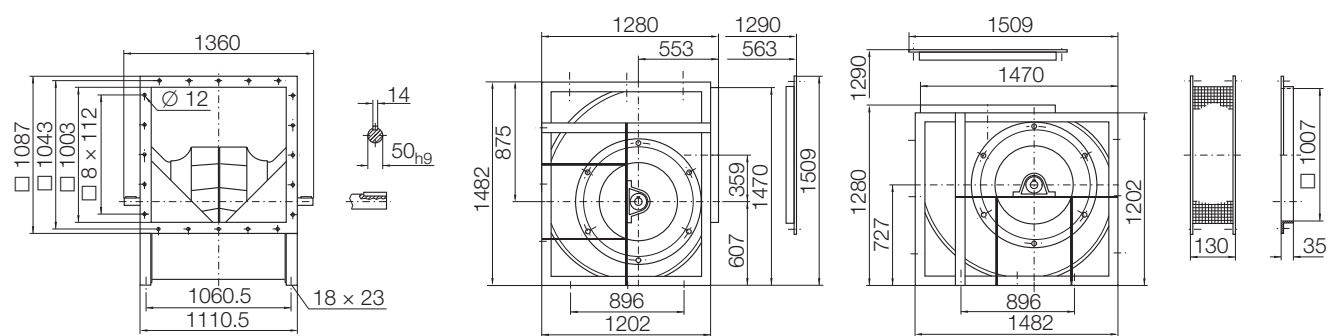
RZR_-0800

Dimensions in mm, subject to change.

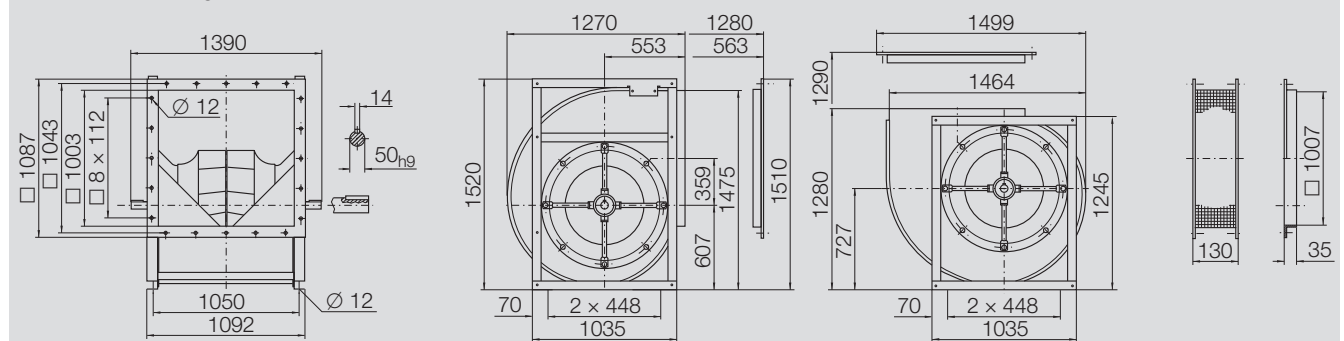
RZR 11-0800 250 kg



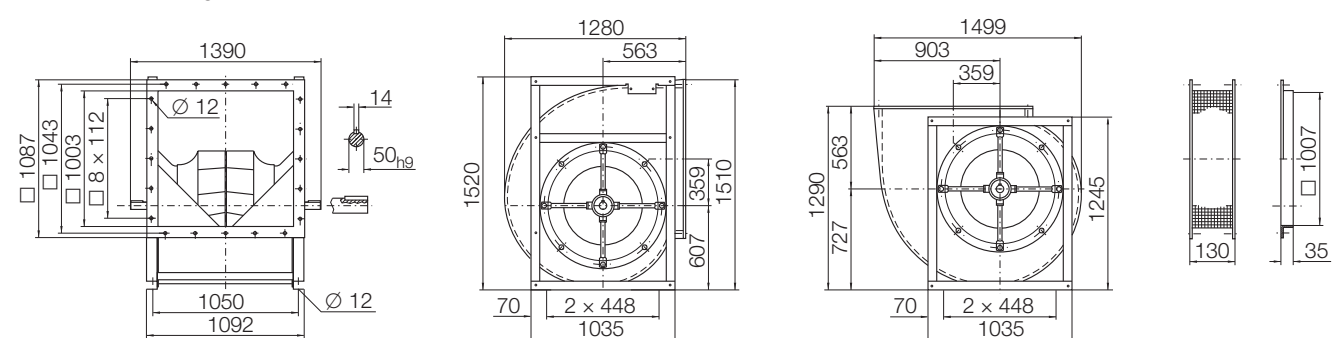
RZR 14-0800 327 kg



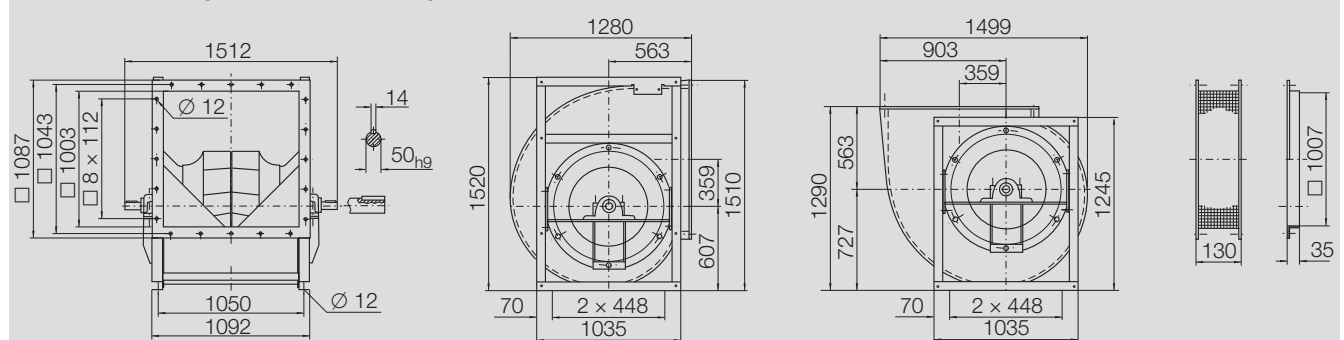
RZR 15-0800 250 kg



RZR 19-0800 280 kg



RZR 18-0800 289 kg RZR 13-0800 319 kg



RZR _-0900

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	905	mm
Number of blades	z	12	
Moment of Inertia	J	15.5	kgm ²

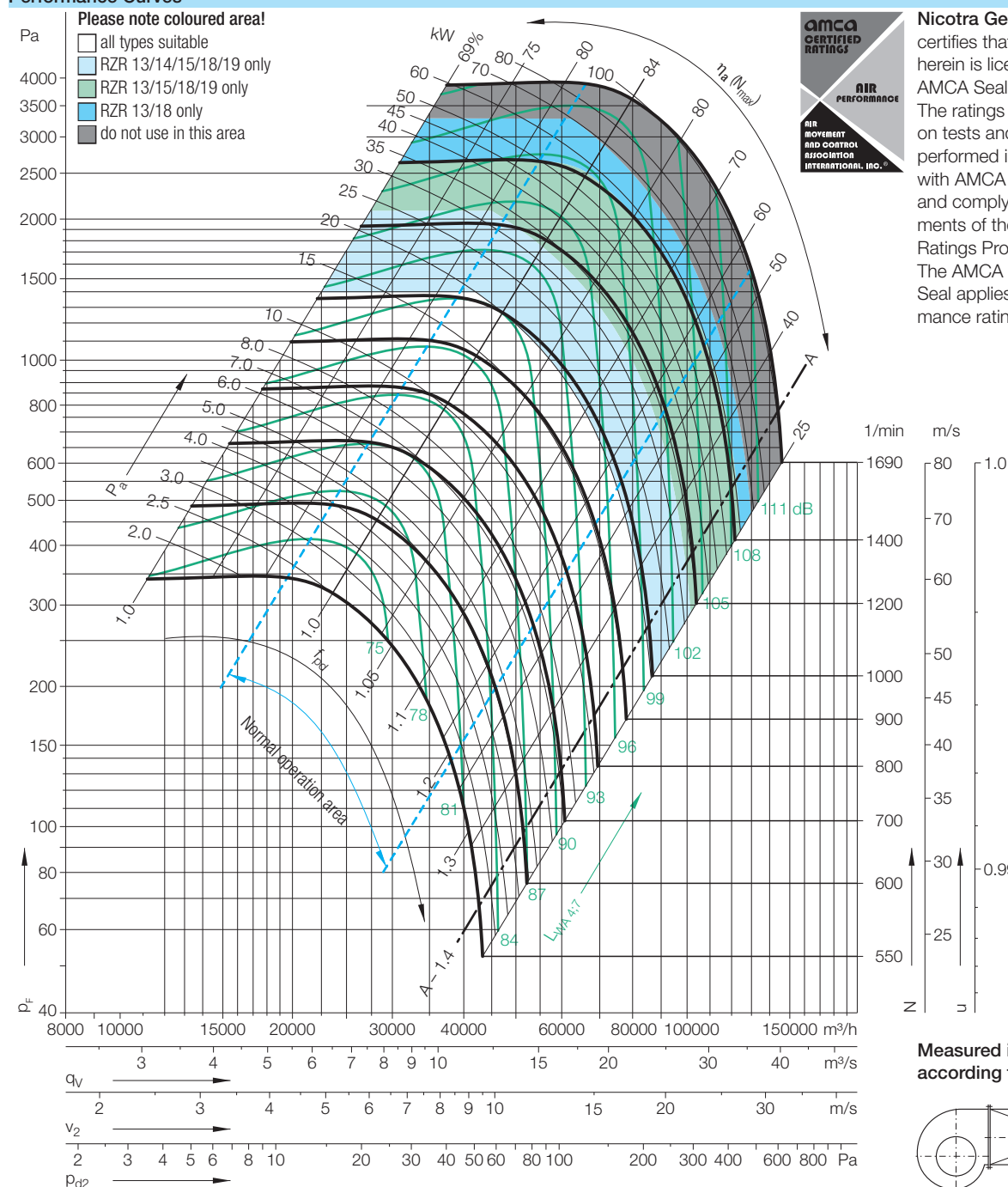
Impeller Data

Impeller weight		m	109	kg
Density of media		ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)			1	

Speed limits N_{max} for ATEX execution

RZR 11/18	767	1/min
RZR 13	1339	1/min

Performance Curves



Nicotra Gebhardt GmbH

certifies that the fan shown herein is licensed to bear the AMCA Seal.

The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance ratings only.

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
0	2	0	-3	-6	-9	-12	-19	dB
-2	1	-2	-3	-6	-8	-14	-20	dB
-3	0	-1	-3	-6	-8	-14	-21	dB
-5	-3	-3	-3	-6	-7	-13	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-2	-1	-3	-1	-6	-10	-15	-21	dB
-7	-4	-5	-1	-6	-9	-14	-21	dB
-10	-7	-8	-1	-5	-8	-13	-21	dB
-10	-8	-8	-2	-6	-8	-11	-18	dB

Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

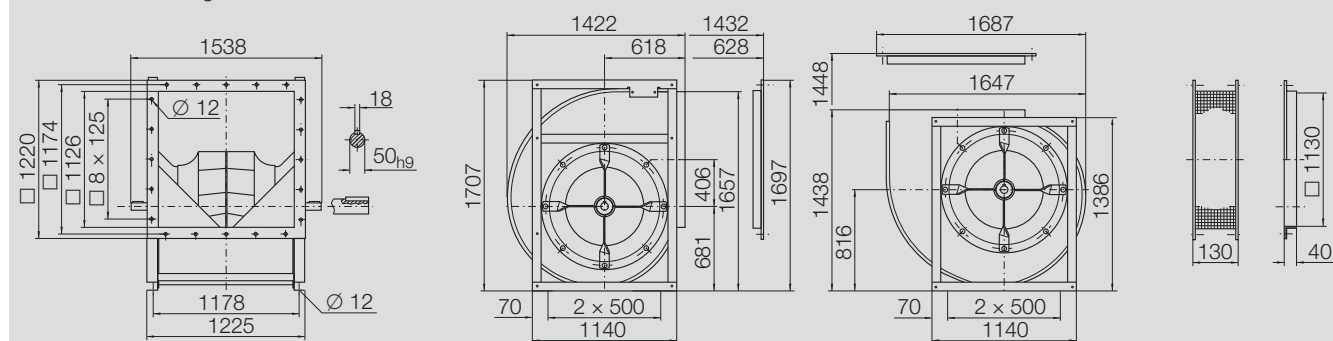
63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

Speed	Duty point
≤ 844 1/min	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$
Speed	Duty point
> 844 1/min	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$

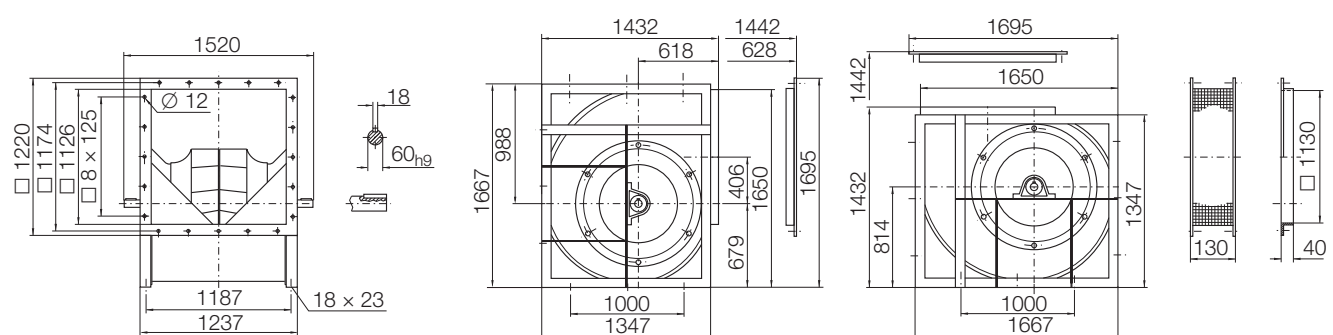
RZR_-0900

Dimensions in mm, subject to change.

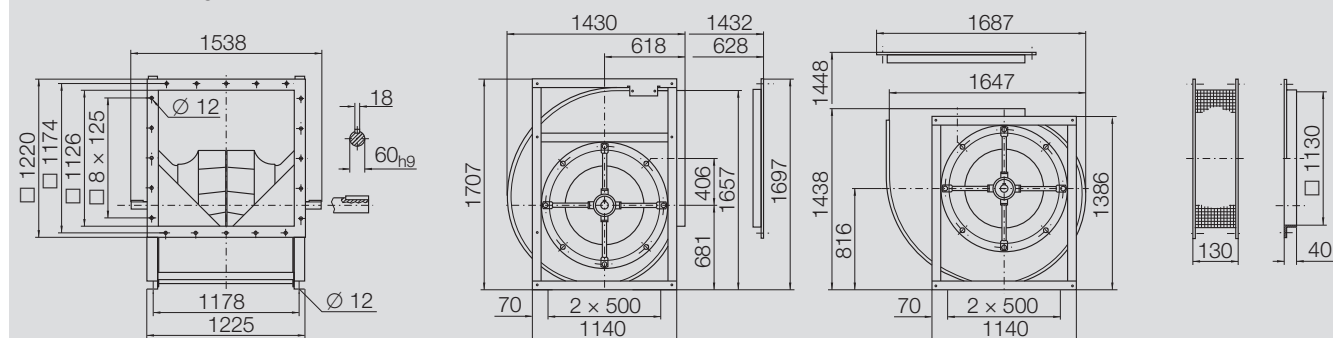
RZR 11-0900 358 kg



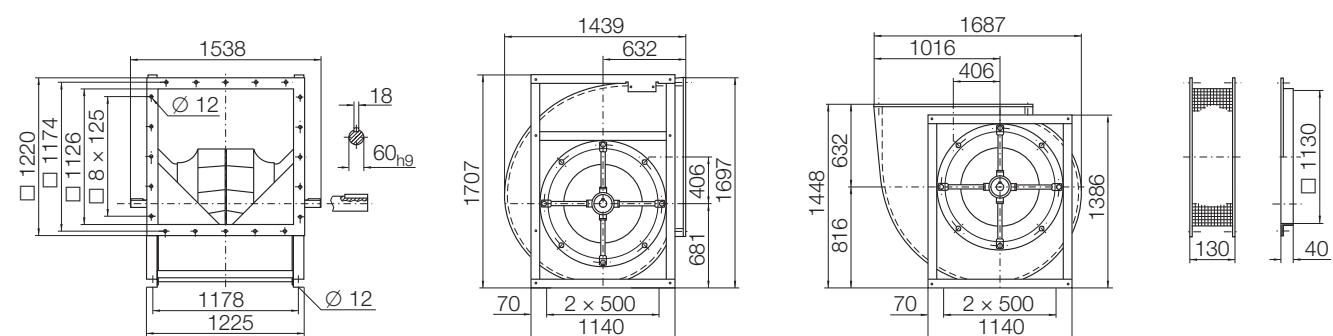
RZR 14-0900 356 kg



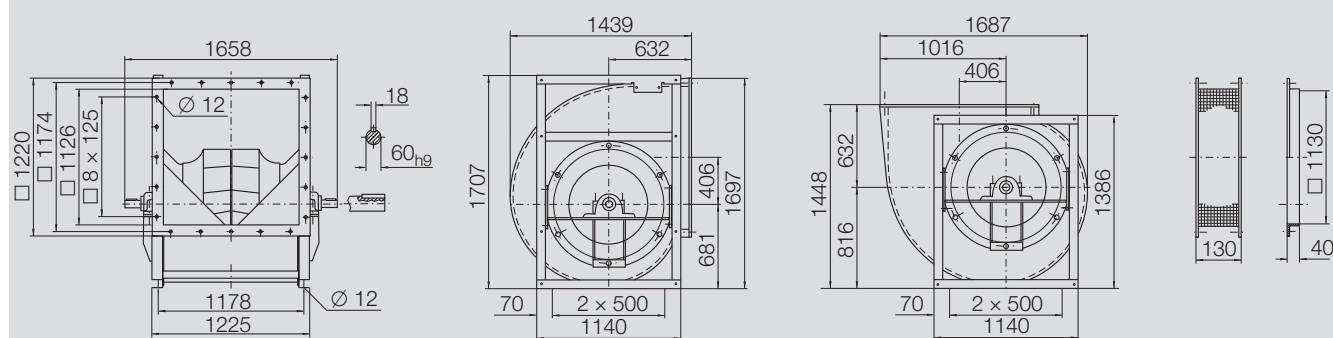
RZR 15-0900 358 kg



RZR 19-0900 396 kg



RZR 18-0900 409 kg RZR 13-0900 447 kg



RZR _-1000

Performance certified is for installation type B - free inlet, ducted outlet.

Power rating (kW) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Technical Data

Impeller Data

Impeller diameter	D_r	1000	mm
Number of blades	z	12	
Moment of Inertia	J	22	kgm ²

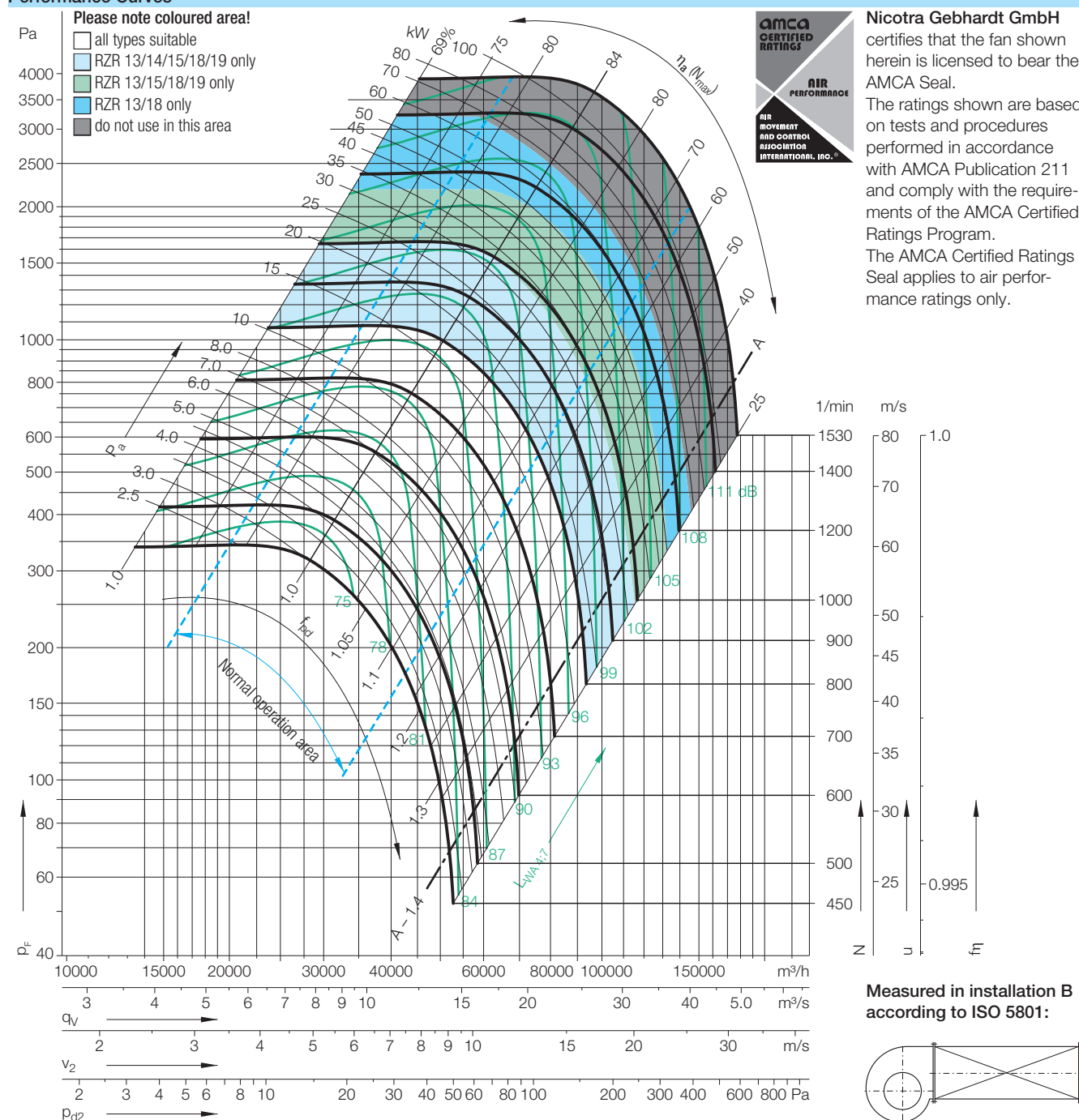
Impeller Data

Impeller weight	m	133	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		1	

Speed limits N_{max} for ATEX execution

RZR 11/18	650	1/min
RZR 13	1217	1/min

Performance Curves



Speed	Duty point
≤764 1/min	≤0.8 q_{Vopt}
	>0.8-1.2 q_{Vopt}
	>1.2-1.6 q_{Vopt}
	>1.6 q_{Vopt}
Speed	Duty point
>764 1/min	≤0.8 q_{Vopt}
	>0.8-1.2 q_{Vopt}
	>1.2-1.6 q_{Vopt}
	>1.6 q_{Vopt}

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
0	2	0	-3	-6	-9	-12	-19	dB
-2	1	-2	-3	-6	-8	-14	-20	dB
-3	0	-1	-3	-6	-8	-14	-21	dB
-5	-3	-3	-3	-6	-7	-13	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-2	-1	-3	-1	-6	-10	-15	-21	dB
-7	-4	-5	-1	-6	-9	-14	-21	dB
-10	-7	-8	-1	-5	-8	-13	-21	dB
-10	-8	-8	-2	-6	-8	-11	-18	dB

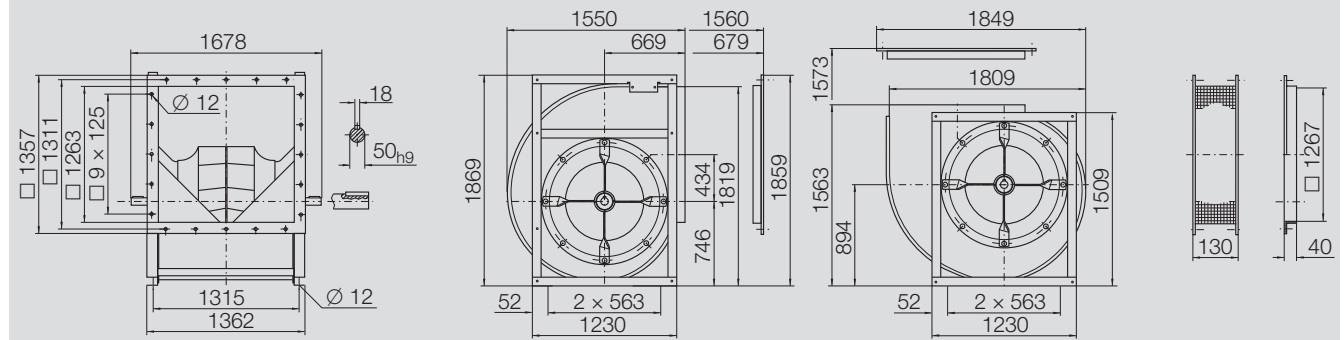
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

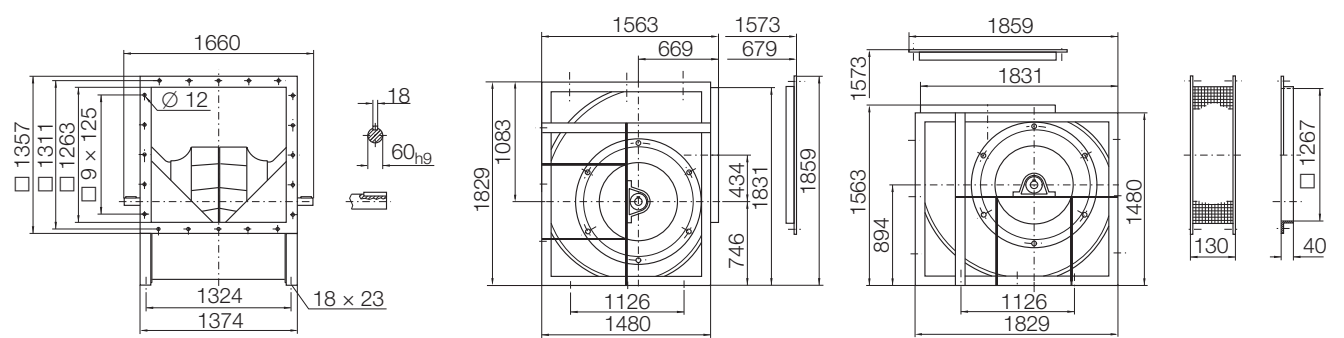
RZR_-1000

Dimensions in mm, subject to change.

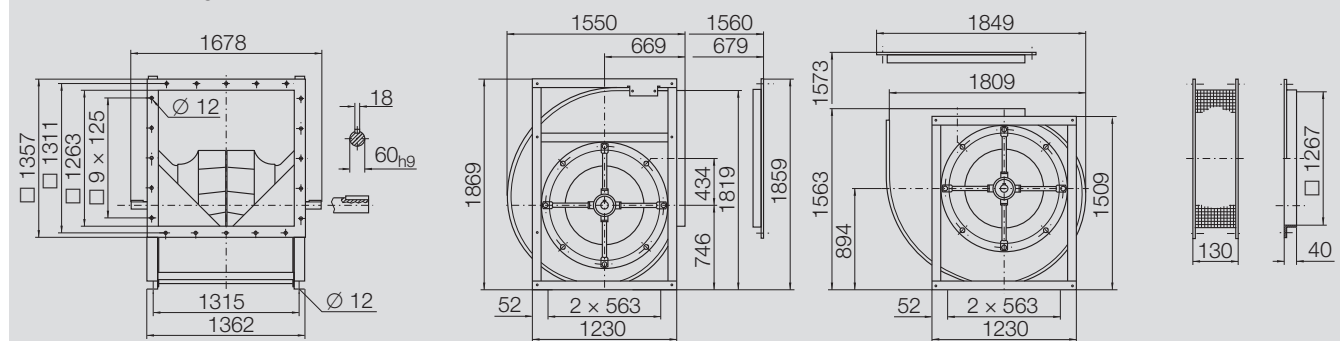
RZR 11-1000 416 kg



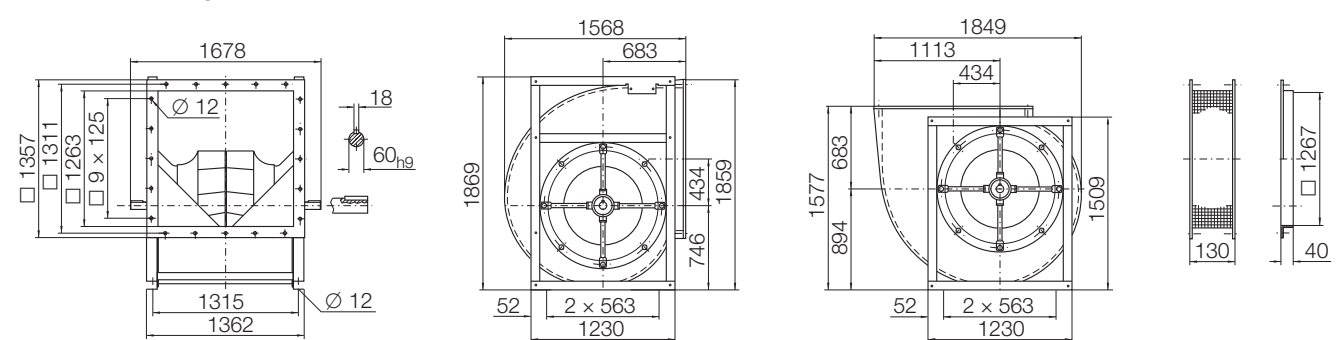
RZR 14-1000 435 kg



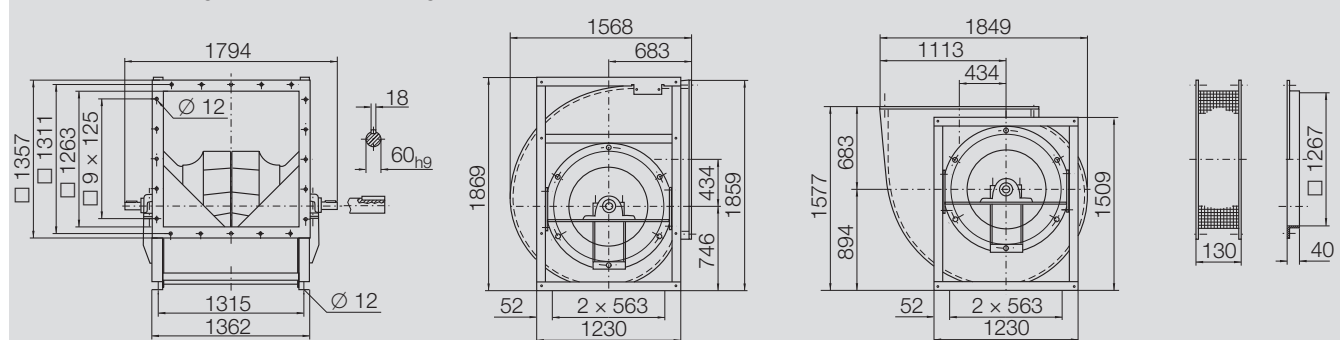
RZR 15-1000 416 kg



RZR 19-1000 462 kg



RZR 18-1000 471 kg RZR 13-1000 517 kg



RZR_-1120

Technical Data

Impeller Data

Impeller diameter	D_r	1120	mm
Number of blades	z	12	
Moment of Inertia	J	32	kgm ²

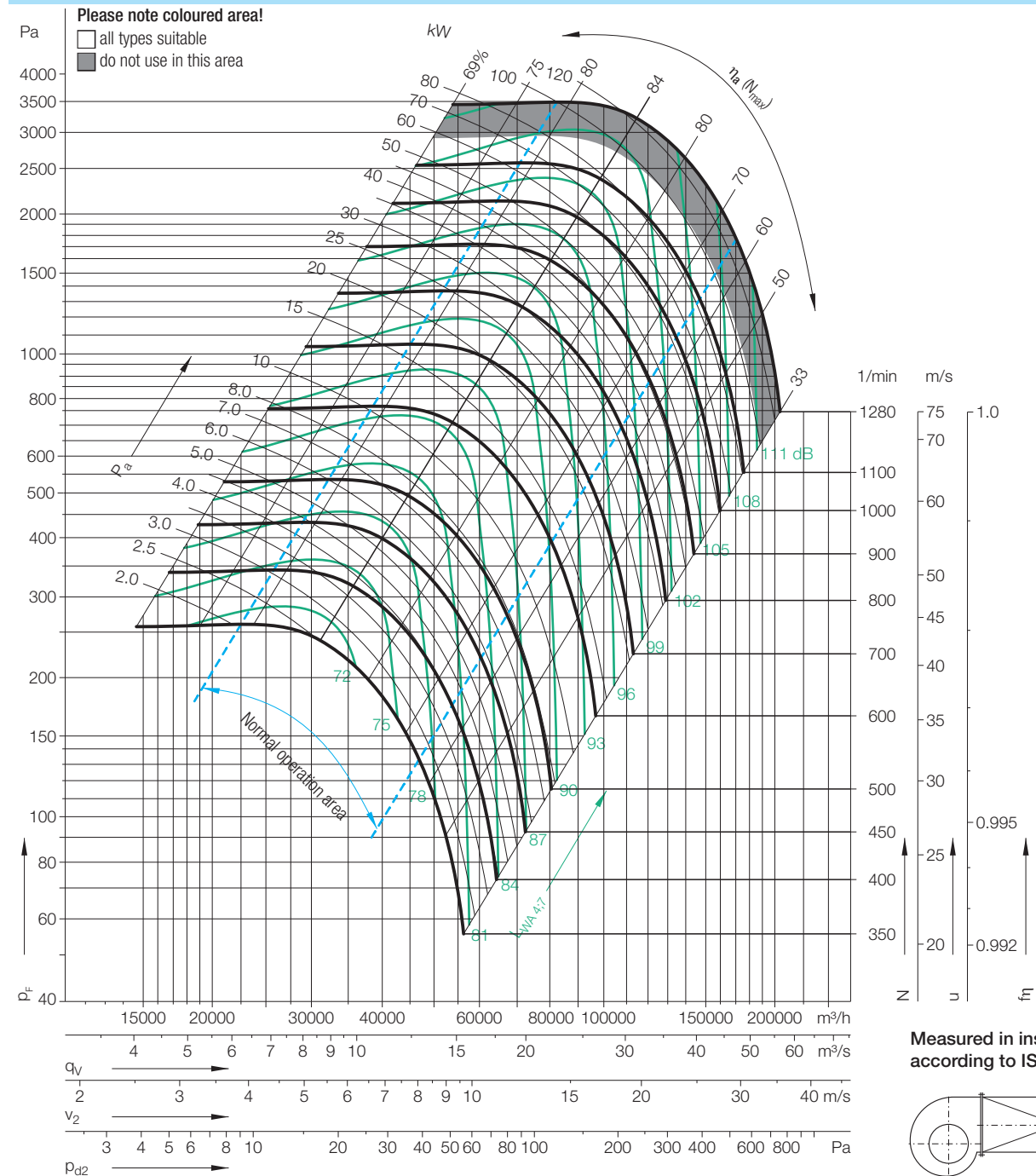
Impeller Data

Impeller weight	m	200	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		1	

Speed limits N_{max} for ATEX execution

RZR 13	1026	1/min
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Performance Curves



Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c

Speed	Duty point
≤ 682 1/min	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$
Speed	Duty point
> 682 1/min	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$

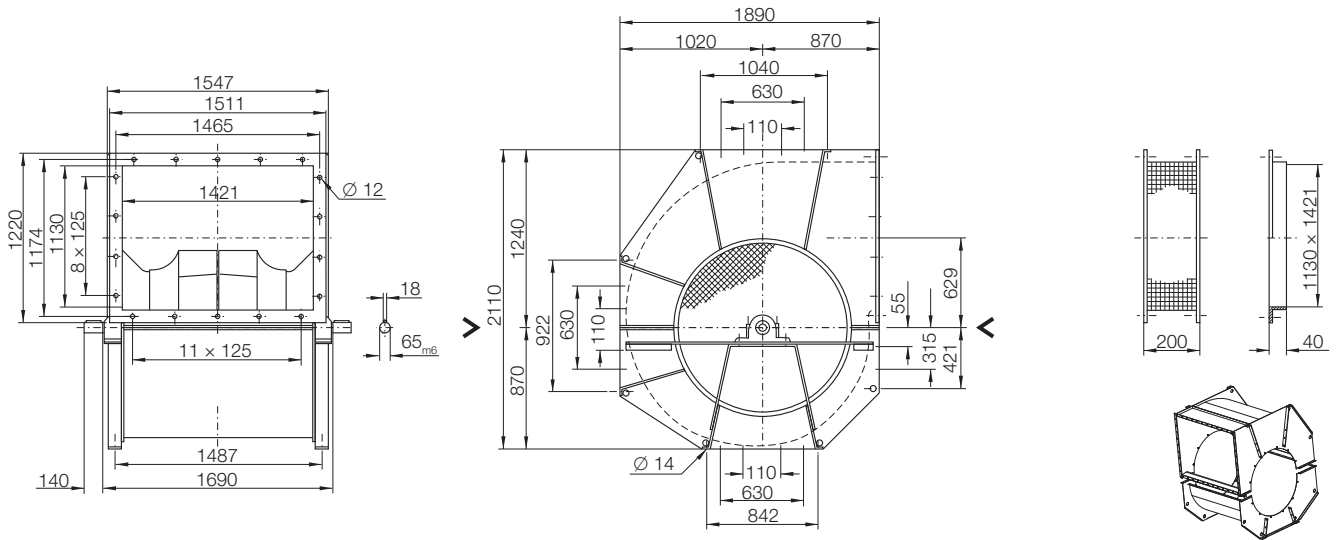
63	125	250	500	1000	2000	4000	8000	Hz
0	3	1	-2	-6	-9	-13	-20	dB
-1	2	1	-2	-6	-9	-14	-21	dB
-2	1	1	-3	-5	-8	-15	-21	dB
-5	-3	-2	-3	-5	-7	-14	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-1	-1	-3	-2	-7	-11	-16	-21	dB
-6	-4	-6	-2	-7	-10	-15	-21	dB
-10	-7	-8	-3	-6	-9	-14	-21	dB
-10	-7	-8	-3	-6	-8	-11	-20	dB

Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

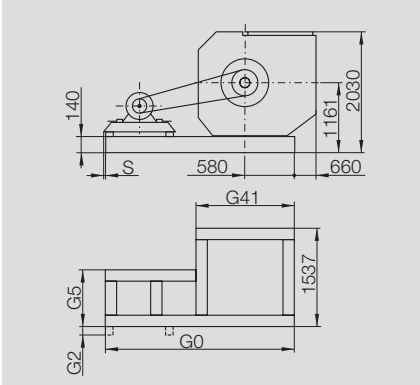
63	125	250	500	1000	2000	4000	8000	Hz
12	7	4	-3	-8	-14	-18	-26	dB
10	5	3	-3	-8	-14	-19	-28	dB
7	2	3	-3	-6	-13	-20	-28	dB
4	1	2	-3	-6	-12	-19	-28	dB
63	125	250	500	1000	2000	4000	8000	Hz
10	4	1	-1	-7	-13	-18	-25	dB
6	2	-2	-3	-6	-12	-15	-25	dB
2	-3	-3	-3	-6	-11	-15	-25	dB
1	-3	-5	-3	-6	-11	-13	-22	dB

RZR_-1120

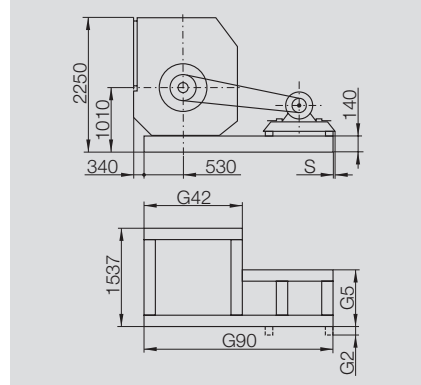
Dimensions in mm, subject to change.
RZR 13-1120 710 kg



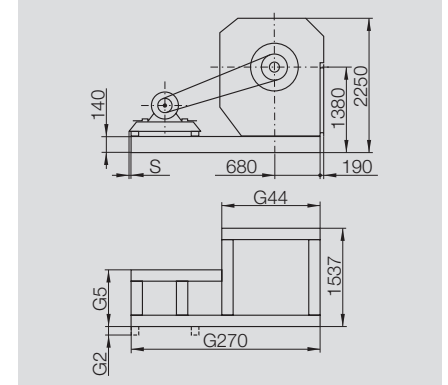
LG 0



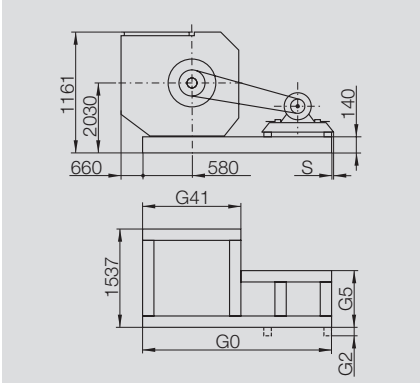
LG 90



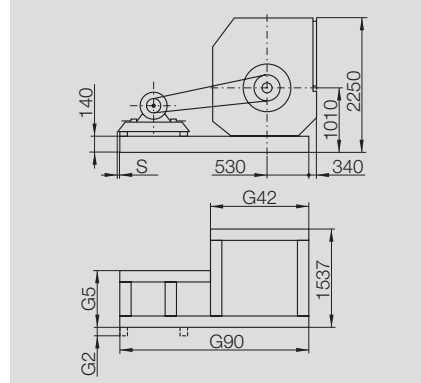
LG 270



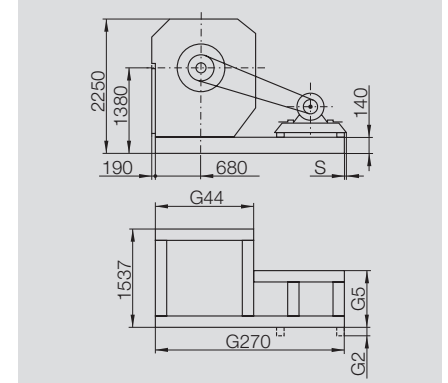
RD 0



RD 90



RD 270



	G0	G90	G270	G41	G42	G44	G2	G5	S
112	1870	2040	2040	1310	1480	1480	52.5	410	—
132	1870	2040	2040	1310	1480	1480	52.5	410	—
160	2110	2210	2360	1480	1580	1730	—	410	3
180	2110	2210	2360	1480	1580	1730	—	410	3
200	2410	2480	2530	1610	1680	1730	—	510	7
225	2410	2480	2530	1610	1680	1730	—	510	7
250	2610	2680	2730	1610	1680	1730	—	660	11
280	2610	2680	2730	1610	1680	1730	—	660	11
315	2630	2680	2880	1380	1430	1630	—	760	15
355	2630	2680	2880	1380	1430	1630	—	760	15

RZR _-1250

Technical Data

Impeller Data

Impeller diameter	D_r	1250	mm
Number of blades	z	12	
Moment of Inertia	J	62.5	kgm ²

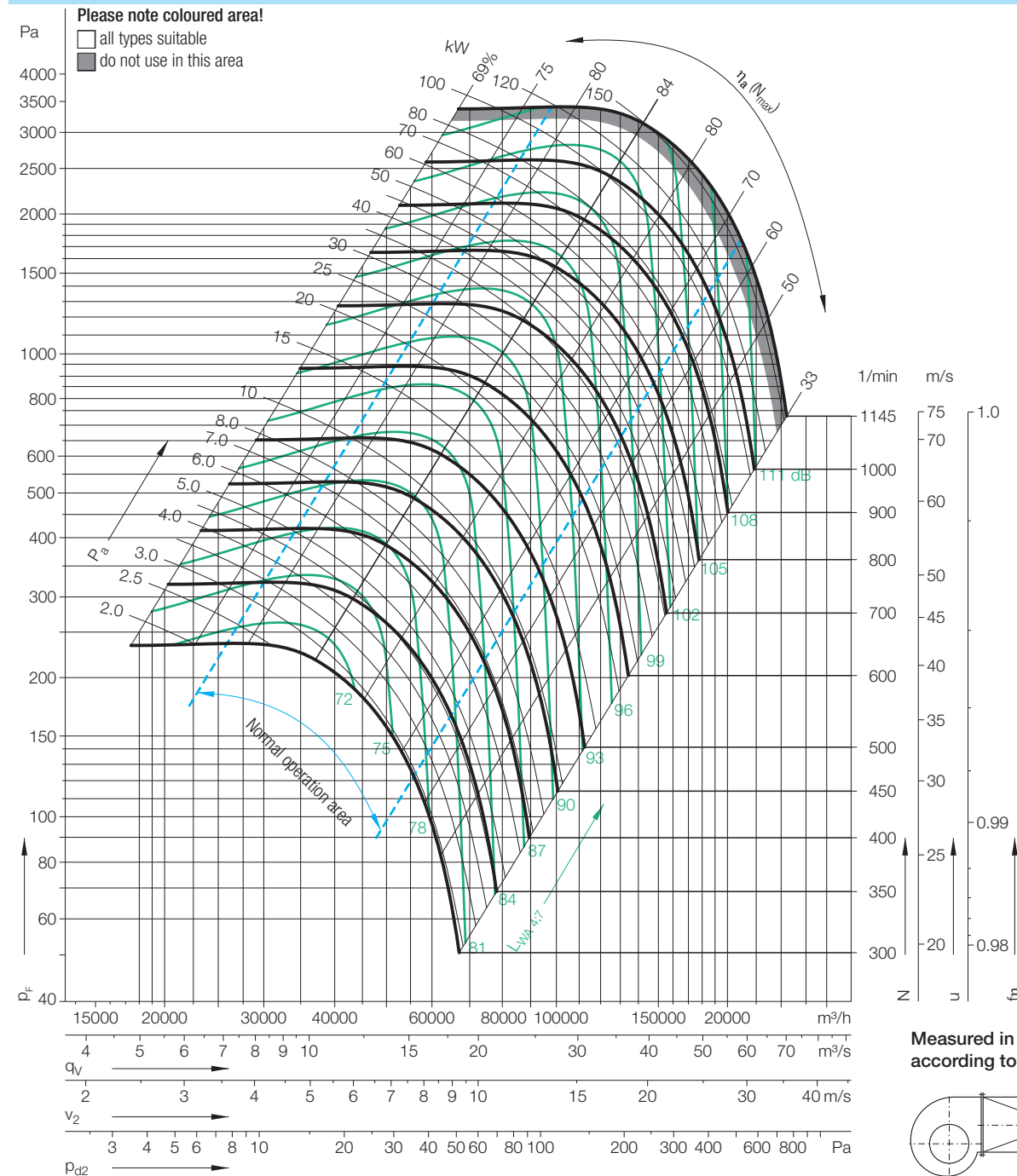
Impeller Data

Impeller weight	m	263	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		1	

Speed limits N_{max} for ATEX execution

RZR 13	957	1/min
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Performance Curves



Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Speed	Duty point
≤ 611 1/min	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$
Speed	Duty point
> 611 1/min	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$

63	125	250	500	1000	2000	4000	8000	Hz
0	3	1	-2	-6	-9	-13	-20	dB
-1	2	1	-2	-6	-9	-14	-21	dB
-2	1	1	-3	-5	-8	-15	-21	dB
-5	-3	-2	-3	-5	-7	-14	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-1	-1	-3	-2	-7	-11	-16	-21	dB
-6	-4	-6	-2	-7	-10	-15	-21	dB
-10	-7	-8	-3	-6	-9	-14	-21	dB
-10	-7	-8	-3	-6	-8	-11	-20	dB

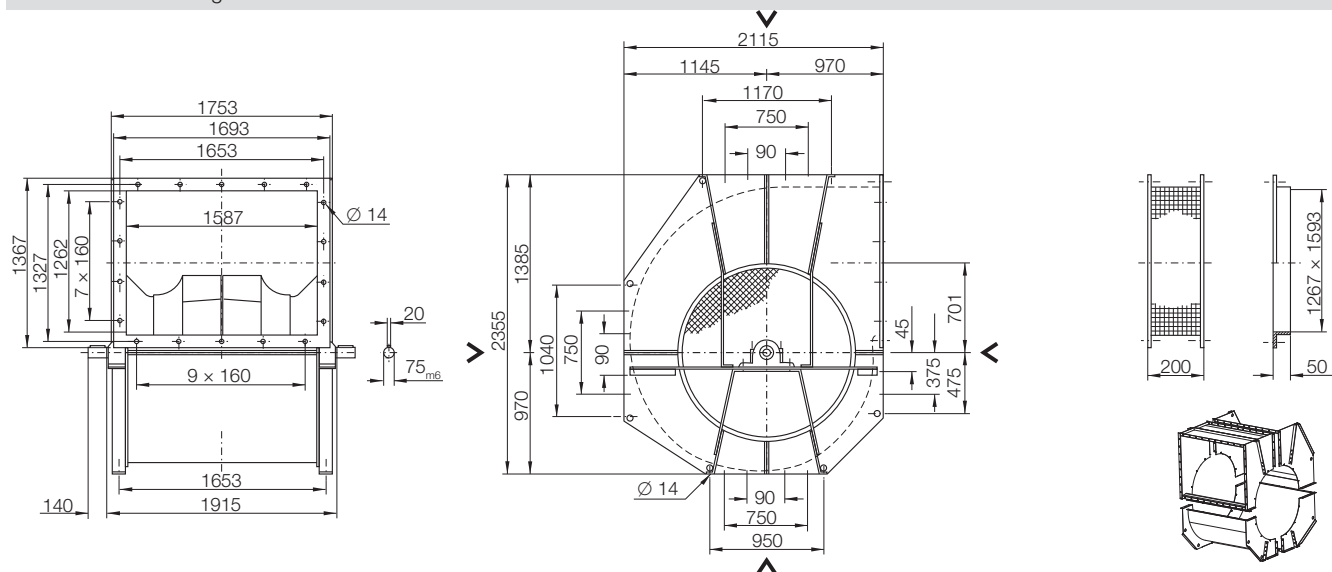
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
12	7	4	-3	-8	-14	-18	-26	dB
10	5	3	-3	-8	-14	-19	-28	dB
7	2	3	-3	-6	-13	-20	-28	dB
4	1	2	-3	-6	-12	-19	-28	dB
63	125	250	500	1000	2000	4000	8000	Hz
10	4	1	-1	-7	-13	-18	-25	dB
6	2	-2	-3	-6	-12	-15	-25	dB
2	-3	-3	-3	-6	-11	-15	-25	dB
1	-3	-5	-3	-6	-11	-13	-22	dB

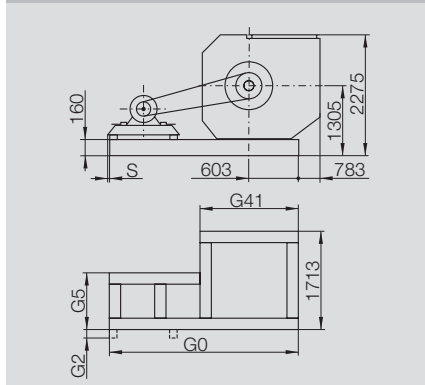
RZR_-1250

Dimensions in mm, subject to change.

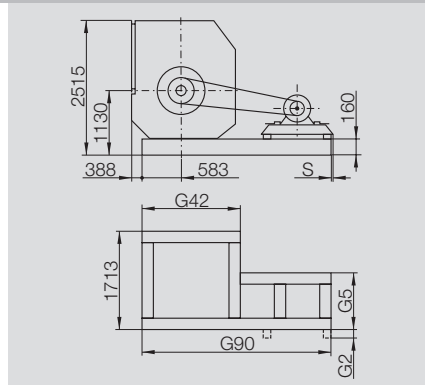
RZR 13-1250 1100 kg



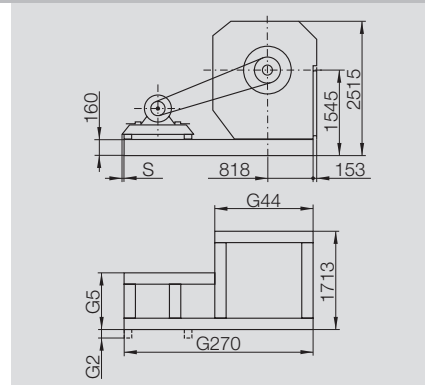
LG 0



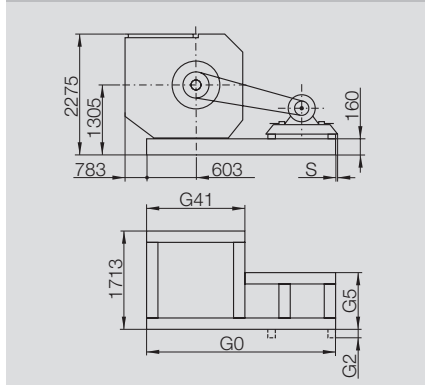
LG 90



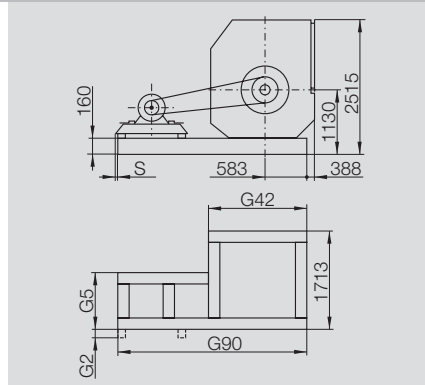
LG 270



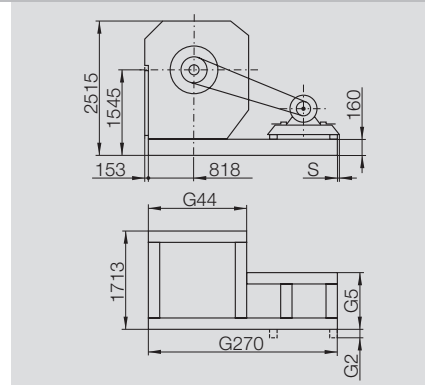
RD 0



RD 90

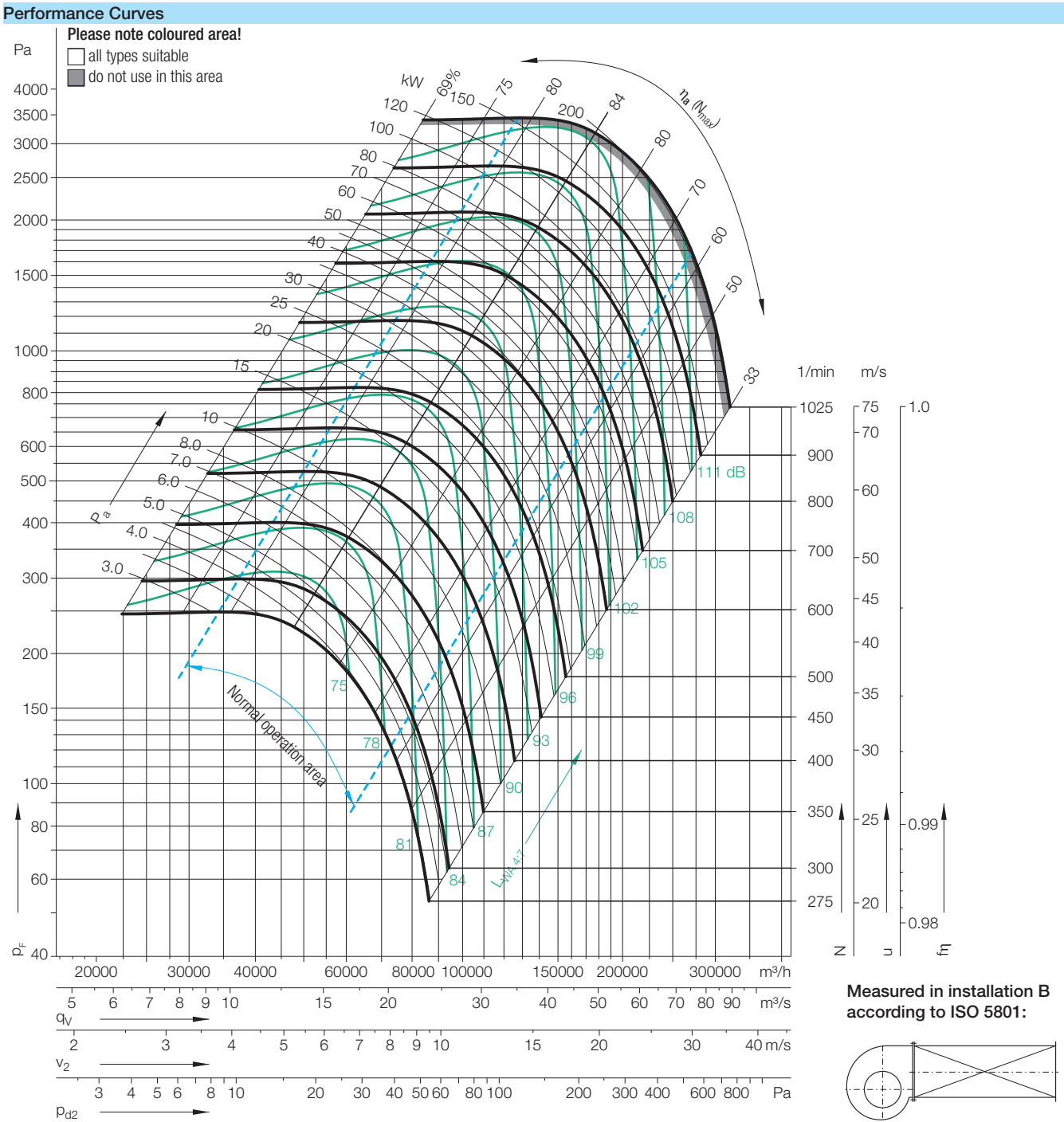


RD 270

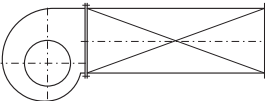


	G0	G90	G270	G41	G42	G44	G2	G5	S
112	1965	2220	2255	1405	1660	1695	85	450	-
132	1965	2220	2255	1405	1660	1695	85	450	-
160	2235	2390	2525	1605	1760	1895	-	415	-
180	2235	2390	2525	1605	1760	1895	-	415	-
200	2505	2660	2795	1705	1860	1995	-	515	2
225	2505	2660	2795	1705	1860	1995	-	515	2
250	2735	2860	2995	1735	1860	1995	-	665	6
280	2735	2860	2995	1735	1860	1995	-	665	6
315	2985	3160	3295	1735	1910	2045	-	1015	10
355	2985	3160	3295	1735	1910	2045	-	1015	10

Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D _r	1400	mm		Impeller weight	m	335	kg	
Number of blades	z	12			Density of media	ρ ₁	1.2	kg/m ³	
Moment of Inertia	J	120	kgm ²		Tolerance class (DIN 24166)		1		
					Speed limits N _{max} for ATEX execution				
					RZR 13	870	1/min		



Measured in installation B according to ISO 5801:



Relative sound power level for inlet side L_{wrel7} at octave centre frequencies f_c

Speed	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
≤546 1/min	≤0.8 q _{Vopt}	0	3	1	-2	-6	-9	-13	-20	dB
	>0.8-1.2 q _{Vopt}	-1	2	1	-2	-6	-9	-14	-21	dB
	>1.2-1.6 q _{Vopt}	-2	1	1	-3	-5	-8	-15	-21	dB
	>1.6 q _{Vopt}	-5	-3	-2	-3	-5	-7	-14	-21	dB
Speed	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
>546 1/min	≤0.8 q _{Vopt}	-1	-1	-3	-2	-7	-11	-16	-21	dB
	>0.8-1.2 q _{Vopt}	-6	-4	-6	-2	-7	-10	-15	-21	dB
	>1.2-1.6 q _{Vopt}	-10	-7	-8	-3	-6	-9	-14	-21	dB
	>1.6 q _{Vopt}	-10	-7	-8	-3	-6	-8	-11	-20	dB

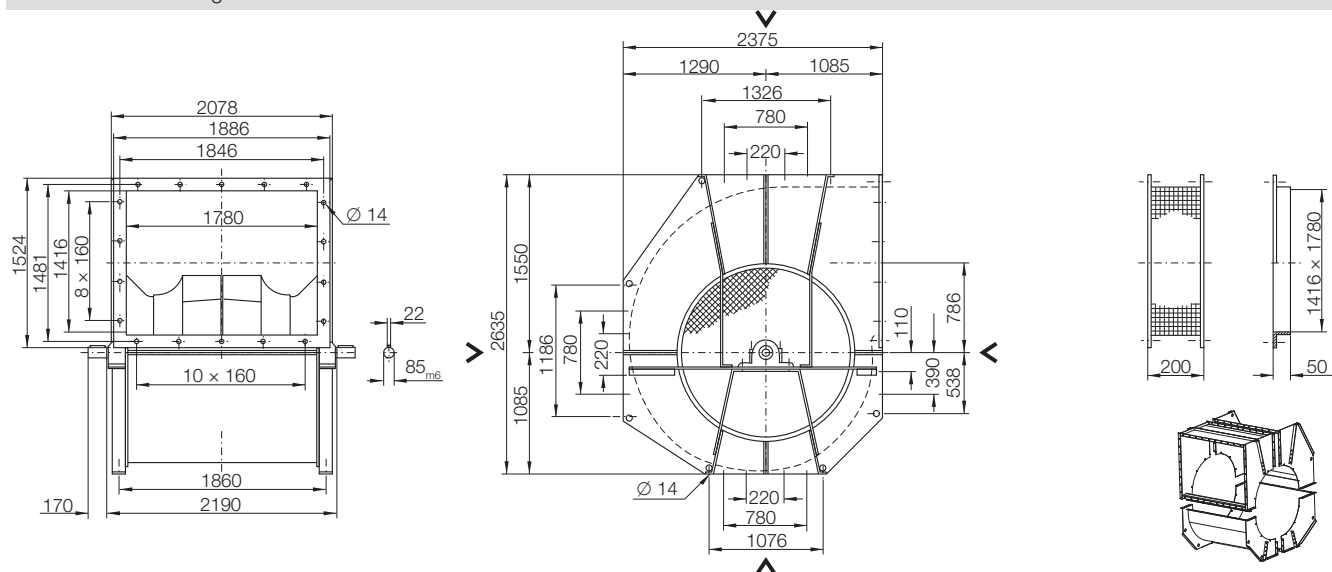
Relative sound power level for discharge side L_{wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
12	7	4	-3	-8	-14	-18	-26	dB
10	5	3	-3	-8	-14	-19	-28	dB
7	2	3	-3	-6	-13	-20	-28	dB
4	1	2	-3	-6	-12	-19	-28	dB
63	125	250	500	1000	2000	4000	8000	Hz
10	4	1	-1	-7	-13	-18	-25	dB
6	2	-2	-3	-6	-12	-15	-25	dB
2	-3	-3	-3	-6	-11	-15	-25	dB
1	-3	-5	-3	-6	-11	-13	-22	dB

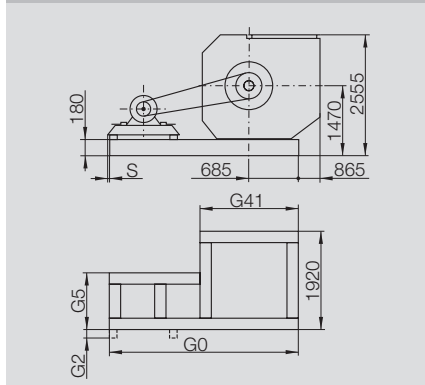
RZR_-1400

Dimensions in mm, subject to change.

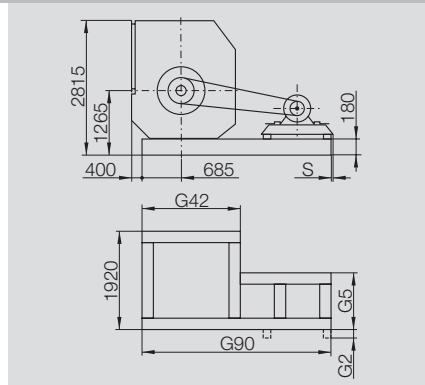
RZR 13-1400 1390 kg



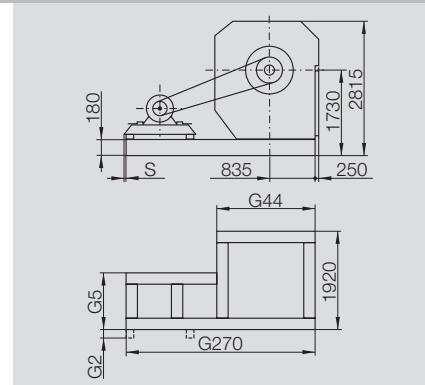
LG 0



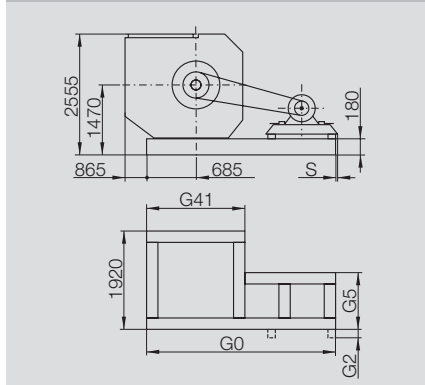
LG 90



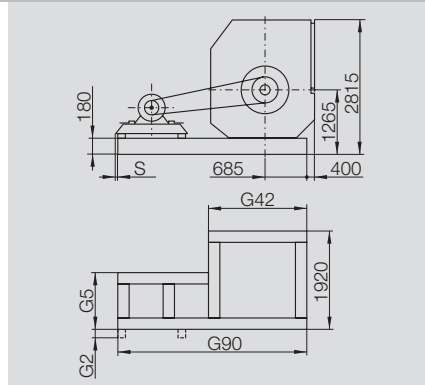
LG 270



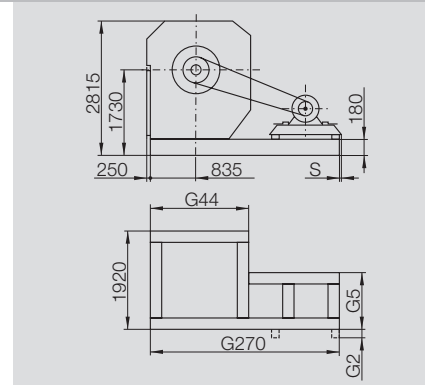
RD 0



RD 90



RD 270



	G0	G90	G270	G41	G42	G44	G2	G5	S
160	2225	2550	2580	1505	1830	1860	87	420	—
180	2225	2550	2580	1505	1830	1860	87	420	—
200	2495	2800	2950	1605	1910	2060	62	470	—
225	2495	2800	2950	1605	1910	2060	62	470	—
250	2775	2960	3160	1775	1960	2160	—	670	6
280	2775	2960	3160	1775	1960	2160	—	670	6
315	3055	3230	3410	1805	1980	2160	—	1020	10
355	3055	3230	3410	1805	1980	2160	—	1020	10

RZR _-1600

Technical Data

Impeller Data

Impeller diameter	D_r	1600	mm
Number of blades	z	12	
Moment of Inertia	J	186	kgm ²

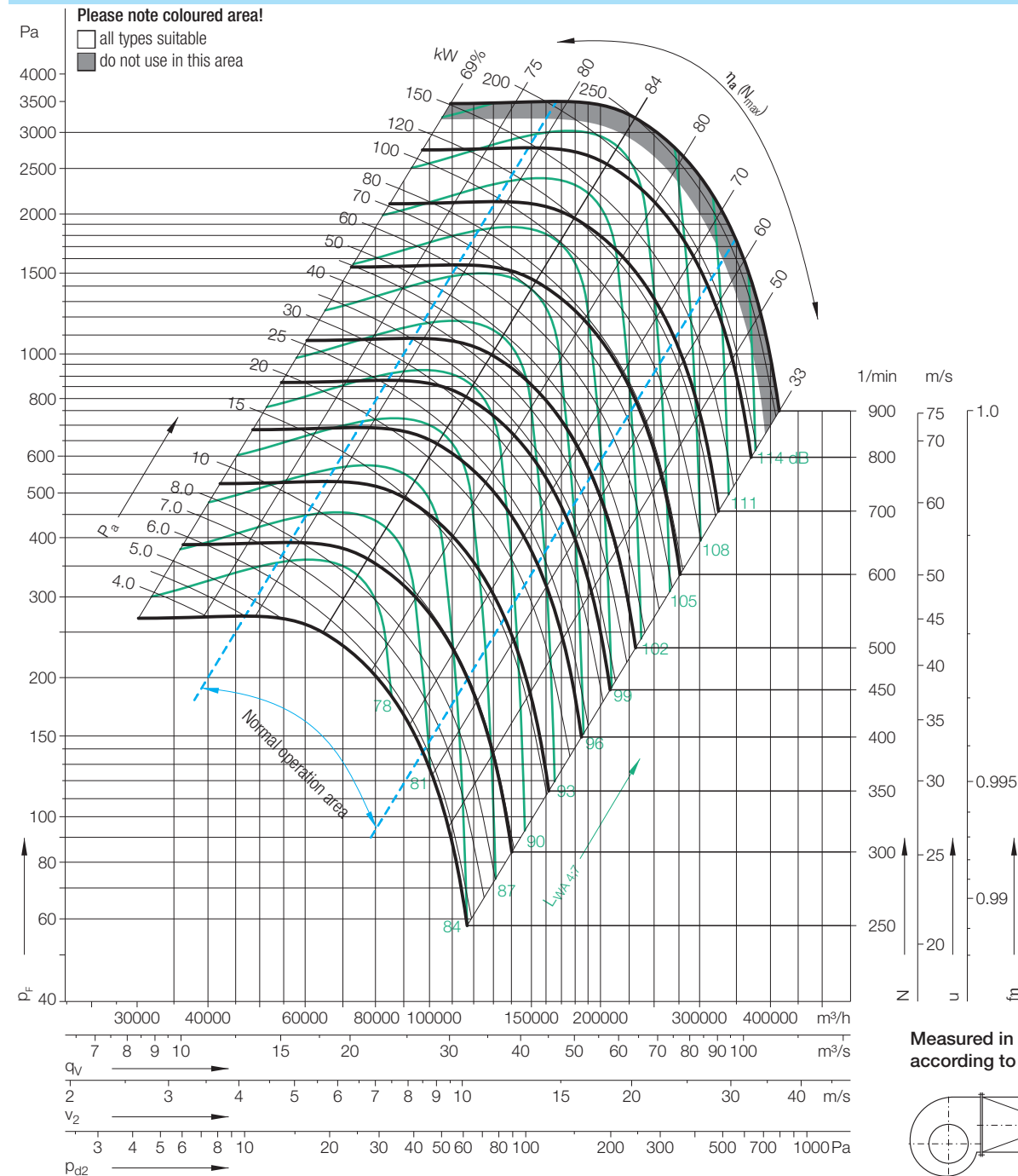
Impeller Data

Impeller weight	m	486	kg
Density of media	ρ_1	1.2	kg/m ³
Tolerance class (DIN 24166)		1	

Speed limits N_{max} for ATEX execution

RZR 13	748	1/min
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Performance Curves



Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_c

Speed	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
≤478 1/min	≤0.8 q_{Vopt}	0	3	1	-2	-6	-9	-13	-20	dB
	>0.8-1.2 q_{Vopt}	-1	2	1	-2	-6	-9	-14	-21	dB
	>1.2-1.6 q_{Vopt}	-2	1	1	-3	-5	-8	-15	-21	dB
	>1.6 q_{Vopt}	-5	-3	-2	-3	-5	-7	-14	-21	dB
Speed	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
>478 1/min	≤0.8 q_{Vopt}	-1	-1	-3	-2	-7	-11	-16	-21	dB
	>0.8-1.2 q_{Vopt}	-6	-4	-6	-2	-7	-10	-15	-21	dB
	>1.2-1.6 q_{Vopt}	-10	-7	-8	-3	-6	-9	-14	-21	dB
	>1.6 q_{Vopt}	-10	-7	-8	-3	-6	-8	-11	-20	dB

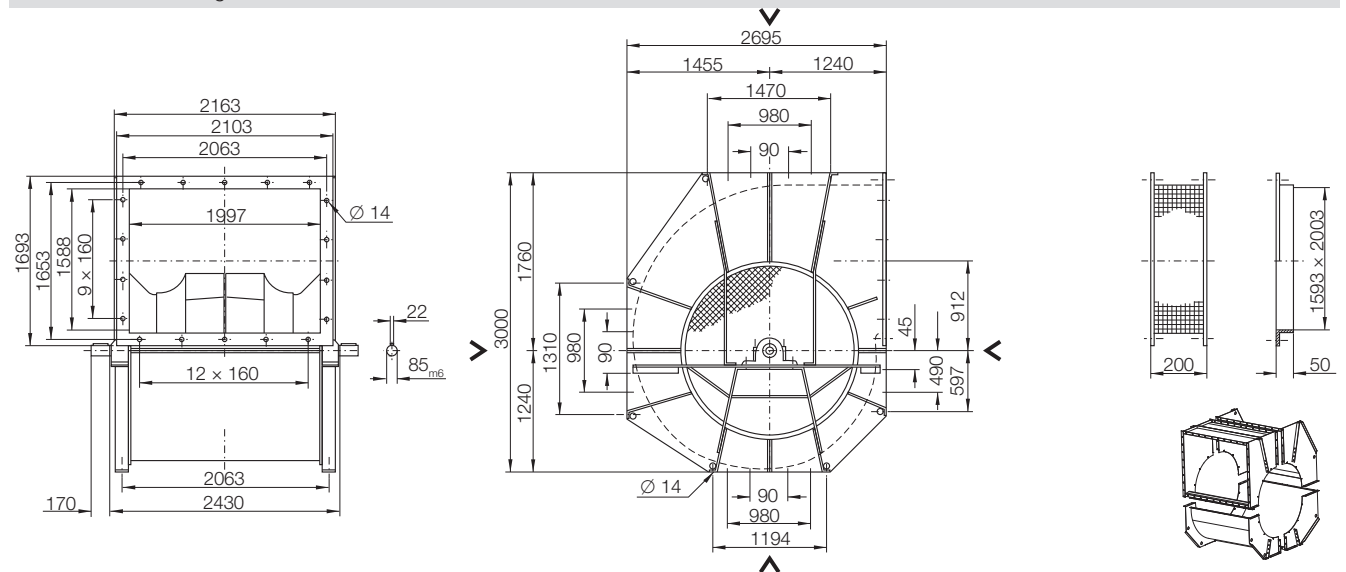
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_c

63	125	250	500	1000	2000	4000	8000	Hz
12	7	4	-3	-8	-14	-18	-26	dB
10	5	3	-3	-8	-14	-19	-28	dB
7	2	3	-3	-6	-13	-20	-28	dB
4	1	2	-3	-6	-12	-19	-28	dB
63	125	250	500	1000	2000	4000	8000	Hz
10	4	1	-1	-7	-13	-18	-25	dB
6	2	-2	-3	-6	-12	-15	-25	dB
2	-3	-3	-3	-6	-11	-15	-25	dB
1	-3	-5	-3	-6	-11	-13	-22	dB

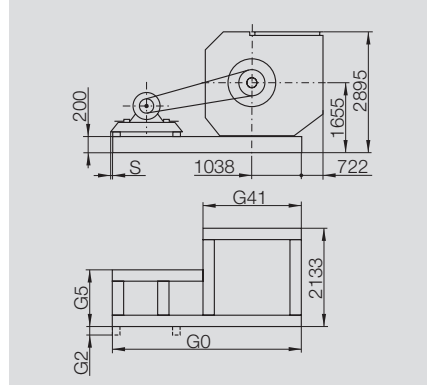
RZR_-1600

Dimensions in mm, subject to change.

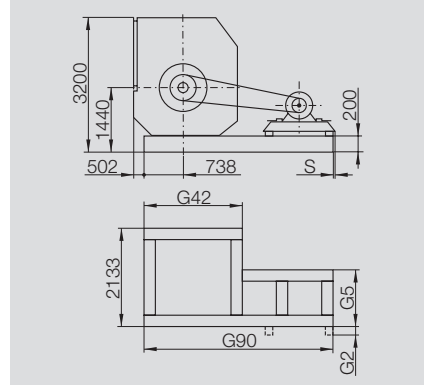
RZR 13-1600 1870 kg



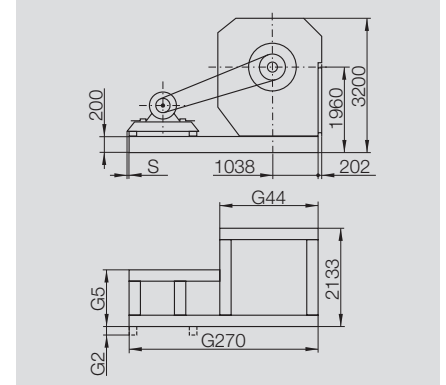
LG 0



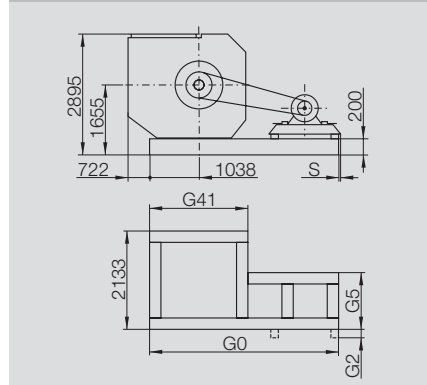
LG 90



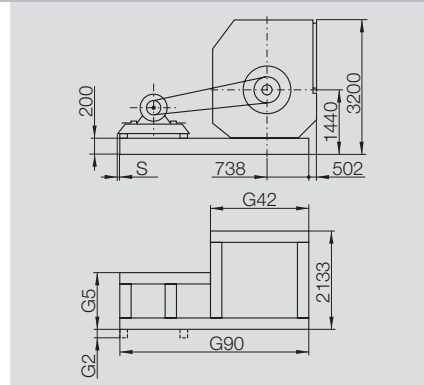
LG 270



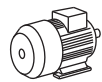
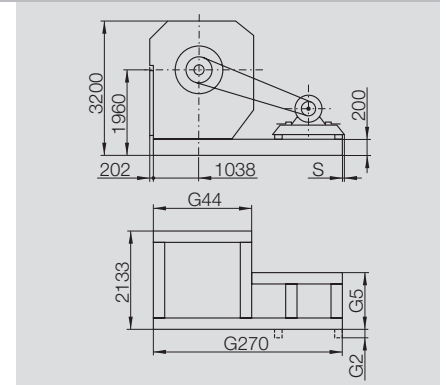
RD 0



RD 90



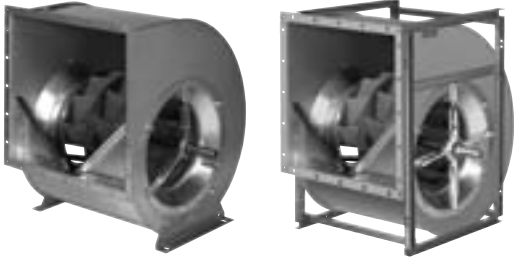
RD 270



	G0	G90	G270	G41	G42	G44	G2	G5	S
160	2736	2786	2901	2016	2066	2181	105.0	425	—
180	2736	2786	2901	2016	2066	2181	105.0	425	—
200	3066	3016	3231	2166	2116	2331	75.5	425	—
225	3066	3016	3231	2166	2116	2331	75.5	425	—
250	3316	3166	3481	2316	2166	2481	—	675	1
280	3316	3166	3481	2316	2166	2481	—	675	1
315	3804	3704	4019	2316	2216	2531	—	1154	57
355	3804	3704	4019	2316	2216	2531	—	1154	57

RZR 11-0200/-1000

Specifications



High performance centrifugal fan RZR 11
double inlet belt drive.
Lap jointed scroll of galvanised sheet steel with discharge flange and bolt on multi-position feet (Size 0200/-0710), with heavy duty side frames (Size 0800/-1000).
High performance impeller with 12 hollow section true airfoil blades (Size 0315/-1000), with 11 backward curved laminar blades (Size 0200/-0280) inclined obliquely to the shaft axis, welded in position and epoxy coated.
Throat plate inclined obliquely in opposition to blade inclination.
Inlet cones matched to the impeller reduce entry losses to a minimum.
Impeller and shaft balanced as an assembly in according to DIN ISO 1940.
Noise tested maintenance free, radial insert ball bearings mounted in pressed steel housing/strut assemblies with rubber interliners.
As an option – relubricatable in operation within cast iron housings, supported from the fan casing by tubular struts (0200/-1000).
Performance data to DIN 24166 Class 1 / BS 848 Class "A" (Size 0315/-1000) or Class 2 / BS 848 Class "B" (Size 0200/-0280).

Fan data

Fan type	.....
Volume flow	Q_V	m³/h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

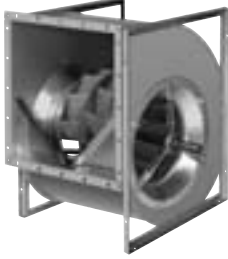
Fittings / Accessories

- Drain plug R1/2" (B.S.P. 1/2")
- Access door
- Special coating Class S40, K90 or P100
- Centrifugal fan in Ex-Execution in Acc. to ATEX
- Impeller blades continuously welded
- Shaft made of stainless steel (1.4305)
- Nuts and bolts of stainless steel (1.4305)
- Volumeter
- Copper inlet cone
- Relubrication in Operation IWN01 or IWN11 (sizes 0200/-0710)

- Inlet Guards
- Discharge Guard
- Shaft guard
- Discharge Flange
- Discharge Flex (with flexible sleeve)
- Base frame with integrated strain-sledge (sizes 0200/-0500)
- Base frame with motor rails (sizes 0400/-1000)
- Pick-a-Back (for attaching motor fan)
- Belt drive, V-belt or flat Belt
- Belt guard
- Belt guard split horizontally
- Motor
- Anti-vibration mounts

RZR 12-0200/-0710

Specifications



High performance centrifugal fan RZR 12

double inlet belt drive.

Lap jointed scroll of galvanised sheet steel with discharge flange and rectangular, angle side frames.

High performance impeller with 12 hollow section true airfoil blades (Size 0315/-0710, with 11 backward curved laminar blades (Size 0200/-0280) inclined obliquely to the shaft axis, welded in position and epoxy coated.

Throat plate inclined obliquely in opposition to blade inclination.

Inlet cones matched to the impeller reduce entry losses to a minimum.

Impeller and shaft balanced as an assembly in according to DIN ISO 1940.

Noise tested maintenance free, radial insert ball bearings mounted in pressed steel housing/strut assemblies with rubber interliners. As an option – relubricatable in operation within cast iron housings, supported from the fan casing by tubular struts.

Performance data to DIN 24166 Class 1 / BS 848 Class "A" (Size 0315/-0710) or Class 2 / BS 848 Class "B" (Size 0200/-0280).

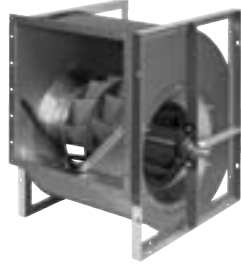
Fan data

Fan type	.....
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Drain plug R1/2" (B.S.P. 1/2")
- Access door
- Special coating Class S40, K90 or P100
- Centrifugal fan in Ex-Execution in Acc. to ATEX
- Impeller blades continuously welded
- Shaft made of stainless steel (1.4305)
- Nuts and bolts of stainless steel (1.4305)
- Volumeter
- Copper inlet cone
- Relubrication in operation IWN01 or IWN11
- Inlet Guards
- Discharge Guard
- Shaft guard
- Discharge Flange
- Discharge Flex (with flexible sleeve)
- Base frame with motor rails
- Pick-a-Back (for attaching motor fan)
- Belt drive, V-belt or flat Belt
- Belt guard
- Belt guard split horizontally
- Motor
- Anti-vibration mounts

Specifications



High performance Centrifugal fan RZR 14
Double inlet belt drive. Lockformed scroll casing made of galvanised steel sheet, with connecting flange at discharge. Welded heavy duty reinforced side frames, coated. High performance impeller with 12 hollow section true airfoil blades inclined obliquely to the shaft axis, welded in position and painted. Throat plate inclined obliquely in opposition to blade incination. Inlet cones matched to the impeller reduce entry losses to a minimum. Impeller and shaft balanced as an assembly in according to DIN ISO 1940.
Monobloc pedestal cast iron bearings with relubrication nipple, mounted on a robust pedestal, integrated, self aligning radial insert ball bearings fixed by eccentric tightening clamp.
Performance data to DIN 24166 Class1 / BS 848 Class "A".

Fan data

Fan type	
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Drain plug R1/2" (B.S.P. 1/2")
- Access door
- Special coating Class S40, K90 or P100
- Impeller blades continuously welded
- Shaft made of stainless steel (1.4305)
- Nuts and bolts of stainless steel (1.4305)
- Volumeter
- Copper inlet cone
- Relubrication in operation IWN01
- Inlet Guards
- Discharge Guard
- Shaft guard
- Discharge Flange
- Discharge Flex (with flexible sleeve)
- Base frame with motor rails
- Pick-a-Back (for attaching motor fan)
- Belt drive, V-belt or flat Belt
- Belt guard
- Belt guard split horizontally
- Motor
- Anti-vibration mounts

RZR 15-0400/-1000

Specifications



High performance centrifugal fan RZR 15

double inlet belt drive.

Lap jointed scroll of galvanised sheet steel with discharge flange and heavy duty reinforced side frames.

High performance impeller with 12 hollow section true airfoil blades inclined obliquely to the shaft axis, welded in position and epoxy coated.

Throat plate inclined obliquely in opposition to blade inclination.

Inlet cones matched to the impeller reduce entry losses to a minimum.

Impeller and shaft balanced as an assembly in accordance to DIN ISO 1940.

Self aligning double row ball bearings secured by adapter sleeve, mounted within a cast iron housing packed with long life, high performance grease. Can be relubricated when not in service.

Performance data to DIN 24166 Class 1 / BS 848 Class "A".

Fan data

Fan type	.....
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

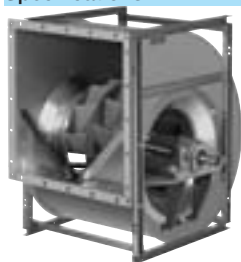
Fittings / Accessories

- Drain plug R1/2" (B.S.P. 1/2")
- Access door
- Special coating Class S40, K90 or P100
- Impeller blades continuously welded
- Shaft made of stainless steel (1.4305)
- Nuts and bolts of stainless steel (1.4305)
- Tapped hole for measurement of shock impulse
- Volumeter
- Copper inlet cone
- Relubrication in operation IWN01 or IWN11

- Inlet Guards
- Discharge Guard
- Shaft guard
- Discharge Flange
- Discharge Flex (with flexible sleeve)
- Base frame with motor rails
- Pick-a-Back (for attaching motor fan)
- Belt drive, V-belt or flat Belt
- Belt guard
- Belt guard split horizontally
- Motor
- Anti-vibration mounts

RZR 18-0400/-1000

Specifications



High performance centrifugal fan RZR 18

double inlet belt drive.

Lap jointed scroll of galvanised sheet steel with discharge flange and heavy duty reinforced side frames.

High performance impeller with 12 hollow section true airfoil blades inclined obliquely to the shaft axis,

welded in position and epoxy coated.

Throat plate inclined obliquely in opposition to blade inclination.

Inlet cones matched to the impeller reduce entry losses to a minimum.

Impeller and shaft balanced as an assembly in accordance to DIN ISO 1940.

Self aligning double row ball bearings within standard plummer blocks, mounted on robust pedestal, packed with long life, high performance grease. Can be relubricated when not in service.

Performance data to DIN 24166 Class 1 / BS 848 Class "A".

Fan data

Fan type	.....
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Drain plug R1/2" (B.S.P. 1/2")
- Access door
- Special coating Class S40, K90 or P100
- Centrifugal fan in Ex-Execution in Acc. to ATEX
- Impeller blades continuously welded
- Shaft made of stainless steel (1.4305)
- Nuts and bolts of stainless steel (1.4305)
- Tapped hole for measurement of shock impulse
- Volumeter
- Copper inlet cone
- Relubrication in operation IWN01 or IWN11
- Inlet Guards
- Discharge Guard
- Shaft guard
- Discharge Flange
- Discharge Flex (with flexible sleeve)
- Base frame with motor rails
- Pick-a-Back (for attaching motor fan)
- Belt drive, V-belt or flat Belt
- Belt guard
- Belt guard split horizontally
- Motor
- Anti-vibration mounts

RZR 19-0200/-0355

Specifications



High performance centrifugal fan RZR 19-0200/-0355

double inlet belt drive.
Scroll casing stitch welded with discharge flange and bolt on multi-position feet.
High performance impeller with 12 hollow section true airfoil blades (Size 0315/-0355), with 11 backward curved laminar blades (Size 0200/-0280) inclined obliquely to the shaft axis, welded in position and epoxy coated.
Throat plate inclined obliquely in opposition to blade inclination.
Inlet cones matched to the impeller reduce entry losses to a minimum.
Impeller and shaft balanced as an assembly in according to DIN ISO 1940.
Noise tested, maintenance free, radial insert ball bearings with spherical outer ring mounted within castiron housings, supported from the fan casing by tubular struts.
Performance data to DIN 24166 Class 1 / BS 848 Class "A" (Size 0315/-0355) or Class 2 / BS 848 Class "B" (Size 0200/-0280).

Fan data

Fan type	
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Drain plug R1/2" (B.S.P. 1/2")
- Access door
- Special coating Class K90 or P100
- Centrifugal fan in Ex-Execution in Acc. to ATEX
- Impeller blades continuously welded
- Casing continuously welded inside
- Casing continuously welded inside and outside
- Shaft made of stainless steel (1.4305)
- Nuts and bolts of stainless steel (1.4305)
- Volumeter
- Copper inlet cone
- Relubrication in operation IWN01 or IWN11

- Inlet Guards
- Discharge Guard
- Shaft guard
- Discharge Flange
- Discharge Flex (with flexible sleeve)
- Base frame with integrated motor strain-sledge
- Pick-a-Back (for attaching motor fan)
- Belt drive, V-belt or flat Belt
- Belt guard
- Belt guard split horizontally
- Motor
- Anti-vibration mounts

Specifications



High performance centrifugal fan RZR 19-0400/-1000
double inlet belt drive.
Scroll casing stitch welded with discharge flange, and heavy duty reinforced side frames, epoxy coated.
High performance impeller with 12 hollow section true airfoil blades inclined obliquely to the shaft axis, welded in position and epoxy coated.
Throat plate inclined obliquely in opposition to bladeinclination.
Inlet cones matched to the impeller reduce entrylosses to a minimum.
Impeller and shaft balanced as an assembly in according to DIN ISO 1940.
Self aligning double row ball bearings secured by adapter sleeve, mounted within a cast iron housing packed with long life, high performance grease. Can be relubricated when not in service.
Performance data to DIN 24166 Class 1 / BS 848 Class "A".

Fan data

Fan type	
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Drain plug R1/2" (B. S. P. 1/2")
- Access door
- Special coating Class K90 or P100
- Impeller blades continuously welded
- Casing continuously welded inside
- Casing continuously welded inside and outside
- Casing in 2 horizontal sections (Size 0560 upwards)
- Shaft made of stainless steel (1.4305)
- Nuts and bolts of stainless steel (1.4305)
- Tapped hole for measurement of shock impulse
- Volumeter
- Copper inlet cone
- Relubrication in operation IWN01 or IWN11

- Inlet Guards
- Discharge Guard
- Shaft guard
- Discharge Flange
- Discharge Flex (with flexible sleeve)
- Base frame with motor rails
- Pick-a-Back (for attaching motor fan)
- Belt drive, V-belt or flat Belt
- Belt guard
- Belt guard split horizontally
- Motor
- Anti-vibration mounts

RZR 13-0400/-1000

Specifications



High performance centrifugal fan RZR 13-0400/-1000
double inlet belt drive.
Scroll casing stitch welded with discharge flange and heavy duty reinforced side frames, epoxy coated.
High performance impeller with 12 hollow section true airfoil blades inclined obliquely to the shaft axis,
welded in position and epoxy coated.
Throat plate inclined obliquely in opposition to blade inclination.
Inlet cones matched to the impeller reduce entry losses to a minimum.
Impeller and shaft balanced as an assembly in according to DIN ISO 1940.
Self aligning double row ball bearings within standard plummer blocks, mounted on robust pedestal, packed with long life, high performance grease. Can be relubricated when not in service.
Performance data to DIN 24166 Class 1 / BS 848 Class "A".

Fan data

Fan type	
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

Fittings / Accessories

- Drain plug R1/2" (B.S.P. 1/2")
- Access door
- Special coating Class K90 or P100
- Centrifugal fan in Ex-Execution in Acc. to ATEX
- Impeller blades continuously welded
- Casing continuously welded inside
- Casing continuously welded inside and outside
- Casing in 2 horizontal sections (sizes 0500/-1000)
- Shaft made of stainless steel (1.4305)
- Nuts and bolts of stainless steel (1.4305)
- Tapped hole for measurement of shock impulse
- Volumeter
- Copper inlet cone
- Relubrication in operation IWN01 or IWN11
- Inlet Guards
- Discharge Guard
- Shaft guard
- Discharge Flange
- Discharge Flex (with flexible sleeve)
- Base frame with motor rails
- Pick-a-Back (for attaching motor fan)
- Belt drive, V-belt or flat Belt
- Belt guard
- Belt guard split horizontally
- Motor
- Anti-vibration mounts

RZR 13-1120/-1600

Specifications



High performance centrifugal fan RZR 1120/-1600

double inlet belt drive.
Heavy duty casing of sheet steel with stiffening members, step welded and painted, with discharge flange.
Casing is split on one axis (Size 1120), split on two axis (Sizes 1250, 1400, 1600).
High performance impeller with 12 hollow section true airfoil blades inclined obliquely to the shaft axis, welded in position and epoxy coated.
Inlet cones matched to the impeller reduce entry losses to a minimum.
Impeller and shaft balanced as an assembly in according to DIN ISO 1940.
Self aligning double row roller bearings within standard plummer blocks, mounted on robust pedestal, packed with long life, high performance grease. Can be relubricated when not in service.
Inlet guard fitted as a standard in accordance with DIN EN 294.
Performance data to DIN 24166 Class 1 / BS 848 Class "A".

Fan data

Fan type	.....
Volume flow	Q_V	m ³ /h
Total pressure increase	p_F	Pa
Static pressure	p_{sF}	Pa
Air density at fan inlet	ρ_1	kg/m ³
Air medium temperature	t	°C
Shaft power	P_a	kW
Efficiency	(η_a)	
Speed	N	1/min
Sound power level (A weighted)	L_{WA}	dB
Weight	m	kg

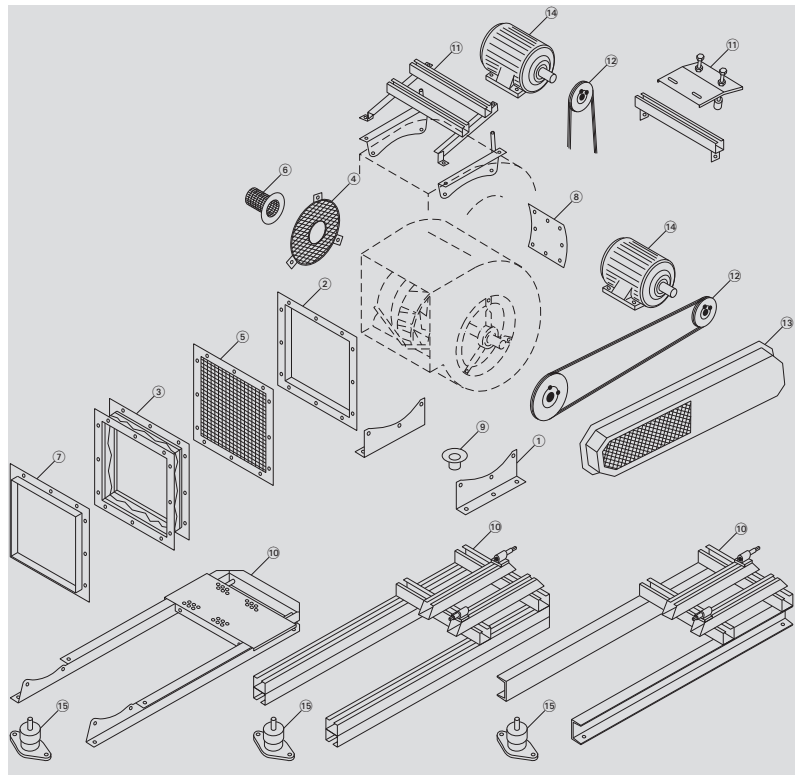
Fittings / Accessories

- Drain plug R1"
- Access door
- Special coating Class K90 or P100
- Centrifugal fan in Ex-Execution in Acc. to ATEX
- Impeller blades continuously welded
- Casing continuously welded inside
- Casing continuously welded inside and outside
- Shaft made of stainless steel (1.4305)
- Nuts and bolts of stainless steel (1.4305)
- Tapped hole for measurement of shock impulse
- Volumeter
- Copper inlet cone
- Relubrication in operation IWN01 or IWN11
- Discharge Guard
- Shaft guard
- Discharge Flange
- Discharge Flex (with flexible sleeve)
- Base frame with motor rails
- Belt drive, V-belt or flat Belt
- Belt guard
- Belt guard split horizontally
- Motor
- Anti-vibration mounts

Notes

Notes

Fittings / Accessories



- [1] Mounting feet
- [2] Discharge flange
- [3] Discharge flex
- [4] Inlet guard
- [5] Discharge guard
- [6] Shaft guard
- [7] Mounting flange
- [8] Inspection door
- [9] Drain plug
- ▶ extended corrosion protection
- ▶ ATEX-Execution (RZR)
- ▶ Impellerblades continuously welded (RZR)
- ▶ Casing continuously welden-inside (RZR)
- ▶ Casing continuously welden- inside/outside (RZR)
- ▶ Split casing (RZR 13/19)
- ▶ Shaft from stainless steel
- ▶ Nuts and bolts from stainless steel
- ▶ Thread for impuls sensor fitting
- ▶ Volumeter (RDH / RZR)
- ▶ Copper inlet cone
- ▶ Aluminium inlet cone (ADH / AT / RDH)
- ▶ hot dip galvanised side frame (ADH / RDH)
- ▶ relubricatable bearings (relubrication during operation, RZR)

Fan set (ADH / AT / RDH on request)

- [10] Base frame
- [11] Pick-a-Back
- [12] Belt drive
- [13] Drive guard
- ▶ Belt guard split horizontally
- ▶ Access door on belt guard
- ▶ Opening on belt guard for speed measuring device
- [14] Drive motor
- [15] Anti-vibration mounts

Gebhardt fan systems – the "completely carefree" package for installation fans with belt drive

Fan systems with components tailored for each other, precisely assembled and adjusted, individually tested, delivered quickly and on time, allow for problem-free processing and ensure long and reliable operation.

Size has its price so we build as small as possible






- ▶ Optimised base frame lengths, tailored to the casing position and motor size and small system construction heights save valuable space in the air conditioning unit
- ▶ Various casing and drive positions allow for individual adjustment to the most diverse applications
- ▶ Optimised flat belt drives allow for efficient operation with a high level of convenience

Where required, we deliver our fan systems with safety equipment complying with DIN EN ISO 13857 for safe operation!

e.g. Belt guard

- ▶ also as segmented design
- ▶ also with inspection hole
- ▶ also with rotation speed measurement opening.

Fan set diversity

Version	Description	Figure
Pick-A-Back	for sizes 0200/-0355	
Pick-A-Back	for sizes 0400/-1000	
Compact base frame	Integrated compact base frame for sizes up to 0500.	
Base Frame, CC-profile	Base frames made from CC-profiles with length optimisation.	
Base Frame, U-profile	Heavy duty base frame made from U-profiles, welded and painted, from size 0800 upward.	

Fittings / Accessories

Drain Plug



If the fan is installed outside, or if conveying a medium containing humidity, condensation of water may accumulate inside the fan scroll.

For extraction of this water a condense water drain has to be installed at the lowest point of the scroll.

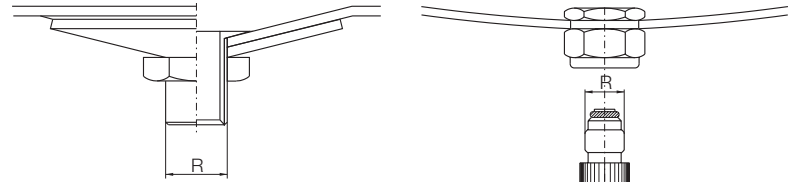
The drain will be provided with a thread for connecting it to a piping.

At order please indicate the required casing position.

Connecting thread / hole

- ▶ ADH / RDH = female thread R 1/8"
- ▶ AT = drain hole
- ▶ RZR 0200/-1000 = male thread R 1/2"
- ▶ RZR 1120/-1600 = male thread R 1"

Dimensions



Inspection Door



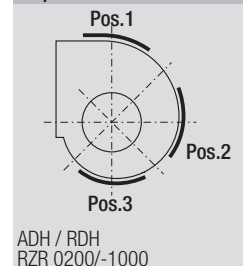
For the purposes of maintenance and cleaning there is an opening, which can be securely closed by means of an access door, in the fan casing.

As it can only be opened with a tool, the access door complies with safety and accident prevention regulations. Additional securing with locking bars can be supplied on request.

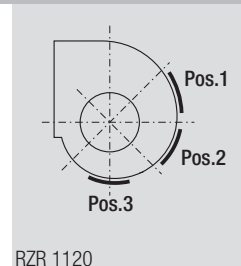
The site and orientation of the inspection opening depends on the casing position.

The position should be specified when ordering according to the following diagram: e.g. Access door, Pos. 2.

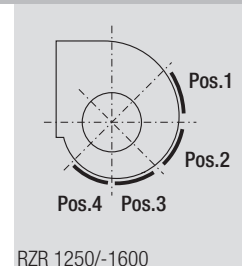
Inspection Door Positions



ADH / RDH
RZR 0200/-1000



RZR 1120



RZR 1250/-1600

Dimensions in mm, subject to change.

ADH ..-		RDH ..-		RZR ..-	
0160/-0180	100 × 230	0180	100 × 230	—	
0200/-0280	240 × 240	0200/-0280	240 × 240	0200	160 × 160
0315/-0560	360 × 360	0315/-0560	360 × 360	0225/-0315	210 × 210
0630/-1000	500 × 500	0630/-1000	500 × 500	0355/-1000	310 × 310
—	500 × 500	1120/-1400	500 × 500	1120/-1600	500 × 500

Fittings / Accessories

Corrosion Protection Systems



Nicotra Gebhardt fans are treated with high quality corrosion protection as standard. Under extreme operating conditions, however, additional corrosion protection is advisable.

Depending on the use to which the fan is to be put and the degree of exposure to corrosion, we offer various anti-corrosion protection measures.

Corrosion protection - Class S40

Degreasing, ironphosphating

► **Powder coating** Layer thickness $\geq 40 \mu\text{m}$, Colour RAL 7039

► **Wet lacquering** Layer thickness $\geq 40 \mu\text{m}$ (primer + lacquer finish), Colour RAL 7039

Corrosion protection - Class K90

Degreasing, ironphosphating

► **Powder coating** Layer thickness $\geq 90 \mu\text{m}$, Colour RAL 7039

► **Wet lacquering** Layer thickness $\geq 90 \mu\text{m}$ (primer + lacquer finish), Colour RAL 7039

Corrosion protection - Class P100

Degreasing, ironphosphating

► **Thermoplastic powder coating** Layer thickness $\geq 100 \mu\text{m}$, Colour RAL 7001

ADH / AT / RDH

Extended corrosion protection for series ADH, AT and RDH only available on request.

Continuously welded blades



Impeller blades can be continuously welded in order to increase the corrosion resistance when conveying a humid or slightly aggressive medium. The continuous welding has no influence on the material resistance or on the max. tip speed.

Continuously welded scroll



The casing can be continuously welded in order to increase the corrosion resistance when conveying a humid or slightly aggressive medium. By continuous welding the casing is provided with additional impermeability.

► **GEH 01** - Casing inside continuously welded

► **GEH 02** - Casing inside and outside continuously welded

Fittings / Accessories

Split Casing

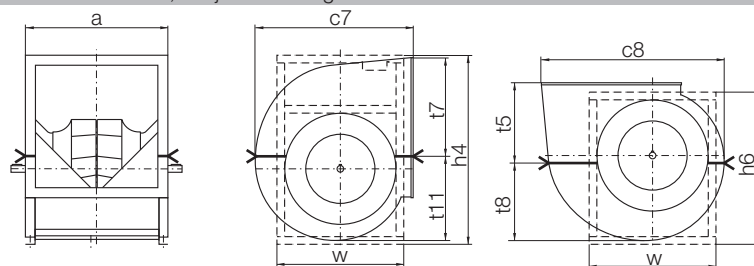


There may be a lot of reasons to choose a split casing, the advantages of split casings are:

- ▶ smaller openings for fan chambers
- ▶ easier refitting of fan
- ▶ easier transport to site
- ▶ easier access to impeller for cleaning and maintenance

The joint face on the casing position runs horizontally above or under the fan axis (see drawing). The reinforced side frames are not divisible. The fan is supplied fully assembled.

Dimensions in mm, subject to change.



RZR	RZR		a	c7	c8	h4	h6	t5	t7	t8	t11	w
13-	19-	0500	709	822	950	957	783	410	473	409	477	652
13-	19-	0560	785	914	1061	1083	884	458	531	456	530	743
13-	19-	0630	872	1021	1188	1204	984	511	594	510	594	820
13-	19-	0710	967	1143	1331	1350	1100	572	666	571	665	905
13-	19-	0800	1086	1280	1498	1520	1245	640	749	640	749	1035
13-	19-	0900	1219	1439	1686	1707	1386	719	843	720	843	1140
13-	19-	1000	1356	1568	1847	1869	1509	784	923	784	924	1230

Stainless Steel Shaft



For applications where there is an increased risk of corrosion, an optional shaft made of stainless steel can be supplied.

▶ ADH / AT / RDH

Stainless steel 1.4301 / AISI 304 / XCrNi18-10

▶ RZR

Stainless steel 1.4305

Stainless Steel Nuts and Bolts



For applications where there is an increased risk of corrosion, the connecting elements of the fan can be ordered made of stainless steel.

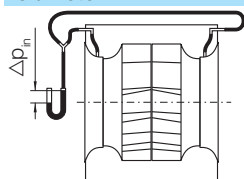
Impuls Sensor Thread



A tapped hole M6 or M8 can be provided in the pedestal bearing cast housing for admission of sensors to measure the shock impulses.
(The measuring connecting piece is not included in the scope of delivery).

Fittings / Accessories

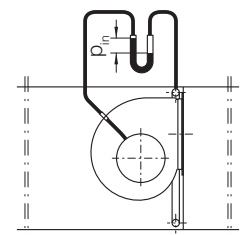
Volumeter



$$q_V = K \times \sqrt{\frac{2}{\rho} \times \Delta p_{Du}}$$



Measuring connector in inlet cone
Hose pipe to connecting piece in the side wall
Connecting piece (external diameter of 6mm) for the pressure measurement



- ▶ volume flow q_V [m³/h]
- ▶ calibration factor K [m²s/h]
- ▶ density of media ρ [kg/m³]
- ▶ pressure difference at cone Δp_{Du} [Pa]

With the flow measuring device it is possible to easily measure/monitor the flow rate after the fan is installed. A pressure tapping at a predetermined position on the inlet cone is provided whereby the differential pressure in relation to the static pressure is measured in front of the inlet cone in a static atmosphere.
Permissible media temperature: +80 °C (RZR), +70 °C (RDH).

In order to calculate the flow rate, a calibrating factor "K" is required. This factor is determined by comparative measurement on a standard test rig.

Standard-calibration factor K

Where fans are built into a plenum, the pressure difference between the static pressure in the inlet side plenum and the pressure on the inlet cone is to be measured.

It must be ensured that the static pressure to be measured in front of the inlet cone is not tampered by dynamic pressure fractions.

It is often recommended to arrange a ring of points on the wall facing the outlet side as illustrated in the sketch.

When using the K-factors specified below, a minimum clearance of 0.5xD between the inlet cone of the fan and the side wall of the plenum must be maintained. Indentations that obstruct the flow to the cone can lead to faults when measuring the flow rate.

In the event that the differential pressure is fed via a pressure sensor, the signal can also be used for regulating purposes.

Calibration factors

Type	Standard calibration factor K m²s/h
IMV 13-0200	100
IMV 13-0225	115
IMV 13-0250	140
IMV 13-0280	165
IMV 13-0315	190
IMV 13-0355	235
IMV 13-0400	290
IMV 13-0450	360
IMV 13-0500	460
IMV 13-0560	560
IMV 13-0630	730
IMV 13-0710	960
IMV 13-0800	1180
IMV 13-0900	1450
IMV 13-1000	1850
IMV 13-1120	2400
IMV 13-1250	3000
IMV 13-1400	3800
IMV 13-1600	4700

Inlet Cones



Inlet cone of copper or aluminium prevent the production of sparks during operation. These can be employed when spark protection is required, but ATEX is not mandatory.

Hot Dip Galvanised Side Frame



Fan Ranges ADH/RDH E4, E6, E7 or K, K1, K2

For applications where an increased corrosion protection is required the reinforcing side frames of the casing can be executed in hot dip galvanisation as an option.

Fittings / Accessories

Relubrications



ADH / AT / RDH



RZR

Series RZR

The lubrication unit IWN allows the fan bearings to be greased even when in operation.

The lubrication tubes screwed into the bearing housing are lead out and fastened at the side wall of the fan.

If desired, the lubrication tubes can be lead to the drive side of the fan.

► IWN 01 - uses standard grease

► IWN 11 - uses moisture resistant grease

For more details see "Technical Description" - "Bearings"!

Series ADH / RDH

The bearing housings of the fan ranges ADH / RDH E4, E6, E7 or K, K1, K2 and AT AR, TIC are equipped with directly fitted grease nipples.

Mounting feet



Feet made from galvanized steel, either mounted or loose, enable the fan to be installed with a 0, 90 and 270 orientation.

Protection guards



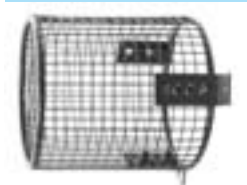
The fans are designed for installation in equipment and as standard are not equipped with protective guards.

They should not be put into operation before all protective devices are fitted and connected!

Protective measures must be carried out as set out in DIN EN ISO 12100 "Safety of machinery - Basic concepts, general principles for design".

If the application of the fan allows free access to the inlet and discharge apertures, safety devices must be put in place on the fan in accordance with DIN EN ISO 13857! Suitable safety guards are available as an optional extra.

Shaft Guards



Contact guard for the free end of the shaft for double inlet centrifugal fans. Models in accordance with DIN EN ISO 13857, made of painted steel mesh.

Flanges



Made from galvanized or painted steel, to connect ducts and system components to the fan outlet side.

Flexible Connections



Connecting piece with elastic intermediate section for the vibration or impact-noise decoupled connection of the fan to the system or unit. Made out of two connecting flanges with elastic intermediate section.

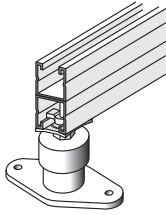
Temperature range / Application

► Standard up to +80 °C

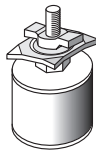
► ATEX max. +60 °C

Fittings / Accessories

Anti Vibration Mounts



Fastening for CC-profile



Fastening for U-profile

AV mounts are designed to prevent noise and vibrations being transmitted through the base of the fan.

AV mounts should be mounted beneath the fan base frame so the weight and spring deflections are evenly distributed. They should not be mounted symmetrically because a counter force is induced into the system by the pressure created by the working fan.

It is difficult for the manufacturer to establish the position of the AV mounts to suit all types of application.

Vibration and noise insulation can also be improved by ensuring that the fan is connected to its external environment by a flexible coupling.

Rubber pads and **buffers** for both vibration and noise insulation at fan speeds above 1400 rpm or 850 rpm.

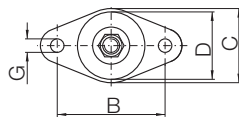
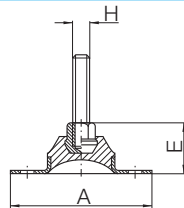
Rubber buffers for noise insulation only at fan speeds under 800 rpm or 1700 rpm.

Spring diffusers with noise insulation layer and height adjustment, for both vibration and noise insulation at fan speeds above 400 rpm.

Available AV mounts for different fans, see proSELECTA II.

The AVM-mounts are supplied with the suitable mounting material for the base frame.

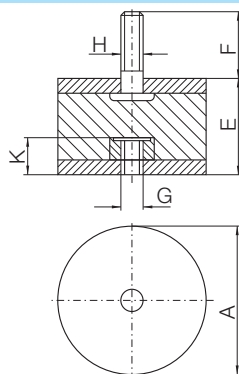
Anti Vibration Rubber Pads



ZBD	ZBD	A	B	C	D	E	G	H
21-6035A*	21-6035C*	60	45	35	30	20	5	M6
21-6065A*	21-6065C*	60	45	35	30	20	6	M6
21-5935A*	21-5935C*	90	70	50	45	32	9	M10
21-5950A*	21-5950C*	90	70	50	45	32	9	M10

* A = for U-profile, C = for CC-profile

Anti Vibration Rubber Buffers

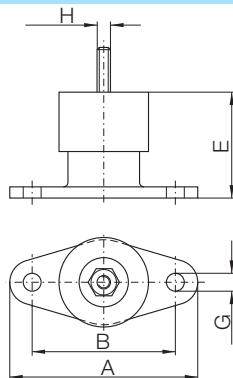


ZBD	ZBD	A	E	F	G	H	K
01-0405A*	01-0405C*	20	25	16	M 6	M 6	6.5
03-0503A*	03-0503C*	25	15	11	M 6	M 6	6.5
01-0504A*	01-0504C*	25	20	11	M 6	M 6	6.5
03-0806A*	03-0806C*	40	30	21	M 8	M 8	9.5
03-1007A*	03-1007C*	50	34	26.5	M 10	M 10	10.5
03-1510A*	03-1510C*	75	50	39	M 12	M 12	12.5
02-2008A*	02-2008C*	100	40	44	M 16	M 16	16.5

* A = for U-profile, C = for CC-profile

Fittings / Accessories

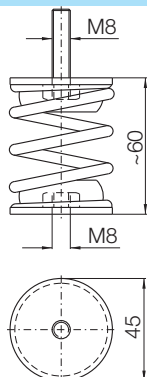
Anti Vibration Spring Diffusers



ZBD	ZBD	A	B	C	D	~ E	~ F	G	H
60-0101A*	60-0101C*	130	100	70	72	70-50	35	13	M10
60-0103A*	60-0103C*	130	100	70	72	70-50	35	13	M10
60-0105A*	60-0105C*	130	100	70	72	70-50	35	13	M10
60-0108A*	60-0108C*	130	100	70	72	70-50	35	13	M10
60-0112A*	60-0112C*	150	120	82	92	90-75	35	13	M12
60-0120A*	60-0120C*	150	120	82	92	90-75	35	13	M12
60-0130A*	60-0130C*	150	120	82	92	90-75	35	13	M12
60-0150A*	60-0150C*	150	120	82	92	110-85	35	13	M12

* A = for U-profile, C = for CC-profile

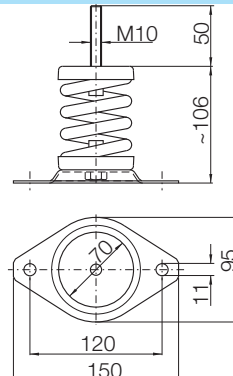
Anti Vibration Spring Diffusers



ZBD	ZBD
SP-7701A*	SP-7701C*
SP-7702A*	SP-7702C*
SP-7703A*	SP-7703C*
SP-7704A*	SP-7704C*
SP-7705A*	SP-7705C*
SP-7706A*	SP-7706C*
SP-7707A*	SP-7707C*

* A = for U-profile, C = for CC-profile

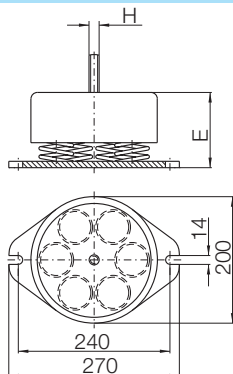
Anti Vibration Spring Diffusers



ZBD	ZBD
SP-7501A*	SP-7501C*
SP-7502A*	SP-7502C*
SP-7503A*	SP-7503C*
SP-7504A*	SP-7504C*
SP-7505A*	SP-7505C*
SP-7506A*	SP-7506C*
SP-7507A*	SP-7507C*
SP-7508A*	SP-7508C*

* A = for U-profile, C = for CC-profile

Anti Vibration Spring Diffusers



ZBD	ZBD	E	H	kg
80-W603A*	80-W603C*	68-101	M 16	8.3
80-W605A*	80-W605C*	76-101	M 16	8.6
80-W608A*	80-W608C*	86-105	M 16	9.0
80-W612A*	80-W612C*	84-104	M 16	9.3
80-W616A*	80-W616C*	92-105	M 24	9.7

* A = for U-profile, C = for CC-profile

Fan Sets

Base Frame with Belt Tensioning Device

G2Z-component size 0200/-0500 (only RZR 11/19)



This compact base frame with integrated motor tensioning slider provides optimum compactness and easiest handling.

- The base frame made of galvanized sheet steel is screwed directly onto the fan (without any casing feet) – the result being the low overall height of the system.
- The overall length depending on the casing position and size of the motor is a further factor influencing the optimum compactness.
- The integrated tensioning slider considerably simplifies re-adjustment of the belt drive during maintenance and service work.

G1Z-component size 0400/-0710



The base frames up to motor size 180 are manufactured from galvanized CC-profiles. The anti-vibration mounts in the CC-profile provide infinitely variable adjustment. From motor size 200 the base frames are of U-profile, welded and painted. Fitted motor tensioning tracks that allow the motor to be shifted longitudinally, allow for the simple adjustment of the belt tension.

G1Z-component size 0800/-1600



Base frame of stable U-profiles, welded and painted, with holes for attaching the anti-vibration mounts.

Fitted motor tensioning tracks that allow the motor to be shifted longitudinally, allow for the simple adjustment of the belt tension.

Equipment

- FKS hot-dip galvanized for U-profile base frame

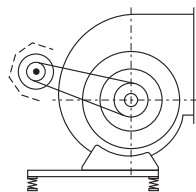
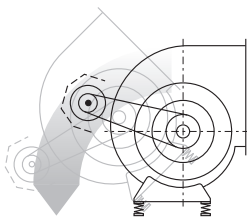
Pick-A-Back



This allows the motor to be fixed directly onto the fan casing, where space around the fan is limited. One side of the pick-a-back is fixed to the casing so that it swivels, while the other is supported on a spindle. Thus the pick-a-back becomes adjustable to leave room for tensioning the drive belt. The various motor arrangements and casing positions are shown in the drawings.

The accompanying tables also show the maximum permissible motor sizes.

When using a pick-a-back arrangement and fitting anti vibration mounts (AVM) an additional base frame for fitting the AVM may be required depending on the position of the centre of gravity of the whole fan set.



Fan Sets

Belt Drive

Wedge Belts



High performance narrow V-belts in accordance with DIN 7753 are temperature stable up to +80 °C, resistant to mineral oils and electrostatically conductive.

The belt pulleys are made of high quality cast iron and, depending on the peripheral velocity and number of grooves, are statically (G 16) or dynamically (G 6.3) balanced. They are fastened to the shaft of the motor or fan by means of a clamping bush.

Flat Belts



The flat belt drives employed are made using the most modern technology and materials. They are the centrepiece of highly developed, powerful belt drives.

This modern flat belt drive has distinct advantages over traditionally employed V-belt drives and exceeds it in efficiency, quiet running and economy.

Overview of the advantages:

- ▶ higher efficiency
- ▶ longer service life
- ▶ quieter running
- ▶ easy to install
- ▶ low maintenance
- ▶ no wear on the belt - so it is possible to dispense with the 2nd filter stage in the air conditioning unit (in accordance with VDI 6022)

Belt Guard



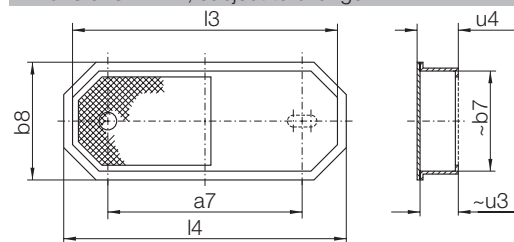
Totally enclosed belt guards are made from galvanised sheet steel in accordance with DIN EN ISO 13857.

The front section can be removed for maintenance. If there is no standard belt guard available for the selected belt drive (see table), a suitable belt guard will be made as a welded construction and then coated.

Features

- ▶ belt guard split horizontally
- ▶ access door on belt guard
- ▶ opening on belt guard for speed measuring device

Dimensions in mm, subject to change.



RBS	a7 _{max}	DW _{max}	b8	b7	s5	u4	u3	l4	l3
01-....-01	250	90	194	159	97	72	69	444	404
01-....-02	300	90	194	159	97	72	69	494	454
01-....-03	350	160	264	229	132	72	69	614	574
01-....-04	400	160	264	229	132	72	69	664	624
01-....-05	450	160	264	229	132	72	69	714	674
01-....-06	500	160	264	229	132	72	69	764	724
01-....-07	600	160	264	229	132	72	69	864	824
01-....-08	700	125	264	229	132	72	69	964	924
01-....-09	800	125	264	229	132	72	69	1064	1024
01-....-10	900	125	264	229	132	72	69	1164	1124
01-....-11	450	250	344	304	172	122	119	794	754
01-....-12	500	250	344	304	172	122	119	844	804
01-....-13	600	250	344	304	172	122	119	944	904
01-....-14	700	315	484	444	242	122	119	1184	1144
01-....-15	800	315	484	444	242	122	119	1284	1244
01-....-16	900	315	484	444	242	122	119	1384	1344
01-....-17	1000	315	484	444	242	122	119	1484	1444
01-....-18	1100	315	484	444	242	122	119	1584	1544
01-....-19	1200	315	484	444	242	122	119	1684	1644

.... Placeholder for fan-size

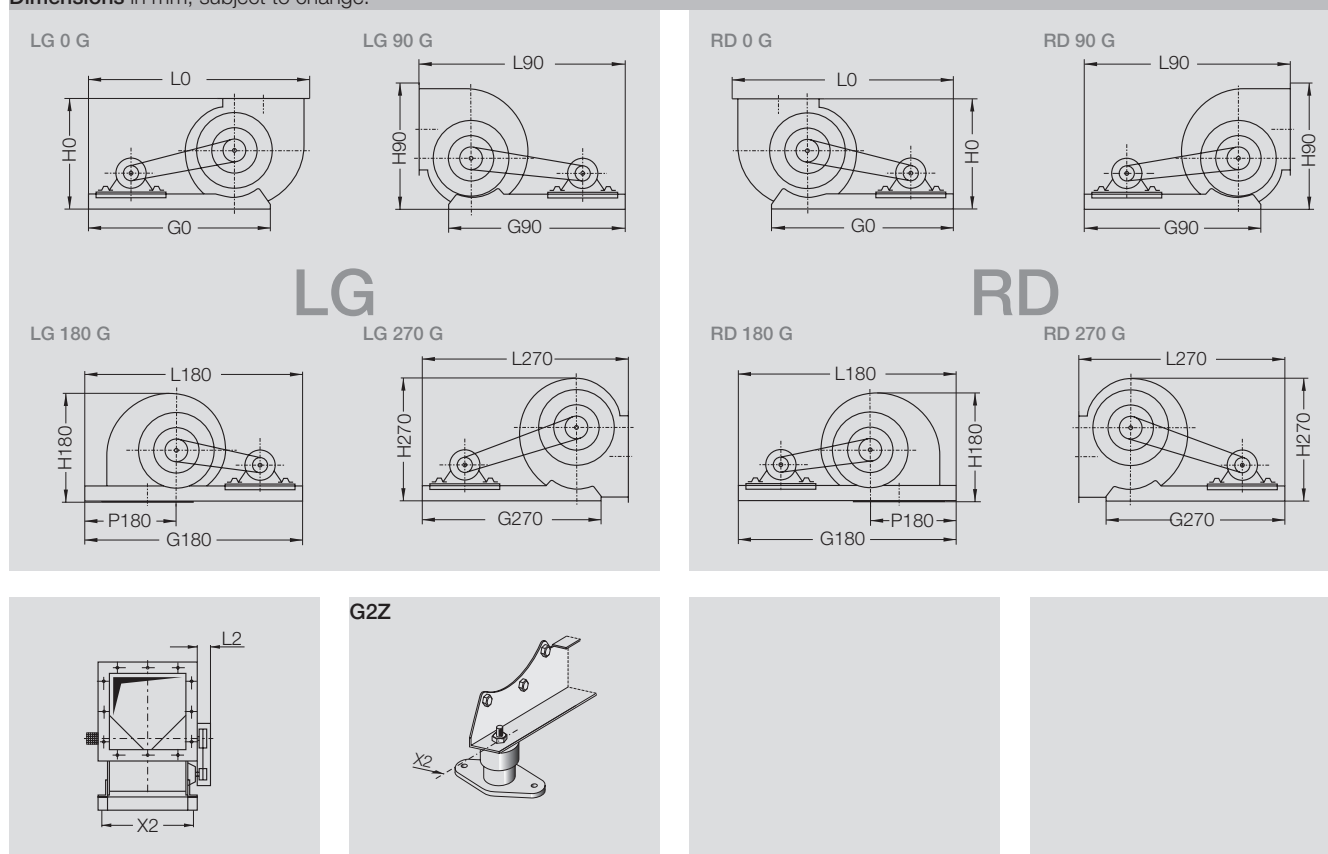
DW_{max} Diameter of the biggest pulley

a7_{max} Maximum axle centre distance

RZR 11-0200/-0500

Fan set arrangement with base frame

Dimensions in mm, subject to change.



RZR	RZR		② G0	② G90	② G180	② G270	H0	H90	H180	H270
11-	19-	0200	625	650	880	650	358	408	356	386
11-	19-	0225	680	710	925	710	404	467	401	431
11-	19-	0250	705	730	974	730	440	510	438	477
11-	19-	0280	725	755	1031	755	489	569	485	531
11-	19-	0315	750	785	1094	785	542	623	537	597
11-	19-	0355	845	885	1207	885	603	689	601	670
11-		0400	990	970	1350	970	671	773	667	749
11-		0450	1030	1010	1440	910	755	868	750	840
11-		0500	1070	1050	1530	1050	827	956	821	929

RZR	RZR		② L0	② L90	② L180	② L270	L2	P180	X2	Motor	Base frame ~ kg
11-	19-	0200	745	740	880	740	100	396	286	132	6
11-	19-	0225	793	792	925	792	100	423	322	132	7
11-	19-	0250	843	829	974	829	100	450	356	132	7.5
11-	19-	0280	893	876	1031	876	100	482	395	132	8
11-	19-	0315	952	931	1094	931	100	520	438	132	9
11-	19-	0355	1087	1090	1207	1060	100	552	487	160	10
11-		0400	1219	1120	1350	1120	120	587	546	180	11
11-		0450	1315	1203	1440	1203	120	646	612	180	12
11-		0500	1400	1279	1530	1279	120	700	680	180	14

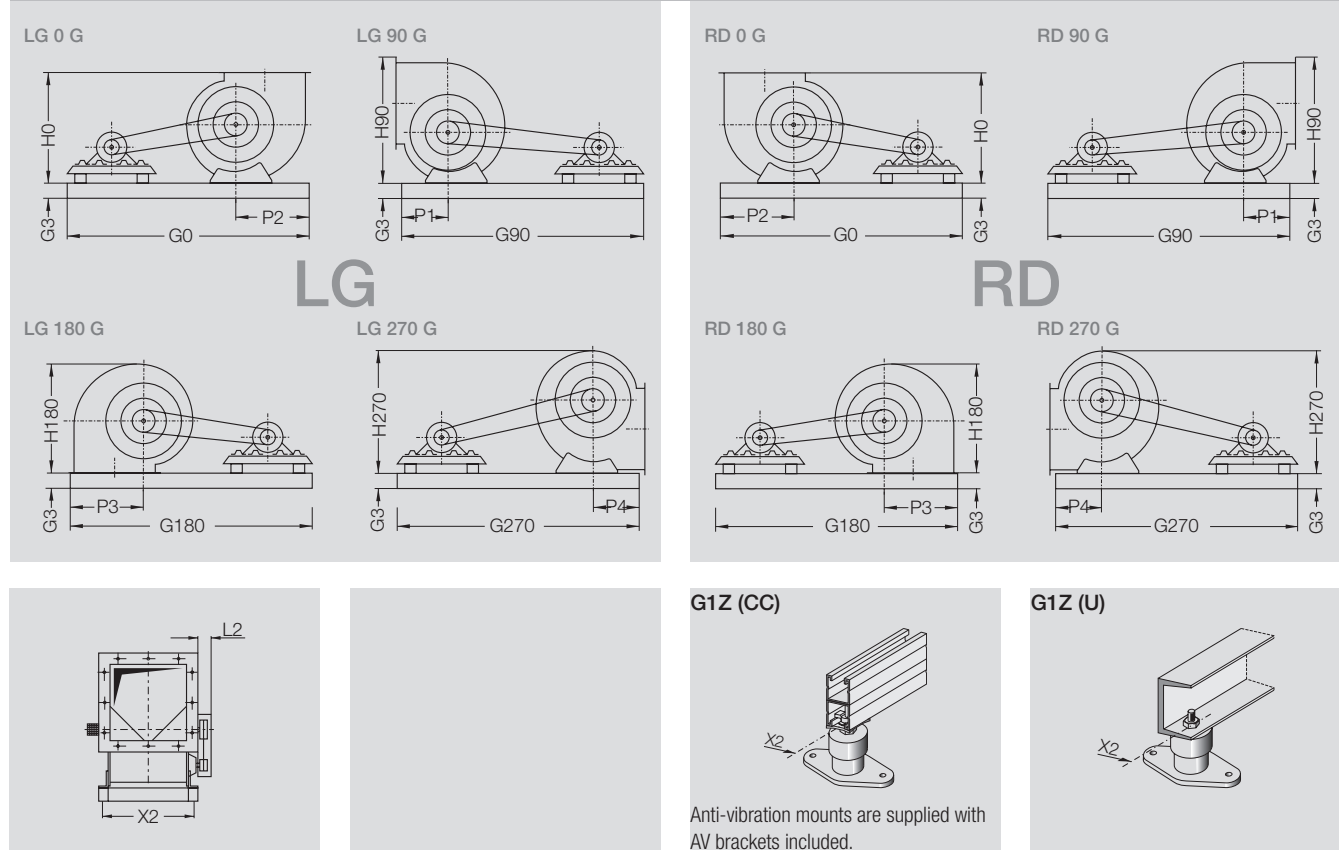
② The base frame length has been determined with the always largest admitted motor size. With smaller motors the frame length will be reduced.

For accurate dimensions use proSELECTA II or on request.

RZR 11-0400/-0710

Fan set arrangement with base frame

Dimensions in mm, subject to change.



RZR		② G0	② G90	② G180	② G270	G3 for motor size					
						63-71	80-90	100-132	160-180	200-225	250-280
11-	0400	1240	1300	1650	1240	82-CC	82-CC	82-CC	82-CC	80-U ③	—
11-	0450	1300	1350	1740	1298	82-CC	82-CC	82-CC	82-CC	80-U ③	—
11-	0500	1434	1405	1772	1405	82-CC	82-CC	82-CC	82-CC	80-U ③	—
11-	0560	1558	1508	1908	1508	82-CC	82-CC	82-CC	82-CC	80-U ③	—
11-	0630	1600	1574	2006	1574	—	82-CC	82-CC	82-CC	80-U ③	—
11-	0710	1708	1680	2145	1680	—	82-CC	82-CC	82-CC	—	—
11-	0710-U	1700	1700	2115	1700	—	—	—	—	100-U	120-U ③

RZR		H0	H90	H180	H270	L2	P1	P2	P3	P4	X2	Motor max.	Base frame ~ kg CC 80-U 100-U
11-	0400	671	773	667	749	120	275	355	669	275	550	225	31 ③ ③
11-	0450	755	868	750	840	120	320	408	718	320	614	225	32 ③ ③
11-	0500	827	956	821	929	120	348	452	766	348	682	225	33 60 —
11-	0560	921	1071	914	1041	150	384	502	851	384	759	225	34 63 —
11-	0630	1028	1195	1021	1168	150	432	566	915	432	846	225	35 68 —
11-	0710	1152	1341	1143	1316	180	479	625	1014	479	943	180	37 — —
11-	0710-U	1152	1341	1143	1316	180	—	—	—	—	943	250	— 94 145

② The base frame length has been determined with the always largest admitted motor size. With smaller motors the frame length will be reduced.

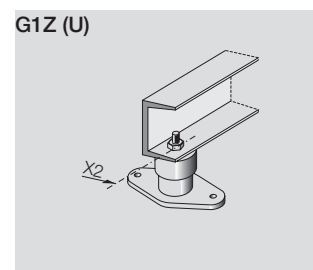
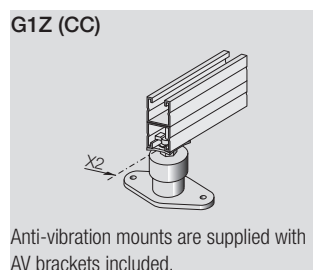
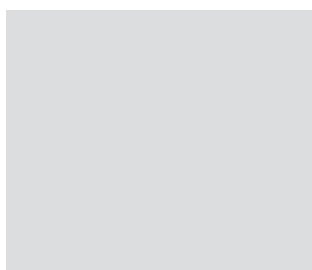
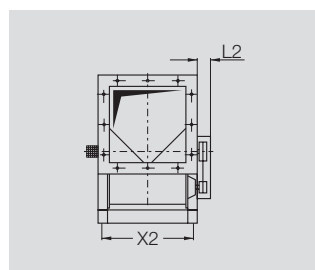
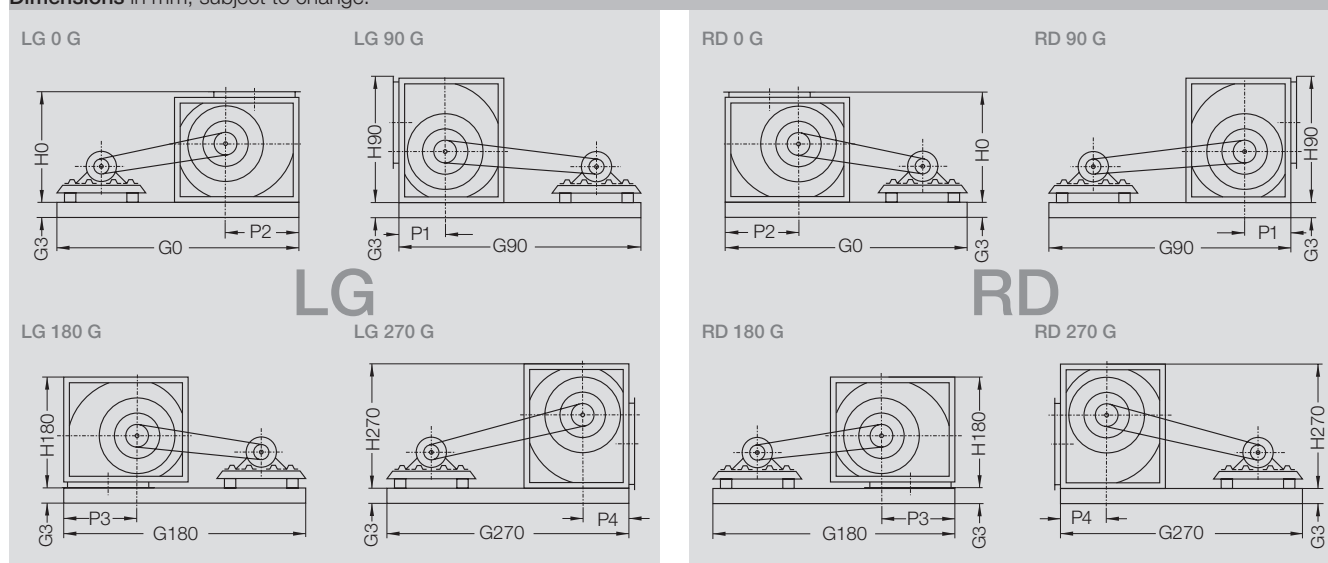
For accurate dimensions use proSELECTA II or on request.

③ Dimensions on request

RZR 12-0200/-0710

Fan set arrangement with base frame

Dimensions in mm, subject to change.



RZR		②	②	②	②	G3 for motor size					
		G0	G90	G180	G270	63-71	80-90	100-132	160-180	200-225	250-280
12-	0200	④	④	④	④	-	-	-	-	-	-
12-	0225	④	④	④	④	-	-	-	-	-	-
12-	0250	④	④	④	④	-	-	-	-	-	-
12-	0280	④	④	④	④	-	-	-	-	-	-
12-	0315	④	④	④	④	-	-	-	-	-	-
12-	0355	④	④	④	④	-	-	-	-	-	-
12-	0400	1430	1312	1655	1312	82-CC	82-CC	82-CC	82-CC	80-U ③	-
12-	0450	1522	1388	1740	1388	82-CC	82-CC	82-CC	82-CC	80-U ③	-
12-	0500	1610	1460	1830	1460	82-CC	82-CC	82-CC	82-CC	80-U ③	-
12-	0560	1736	1561	1958	1561	82-CC	82-CC	82-CC	82-CC	80-U ③	-
12-	0630	1865	1670	2078	1670	-	82-CC	82-CC	82-CC	80-U ③	-
12-	0710	2008	1784	2235	1784	-	82-CC	82-CC	82-CC	-	-
12-	0710-U	2035	1840	2235	1840	-	-	-	-	100-U	120-U ③

RZR		H0	H90	H180	H270	L2	X2	Motor Base frame ~ kg max.			
								max.	CC	80-U	100-U
12-	0200	④	④	④	④	④	④	④	④	④	④
12-	0225	④	④	④	④	④	④	④	④	④	④
12-	0250	④	④	④	④	④	④	④	④	④	④
12-	0280	④	④	④	④	④	④	④	④	④	④
12-	0315	④	④	④	④	④	④	④	④	④	④
12-	0355	④	④	④	④	④	④	④	④	④	④
12-	0400	669	769	669	750	120	550	225	31	③	③
12-	0450	753	865	753	841	120	614	225	32	③	③
12-	0500	825	955	825	931	120	682	225	33	60	-
12-	0560	920	1067	920	1046	150	759	225	34	63	-
12-	0630	1027	1195	1027	1173	150	846	225	35	68	-
12-	0710	1152	1341	1152	1324	180	943	180	37	-	-
12-	0710-U	1152	1341	1152	1324	180	-	250	-	94	155

② The base frame length has been determined with the always largest admitted motor size. With smaller motors the frame length will be reduced.

For accurate dimensions use proSELECTA II or on request.

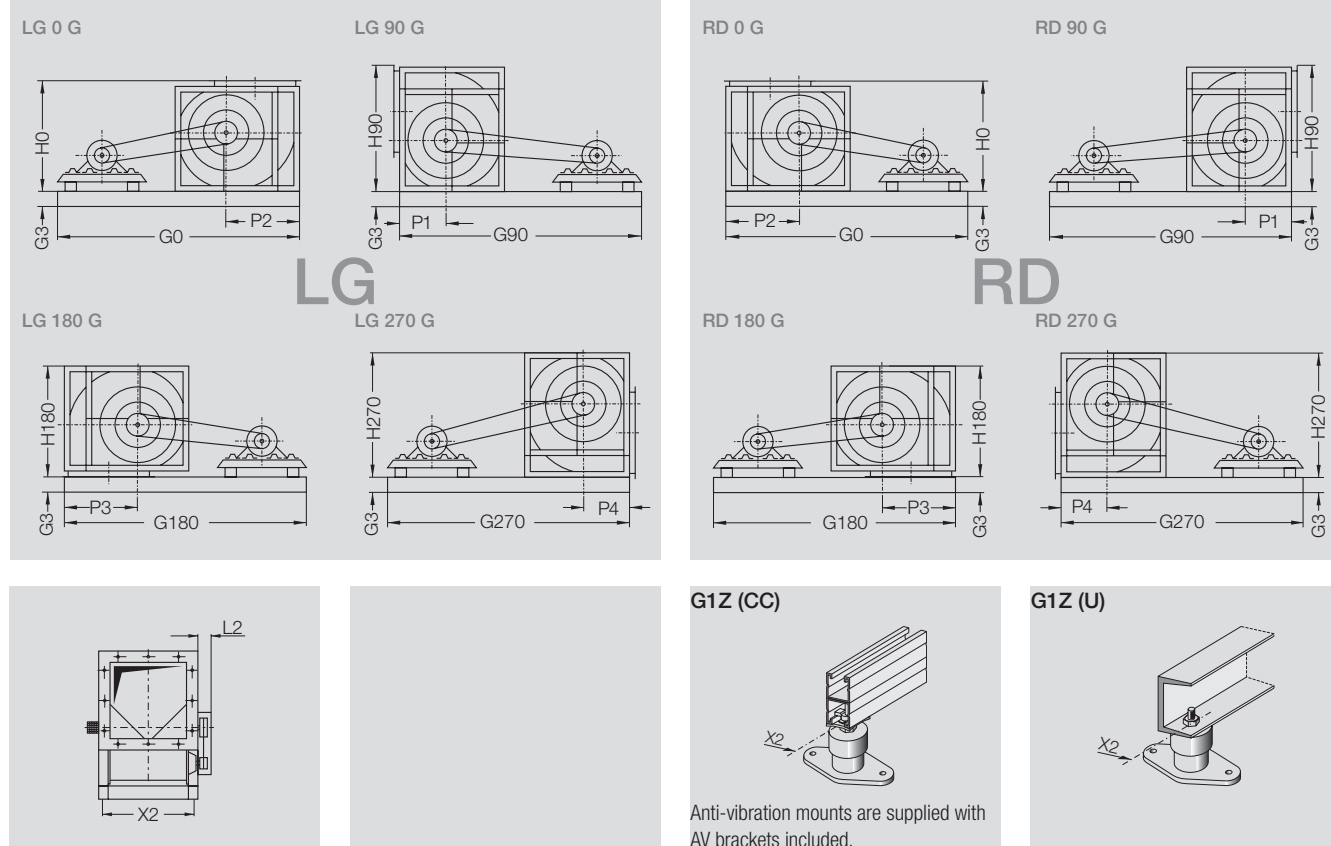
③ Dimensions on request

④ The RZR 12-0200 to 0355 can only be supplied as standard basic models.

RZR 14-0315/-1000

Fan set arrangement with base frame

Dimensions in mm, subject to change.



RZR		②	②	②	②	G3 for motor size					
		G0	G90	G180	G270	63-71	80-90	100-132	160-180	200-225	250-280
14-	0315	1276	1182	1500	1182	80-CC	80-CC	80-CC	80-CC	—	—
14-	0355	1350	1242	1569	1242	80-CC	80-CC	80-CC	80-CC	—	—
14-	0400	1430	1312	1655	1312	80-CC	80-CC	80-CC	80-CC	—	—
14-	0450	1522	1388	1740	1388	80-CC	80-CC	80-CC	80-CC	—	—
14-	0500	1610	1460	1830	1460	80-CC	80-CC	80-CC	80-CC	—	—
14-	0560	1736	1561	1958	1561	80-CC	80-CC	80-CC	80-CC	80-U ③	—
14-	0630	1865	1670	2078	1670	—	80-CC	80-CC	80-CC	80-U ③	—
14-	0710	2008	1784	2235	1784	—	80-CC	80-CC	80-CC	80-U ③	—
14-	0800	2220	2040	2220	2040	—	80-CC	80-CC	80-CC	80-U ③	—
14-	0900	2584	2264	2678	2264	—	80-CC	80-CC	80-CC	80-U ③	—
14-	1000	2744	2394	2744	2394	—	80-CC	80-CC	80-CC	100-U	—

RZR		H0	H90	H180	H270	L2	X2	Motor Base frame ~ kg			
								max.	CC	80-U	100-U
14-	0315	535	611	535	588	~100	436	160	31	③	③
14-	0355	598	685	598	665	~100	495	160	32	③	③
14-	0400	664	769	664	750	~120	549	160	31	③	③
14-	0450	753	845	753	841	~120	621	160	32	③	③
14-	0500	825	955	825	931	~120	690	160	33	60	—
14-	0560	920	1066	920	1046	~150	767	180	34	63	—
14-	0630	1028	1194	1028	1174	~150	855	180	35	68	—
14-	0710	1152	1341	1152	1320	~180	954	180	37	94	155
14-	0800	1290	1509	1290	1482	~180	1061	180	—	67	98
14-	0900	1442	1695	1442	1667	~200	1183	225	—	72	105
14-	1000	1573	1859	1573	1829	~200	1321	225	—	77	111

② The base frame length has been determined with the always largest admitted motor size. With smaller motors the frame length will be reduced.

For accurate dimensions use proSELECTA II or on request.

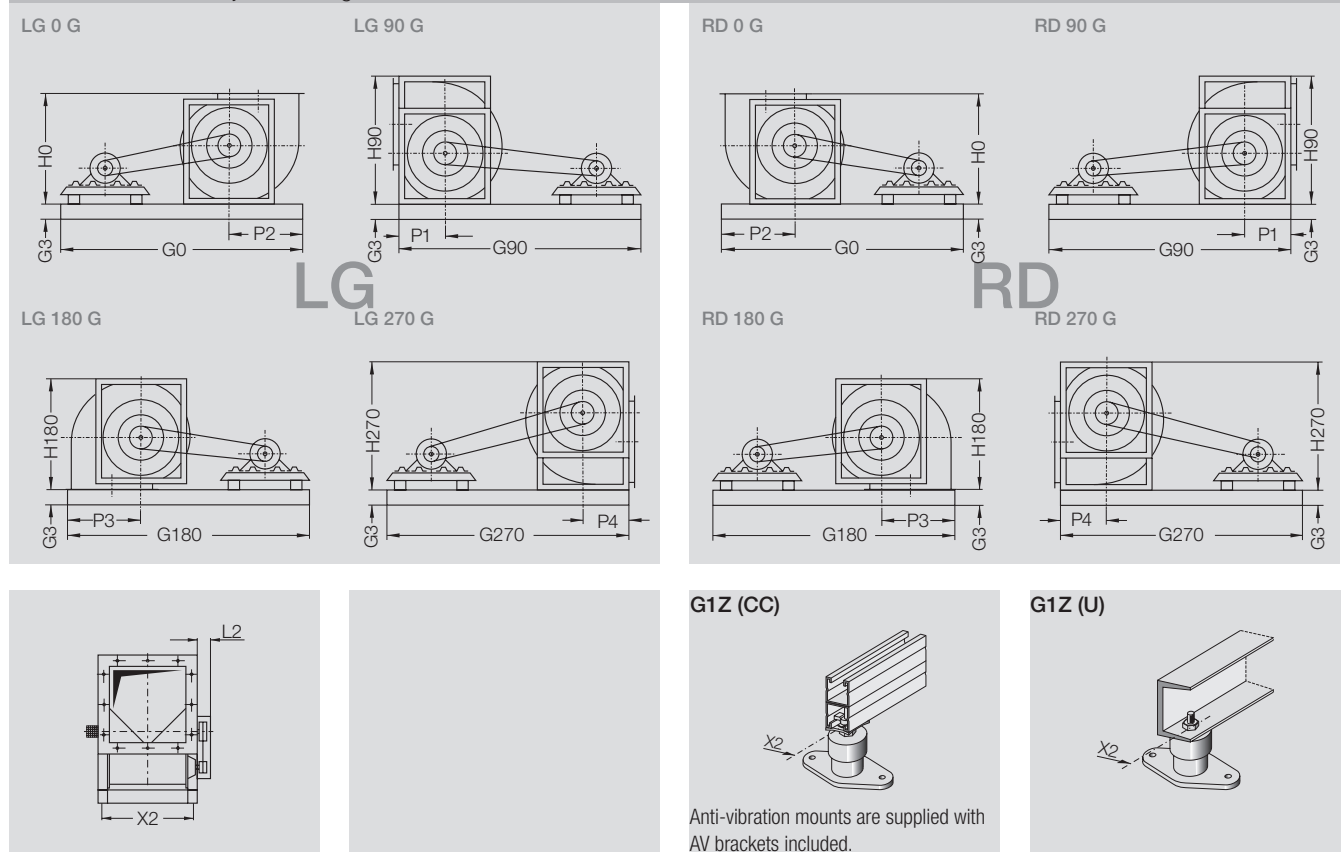
③ Dimensions on request

RZR 13-0400/-1000

RZR 18-0400/-1000

Fan set arrangement with base frame

Dimensions in mm, subject to change.



RZR	RZR		G0		G90		G180		G270		G3 for motor size					
			CC②	U	CC②	U	CC②	U	CC②	U	63-71	80-90	100-132	160-180	200-225	250-280
13-	18-	0400	1240	—	1300	—	1650	—	1240	—	82-CC	82-CC	82-CC	82-CC	80-U ③	—
13-	18-	0450	1300	—	1350	—	1740	—	1298	—	82-CC	82-CC	82-CC	82-CC	80-U ③	—
13-	18-	0500	1411	—	1411	—	1772	—	1411	—	82-CC	82-CC	82-CC	82-CC	80-U ③	—
13-	18-	0560	1468	—	1468	—	1908	—	1468	—	82-CC	82-CC	82-CC	82-CC	80-U ③	—
13-	18-	0630	1564	—	1564	—	2006	—	1564	—	82-CC	82-CC	82-CC	82-CC	80-U ③	—
13-	18-	0710	1660	1700	1660	1700	2145	2115	1660	1700	82-CC	82-CC	82-CC	82-CC	100-U	120-U ③
13-	18-	0800	—	2300	—	2300	—	2885	—	2300	80-U	80-U	80-U	80-U	100-U	120-U
13-	18-	0900	—	2410	—	2410	—	3052	—	2410	80-U	80-U	80-U	80-U	100-U	120-U
13-	18-	1000	—	2505	—	2505	—	3180	—	2505	80-U	80-U	80-U	80-U	100-U	120-U

RZR	RZR		H0	H90	H180	H270	L2	P1	P2	P3	P4	X2	Motor Base frame ~ kg			
													max.	CC	80-U	100-U 120-U
13-	18-	0400	671	775	671	775	170	290	290	669	290	550	225	31	③	③ ③
13-	18-	0450	755	868	755	868	170	316	316	718	316	614	225	32	③	③ ③
13-	18-	0500	827	957	827	957	170	345	345	766	345	682	225	33	60	—
13-	18-	0560	921	1083	921	1083	210	382	382	851	382	759	225	34	63	—
13-	18-	0630	1028	1204	1028	1204	210	410	410	915	410	846	225	35	68	—
13-	18-	0710	1152	1350	1152	1350	240	464	464	1014	464	943	250	37	94	155
13-	18-	0800	1290	1520	1290	1520	250	518	518	1155	518	1048	250	—	67	98 155
13-	18-	0900	1448	1707	1448	1707	260	570	570	1276	570	1179	280	—	72	105 165
13-	18-	1000	1577	1869	1577	1869	260	620	620	1317	620	1316	280	—	77	111 165

② The base frame length has been determined with the always largest admitted motor size. With smaller motors the frame length will be reduced.

For accurate dimensions use proSELECTA II or on request.

③ Dimensions on request

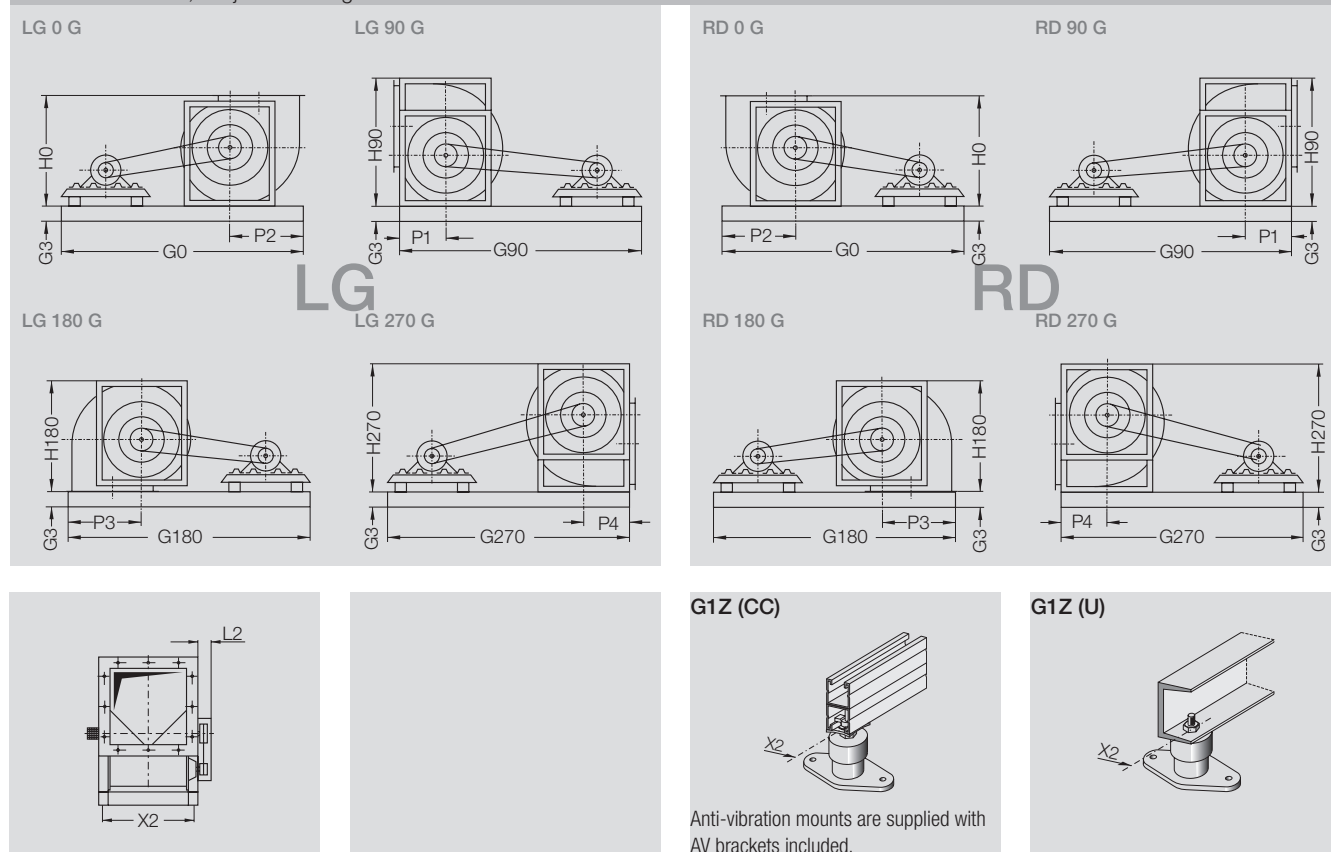
RZR 11-0800/-1000

RZR 15-0400/-1000

RZR 19-0400/-1000

Fan set arrangement with base frame

Dimensions in mm, subject to change.



RZR	RZR	RZR	G0		G90		G180		G270		G3 for motor size					
			CC②	U	CC②	U	CC②	U	CC②	U	63-71	80-90	100-132	160-180	200-225	250-280
15-	19-	0400	1240	—	1300	—	1650	—	1240	—	82-CC	82-CC	82-CC	82-CC	80-U ③	—
15-	19-	0450	1300	—	1350	—	1740	—	1298	—	82-CC	82-CC	82-CC	82-CC	80-U ③	—
15-	19-	0500	1411	—	1411	—	1772	—	1411	—	82-CC	82-CC	82-CC	82-CC	80-U ③	—
15-	19-	0560	1468	—	1468	—	1908	—	1468	—	82-CC	82-CC	82-CC	82-CC	80-U ③	—
15-	19-	0630	1564	—	1564	—	2006	—	1564	—	—	82-CC	82-CC	82-CC	80-U ③	—
15-	19-	0710	1660	1700	1660	1700	2145	2115	1660	1700	—	82-CC	82-CC	82-CC	100-U	120-U ③
11-	15-	19- 0800	—	2300	—	2300	—	2885	—	2300	—	80-U	80-U	80-U	100-U	120-U
11-	15-	19- 0900	—	2410	—	2410	—	3052	—	2410	—	80-U	80-U	80-U	100-U	120-U
11-	15-	19- 1000	—	2505	—	2505	—	3180	—	2505	—	80-U	80-U	80-U	100-U	120-U

RZR	RZR	RZR	H0		H90		H180		H270		L2		P1		P2		P3		P4		X2		Motor Base frame ~ kg				
			max.	CC	80-U	100-U	120-U	120-U	120-U	120-U	120-U	120-U	120-U	120-U	120-U	120-U	120-U	120-U	120-U	120-U	120-U	120-U	max.	CC	80-U	100-U	120-U
15-	19-	0400	671	775	671	775	170	290	290	669	290	550	225	31	③	③	③	225	32	③	③	③	225	33	60	—	—
15-	19-	0450	755	868	755	868	170	316	316	718	316	614	225	34	63	—	—	225	35	68	—	—	250	37	94	155	—
15-	19-	0500	827	957	827	957	170	345	345	766	345	682	250	—	67	98	155	280	—	72	105	165	280	—	77	111	165
15-	19-	0560	921	1083	921	1083	210	382	382	851	382	759	280	—	—	—	—	280	—	—	—	—	—	—	—	—	—
15-	19-	0630	1028	1204	1028	1204	210	410	410	915	410	846	280	—	—	—	—	280	—	—	—	—	—	—	—	—	—
15-	19-	0710	1152	1350	1152	1350	240	464	464	1014	464	943	280	—	—	—	—	280	—	—	—	—	—	—	—	—	—
11-	15-	19- 0800	1290	1520	1290	1520	250	518	518	1155	518	1048	280	—	—	—	—	280	—	—	—	—	—	—	—	—	—
11-	15-	19- 0900	1444	1707	1444	1707	260	570	570	1276	570	1179	280	—	—	—	—	280	—	—	—	—	—	—	—	—	—
11-	15-	19- 1000	1573	1869	1573	1869	260	620	620	1317	620	1316	280	—	—	—	—	280	—	—	—	—	—	—	—	—	—

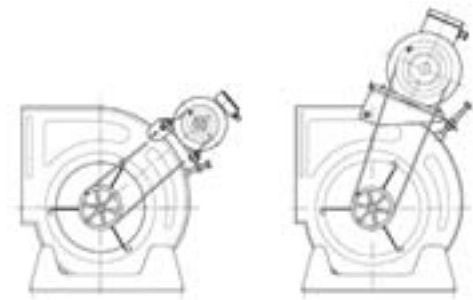
② The base frame length has been determined with the always largest admitted motor size. With smaller motors the frame length will be reduced.

For accurate dimensions use proSELECTA II or on request.

③ Dimensions on request

AT 7/7-18/18

Fan set arrangement with Pick-A-Back



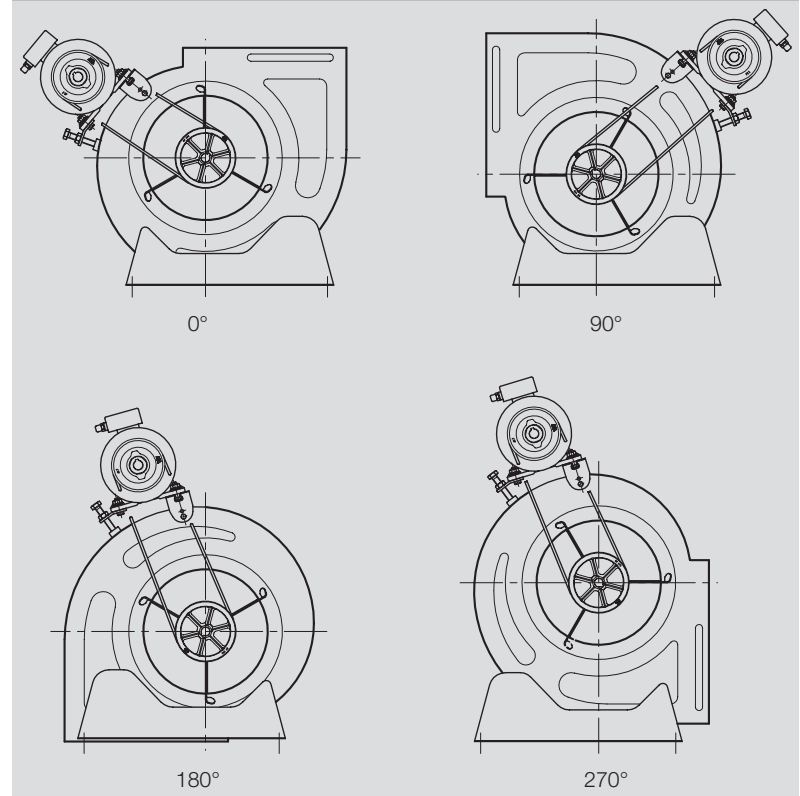
Version 1

Version 2

Using these specially designed motor brackets, the motor can be fixed, Pick-A-Back, directly on the scroll of the S-version fans.

When the motor must be held on the fan side-frames, the customer will need providing an appropriate slide or bracket, to connect it to the fixing holes on the standard frames.

Motor positions



Permissible Motor Power

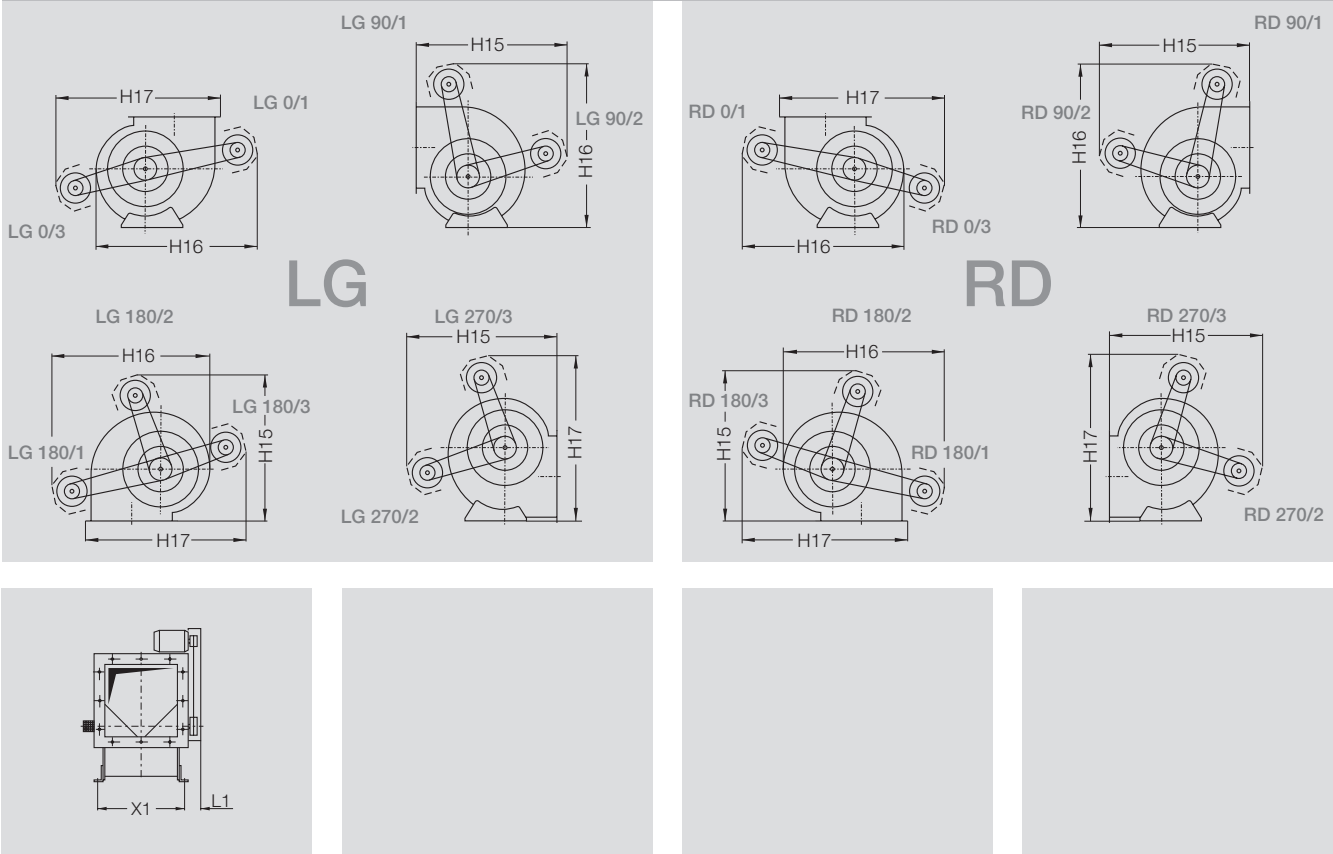
Size AT	Version 1		Version 2	
	Article-code	Max. permissible motor power kW	Article-code	Max. permissible motor power kW
7/7	687303	0.75	687940	—
9/7	687303	0.75	687940	1.1
9/9	687308	0.75	687941	1.1
10/8	687312	0.75	687942	1.5
10/10	687314	0.75	687943	1.5
12/9	687318	0.75	687944	2.2
12/12	687320	0.75	687945	2.2
15/11	687335	0.75	687546	3.0
15/15	687338	0.75	687947	3.0
18/13	687346	0.75	687948	3.0
18/18	687348	0.75	687949	3.0

RZR 11-0200/-0710

RZR 19-0200/-0355

Fan set arrangement with Pick-A-Back

Dimensions in mm, subject to change.



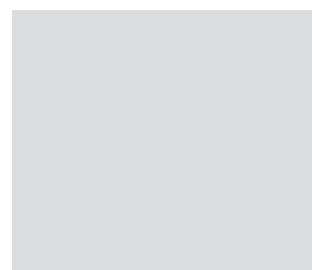
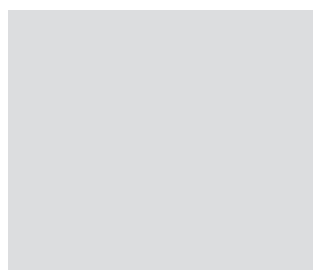
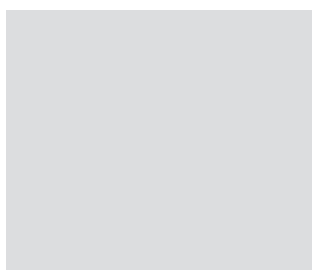
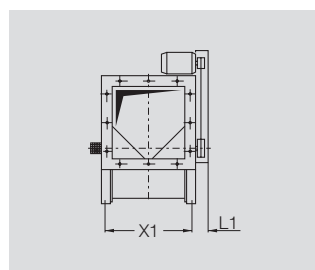
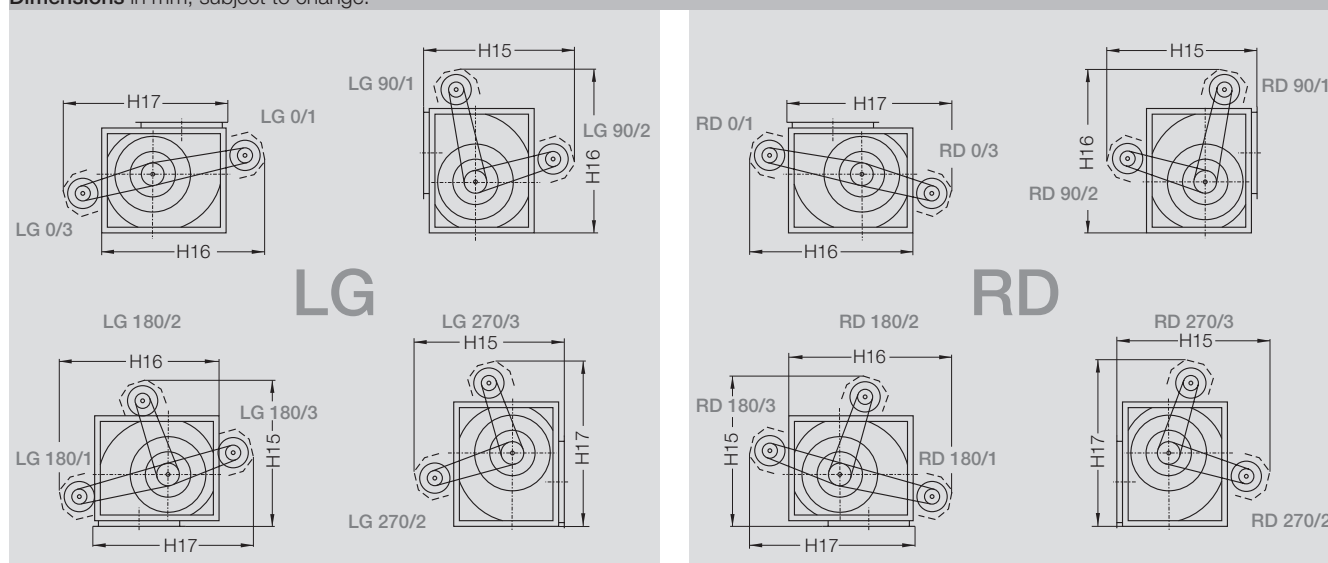
RZR RZR		① ~ H15	① ~ H16	① ~ H17	L1	X1	Motor max.	Weight ~ kg
11-	19- 0200	650	720	680	100	286	90	1
11-	19- 0225	700	760	720	100	322	100	2
11-	19- 0250	750	850	810	100	356	100	2
11-	19- 0280	860	930	890	100	395	112	3
11-	19- 0315	880	970	960	100	438	112	3
11-	19- 0355	960	1080	1070	100	487	112	3
11-	0400	1280	1290	1280	120	546	132	8
11-	0450	1330	1430	1380	120	612	132	8
11-	0500	1360	1470	1560	120	680	132	8
11-	0560	1510	1630	1740	150	756	132	11
11-	0630	1660	1800	1820	150	843	160	12
11-	0710	1810	1960	2010	180	940	160	17

① This dimensions have been calculated with the largest appropriate applicable motor in mind.

RZR 12-0200/-0710

Fan set arrangement with Pick-A-Back

Dimensions in mm, subject to change.



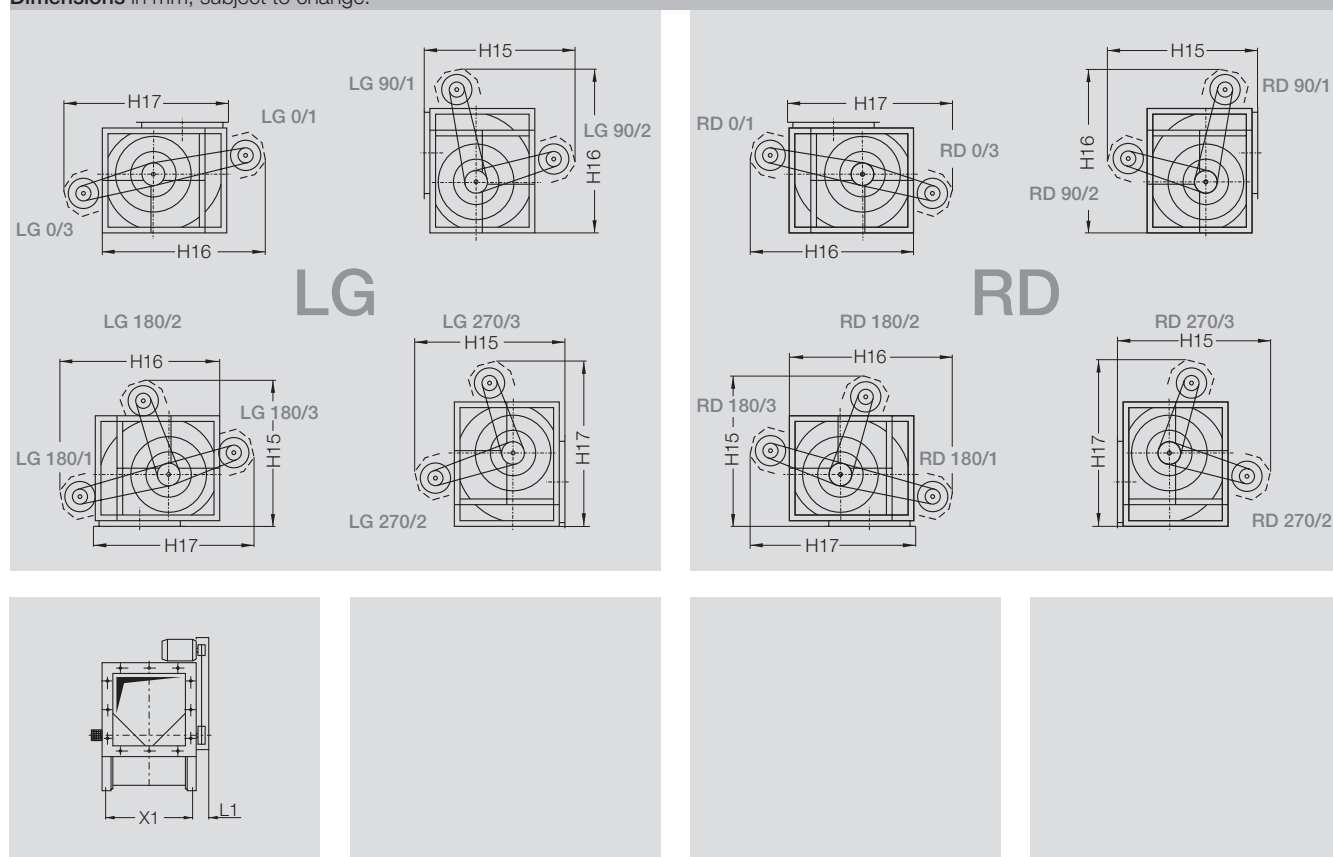
RZR		① ~ H15	① ~ H16	① ~ H17	~ L1	X1	Motor max.	Weight ~ kg
12-	0200	670	670	690	100	286	90	1
12-	0225	710	730	780	100	322	100	1
12-	0250	850	840	860	100	356	100	2
12-	0280	880	920	930	100	395	112	2
12-	0315	950	950	1030	100	438	112	3
12-	0355	1080	1090	1130	100	487	112	3
12-	0400	1190	1290	1280	120	546	132	7
12-	0450	1330	1430	1390	120	612	132	7
12-	0500	1360	1470	1560	120	680	132	8
12-	0560	1500	1620	1630	150	756	132	11
12-	0630	1650	1790	1810	150	843	160	12
12-	0710	1800	1950	2000	180	940	160	17

① This dimensions have been calculated with the largest appropriate applicable motor in mind.

RZR 14-0315/-1000

Fan set arrangement with Pick-A-Back

Dimensions in mm, subject to change.



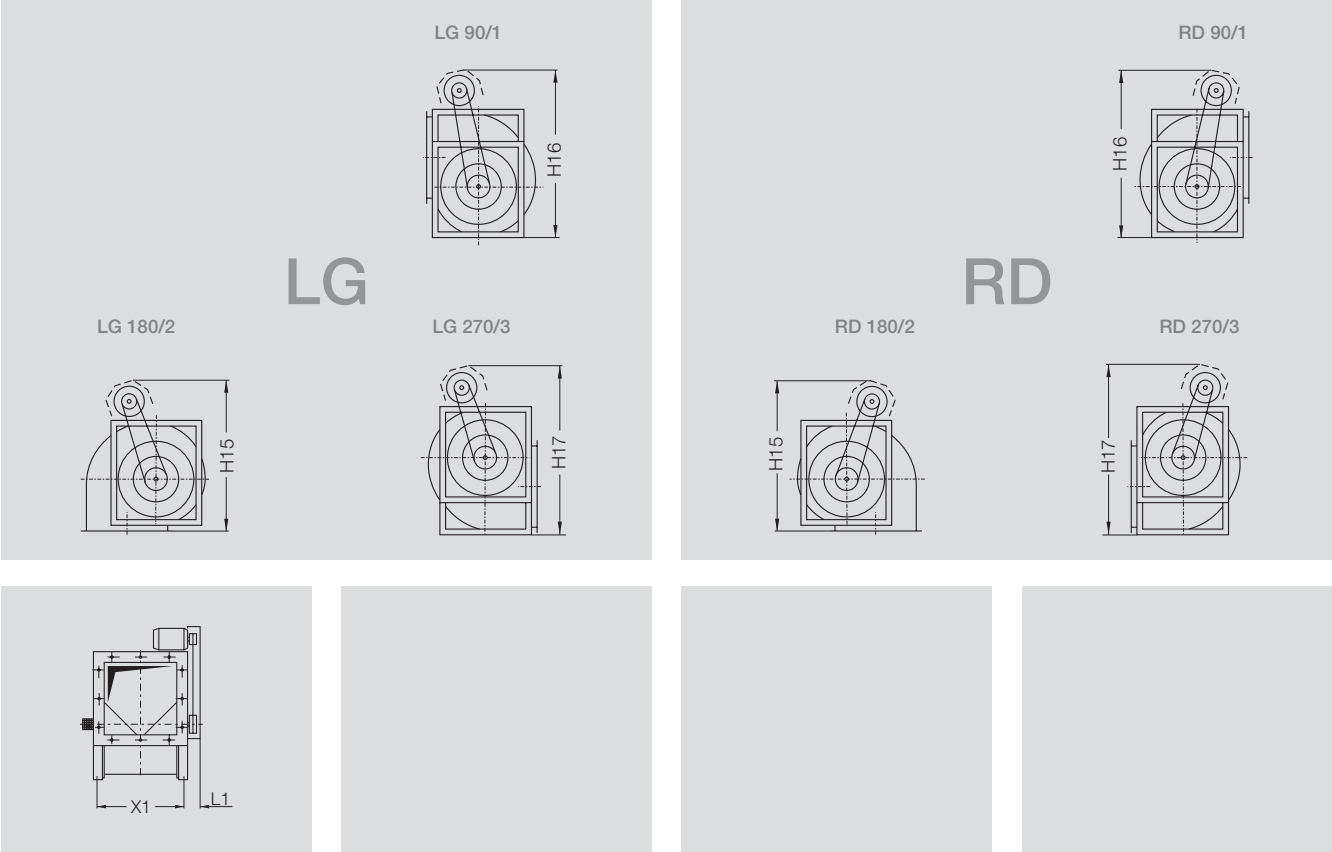
RZR	① ~ H15	① ~ H16	① ~ H17	~ L1	X1	Motor max.	Weight ~ kg
14- 0315	950	950	1030	100	440	112	3
14- 0355	1080	1090	1130	100	495	112	3
14- 0400	1190	1290	1280	120	552	132	7
14- 0450	1330	1430	1390	120	624	132	7
14- 0500	1360	1470	1560	120	692	132	8
14- 0560	1500	1620	1630	150	769	132	11
14- 0630	1650	1790	1810	150	855	160	12
14- 0710	1800	1970	2010	240	955	160	23
14- 0800	1970	2150	2150	250	1061	160	30
14- 0900	2150	2400	2350	260	1187	160	33
14- 1000	2230	2630	2550	260	1324	160	36

① This dimensions have been calculated with the largest appropriate applicable motor in mind.

RZR 13-0400/-1000
RZR 18-0400/-1000

Fan set arrangement with Pick-A-Back

Dimensions in mm, subject to change.



RZR RZR		① ~ H15	① ~ H16	① ~ H17	~ L1	X1	Motor max.	Weight ~ kg
13-	18- 0400	1280	1300	1300	170	548	132	10
13-	18- 0450	1320	1430	1380	170	612	132	11
13-	18- 0500	1350	1560	1550	170	683	132	12
13-	18- 0560	1530	1700	1730	210	759	160	15
13-	18- 0630	1640	1870	1820	210	845	160	16
13-	18- 0710	1800	1970	2010	240	942	160	23
13-	18- 0800	1970	2150	2150	250	1053	160	30
13-	18- 0900	2150	2400	2350	260	1179	160	33
13-	18- 1000	2230	2630	2550	260	1317	160	36

① This dimensions have been calculated with the largest appropriate applicable motor in mind.

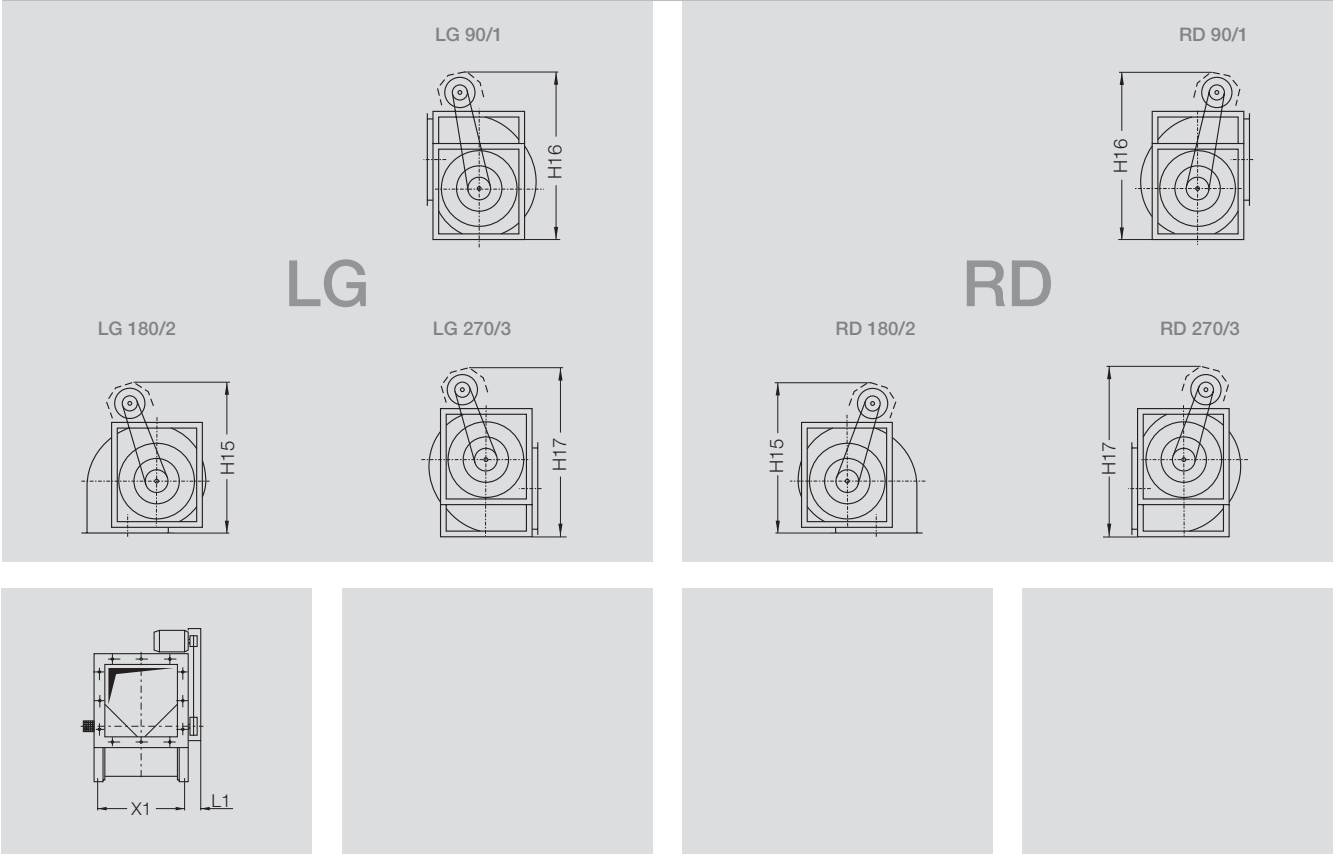
RZR 11-0800/-1000

RZR 15-0400/-1000

RZR 19-0400/-1000

Fan set arrangement with Pick-A-Back

Dimensions in mm, subject to change.



RZR			① ~ H15	① ~ H16	① ~ H17	~ L1	X1	Motor max.	Weight ~ kg
15-	19-	0400	1280	1300	1300	170	548	132	10
15-	19-	0450	1320	1430	1380	170	612	132	11
15-	19-	0500	1350	1560	1550	170	683	132	12
15-	19-	0560	1530	1700	1730	210	759	160	15
15-	19-	0630	1640	1870	1820	210	845	160	16
15-	19-	0710	1800	1970	2010	240	942	160	23
11-	15-	19- 0800	1970	2150	2150	250	1053	160	30
11-	15-	19- 0900	2150	2400	2350	260	1179	160	33
11-	15-	19- 1000	2230	2630	2550	260	1317	160	36

① This dimensions have been calculated with the largest appropriate applicable motor in mind.

Fan Sets

Min. Pulley-Diameter, Bearings Life Expectency

As a principle, the fans are only equipped with noise tested precision bearings designed for a nominal bearing life time (L10h acc. to DIN ISO 281-1) of 40,000 operating hours.

In order to not exceed the admitted bearing loads there are minimum pulley diameters defined to be respected when sizing the belt drive.

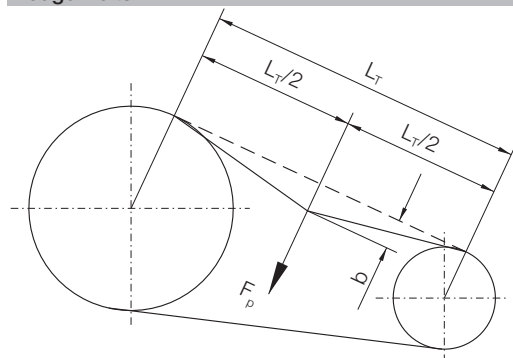
The minimum pulley diameters indicated are to be applied for belt drives selected according to the state of the art and tensioned according to the prescriptions.

For flat belt drives the minimum pulley diameters are to be increased of 40 % to the indicated figure!

A correct design of a belt drive may be achieved with our selection software where all relevant parameters will be kept automatically.

For correct design of a belt drive made by external means, dimensioning and the application of the tensioning forces have to be made in full respect of all specification data indicated.

Wedge Belts



L_T = Shaft Centres

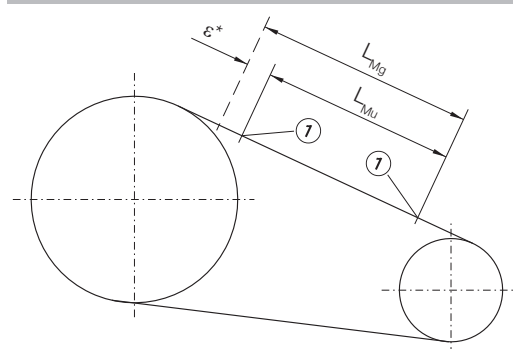
b = Deflection of belt in mm under test force F_p

F_p = Test force N as prescribed by Nicotra Gebhardt-Documents

Belt Tensioning

The correct tension is achieved when the test force F_p results in a deflection of 16 mm / metre of span.

Flat Belts



L_{Mu} = Measuring Marks ① before Tensioning

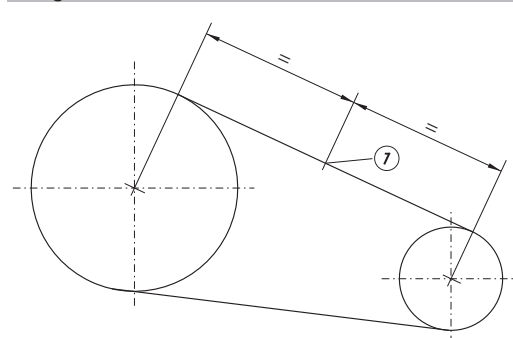
L_{Mg} = Measuring Marks ① After Tensioning

ϵ^* = Stretching Values as specified by Nicotra Gebhardt-Documents

Belt Tensioning

The correct belt tension is achieved when the measuring marks L_{Mu} have increased by the stretching value ϵ^* . This should be carried out in two stages to prevent over-stressing of the bearing.

Wedge- and Flat Belts



A further simple method for setting or checking the correct belt tension is via the static frequency of the drive belt.

Here the flat or V-belt is set to oscillate freely through striking it whilst stationary.

These vibrations are measured using an electronic measuring unit (e.g. a belt tension gauge). The vibration frequency in Hz must then be set to the specified value (documentation / nameplate).

① = Measuring point

Detailed instruction on tensioning are included within the operating and maintenance manuals.

Fan Sets

Min. recommended Pulley Diameter for ADH

Fan size	Fan model	Nominal motor power in kW													
		2.2	3	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75
160	E0 / E2	63	71												
	G2E0 / E2	63	71												
180	E0 / E2	63	80												
	G2E0 / E2	63	80												
200	E0 / E2 / E4	71	95	125											
	G2E0 / E2	71	95	140											
225	E0 / E2 / E4	80	112	140											
	G2E0 / E2	80	100	160											
250	E0 / E2	80	112	150											
	E4		90	112	140	180									
	G2E0 / E2	80	100	132											
	G2E4		95	125	160	224									
	G2E7					100	118	160							
280	E0 / E2		100	140	180										
	E4			90	112	140	212								
	G2E0 / E2		112	140	180										
	G2E4			100	118	150	224								
	G2E7					112	112	140	180	224					
315	E0 / E2		100	125	180										
	E4			90	125	160	250								
	E6						160	224	250						
	G2E0 / E2		112	140	200										
	G2E4			112	140	180	250								
355	G2E7							160	190	212	300				
	E0 / E2			100	132	180									
	E4				112	150	224	280							
	E6						125	180	224	236					
	G2E0 / E2			112	140	200									
400	G2E4				112	150	224	280							
	G2E7							160	180	212	300				
	E0 / E2			100	132	180									
	E4				112	150	224	280							
	E6						140	180	212	250					
450	G2E0 / E2			100	132	180									
	G2E4				100	140	200	280							
	G2E7								160	190	250	300			
	E0 / E2				112	132	212								
	E4					118	180	250							
500	E6							180	212	250	315				
	G2E0 / E2				118	140	200								
	G2E4					112	160	224							
	G2E7									180	212	250	300		
	E0 / E2					132	180	224							
560	E4						150	200	236						
	E6								160	190	250				
	E7									160	180	212	236		
	G2E2					132	180	212							
	G2E4						132	180	224						
630	G2E7									160	224	250	280		
	L / R					132	160	215							
	K						132	200	224						
	K1									160	180	250			
	K2										160	180	200	224	
710	G2R					132	180	200							
	G2K						132	180	224						
	G2K2										180	224	280	355	
	L / R					132	150	180	250						
	K						132	180	224	250					
800	K1									180	212	236			
	K2										180	200	224	250	
	G2K									180	200	212			
	G2K2										180	200	224	224	280
	K									160	180	224			
900	K1											212	236	280	
	K2												200	224	224
	G2K										180	200	236		
	G2K2											200	224	224	280
	K										180	212	280		
1000	K2												200	224	280
	G2K										180	200	250		
	G2K2												180	190	224

Fan Sets

Min. recommended Pulley Diameter for AT

Fan size	Fan model	Nominal motor power in kW														
		1.1	1.5	2.2	3	4	5.5	7.5	11	15	18.5	22	30	37	45	55
7/7	S / SC	63	63	80	112											
	G2L / SC2	63	63	90	118											
9/7	S / SC	63	63	85	112											
	AR	—	—	—	80	100	140	200								
	G2L / SC2	63	63	90	125											
9/9	G2C	—	—	—	71	80	100	150								
	S / SC	—	63	90	125											
	AR	—	—	—	85	112	150	224								
	G2L / SC2	63	71	95	132											
10/8	G2C	—	—	—	—	80	112	150								
	S / SC	63	71	85	112											
	AR	—	—	—	80	100	150	200								
	G2L / SC2	63	71	95	132											
10/10	G2C	—	—	—	—	80	100	150								
	S / SC	—	71	95	125	180										
	AR	—	—	—	85	118	160	224								
	G2L / SC2	63	80	112	140											
12/9	G2C	—	—	—	—	90	125	180								
	S / SC	—	—	71	90	118	180									
	AR	—	—	—	—	85	118	160	236							
	G2L / SC2	—	—	85	95	118	180									
12/12	G2C	—	—	—	—	80	90	118	224							
	G3C	—	—	—	—	100	112	118	180							
	S / SC	—	—	90	112	140	200									
	AR	—	—	—	—	100	140	190	280							
15/11	G2L / SC2	—	—	80	112	140	200									
	G2C	—	—	—	—	85	112	140	200							
	G3C	—	—	—	—	90	112	140	200							
	S / SC	—	—	85	112	132	180									
15/15	AR	—	—	—	—	90	118	160	236							
	G2L / SC2	—	—	80	100	140	200									
	G2C	—	—	—	—	85	112	150	224							
	G3C	—	—	—	—	—	100	118	180	250						
18/13	S / SC	—	—	80	100	132	180									
	AR	—	—	—	—	95	132	180	250							
	G2L / SC2	—	—	—	—	—	100	140	200							
	G2C	—	—	—	—	—	100	140	200							
18/18	G3C	—	—	—	—	—	95	112	160	224						
	S / SC	—	—	—	100	132	180	250								
	AR	—	—	—	—	—	100	132	190	280						
	G2L / SC2	—	—	—	90	118	180	224								
20/15	G2C	—	—	—	—	—	95	112	160	224						
	G3C	—	—	—	—	—	100	112	140	200						
	TIC	—	—	—	—	—	100	140	200	280						
	G2C-C2	—	—	—	—	—	—	112	160	250	280					
20/20	G3C	—	—	—	—	—	—	112	150	200	280					
	G3C-C2	—	—	—	—	—	—	—	—	—	—	150	180	200	224	
	TIC	—	—	—	—	—	100	132	200	280						
	G2C	—	—	—	—	—	—	112	150	224	250					
22/15	G2C-C2	—	—	—	—	—	—	—	—	—	—	150	180	200	224	
	G3C	—	—	—	—	—	—	112	140	200	250					
	G3C-C2	—	—	—	—	—	—	—	—	—	—	150	180	200	224	
	TIC	—	—	—	—	—	100	132	200	280						
22/22	G2C	—	—	—	—	—	—	112	150	224	280					
	G2C-C2	—	—	—	—	—	—	—	—	—	—	150	180	200	224	
	G3C	—	—	—	—	—	—	112	140	200	250					
	G3C-C2	—	—	—	—	—	—	—	—	—	—	150	180	190	224	
25/20	TIC	—	—	—	—	—	90	118	160	224						
	G2C	—	—	—	—	—	—	112	140	200						
	G2C-C2	—	—	—	—	—	—	—	—	—	250	150	180	190	224	
	G3C	—	—	—	—	—	—	112	132	200						
25/25	G3C-C2	—	—	—	—	—	—	—	—	—	224	150	180	190	224	
	TIC	—	—	—	—	—	—	112	150	224	250					
	G2C	—	—	—	—	—	—	112	140	200	250					
	G2C-C2	—	—	—	—	—	—	—	—	—	—	150	180	190	224	224
28/20	G3C	—	—	—	—	—	—	112	132	180	224					
	G3C-C2	—	—	—	—	—	—	—	—	—	—	150	180	190	224	224
	TIC	—	—	—	—	—	—	100	140	200	250					
	G2C	—	—	—	—	—	—	112	132	180	224					
28/28	G2C-C2	—	—	—	—	—	—	—	—	—	—	150	180	190	224	224
	G3C	—	—	—	—	—	—	112	125	160	200					
	G3C-C2	—	—	—	—	—	—	—	—	—	—	150	180	190	224	224
	TIC	—	—	—	—	—	—	100	140	200	250					
30/20	G2C	—	—	—	—	—	—	100	132	180	224					
	G2C-C2	—	—	—	—	—	—	—	—	—	—	150	180	190	212	224
	G3C	—	—	—	—	—	—	100	125	180	224					
	G3C-C2	—	—	—	—	—	—	—	—	—	—	150	180	190	224	224
30/28	TIC	—	—	—	—	—	—	100	140	200	250					
	G2C	—	—	—	—	—	—	100	125	180	224					
	G2C-C2	—	—	—	—	—	—	—	—	—	—	150	180	190	212	224
	G3C	—	—	—	—	—	—	100	125	160	200					
30/28	G3C-C2	—	—	—	—	—	—	—	—	—	—	150	180	190	224	224

Fan Sets

Min. recommended Pulley Diameter for RDH															
Fan size	Fan model	Nominal motor power in kW													
		2.2	3	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75
0180	E0 / E2	63	63												
0200	E0 / E2 / E4	63	63												
0225	E0 / E2 / E4	63	63	71											
0250	E0 / E2		71	80											
	E4		71	71	90										
	G2E4		80	80	90										
	G2E7				85	112									
0280	E0 / E2			80	100										
	E4				90	100									
	G2E0 / E2														
	G2E4			90	100										
0315	G2E7					90	125								
	E0 / E2			90	118										
	E4				90	112									
	E6					90	100								
	G2E0 / E2														
0355	G2E4			80	90										
	G2E7					90	112								
	E0 / E2			85	100	112									
	E4				90	112	125								
	E6					100	112	118							
0400	G2E0 / E2														
	G2E4				90	125									
	G2E7					90	112								
	E0 / E2				112	140									
	E4					100	132	180							
0450	E6							118	140	150					
	G2E4			100	112	112									
	G2E7						112	125	160						
	E0 / E2				112	125	180								
	E4					112	140	180							
0500	E6							125	140	160	212				
	G2E4				100	118	140								
	G2E7						112	125	160						
	E0 / E2				125	132	160								
	E4					132	150	200							
	E6							140	140	150	200				
0560	E7								118	125	150	200			
	G2E4									140	150	180			
	G2E7														
	E0 / E2					140	180	224							
	E4						150	200	224						
	E6								150	160	212				
0630	E7									140	160	160			
	G2E2														
	G2E4					112	140								
	G2E7								180	200	280				
	R					140	180	250							
	K						150	200	250						
0710	K1								180	180	236				
	K2									150	180	190	224		
	G2K						140	190							
	G2K2								180	200	280	355			
	R						180	224							
	K							224	250	315					
0800	K1									180	212	250			
	K2										212	224	224		
	G2K								180	190	250				
	G2K2											224	250	280	
	K								160	180	250				
0900	K1										212	250	280		
	K2											224	224	280	
	G2K								224	250	315				
	G2K2											224	224	280	
1000	K									180	236	315			
	K2												224	224	300
	G2K									190	224	280			
	G2K2												224	224	280

Fan Sets

Min. recommended Pulley Diameter for RZR																				
Fan size	Fan model	Nominal motor power in kW																		
		3	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132	160	200	250
0200	11 / 12 / 19	71	71	71	90															
0225 0250 0280	11 / 12 / 19	71	71	80	100															
	11 / 12 / 19	71	71	90	112															
	11 / 12	71	71	90	118															
	19	71	71	71	85	112														
0315 0355 0400 0450 0500 0560 0630 0710 0800	11 / 12	71	85	106	132															
	14	71	71	75	95	132														
	19	71	71	75	95	125														
	11 / 12	75	95	118	150															
	14	71	71	71	80	112														
	19	71	71	85	106	140														
	11 / 12	71	80	100	125															
	14	71	71	75	100	132	160													
	13 / 15 / 18 / 19	71	71	71	71	85	106	125	140	180										
	11 / 12	71	90	112	140															
	14	71	71	71	85	118	150													
	13 / 15 / 18 / 19	71	71	71	71	95	118	140	160	200										
0500	11 / 12	80	100	125	160															
	14	71	71	75	100	132	170													
	13 / 15 / 18 / 19	71	71	71	80	106	132	160	180	224										
	11 / 12	71	71	85	112	150	190													
0560	14	71	71	85	106	150	180	212	250											
	13 / 15 / 18 / 19	71	71	71	71	90	112	132	150	190	224									
	11 / 12	71	80	100	132	180	224													
	14	71	75	95	125	170	212	250	280											
0630	13 / 15 / 18 / 19	71	71	71	75	100	125	150	170	224	250									
	11 / 12	71	85	112	140	190	236	280												
	14	71	85	112	140	190	250	280	315											
	13 / 15 / 18 / 19	71	71	71	71	85	106	118	140	180	212	250	280							
0800	11	80	100	125	160	224	280	315	355											
	14	80	100	125	160	224	280	335	375											
	13 / 15 / 18 / 19	71	71	71	71	95	118	140	160	212	236	280	315							
	11	95	118	150	200	280	355	400	450											
0900	14	71	75	95	125	170	212	250	280	375	425									
	13 / 15 / 18 / 19	71	71	71	71	85	106	125	140	180	212	250	300	375						
	11	112	140	180	224	315	400	450	500											
1000	14	71	85	106	140	190	236	280	315	425	500									
	13 / 15 / 18 / 19	71	71	71	71	95	118	140	160	212	236	280	315	425						
1120	13	–	–	–	–	315	315	315	315	315	315	315	315	355	355	400	450			
1250	13	–	–	–	–	315	315	315	315	315	315	315	315	355	355	400	400	450		
1400	13	–	–	–	–	315	315	315	315	315	315	315	315	355	355	400	400	450	450	
1600	13	–	–	–	–	315	315	315	315	315	315	315	315	355	355	400	400	450	500	560

For flat-belt-drives the listed recommended pulley diameter must be enlarged up to approx. 40 %.

Description

General

The high-performance centrifugal fans are the result of extensive and systematic development work.
These technically first-rate products are distinguished by their high efficiency, the large pressure differences attainable and low noise levels.
The sizes are geometrically scaled in accordance with the standard range R 20 and the nominal size stated is the external diameter of the impeller.

Media



The fans are suitable for handling air and other non aggressive gases from -20 °C up to +80 °C, resp. +100 °C.
The ambient temperature at the drive motor must not exceed +40 °C.

Protective installations



The fans are designed for installation in equipment and as standard are not equipped with protective guards.

They should not be put into operation before all protective devices are fitted and connected!

Protective measures must be carried out as set out in DIN EN ISO 12100 "Safety of machinery - Basic concepts, general principles for design".

If the application of the fan allows free access to the inlet and discharge apertures, safety devices must be put in place on the fan in accordance with DIN EN ISO 13857! Suitable safety guards are available as an optional extra.

Shafts

Shafts ADH / AT / RDH



The fan shafts are manufactured of ground, precisely rounded carbon steel C40. They are principally prepared without being stepped at both ends.
The shafts of the RDH K1 and K2 ranges, size 1000 are machined on both ends for fitting a pulley.

ADH / AT from size 12/9 / RDH

The shafts are equipped with a keyway (open shape) at both ends and a key (type 2).
AT 7/7 up to 10/10

The standard construction is the version with flats on shaft ends (type 1), it is also available the version with keyways (type 2).

For corrosion protection the shafts are galvanised up to fan size 0560 and 30/28. From size 0630 and larger the shaft are covered, between bearing and hub, with a paint in order to ensure corrosion protection.

The shaft ends are covered with a wax product easy to remove.

Shafts RZR



The shafts are manufactured of precisely rounded carbon steel C35, pared and polished.

Up to size 1000 they are not stepped at the shaft end.

For sizes 1120 up to 1600 the shafts are machined on both ends for fitting a pulley.

The shafts are equipped with a keyway at both ends and a key executed according to DIN 6885-1.

► Groove shape N2 (open) Sizes 0200 up to 1000

► Groove shape N1 Sizes 1120 up to 1600

The shafts are covered with a easily removable wax product for corrosion protection.

Housig feet / Side frames ADH / AT / RDH



For easier installation of the fan the mounting feet and reinforcing frames are provided with eye holes.

Description

Bearings ADH / AT / RDH



ADH E0 / ADH L
ADH E2 / ADH R
AT S / AT SC
AT G2L / AT SC2
RDH E0
RDH E2 / RDH R

Maintenance free, self aligning radial insert ball bearings, mounted in pressed steel housing/strut assemblies with rubber interliners.



ADH E4 / ADH K
AT AR / AT TIC / AT G2C
RDH E4 / RDH K

Monobloc pedestal cast iron pillow block bearings with relubrication nipple, mounted on a robust frame. Integrated, maintenance free self aligning radial ball bearings, fixed by eccentric clamp.



ADH E6 / ADH K1 /
ADH E7-0500
RDH E6 / RDH K1 /
RDH E7-0500

Pillow block cast iron bearings with relubrication nipple, mounted on a robust frame. Integrated self aligning radial ball bearings, fixed by conical sleeve and locknut.



ADH E7-0560;
ADH K2-0630/-0800
AT G2C-C2
RDH E7-0560;
RDH K2-0630/-0800

Split-type plummer block bearings with relubrication nipple, mounted on a robust frame, integrated self aligning double row ball-bearings fixed by conical sleeve, lubricated with long life high performance grease.

ADH K2-0900-1000
RDH K2-0900-1000
RDH X1
RDH X2

Single piece plummer block housing, with grease nipple, mounted on robust pedestal, equipped with self aligning double row roller bearing, fixed to impeller shaft by a concentric shaft clamp, lubricated with long life high performance grease.

Twin Fans

The twin fans up to size 0630 are equipped with one single shaft and 3 bearings. From size 0710 the two separate fans are connected by an elastic coupling. For the models G2K2 the bearings from size 0710 and larger are – due to different loads – of a different execution inside compared to outside.

Description

Bearings RZR



**RZR 11-0200/-1000;
RZR 12-0200/-0710**
(without lubricators)

Radial insert ball bearings with spherical outer Ring mounted in pressed steel housing/strut assemblies with rubber interliners.

**RZR 11-0200/-0710;
RZR 12-0200/-0710**
(with relubricators)

Radial insert ball bearings with spherical outer Ring mounted within cast iron housing, supported from the fan casing by tubular struts. Relubrication is effected via extended tubes and nipples.



RZR 19-0200/-0355
(without lubricators)

Radial insert ball bearings with spherical outer Ring mounted within cast iron housing, supported from the fan casing by tubular struts.

RZR 19-0200/-0355
(with relubricators)

Relubrication is effected via extended tubes and nipples.



**RZR 15-0400/-1000;
RZR 19-0400/-1000**
(without lubricators)

Self aligning double row ball bearings secured by adapter sleeve, mounted within a cast iron housing.

**RZR 15-0400/-1000;
RZR 19-0400/-1000**
(with relubricators)

Relubrication is effected via extended tubes and nipples.



**RZR 13-0400/-1600;
RZR 18-0400/-1000**
(without lubricators)

Self aligning double row ball bearings within standard plummer blocks, mounted on robust pedestal.

**RZR 13-0400/-1600;
RZR 18-0400/-1000**
(with relubricators)

Relubrication is effected via extended tubes and nipples.

Lubricators for relubrication during operation

The Bearings are charged with long life high performance grease. Relubrication is effected via extended tubes and nipples.

See operating and maintenance instructions.

► **IWN 01** - Standard grease, Gadus S2 V100 3

► **IWN 11** - Klüber-Staburags NBU12/300KP

Description

Motors



Standard motors of wellknown brands, type of protection IP55, thermal class F, are used. During commissioning and maintenance the detailed instructions provided by the motor manufacturer (type plate/motor operating instructions) must be followed, this also applies to the motor protection devices required onsite. The motors are equipped with PTC resistors/temperature sensors as standard. Motors with integrated frequency inverters may be supplied on request.

EX-ATEX motors

Fan sets of centrifugal fans according to Ex-ATEX execution are equipped with motors of the correspondent category.

For frequency inverter operation the motors will be of pressure resistant execution.

Speed regulation

A suitable speed variation system is required for the optimum adjustment of the desired operating point.

Our frequency converters are perfectly tuned for the operation of RZR centrifugal fans. The use of the newest power semi-conductors guarantees high efficiency and minimum motor noise thanks to the especially fine pulse pattern.

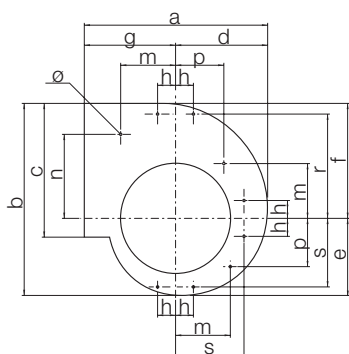
See also the technical description "Performance".

Electric connection

Centrifugal fan systems are delivered ready for installation. The motor terminal box can be easily accessed.

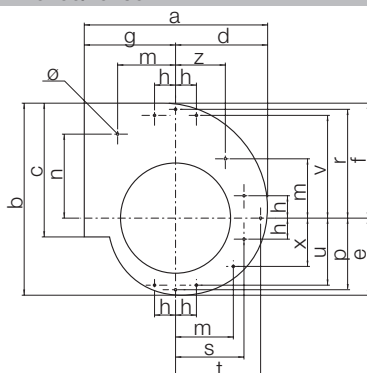
Electric installation must be carried out according to the applicable provisions in compliance with local regulations. A terminal board circuit diagram showing correct connection is enclosed with every motor.

Attachment points on the side plates ADH/RDH ADH/RDH 0160/-0180



	a	b	c	d	e	f	g	h	m	n	p	r	s	ø
0160	281	291	205	141	119	172	140	30	92	121	67	155	101	4
0180	310	326	229	157	131	195	153	30	92	141	81	175	115	4

ADH/RDH 0200/-0250



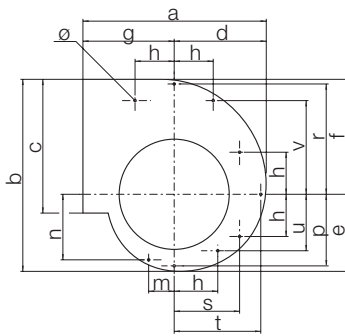
	a	b	c	d	e	f	g	h	m	n
0200	341	362	256	177	147	215	164	40	110	155
0225	379	407	288	199	165	242	180	40	110	184
0250	416	452.5	322	221	183.5	269	195	40	110	209

	p	r	s	t	u	v	z	x	ø
0200	134	202	129	163	126	190	94	91	4
0225	152	229	149	185	142	219	114	107	4
0250	171	256	172	208	155	244	137	120	4

Description

Attachment points on the side plates ADH/RDH

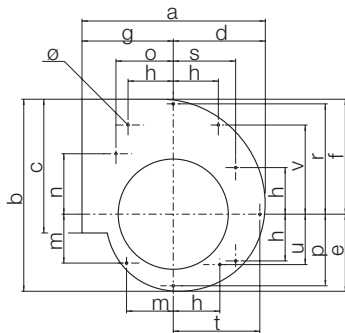
ADH/RDH 0280/-0315



	a	b	c	d	e	f	g	h	m	n	p	r	s	t	u	v	Ø
0280	464	508	361	249	206	302	215	113	71	170	191	287	169	233	150	245	6.2
0315	515	571	404	279	232	339	236	113	71	195	215	323	197	263	175	284	6.2

Scroll dimensions are referred to the external surface of the back plate

ADH/RDH 0355/-0450

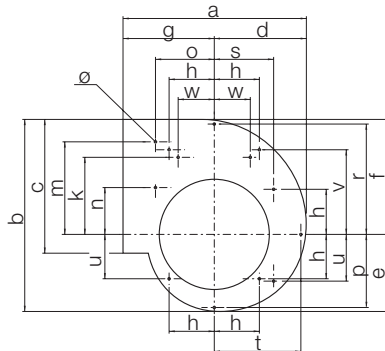


	a	b	c	d	e	f	g	h	m
0355	576	643	453	315	261	382	261	156	158
0400	644	733	507	354	302	431	290	156	186
0450	721	817.5	569	399	332.5	485	322	213	168

	n	o	p	r	s	t	u	v	Ø
0355	197.5	197.5	241	364	204	295	158	295	6.2
0400	220	230	275	411	243	336	186	346	6.2
0450	245	256	311	466	271	379	168	350	M10

Scroll dimensions are referred to the external surface of the back plate

ADH/RDH 0500

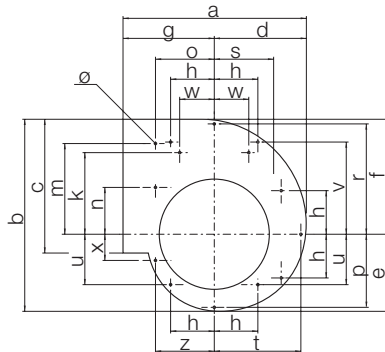


	a	b	c	d	e	f	g	h	m	n
0500	794	906	638	442	368	538	352	231	439	220

	o	p	r	s	t	u	v	k	w	Ø
0500	281	349	519	280	423	207	400	354	181	M10

Scroll dimensions are referred to the external surface of the back plate

ADH/RDH 0560/-0710



	a	b	c	d	e	f	g	h	m	n	o
0560	886	1016	715	496	413	603	390	235	490	245	310
0630	993	1142	801	559	463	679	434	235	553.5	260	353
0710	1119	1295	898	634	530	765	485	265	626.5	267.5	393

	p	r	s	t	u	v	z	x	k	w	Ø
0560	389	581	362	472	276	494	310	140	394	180	M10
0630	441	656	431	521	328	567	356	160	—	—	M10
0710	496	737	476	605	371	637	397	200	—	—	M10

Scroll dimensions are referred to the external surface of the back plate

Screw to be used to attach mounting feet

Size	Type of screw	Thread
0160/-0250	Self-threading screw	AB 6.3 ISO 1478
0280/-0400	Self-threading screw	AB 8 ISO 1478
0450/-0710	Metric screw	M10 ISO 724

Description

Operating limits ADH

	Permissible nominal motor power	Permissible fan speed	Permissible bearing load	Permissible media temperature	Fan weight		Permissible nominal motor power	Permissible fan speed	Permissible bearing load	Permissible media temperature	Fan weight
ADH	kW	1/min	N	°C	kg	ADH	kW	1/min	N	°C	kg
E0-0160	3	4200	420	-20 / +80	5	E0-0500	11	1200	1180	-20 / +80	57
E2-0160	3	4200	420	-20 / +80	6.6	E2-0500	11	1200	1180	-20 / +80	65
G2E0-0160	3	3400	420	-20 / +80	10.5	E4-0500	15	1300	1320	-20 / +100	85
G2E2-0160	4	3400	420	-20 / +80	14.5	E6-0500	30	1400	1800	-20 / +100	86
E0-0180	3	4000	420	-20 / +80	6	E7-0500	37	1400	2200	-20 / +100	105
E2-0180	3	4000	420	-20 / +80	7.8	G2E0-0500	11	900	1180	-20 / +80	120
G2E0-0180	3	3200	420	-20 / +80	12.6	G2E2-0500	11	900	1180	-20 / +80	140
G2E2-0180	4	3200	420	-20 / +80	17	G2E4-0500	15	1000	1320	-20 / +100	176
E0-0200	4	3800	420	-20 / +80	7.1	G2E7-0500	45	1400	4000	-20 / +100	221
E2-0200	4	3800	420	-20 / +80	9.1	E0-0560	15	1100	1450	-20 / +80	72
E4-0200	4	3800	420	-20 / +100	12.6	E2-0560	15	1100	1450	-20 / +80	86
G2E0-0200	4	2900	420	-20 / +80	15	E4-0560	18.5	1200	1760	-20 / +100	134
G2E2-0200	4	2900	420	-20 / +80	20	E6-0560	30	1300	2550	-20 / +100	142
E0-0225	4	3400	420	-20 / +80	8.5	E7-0560	45	1300	3700	-20 / +100	150
E2-0225	4	3400	420	-20 / +80	10.7	G2E2-0560	15	800	1450	-20 / +80	185
E4-0225	4	3400	420	-20 / +100	14.5	G2E4-0560	18.5	900	1760	-20 / +100	268
G2E0-0225	4	2600	420	-20 / +80	18	G2E7-0560	45	1200	4000	-20 / +100	319
G2E2-0225	4	2600	420	-20 / +80	24	L-0630	15	900	1450	-20 / +80	91
E0-0250	4	2800	420	-20 / +80	10.5	R-0630	15	900	1450	-20 / +80	106
E2-0250	4	2800	420	-20 / +80	13	K-0630	18.5	1000	1760	-20 / +100	170
E4-0250	7.5	3000	450	-20 / +100	18	K1-0630	30	1100	2550	-20 / +100	175
G2E0-0250	4	2200	420	-20 / +80	22	K2-0630	45	1100	3700	-20 / +100	180
G2E2-0250	4	2200	420	-20 / +80	29	G2R-0630	15	700	1450	-20 / +80	230
G2E4-0250	7.5	2300	450	-20 / +100	38	G2K-0630	18.5	750	1760	-20 / +100	342
G2E7-0250	15	2800	1250	-20 / +100	44	G2K2-0630	55	1000	4000	-20 / +100	393
E0-0280	5.5	2500	530	-20 / +80	14.2	L-0710	18.5	750	1800	-20 / +80	118
E2-0280	5.5	2500	530	-20 / +80	18	R-0710	18.5	750	1800	-20 / +80	135
E4-0280	11	2700	660	-20 / +100	24	K-0710	22	850	1900	-20 / +100	201
G2E0-0280	5.5	2000	530	-20 / +80	30	K1-0710	37	900	3550	-20 / +100	208
G2E2-0280	5.5	2000	530	-20 / +80	39	K2-0710	55	900	5800	-20 / +100	225
G2E4-0280	11	2200	660	-20 / +100	50	G2K-0710	30	700	3000	-20 / +100	532
G2E7-0280	22	2400	1700	-20 / +100	59	G2K2-0710	75	800	7000	-20 / +100	537
E0-0315	5.5	2100	530	-20 / +80	18	K-0800	22	750	1900	-20 / +100	249
E2-0315	5.5	2100	530	-20 / +80	22	K1-0800	37	800	3550	-20 / +100	261
E4-0315	11	2400	660	-20 / +100	29	K2-0800	55	800	5800	-20 / +100	278
E6-0315	18.5	2400	1050	-20 / +100	30	G2K-0800	30	600	3000	-20 / +100	665
G2E0-0315	5.5	1600	530	-20 / +80	38	G2K2-0800	75	700	7000	-20 / +100	670
G2E2-0315	5.5	1600	530	-20 / +80	48	K-0900	30	650	3000	-20 / +100	306
G2E4-0315	11	1900	660	-20 / +100	60	K1-0900	45	700	3900	-20 / +100	316
G2E7-0315	30	2100	2000	-20 / +100	73	K2-0900	75	700	7000	-20 / +100	320
E0-0355	7.5	1800	840	-20 / +80	23	G2K-0900	37	500	3000	-20 / +100	801
E2-0355	7.5	1800	840	-20 / +80	29	G2K2-0900	75	600	7000	-20 / +100	806
E4-0355	15	2000	940	-20 / +100	41	K-1000	37	600	3000	-20 / +100	333
E6-0355	22	2000	1450	-20 / +100	42	K1-1000	45	600	3900	-20 / +100	356
G2E0-0355	7.5	1500	840	-20 / +80	49	K2-1000	75	650	7000	-20 / +100	360
G2E2-0355	7.5	1500	840	-20 / +80	63	G2K-1000	37	450	3000	-20 / +100	894
G2E4-0355	15	1700	940	-20 / +100	84	G2K2-1000	75	500	7000	-20 / +100	899
G2E7-0355	30	1900	2000	-20 / +100	98						
E0-0400	7.5	1600	840	-20 / +80	31						
E2-0400	7.5	1600	840	-20 / +80	38						
E4-0400	15	1800	940	-20 / +100	52						
E6-0400	22	1800	1450	-20 / +100	53						
G2E0-0400	7.5	1200	840	-20 / +80	66						
G2E2-0400	7.5	1200	840	-20 / +80	82						
G2E4-0400	15	1400	940	-20 / +100	108						
G2E7-0400	37	1800	2950	-20 / +100	133						
E0-0450	11	1400	1180	-20 / +80	42						
E2-0450	11	1400	1180	-20 / +80	50						
E4-0450	15	1500	1320	-20 / +100	66						
E6-0450	30	1500	1800	-20 / +100	67						
G2E0-0450	11	1000	1180	-20 / +80	90						
G2E2-0450	11	1000	1180	-20 / +80	107						
G2E4-0450	15	1200	1320	-20 / +100	135						
G2E7-0450	37	1400	2950	-20 / +100	159						

Description

Operating limits AT

AT	Permissible nominal motor power kW	Permissible fan speed 1/min	Permissible bearing load N	Permissible media temperature °C	Fan weight kg	AT	Permissible nominal motor power kW	Permissible fan speed 1/min	Permissible bearing load N	Permissible media temperature °C	Fan weight kg
S-7/7	3	2600	350	-20 / +85	5	S-18/13	7.5	1200	620	-20 / +85	27
SC-7/7	3	2600	350	-20 / +85	6	SC-18/13	7.5	1200	620	-20 / +85	33
G2L-7/7	3	2400	350	-20 / +85	11.7	AR-18/13	15	1200	1200	-20 / +100	33
SC2-7/7	3	2600	350	-20 / +85	13.7	G2L-18/13	7.5	1100	620	-20 / +85	57.8
S-9/7	3	2500	350	-20 / +85	6.6	SC2-18/13	7.5	1200	620	-20 / +85	69.8
SC-9/7	3	2500	350	-20 / +85	8.3	G2C-18/13	15	1200	1600	-20 / +100	91
AR-9/7	7.5	2500	620	-20 / +100	8.3	G3C-18/13	15	1000	1600	-20 / +100	118
G2L-9/7	3	2400	350	-20 / +85	14.9	S-18/18	7.5	1100	620	-20 / +85	32.5
SC2-9/7	3	2500	350	-20 / +85	18	SC-18/18	7.5	1100	620	-20 / +85	38.2
G2C-9/7	7.5	2500	1000	-20 / +100	23.5	AR-18/18	15	1100	1200	-20 / +100	38.2
S-9/9	3	2100	350	-20 / +85	7.9	G2L-18/18	7.5	800	620	-20 / +85	70.5
SC-9/9	3	2100	350	-20 / +85	9.5	SC2-18/18	7.5	800	620	-20 / +85	81.9
AR-9/9	7.5	2100	620	-20 / +100	9.5	G2C-18/18	15	1000	1600	-20 / +100	106
G2L-9/9	3	2000	350	-20 / +85	18.1	G3C-18/18	15	700	1600	-20 / +100	137
SC2-9/9	3	2100	350	-20 / +85	21.8	TIC-20/15	15	1300	1200	-20 / +100	71
G2C-9/9	7.5	2100	1000	-20 / +100	27	G2C-20/15	18.5	1300	1600	-20 / +100	137
S-10/8	3	2500	350	-20 / +85	8.3	G2CC2-20/15	45	1300	6500	-20 / +100	144
SC-10/8	3	2500	350	-20 / +85	9.8	G3C-20/15	18.5	900	1600	-20 / +100	315
AR-10/8	7.5	2500	620	-20 / +100	9.8	G3CC2-20/15	45	1100	6500	-20 / +100	319
G2L-10/8	3	2100	350	-20 / +85	18.5	TIC-20/20	15	1300	1200	-20 / +100	78
SC2-10/8	3	2500	350	-20 / +85	21.8	G2C-20/20	18.5	900	1600	-20 / +100	150
G2C-10/8	7.5	2500	1000	-20 / +100	27	G2CC2-20/20	45	1200	6500	-20 / +100	158
S-10/10	4	2000	350	-20 / +85	9.3	G3C-20/20	18.5	700	1600	-20 / +100	355
SC-10/10	4	2000	350	-20 / +85	11	G3CC2-20/20	45	800	6500	-20 / +100	359
AR-10/10	7.5	2000	620	-20 / +100	11	TIC-22/15	15	1300	1200	-20 / +100	73
G2L-10/10	3	1800	350	-20 / +85	21.1	G2C-22/15	18.5	1300	1600	-20 / +100	141
SC2-10/10	3	2000	350	-20 / +85	23.5	G2CC2-22/15	45	1300	6500	-20 / +100	148
G2C-10/10	7.5	1700	1000	-20 / +100	31	G3C-22/15	18.5	800	1600	-20 / +100	340
S-12/9	5.5	2000	620	-20 / +85	12.7	G3CC2-22/15	45	1000	6500	-20 / +100	347
SC-12/9	5.5	2000	620	-20 / +85	16	TIC-22/22	15	1200	1200	-20 / +100	82.5
AR-12/9	11	2000	1000	-20 / +100	16	G2C-22/22	18.5	900	1600	-20 / +100	165
G2L-12/9	5.5	1800	620	-20 / +85	28.2	G2CC2-22/22	45	1000	6500	-20 / +100	173
SC2-12/9	5.5	2000	620	-20 / +85	34.8	G3C-22/22	18.5	600	1600	-20 / +100	425
G2C-12/9	11	2000	1200	-20 / +100	45.5	G3CC2-22/22	45	800	6500	-20 / +100	438
G3C-12/9	11	2000	1200	-20 / +100	70	TIC-25/20	15	1000	1600	-20 / +100	93
S-12/12	5.5	1500	620	-20 / +85	15.2	G2C-25/20	18.5	700	1600	-20 / +100	195
SC-12/12	5.5	1500	620	-20 / +85	18.4	G2CC2-25/20	45	800	6500	-20 / +100	202
AR-12/12	11	1500	1000	-20 / +100	18.4	G3C-25/20	18.5	600	1600	-20 / +100	432
G2L-12/12	5.5	1400	620	-20 / +85	33.8	G3CC2-25/20	45	700	6500	-20 / +100	436
SC2-12/12	5.5	1500	620	-20 / +85	40.2	TIC-25/25	15	900	1600	-20 / +100	105
G2C-12/12	11	1400	1200	-20 / +100	51	G2C-25/25	18.5	700	1600	-20 / +100	202
G3C-12/12	11	1400	1200	-20 / +100	81	G2CC2-25/25	55	800	6500	-20 / +100	210
S-15/11	5.5	2000	620	-20 / +85	17.7	G3C-25/25	18.5	500	1600	-20 / +100	480
SC-15/11	5.5	2000	620	-20 / +85	20.9	G3CC2-25/25	55	600	6500	-20 / +100	484
AR-15/11	11	2000	1000	-20 / +100	20.9	TIC-28/20	18.5	800	1600	-20 / +100	120
G2L-15/11	5.5	1400	620	-20 / +85	39.7	G2C-28/20	18.5	600	1600	-20 / +100	210
SC2-15/11	5.5	2000	620	-20 / +85	46.1	G2CC2-28/20	55	800	7000	-20 / +100	218
G2C-15/11	11	1500	1200	-20 / +100	57.4	G3C-28/20	18.5	600	1600	-20 / +100	474
G3C-15/11	15	1500	1600	-20 / +100	90	G3CC2-28/20	55	650	7000	-20 / +100	478
S-15/15	5.5	1200	620	-20 / +85	20.6	TIC-28/28	18.5	800	1600	-20 / +100	127
SC-15/15	5.5	1200	620	-20 / +85	24.5	G2C-28/28	18.5	600	1600	-20 / +100	235
AR-15/15	11	1200	1000	-20 / +100	24.5	G2CC2-28/28	55	700	7000	-20 / +100	244
G2L-15/15	5.5	1100	620	-20 / +85	45.3	G3C-28/28	18.5	400	1600	-20 / +100	539
SC2-15/15	5.5	1200	620	-20 / +85	53.1	G3CC2-28/28	55	550	7000	-20 / +100	543
G2C-15/15	11	950	1200	-20 / +100	68	TIC-30/20	18.5	800	1600	-20 / +100	131
G3C-15/15	15	1000	1600	-20 / +100	108	G2C-30/20	18.5	600	1600	-20 / +100	245
						G2CC2-30/20	55	700	7000	-20 / +100	253
						G3C-30/20	18.5	550	1600	-20 / +100	505
						G3CC2-30/20	55	600	7000	-20 / +100	509
						TIC-30/28	18.5	800	1600	-20 / +100	138
						G2C-30/28	18.5	600	1600	-20 / +100	302
						G2CC2-30/28	55	700	7000	-20 / +100	310
						G3C-30/28	18.5	400	1600	-20 / +100	577
						G3CC2-30/28	55	500	7000	-20 / +100	581

Description

Operating limits RDH

	Permissible nominal motor power	Permissible fan speed	Permissible bearing load	Permissible media temperature	Fan weight		Permissible nominal motor power	Permissible fan speed	Permissible bearing load	Permissible media temperature	Fan weight
RDH	kW	1/min	N	°C	kg	RDH	kW	1/min	N	°C	kg
E0-0180	2.2	6800	420	-20 / +80	5.3	R-0710	15	1300	1800	-20 / +80	165
E2-0180	2.2	6800	420	-20 / +80	7.1	K-0710	22	1500	1900	-20 / +100	220
E0-0200	3	6000	420	-20 / +80	6.6	K1-0710	37	1700	3550	-20 / +100	240
E2-0200	3	6000	420	-20 / +80	8.5	K2-0710	55	2000	5800	-20 / +100	250
E4-0200	3	6800	420	-20 / +100	11.8	G2K-0710	30	1400	3000	-20 / +100	580
E0-0225	4	5800	420	-20 / +80	7.8	G2K2-0710	75	1700	7000	-20 / +100	586
E2-0225	4	5800	420	-20 / +80	9.9	K-0800	22	1200	1900	-20 / +100	270
E4-0225	4	6000	420	-20 / +100	13.6	K1-0800	37	1400	3550	-20 / +100	297
E0-0250	4	4600	420	-20 / +80	13.3	K2-0800	55	1650	5800	-20 / +100	305
E2-0250	4	4600	420	-20 / +80	15.7	G2K-0800	30	1150	3000	-20 / +100	747
E4-0250	5.5	5400	450	-20 / +100	21	G2K2-0800	75	1400	7000	-20 / +100	753
G2E4-0250	5.5	2900	450	-20 / +100	46	K-0900	30	1100	3000	-20 / +100	343
G2E7-0250	7.5	3500	660	-20 / +100	49	K1-0900	45	1250	3900	-20 / +100	355
E0-0280	5.5	4000	530	-20 / +80	17.8	K2-0900	75	1500	7000	-20 / +100	375
E2-0280	5.5	4000	530	-20 / +80	21	G2K-0900	37	1000	3000	-20 / +100	883
E4-0280	7.5	4700	660	-20 / +100	28	G2K2-0900	75	1100	7000	-20 / +100	889
G2E4-0280	5.5	3000	660	-20 / +100	61	K-1000	37	1000	3000	-20 / +100	415
G2E7-0280	11	3400	940	-20 / +100	65	K1-1000	45	1000	3900	-20 / +100	430
E0-0315	5.5	3500	530	-20 / +80	21	K2-1000	75	1300	7000	-20 / +100	450
E2-0315	5.5	3500	530	-20 / +80	25	G2K-1000	37	800	3000	-20 / +100	1048
E4-0315	7.5	4100	660	-20 / +100	32	G2K2-1000	75	800	7000	-20 / +100	1054
E6-0315	11	4500	1050	-20 / +100	34	X1-1120	55	900	8000	-20 / +100	610
G2E4-0315	5.5	2200	660	-20 / +100	70	X2-1120	110	1170	8000	-20 / +100	890
G2E7-0315	11	3300	1320	-20 / +100	79	X1-1250	75	800	8000	-20 / +100	950
E0-0355	7.5	3300	840	-20 / +80	29	X2-1250	132	1050	10000	-20 / +100	1140
E2-0355	7.5	3300	840	-20 / +80	34	X1-1400	90	720	9000	-20 / +100	1370
E4-0355	11	3800	940	-20 / +100	46	X2-1400	160	930	12500	-20 / +100	1390
E6-0355	15	4000	1450	-20 / +100	47						
G2E4-0355	7.5	2000	940	-20 / +100	104						
G2E7-0355	11	2600	1320	-20 / +100	109						
E0-0400	7.5	2700	840	-20 / +80	36						
E2-0400	7.5	2700	840	-20 / +80	42						
E4-0400	15	3100	940	-20 / +100	57						
E6-0400	22	3500	1450	-20 / +100	58						
G2E4-0400	7.5	1600	940	-20 / +100	126						
G2E7-0400	18.5	2800	1760	-20 / +100	144						
E0-0450	11	2500	1180	-20 / +80	50						
E2-0450	11	2500	1180	-20 / +80	57						
E4-0450	15	2800	1320	-20 / +100	73						
E6-0450	30	3200	1800	-20 / +100	75						
G2E4-0450	11	1400	1320	-20 / +100	160						
G2E7-0450	18.5	2200	1760	-20 / +100	176						
E0-0500	11	2100	1180	-20 / +80	62						
E2-0500	11	2100	1180	-20 / +80	70						
E4-0500	15	2350	1320	-20 / +100	90						
E6-0500	30	2650	1800	-20 / +100	92						
E7-0500	37	2800	2200	-20 / +100	110						
G2E4-0500	11	1200	1320	-20 / +100	197						
G2E7-0500	30	2200	3000	-20 / +100	235						
E0-0560	15	1950	1450	-20 / +80	79						
E2-0560	15	1950	1450	-20 / +80	92						
E4-0560	18.5	2100	1760	-20 / +100	141						
E6-0560	30	2400	2550	-20 / +100	148						
E7-0560	37	2600	3700	-20 / +100	153						
G2E4-0560	11	1100	1760	-20 / +100	301						
G2E7-0560	30	1900	3000	-20 / +100	336						
R-0630	15	1600	1450	-20 / +80	119						
K-0630	18.5	1700	1760	-20 / +100	173						
K1-0630	30	2000	2550	-20 / +100	180						
K2-0630	45	2300	3700	-20 / +100	185						
G2K-0630	15	1000	1760	-20 / +100	370						
G2K2-0630	37	1400	3000	-20 / +100	408						

Description

Operating limits RZR											
	Permissible nominal motor power	Permissible fan speed	Permissible bearing load	Permissible media temperature	Fan weight		Permissible nominal motor power	Permissible fan speed	Permissible bearing load	Permissible media temperature	Fan weight
RZR	kW	1/min	N	°C	kg	RZR	kW	1/min	N	°C	kg
11-0200	7.5	7490	480	-20 / +80	11	11-0800	22	1300	2150	-20 / +80	250
12-0200	7.5	7490	480	-20 / +80	12	14-0800				-20 / +80	327
19-0200	7.5	7490	480	-20 / +80	13	15-0800	55	1470	4500	-20 / +80	250
11-0225	7.5	6640	500	-20 / +80	13	19-0800	55	1470	4500	-20 / +80	280
12-0225	7.5	6640	500	-20 / +80	15	18-0800	55	1700	4500	-20 / +80	289
19-0225	7.5	6640	500	-20 / +80	16	13-0800	55	1700	4500	-20 / +80	319
11-0250	7.5	5250	540	-20 / +80	15	11-0900	22	1000	2180	-20 / +80	358
12-0250	7.5	5250	540	-20 / +80	17	14-0900				-20 / +80	356
19-0250	7.5	5970	540	-20 / +80	17	15-0900	75	1430	6000	-20 / +80	358
11-0280	7.5	5235	630	-20 / +80	20	19-0900	75	1430	6000	-20 / +80	396
12-0280	7.5	5235	630	-20 / +80	23	18-0900	75	1540	6000	-20 / +80	409
19-0280	11	5300	850	-20 / +80	23	13-0900	75	1540	6000	-20 / +80	447
11-0315	7.5	4418	660	-20 / +80	24	11-1000	22	800	2200	-20 / +80	416
12-0315	7.5	4418	660	-20 / +80	27	14-1000				-20 / +80	435
14-0315				-20 / +80	35	15-1000	75	1140	6200	-20 / +80	416
19-0315	11	4730	910	-20 / +80	28	19-1000	75	1140	6200	-20 / +80	462
11-0355	7.5	3200	720	-20 / +80	33	18-1000	75	1400	6200	-20 / +80	471
12-0355	7.5	3200	720	-20 / +80	36	13-1000	75	1400	6200	-20 / +80	517
14-0355				-20 / +80	50	13-1120	132	1220	10000	-20 / +80	710
19-0355	11	4187	950	-20 / +80	39	13-1250	160	1100	15000	-20 / +80	1100
11-0400	7.5	3027	1020	-20 / +80	43	13-1400	200	1000	20000	-20 / +80	1390
12-0400	7.5	3027	1020	-20 / +80	49	13-1600	250	860	20000	-20 / +80	1870
14-0400				-20 / +80	56						
15-0400	30	3600	1970	-20 / +80	61						
19-0400	30	3600	1970	-20 / +80	66						
18-0400	30	3600	1970	-20 / +80	70						
13-0400	30	3600	1970	-20 / +80	75						
11-0450	7.5	2504	1080	-20 / +80	54						
12-0450	7.5	2504	1080	-20 / +80	60						
14-0450				-20 / +80	82						
15-0450	30	3360	2000	-20 / +80	73						
19-0450	30	3360	2000	-20 / +80	82						
18-0450	30	3360	2000	-20 / +80	83						
13-0450	30	3360	2000	-20 / +80	92						
11-0500	7.5	2050	1140	-20 / +80	65						
12-0500	7.5	2050	1140	-20 / +80	72						
14-0500				-20 / +80	98						
15-0500	30	2920	2040	-20 / +80	94						
19-0500	30	2920	2040	-20 / +80	105						
18-0500	30	2920	2040	-20 / +80	105						
13-0500	30	2920	2040	-20 / +80	116						
11-0560	15	2205	1830	-20 / +80	103						
12-0560	15	2205	1830	-20 / +80	109						
14-0560				-20 / +80	156						
15-0560	37	2400	2950	-20 / +80	125						
19-0560	37	2400	2950	-20 / +80	136						
18-0560	37	2490	2950	-20 / +80	140						
13-0560	37	2490	2950	-20 / +80	151						
11-0630	15	1838	1960	-20 / +80	124						
12-0630	15	1838	1960	-20 / +80	132						
14-0630				-20 / +80	185						
15-0630	37	1880	3000	-20 / +80	149						
19-0630	37	1880	3000	-20 / +80	162						
18-0630	37	2380	3000	-20 / +80	167						
13-0630	37	2380	3000	-20 / +80	180						
11-0710	18.5	1627	2080	-20 / +80	177						
12-0710	18.5	1627	2080	-20 / +80	194						
14-0710				-20 / +80	230						
15-0710	55	2000	4400	-20 / +80	201						
19-0710	55	2000	4400	-20 / +80	225						
18-0710	55	2120	4400	-20 / +80	230						
13-0710	55	2120	4400	-20 / +80	254						

Description

Performance



The curves show the total pressure rise p_F as a function of the volume flow rate q_V plotted in a double logarithmical diagram. The throttle curves (system resistance parabolas) are then represented by straight lines.

The curves are established with a reference density of $\rho_1 = 1.2 \text{ kg/m}^3$ at the fan intake.

The pressure and impeller input power are directly proportional to density ρ_1 .

Outlet velocity v_2 and the dynamic pressure p_{d2} refer to the flanged cross section area at the fan discharge.

$$p_{sF} = p_F - p_{d2}$$

The increase in static pressure p_{sF} when a duct is fitted to the discharge (Installation B) can be calculated from the equation:

$$p_{sF} = p_F - f_{pd} \times p_{d2}$$

Where no duct is fitted (Installation A) there is no static pressure regain. The increase in pressure p_{sF} can be calculated from formula:

The limits of application indicated in the fan curves (by blue dotted lines) outline the recommended functional range of the fans, where a stable operation with high efficiency can be expected.

The efficiency marked on the straight system lines is only applicable at the maximum fan speed N_{max} ; it decreases with lower fan speed.

	ADH		RDH		RZR
	0160/-0560	0630/-1000	0180/-1000	1120/-1400	1120/-1600
f_{pd}	1.9	1.66	1.74	1.15	1.00

RZR 0200/-1000 see fan curves

	AT									
	7/7	9/7	9/9	10/8	10/10	12/9	12/12	15/11	15/15	18/13
f_{pd}	1.96	2.16	1.95	2.08	2.24	1.83	1.94	2.10	2.17	1.98
	18/18	20/15	20/20	22/15	22/22	25/20	25/25	28/20	30/20	30/28
f_{pd}	1.86	2.48	2.26	2.46	2.42	2.48	2.49	2.37	2.44	2.41

$$\eta_a = \eta_r \times \frac{P_r}{P_r + P_b}$$

Efficiency ADH / AT / RDH

The performance curves P_r of the fan curve diagram correspond to the absorbed power of the fan impeller.

The vertical scales shown at the right side of the diagram indicate the bearing power loss P_b of the different fan executions and depending on the fan speed.

The resulting power absorbed on fan shaft is found by adding the absorbed power P_r of the fan impeller and the bearing power losses P_b . As a consequence the resulting fan efficiency is to be calculated according to the formula:

Efficiency RZR

The actual efficiency value for a fan speed lower N_{max} is calculated by multiplying the efficiency at N_{max} by the factor f_η for the appropriate speed. (f_η to be found with the scale on the right side of the page).

$$P_N \geq P_a \times f_p$$

Motor nominal power ADH / AT / RDH / RZR

To determine the motor rating P_N , the fan absorbed shaft power P_r must be increased by a safety factor to accommodate belt drive losses and possible fan speed differences.

The factor f_p is an estimated value. As an approximate value, the figures below are suggested.

ADH / AT		RDH / RZR	
$P_a < 0.75 \text{ kW}$	$f_p = 1.30$	$P_a < 0.75 \text{ kW}$	$f_p = 1.25$
$P_a \geq 0.75 \text{ kW} \dots < 10 \text{ kW}$	$f_p = 1.20$	$P_a \geq 0.75 \text{ kW} \dots < 10 \text{ kW}$	$f_p = 1.15$
$P_a \geq 10 \text{ kW}$	$f_p = 1.15$	$P_a \geq 10 \text{ kW}$	$f_p = 1.12$

Description

Performance

$$t_A = \frac{8 \times J \times N^2}{P_N \times 10^6}$$

When selecting the motor, the run up time must be checked whether being within permitted limits.

The run up time can be worked out approximately according to the following formula: where:

t_A = run time in seconds

J = moment of inertia in kgm^2

N = fan speed in rpm

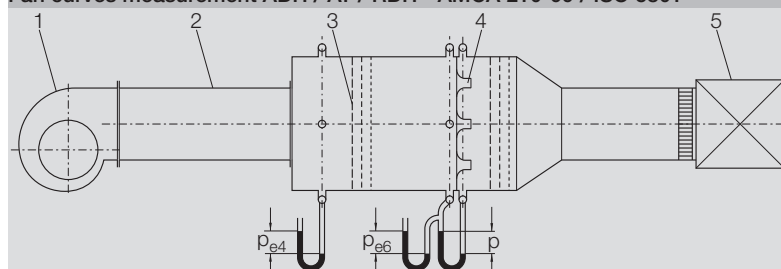
P_N = nominal motor power in kW

(Impeller weight and moment of inertia can be found on the performance diagram for each fan size.)

If t_A exceeds the motor manufacturer's recommendation or the tripping period of the electrical gear, a larger motor must be used or the starting gear has to be selected for heavy starting.

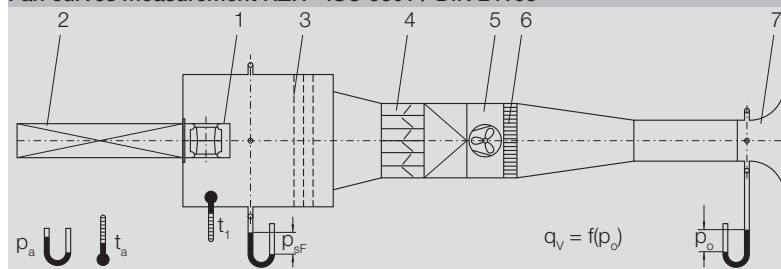
- 1 = Test fan
- 2 = Discharge duct
- 3 = Screen
- 4 = Multiple nozzles
- 5 = Auxiliary fan and damper

Fan curves measurement ADH / AT / RDH - AMCA 210-99 / ISO 5801



- 1 = Test fan
- 2 = Discharge duct acting as a pressure regain unit
- 3 = Screen
- 4 = Variable damper
- 5 = Compensating fan
- 6 = Flow straightener
- 7 = Inlet cone

Fan curves measurement RZR - ISO 5801 / DIN 24163



Performance data of twin fan units

The performance data of twin fan units (Identification "G2") can be calculated, starting from that in the corresponding operating point of a single fan, with the following formulas:

- Fan Pressure: $p_{F\ G2} = p_F \times 1$
- Volume flow rate: $q_{V\ G2} = q_V \times 2$
- Fan shaft power: $P_{a\ G2} = P_a \times 2,15$
- Rotational speed: $N_{G2} = N \times 1,05$
- Sound: $L_{WA\ G2} = L_{WA} + 3\ \text{dB}$

AMCA



Nicotra Gebhardt S.p.A. (Italy) certifies that

ADH E fans of the E0, E2, E4, E6 and E7 versions, from sizes 0160 to 0560, RDH E fans of the E0, E2, E4, E6 and E7 versions, from sizes 0180 to 0560, ADH and RDH fans of the L, R, K, K1 and K2 versions, from sizes 0630 to 1000, AT fans of the S, SC, C and TIC versions, from sizes 7/7 to 30/28, shown herein are licensed to bear the AMCA Seal.

Nicotra Gebhardt GmbH (Germany) certifies that RZR fans of the 11, 12, 15 versions, from sizes 0355 to 1000, shown herein are licensed to bear the AMCA Seal.

The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

Air performance with Installation Type "A" ("with free outlet"), and that of the twin fan versions G2L, G2R, G2K, G2K2, G2E0, G2E2, G2E4, G2E7, SC2, G2C and G2C-C2, and that of the triple fan versions G3C and G3C-C2 in any installation type is not AMCA licensed.

Description

Sound



Noise measurements are undertaken in accordance with DIN 45635-38 "Noise Measurement of Machines: Fans".

Induct Method for the Discharge

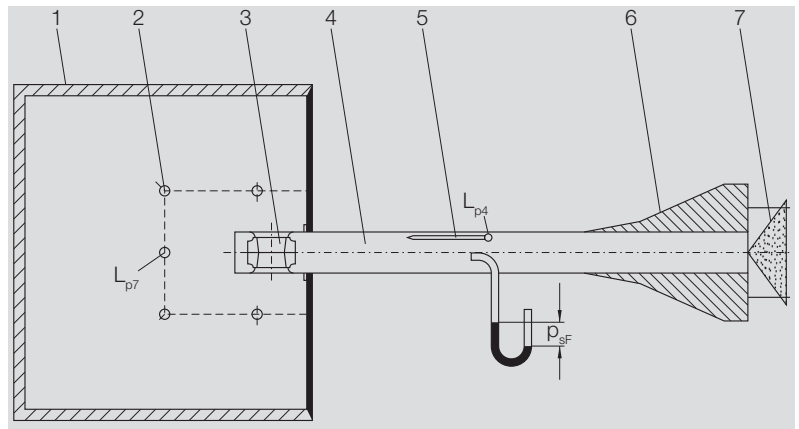
The induct method is specified with DIN EN ISO 5136. It determines the sound power emitted at discharge of a test fan.

The test duct, as a main feature, is equipped with an anechoic termination fitted to avoid end reflection going back into the duct.

Envelope Method – Free Inlet

The Envelope Method is described with DIN 45635-1 and -38, which specifies a hypothetical box shaped measurement surface with several prescribed measurement points.

- 1 = Air permeable sound screen
- 2 = Microphone positions for envelope method
- 3 = Test fan
- 4 = Measuring duct
- 5 = Microphone with sampling tube
- 6 = Anechoic termination
- 7 = Step less adjustable throttle



The sound data of the fan curves are given as "A" weighted sound power levels.

A-sound power level RZR

The "A" weighted sound power level are identical for fan intake (L_{WA7}) as well as for fan discharge (L_{WA4}).

$$L_{WA4} = L_{WA7} + \Delta L_{Wrel4}(A)$$

A-sound power level ADH / AT / RDH

The "A" weighted sound power level (see curves) are apply for fan intake (L_{WA7}). The fan discharge sound power level L_{WA4} is obtained by calculating:

The correction value $\Delta L_{Wrel4}(A)$ is found with the table (left below) at the corresponding fan curve page (ADH / RDH) by introducing fan speed and flow rate.

ADH / AT / RDH:

$$L_{Wfc7} = L_{WA7} + L_{Wrel7}$$

$$L_{Wfc4} = L_{WA7} + L_{Wrel4}$$

RZR:

$$L_{Wfc7} = L_{WA4;7} + L_{Wrel7}$$

$$L_{Wfc4} = L_{WA4;7} + L_{Wrel4}$$

An approximation of the "A" weighted sound pressure levels L_{pA7}/L_{pA6} at a distance of 1 m may be obtained by subtracting 7 dB from the relative "A" weighted sound power levels.

If should be noted that site acoustics, duct design, reverberation, natural frequencies etc. can all influence noise to a greater or lesser extent.

For more accurate calculations to determine noise protection measures, the sound power level in each octave band is of more value:

The noise correction data L_{Wrel4} und L_{Wrel7} , in function of the fan speed and flow rate, are to be found with the corresponding table on the fan curve page.

In some cases the noise level - calculated by this way - may in some cases be higher than expected at the blade passing frequency.

f_s = Blade passing frequency in Hz

N = Fan speed in 1/min

z = No of blades (see curve pages)

$$f_{BP} = \frac{N \times z}{60}$$

Description

Sound

$$L_{Wfc6} = L_{Wfc4} + L_{Wer}$$

For a free discharge situation i.e. without duct connected the sound level will be lower because of an end reflection.

This is specially true for low frequencies. For this case a correction may be applied to L_{Wfc4} of the first 3 octave bands as follows:

ADH / AT / RDH / RZR	f_c	63	125	250	Hz
0160/-0280	L_{Wer}	-14	-9	-4	dB
0315/-0800	L_{Wer}	-9	-4	-2	dB
0900/-1600	L_{Wer}	-4	-1	0	dB

Explosion protection according to ATEX



Fans for use in explosive atmospheres must comply with EC Directive 94/9/EG (ATEX 95). Equipment in Group II (all applications except mining) is categorised in accordance with the required degree of safety for designated use in equipment categories 1, 2 and 3. Depending on suitability, a distinction is in addition made between G (gas, vapours) and D (dust).

Harmonised European standards and national guidelines must be observed. Equipment in class 2 and 3 is not subject to compulsory specifications nor to type testing. The manufacturer declares conformity with the EC directive.

For the standard designs of our fans, the following ignition sources are essentially to be considered:

- ▶ Hot surfaces, e.g. due to heat of friction or seizure of a bearing or due to blockage of an impeller
- ▶ Rubbing-, grinding- or beating sparks, e.g. as a result of contact of the impeller with stationary components
- ▶ Sparks resulting from discharge of electrostatically loaded, non-conducting components, e.g. of plastic panels, surfaces with strong layer thickness.

Preconditions for operating:

- ▶ In the proximity of the motor, the temperature limits -20 °C and +40 °C must not be exceeded.
- ▶ The temperature limits of -20 °C und +60 °C for the flow medium must not be exceeded. If the temperature of the flow medium should exceed +60 °C on the pressure side, then the fan must be switched off!
- ▶ The fans may only be employed with a horizontal shaft.
- ▶ The fans are to be protected against the falling-in or sucking-in of foreign objects. Protection guards must be ordered separately as accessories.
- ▶ On the machine plate the max. permitted fan speed is indicated.
- ▶ Fans for operation in ex-hazardous areas are marked as such on the machine plate and they are accompanied by an EU conformity declaration and with operation and maintenance instructions.

The operation and maintenance instructions have strictly to be observed.

The conformity is always related to the fan system supplied.

If the fan is completed with motor and belt drive by the customer the conformity of this fan set has to be declared at new.

Fans of the series ADH / AT / RDH in ATEX-Execution on request.

Description

Operating limits RZR ATEX

RZR	Permissible fan speed	Permissible shaft power	Permissible nominal motor power
	1/min	kW	kW
11-0200-2G	6513	4.7	5.5
12-0200-2G	6513	4.7	5.5
19-0200-2G	6513	4.7	5.5
11-0225-2G	5774	4.7	5.5
12-0225-2G	5774	4.7	5.5
19-0225-2G	5774	4.7	5.5
11-0250-2G	4620	4.7	5.5
12-0250-2G	4620	4.7	5.5
19-0250-2G	5076	4.7	5.5
11-0280-2G	4582	6.5	7.5
12-0280-2G	4582	6.5	7.5
19-0280-2G	4582	9.7	11
11-0315-2G	3793	6.5	7.5
12-0315-2G	3793	6.5	7.5
19-0315-2G	4113	9.7	11
11-0355-2G	3110	6.5	7.5
12-0355-2G	3110	6.5	7.5
19-0355-2G	3555	9.7	11
11-0400-2G	2552	6.5	7.5
12-0400-2G	2552	6.5	7.5
13-0400-2G	3145	16.4	18.5
18-0400-2G	2913	9.7	11
11-0450-2G	2111	6.5	7.5
12-0450-2G	2111	6.5	7.5
13-0450-2G	2922	21.3	24
18-0450-2G	2410	9.7	11
11-0500-2G	1752	6.5	7.5
12-0500-2G	1752	6.5	7.5
13-0500-2G	2534	21.3	24
18-0500-2G	2000	9.7	11
11-0560-2G	1660	9.7	11
12-0560-2G	1660	9.7	11
13-0560-2G	2163	26.6	30
18-0560-2G	1660	9.7	11
11-0630-2G	1367	9.7	11
12-0630-2G	1367	9.7	11
13-0630-2G	2055	32.8	37
18-0630-2G	1367	9.7	11
11-0710-2G	1128	9.7	11
12-0710-2G	1128	9.7	11
13-0710-2G	1825	40.9	45
18-0710-2G	1128	9.7	11
11-0800-2G	927	9.7	11
18-0800-2G	927	9.7	11
13-0800-2G	1474	40.9	45
11-0900-2G	767	9.7	11
18-0900-2G	767	9.7	11
13-0900-2G	1339	68	75
11-0100-2G	650	9.7	11
18-1000-2G	650	9.7	11
13-1000-2G	1217	68	75
13-1120-2G	1026	83.6	92
13-1250-2G	957	122	135
13-1400-2G	870	145	160
13-1600-2G	748	181	200

Description

Symbol / Unit / Definition					
The following symbols are used in this catalogue:			The following symbols are used in this catalogue:		
A-A	-	Operational range (free discharge)	P_N	kW	Motor power (nominal)
A_2	mm ²	Fan outlet area	p_{sF}	Pa	Fan static pressure (free discharge)
b	mm	Deflection of belt under test force	Δp	Pa	Differential pressure
D_r	mm	Impeller diameter	Δp_0	Pa	Pressure difference at the inlet measuring device
f_{BP}	Hz	Blade passing frequency	$\Delta p_{Dü}$	Pa	Pressure difference at the inlet cone
f_c	Hz	Octave centre frequency	q_v	m ³ /h	Volume flow rate
f_p	-	Motor size correction factor	q_{vopt}	m ³ /h	Volume flow at optimum efficiency
F_p	N	Test force	R_W	J/kg×K	Specific gas constant
f_{pd}	-	Dynamic pressure correction factor (free discharge)	t	°C	Temperature of flow medium
f_η	-	Correction at actual efficiency	t_a	°C	Temperature of discharge air in test chamber
J	kgm ²	Moment of inertia	t_A	s	Acceleration time
K	m ² s/h	Calibration factor for volumeter	t_1	°C	Air temperature
L_T	mm	Centre distance	Θ	K	Thermodynamic temperature at fan inlet
L_{Mg}	mm	Measuring marks before tensioning (flat belts)	u	m/s	Tip speed
L_{Mu}	mm	Measuring marks after tensioning (flat belts)	v_2	m/s	Outlet velocity
L_{pA4}	dB	A weighted sound pressure level (discharge)	v_{m2}	m/s	Average fluid velocity at discharge
L_{pA7}	dB	A weighted sound pressure level (inlet)	X	mm	Pulley position on shaft extension relative to bearing
L_{WA}	dB	A weighted sound power level	z	-	No. of blades
L_{WA4}	dB	In duct sound power level (discharge)	ε^*	mm	Stretching value of flat belt
L_{WA7}	dB	Casing and free inlet sound power level	η_a	%	Total efficiency at max speed
L_{Wfc4}	dB	Discharge sound power in the octave bands	η_r	%	Impeller efficiency
L_{Wfc7}	dB	Inlet sound power in the octave band	η_s	%	Fan total efficiency at max speed
L_{Wrel4}	dB	Relative sound power (discharge)	ρ	kg/m ²	Air density
L_{Wrel7}	dB	Relative sound Power (inlet)	ρ_1	kg/m ²	Air density at fan inlet
L_{10h}	h	Nominal bearing life			
m	kg	Mass			
N	1/min	Fan speed			
N_{max}	1/min	Maximum fan speed			
p_a	Pa	Atmospheric pressure			
P_a	kW	Absorbed fan power			
P_b	kW	Bearing power losses			
p_{d2}	Pa	fan dynamic pressure at discharge			
p_F	Pa	Total fan pressure			

Notes

Quality management system

DIN EN ISO 9001

Nicotra Gebhardt quality is the result of a continuous company policy intended to guarantee that our product properties and features are clearly superior to comparable products.

This already established company maxim led in April 1985 to the auditing and certification of the existing quality management system. In the following years it was updated to match the changing international and European standards. Modern production processes, monitored by our quality management system, guarantee a high repeat accuracy in production.

This ongoing high standard of quality permits the establishing of the performance data in classes of accuracy in accordance with DIN 24166.

The narrow tolerances ensure a high level of data reliability for our products.

Machine Safety

The fans contained in this catalogue are not machines in the sense of the EC Machine Directive. They are delivered with a manufacturer "Declaration of incorporation".

The assessment of the dangers associated with the fan and necessary safety measures are based on the VDMA Unit sheet 24167: Fans; Safety requirements.

The operating instructions give which safety measures are still necessary on assembly to ensure that the fans comply with the Machine Directive 2006/42/EC.

Catalogue data

We reserve the right to change any measurements and technical data in this catalogue in accordance with further development of our products. All information valid at the time of printing.

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