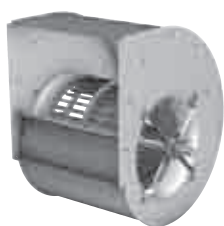


Centrifugal Fans belt driven

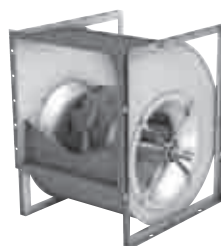
Issue 1.2 EN

motralec

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NICOTRA | Gebhardt



fan|tastic solutions



Nicotra Gebhardt S.p.A. (Italy) certifies that
 ADH-E fans of the E0, E2, E4, E6 and E7 versions, from 0160 to 0560 sizes, pages 6 - 29,
 ADH fans of the L, R, K, K1 and K2 versions, from 0630 to 1000 sizes, pages 30 - 39,
 RDH-E fans of the E0, E2, E4, E6 and E7 versions, from 0180 to 0560 sizes, pages 52 - 73,
 RDH fans of the L, R, K, K1 and K2 versions, from 0630 to 1000 sizes, pages 74 - 83,
 shown herein are licensed to bear the AMCA Seal.

Nicotra Gebhardt GmbH (Germany) certifies that
 RZR fans of the 11, 12, 15 versions, from 0355 to 1000 sizes, pages 112 - 131, 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 Programme.

Air performance with Installation Type "A" ("with free outlet") and that of the twin versions G2L, G2R, G2K, G2K2, G2E0, G2E2, G2E4, G2E7 in any Installation Type is not AMCA licensed.

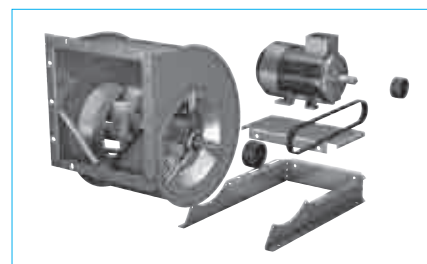
Nicotra Gebhardt stands for:



■ 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

A strong provider for many optimal solutions:

The Nicotra-Gebhardt portfolio

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

RDH-E / RDH



double-inlet
backward-curved impeller geometry

RZR *rotavent*



double-inlet
hollow aerofoil impeller geometry

When everything fits:

100% compatible product series

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 –

The compact base frame from Nicotra-Gebhardt



Greater system efficiency

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

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.

High performance centrifugal fan ADH

- double inlet for belt drive
- impeller with forward curved blades of galvanised sheet steel
- Volume up to 300,000 m³/h
- Pressure up to 2,200 Pa



ADH

High performance centrifugal fan RDH

- double inlet for belt drive
- centrifugal impeller with backward inclined blades
- Volume up to 290,000 m³/h
- Pressure up to 3,500 Pa



RDH

High performance centrifugal fan RZR *rotavent*

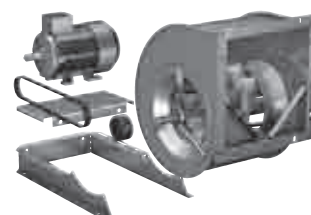
- double inlet for belt drive
- high performance impeller with backward curved hollow section true aerofoil blades
- Volume up to 300,000 m³/h
- Pressure up to 3,500 Pa



RZR

Fittings / Accessories

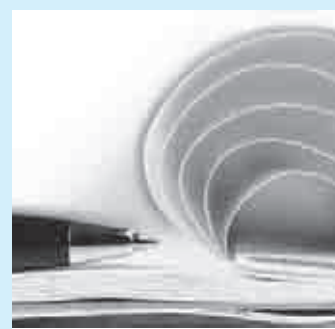
- complete system accessories
- miscellaneous fittings



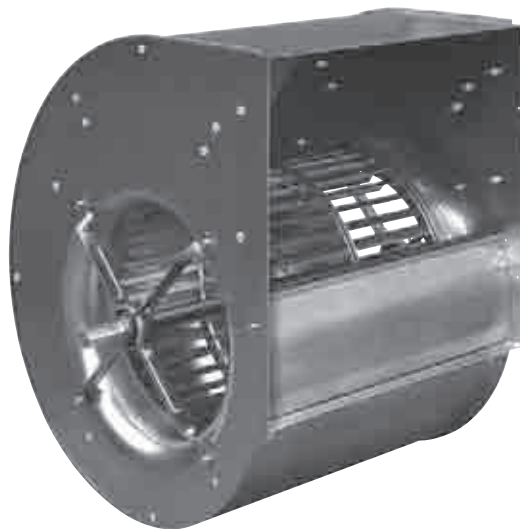
Accessories

Description

- technical description
- operating limits



Description



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-aerofoil blade geometry-*rotavent®*).
- 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 +80C resp. +100C. 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
- Galvanised 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).	

Curves

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).

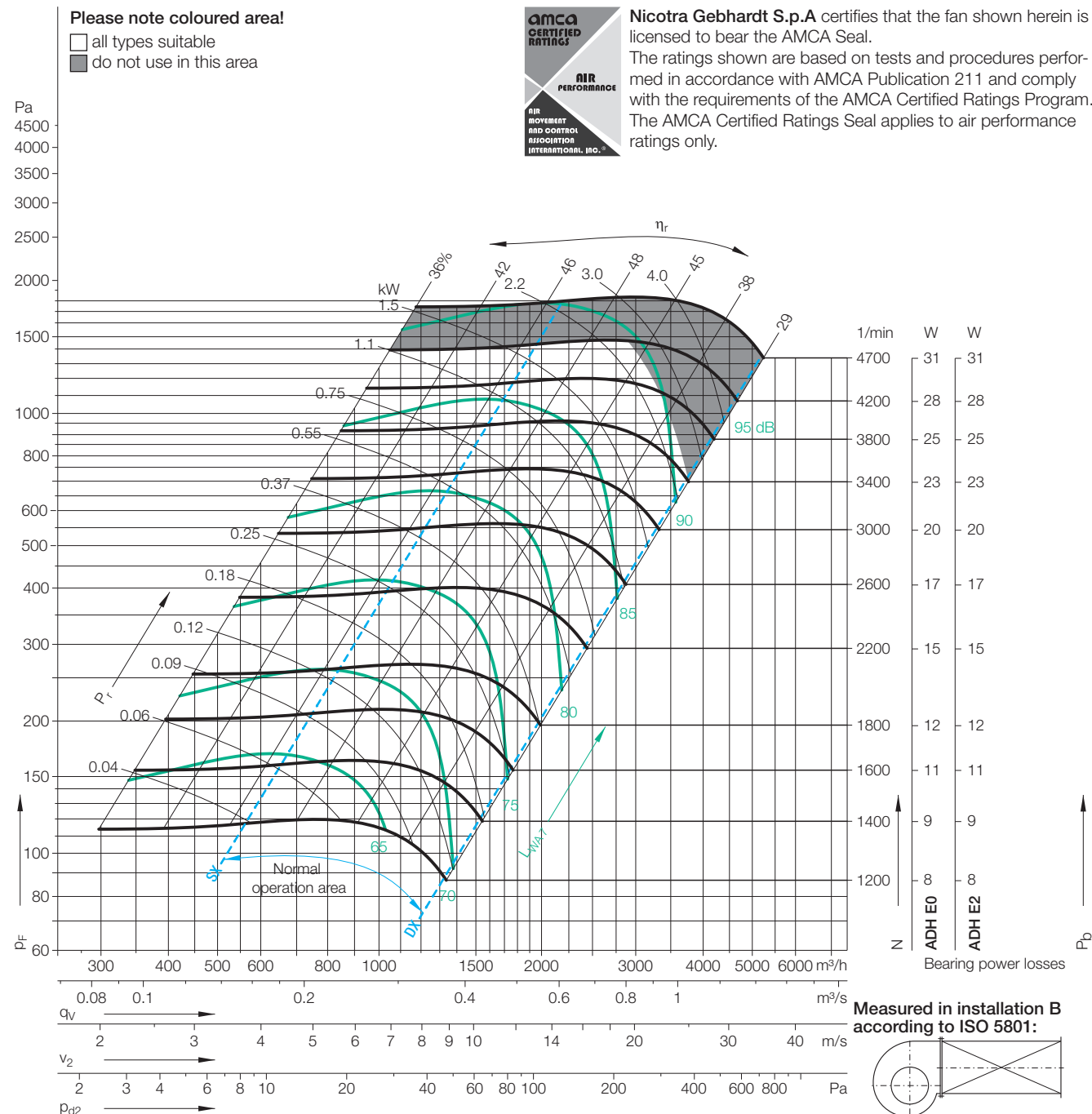
Technical Data

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	



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

Duty point	Speed	$\Delta L_{Wrel4}(A)$
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

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_m

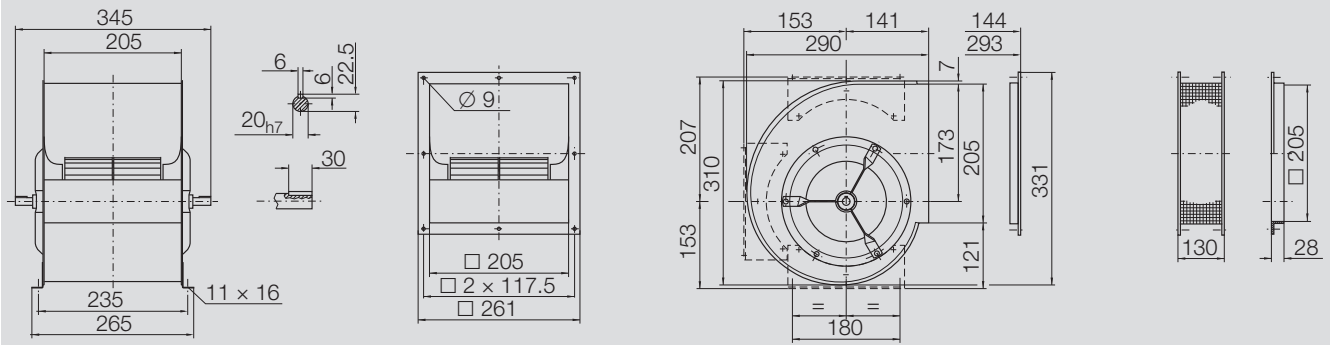
63	125	250	500	1000	2000	4000	8000	Hz
9	8	6	-3	-5	-8	-10	-13	dB
9	8	1	-4	-6	-9	-11	-16	dB
10	5	-1	-4	-7	-9	-13	-19	dB
8	6	4	-3	-5	-8	-10	-12	dB
7	6	-0	-4	-6	-9	-10	-15	dB
7	4	-2	-4	-7	-9	-12	-18	dB
-2	2	4	-4	-6	-6	-8	-8	dB
0	5	-3	-5	-5	-8	-8	-11	dB
5	1	-4	-6	-6	-8	-9	-13	dB

Dimensions

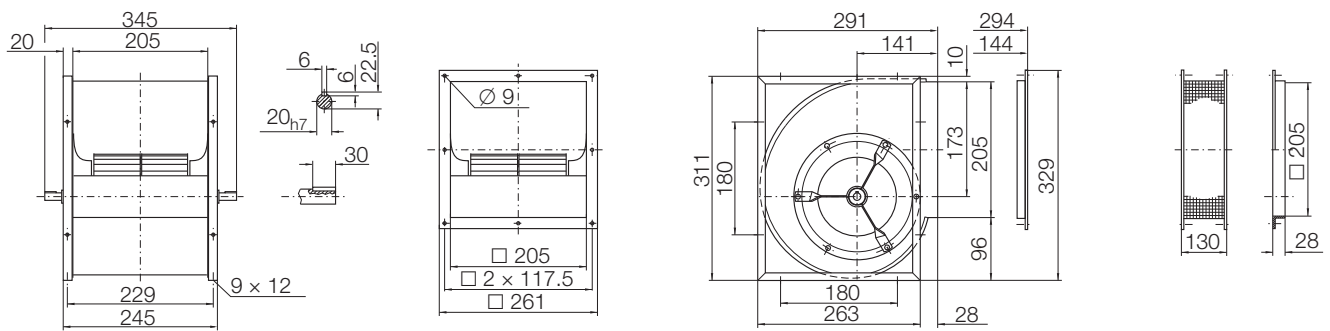
ADH E_-0160

Dimensions in mm, subject to change.

ADH E0-0160 5 kg



ADH E2-0160 6.6 kg



Curves

ADH 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).

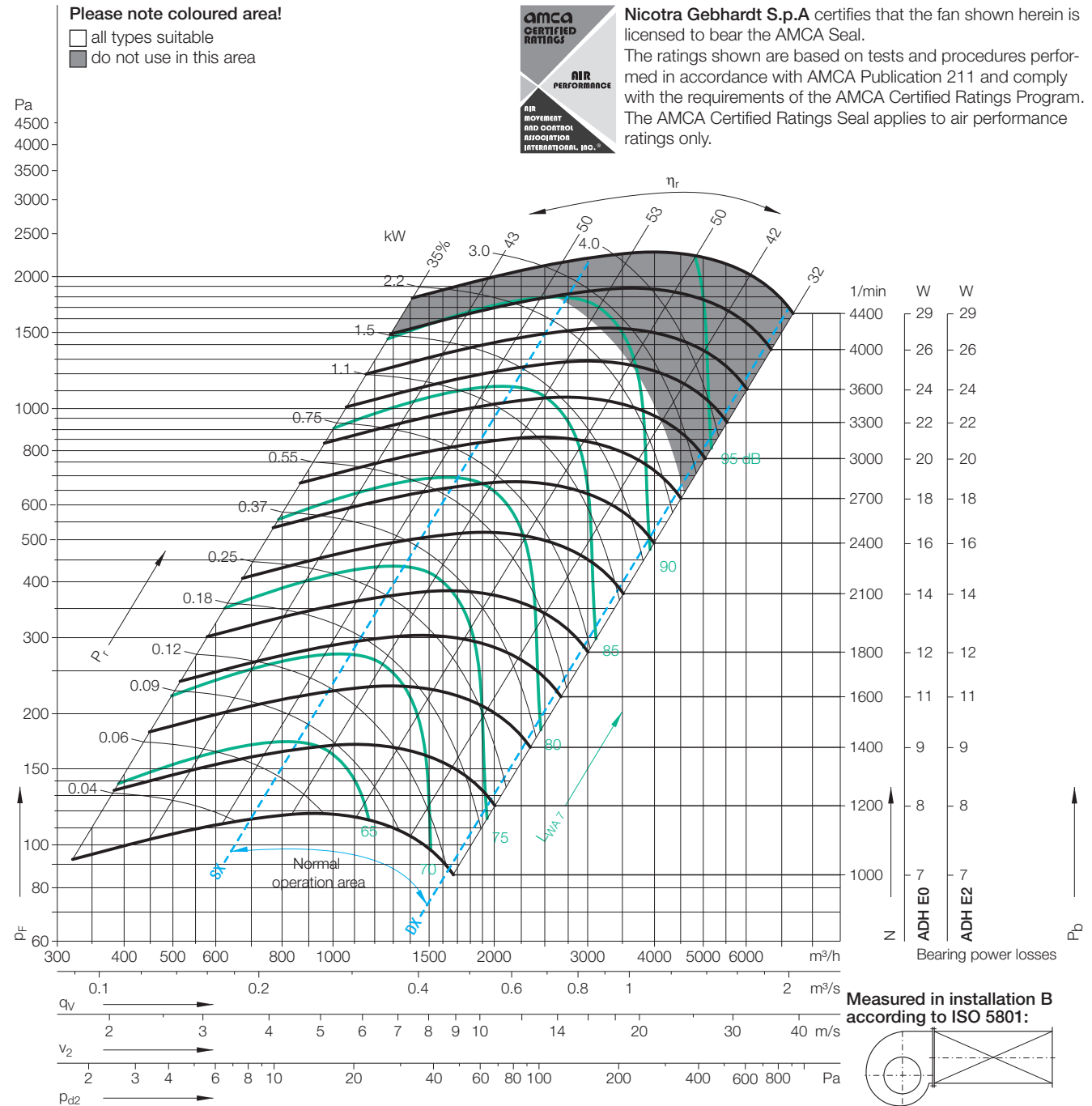
Technical Data

Impeller Data

Impeller diameter	D_r	180	mm
Number of blades	z	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	



Duty point	Speed	$\Delta L_{Wrel4}(A)$
	1/min	dB
SX	3500	3
SX	2400	2
SX	1400	1
$q_{V,opt}$	3500	3
$q_{V,opt}$	2400	2
$q_{V,opt}$	1400	1
DX	3500	2
DX	2400	1
DX	1400	0

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

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

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

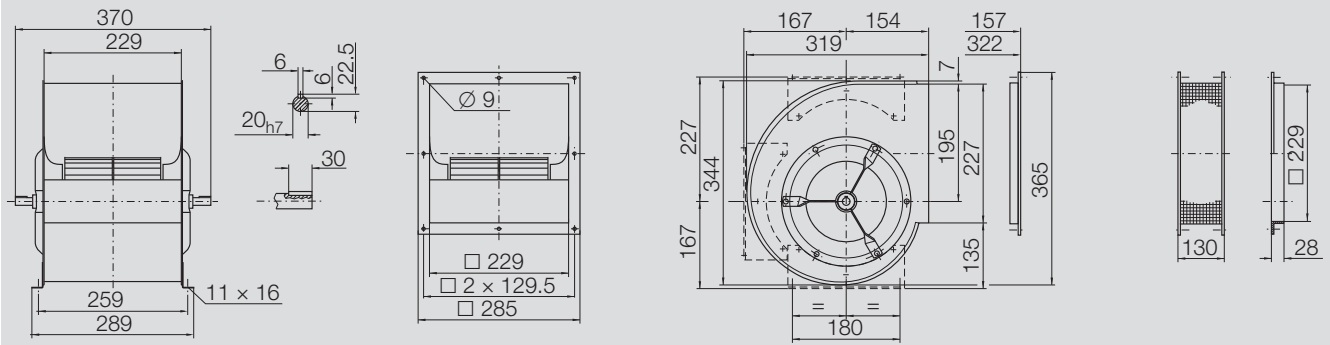
63	125	250	500	1000	2000	4000	8000	Hz
7	10	5	-1	-5	-5	-8	-11	dB
10	8	2	-2	-5	-6	-8	-13	dB
11	5	0	-4	-4	-7	-10	-16	dB
4	9	4	-1	-6	-5	-7	-10	dB
8	6	2	-3	-5	-6	-8	-12	dB
9	4	-1	-4	-4	-6	-10	-15	dB
-5	3	1	-4	-7	-4	-6	-8	dB
-1	3	-4	-5	-6	-4	-7	-10	dB
4	-2	-5	-6	-4	-7	-9	-13	dB

Dimensions

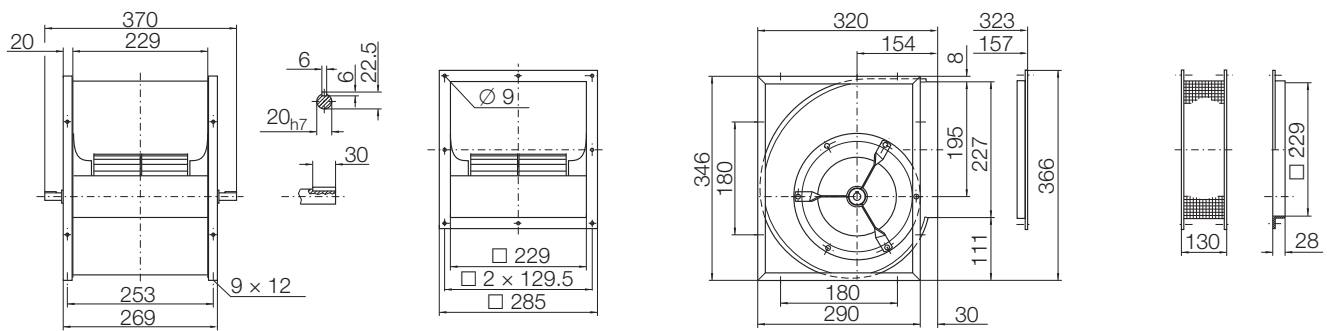
ADH E_-0180

Dimensions in mm, subject to change.

ADH E0-0180 6 kg



ADH E2-0180 7.8 kg



Curves

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).

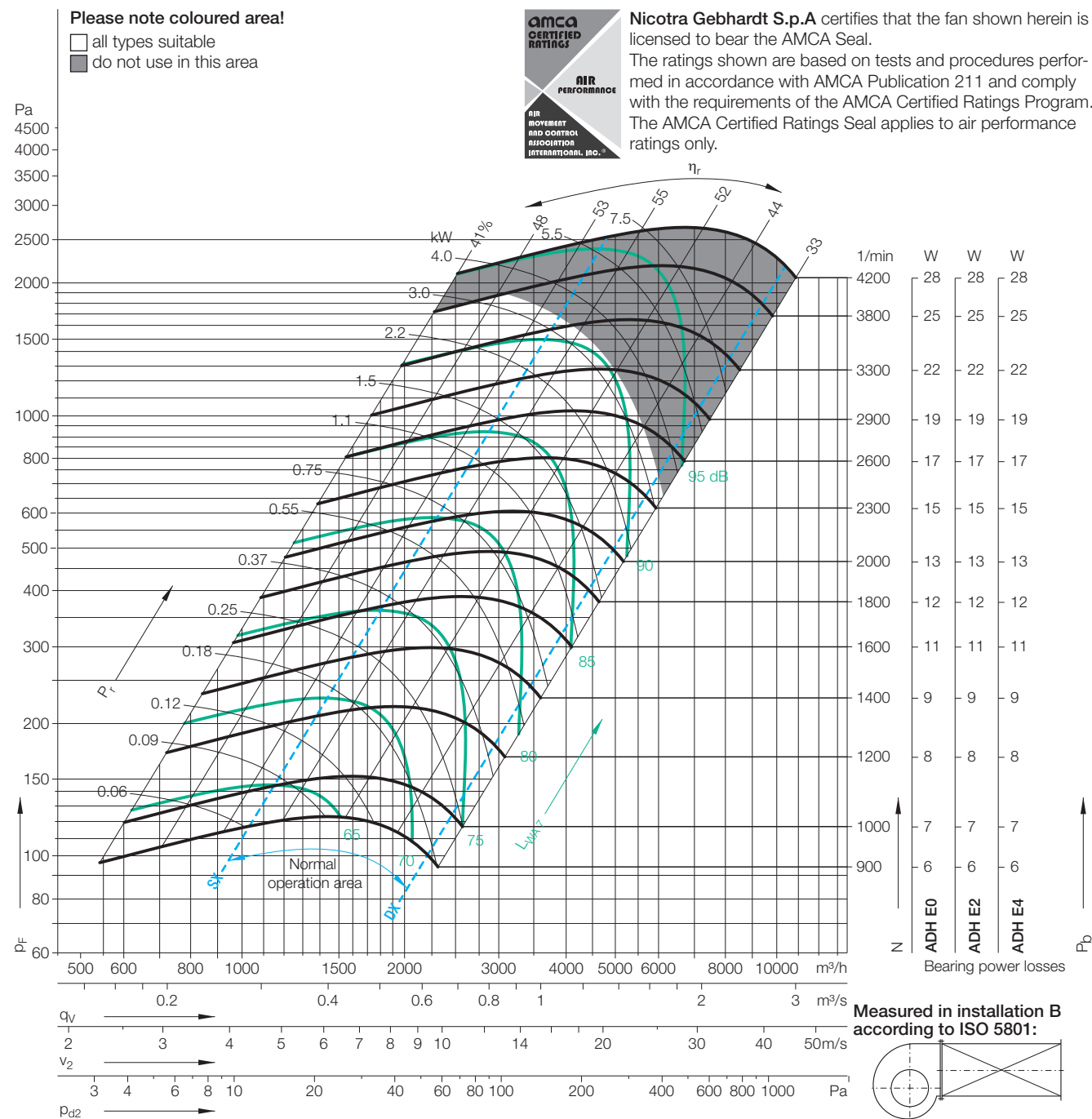
Technical Data

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	

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

Duty point	Speed	$\Delta L_{Wrel4}(A)$
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_m

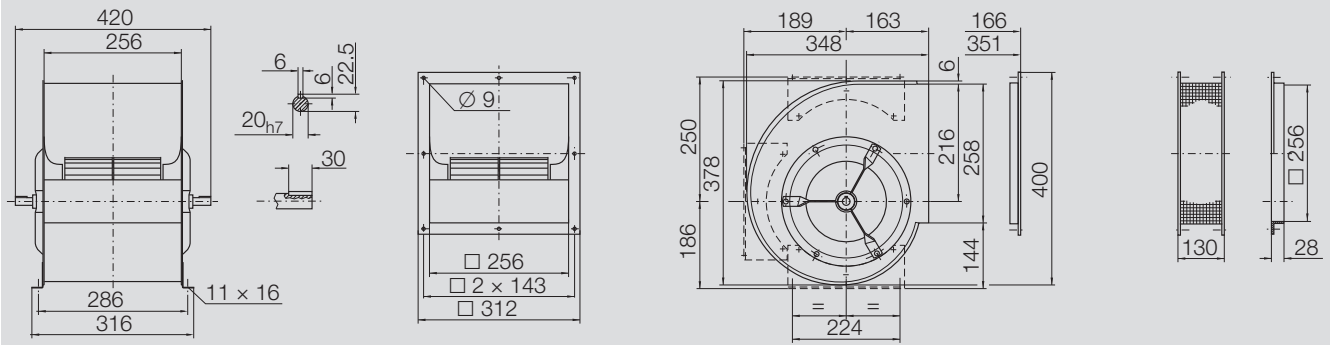
63	125	250	500	1000	2000	4000	8000	Hz
5	8	4	-2	-6	-6	-8	-11	dB
8	6	2	-4	-4	-7	-8	-14	dB
8	4	-1	-3	-5	-7	-10	-19	dB
3	5	2	-2	-6	-4	-8	-9	dB
5	3	1	-5	-3	-7	-7	-13	dB
5	3	-2	-3	-4	-7	-9	-18	dB
-4	2	0	-3	-7	-3	-5	-7	dB
-0	2	-2	-6	-3	-5	-6	-9	dB
3	-1	-5	-5	-3	-6	-8	-12	dB

Dimensions

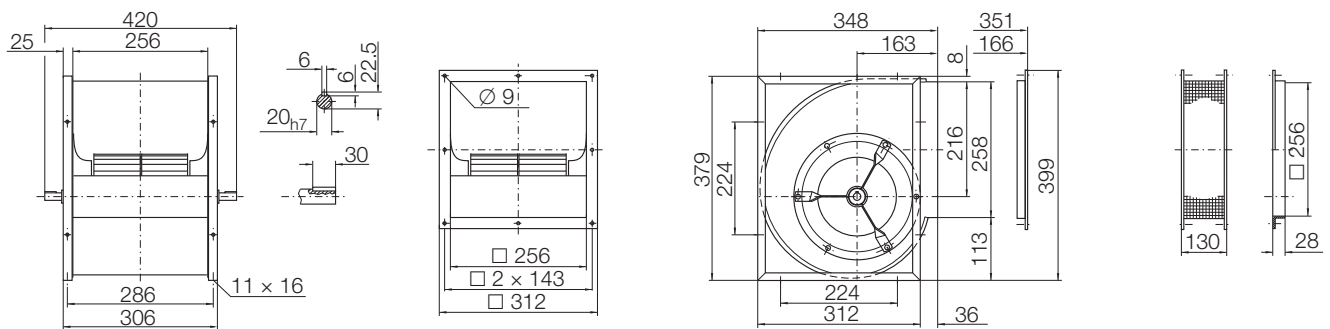
ADH E_-0200

Dimensions in mm, subject to change.

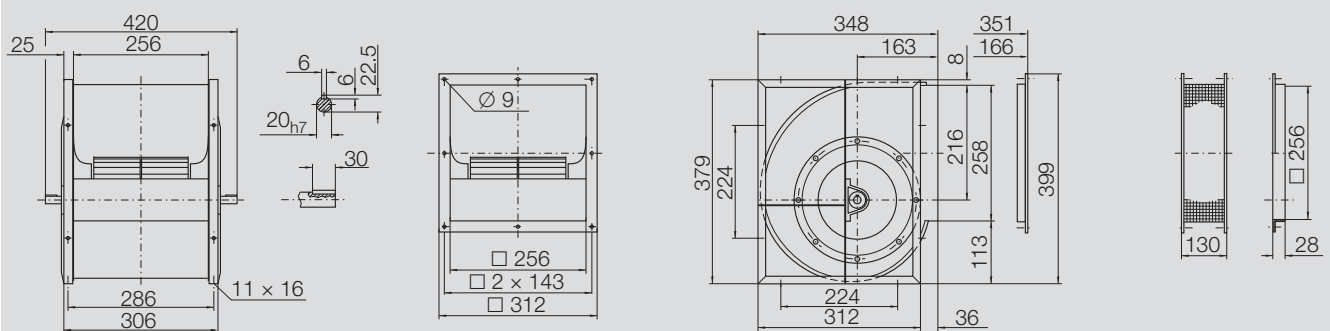
ADH E0-0200 7.1 kg



ADH E2-0200 9.1 kg



ADH E4-0200 12.6 kg



Curves

ADH 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).

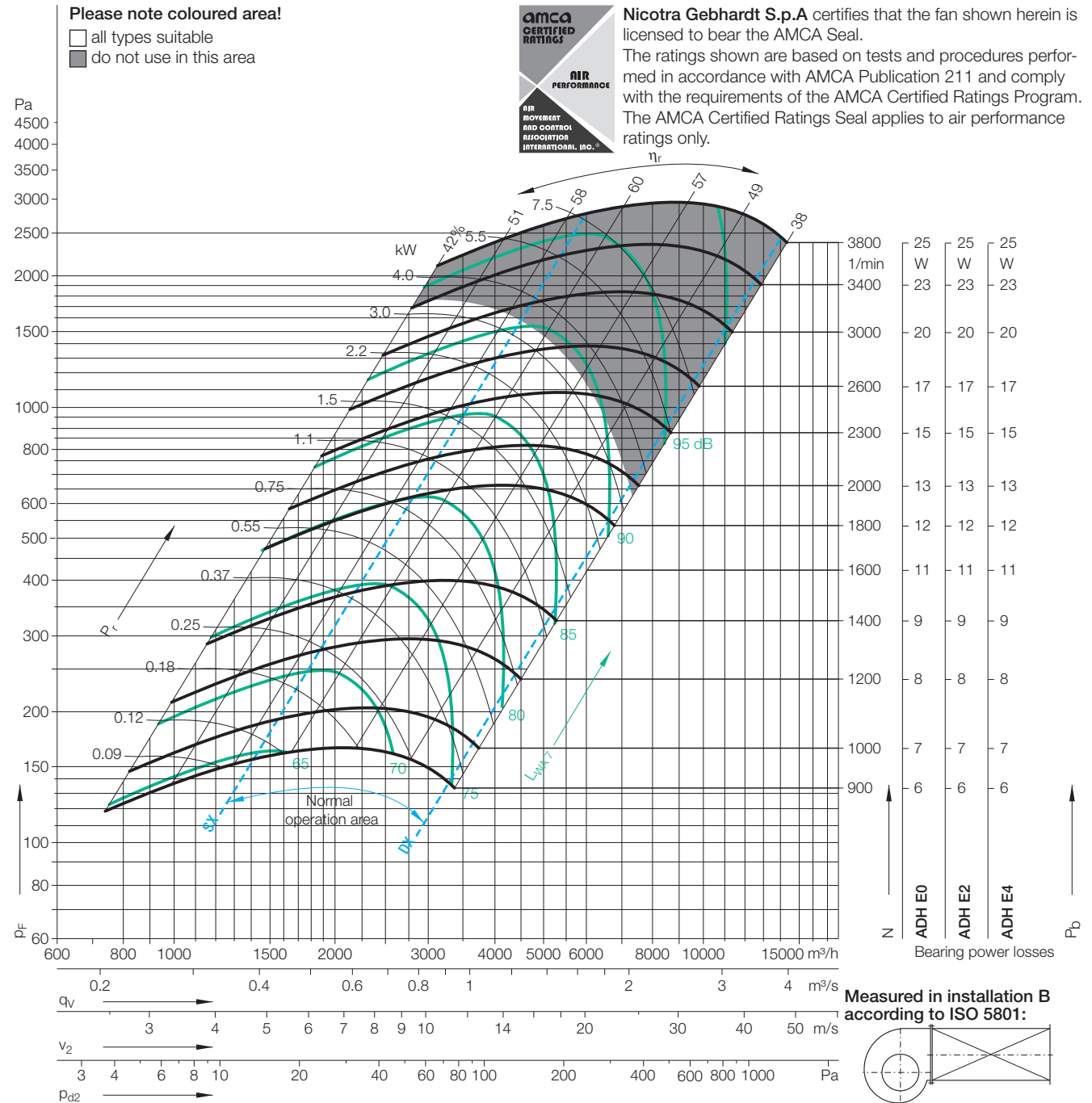
Technical Data

Impeller Data

Impeller diameter	D_r	225	mm
Number of blades	z	42	
Moment of Inertia	J	0,020	kgm ²

Impeller Data

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



Relative sound power level for inlet side L_{Wrel4} at octave centre frequencies f_m

Duty point	Speed	$\Delta L_{Wrel4}(A)$
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

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_m

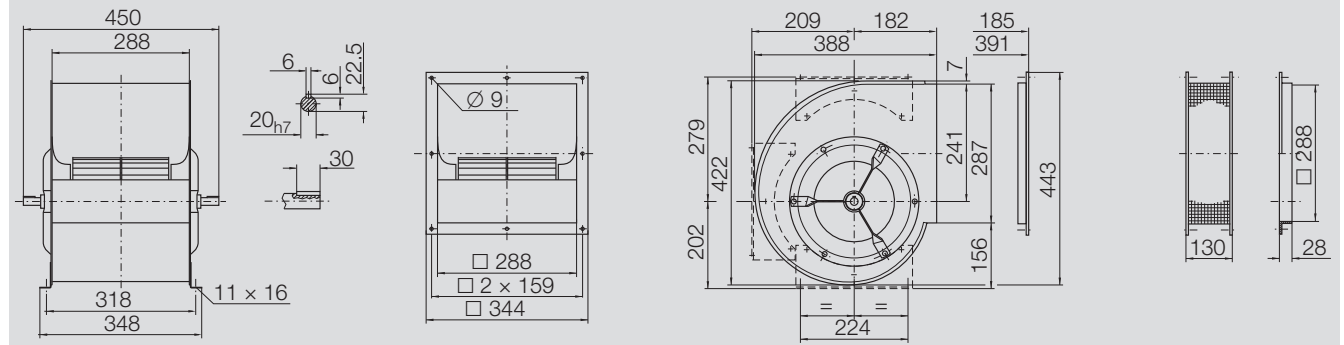
63	125	250	500	1000	2000	4000	8000	Hz
6	7	9	-2	-6	-6	-10	-12	dB
8	10	4	-4	-4	-8	-10	-14	dB
12	9	-1	-3	-5	-8	-12	-19	dB
4	5	8	-2	-6	-4	-9	-10	dB
5	8	3	-4	-3	-7	-8	-12	dB
9	7	-2	-2	-5	-7	-10	-16	dB
-1	2	2	-3	-6	-3	-5	-7	dB
0	3	-1	-5	-3	-5	-6	-9	dB
3	1	-4	-4	-4	-5	-8	-12	dB

Dimensions

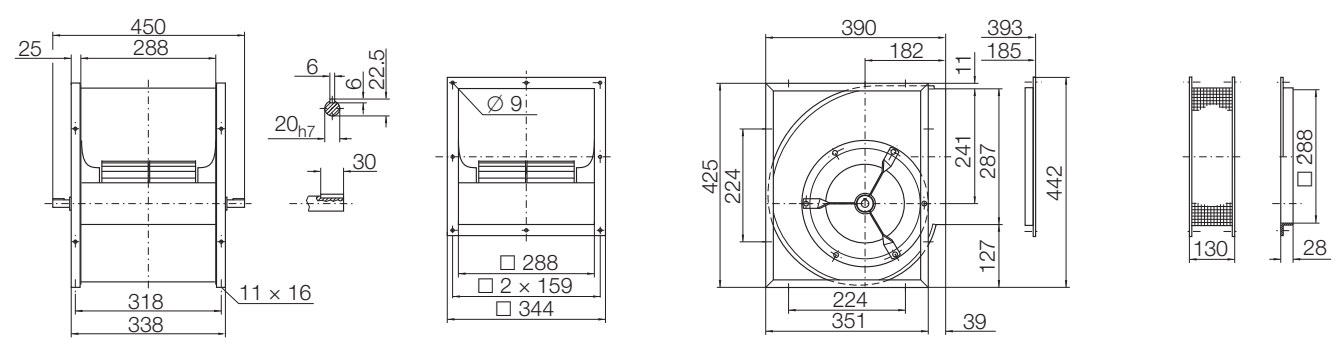
ADH E_-0225

Dimensions in mm, subject to change.

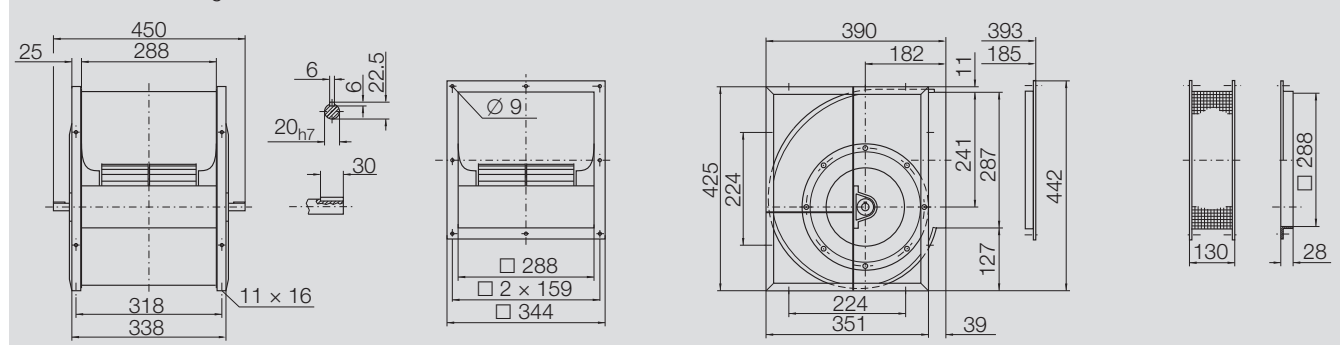
ADH E0-0225 8.5 kg



ADH E2-0225 10.7 kg



ADH E4-0225 14.5 kg



Curves

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).

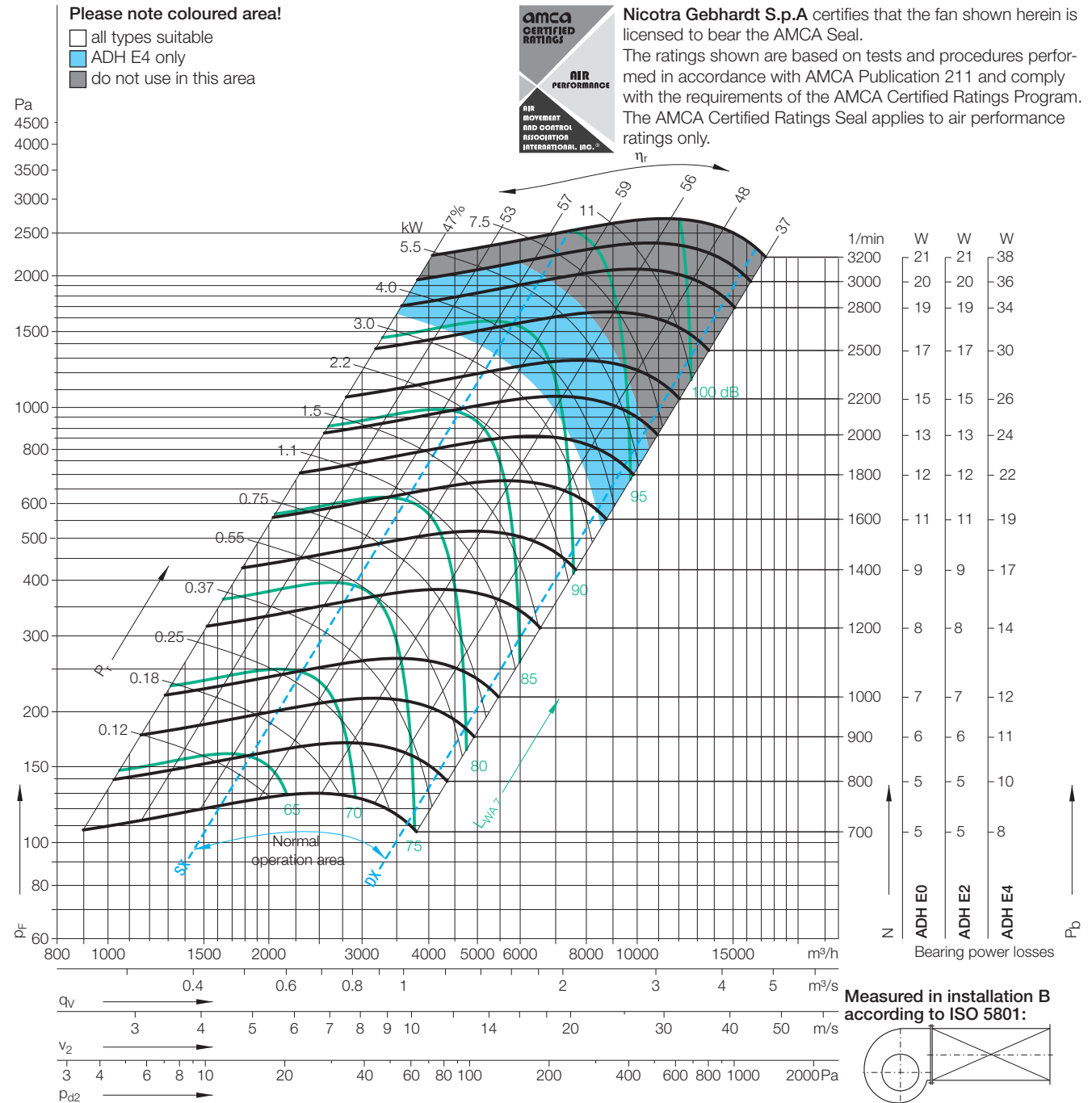
Technical Data

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	



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

Duty point	Speed	$\Delta L_{Wrel4}(A)$
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_m

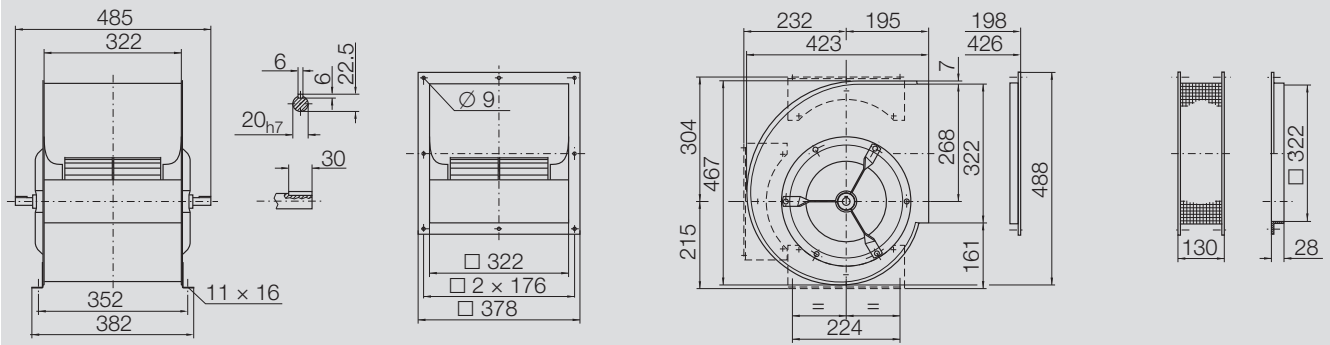
63	125	250	500	1000	2000	4000	8000	Hz
6	6	2	-3	-6	-4	-10	-11	dB
7	3	0	-4	-3	-9	-9	-14	dB
6	2	-2	-2	-6	-8	-11	-19	dB
4	3	0	-3	-5	-3	-10	-9	dB
4	1	-1	-5	-2	-9	-9	-13	dB
4	1	-3	-1	-6	-8	-10	-17	dB
0	1	-1	-4	-7	-2	-7	-7	dB
1	-0	-4	-7	-2	-6	-7	-9	dB
1	-3	-5	-3	-4	-7	-8	-11	dB

Dimensions

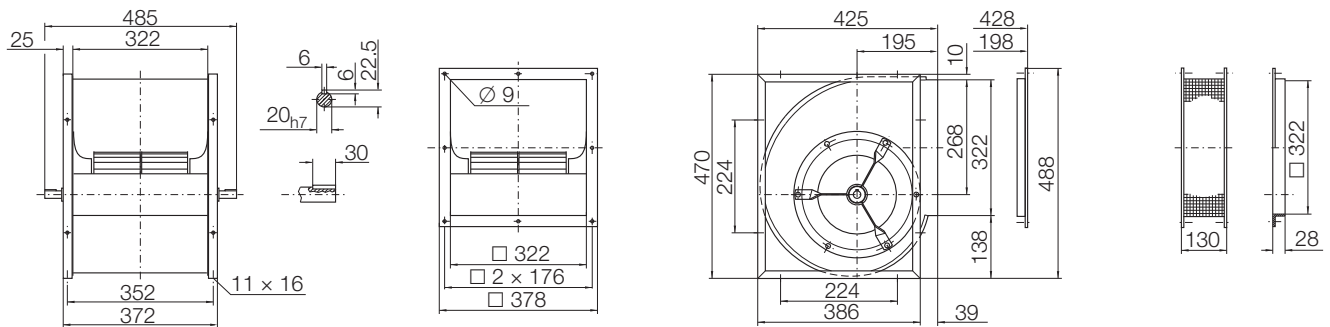
ADH E_-0250

Dimensions in mm, subject to change.

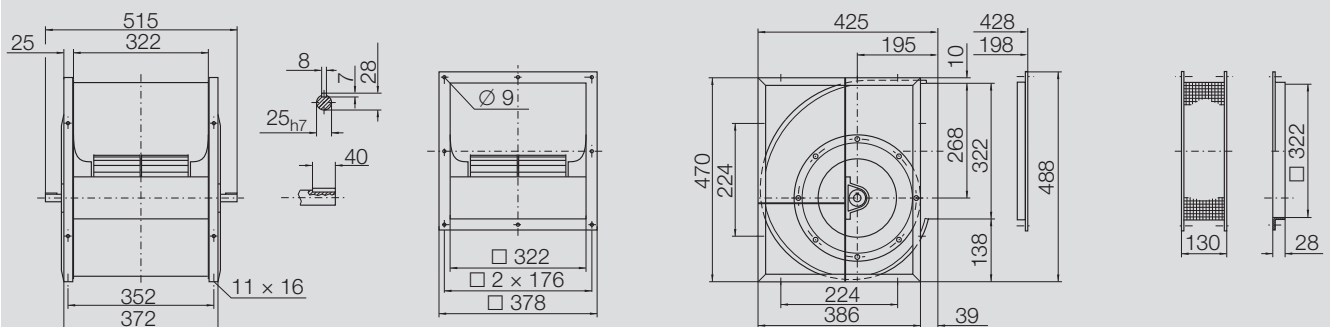
ADH E0-0250 10.5 kg



ADH E2-0250 13 kg



ADH E4-0250 18 kg



Curves

ADH 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).

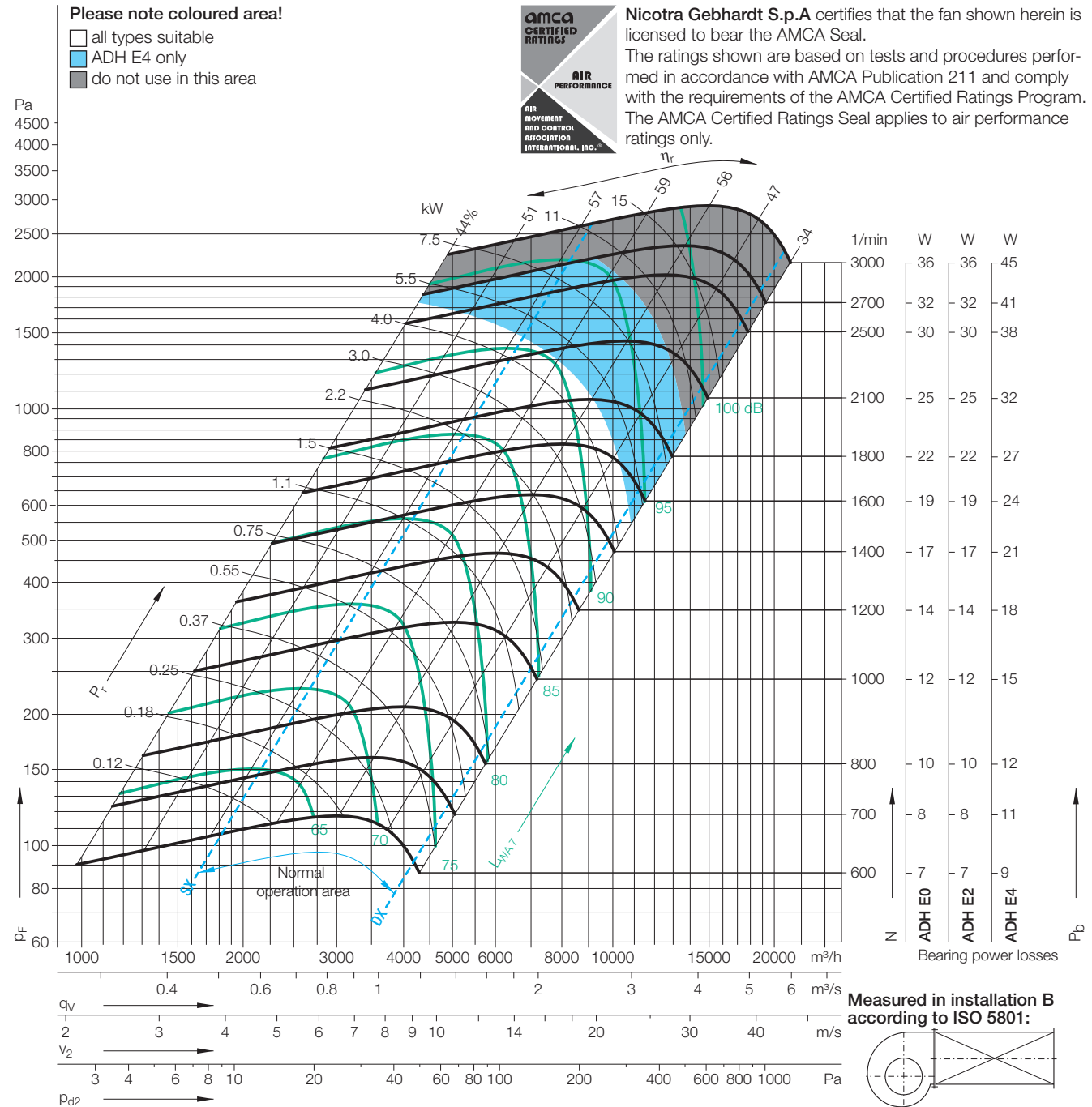
Technical Data

Impeller Data

Impeller diameter	D_r	280	mm
Number of blades	z	42	
Moment of Inertia	J	0,059	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	



Duty point	Speed	$\Delta L_{Wrel4}(A)$
SX	2500	3
SX	1400	2
SX	800	0
q _{v,opt}	2500	3
q _{v,opt}	1400	2
q _{v,opt}	800	1
DX	2500	2
DX	1400	1
DX	800	0

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

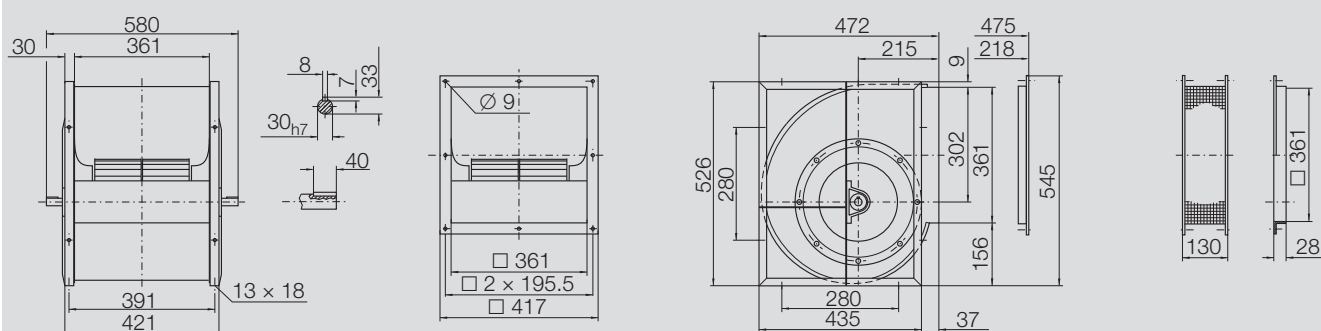
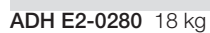
63	125	250	500	1000	2000	4000	8000	Hz
-6	-6	1	-4	-9	-6	-9	-12	dB
-4	3	-2	-8	-4	-7	-10	-13	dB
2	2	-6	-3	-6	-7	-11	-13	dB
-10	-10	-1	-6	-10	-5	-9	-11	dB
-9	0	-4	-9	-4	-7	-9	-13	dB
-0	-0	-8	-3	-6	-7	-10	-16	dB
-10	-9	-6	-7	-11	-5	-7	-7	dB
-9	-6	-6	-11	-5	-7	-7	-10	dB
-6	-4	-10	-5	-6	-5	-9	-14	dB

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

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

ADH E_-0280

ADH E0-0280 14.2 kg



Curves

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).

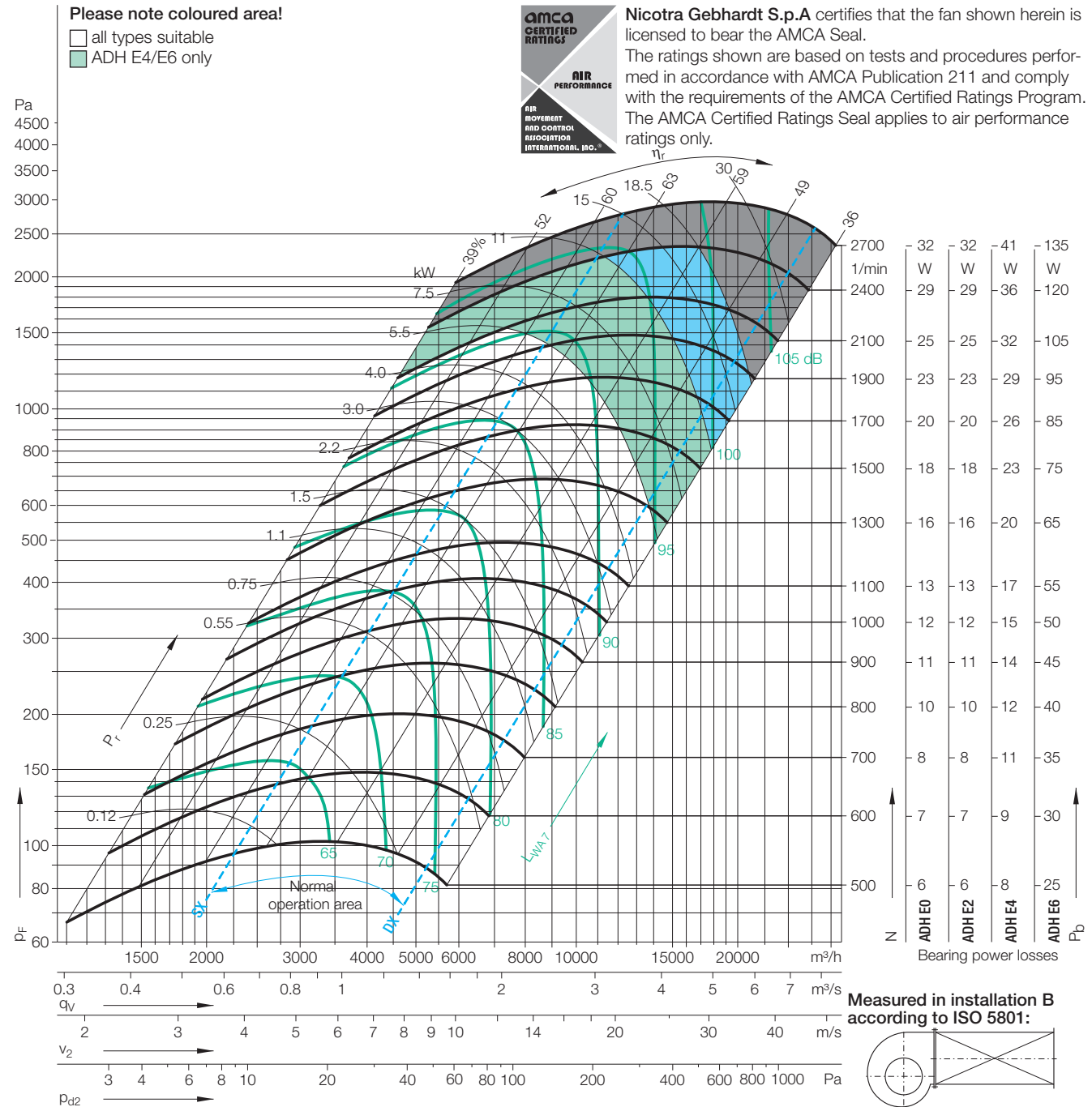
Technical Data

Impeller Data

Impeller diameter	D_r	315	mm
Number of blades	z	38	
Moment of Inertia	J	0,100	kgm ²

Impeller Data

Impeller weight	m	4,6	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		2	



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

Duty point	Speed	$\Delta L_{wrel4}(A)$
SX	2100	4
SX	1300	3
SX	700	2
$Q_{V,opt}$	2100	4
$Q_{V,opt}$	1300	3
$Q_{V,opt}$	700	3
DX	2100	3
DX	1300	2
DX	700	2

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

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

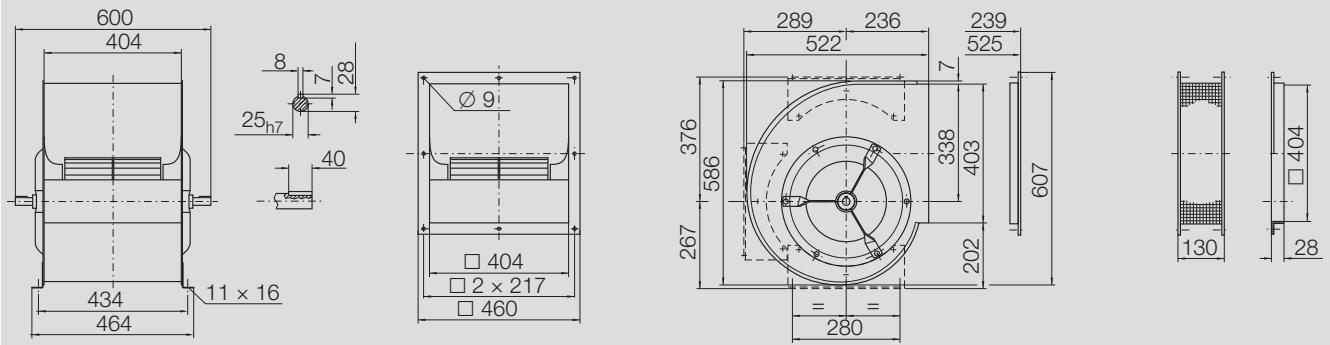
63	125	250	500	1000	2000	4000	8000	Hz
10	10	3	-1	-2	-5	-9	-8	dB
11	6	1	-3	-1	-8	-7	-11	dB
9	3	-1	1	-6	-6	-8	-17	dB
6	6	1	-2	-1	-4	-9	-7	dB
7	4	-1	-3	-0	-7	-7	-10	dB
6	2	-1	2	-5	-5	-7	-16	dB
4	4	-3	-5	-3	-4	-8	-6	dB
4	0	-4	-7	-1	-7	-6	-8	dB
2	-3	-6	-0	-6	-5	-6	-13	dB

Dimensions

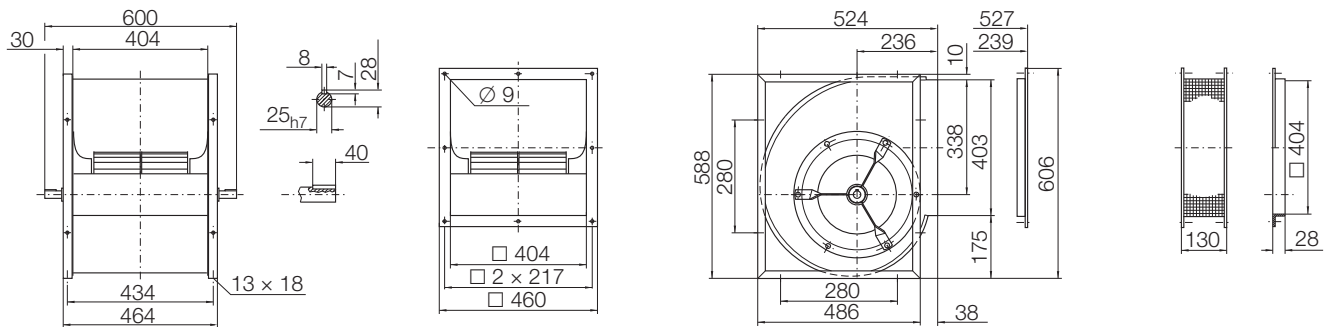
ADH E_-0315

Dimensions in mm, subject to change.

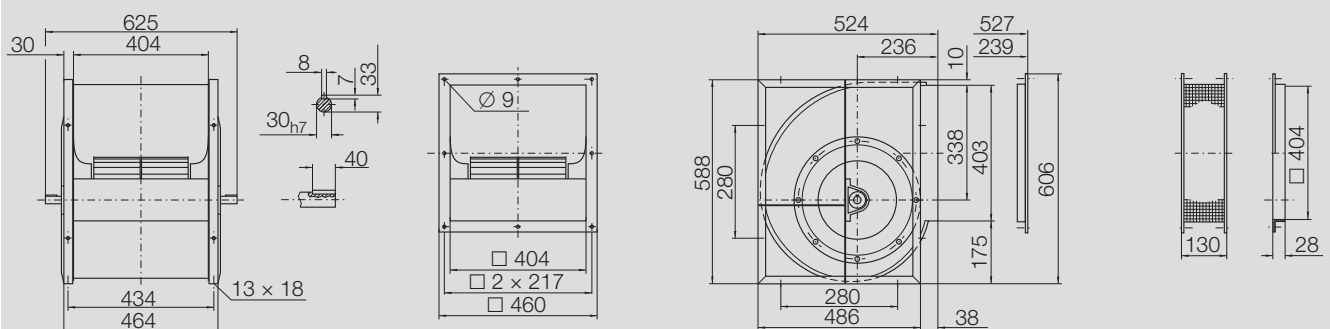
ADH E0-0315 18 kg



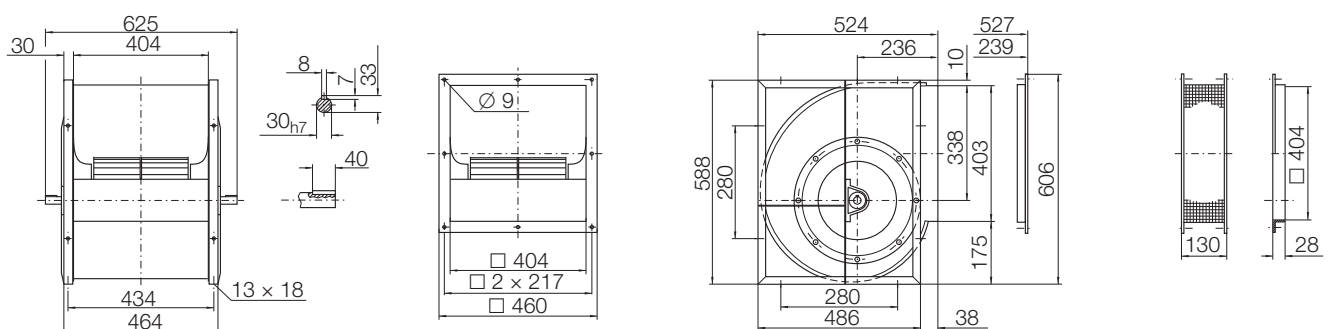
ADH E2-0315 22 kg



ADH E4-0315 29 kg



ADH E6-0315 30 kg



Curves

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).

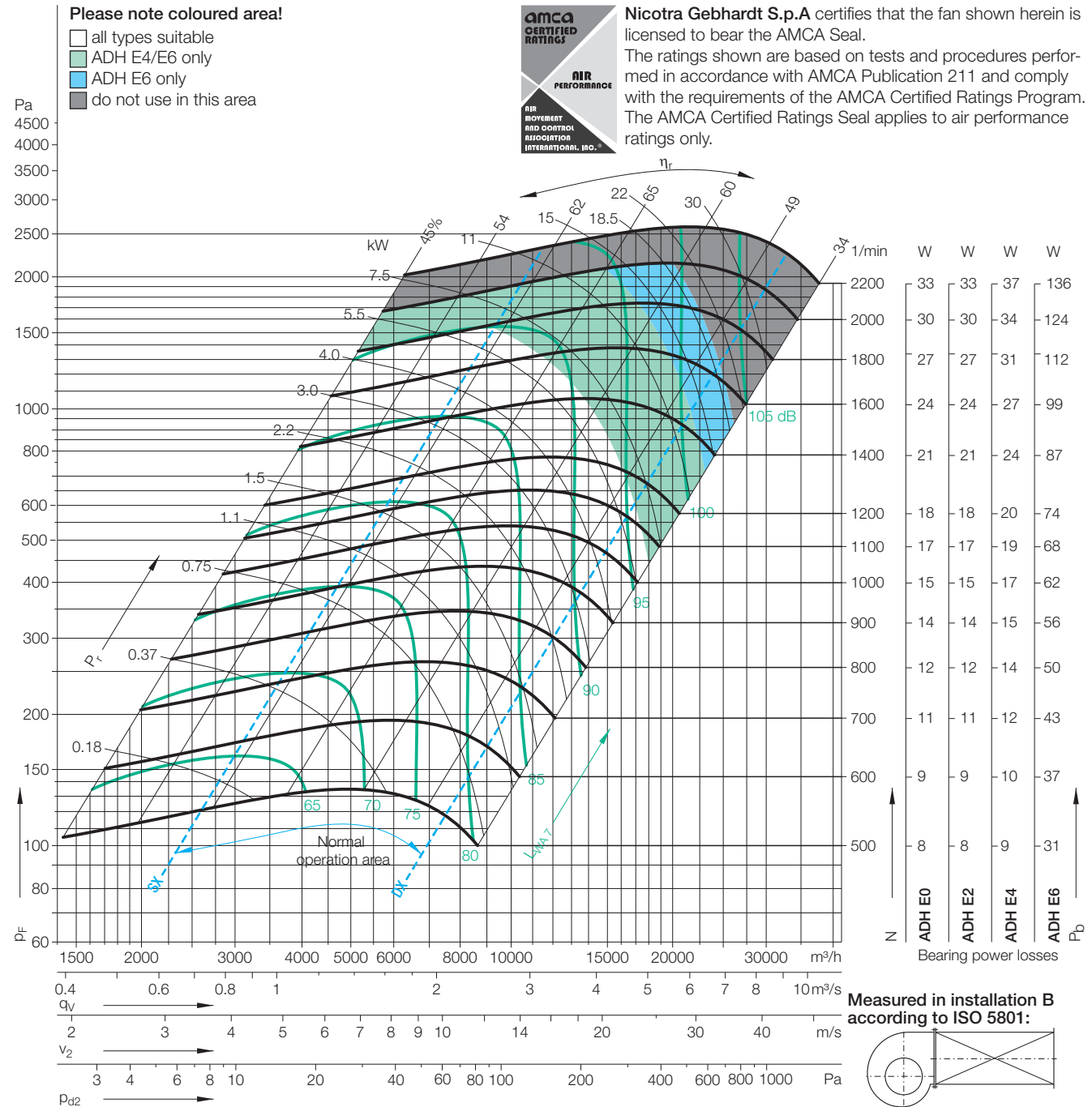
Technical Data

Impeller Data

Impeller diameter	D_r	355	mm
Number of blades	z	42	
Moment of Inertia	J	0,150	kgm ²

Impeller Data

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



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

Duty point	Speed	$\Delta L_{wrel4}(A)$
SX	1800	4
SX	1200	3
SX	600	2
$Q_{V,opt}$	1800	3
$Q_{V,opt}$	1200	2
$Q_{V,opt}$	600	2
DX	1800	2
DX	1200	2
DX	600	1

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

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

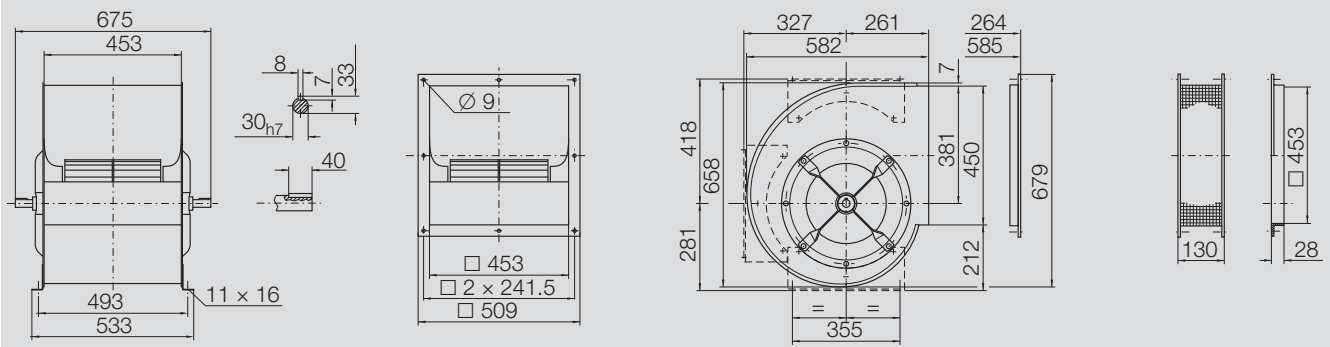
	63	125	250	500	1000	2000	4000	8000	Hz
13	11	3	-1	-2	-7	-9	-10		dB
14	6	3	-2	-3	-8	-8	-13		dB
9	5	1	-1	-6	-5	-11	-18		dB
6	5	0	-3	-2	-6	-8	-8		dB
7	2	-1	-2	-2	-8	-7	-12		dB
3	1	-1	-0	-6	-5	-10	-17		dB
2	2	-3	-6	-3	-5	-7	-6		dB
2	-3	-4	-6	-3	-8	-6	-9		dB
-2	-3	-5	-2	-7	-5	-8	-13		dB

Dimensions

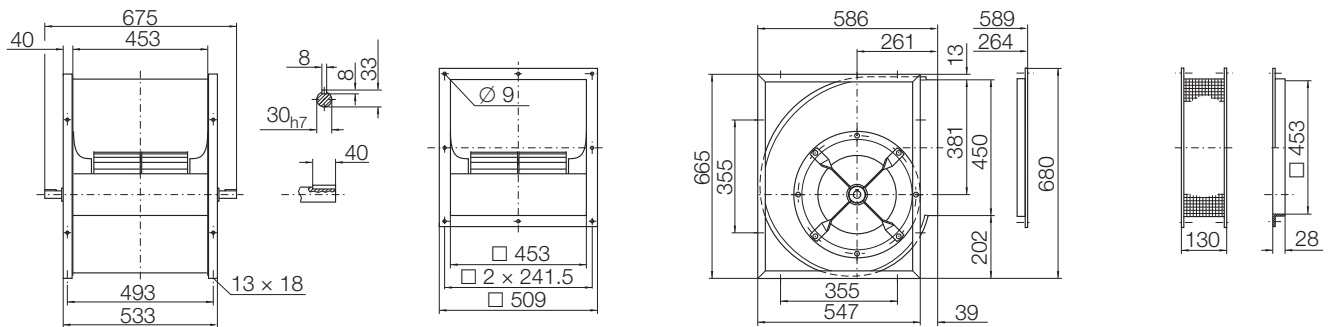
ADH E_-0355

Dimensions in mm, subject to change.

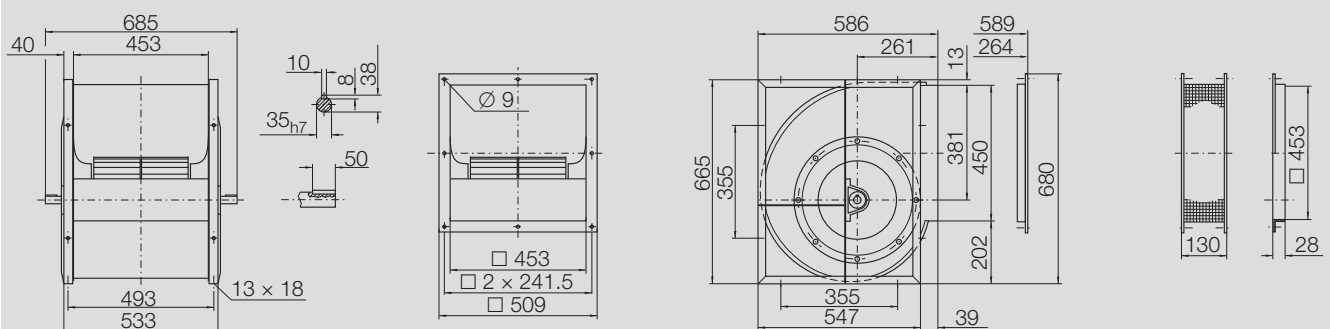
ADH E0-0355 23 kg



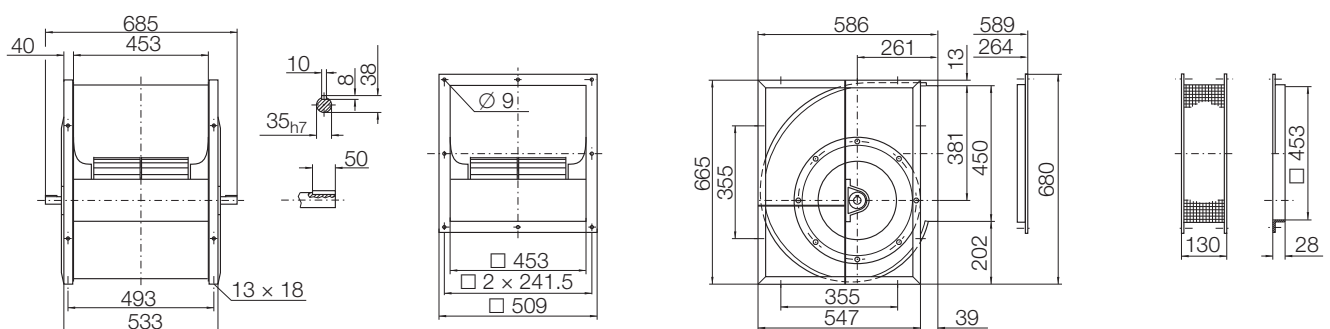
ADH E2-0355 29 kg



ADH E4-0355 41 kg



ADH E6-0355 42 kg



Curves

ADH 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).

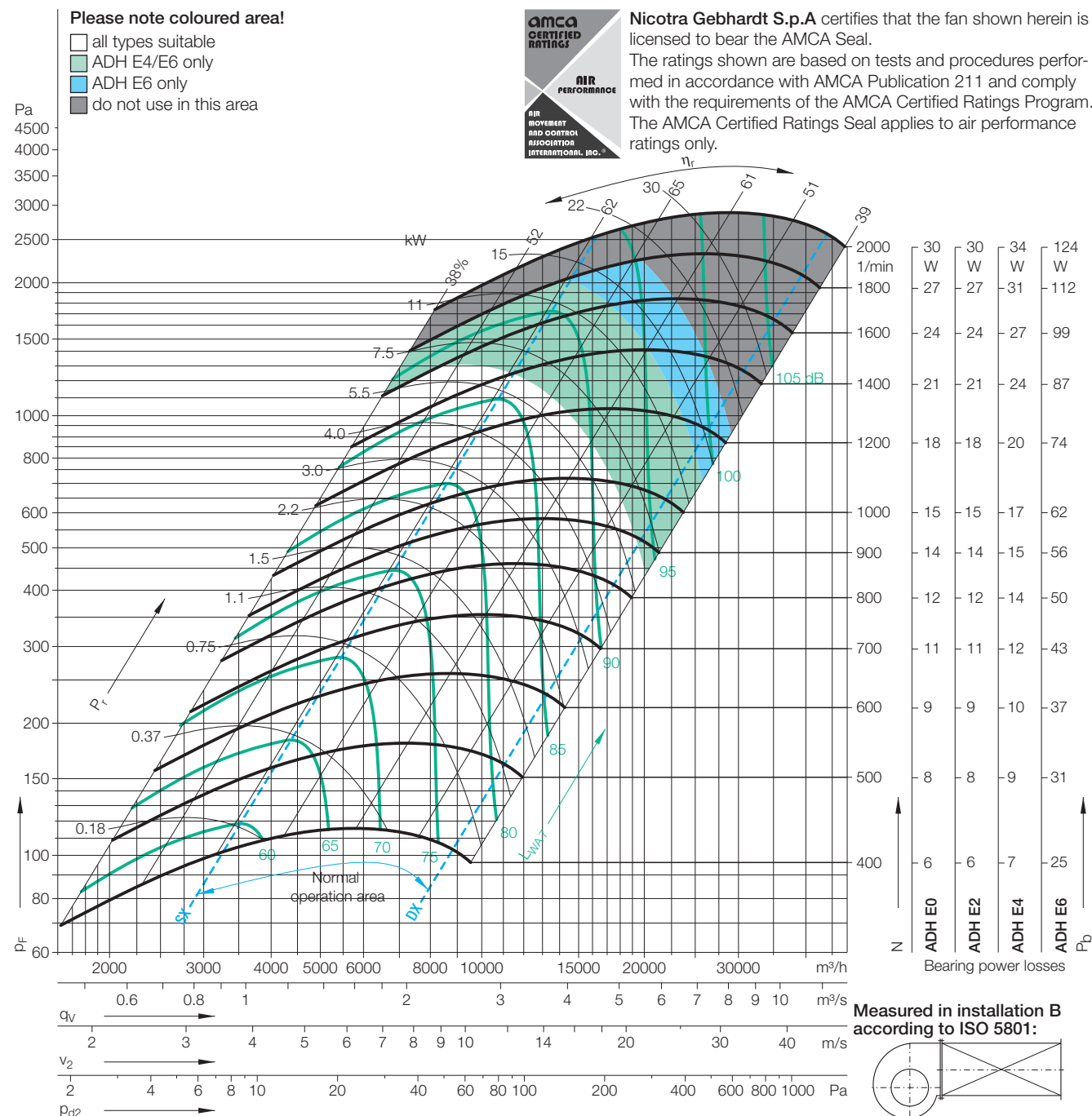
Technical Data

Impeller Data

Impeller diameter	D_r	400	mm
Number of blades	z	38	
Moment of Inertia	J	0,310	kgm ²

Impeller Data

Impeller weight	m	9	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		2	



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

Duty point	Speed	$\Delta L_{wrel4}(A)$
SX	1600	5
SX	1000	4
SX	500	3
$Q_{V,opt}$	1600	4
$Q_{V,opt}$	1000	4
$Q_{V,opt}$	500	2
DX	1600	3
DX	1000	2
DX	500	1

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

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

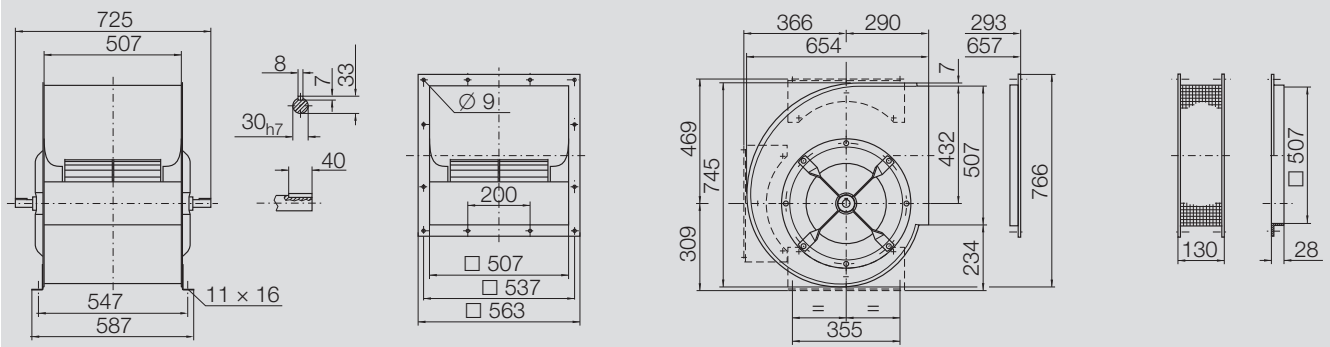
63	125	250	500	1000	2000	4000	8000	Hz
11	10	5	0	1	-6	-9	-8	dB
12	7	2	3	-3	-7	-7	-12	dB
9	4	5	-1	-5	-5	-10	-20	dB
5	5	1	-2	1	-5	-8	-7	dB
6	3	0	2	-3	-7	-6	-11	dB
4	1	4	-1	-5	-4	-9	-18	dB
2	1	-3	-6	-1	-4	-7	-6	dB
2	-3	-4	-2	-3	-6	-6	-9	dB
-2	-3	-1	-2	-5	-5	-8	-15	dB

Dimensions

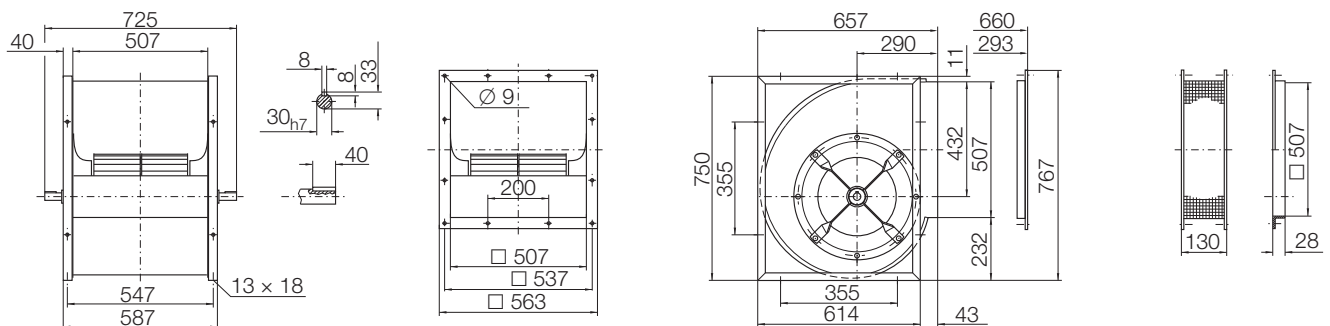
ADH E_-0400

Dimensions in mm, subject to change.

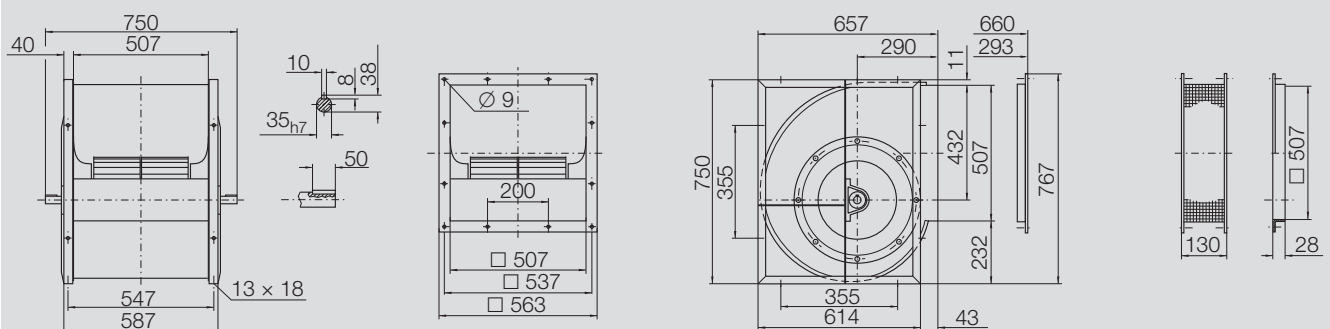
ADH E0-0400 31 kg



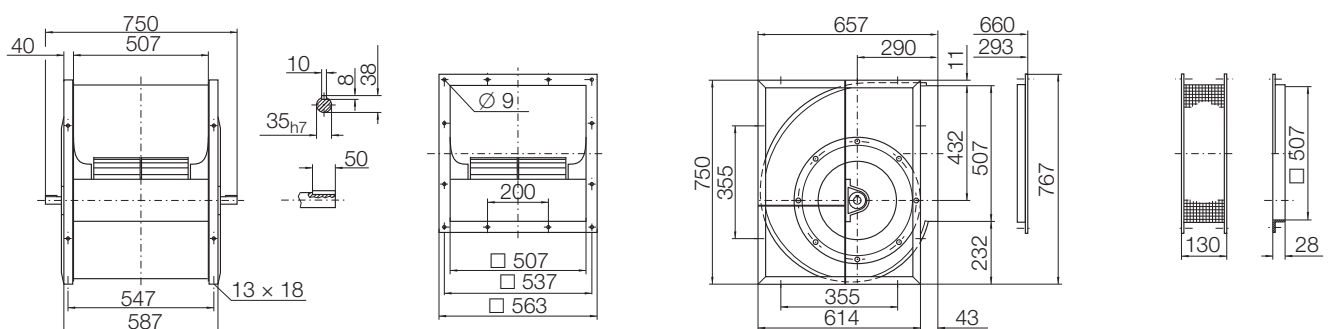
ADH E2-0400 38 kg



ADH E4-0400 52 kg



ADH E6-0400 53 kg



Curves

ADH E_-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	450	mm
Number of blades	z	42	
Moment of Inertia	J	0,480	kgm ²

Impeller Data

Impeller weight	m	11	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		2	

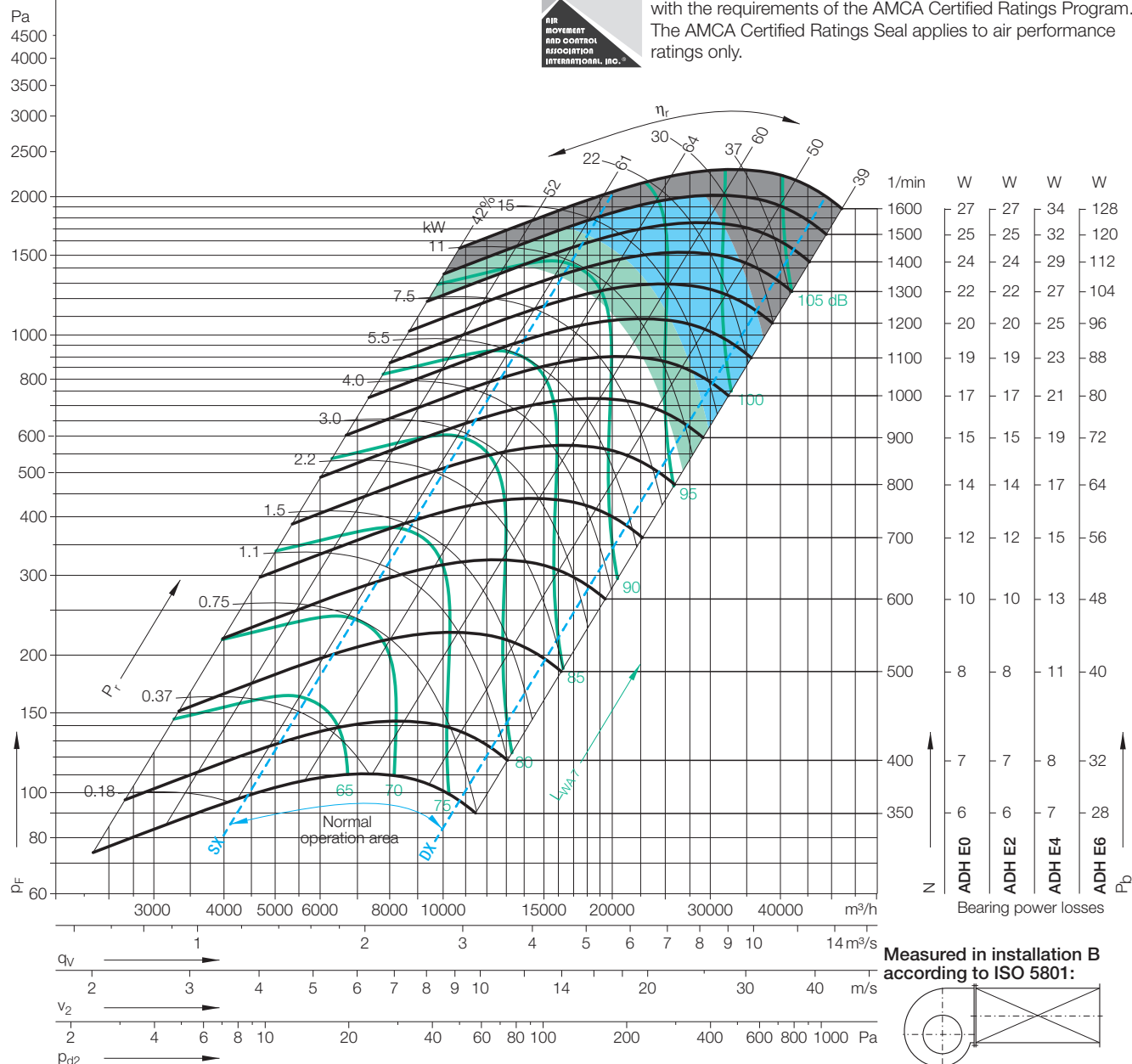
Please note coloured area!

- ☐ all types suitable
☒ ADH E4/E6 only

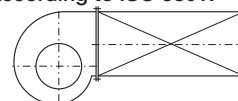


Nicotra Gebhardt S.p.A certifies that the fan shown herein is licensed to bear the AMCA Seal.

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:



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

Duty point	Speed	$\Delta L_{Wrel4}(A)$
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

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	-14	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

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

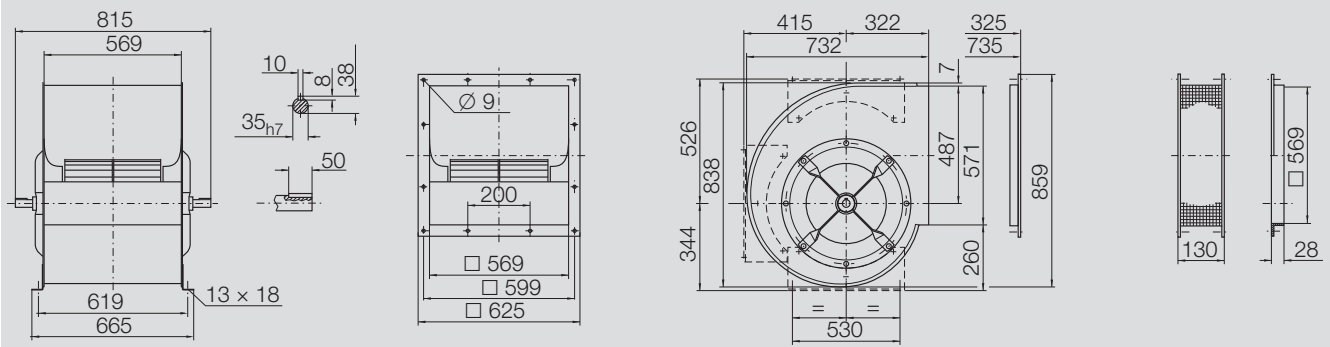
63	125	250	500	1000	2000	4000	8000	Hz
7	6	2	-1	-1	-7	-10	-10	dB
8	5	2	1	-3	-8	-8	-13	dB
7	4	3	0	-6	-6	-11	-18	dB
3	3	0	-1	0	-7	-9	-10	dB
4	2	0	1	-3	-8	-8	-12	dB
4	2	3	-1	-6	-6	-10	-18	dB
3	2	-2	-5	-2	-5	-7	-7	dB
3	0	-3	-3	-2	-6	-7	-9	dB
1	-2	-2	-2	-5	-6	-8	-14	dB

Dimensions

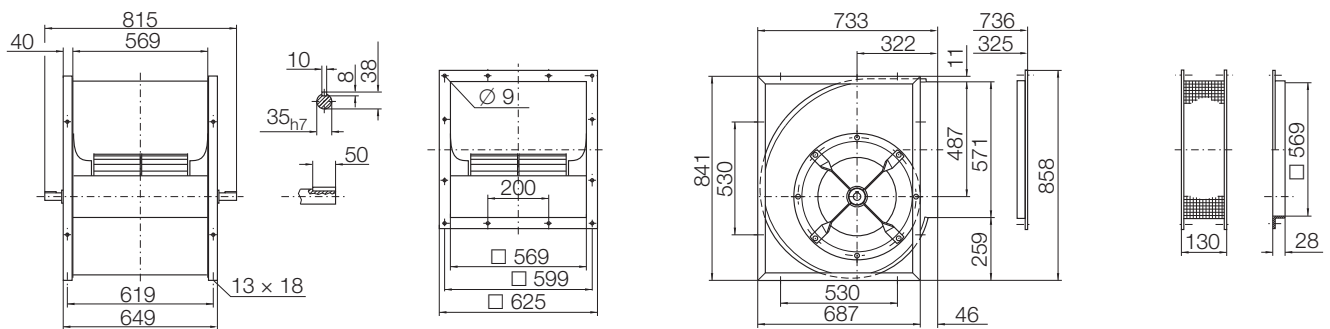
ADH E_-0450

Dimensions in mm, subject to change.

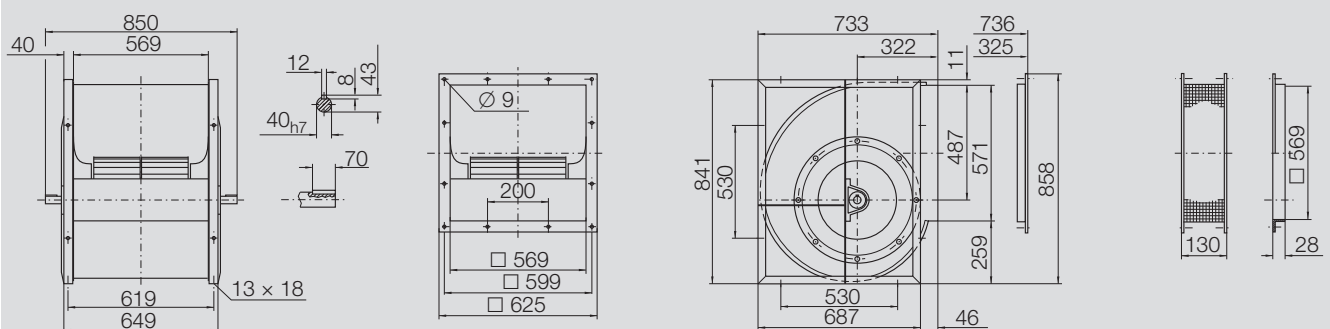
ADH E0-0450 42 kg



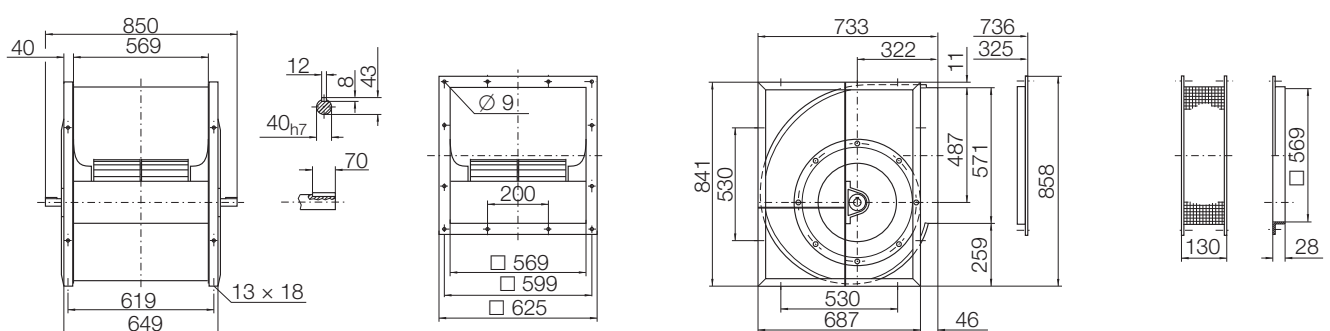
ADH E2-0450 50 kg



ADH E4-0450 66 kg



ADH E6-0450 67 kg



Curves

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).

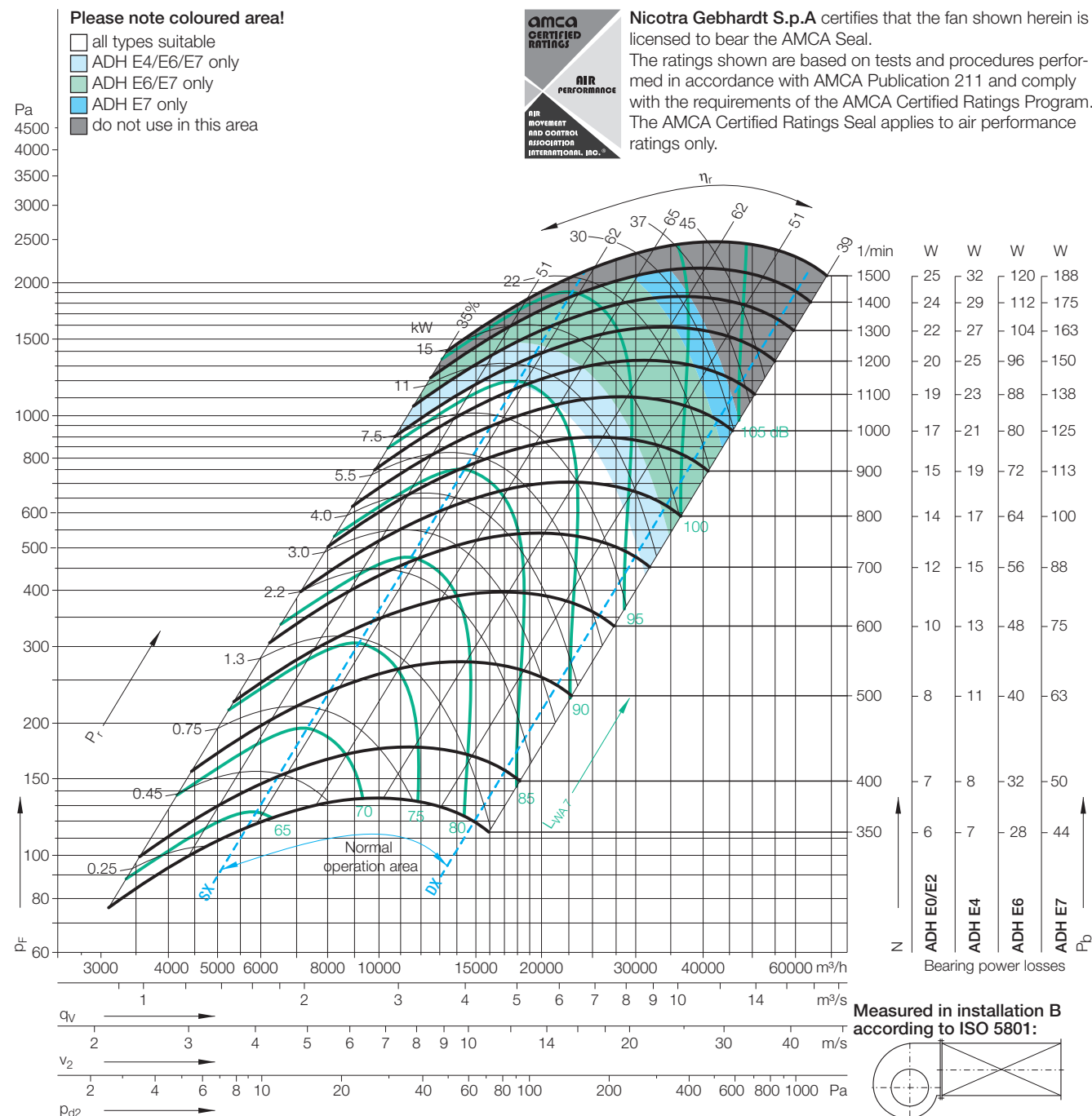
Technical Data

Impeller Data

Impeller diameter	D_r	500	mm
Number of blades	z	38	
Moment of Inertia	J	0,900	kgm ²

Impeller Data

Impeller weight	m	18	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		2	



Relative sound power level for inlet side L_{Wrel4} at octave centre frequencies f_m

Duty point	Speed	$\Delta L_{Wrel4}(A)$
SX	1300	3
SX	800	2
SX	400	0
$Q_{V,opt}$	1300	3
$Q_{V,opt}$	800	2
$Q_{V,opt}$	400	1
DX	1300	2
DX	800	1
DX	400	0

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

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

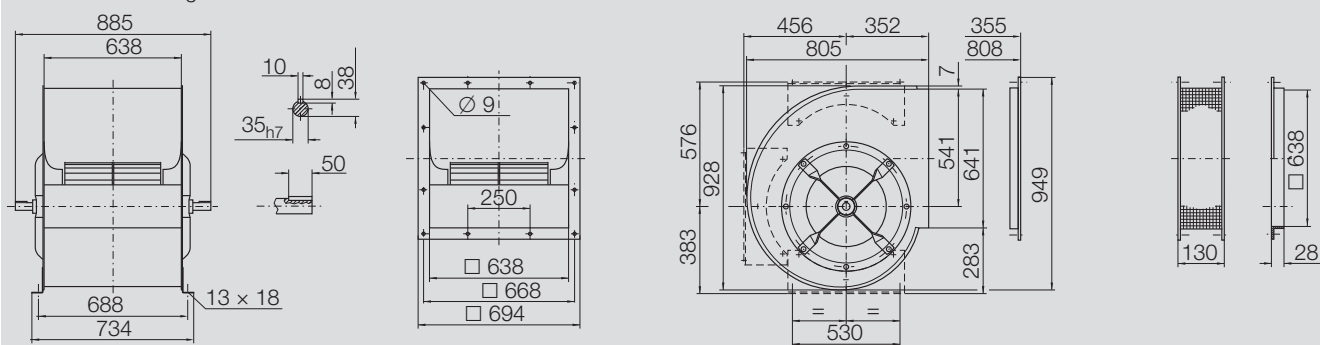
	63	125	250	500	1000	2000	4000	8000	Hz
7	4	3	-1	-2	-8	-9	-12		dB
7	4	0	1	-6	-8	-9	-16		dB
6	2	3	-4	-6	-7	-14	-20		dB
1	-1	-1	-2	0	-7	-8	-10		dB
1	0	-3	2	-5	-7	-8	-14		dB
2	-1	3	-4	-6	-6	-13	-18		dB
1	-3	-5	-6	-2	-6	-7	-7		dB
-1	-4	-7	-2	-5	-8	-7	-9		dB
-3	-6	-1	-4	-7	-6	-9	-13		dB

Dimensions

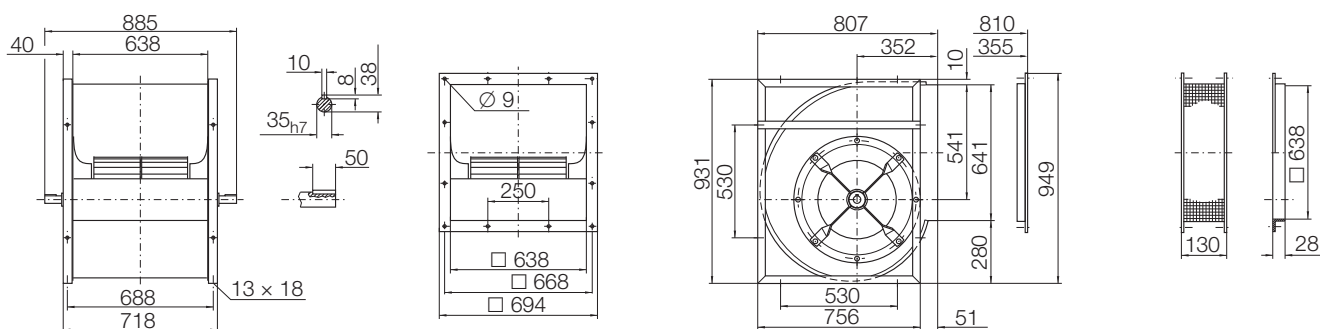
ADH E_-0500

Dimensions in mm, subject to change.

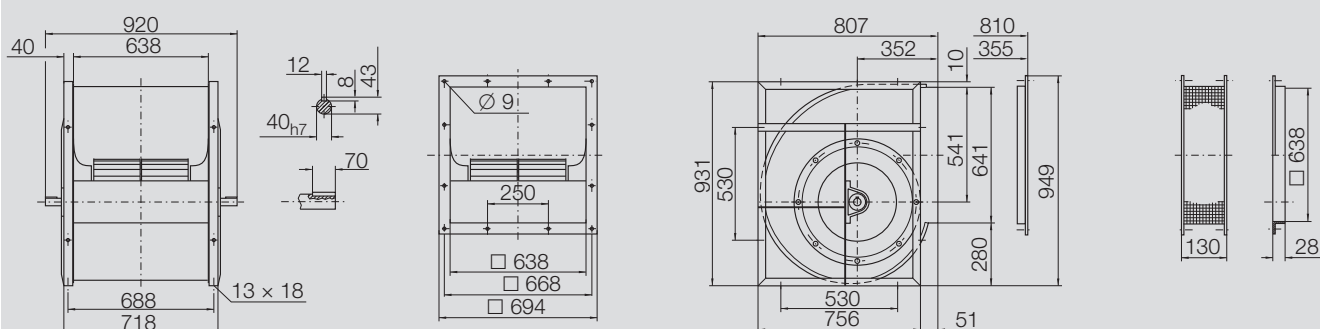
ADH E0-0500 57 kg



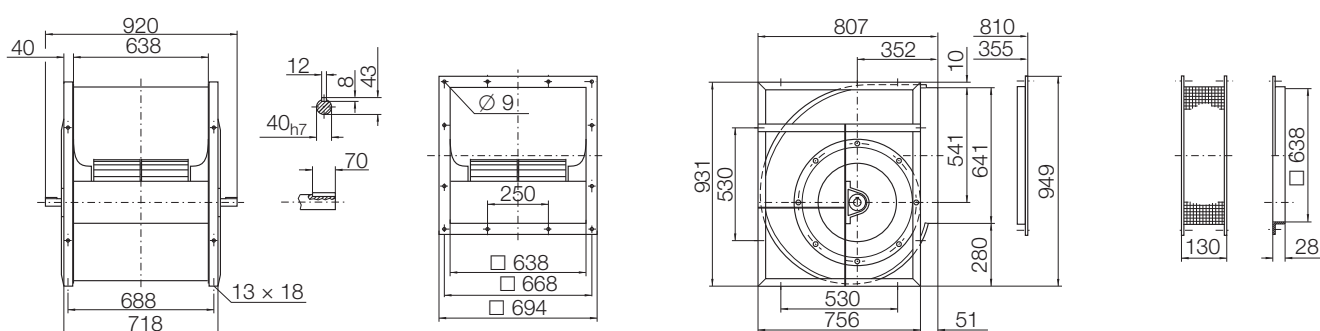
ADH E2-0500 65 kg



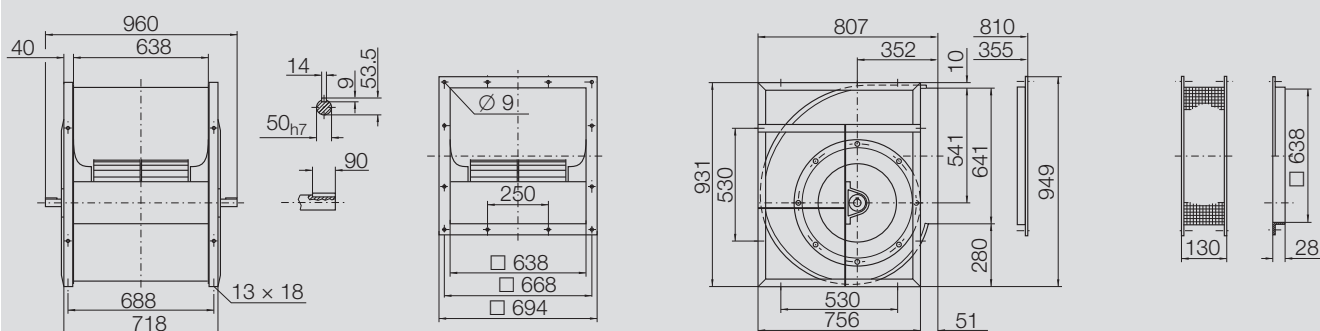
ADH E4-0500 85 kg



ADH E6-0500 86 kg



ADH E7-0500 105 kg



Curves

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).

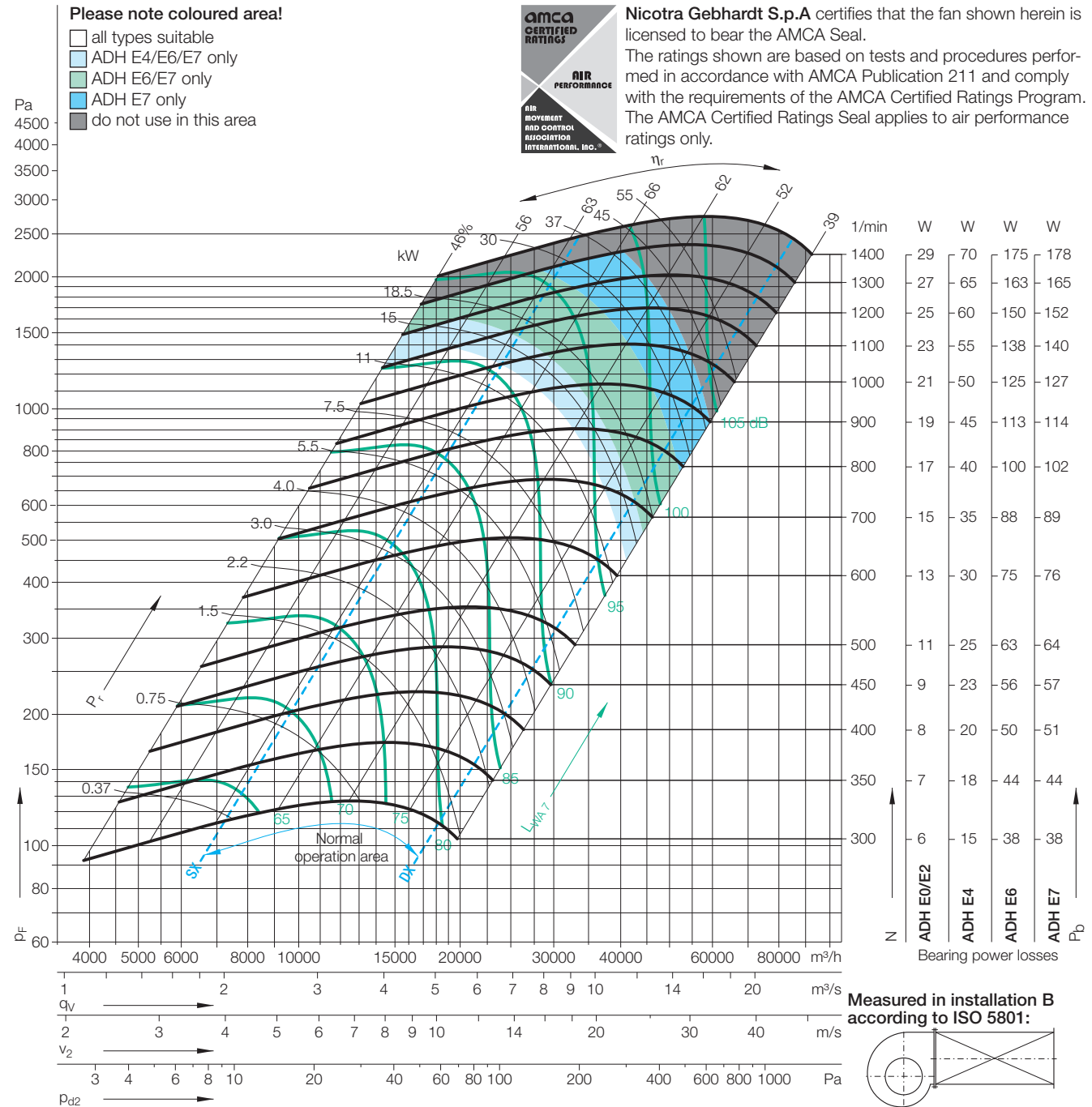
Technical Data

Impeller Data

Impeller diameter	D_r	560	mm
Number of blades	z	42	
Moment of Inertia	J	1,560	kgm ²

Impeller Data

Impeller weight	m	24	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		2	



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

Duty point	Speed	$\Delta L_{wrel4}(A)$
SX	1200	3
SX	800	2
SX	400	1
$Q_{V,opt}$	1200	3
$Q_{V,opt}$	800	2
$Q_{V,opt}$	400	1
DX	1200	4
DX	800	3
DX	400	1

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

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

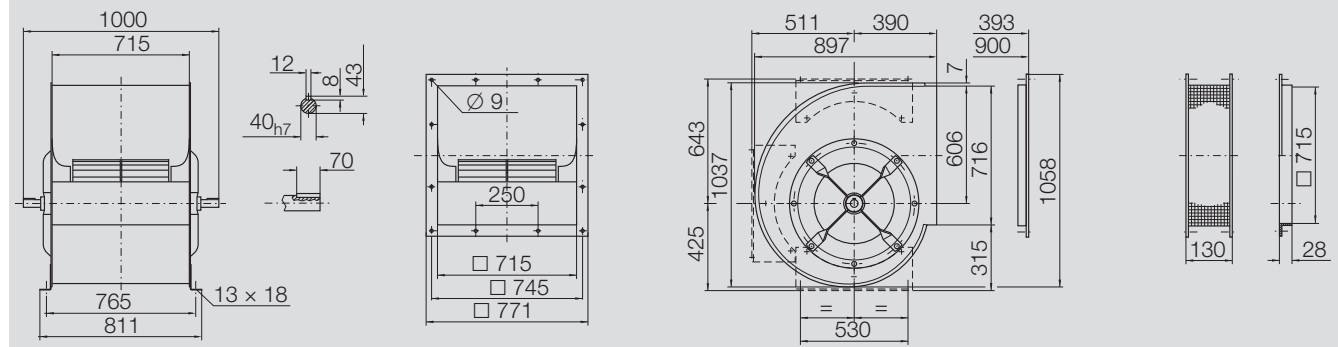
	63	125	250	500	1000	2000	4000	8000	Hz
8	8	2	0	-1	-8	-10	-12		dB
9	5	2	1	-5	-8	-10	-15		dB
7	4	3	-3	-6	-8	-13	-20		dB
6	6	0	-1	0	-7	-9	-10		dB
7	3	0	2	-5	-8	-9	-13		dB
5	2	4	-3	-6	-7	-12	-19		dB
7	7	1	-3	0	-6	-8	-7		dB
8	3	-1	1	-5	-7	-7	-8		dB
4	0	2	-4	-6	-6	-7	-10		dB

Dimensions

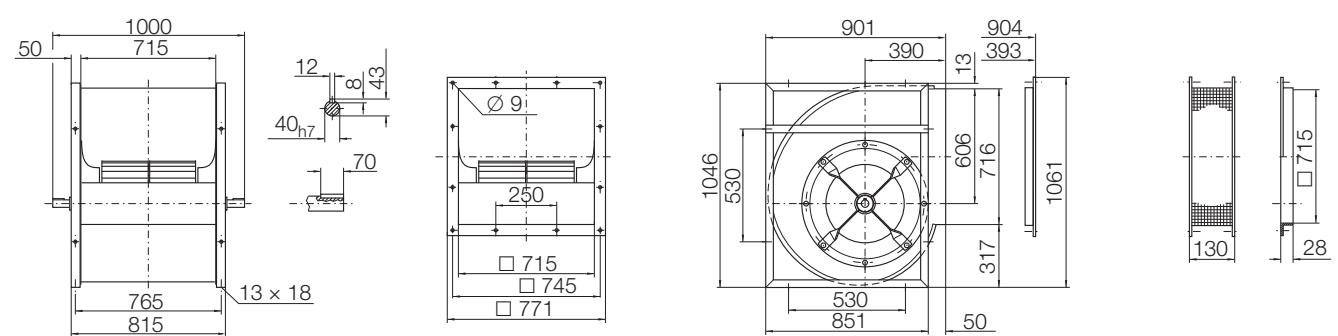
ADH E_-0560

Dimensions in mm, subject to change.

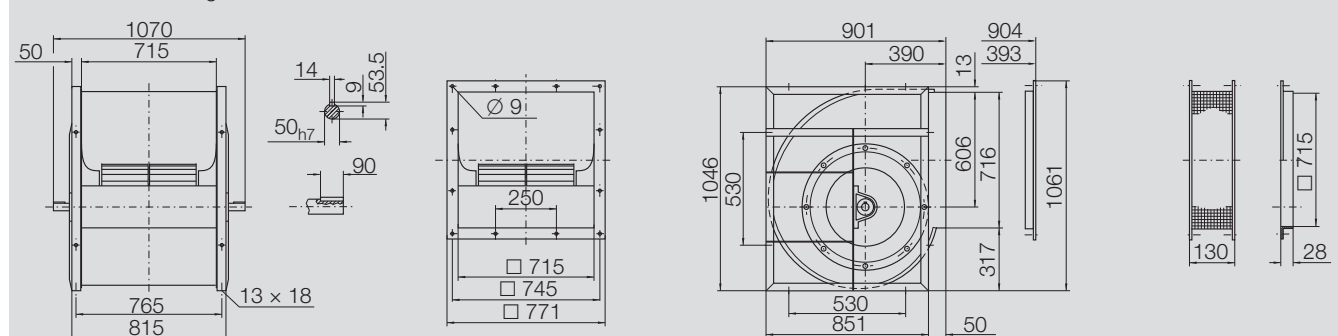
ADH E0-0560 72 kg



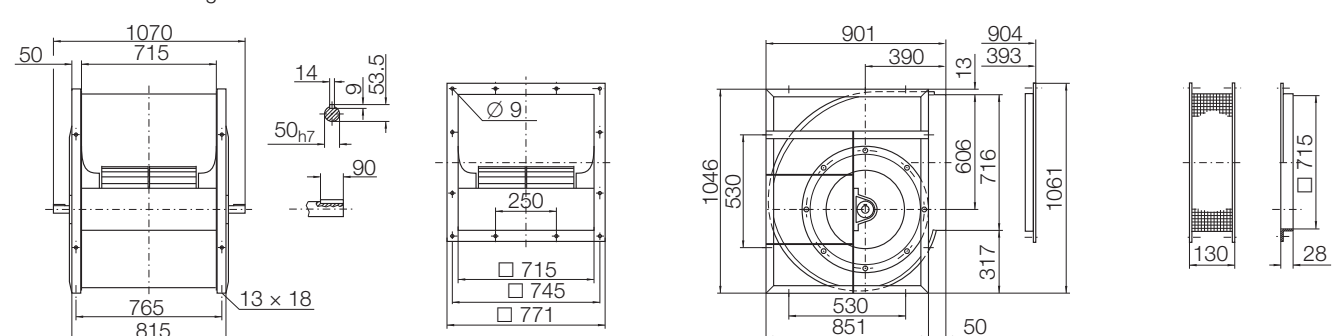
ADH E2-0560 86 kg



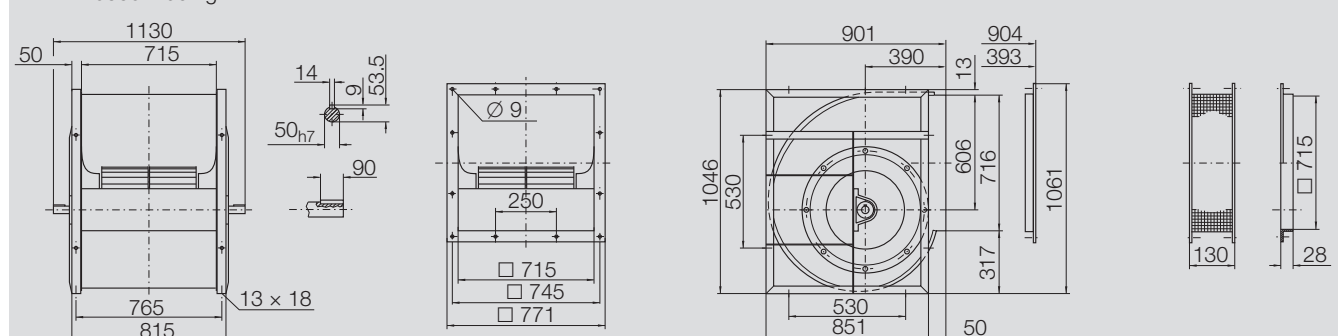
ADH E4-0560 134 kg



ADH E6-0560 142 kg



ADH E7-0560 150 kg



Curves

ADH _-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).

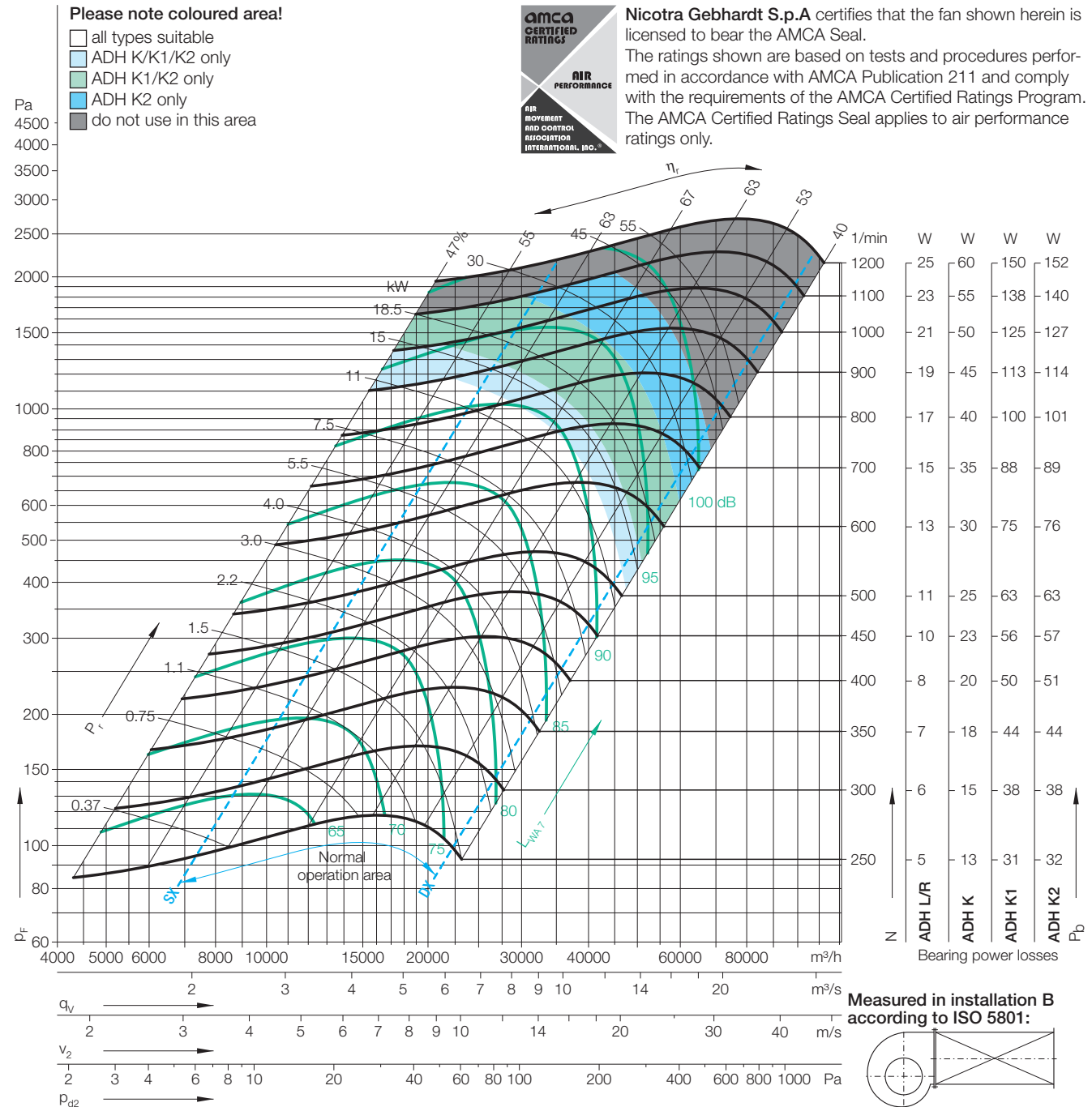
Technical Data

Impeller Data

Impeller diameter	D_r	630	mm
Number of blades	z	38	
Moment of Inertia	J	2,590	kgm ²

Impeller Data

Impeller weight	m	32	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		2	



Relative sound power level for inlet side L_{Wrel4} at octave centre frequencies f_m

Duty point	Speed	$\Delta L_{Wrel4}(A)$
SX	1000	3
SX	600	2
SX	350	1
$Q_{V,opt}$	1000	2
$Q_{V,opt}$	600	1
$Q_{V,opt}$	350	1
DX	1000	2
DX	600	1
DX	350	1

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

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

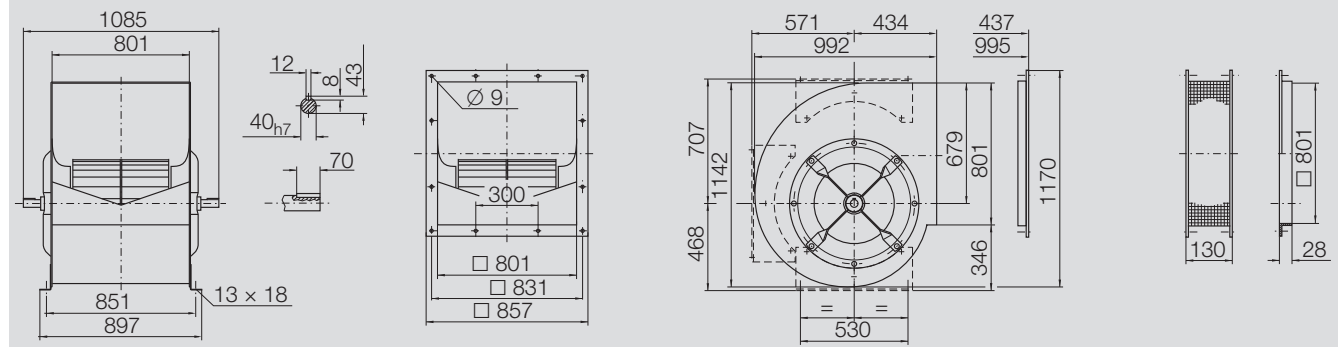
	63	125	250	500	1000	2000	4000	8000	Hz
10	10	7	-1	-7	-9	-12	-17		dB
12	11	4	-3	-6	-9	-13	-20		dB
14	9	1	-3	-5	-9	-16	-22		dB
9	9	6	-1	-6	-8	-11	-17		dB
11	9	3	-2	-5	-9	-13	-20		dB
12	7	2	-2	-6	-9	-16	-22		dB
11	11	5	-3	-6	-8	-10	-12		dB
12	10	0	-3	-5	-8	-9	-15		dB
13	2	-1	-3	-6	-7	-13	-19		dB

Dimensions

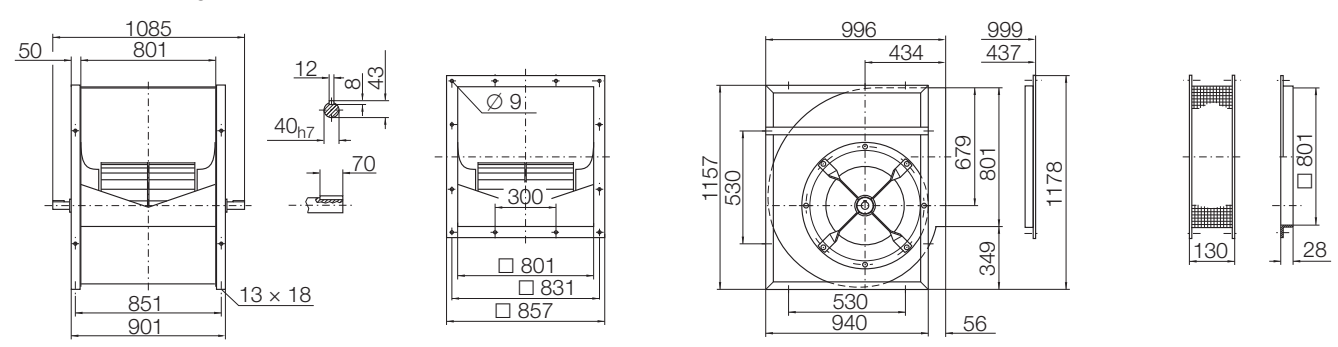
ADH _-0630

Dimensions in mm, subject to change.

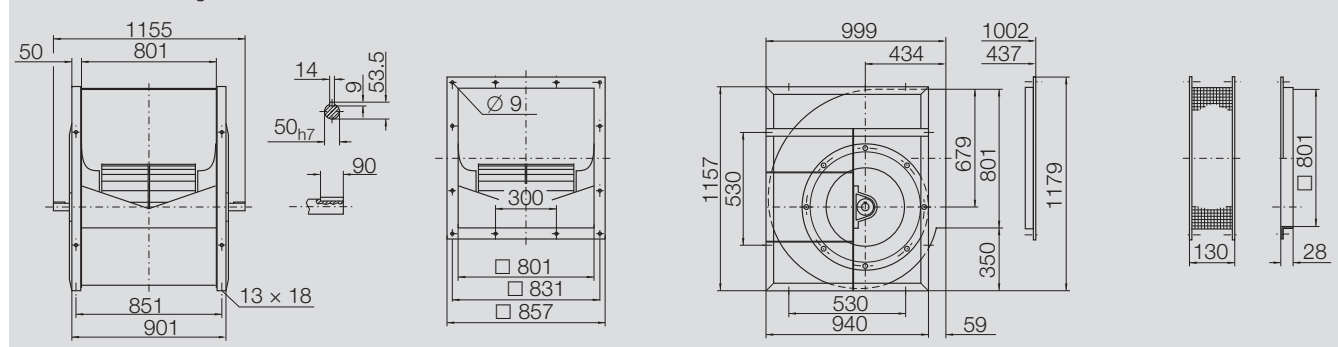
ADH L-0630 91 kg



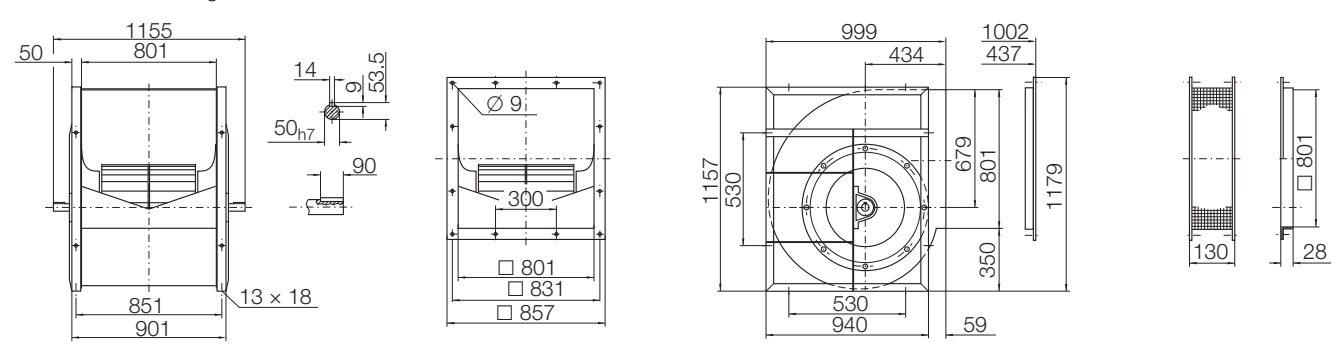
ADH R-0630 106 kg



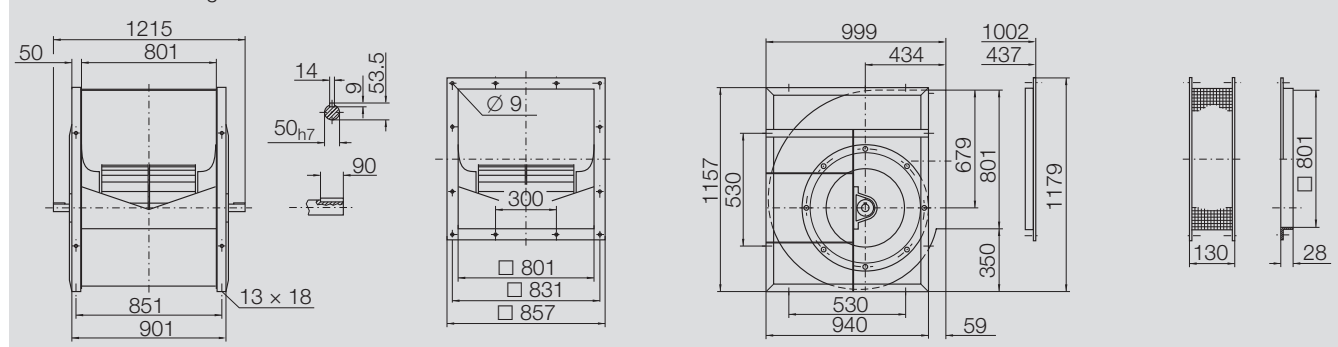
ADH K-0630 170 kg



ADH K1-0630 175 kg



ADH K2-0630 180 kg



Curves

ADH _-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).

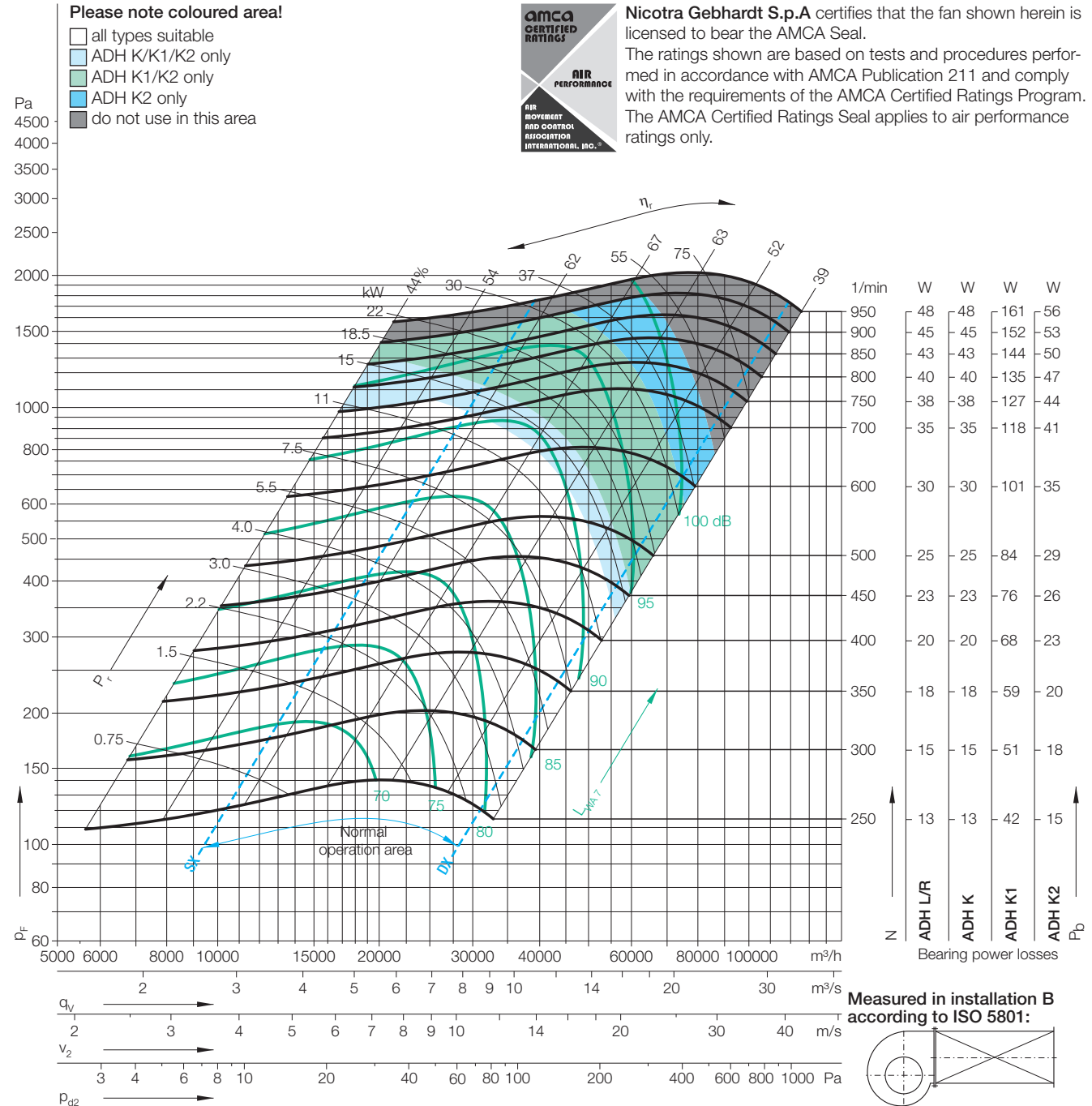
Technical Data

Impeller Data

Impeller diameter	D_r	710	mm
Number of blades	z	42	
Moment of Inertia	J	3,970	kgm ²

Impeller Data

Impeller weight	m	40	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		2	



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

Duty point	Speed	$\Delta L_{Wrel4}(A)$
SX	850	2
SX	500	1
SX	300	1
$Q_{V,opt}$	850	2
$Q_{V,opt}$	500	1
$Q_{V,opt}$	300	0
DX	850	2
DX	500	1
DX	300	0

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

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

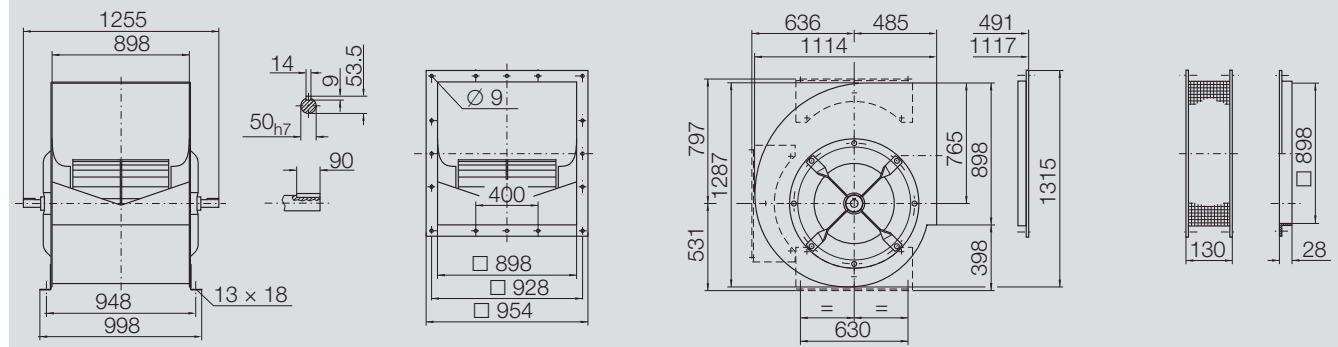
63	125	250	500	1000	2000	4000	8000	Hz
12	12	2	0	-7	-10	-14	-20	dB
14	10	3	-2	-7	-10	-15	-21	dB
15	7	3	-4	-6	-11	-17	-20	dB
10	10	1	0	-7	-10	-13	-19	dB
13	7	3	-1	-7	-9	-15	-20	dB
13	6	4	-4	-6	-11	-16	-20	dB
14	12	-1	-2	-7	-8	-10	-14	dB
16	4	0	-3	-6	-7	-10	-17	dB
10	2	0	-4	-5	-7	-14	-18	dB

Dimensions

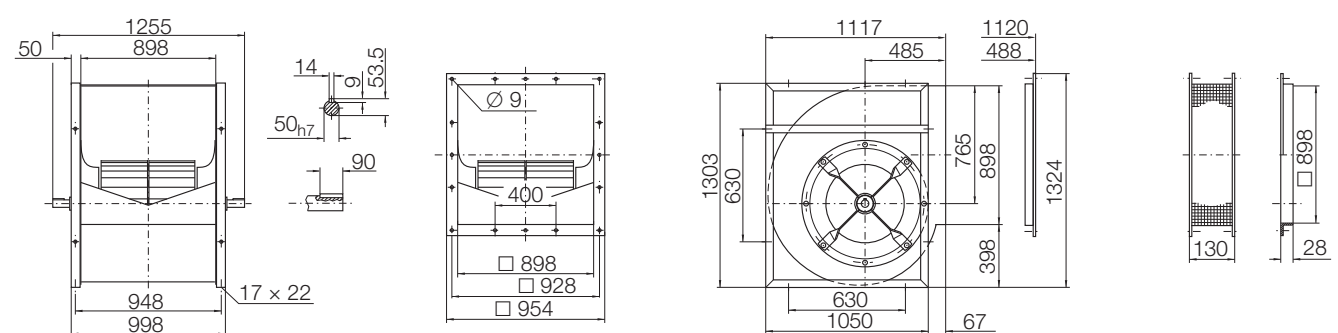
ADH_-0710

Dimensions in mm, subject to change.

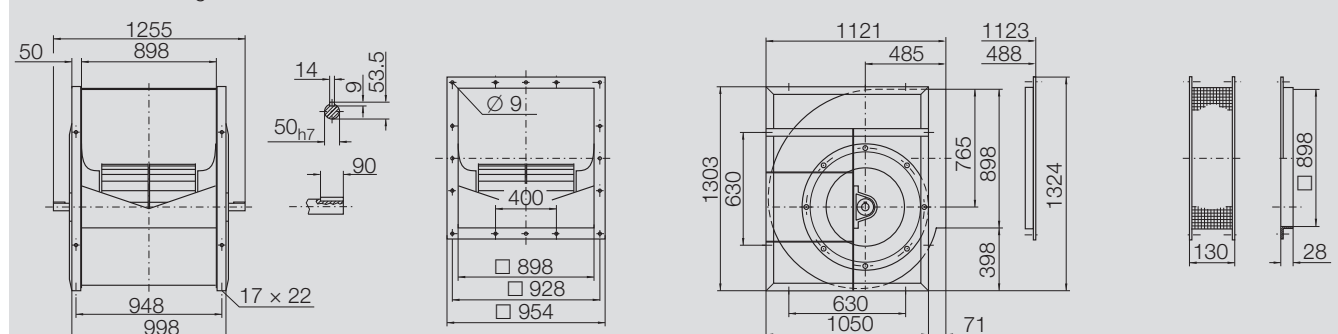
ADH L-0710 118 kg



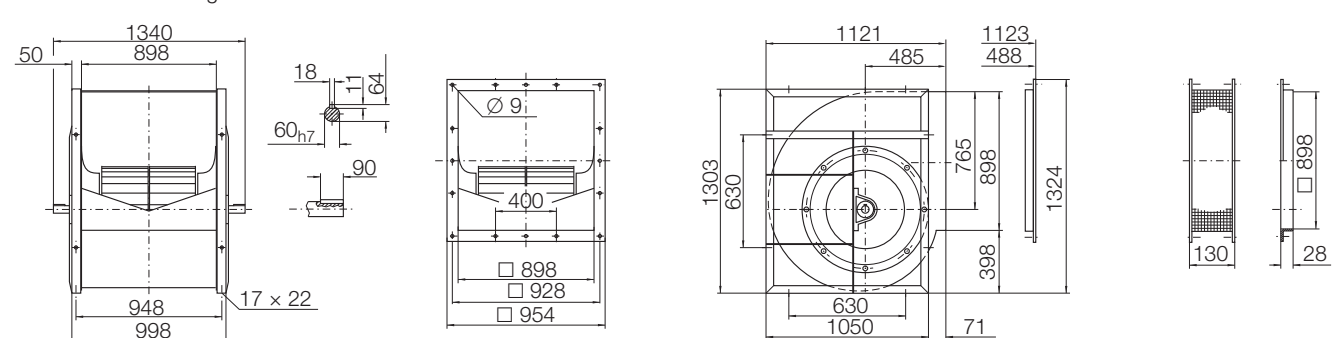
ADH R-0710 135 kg



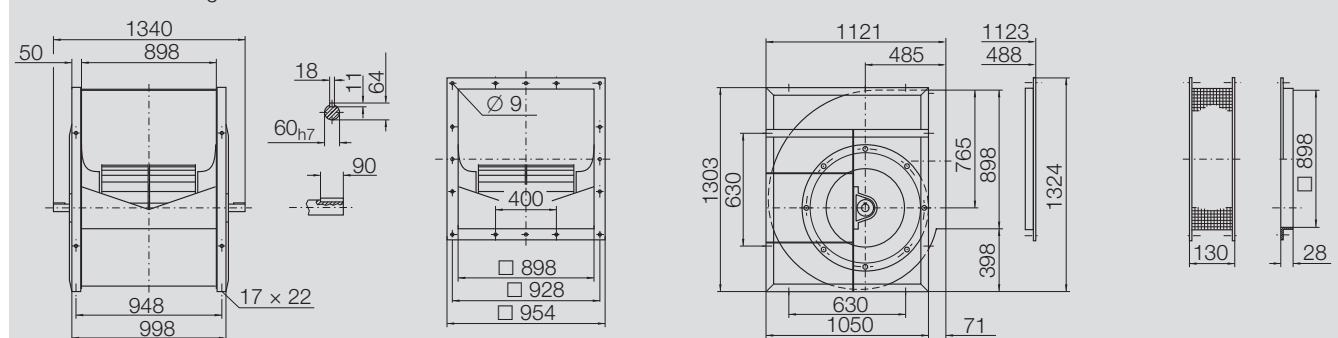
ADH K-0710 201 kg



ADH K1-0710 208 kg



ADH K2-0710 225 kg



Curves

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).

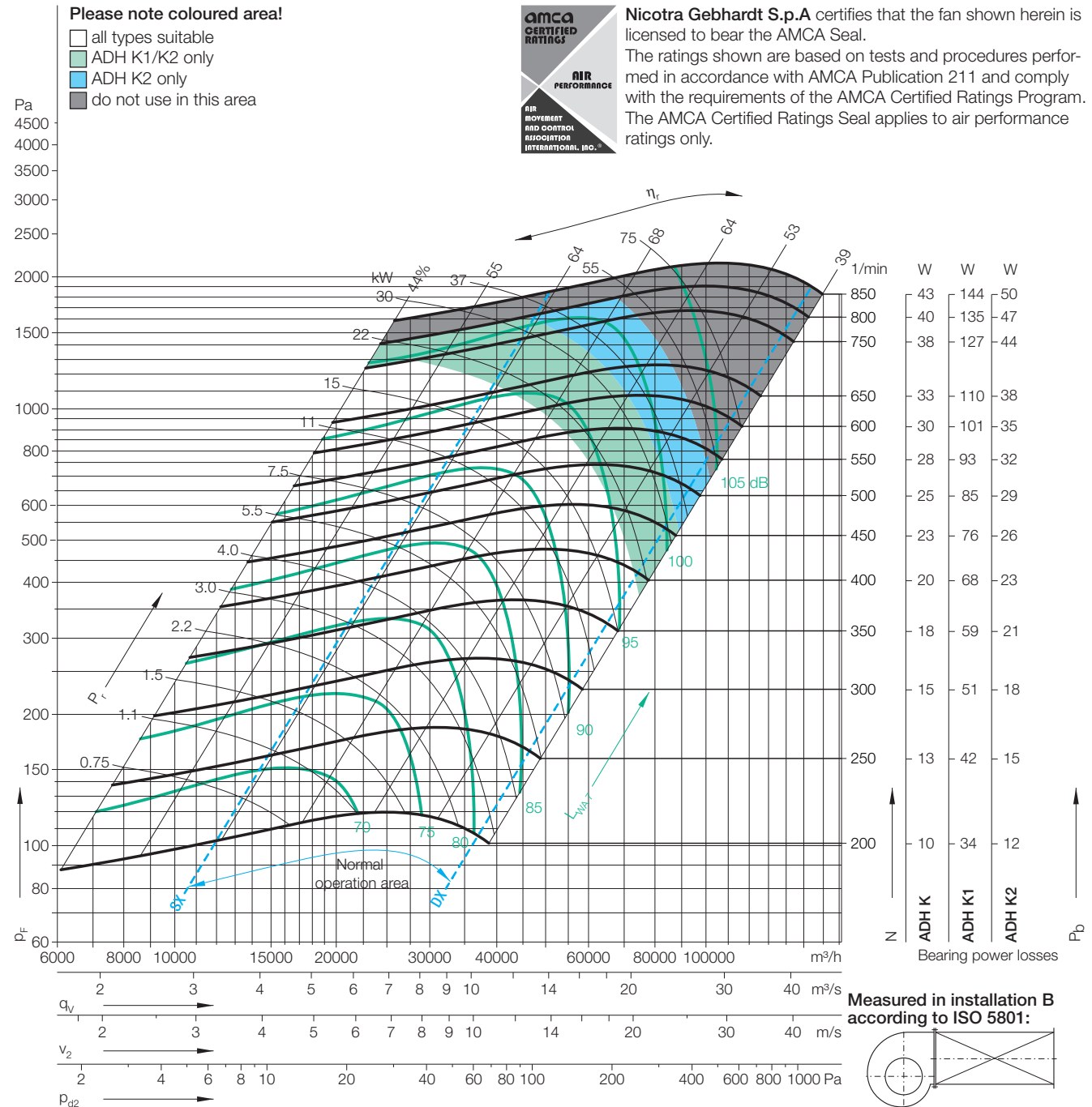
Technical Data

Impeller Data

Impeller diameter	D_r	800	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	



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

Duty point	Speed	$\Delta L_{wrel4}(A)$
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_m

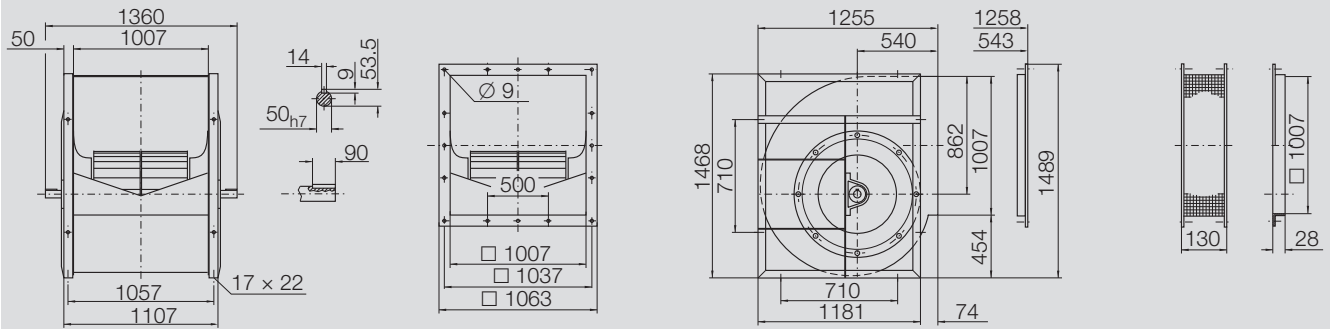
63	125	250	500	1000	2000	4000	8000	Hz
12	12	1	0	-8	-10	-15	-20	dB
15	10	3	-2	-7	-10	-16	-21	dB
16	7	3	-4	-6	-11	-17	-20	dB
11	10	0	0	-8	-10	-14	-19	dB
13	7	3	-1	-7	-9	-15	-20	dB
13	6	4	-4	-6	-10	-16	-20	dB
14	11	-2	-2	-7	-8	-10	-15	dB
16	4	-1	-3	-6	-7	-11	-17	dB
10	2	0	-4	-5	-7	-14	-19	dB

Dimensions

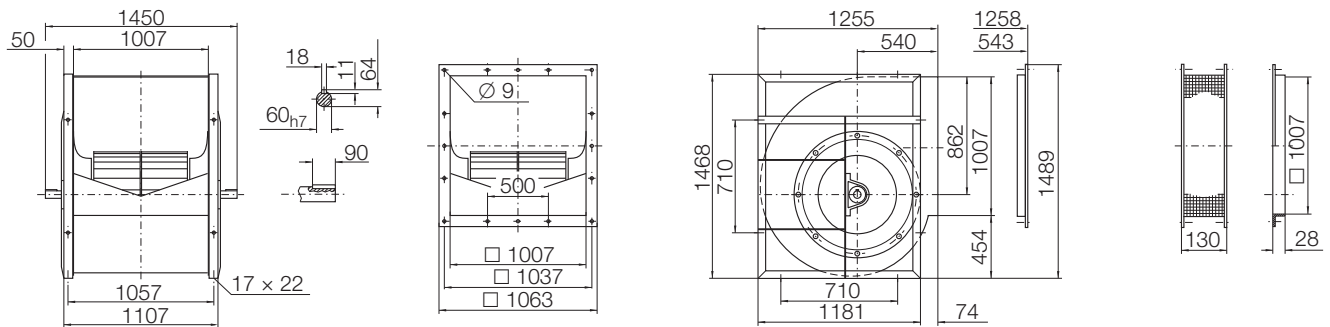
ADH _-0800

Dimensions in mm, subject to change.

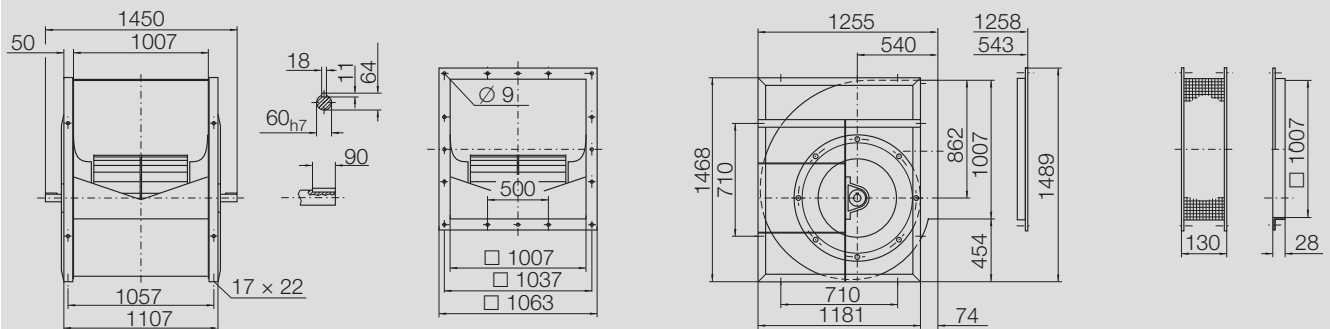
ADH K-0800 249 kg



ADH K1-0800 261 kg



ADH K2-0800 278 kg



Curves

ADH _-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).

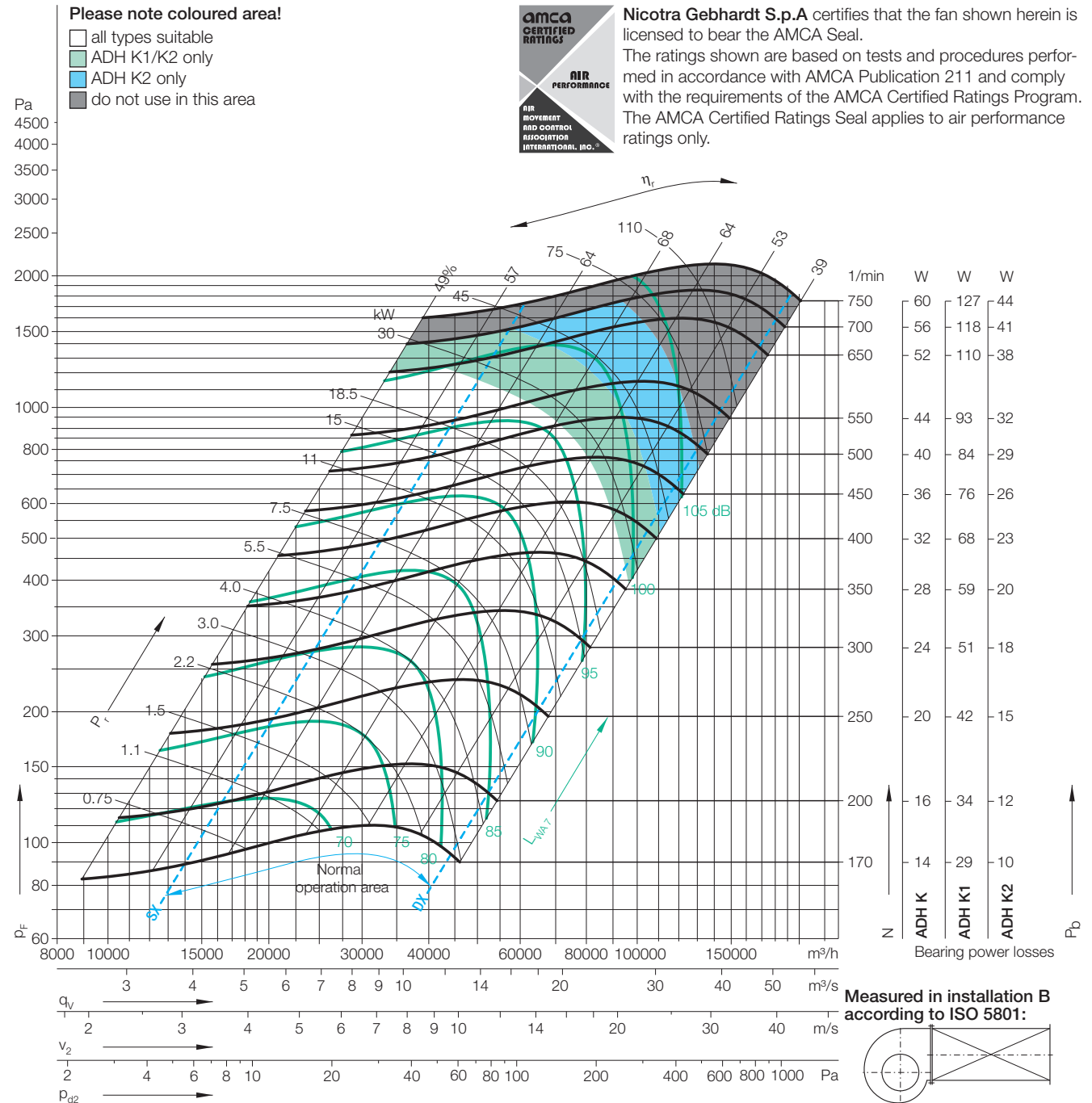
Technical Data

Impeller Data

Impeller diameter	D_r	900	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	



Relative sound power level for inlet side L_{Wrel4} at octave centre frequencies f_m

Duty point	Speed	$\Delta L_{Wrel4}(A)$
SX	650	2
SX	400	1
SX	250	0
$Q_{V,opt}$	650	1
$Q_{V,opt}$	400	1
$Q_{V,opt}$	250	0
DX	650	1
DX	400	1
DX	250	0

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

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

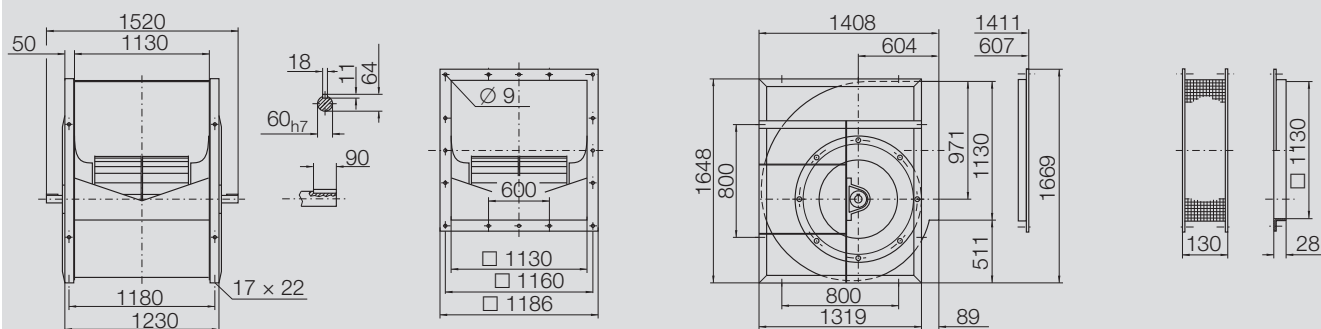
63	125	250	500	1000	2000	4000	8000	Hz
13	12	3	-1	-8	-10	-15	-21	dB
17	5	4	-4	-6	-11	-16	-20	dB
14	8	2	-3	-6	-11	-17	-21	dB
11	10	1	0	-8	-10	-14	-20	dB
14	4	4	-4	-6	-10	-15	-20	dB
11	7	3	-3	-6	-11	-17	-21	dB
15	9	-1	-2	-7	-7	-10	-16	dB
14	1	1	-4	-5	-7	-12	-18	dB
6	2	0	-4	-5	-8	-14	-19	dB

Dimensions

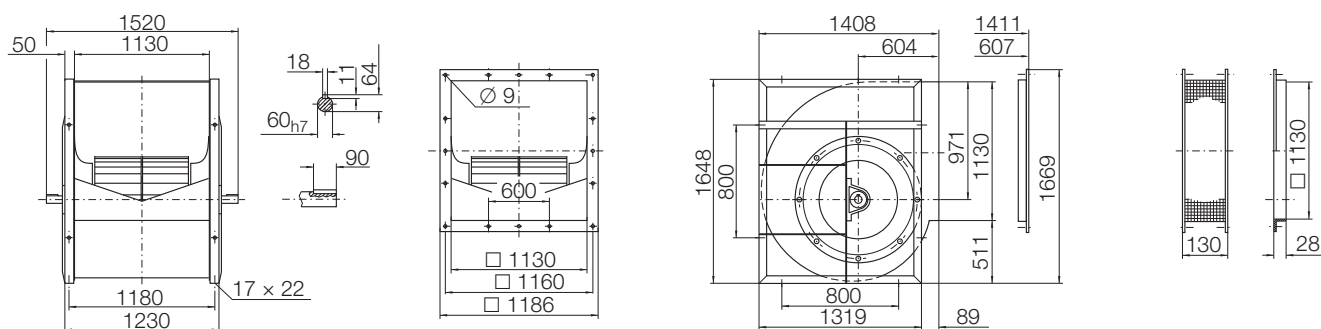
ADH _-0900

Dimensions in mm, subject to change.

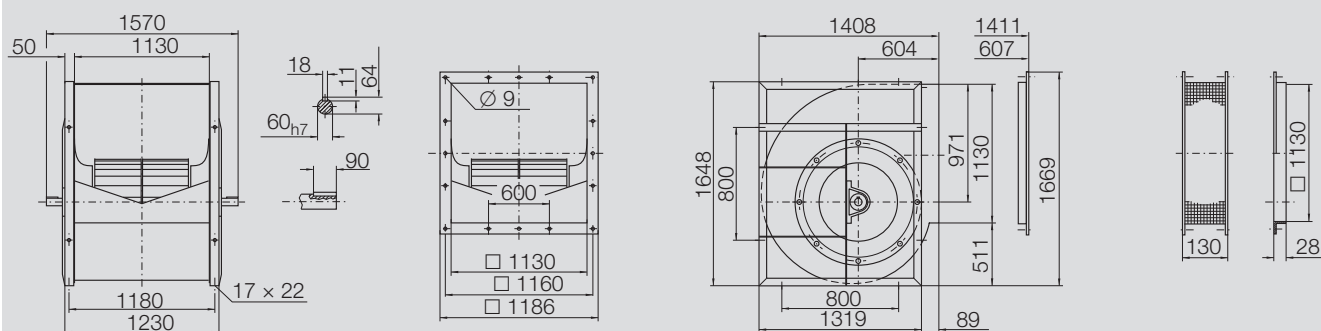
ADH K-0900 306 kg



ADH K1-0900 316 kg



ADH K2-0900 320 kg



Curves

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).

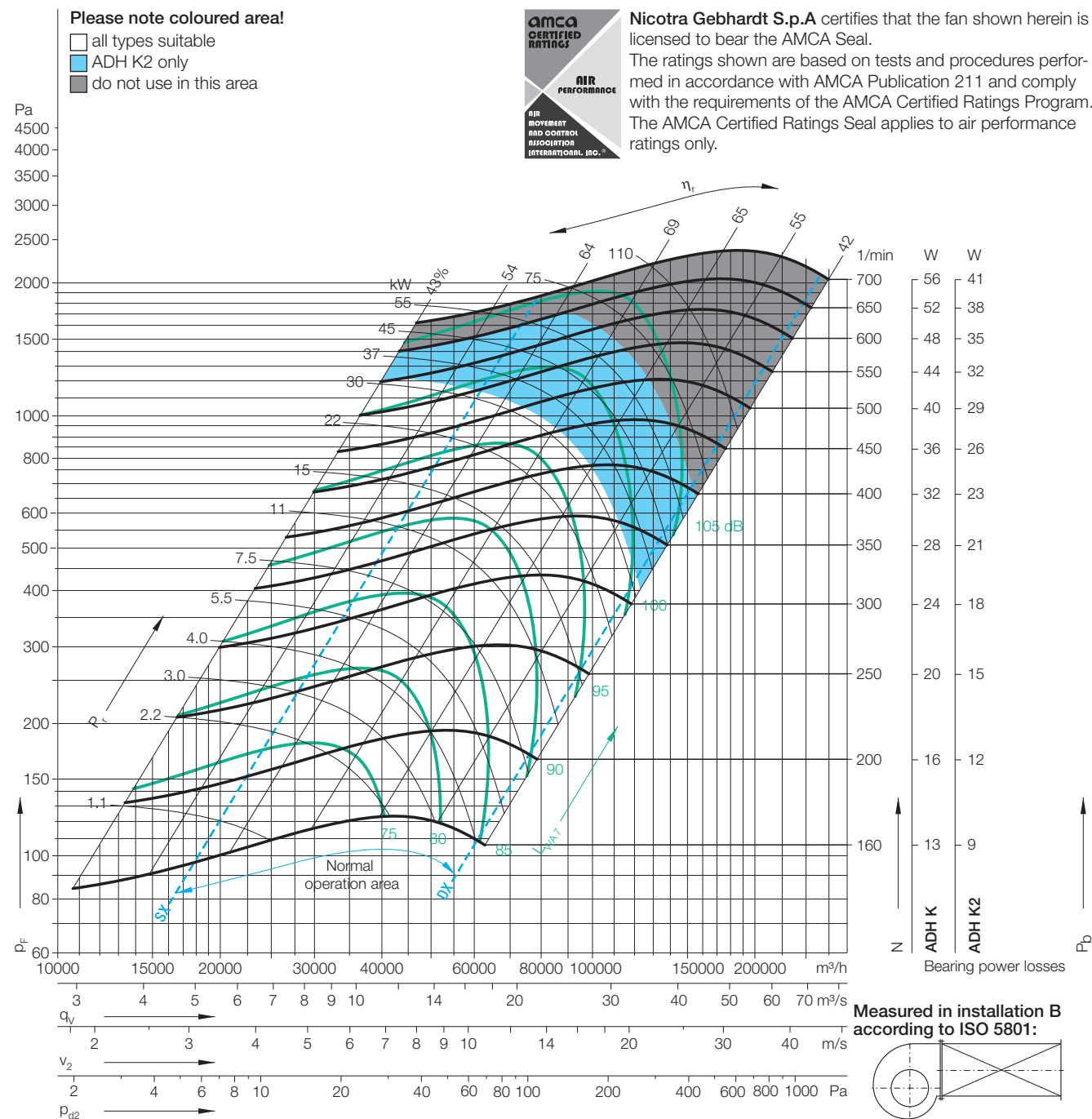
Technical Data

Impeller Data

Impeller diameter	D_r	1000	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	



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

Duty point	Speed	$\Delta L_{wrel4}(A)$
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_m

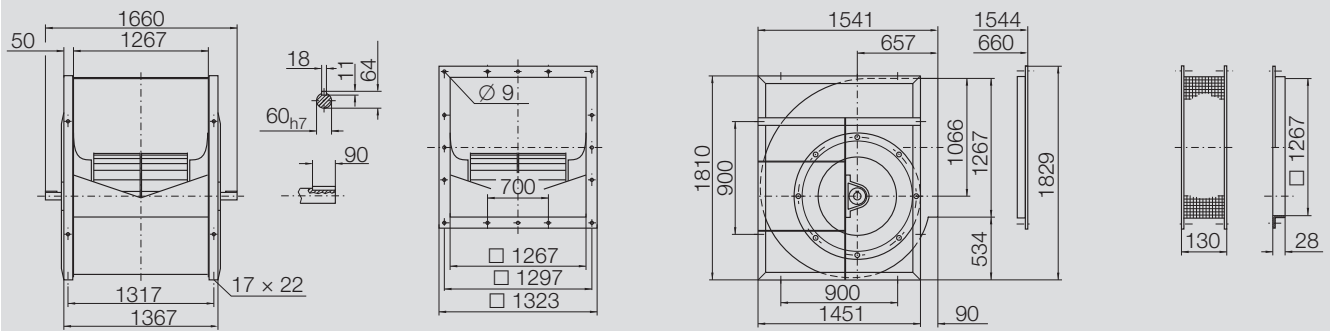
63	125	250	500	1000	2000	4000	8000	Hz
14	12	3	-2	-8	-10	-15	-21	dB
17	5	4	-4	-6	-10	-16	-20	dB
9	8	0	-2	-6	-12	-16	-22	dB
12	9	2	-1	-8	-10	-15	-20	dB
14	4	4	-4	-6	-10	-15	-20	dB
8	8	0	-2	-6	-11	-16	-22	dB
15	8	0	-3	-7	-7	-10	-17	dB
14	1	1	-4	-5	-7	-12	-18	dB
3	4	-2	-2	-5	-9	-15	-20	dB

Dimensions

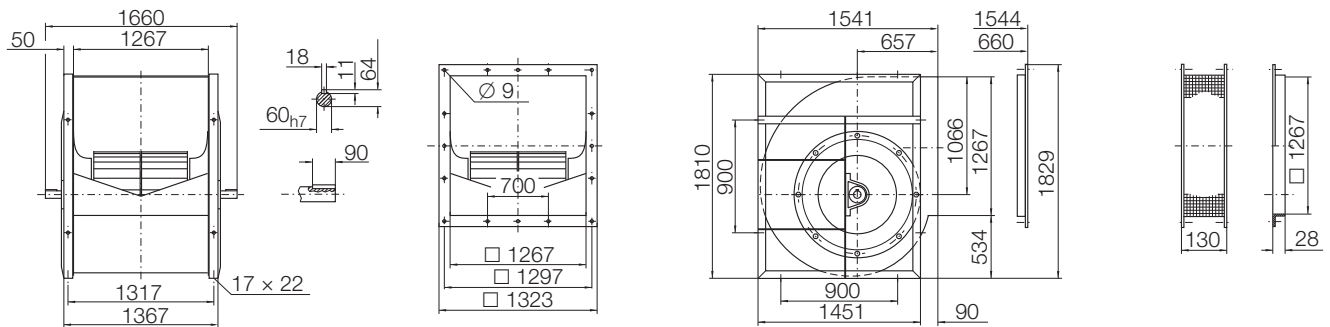
ADH_-1000

Dimensions in mm, subject to change.

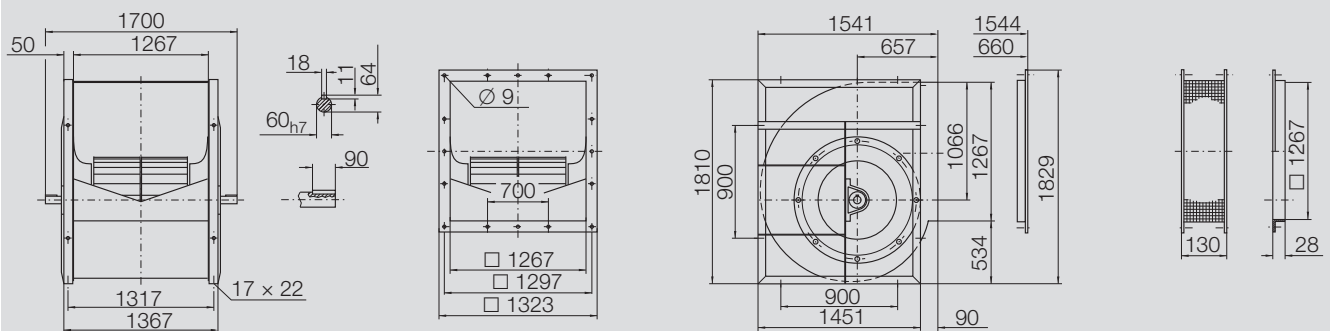
ADH K-1000 333 kg



ADH K1-1000 356 kg



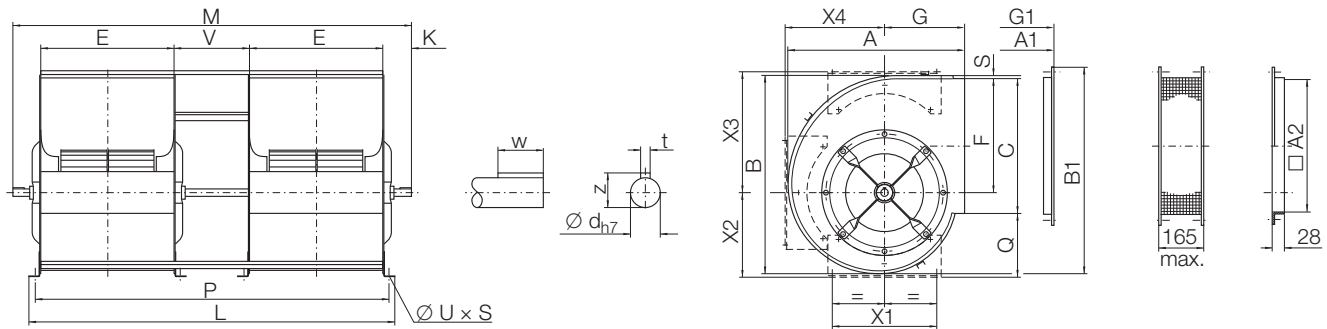
ADH K2-1000 360 kg



ADH G2E0

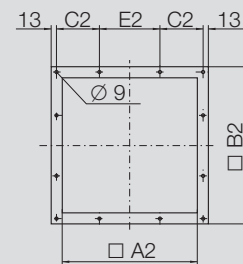
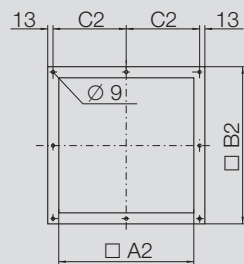
Dimensions in mm, subject to change.

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

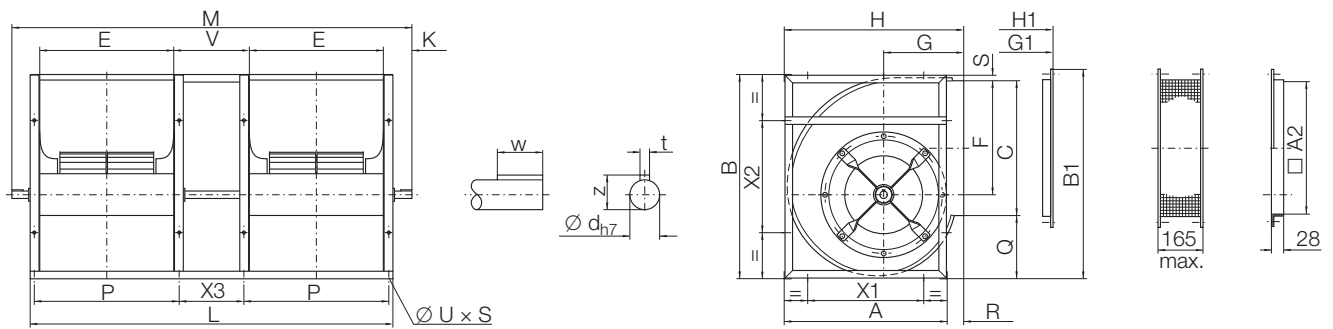
	S	V	K	X1	X2	X3	X4	t	w
0160	7	160	70	180	153	207	153	6	30
0180	7	180	71	180	167	227	167	6	30
0200	6	200	82	224	186	250	189	6	30
0225	7	225	82	224	202	279	209	6	30
0250	7	250	71	224	215	304	232	6	30
0280	6	280	79	280	242	337	261	8	40
0315	7	315	89	280	267	376	289	8	40
0355	7	355	95	355	281	418	327	8	40
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

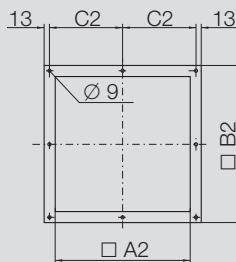
ADH G2E2 / ADH G2R

Dimensions in mm, subject to change.

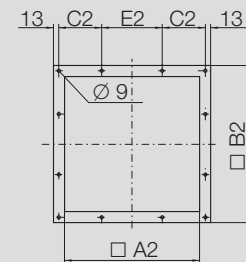
ADH G2E2-0160/-0560 / ADH G2R-0630



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

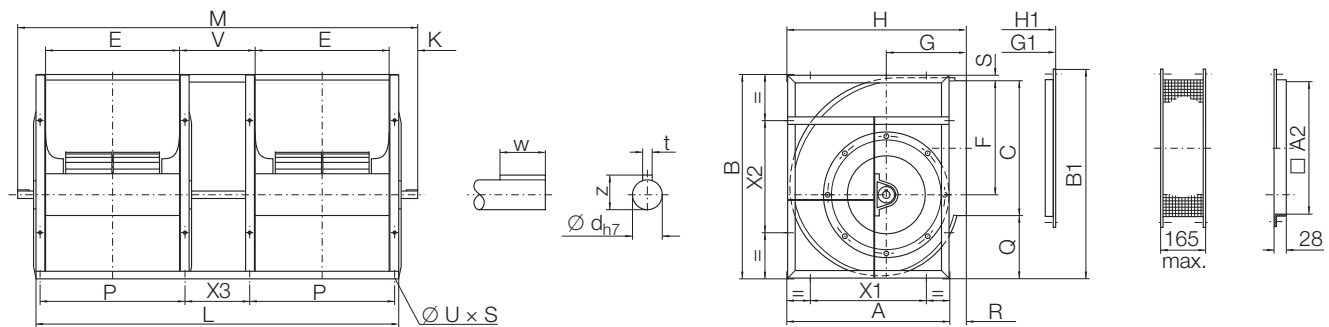
	Q	R	S	V	K	X1	X2	X3	t	w
0160	98	26	10	160	50	180	180	136	6	30
0180	113	28	8	180	51	180	180	156	6	30
0200	115	34	8	200	57	224	224	170	6	30
0225	129	37	11	225	57	224	224	195	6	30
0250	140	37	10	250	46	224	224	220	6	30
0280	158	35	9	280	51	280	280	250	8	40
0315	177	36	10	315	60	280	280	285	8	40
0355	204	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

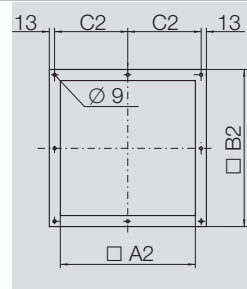
ADH G2E4 / ADH G2K

Dimensions in mm, subject to change.

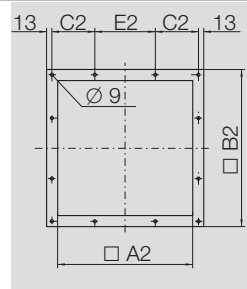
ADH G2E4-0250/-0560 / ADH G2K-0630/-1000



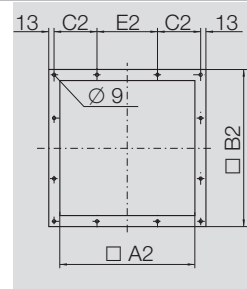
ADH G2E4-0250/-0355



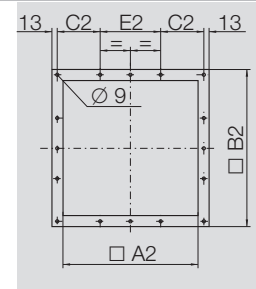
ADH G2E4-0400/-0560



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

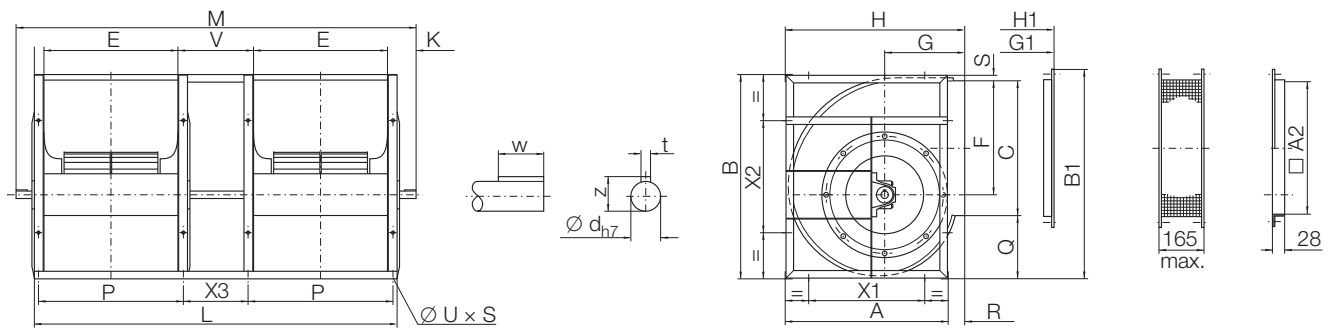
	Q	R	S	V	K	X1	X2	X3	t	t1	w
0250	140	37	10	250	71	224	224	220	8	7	40
0280	158	35	9	280	79	280	280	250	8	7	40
0315	177	36	10	315	79	280	280	285	8	7	40
0355	204	37	13	355	82	355	355	315	10	8	50
0400	234	41	11	400	83	355	355	360	10	8	50
0450	261	44	11	450	101	530	530	400	12	8	70
0500	282	49	10	500	102	530	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 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

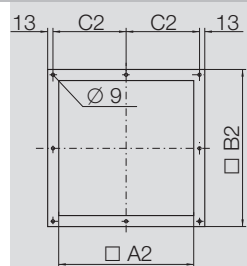
ADH G2E7 / ADH G2K2

Dimensions in mm, subject to change.

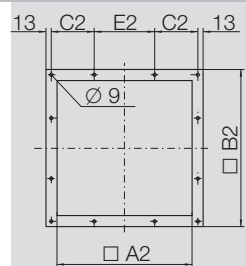
ADH G2E7-0250/-0560 / ADH G2K2-0630/-1000



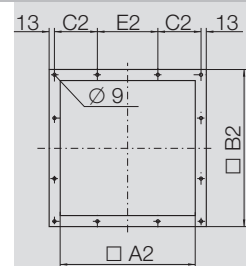
ADH G2E7-0250/-0355



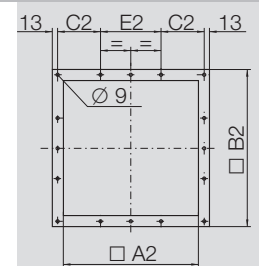
ADH G2E7-0400/-0560



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

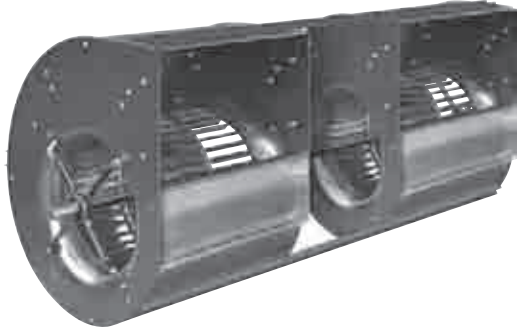
ADH G2E0-0160/-0500

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 24 166 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	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_i	= kg/m ³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η/η_{gr})	=
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 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), 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 24 166 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	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m ³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_i/η_{st})	=
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 24 166 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

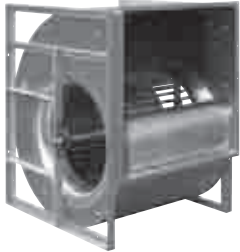
Fan type	=	
Volume	q_v	= m³/h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_i/η_{gr})	=
Speed	N	= 1/min
Sound power level (A-weighted)	L_{WA}	= dB
Weight	m	= kg

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 24 166 tolerance class 2.

Fan data

Fan type		=
Volume	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m ³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_i/η_{sf})	=
Speed	N	= 1/min
Sound power level (A-weighted)	L_{WA}	= dB
Weight	m	= kg

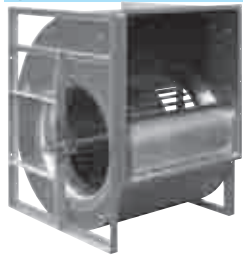
Fittings / Accessories

- 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 24 166 tolerance class 2.

Fan data

Fan type	=	
Volume	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m ³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_i/η_{gr})	=
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 fanADH 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.

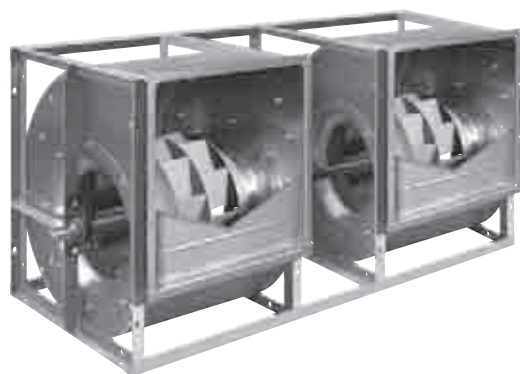
Performance data in according to DIN 24 166 tolerance class 2.

Fan data

Fan type	=	
Volume	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m ³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_i/η_{sF})	=
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)



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*rotavent*® 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 1400 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. +100C. According to DIN 24166, the specifications conform to accuracy class 1 (for all sizes from 0355 to 1400) and accuracy class 2 (for all sizes from 0180 to 315).

RDH-E and RDH G2E series

- Sizes 0180 to 0560
- Scroll of galvanized 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 1400
- Lap jointed scroll of galvanised sheet steel assembled by Pittsburgh lockforming (Sizes 0630 up to 1120) or made of welded sheet steel and painted (Sizes 1250, 1400), casing split on one axis (size 1400), 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 6 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.

RDH

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.	
RDH X1 / RDH X2	Lap jointed scroll of galvanised sheet steel assembled by Pittsburgh lockforming (Size 1120) or made of welded sheet steel and painted (Sizes 1250, 1400), casing split on one axis- two parts (size 1400), connecting flange at discharge. Heavy duty square tube reinforcing frame. Heavy duty bearing execution with cast iron 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).	

Curves

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).

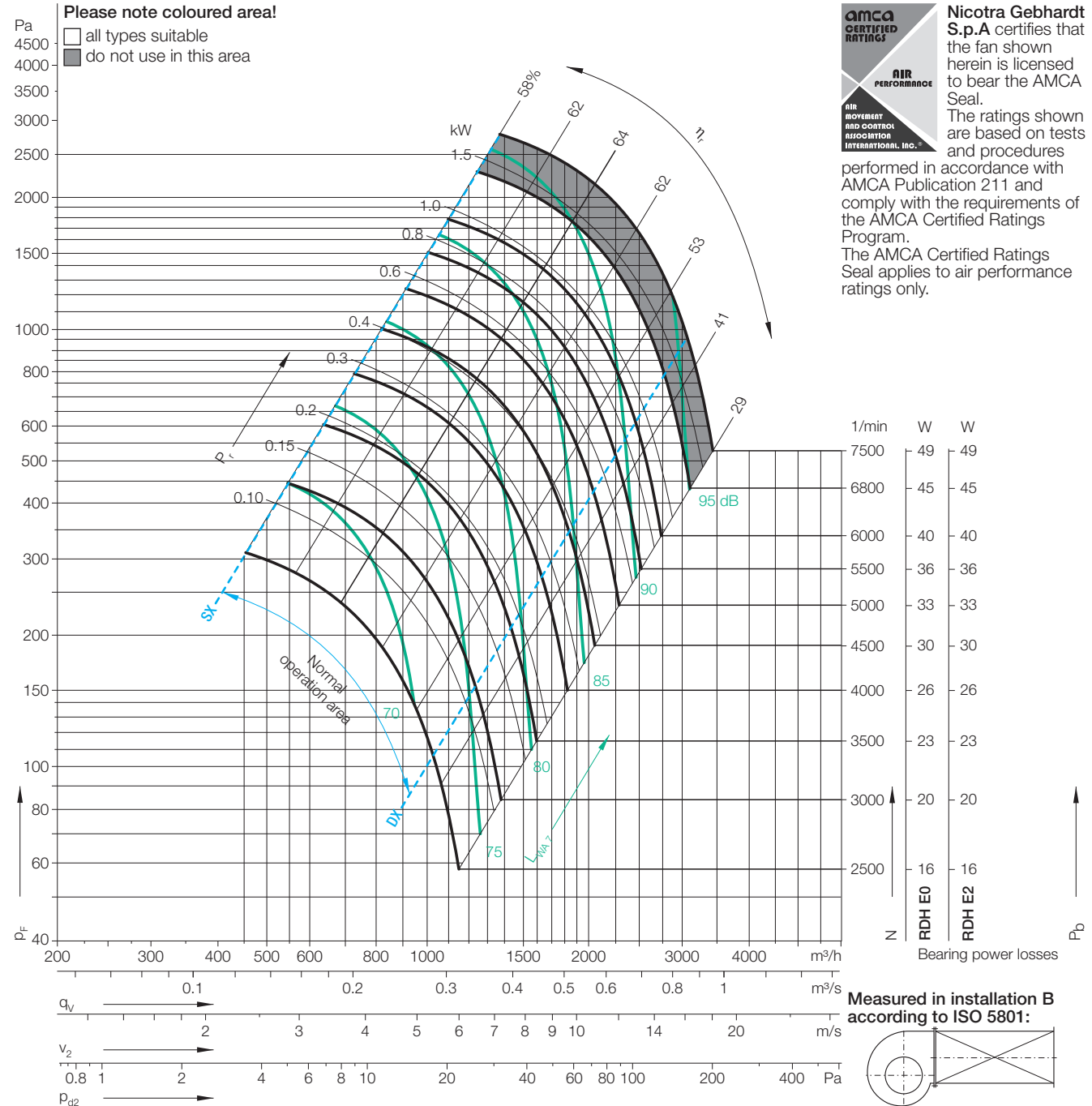
Technical Data

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	



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	$\Delta L_{Wrel4}(A)$	Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_m								
	1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz
SX	6000	4	-14	-6	-2	-5	-5	-6	-11	-17	dB
SX	4500	3	-9	-2	-3	-3	-5	-8	-12	-18	dB
SX	3000	2	-3	0	-3	-3	-4	-9	-15	-21	dB
$Q_{V,opt}$	6000	3	-17	-8	-3	-5	-6	-5	-12	-17	dB
$Q_{V,opt}$	4500	2	-11	-4	-3	-4	-4	-8	-13	-18	dB
$Q_{V,opt}$	3000	1	-5	-0	-3	-4	-3	-10	-15	-22	dB
DX	6000	2	-21	-11	-6	-4	-6	-5	-11	-16	dB
DX	4500	1	-15	-7	-5	-4	-4	-8	-12	-17	dB
DX	3000	1	-9	-4	-2	-4	-3	-9	-14	-21	dB

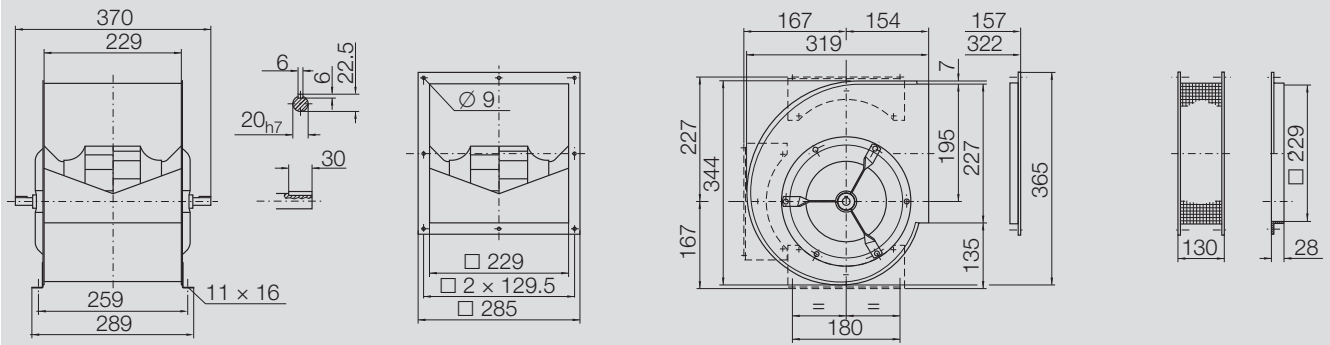
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_m											
63	125	250	500	1000	2000	4000	8000	Hz			
15	8	3	3	-5	-6	-10	-17	dB			
16	5	5	2	-6	-6	-12	-19	dB			
10	6	5	-3	-4	-8	-15	-22	dB			
8	6	5	1	-7	-6	-12	-21	dB			
10	6	5	0	-6	-7	-16	-22	dB			
8	7	3	-5	-4	-10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

Dimensions

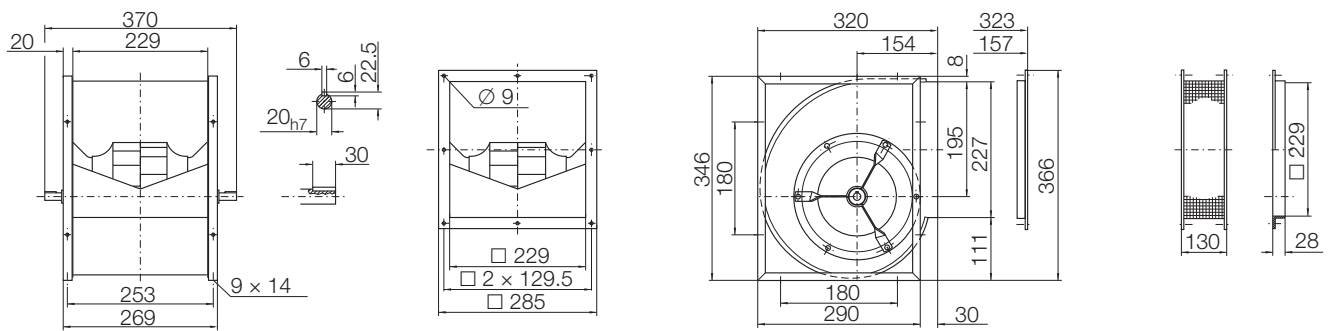
RDH E_-0180

Dimensions in mm, subject to change.

RDH E0-0180 5.3 kg



RDH E2-0180 7.1 kg



Curves

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).

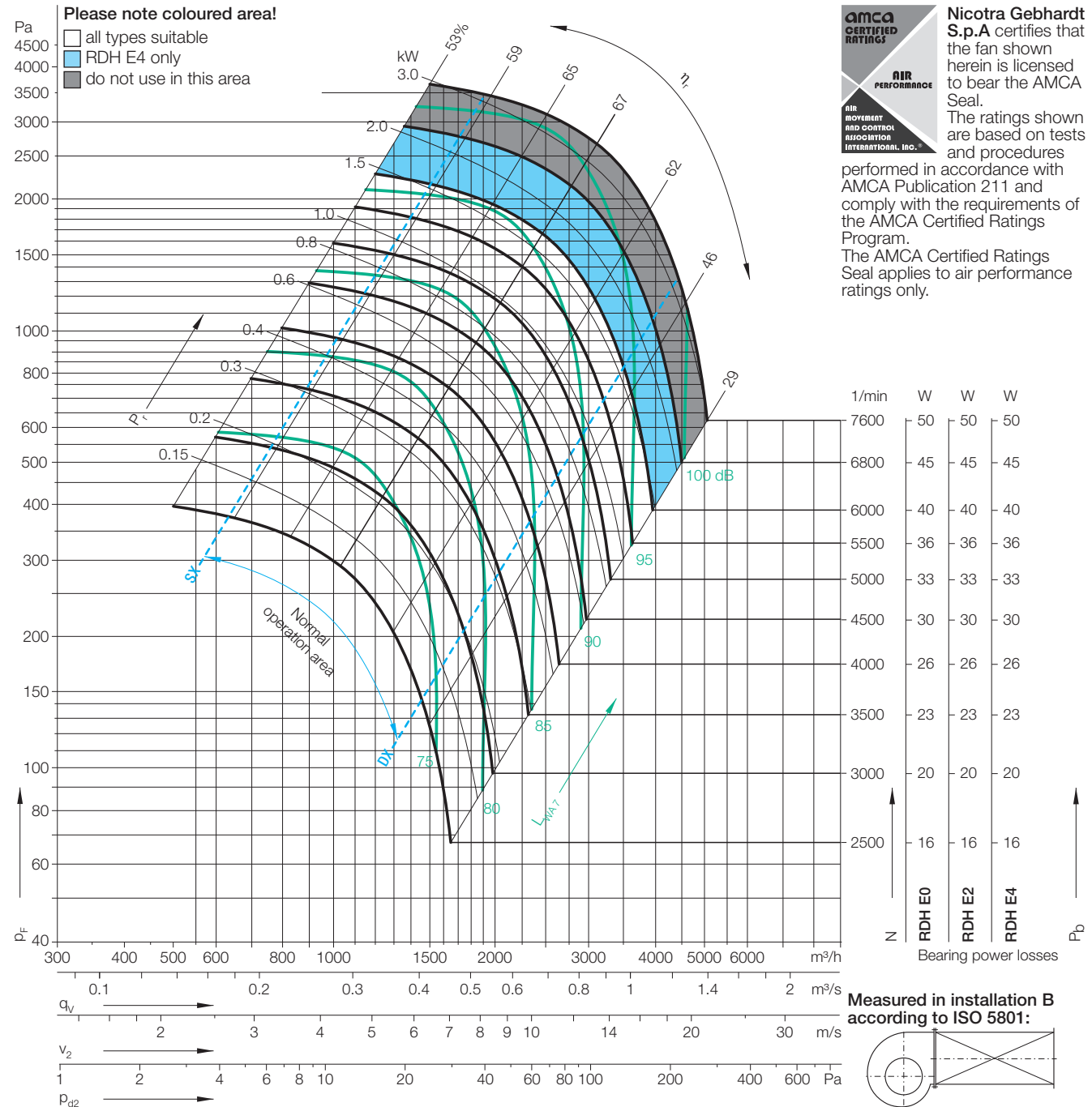
Technical Data

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	



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

Duty point	Speed	$\Delta L_{Wrel4}(A)$
SX	5500	5
SX	4500	4
SX	3000	3
$Q_{V,opt}$	5500	4
$Q_{V,opt}$	4500	3
$Q_{V,opt}$	3000	1
DX	5500	2
DX	4500	2
DX	3000	0

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

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

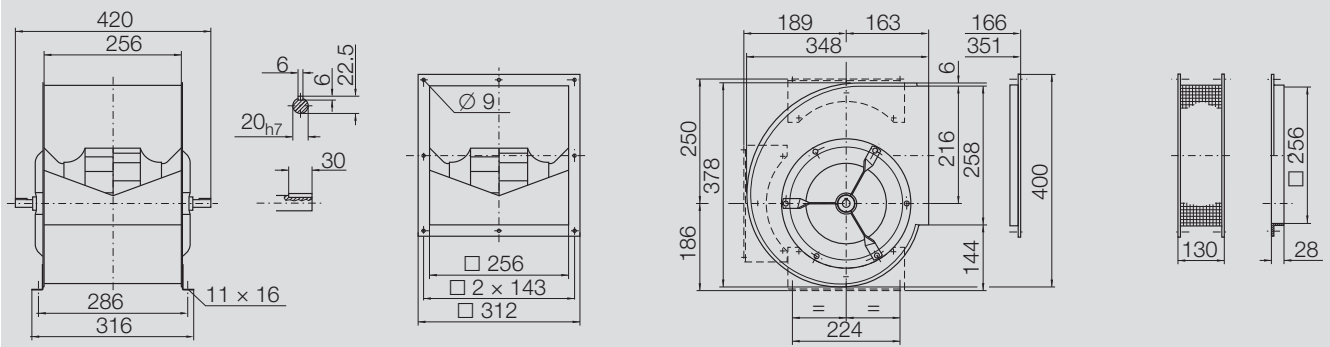
63	125	250	500	1000	2000	4000	8000	Hz
25	10	5	4	-6	-7	-11	-17	dB
22	7	7	2	-7	-7	-12	-18	dB
14	7	7	-2	-5	-8	-14	-18	dB
19	11	7	1	-8	-7	-11	-17	dB
16	10	6	-1	-8	-8	-13	-18	dB
14	9	3	-5	-6	-9	-15	-21	dB
19	7	0	-1	-8	-5	-8	-17	dB
18	3	1	-1	-7	-6	-11	-16	dB
10	2	1	-6	-5	-6	-15	-17	dB

Dimensions

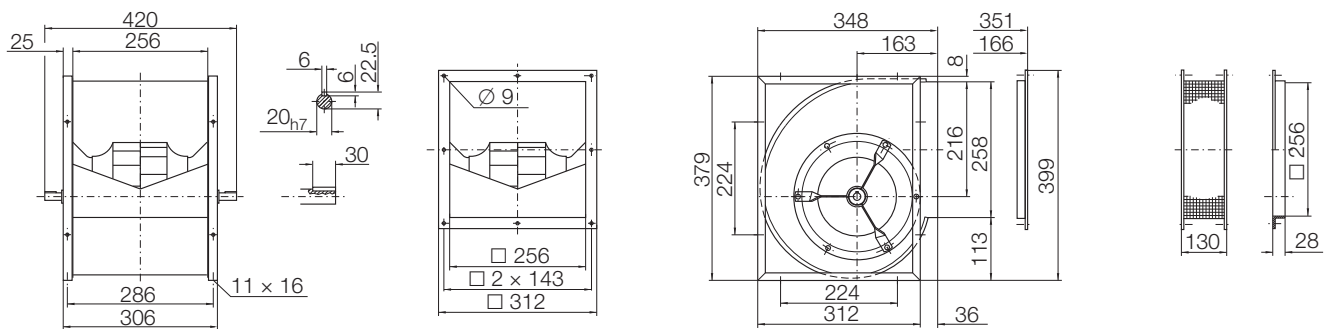
RDH E_-0200

Dimensions in mm, subject to change.

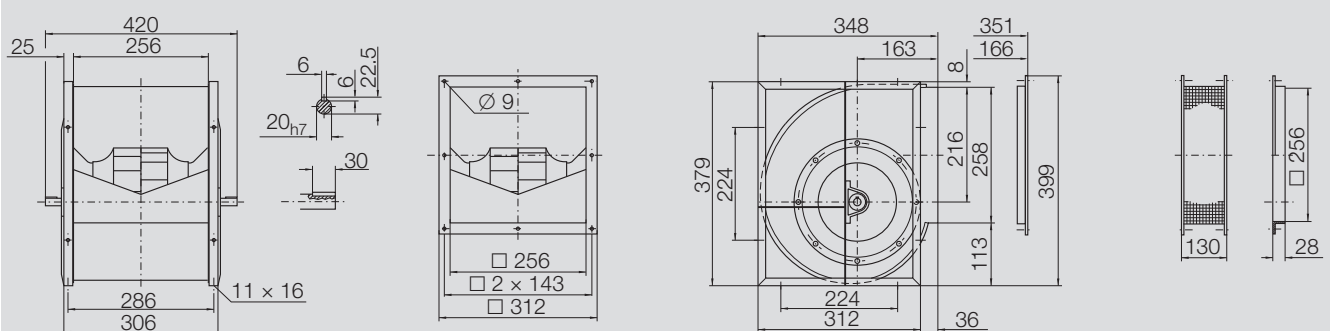
RDH E0-0200 6.6 kg



RDH E2-0200 8.5 kg



RDH E4-0200 11.8 kg



Curves

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).

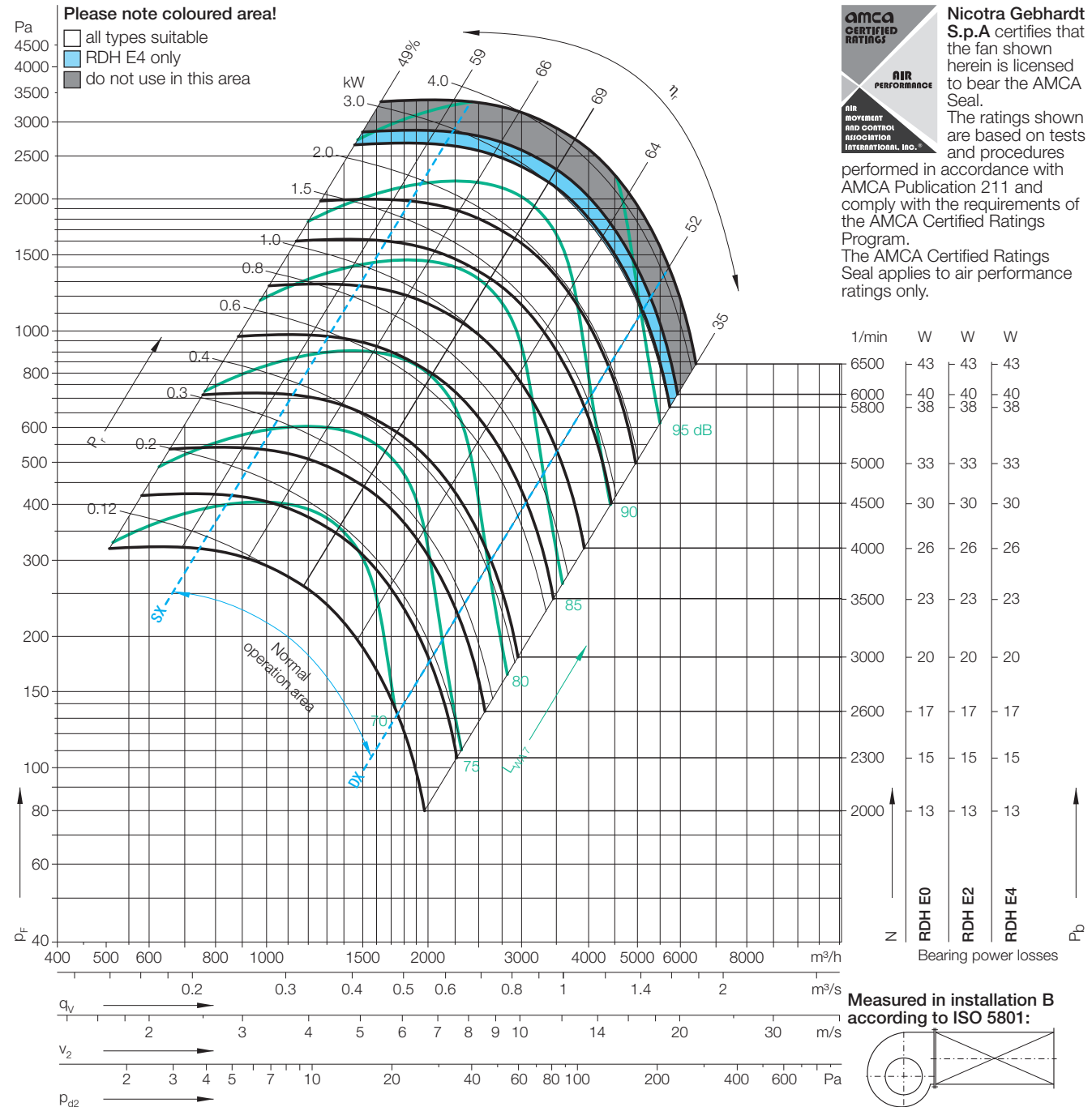
Technical Data

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	



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

Duty point	Speed	$\Delta L_{Wrel4}(A)$
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

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_m

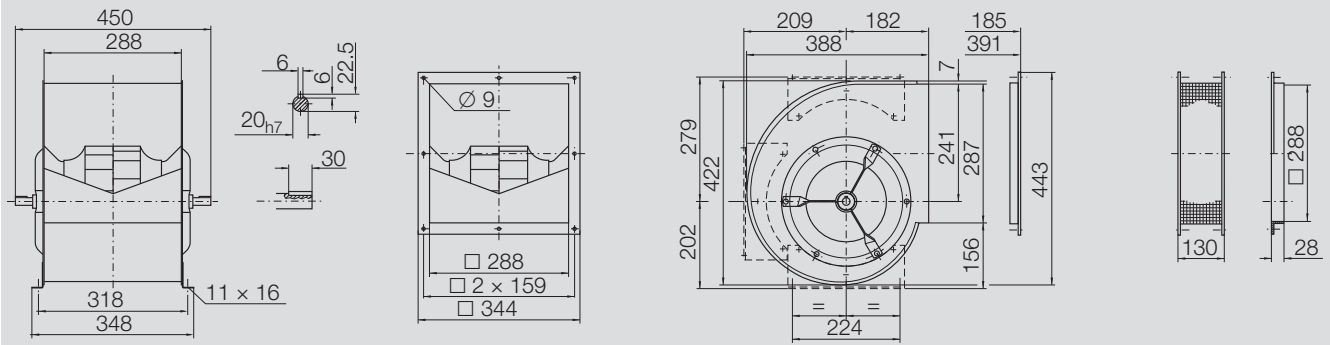
63	125	250	500	1000	2000	4000	8000	Hz
21	8	7	4	-7	-7	-13	-17	dB
14	8	7	0	-6	-9	-14	-19	dB
11	10	6	-4	-4	-10	-15	-21	dB
16	11	6	1	-9	-7	-14	-21	dB
12	10	3	-1	-7	-9	-18	-21	dB
14	8	4	-6	-4	-12	-18	-22	dB
14	6	2	0	-8	-5	-11	-20	dB
10	5	1	-3	-6	-7	-15	-21	dB
8	4	2	-5	-3	-10	-18	-21	dB

Dimensions

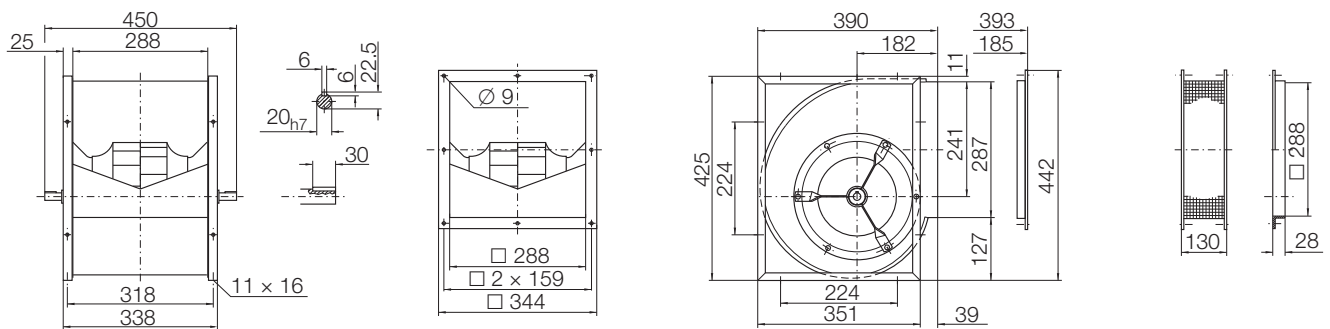
RDH E_-0225

Dimensions in mm, subject to change.

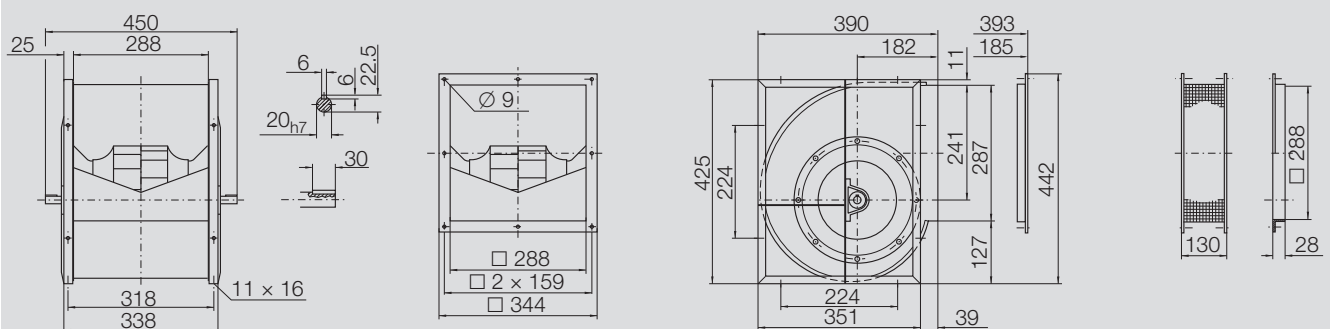
RDH E0-0225 7.8 kg



RDH E2-0225 9.9 kg



RDH E4-0225 13.6 kg



Curves

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).

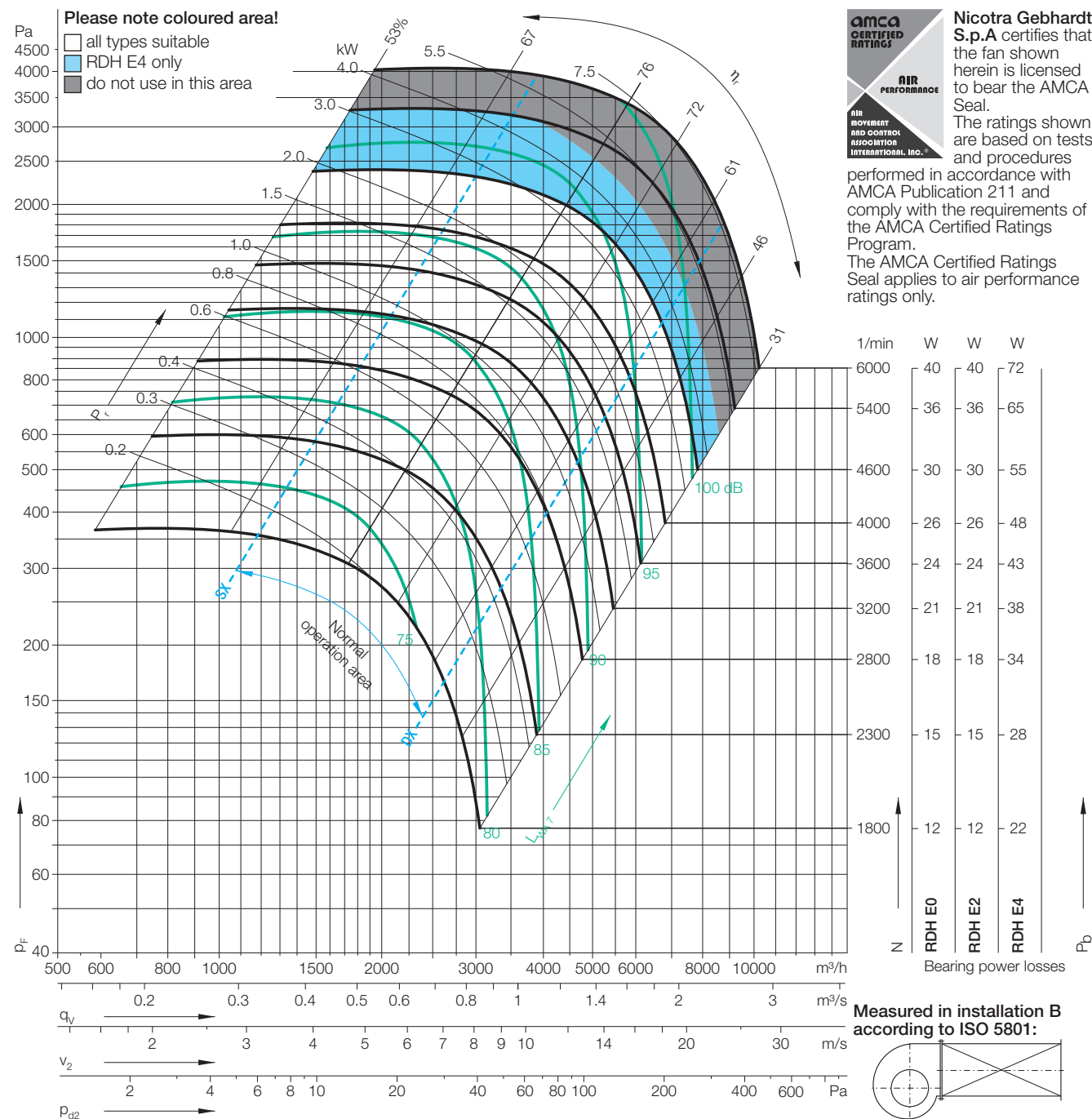
Technical Data

Impeller Data

Impeller diameter	D_r	250	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	



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

Duty point	Speed	$\Delta L_{wrel4}(A)$
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

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

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

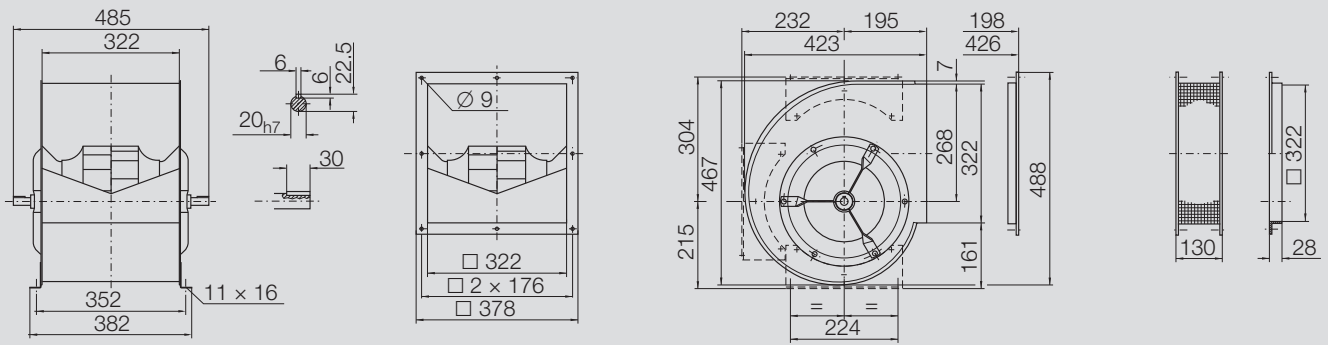
63	125	250	500	1000	2000	4000	8000	Hz
18	8	3	-2	-4	-6	-8	-16	dB
16	9	1	0	-7	-4	-11	-18	dB
11	6	1	-1	-3	-5	-13	-19	dB
11	12	0	-5	-4	-3	-5	-15	dB
11	11	-4	-2	-5	-1	-9	-18	dB
14	2	-3	-2	-1	-3	-13	-20	dB
11	3	-2	-4	-4	-2	-4	-13	dB
4	3	-4	-2	-5	-1	-8	-16	dB
5	0	-2	-3	-1	-3	-11	-19	dB

Dimensions

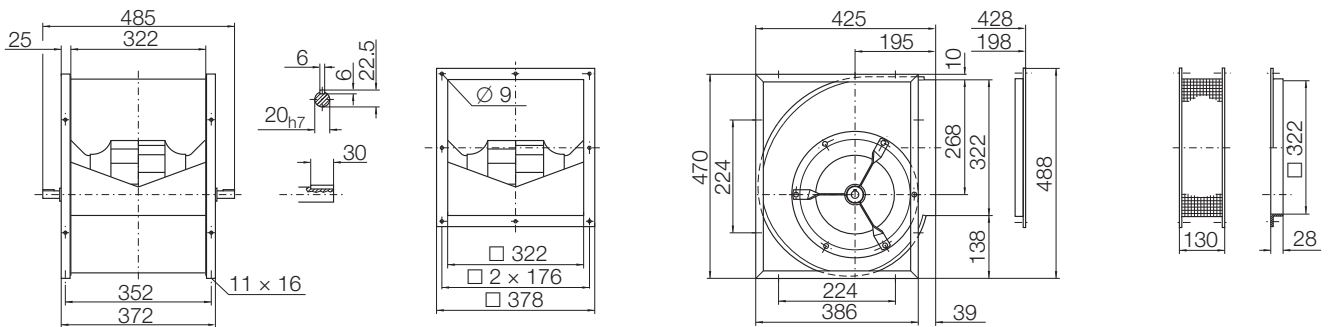
RDH E_-0250

Dimensions in mm, subject to change.

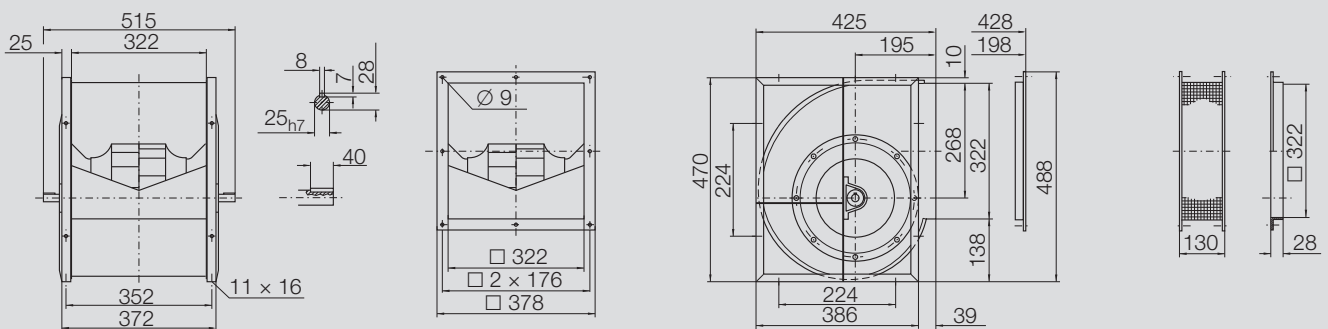
RDH E0-0250 13.3 kg



RDH E2-0250 15.7 kg



RDH E4-0250 21 kg



Curves

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).

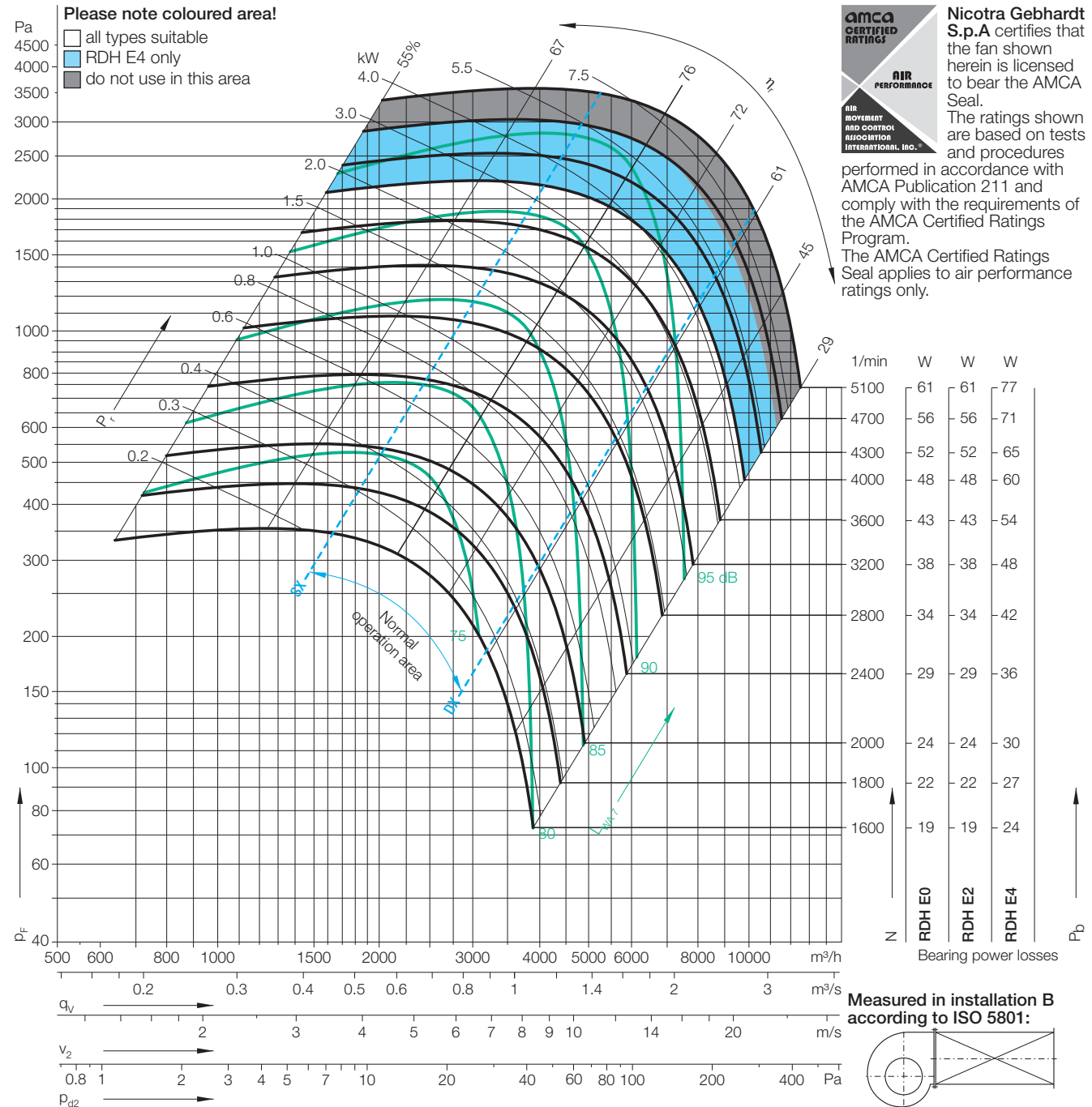
Technical Data

Impeller Data

Impeller diameter	D_r	280	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	



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

Duty point	Speed	$\Delta L_{Wrel4}(A)$
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

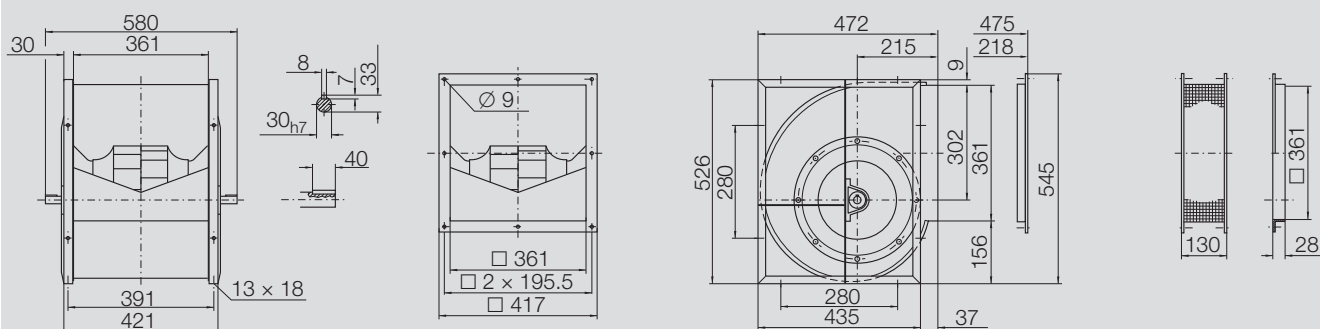
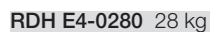
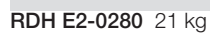
	63	125	250	500	1000	2000	4000	8000	Hz
SX 4300	-7	1	-3	-5	-4	-9	-12	-16	dB
SX 2800	-2	3	-4	-1	-8	-8	-13	-18	dB
SX 1800	5	-1	1	-4	-5	-8	-14	-19	dB
$Q_{V,opt}$ 4300	-13	-1	-6	-8	-4	-7	-10	-15	dB
$Q_{V,opt}$ 2800	-5	1	-8	-1	-7	-6	-12	-18	dB
$Q_{V,opt}$ 1800	3	-6	-0	-5	-4	-7	-14	-20	dB
DX 4300	-12	-9	-8	-8	-4	-6	-8	-14	dB
DX 2800	-9	-6	-8	-3	-7	-5	-11	-18	dB
DX 1800	-5	-7	-2	-5	-4	-6	-14	-22	dB

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

	63	125	250	500	1000	2000	4000	8000	Hz
SX 4300	12	12	1	-3	-4	-4	-8	-15	dB
SX 2800	12	9	-1	-1	-5	-3	-11	-17	dB
SX 1800	15	2	2	-3	0	-5	-13	-18	dB
$Q_{V,opt}$ 4300	4	14	-1	-6	-5	-2	-5	-14	dB
$Q_{V,opt}$ 2800	10	8	-4	-3	-4	0	-10	-17	dB
$Q_{V,opt}$ 1800	14	-2	-1	-4	1	-4	-13	-19	dB
DX 4300	14	0	-3	-4	-3	-2	-4	-12	dB
DX 2800	5	0	-4	-1	-4	0	-8	-16	dB
DX 1800	2	-2	0	-3	1	-3	-11	-19	dB

RDH E_-0280

RDH E0-0280 17.8 kg



Curves

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).

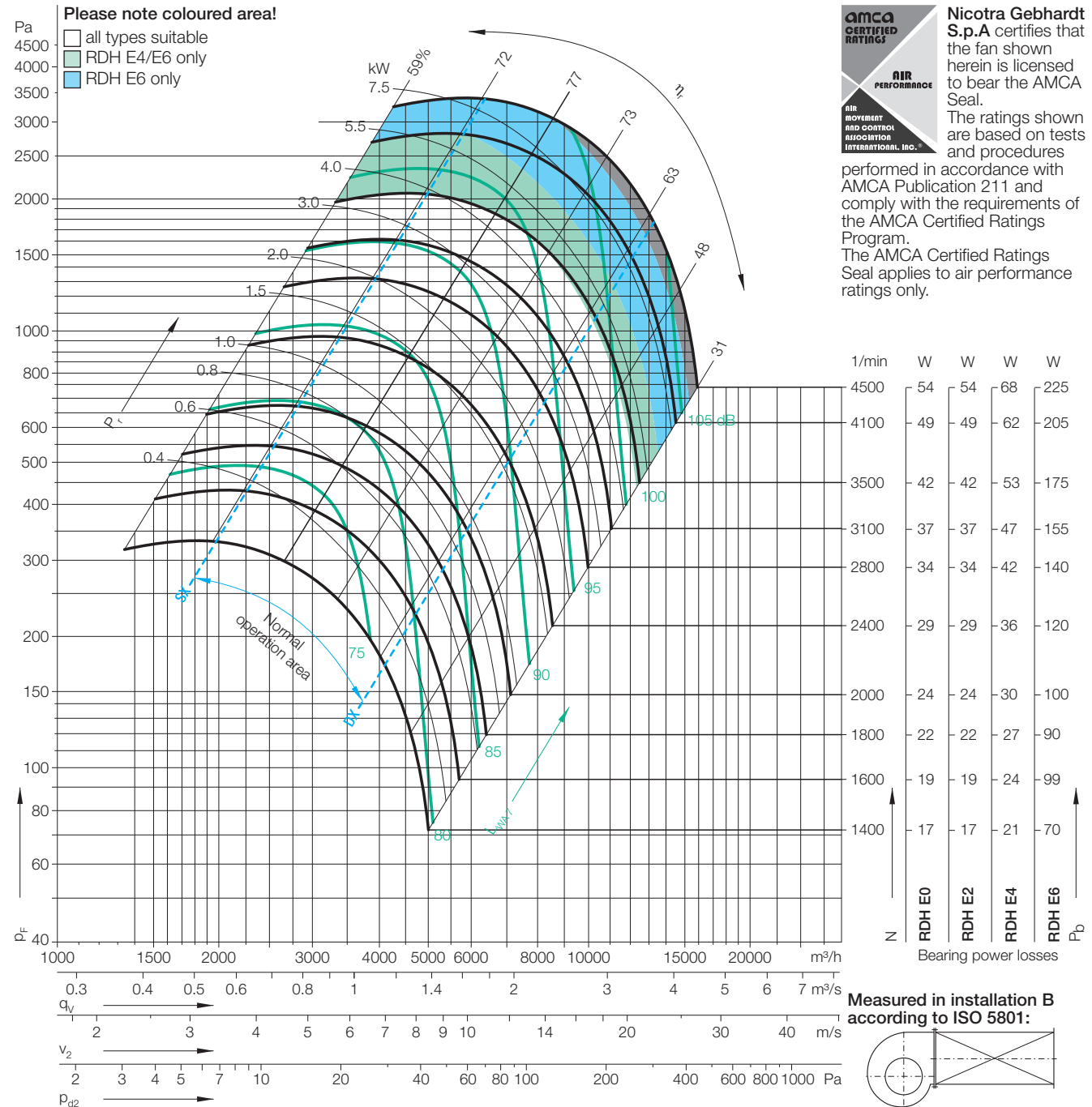
Technical Data

Impeller Data

Impeller diameter	D_r	315	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	



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

Duty point	Speed	$\Delta L_{wrel4}(A)$	63	125	250	500	1000	2000	4000	8000	Hz
SX	4100	4	-1	-3	-1	-4	-3	-11	-15	-18	dB
SX	2800	4	1	-0	0	-0	-6	-12	-14	-18	dB
SX	1600	3	3	4	3	-2	-8	-10	-14	-18	dB
$Q_{V,opt}$	4100	4	-6	-7	2	-6	-3	-11	-14	-18	dB
$Q_{V,opt}$	2800	4	-4	2	1	-1	-8	-11	-13	-19	dB
$Q_{V,opt}$	1600	4	4	6	3	-4	-7	-9	-14	-20	dB
DX	4100	3	-10	-12	-5	-7	-2	-10	-12	-16	dB
DX	2800	3	-8	-4	-6	0	-7	-10	-12	-19	dB
DX	1600	3	-1	-3	3	-3	-6	-8	-15	-22	dB

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

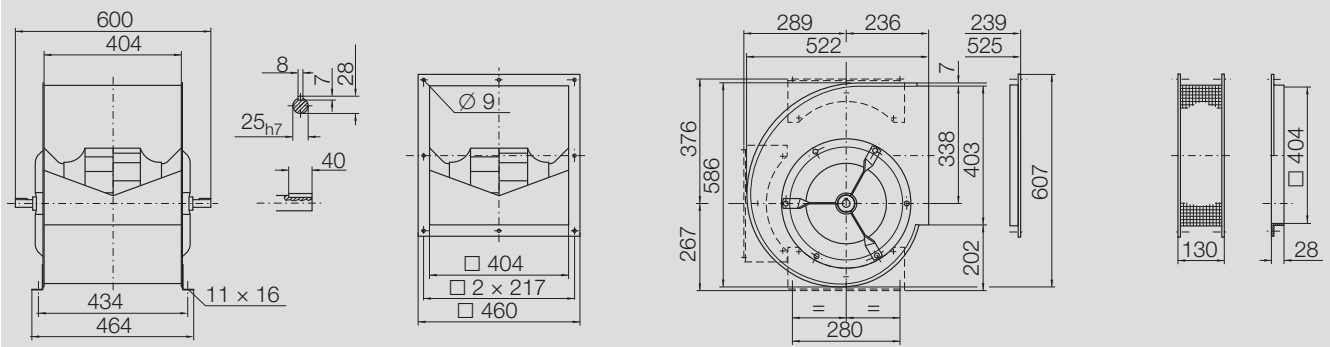
63	125	250	500	1000	2000	4000	8000	Hz
16	11	6	-1	-3	-6	-11	-17	dB
17	10	6	-1	-3	-7	-12	-17	dB
15	10	3	0	-2	-7	-13	-18	dB
11	10	9	-3	-3	-6	-10	-16	dB
14	12	6	0	-4	-6	-11	-18	dB
16	12	4	-2	-1	-6	-13	-19	dB
9	0	3	-3	-1	-5	-8	-14	dB
7	6	0	1	-3	-5	-9	-17	dB
9	4	5	-1	-1	-5	-12	-20	dB

Dimensions

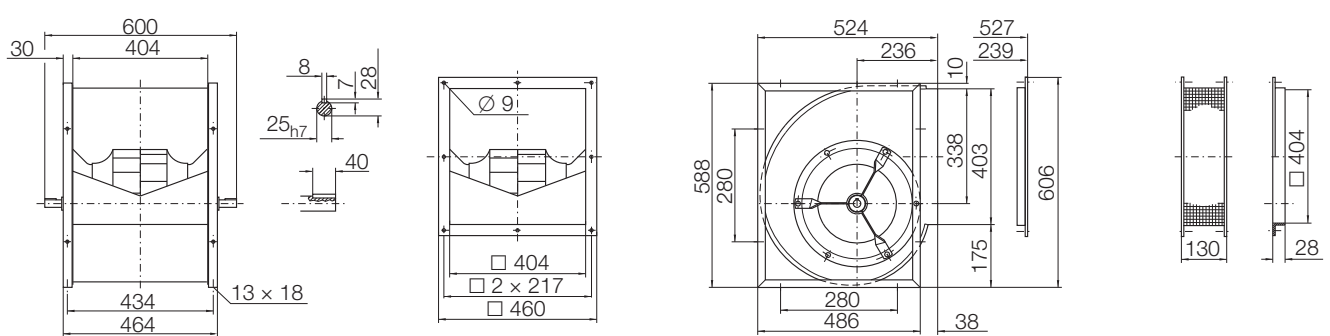
RDH E_-0315

Dimensions in mm, subject to change.

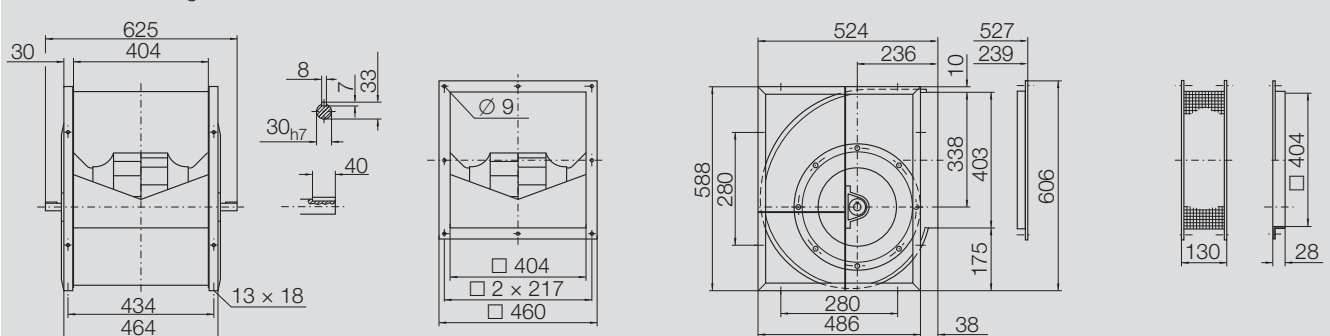
RDH E0-0315 21 kg



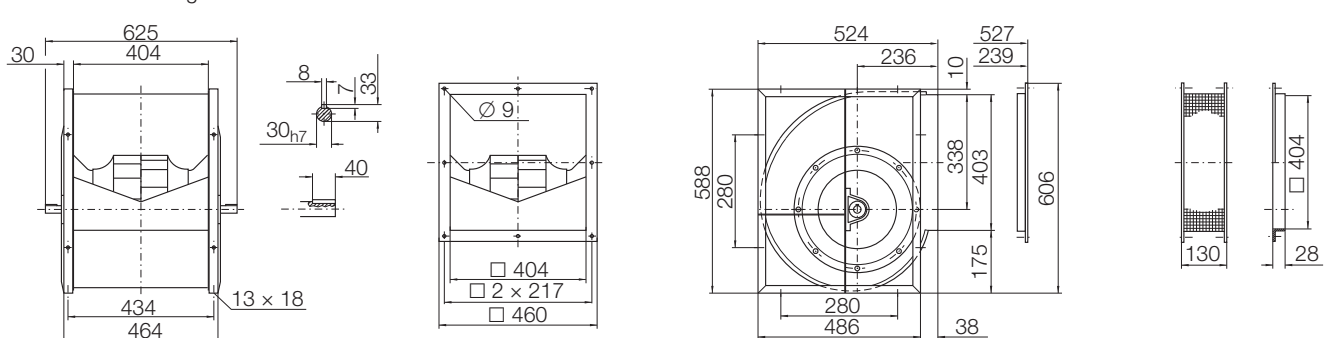
RDH E2-0315 25 kg



RDH E4-0315 32 kg



RDH E6-0315 34 kg



Curves

RDH E_-0355

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

Power rating (kW) does not include transmission losses.

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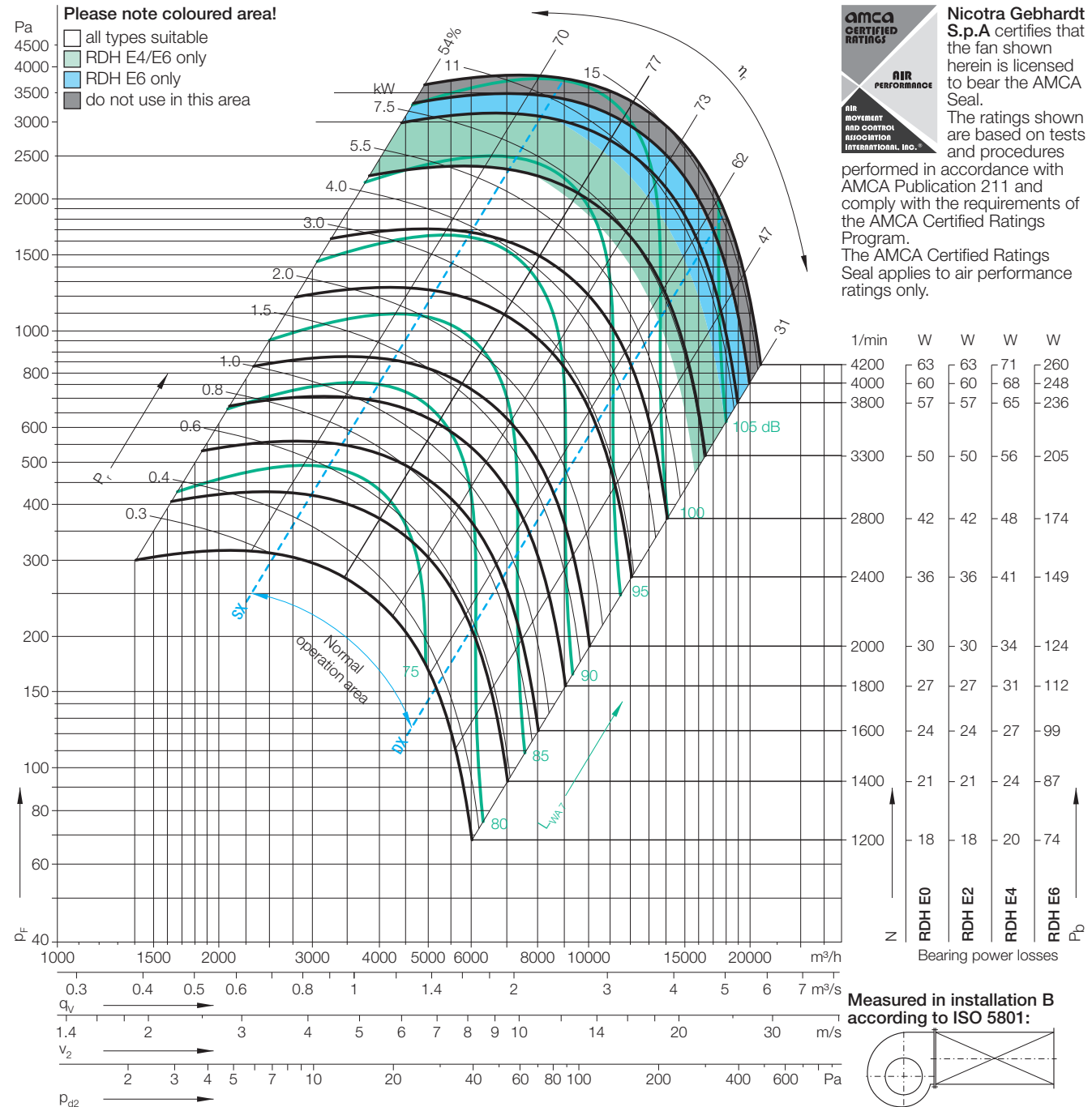
Technical Data

Impeller Data

Impeller diameter	D_r	355	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	



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Relative sound power level for inlet side L_{Wrel4} at octave centre frequencies f_m

Duty point	Speed	$\Delta L_{Wrel4}(A)$
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

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

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

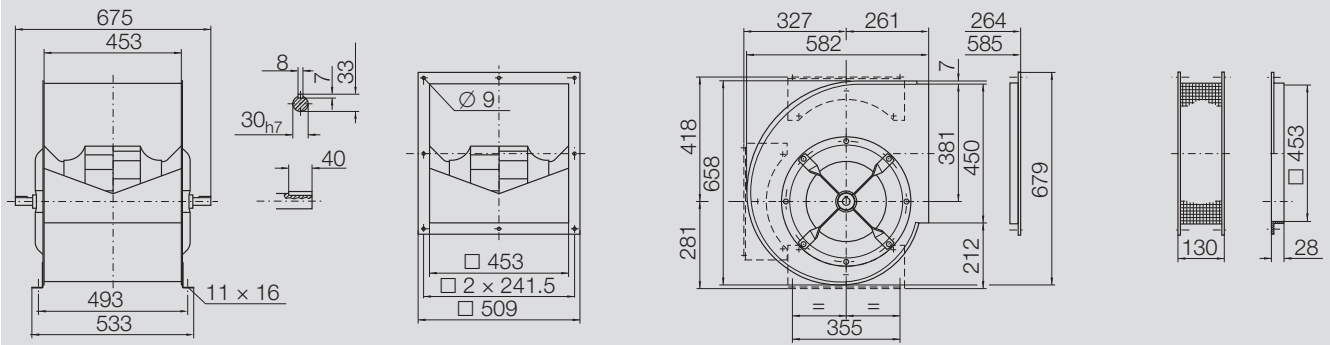
	63	125	250	500	1000	2000	4000	8000	Hz
17	15	9	1	-5	-6	-10	-16		dB
18	13	6	0	-3	-7	-12	-17		dB
18	11	4	0	-2	-7	-13	-18		dB
18	16	8	0	-4	-4	-9	-15		dB
20	12	3	-1	-2	-6	-11	-17		dB
17	8	3	0	-1	-6	-13	-19		dB
10	5	5	0	-3	-4	-8	-14		dB
6	7	-1	1	-2	-6	-10	-17		dB
11	4	4	0	-1	-6	-13	-20		dB

Dimensions

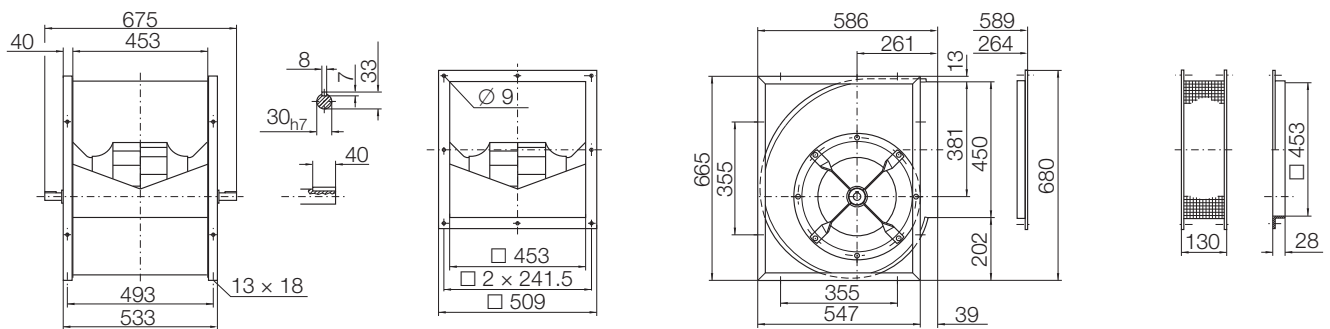
RDH E_-0355

Dimensions in mm, subject to change.

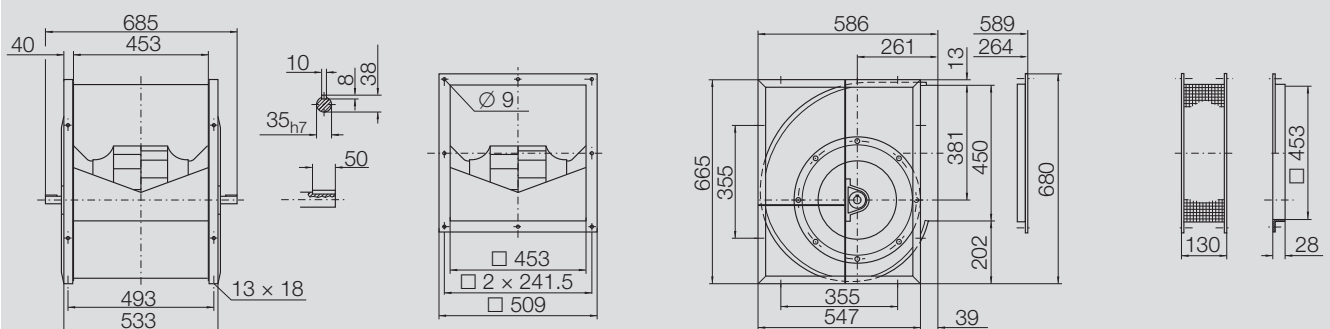
RDH E0-0355 29 kg



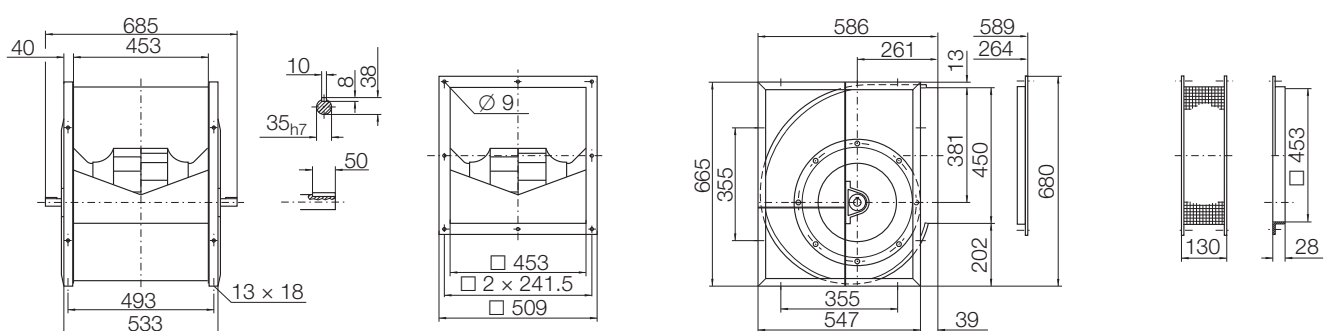
RDH E2-0355 34 kg



RDH E4-0355 46 kg



RDH E6-0355 47 kg



Curves

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).

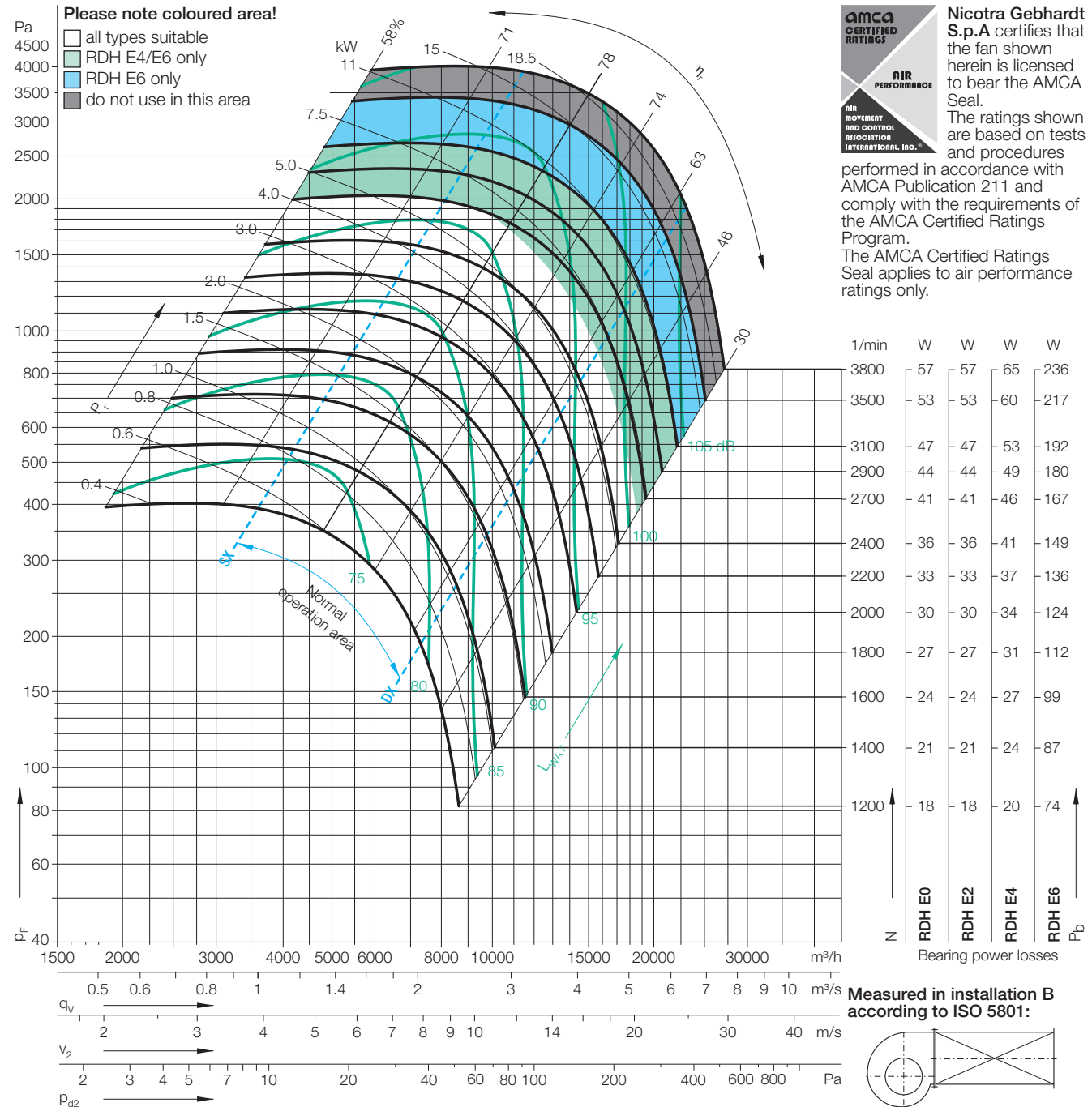
Technical Data

Impeller Data

Impeller diameter	D_r	400	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	

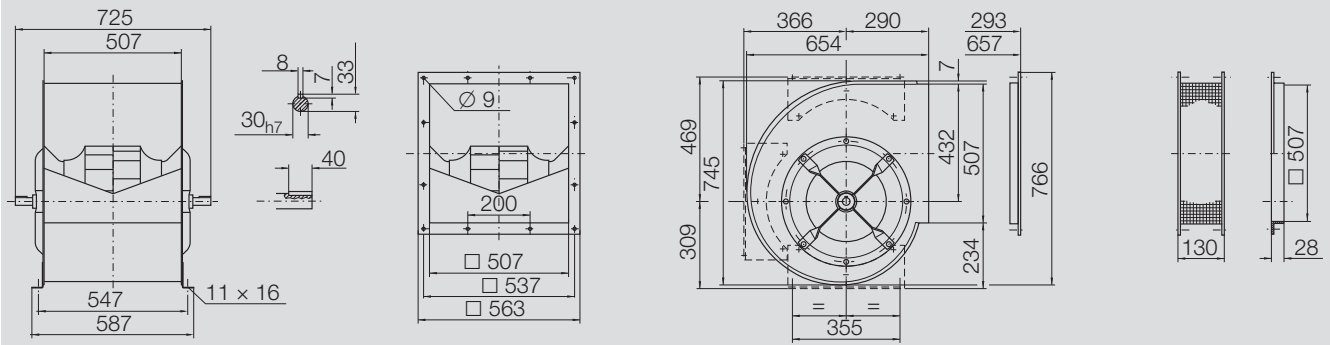


Dimensions

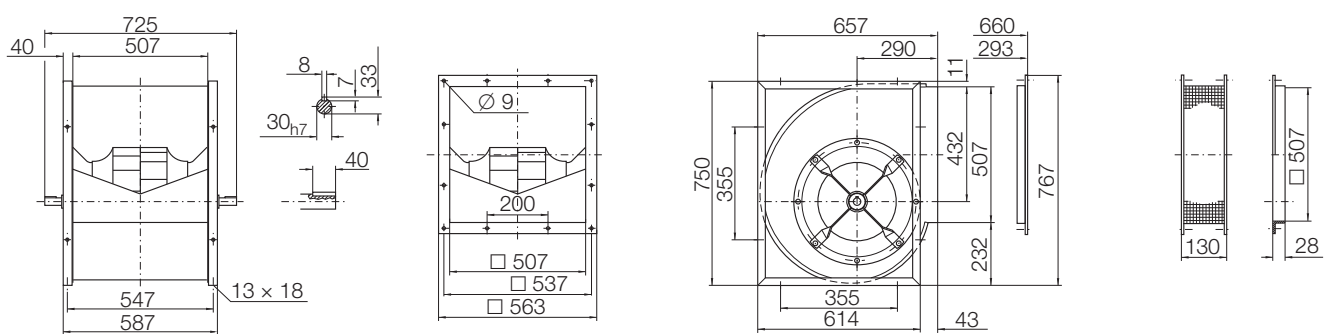
RDH E_-0400

Dimensions in mm, subject to change.

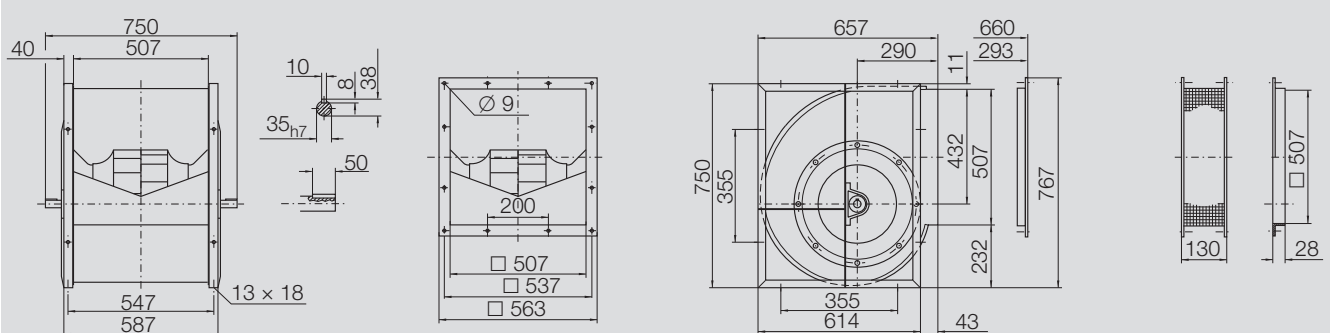
RDH E0-0400 36 kg



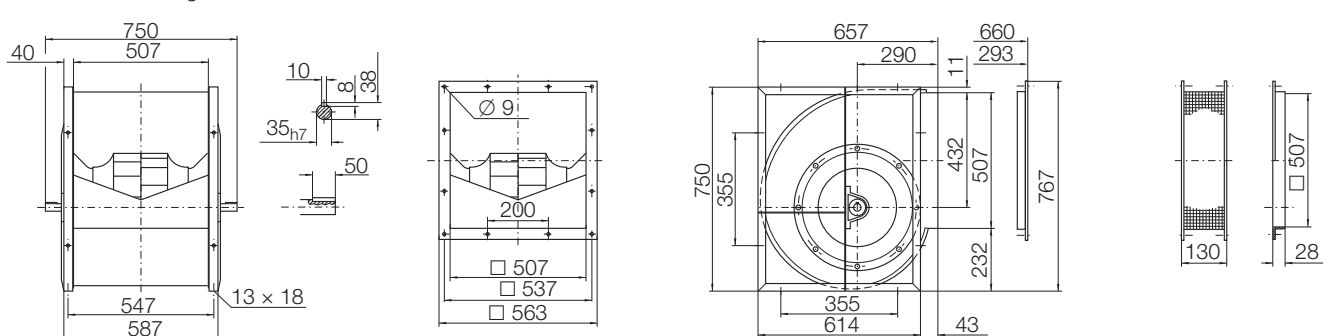
RDH E2-0400 42 kg



RDH E4-0400 57 kg



RDH E6-0400 58 kg



Curves

RDH E_-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).

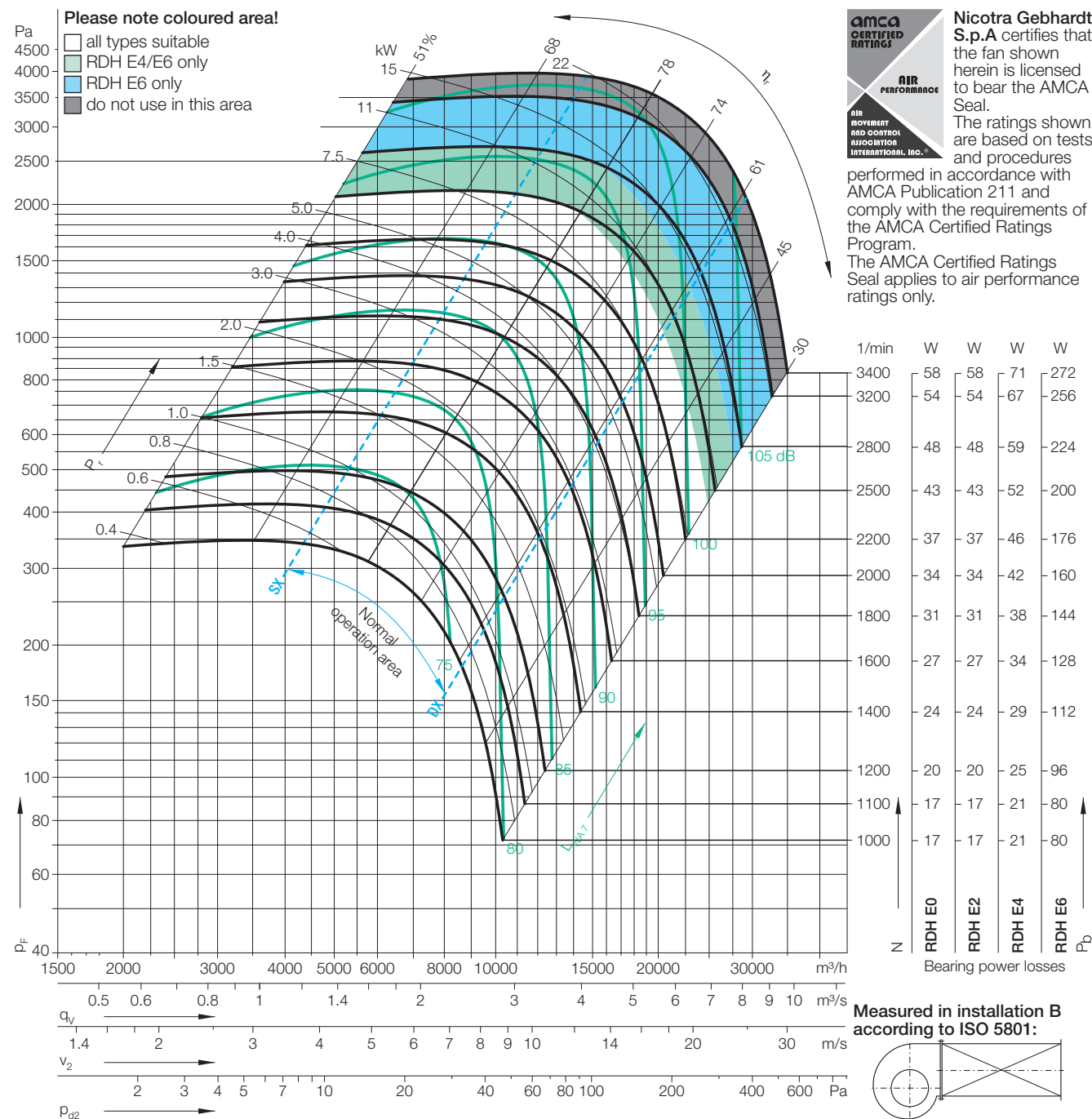
Technical Data

Impeller Data

Impeller diameter	D_r	450	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	



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

Duty point	Speed	$\Delta L_{wrel4}(A)$	63	125	250	500	1000	2000	4000	8000	Hz
SX	2800	3	-4	-3	-1	0	-7	-10	-13	-17	dB
SX	2000	3	-2	0	0	-1	-6	-10	-13	-19	dB
SX	1200	3	2	2	3	-3	-7	-10	-15	-20	dB
$Q_{V,opt}$	2800	3	-6	-6	-4	-1	-6	-9	-12	-17	dB
$Q_{V,opt}$	2000	3	-5	-3	-2	-1	-5	-9	-13	-19	dB
$Q_{V,opt}$	1200	3	-2	-1	2	-2	-6	-10	-15	-21	dB
DX	2800	3	-9	-8	-7	0	-7	-9	-13	-19	dB
DX	2000	3	-7	-5	-3	-1	-6	-9	-14	-21	dB
DX	1200	3	-3	-5	4	-3	-6	-10	-17	-24	dB

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

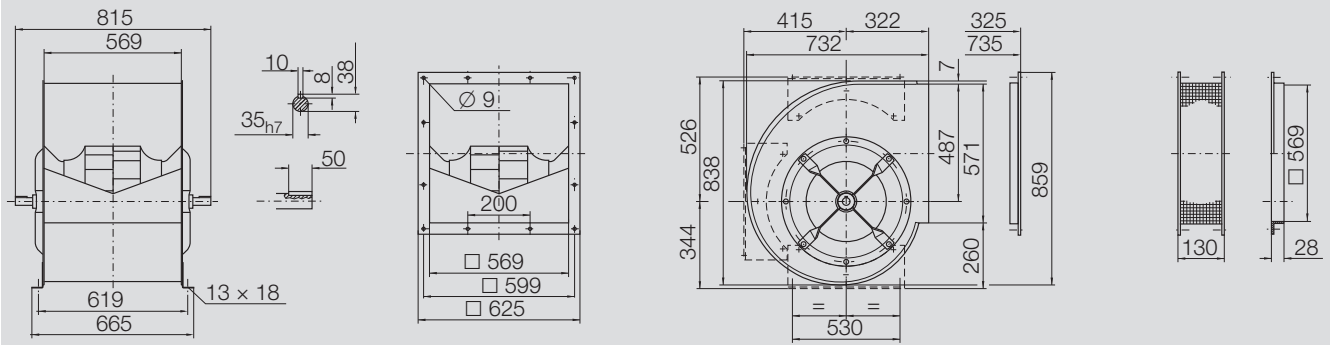
63	125	250	500	1000	2000	4000	8000	Hz
10	6	3	0	-4	-5	-11	-16	dB
10	6	2	0	-2	-6	-12	-18	dB
8	6	4	1	-2	-8	-14	-20	dB
10	3	1	-2	-3	-3	-10	-16	dB
10	2	0	-2	0	-5	-12	-19	dB
4	3	1	2	-1	-8	-15	-21	dB
4	0	-2	1	-4	-4	-10	-17	dB
3	1	0	0	-1	-5	-12	-19	dB
3	0	5	1	-2	-8	-15	-22	dB

Dimensions

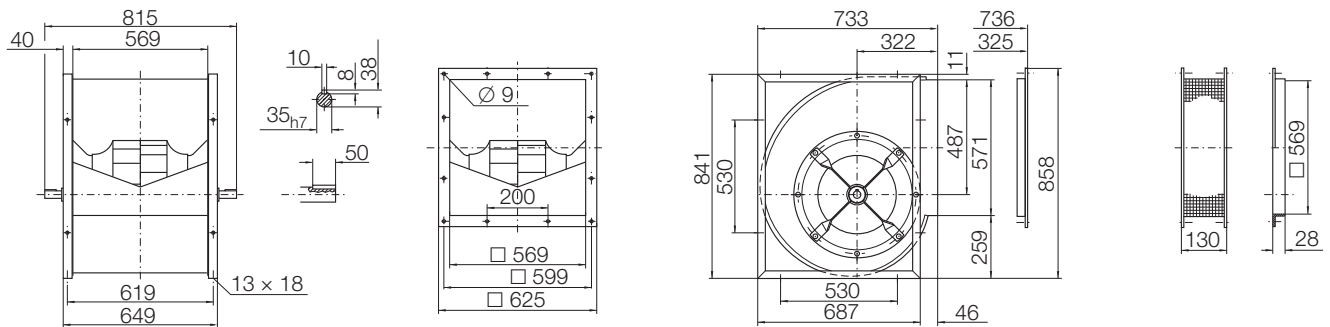
RDH E_-0450

Dimensions in mm, subject to change.

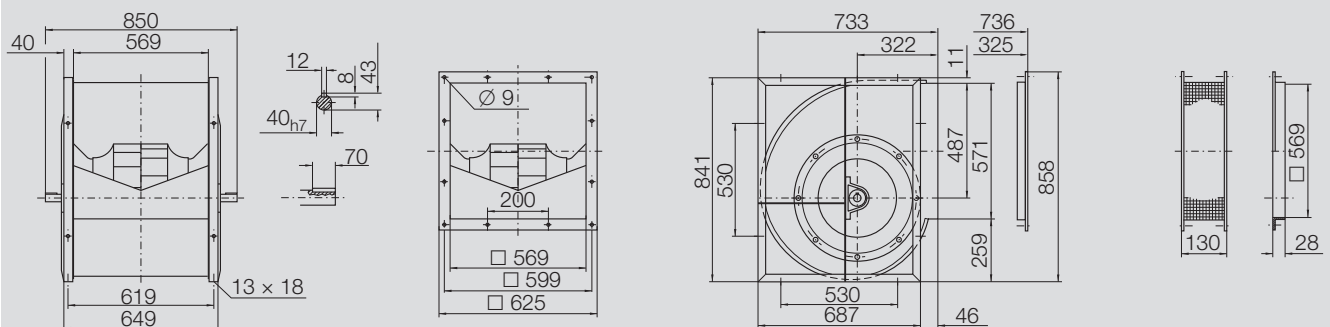
RDH E0-0450 50 kg



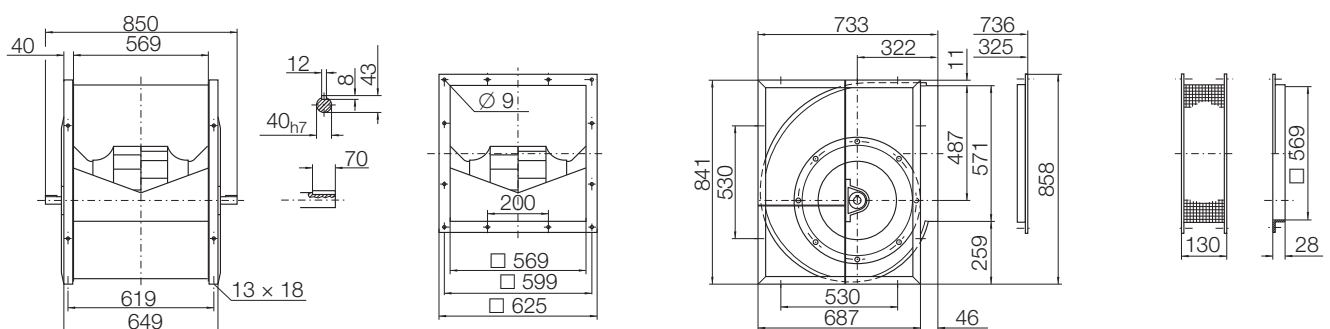
RDH E2-0450 57 kg



RDH E4-0450 73 kg



RDH E6-0450 75 kg



Curves

RDH E_-0500

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

Power rating (kW) does not include transmission losses.

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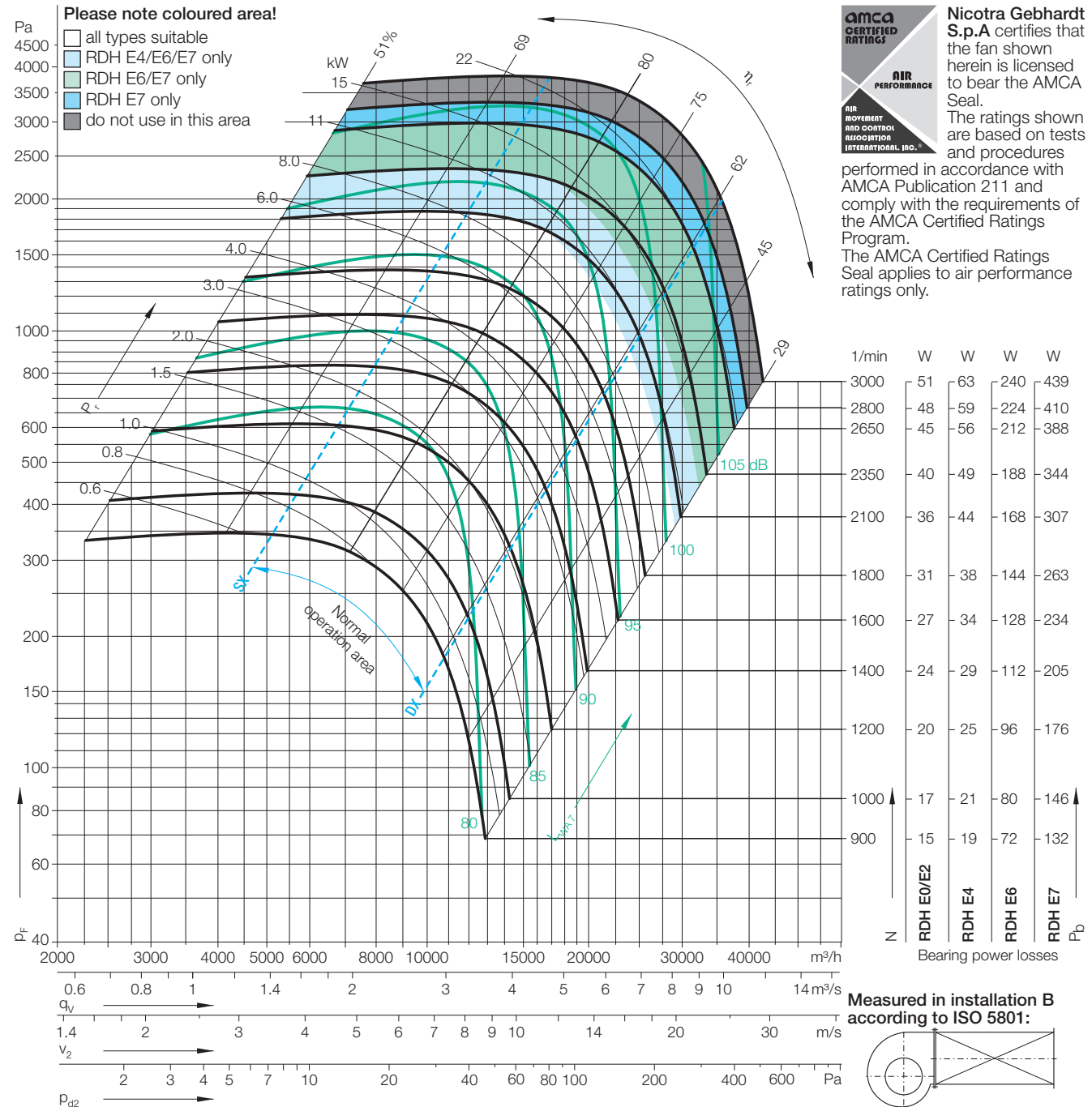
Technical Data

Impeller Data

Impeller diameter	D_r	500	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	



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

Duty point	Speed	$\Delta L_{Wrel4}(A)$
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

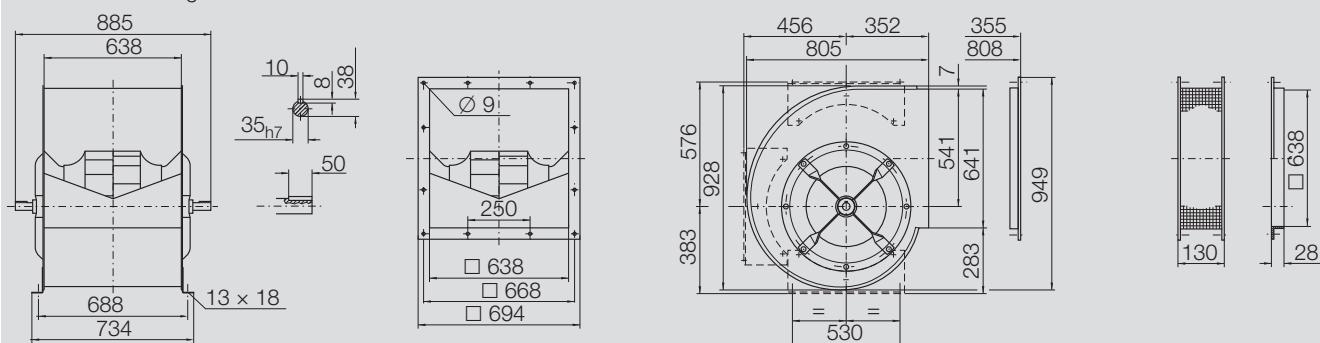
63	125	250	500	1000	2000	4000	8000	Hz
-1	-1	-1	1	-9	-13	-14	-18	dB
1	1	4	-2	-9	-11	-15	-18	dB
4	6	4	-5	-7	-11	-14	-18	dB
-6	-6	-6	1	-9	-12	-14	-19	dB
-3	-2	3	-1	-8	-10	-15	-19	dB
1	4	4	-4	-7	-11	-15	-19	dB
-5	-5	-5	1	-7	-11	-13	-19	dB
-3	-3	1	-1	-7	-9	-14	-19	dB
1	3	4	-3	-6	-10	-15	-21	dB

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

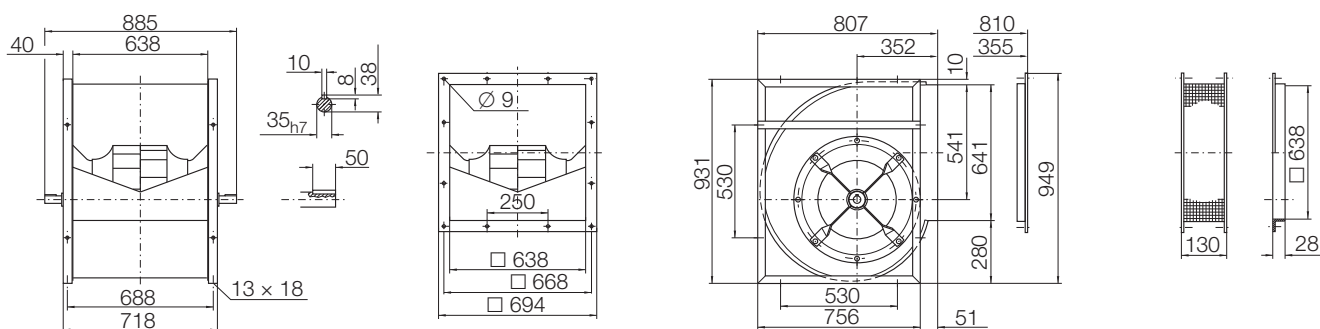
63	125	250	500	1000	2000	4000	8000	Hz
11	6	3	1	-6	-8	-13	-17	dB
12	6	5	0	-4	-8	-13	-18	dB
10	9	5	0	-3	-9	-13	-18	dB
8	3	-2	1	-5	-7	-12	-18	dB
10	3	3	0	-3	-7	-13	-18	dB
7	5	4	1	-3	-9	-14	-19	dB
8	3	0	1	-4	-6	-10	-16	dB
6	3	3	0	-2	-6	-12	-17	dB
7	5	4	1	-3	-8	-13	-20	dB

RDH E_-0500

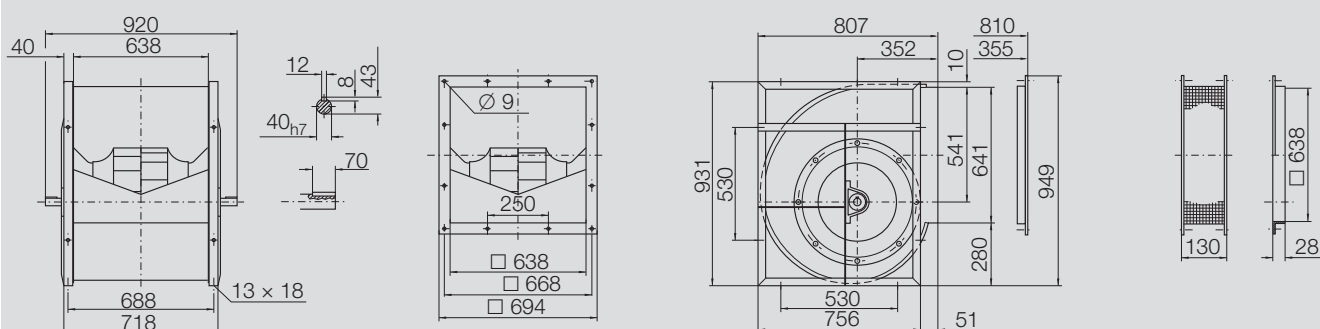
RDH E0-0500 62 kg



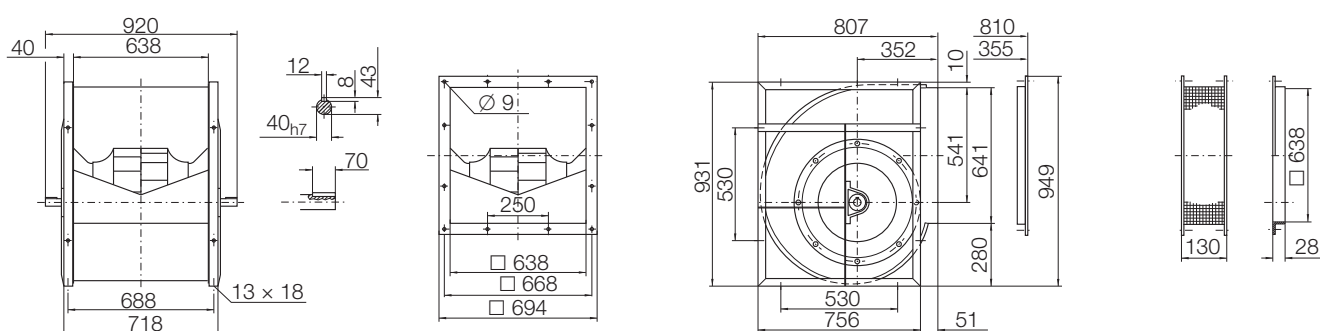
RDH E2-0500 70 kg



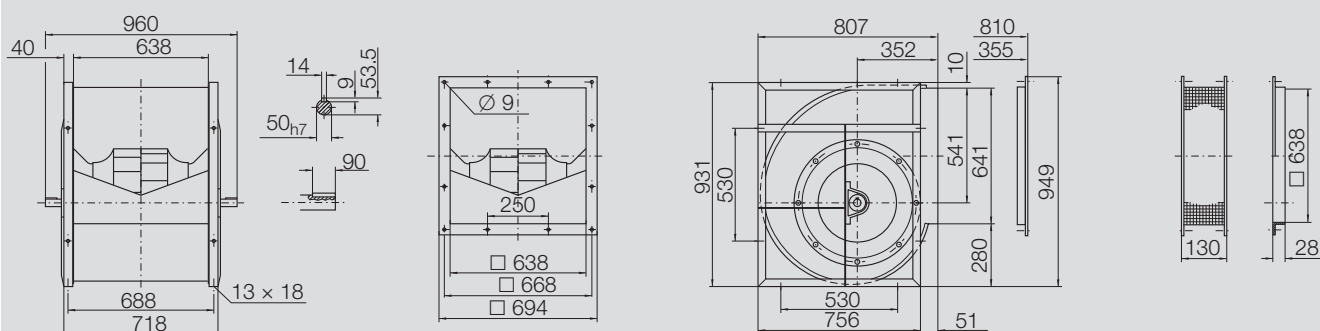
RDH E4-0500 90 kg



RDH E6-0500 92 kg



RDH E7-0500 110 kg



Curves

RDH E_-0560

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

Power rating (kW) does not include transmission losses.

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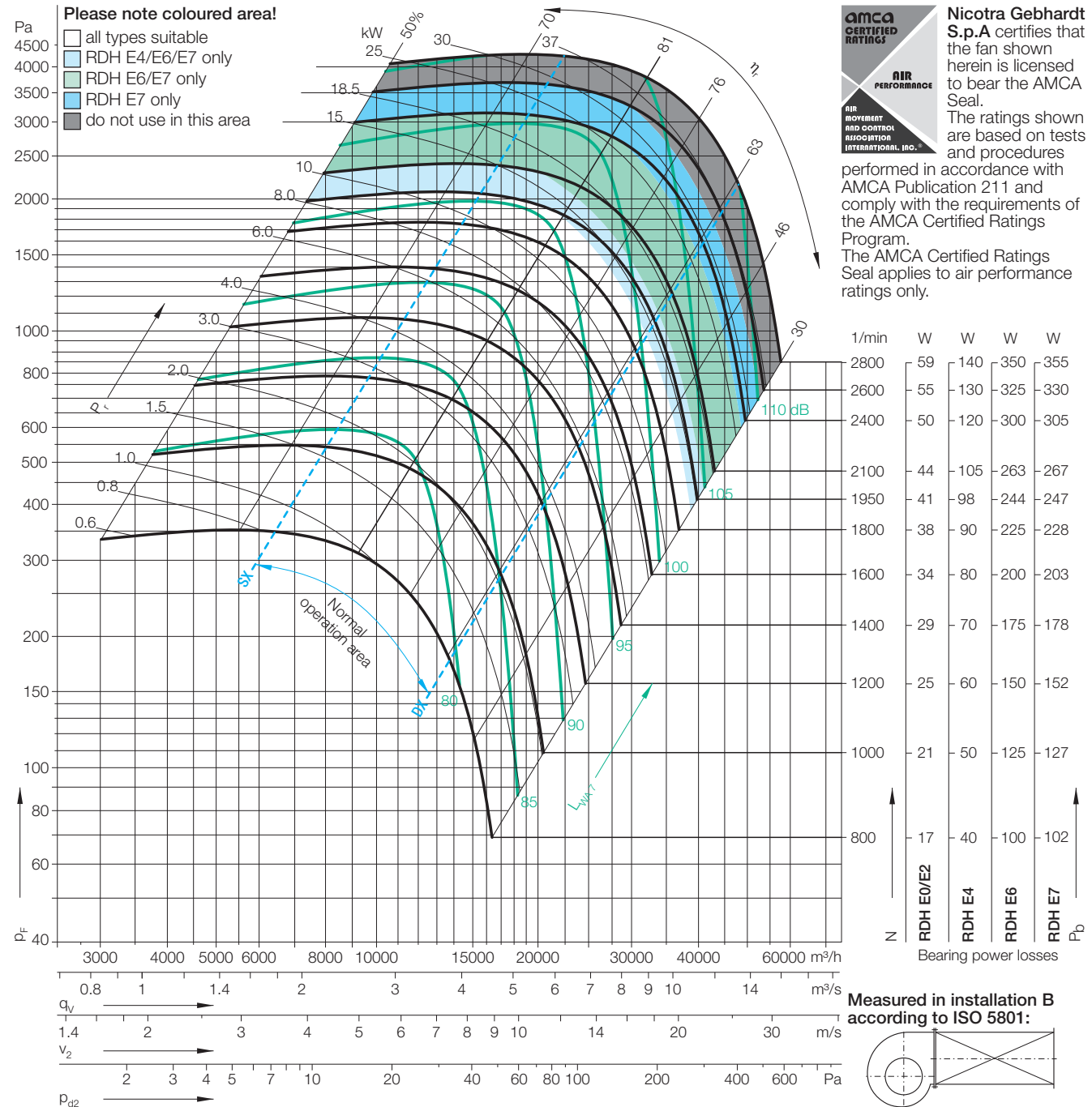
Technical Data

Impeller Data

Impeller diameter	D_r	560	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	



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

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

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

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

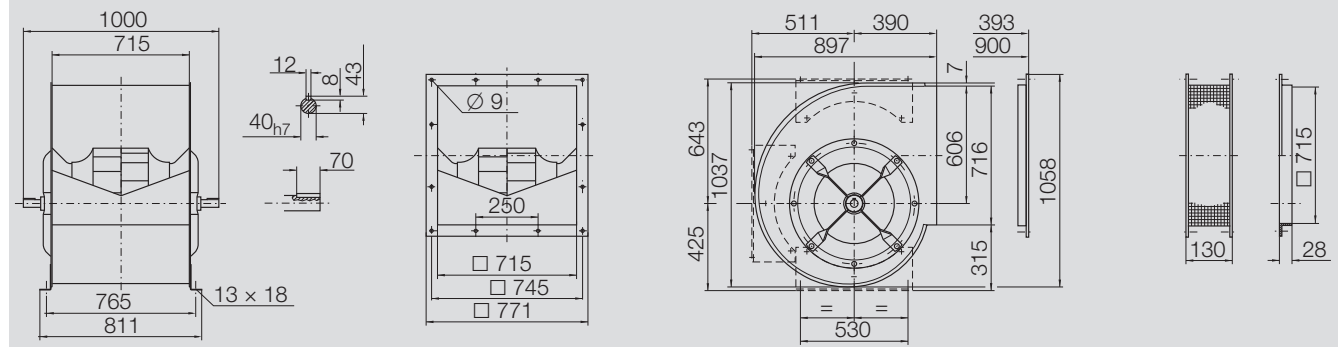
Duty point	Speed	$\Delta L_{Wrel4}(A)$
SX	2400	3
SX	1800	3
SX	1000	3
$Q_{V,opt}$	2400	3
$Q_{V,opt}$	1800	3
$Q_{V,opt}$	1000	3
DX	2400	2
DX	1800	3
DX	1000	3

Dimensions

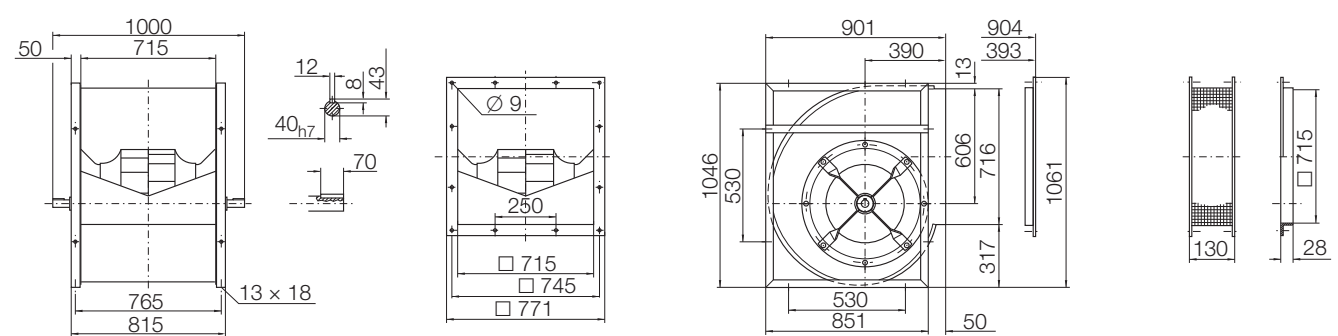
RDH E_-0560

Dimensions in mm, subject to change.

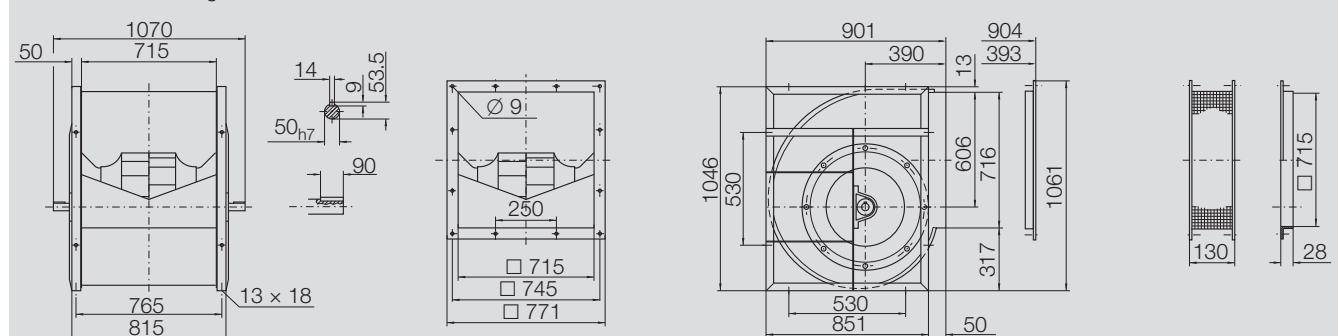
RDH E0-0560 79 kg



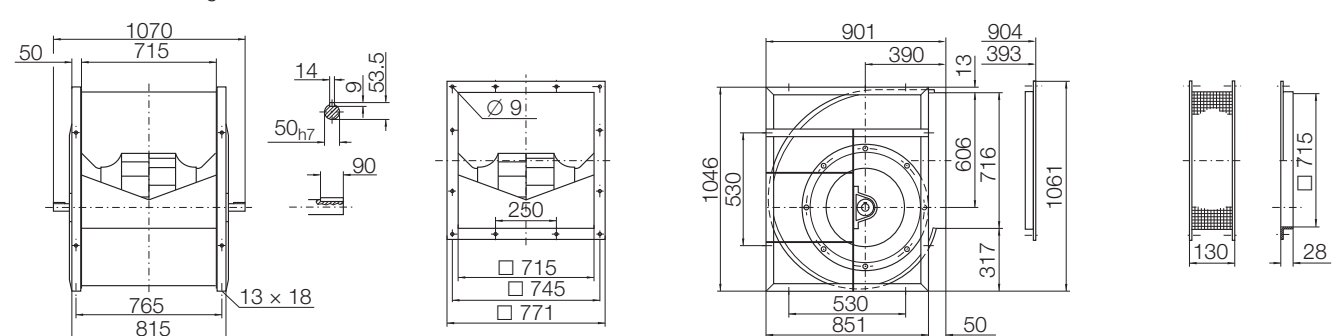
RDH E2-0560 92 kg



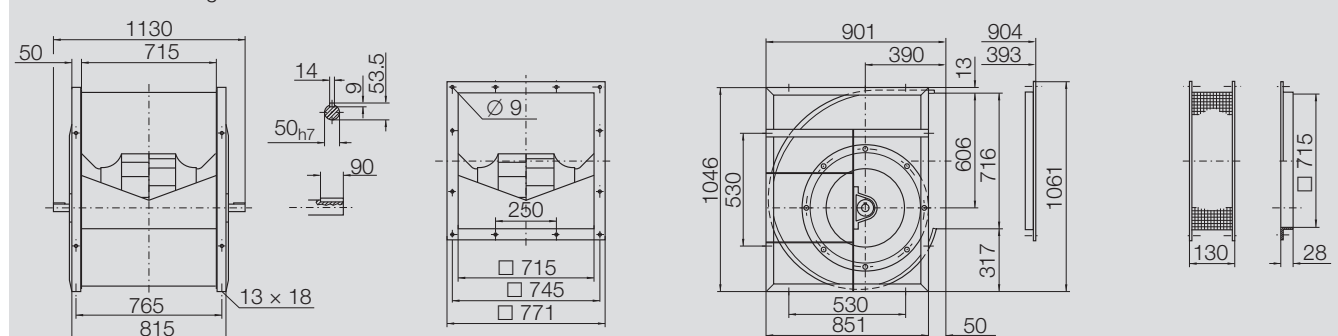
RDH E4-0560 141 kg



RDH E6-0560 148 kg



RDH E7-0560 153 kg



Curves

RDH _-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).

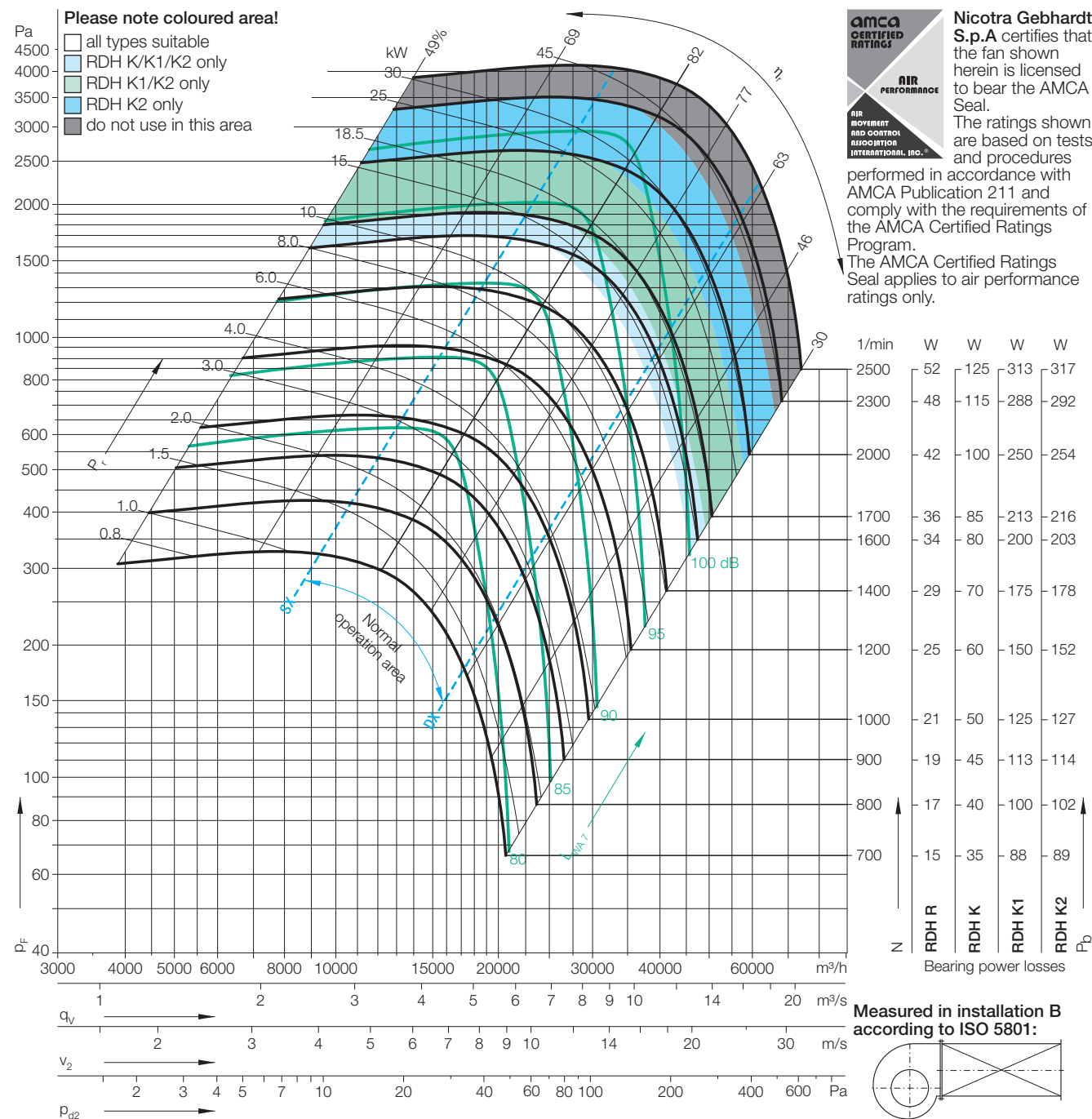
Technical Data

Impeller Data

Impeller diameter	D_r	630	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	



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

Duty point	Speed	$\Delta L_{Wrel4}(A)$
SX	2000	3
SX	1400	3
SX	800	3
$Q_{V,opt}$	2000	3
$Q_{V,opt}$	1400	3
$Q_{V,opt}$	800	3
DX	2000	3
DX	1400	3
DX	800	3

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_m

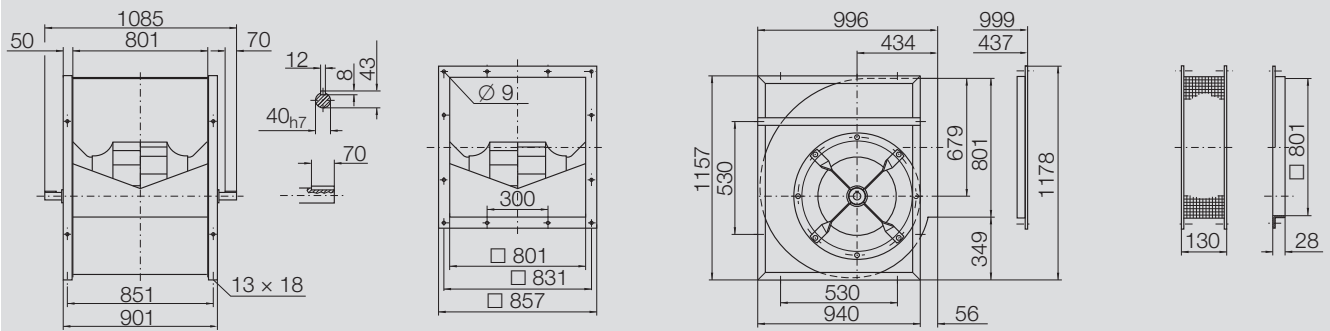
63	125	250	500	1000	2000	4000	8000	Hz
14	11	4	0	-2	-8	-14	-18	dB
14	10	4	2	-3	-9	-15	-18	dB
15	8	6	2	-4	-11	-13	-21	dB
9	6	1	0	-1	-7	-13	-17	dB
10	5	2	2	-1	-9	-14	-17	dB
9	6	5	3	-4	-10	-12	-20	dB
10	4	2	1	-1	-7	-11	-17	dB
8	4	4	2	-2	-8	-13	-19	dB
8	8	5	2	-3	-8	-14	-22	dB

Dimensions

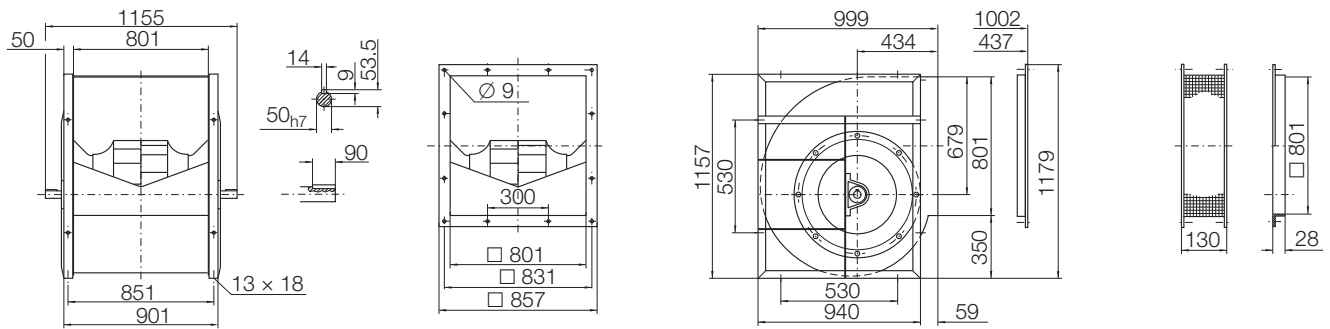
RDH _-0630

Dimensions in mm, subject to change.

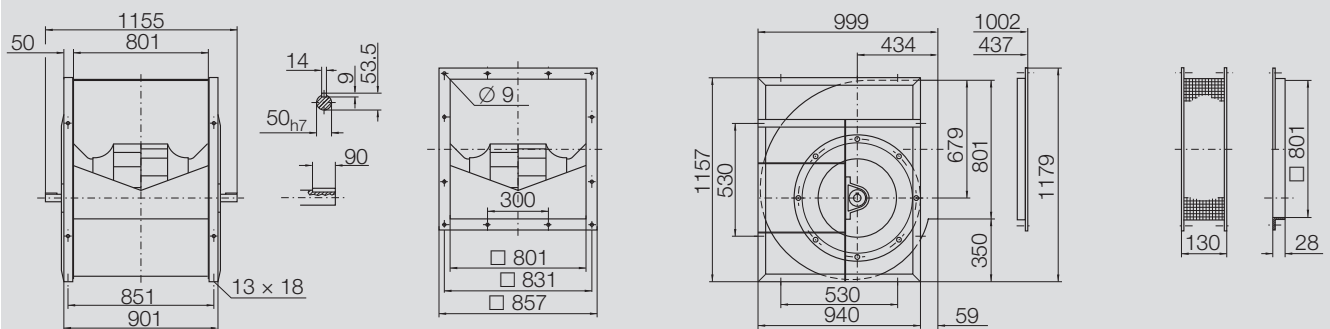
RDH R-0630 119 kg



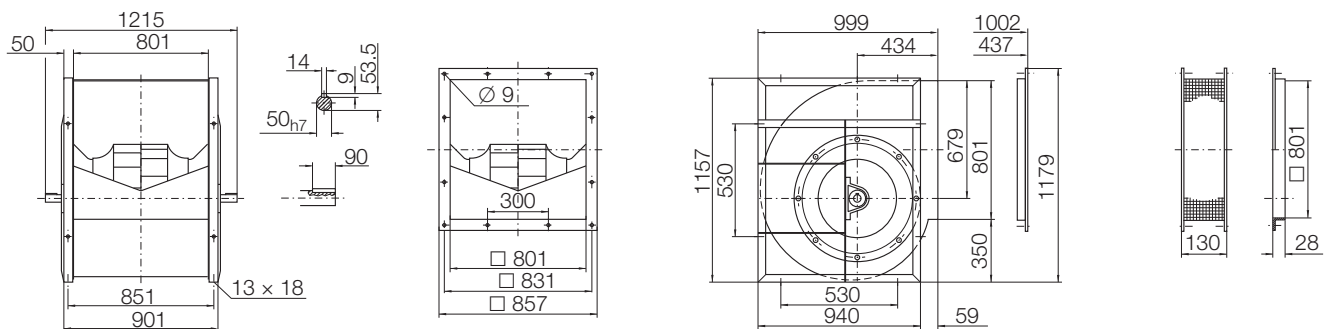
RDH K-0630 173 kg



RDH K1-0630 180 kg



RDH K2-0630 185 kg



Curves

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).

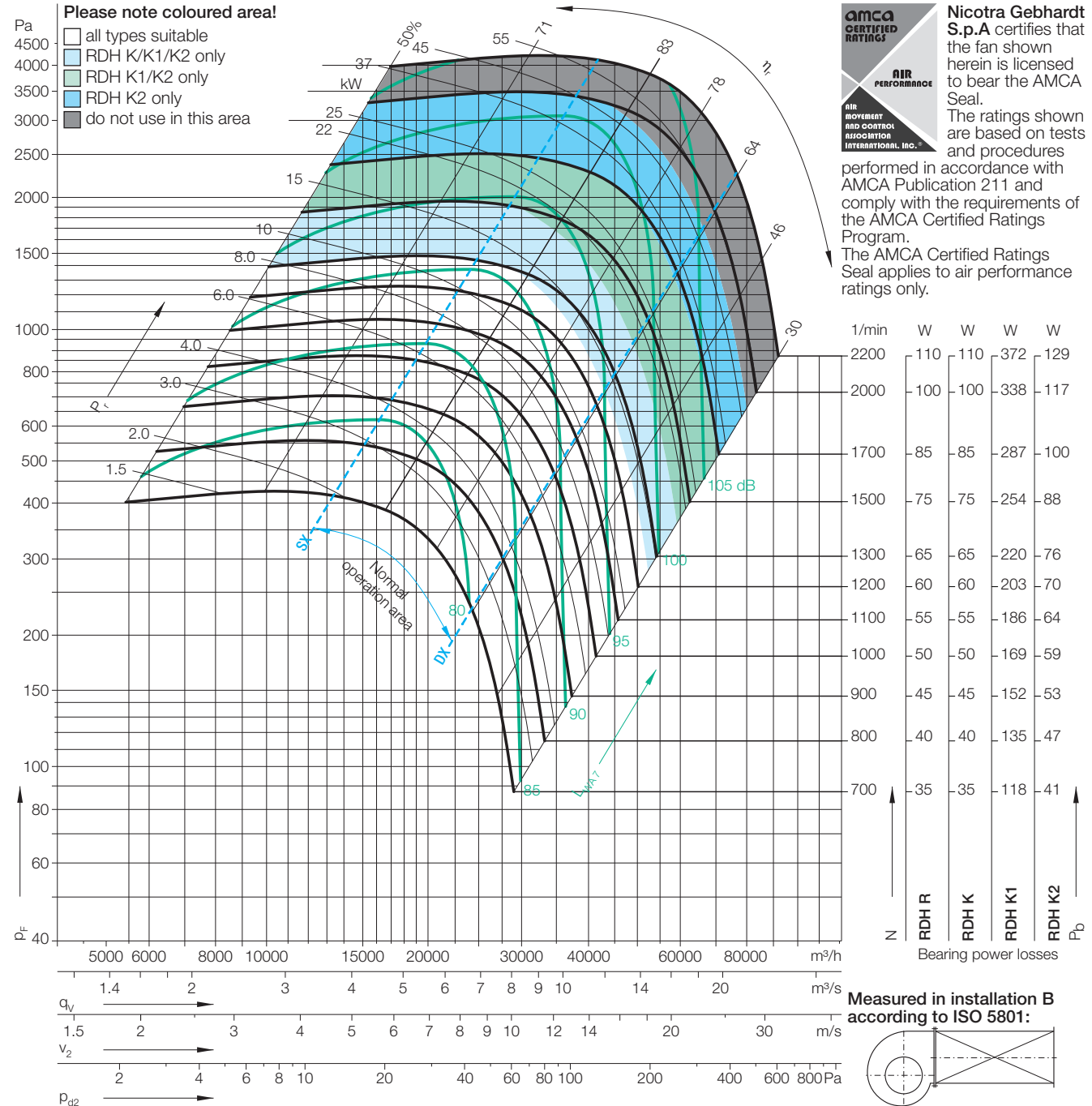
Technical Data

Impeller Data

Impeller diameter	D_r	710	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	



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

Duty point	Speed	$\Delta L_{Wrel4}(A)$	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_m

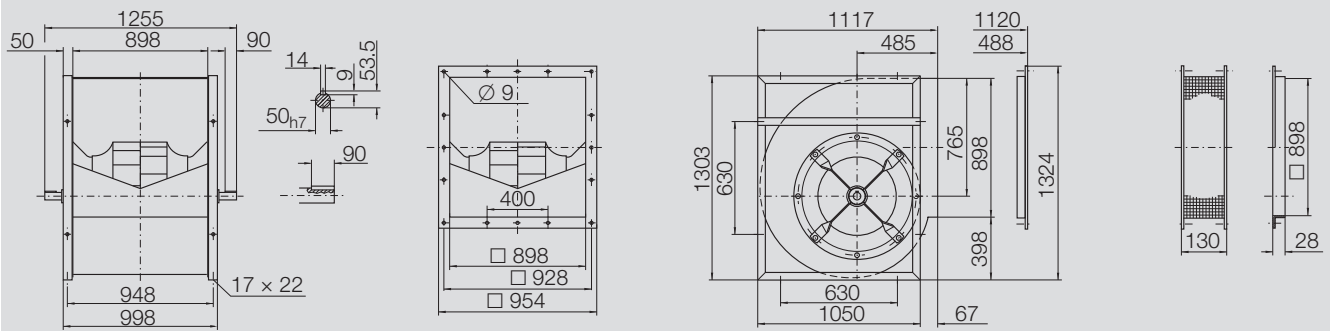
63	125	250	500	1000	2000	4000	8000	Hz
11	8	3	1	-3	-7	-13	-19	dB
11	8	4	1	-3	-7	-14	-19	dB
12	8	5	1	-3	-10	-15	-19	dB
7	6	2	0	-2	-6	-13	-18	dB
8	6	3	0	-2	-7	-14	-19	dB
10	7	4	2	-3	-10	-15	-20	dB
12	7	3	1	-3	-6	-12	-19	dB
11	7	6	0	-2	-7	-14	-21	dB
11	9	4	2	-2	-10	-16	-23	dB

Dimensions

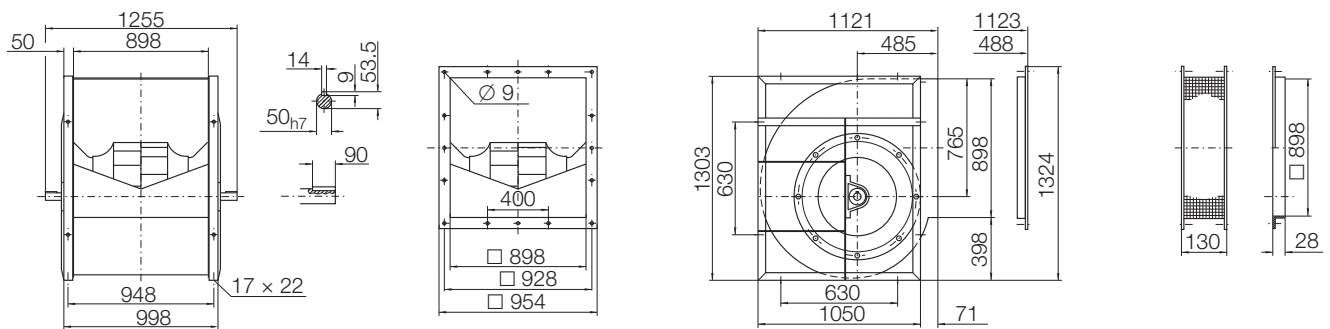
RDH_-0710

Dimensions in mm, subject to change.

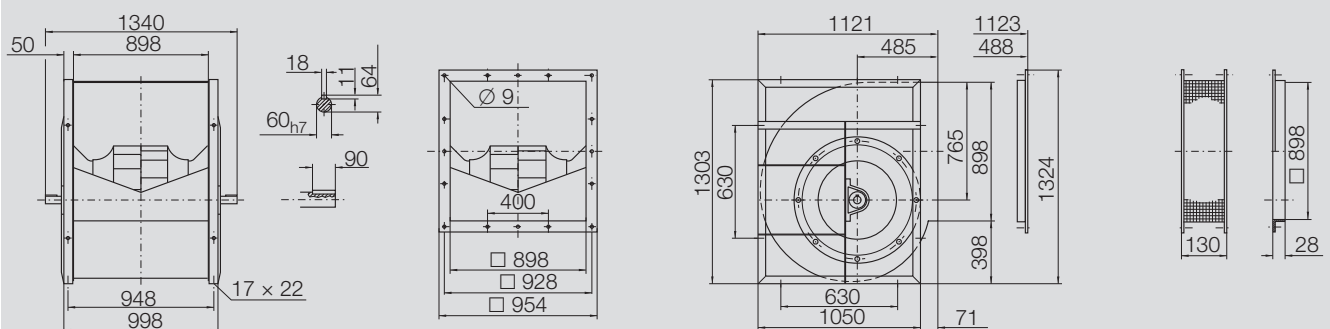
RDH R-0710 165 kg



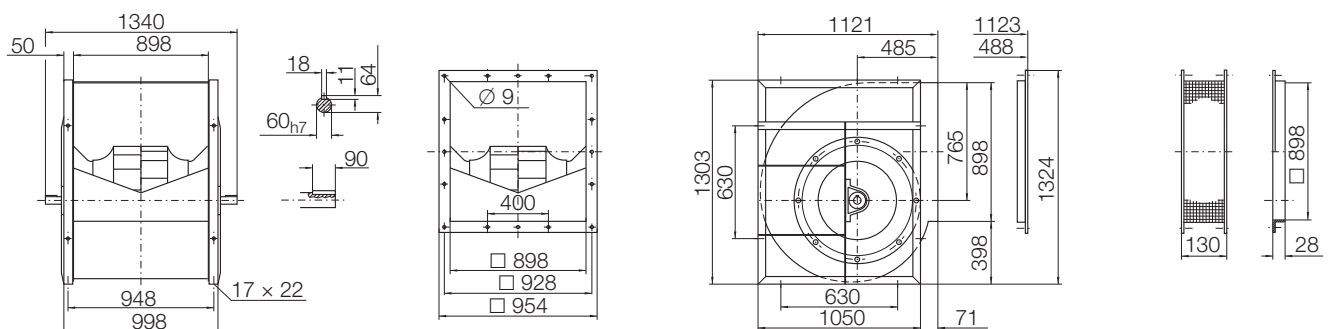
RDH K-0710 220 kg



RDH K1-0710 240 kg



RDH K2-0710 250 kg



Curves

RDH_-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).

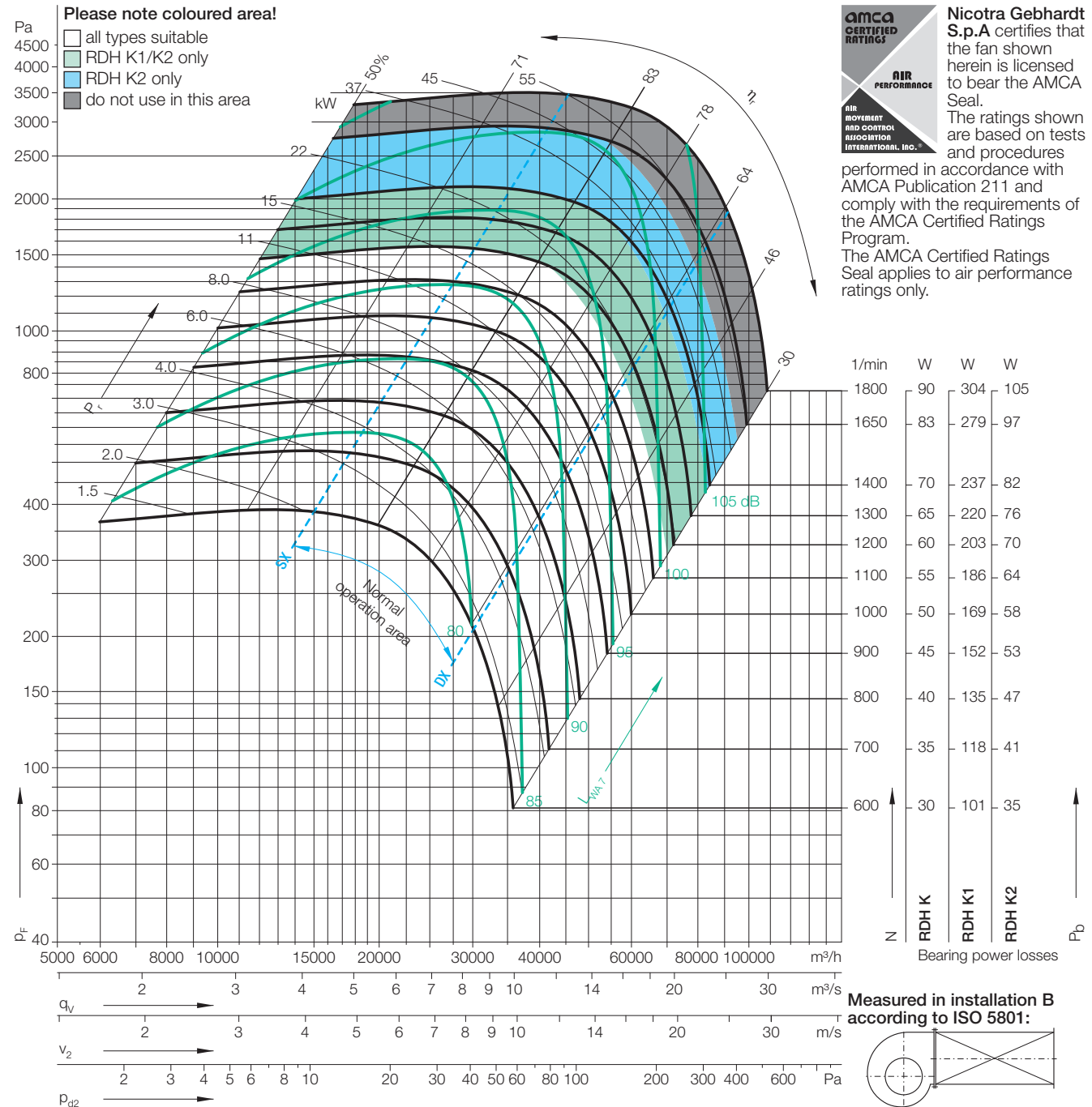
Technical Data

Impeller Data

Impeller diameter	D_r	800	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	



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Relative sound power level for inlet side L_{Wrel4} at octave centre frequencies f_m

Duty point	Speed	$\Delta L_{Wrel4}(A)$
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

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_m

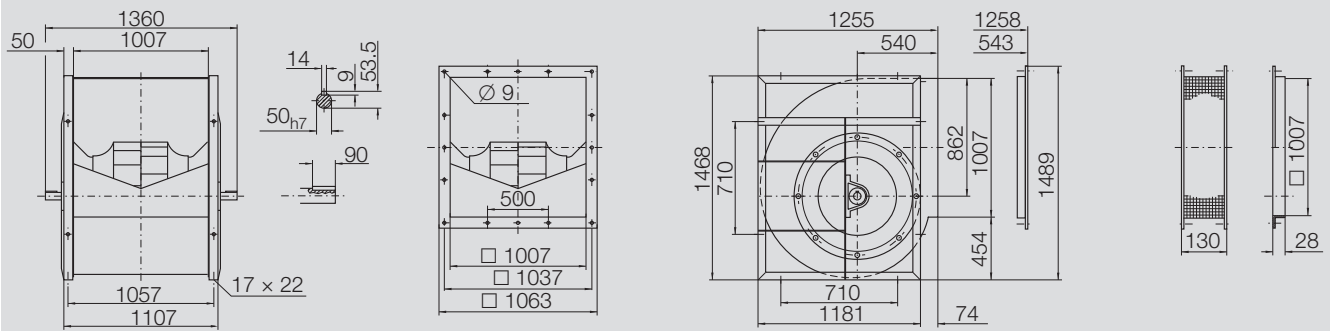
63	125	250	500	1000	2000	4000	8000	Hz
12	8	4	1	-3	-8	-15	-19	dB
12	6	5	1	-3	-8	-15	-20	dB
12	8	5	1	-3	-11	-15	-19	dB
8	6	3	0	-2	-7	-14	-19	dB
8	3	4	1	-2	-9	-15	-21	dB
9	7	4	2	-3	-10	-15	-20	dB
11	7	5	0	-2	-7	-14	-21	dB
10	4	6	1	-3	-8	-16	-22	dB
11	9	4	2	-3	-10	-17	-23	dB

Dimensions

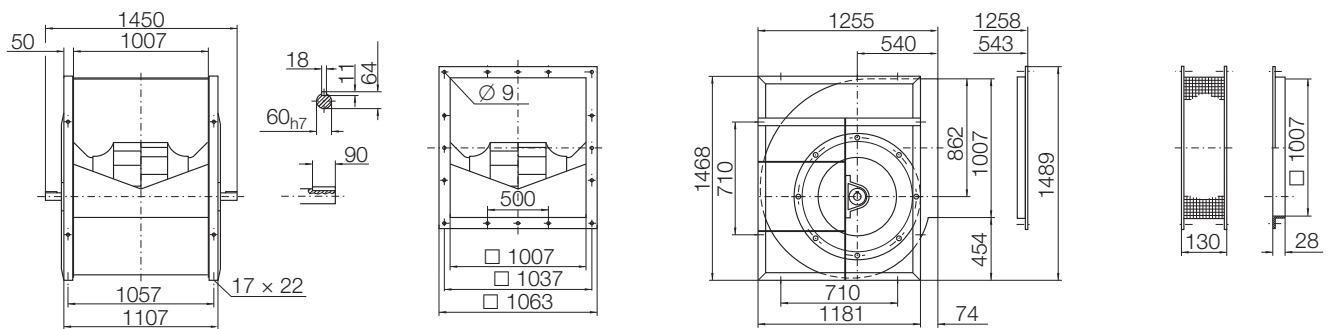
RDH_-0800

Dimensions in mm, subject to change.

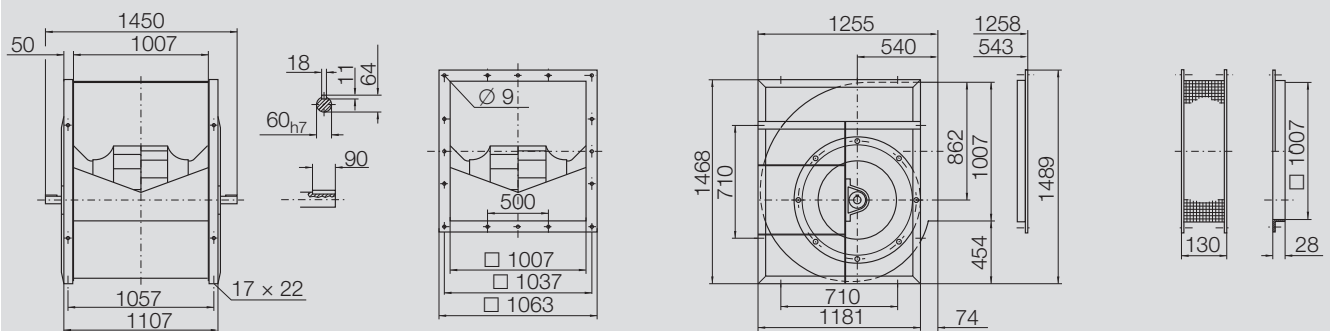
RDH K-0800 270 kg



RDH K1-0800 297 kg



RDH K2-0800 305 kg



Curves

RDH _-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).

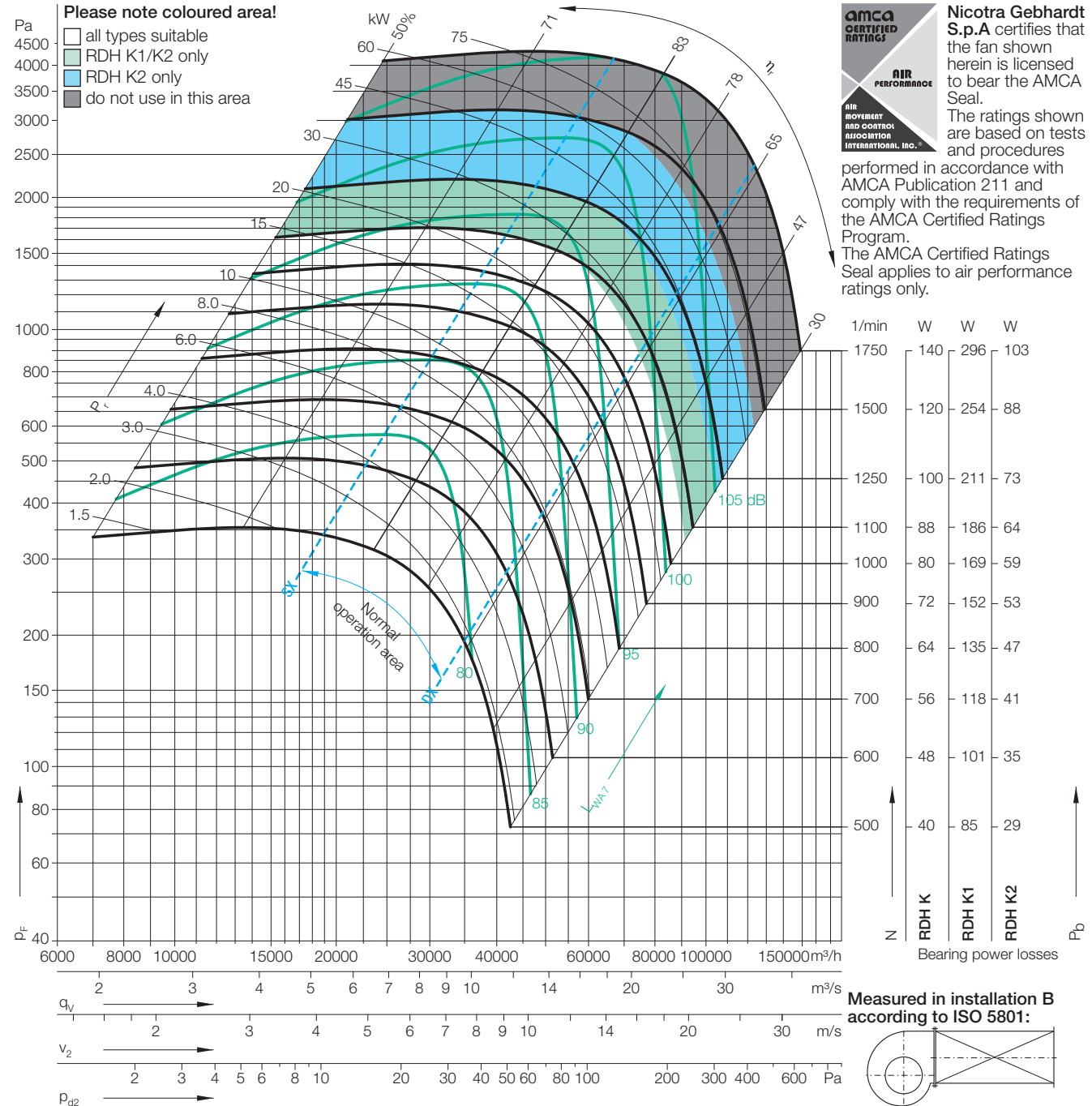
Technical Data

Impeller Data

Impeller diameter	D_r	900	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	



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Relative sound power level for inlet side L_{Wrel4} at octave centre frequencies f_m

Duty point	Speed	$\Delta L_{Wrel4}(A)$
SX	1250	3
SX	1000	3
SX	600	3
$Q_{V,opt}$	1250	3
$Q_{V,opt}$	1000	3
$Q_{V,opt}$	600	3
DX	1250	3
DX	1000	3
DX	600	3

	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_m

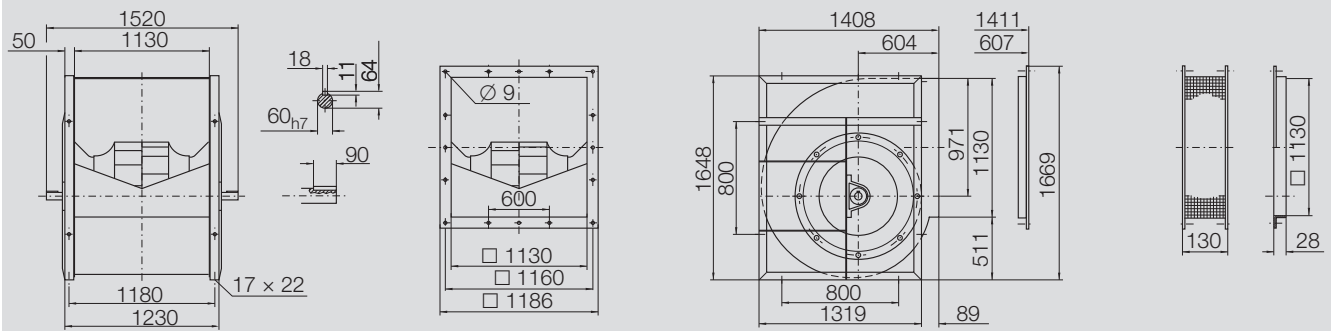
	63	125	250	500	1000	2000	4000	8000	Hz
11	7	4	1	-3	-8	-15	-19		dB
12	7	5	1	-3	-9	-15	-19		dB
10	9	5	1	-4	-11	-15	-20		dB
8	4	4	1	-2	-8	-15	-20		dB
9	5	4	2	-2	-9	-15	-20		dB
8	8	5	2	-4	-11	-16	-21		dB
10	5	6	0	-3	-7	-15	-22		dB
10	7	5	1	-2	-8	-16	-22		dB
9	10	5	2	-3	-11	-18	-24		dB

Dimensions

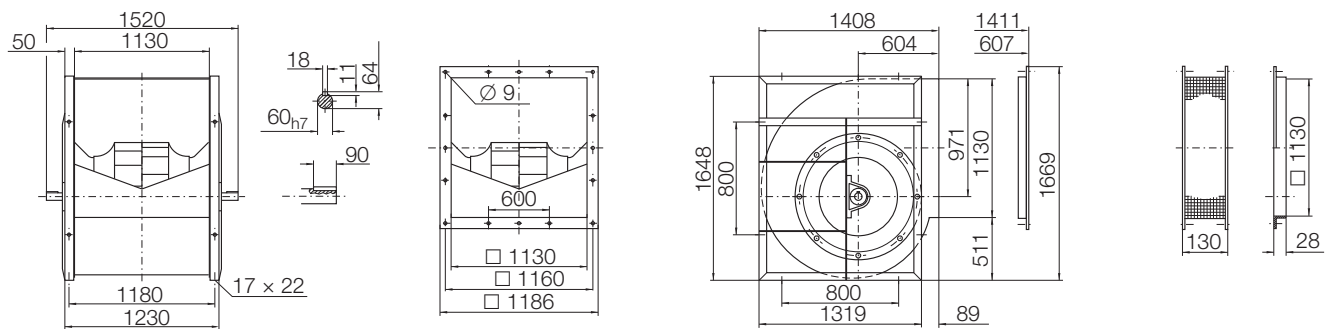
RDH _-0900

Dimensions in mm, subject to change.

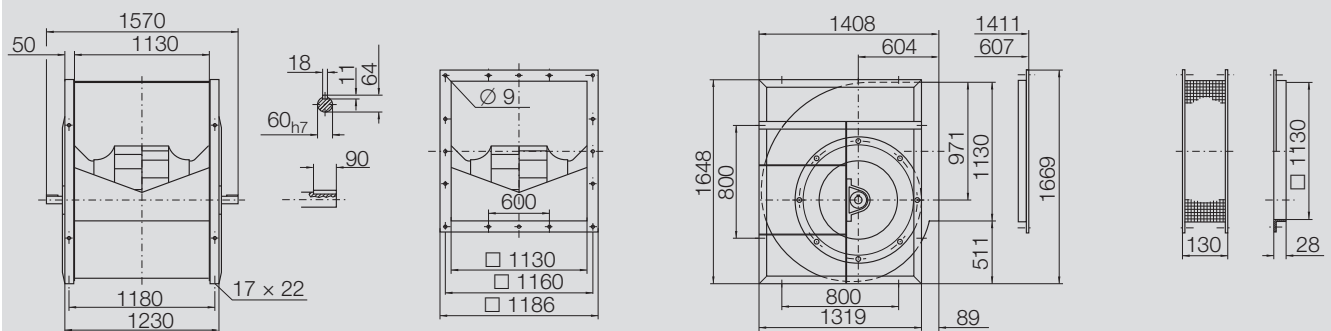
RDH K-0900 343 kg



RDH K1-0900 355 kg



RDH K2-0900 375 kg



Curves

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).

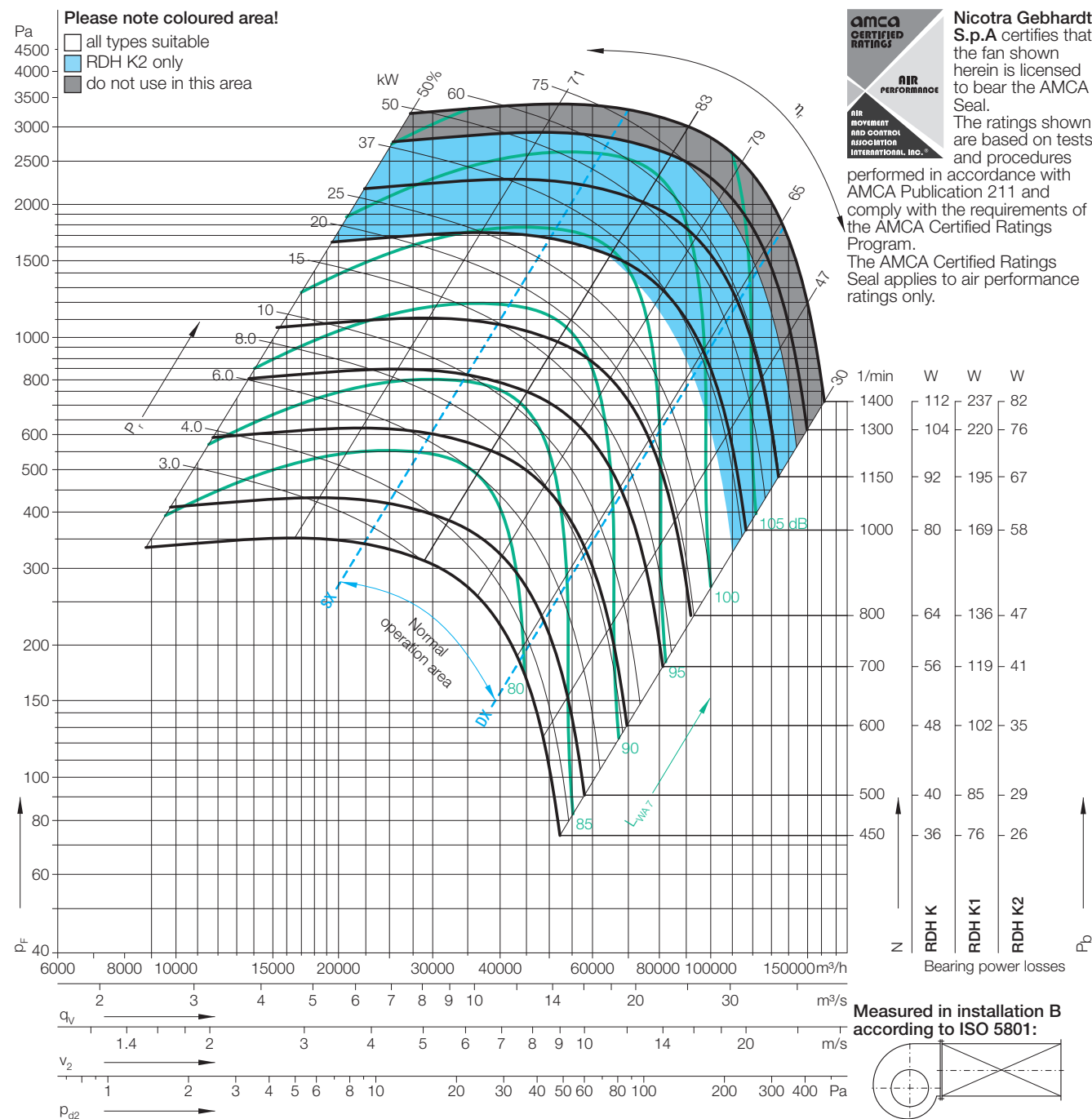
Technical Data

Impeller Data

Impeller diameter	D_r	1000	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	



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Duty point	Speed	$\Delta L_{wrel4}(A)$								
		1/min	dB	63	125	250	500	1000	2000	4000
SX	1150	3		4	2	4	-4	-8	-10	-16
SX	800	3		7	7	3	-4	-6	-11	-15
SX	500	3		8	8	0	-3	-6	-11	-15
$q_{V,opt}$	1150	3		1	-1	4	-3	-7	-10	-16
$q_{V,opt}$	800	3		4	7	2	-4	-5	-11	-15
$q_{V,opt}$	500	3		7	7	0	-2	-6	-12	-16
DX	1150	3		2	-1	5	-4	-7	-10	-18
DX	800	3		4	7	2	-4	-5	-12	-18
DX	500	3		7	8	1	-2	-6	-13	-19

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

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

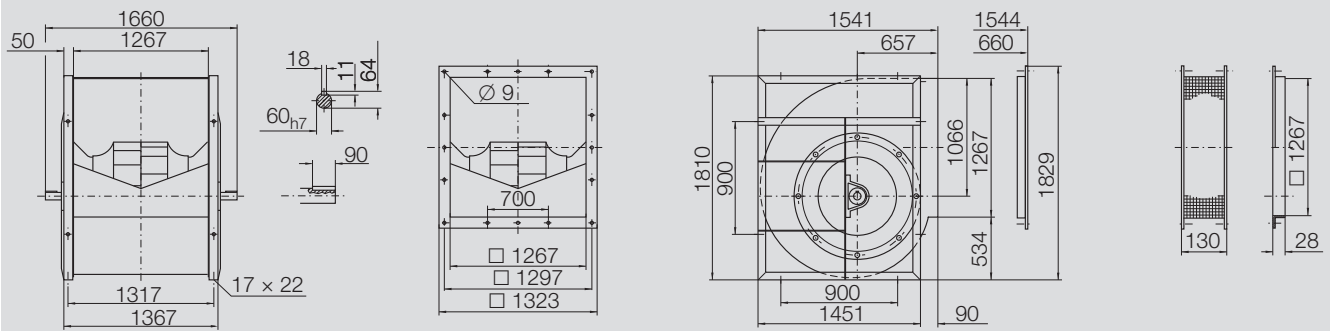
63	125	250	500	1000	2000	4000	8000	Hz
12	6	5	1	-3	-8	-15	-20	dB
12	8	5	1	-3	-10	-15	-19	dB
11	9	5	1	-5	-11	-15	-20	dB
8	3	4	1	-3	-8	-15	-21	dB
10	7	4	2	-3	-10	-15	-20	dB
9	8	6	2	-5	-11	-16	-20	dB
10	4	6	0	-3	-8	-16	-22	dB
11	9	4	1	-3	-10	-16	-23	dB
11	9	5	2	-4	-11	-18	-24	dB

Dimensions

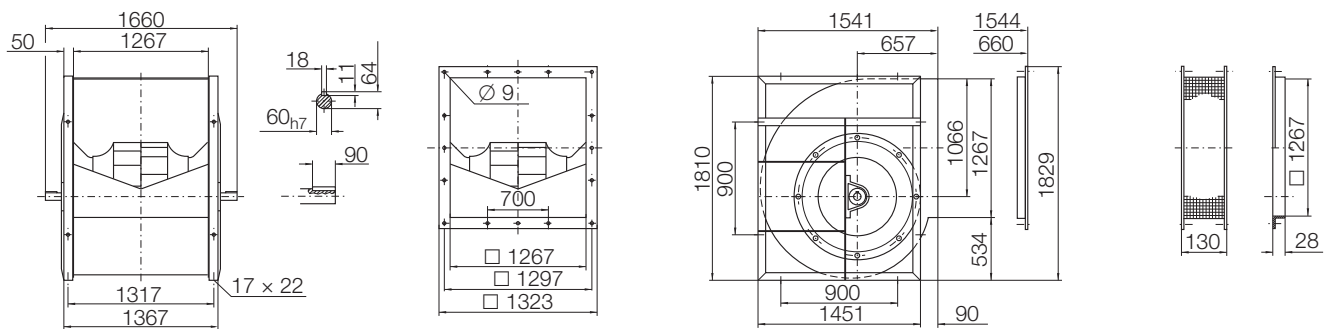
RDH _-1000

Dimensions in mm, subject to change.

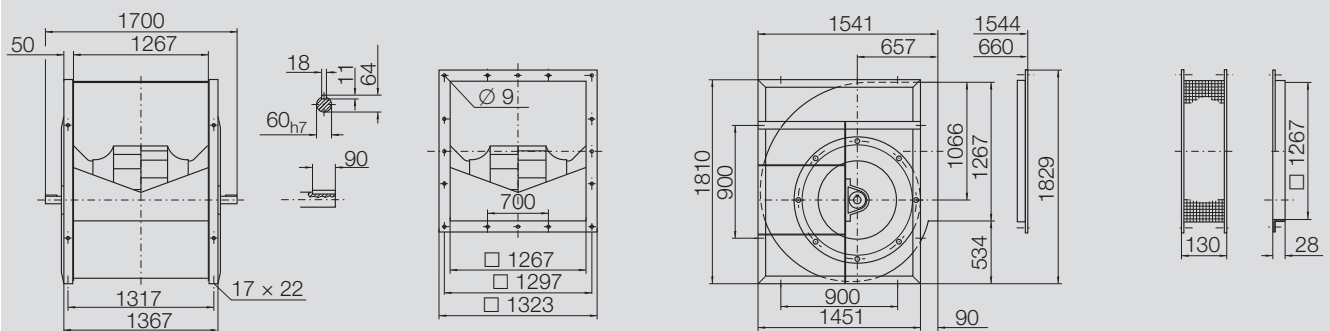
RDH K-1000 415 kg



RDH K1-1000 430 kg



RDH K2-1000 450 kg



Curves

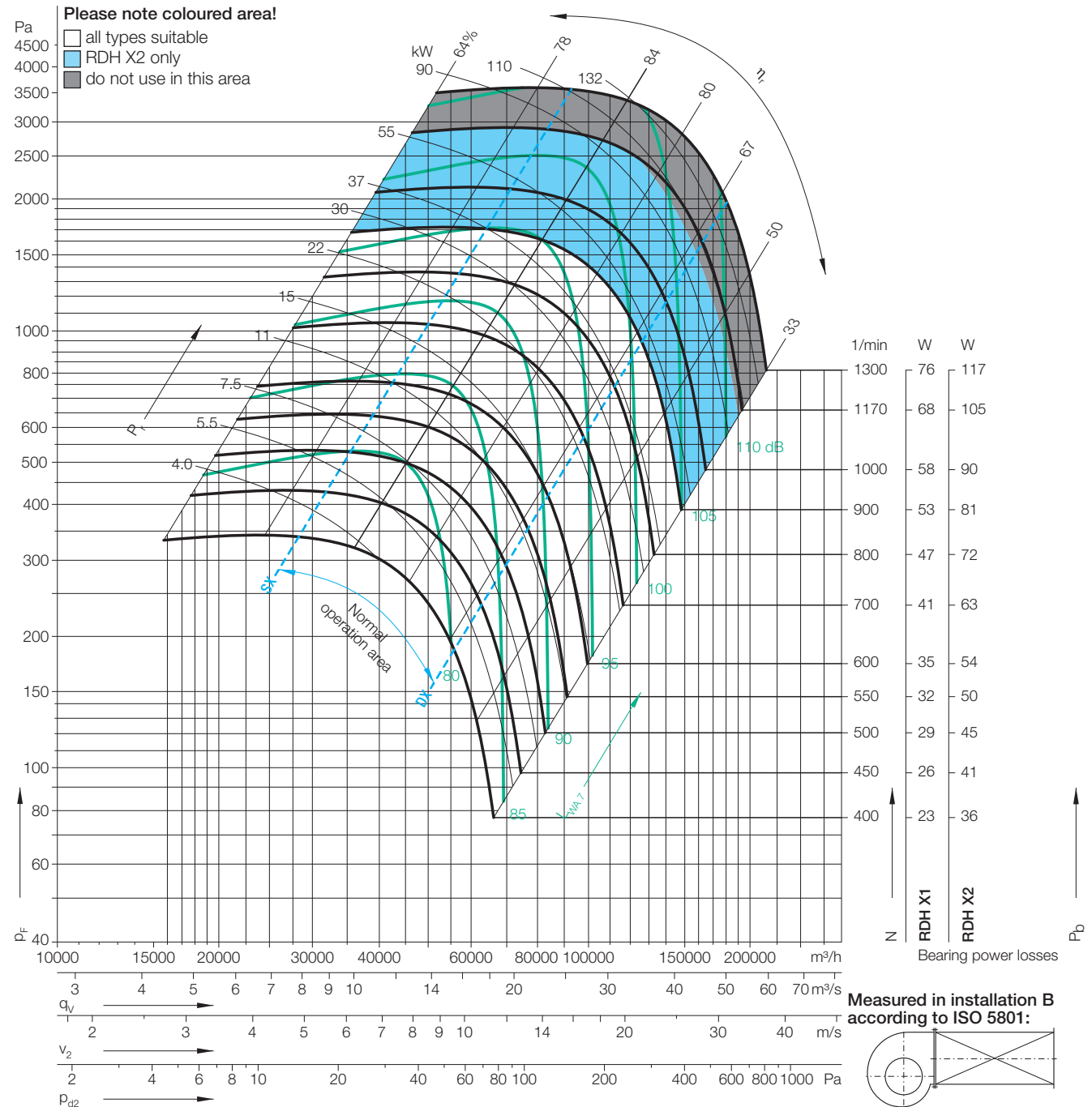
RDH_-1120

Technical Data

Impeller Data			
Impeller diameter	D_r	1120	mm
Number of blades	z	11	
Moment of Inertia	J	41,00	kgm ²

Impeller Data

Impeller weight	m	250	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		1	



Duty point	Speed	$\Delta L_{Wrel4}(A)$	Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_m								
	1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz
SX	1000	3	5	4	4	-4	-7	-10	-16	-19	dB
SX	800	3	7	7	3	-4	-6	-11	-15	-19	dB
SX	500	3	8	8	0	-3	-6	-11	-15	-20	dB
$q_{V,opt}$	1000	3	3	3	3	-4	-6	-10	-16	-20	dB
$q_{V,opt}$	800	3	4	7	2	-4	-5	-11	-15	-20	dB
$q_{V,opt}$	500	3	7	8	0	-2	-6	-11	-16	-20	dB
DX	1000	3	3	3	4	-4	-6	-10	-18	-23	dB
DX	800	3	4	7	2	-4	-5	-12	-18	-23	dB
DX	500	3	7	8	1	-2	-6	-13	-19	-23	dB

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

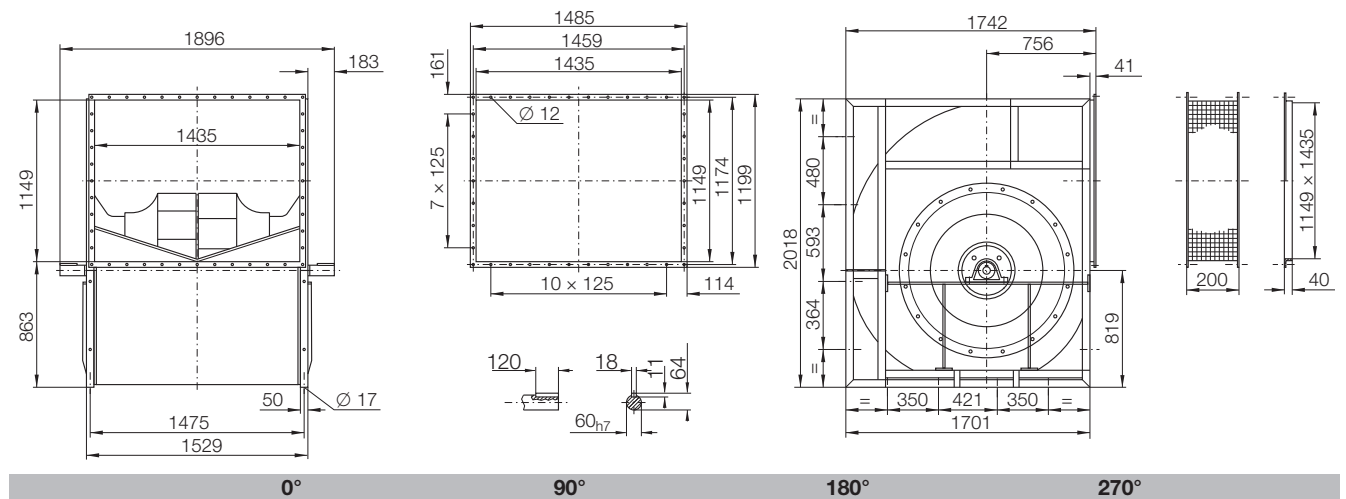
63	125	250	500	1000	2000	4000	8000	Hz
12	7	5	1	-3	-9	-15	-20	dB
12	8	5	1	-3	-10	-15	-19	dB
11	9	5	1	-5	-11	-15	-20	dB
9	5	4	2	-2	-9	-15	-20	dB
10	7	4	2	-3	-10	-15	-20	dB
9	8	6	2	-5	-11	-16	-20	dB
11	7	5	1	-2	-8	-15	-22	dB
11	9	4	1	-3	-10	-16	-23	dB
11	9	5	2	-4	-11	-18	-24	dB

Dimensions

RDH _-1120

Dimensions in mm, subject to change.

RDH X1-1120 610 kg

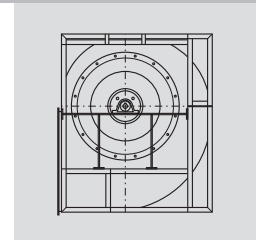
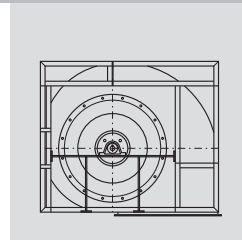
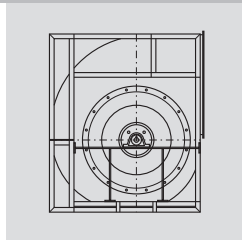
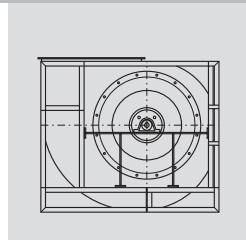


0°

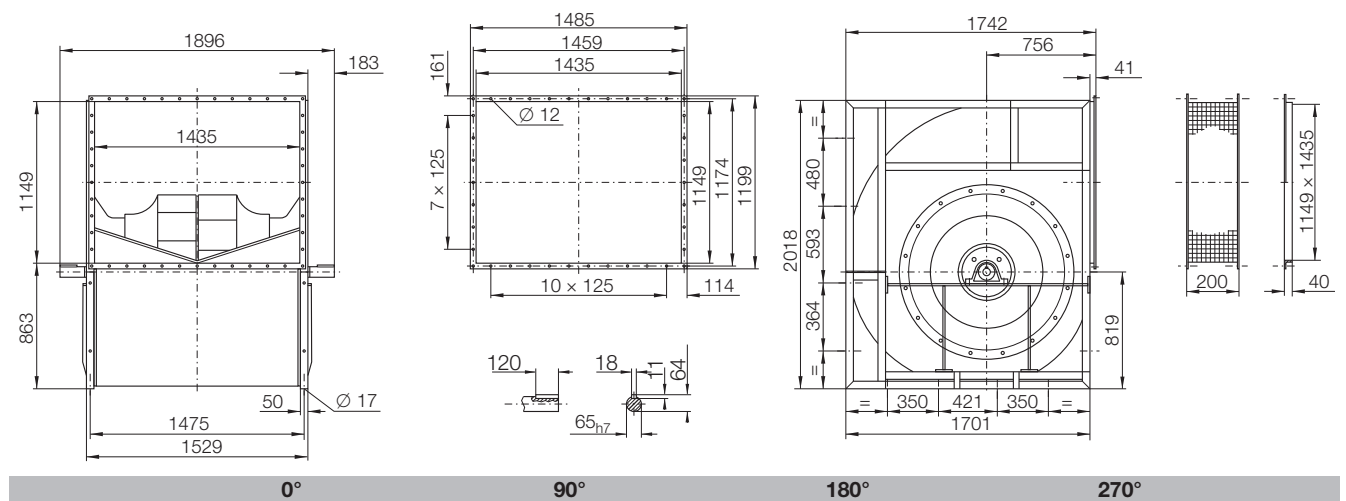
90°

180°

270°



RDH X2-1120 890 kg

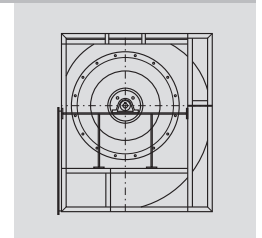
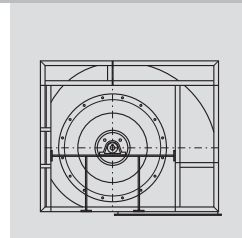
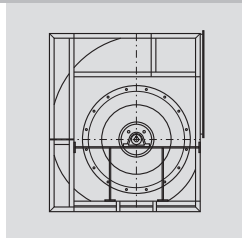
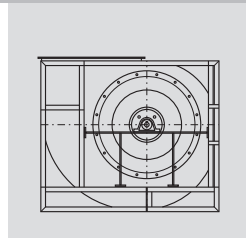


0°

90°

180°

270°



Curves

RDH_-1250

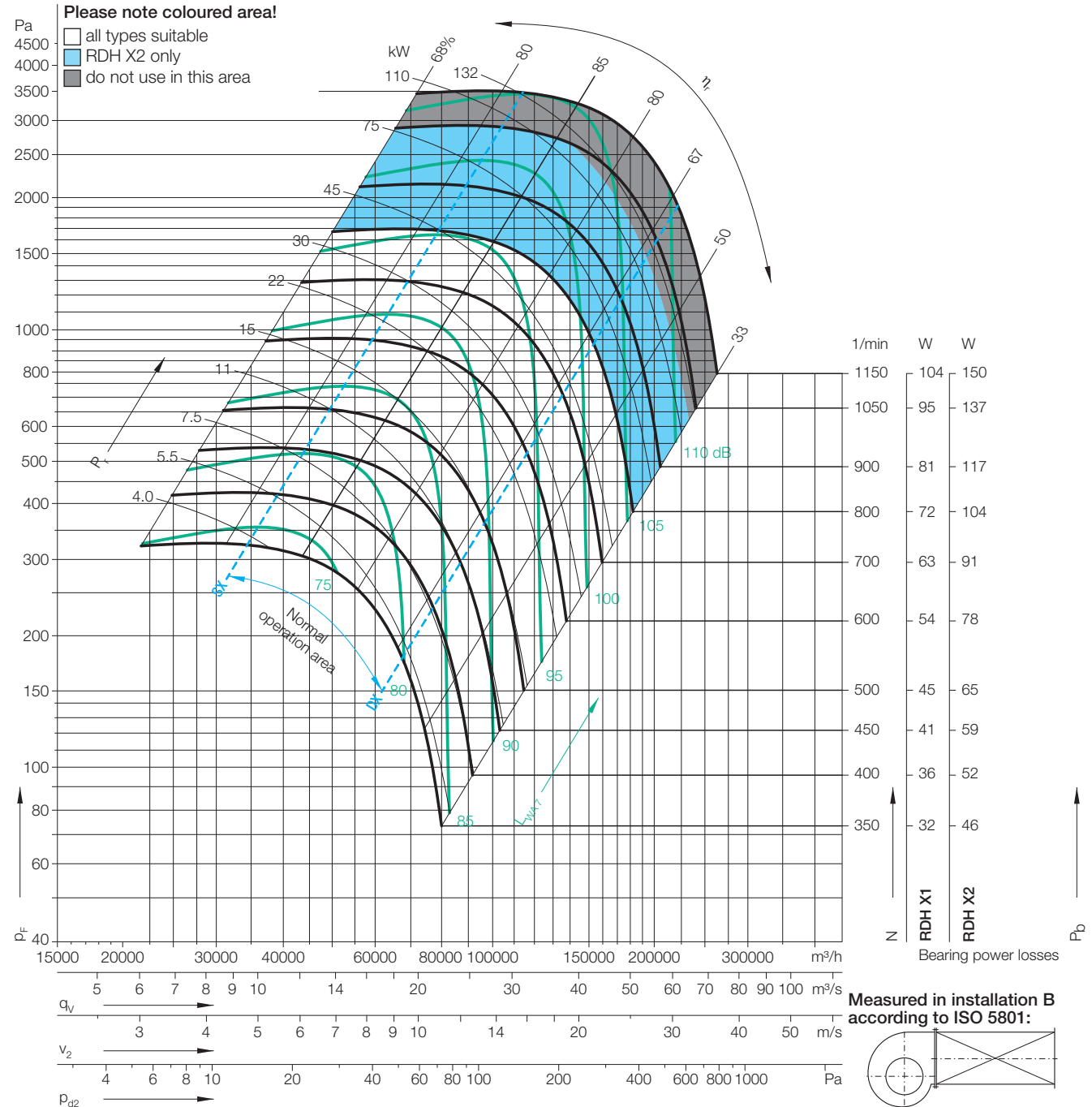
Technical Data

Impeller Data

Impeller diameter	D_r	1250	mm
Number of blades	z	11	
Moment of Inertia	J	69,00	kgm ²

Impeller Data

Impeller weight	m	325	kg
Density of media	ρ_1	1,2	kg/m ³
Tolerance class (DIN 24166)		1	



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

Duty point	Speed	$\Delta L_{Wrel4}(A)$
SX	900	3
SX	700	3
SX	450	3
$Q_{V,opt}$	900	3
$Q_{V,opt}$	700	3
$Q_{V,opt}$	450	3
DX	900	3
DX	700	3
DX	450	3

63	125	250	500	1000	2000	4000	8000	Hz
6	6	3	-5	-6	-11	-15	-19	dB
7	8	2	-4	-6	-12	-15	-19	dB
10	7	0	-2	-7	-11	-15	-20	dB
4	6	2	-4	-5	-11	-15	-20	dB
4	8	1	-3	-6	-12	-16	-20	dB
10	6	0	-1	-7	-11	-16	-20	dB
4	6	2	-4	-5	-11	-17	-23	dB
4	8	1	-3	-5	-13	-19	-23	dB
11	7	0	-1	-7	-13	-19	-23	dB

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

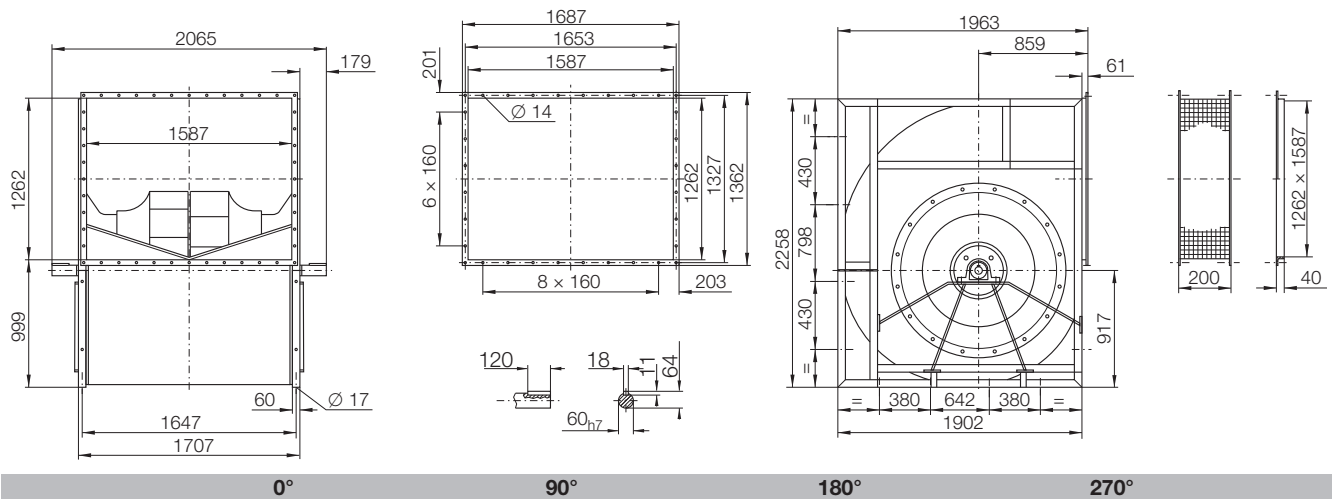
63	125	250	500	1000	2000	4000	8000	Hz
13	7	5	1	-3	-10	-15	-20	dB
12	8	5	1	-3	-11	-15	-19	dB
11	9	5	2	-6	-10	-15	-20	dB
10	7	3	2	-2	-10	-15	-20	dB
9	7	4	2	-3	-11	-15	-20	dB
11	7	6	2	-6	-10	-16	-20	dB
11	9	4	1	-2	-9	-16	-22	dB
11	10	4	2	-3	-10	-17	-23	dB
13	8	5	2	-5	-11	-18	-23	dB

Dimensions

RDH_-1250

Dimensions in mm, subject to change.

RDH X1-1250 950 kg

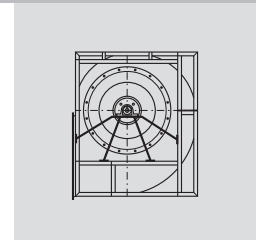
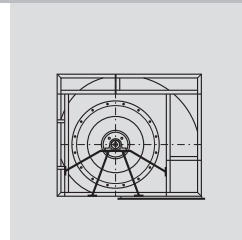
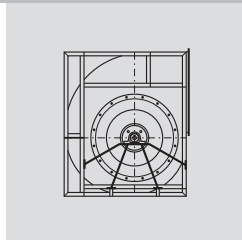
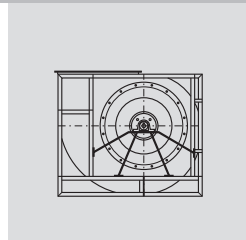


0°

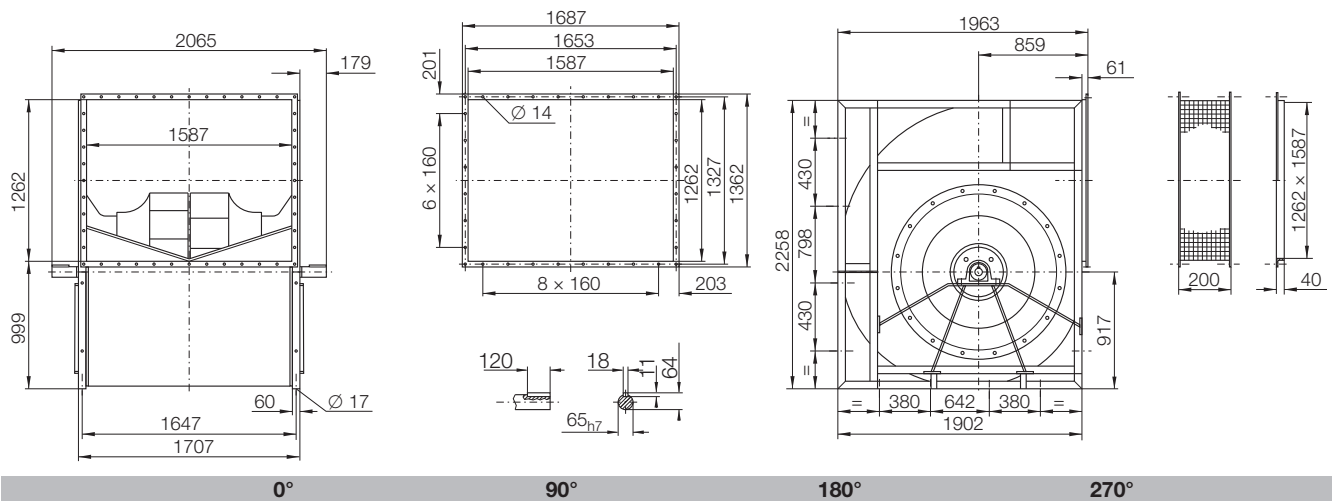
90°

180°

270°



RDH X2-1250 1140 kg

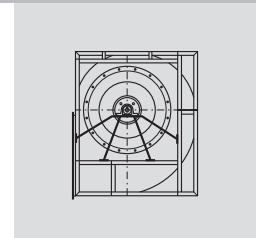
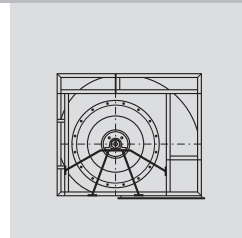
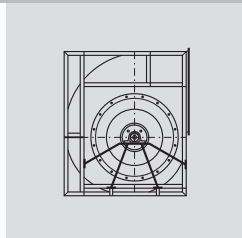
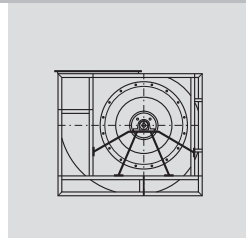


0°

90°

180°

270°

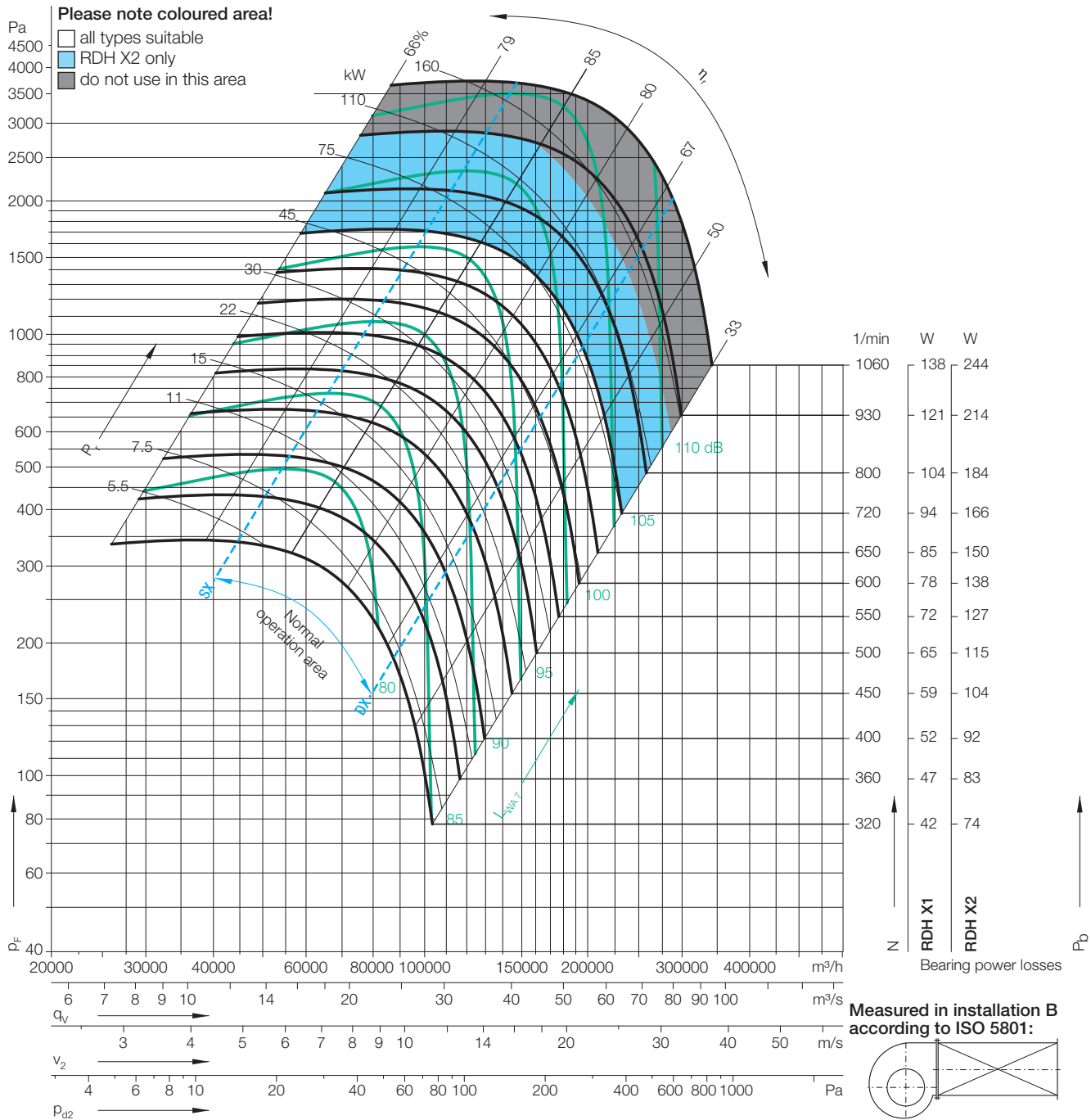


Curves

RDH_-1400

Technical Data

Impeller Data			Impeller Data		
Impeller diameter	D _r	1400 mm	Impeller weight	m	416 kg
Number of blades	z	11	Density of media	ρ ₁	1,2 kg/m ³
Moment of Inertia	J	114,0 kgm ²	Tolerance class (DIN 24166)		1



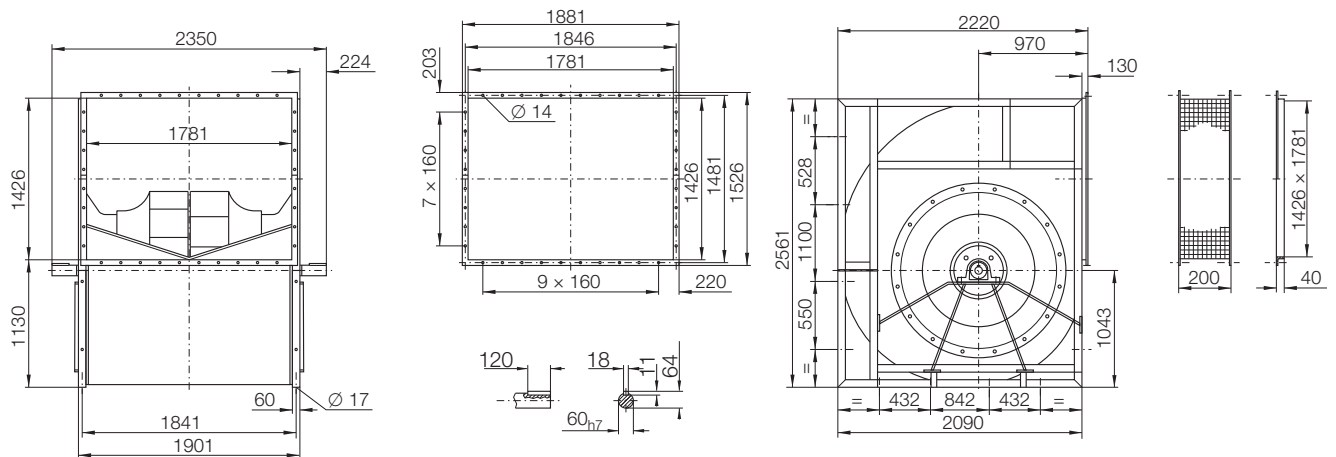
Duty point	Speed	ΔL _{Wrel4} (A)		Relative sound power level for inlet side L _{Wrel7} at octave centre frequencies f _m									Relative sound power level for discharge side L _{Wrel4} at octave centre frequencies f _m								
		1/min	dB	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
SX	800		3	7	7	3	-4	-6	-11	-15	-19	dB	12	8	5	1	-3	-10	-15	-19	dB
SX	600		3	6	8	1	-4	-6	-12	-15	-20	dB	11	9	5	1	-4	-11	-15	-20	dB
SX	400		3	11	7	0	-2	-7	-11	-15	-20	dB	12	9	5	1	-6	-11	-15	-20	dB
q _{V,opt}	800		3	4	7	2	-4	-5	-11	-15	-20	dB	10	7	4	2	-3	-10	-15	-20	dB
q _{V,opt}	600		3	3	9	1	-3	-6	-12	-16	-21	dB	8	8	5	2	-4	-11	-16	-21	dB
q _{V,opt}	400		3	11	6	0	-1	-7	-11	-16	-20	dB	11	8	6	2	-6	-11	-16	-20	dB
DX	800		3	4	7	2	-4	-5	-12	-18	-23	dB	11	9	4	2	-3	-10	-16	-23	dB
DX	600		3	3	9	1	-3	-6	-13	-19	-24	dB	9	10	5	1	-3	-11	-18	-24	dB
DX	400		3	12	6	1	-1	-8	-14	-19	-23	dB	14	9	6	2	-5	-12	-18	-23	dB

Dimensions

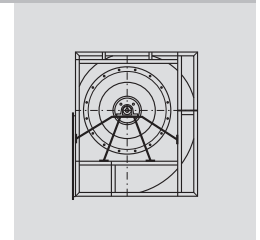
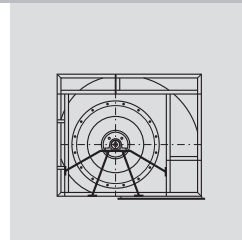
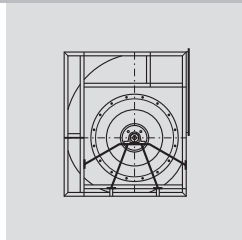
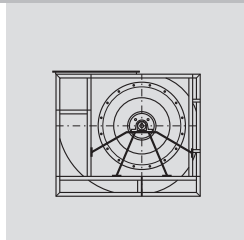
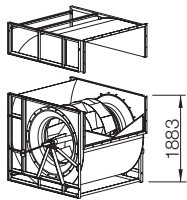
RDH_-1400

Dimensions in mm, subject to change.

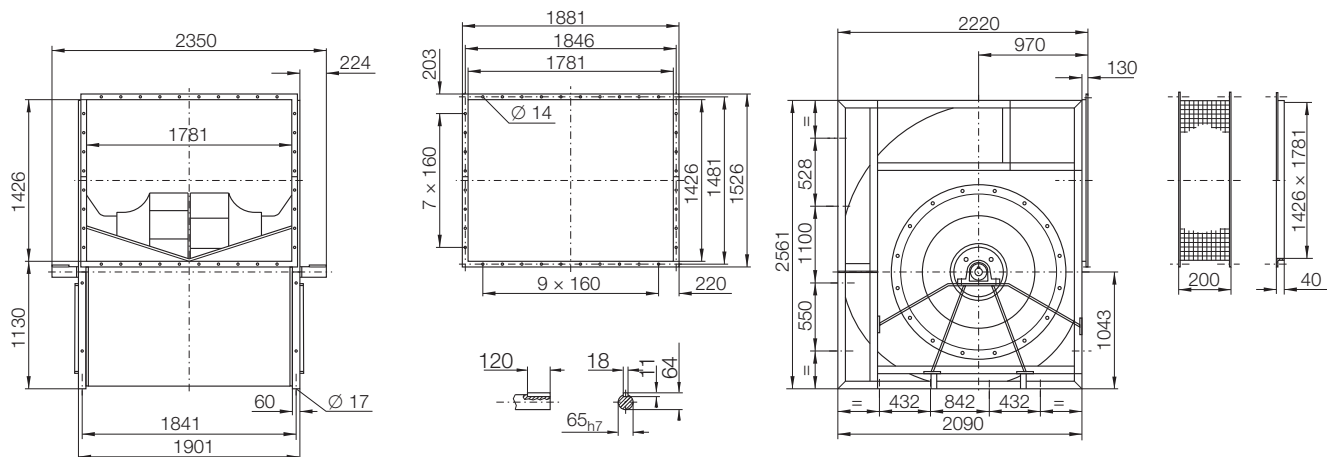
RDH X1-1400 1370 kg



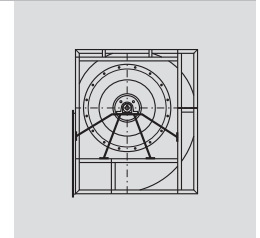
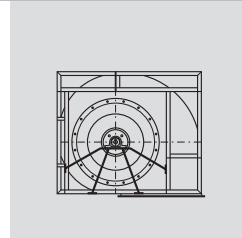
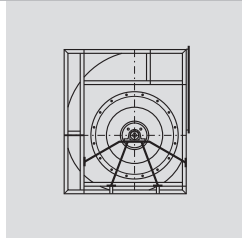
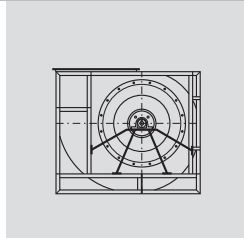
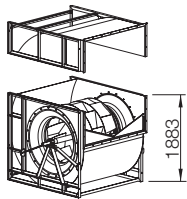
0° 90° 180° 270°



RDH X2-1400 1390 kg



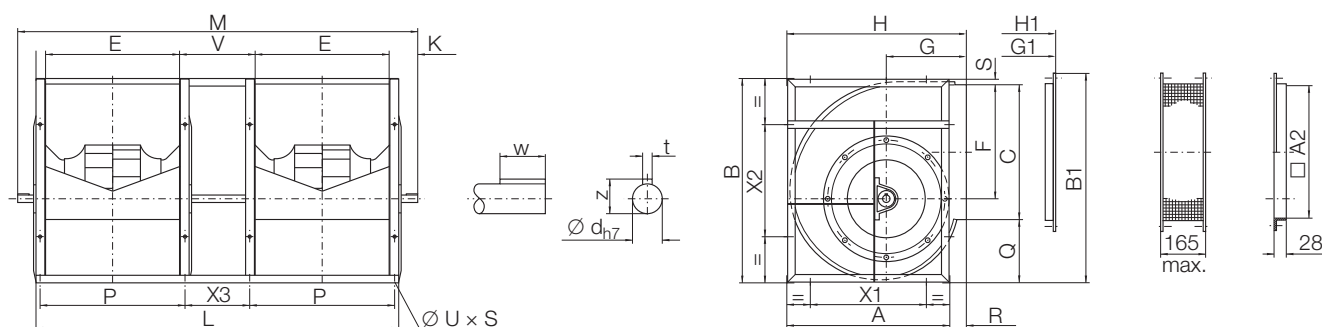
0° 90° 180° 270°



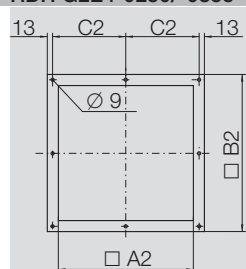
RDH G2E4 / RDH G2K

Dimensions in mm, subject to change.

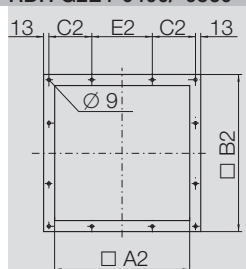
RDH G2E4-0250/-0560 / RDH G2K-0630/-1000



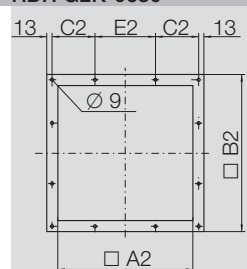
RDH G2E4-0250/-0355



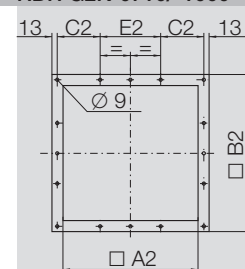
RDH G2E4-0400/-0560



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

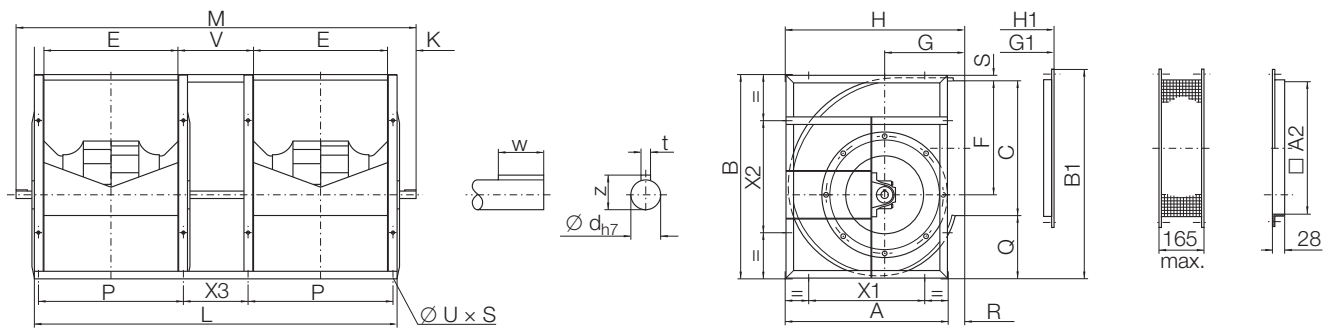
	Q	R	S	V	K	X1	X2	X3	t	w
0250	140	37	10	250	71	224	224	220	8	40
0280	158	35	9	280	79	280	280	250	8	40
0315	177	36	10	315	79	280	280	285	8	40
0355	204	37	13	355	82	355	355	315	10	50
0400	234	41	11	400	83	355	355	360	10	50
0450	261	44	11	450	101	530	530	400	12	70
0500	282	49	10	500	102	530	530	450	12	70
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 × 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

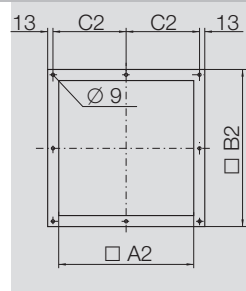
RDH G2E7 / RDH G2K2

Dimensions in mm, subject to change.

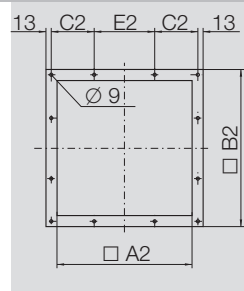
RDH G2E7-0250/-0560 / RDH G2K2-0630/-1000



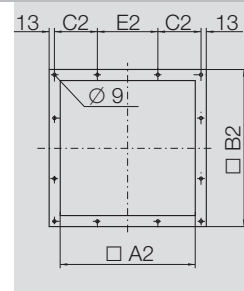
RDH G2E7-0250/-0355



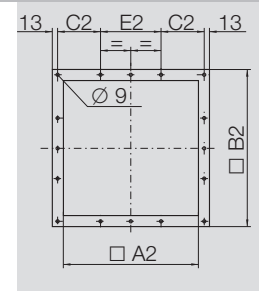
RDH G2E7-0400/-0560



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

RDH E0-0180/-0560

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 24 166 tolerance class 2 (sizes 0180/-0315) tolerance class 1 (sizes 0355/-0560).

Fan data

Fan type	=	
Volume	q_v	= m³/h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_i/η_{gr})	=
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 24 166 tolerance class 2 (sizes 0180/-0315) or tolerance class 1 (sizes 0355/-0710).

Fan data

Fan type	=	
Volume	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m ³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_i/η_{gr})	=
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

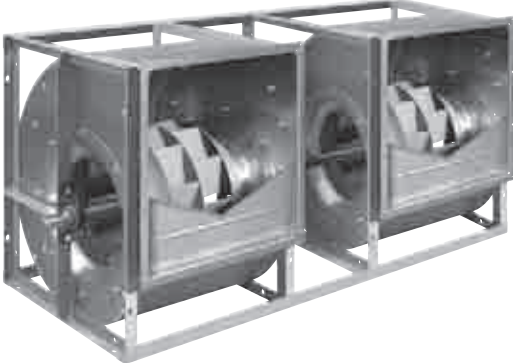
RDH G2K-0630/-1000

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 trasling 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 24 166 tolerance class 2 (sizes 0200/-0315) or tolerance class 1 (sizes 0355/-1000).

Twin fan arrangement



Twin fan arrangement
High performance centrifugal fanRDH 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	q_v	= m³/h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_i/η_{st})	=
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/-1000

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 24 166 tolerance class 2 (size 0315) or toleran-
ce class 1 (sizes 0355/-1000).

Fan data

Fan type		=
Volume	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m ³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_r/η_{sr})	=
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 trasling 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 24 166 tolerance class 1.

Fan data

Fan type		=
Volume	q_v	= m³/h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_i/η_{gr})	=
Speed	N	= 1/min
Sound power level (A-weighted)	L_{WA}	= dB
Weight	m	= kg

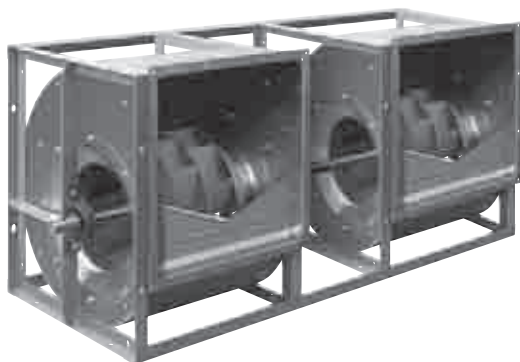
Fittings / Accessories

- 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 trasling 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 24 166 tolerance class 2 (sizes 0250/-0315) or to tolerance class 1 (Sizes 0355 /-1000).

Fan data

Fan type	=	
Volume	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m ³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_i/η_{st})	=
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)

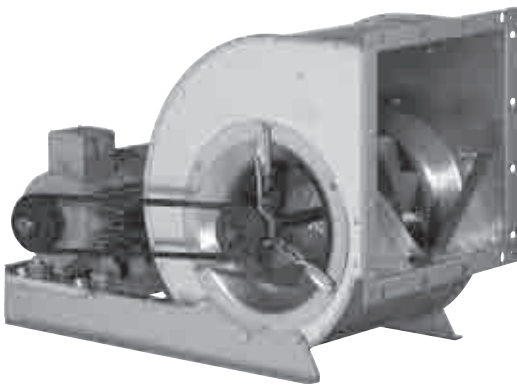
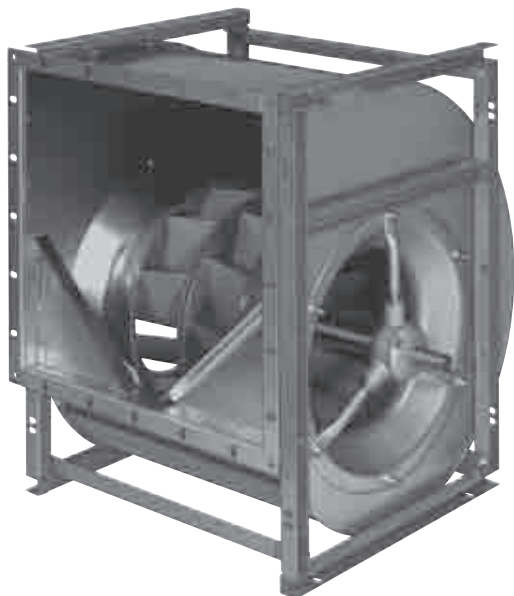
RDH X1-1120/-1400

RDH X2-1120/-1400

Specifications	High Performance Centrifugal Fan RDH X1 / RDH X2 Double inlet, belt drive. Lap jointed scroll of galvanised sheet steel assembled by Pittsburgh lockforming (Size 1120) or made of welded sheet steel and painted (Sizes 1250, 1400), casing split on one axis-two parts (size 1400), connecting flange at discharge. Welded heavy duty reinforced side frames, coated. Pedestal made of flat steel, welded and painted, for supporting the plummer block. High performance radial impeller with 11 backward inclined blades made of sheet steel, welded and painted, balanced acc. to ISO 1940. Throat plate inclined to blade trasling edge. 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. Performance data to DIN 24166 class 1.
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Fan data	
	Fan type = ...
	Volume q_v = ... m³/h
	Total pressure increase p_F = ... Pa
	Free discharge factor p_{sF} = ... Pa
	Density at Inlet ρ_1 = ... kg/m³
	Temperature of gas medium t = ... °C
	Shaft power P_a = ... kW
	Efficiency (η_i/η_{gr}) = ...
	Speed N = ... 1/min
	Sound power level (A-weighted) L_{WA} = ... dB
	Weight m = ... kg

Fittings / Accessories	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 Copper inlet cone, or equipped with a copper strip
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Highest system performance and best energy efficiency:

The *rotavent*®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 *rotavent* 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 aerofoil 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 *rotavent* 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	V	2.5 %	5 %	10 %
Pressure increase	Δ_p	2.5 %	5 %	10 %
Power consumption	P	+3 %	+8 %	+16 %
Efficiency	h	-2 %	-5 %	–
Sound power level (A weighted)	L_{WA}	+3 dB	+4 dB	+6 dB

Variety has a name:
RZR *rotavent*®

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

Series RZR *rotavent*®

Sizes 0200/-1600

- Lap jointed scroll of galvanised sheet steel with V-Cut off -RZR 11; 12; 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 aerofoil blades (0315/-1600)

Series RZR *rotavent*®

- Volume up to 300.000 m³/h
- Pressure up to 3.500 Pa

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

Depending on the fan size, the RZR series have up to 6 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 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.	

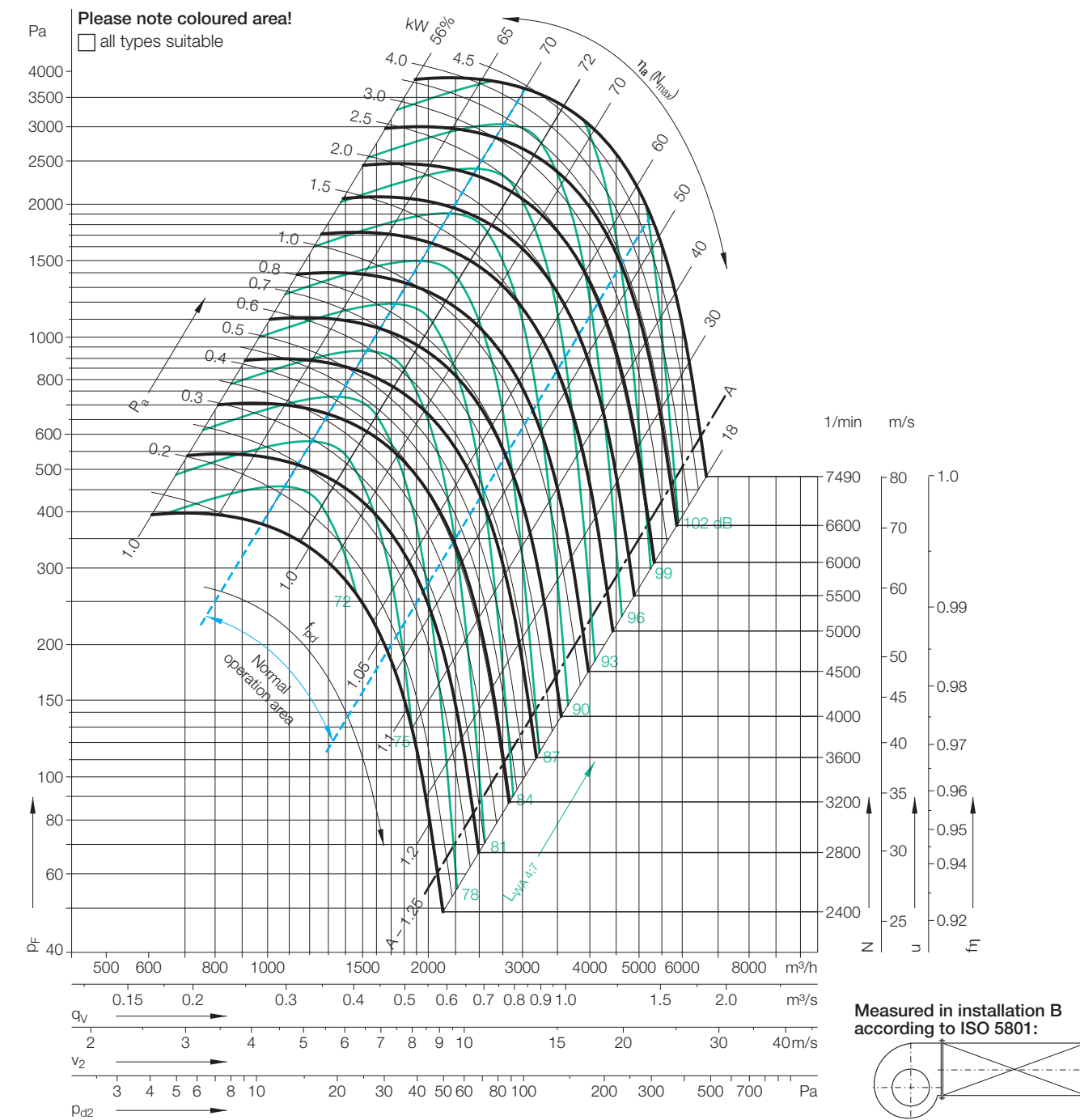
Version	Description	Figure
RZR 19-0200/-0355	Scroll casing stitch welded with discharge flange and multi-position feet. Medium-heavy bearing execution with cast iron housing and tubular struts.	
RZR 19-0400/-1000	Scroll casing stitch welded with discharge flange, and heavy duty reinforced side frames, 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

Curves

RZR_-0200

Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D _r	204	mm		Impeller weight	m	2,7	kg	
Number of blades	z	11			Density of media	ρ ₁	1,2	kg/m ³	
Moment of Inertia	J	0,020	kgm ²		Tolerance class (DIN 24166)		2		
					Speed limits n _{max} for ATEX execution				
					RZR 11/12/19 6513 1/min				
					Ex				



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

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

Speed	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
≤3745 1/min	≤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	≤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
	>1.6 q _{Vopt}	-15	-10	-11	-4	-4	-9	-12	-19	dB

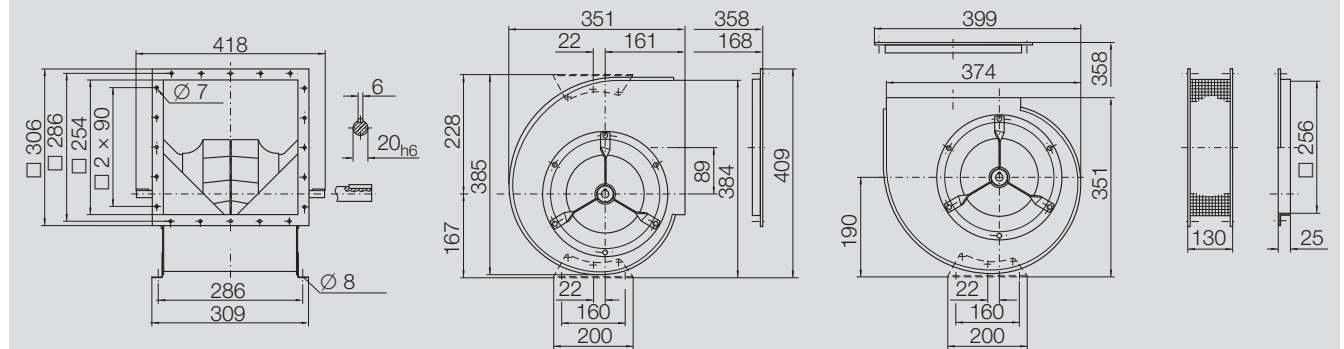
63	125	250	500	1000	2000	4000	8000	Hz
11	8	3	-2	-8	-13	-19	-29	dB
7	5	1	-1	-7	-11	-18	-29	dB
5	3	-1	-1	-6	-9	-17	-20	dB
6	1	-2	-2	-6	-8	-14	-29	dB
63	125	250	500	1000	2000	4000	8000	Hz
8	7	2	-2	-6	-11	-19	-28	dB
4	3	-2	-4	-6	-8	-15	-26	dB
2	0	-4	-5	-6	-8	-13	-24	dB
4	0	-4	-6	-6	-8	-12	-21	dB

Dimensions

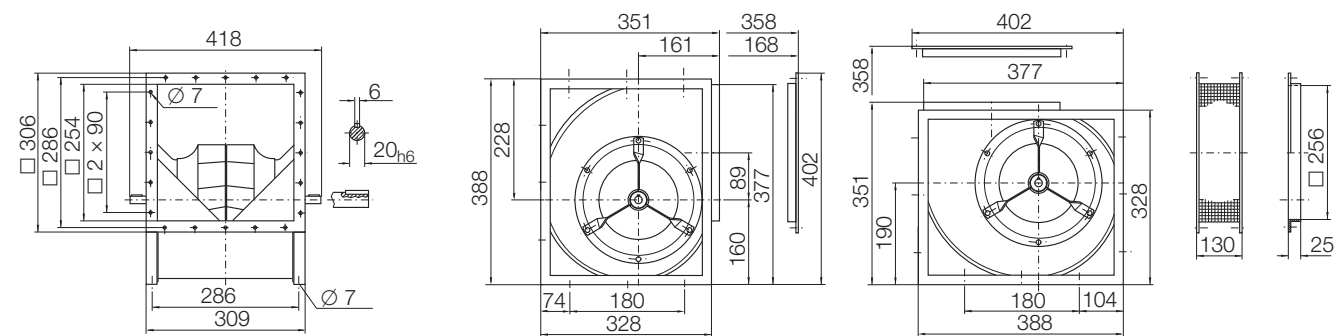
RZR _-0200

Dimensions in mm, subject to change.

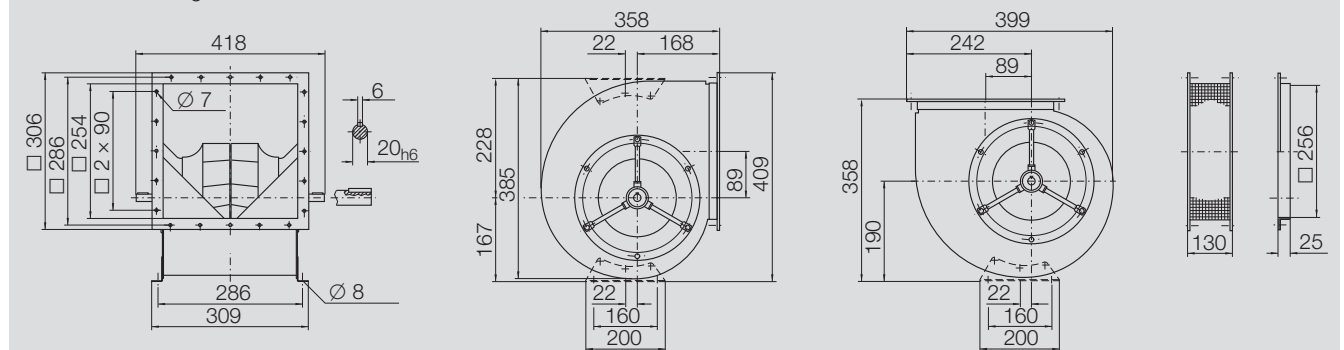
RZR 11-0200 11 kg



RZR 12-0200 12 kg



RZR 19-0200 13 kg



Curves

RZR_-0225

Technical Data

Impeller Data

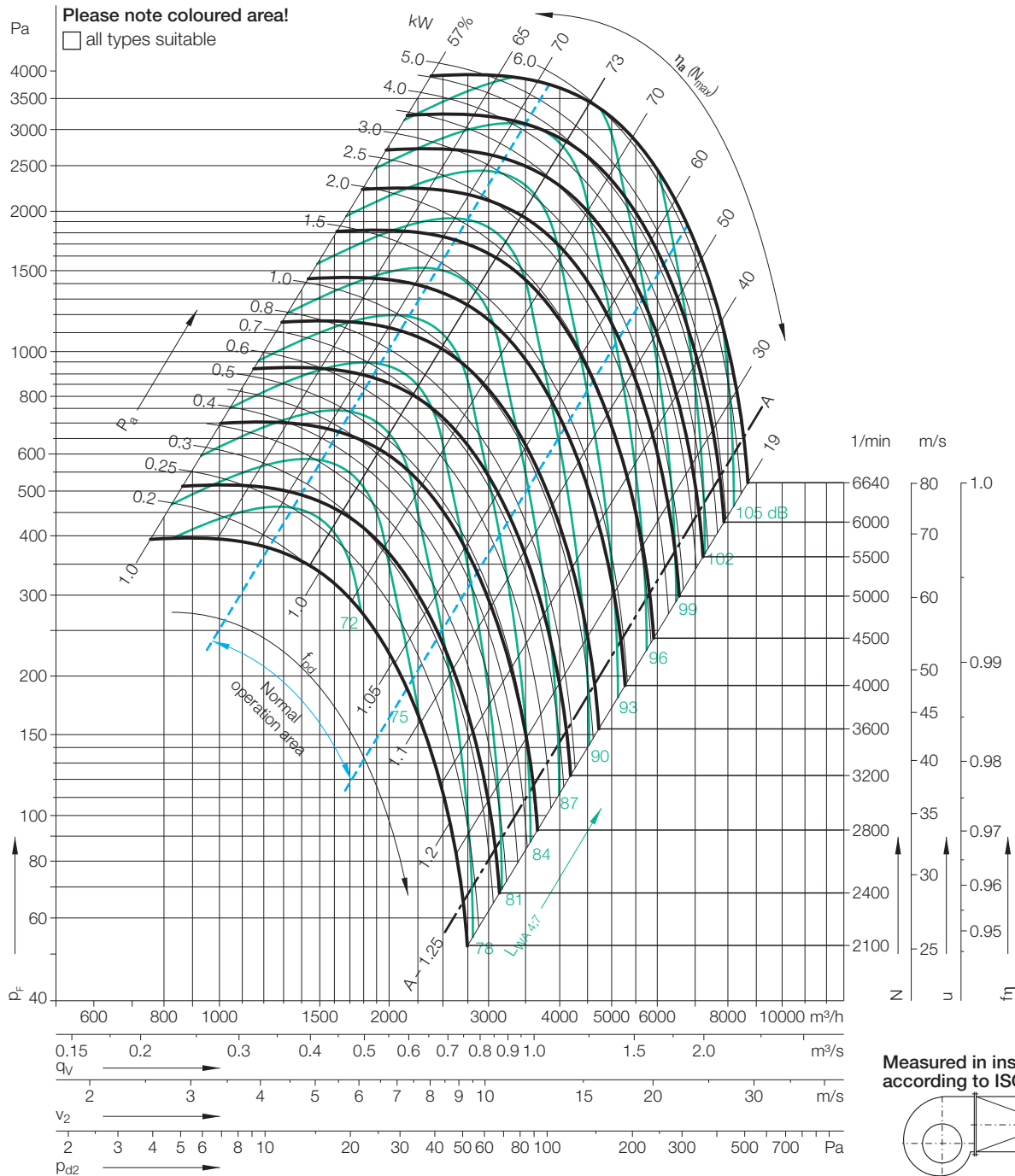
Impeller diameter	D_r	230	mm
Number of blades	z	11	
Moment of Inertia	J	0,030	kgm ²

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

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

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}

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

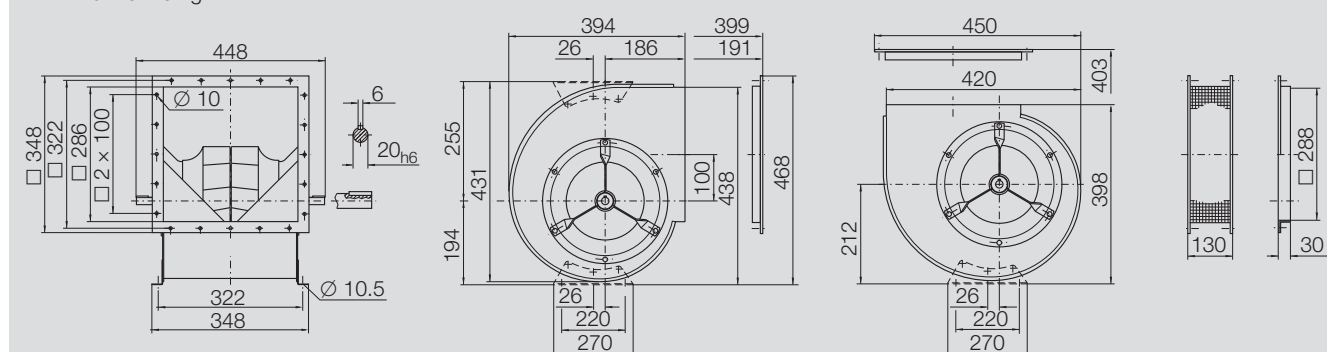
63	125	250	500	1000	2000	4000	8000	Hz
11	8	3	-2	-8	-13	-19	-29	dB
7	5	1	-1	-7	-11	-18	-29	dB
5	3	-1	-1	-6	-9	-17	-20	dB
6	1	-2	-2	-6	-8	-14	-29	dB
63	125	250	500	1000	2000	4000	8000	Hz
8	7	2	-2	-6	-11	-19	-28	dB
4	3	-2	-4	-6	-8	-15	-26	dB
2	0	-4	-5	-6	-8	-13	-24	dB
4	0	-4	-6	-6	-8	-12	-21	dB

Dimensions

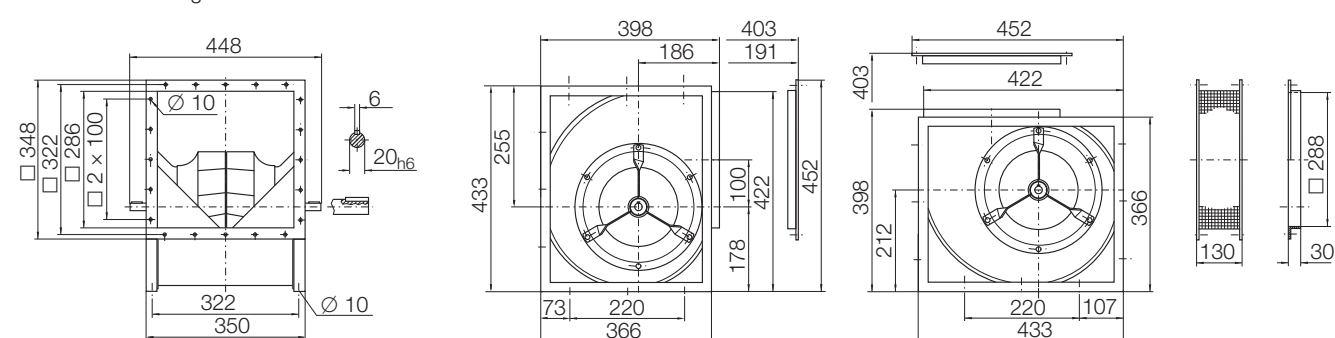
RZR _-0225

Dimensions in mm, subject to change.

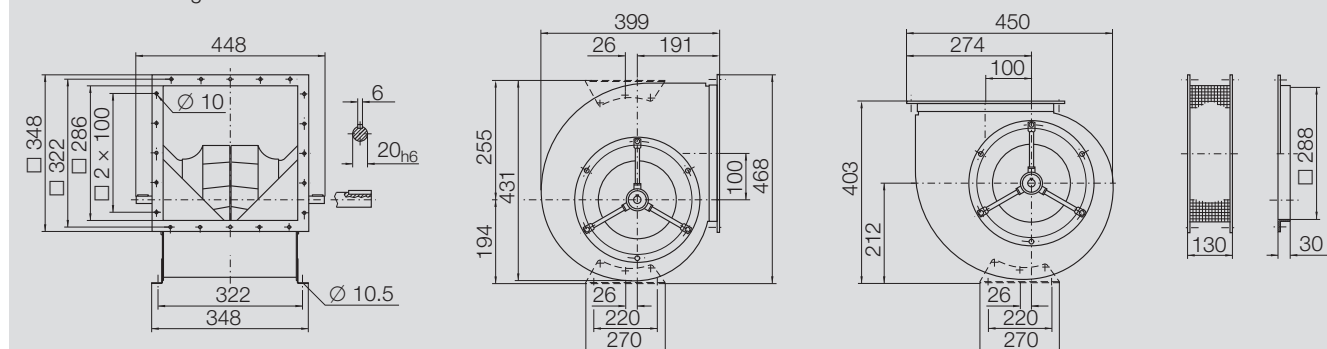
RZR 11-0225 13 kg



RZR 12-0225 15 kg



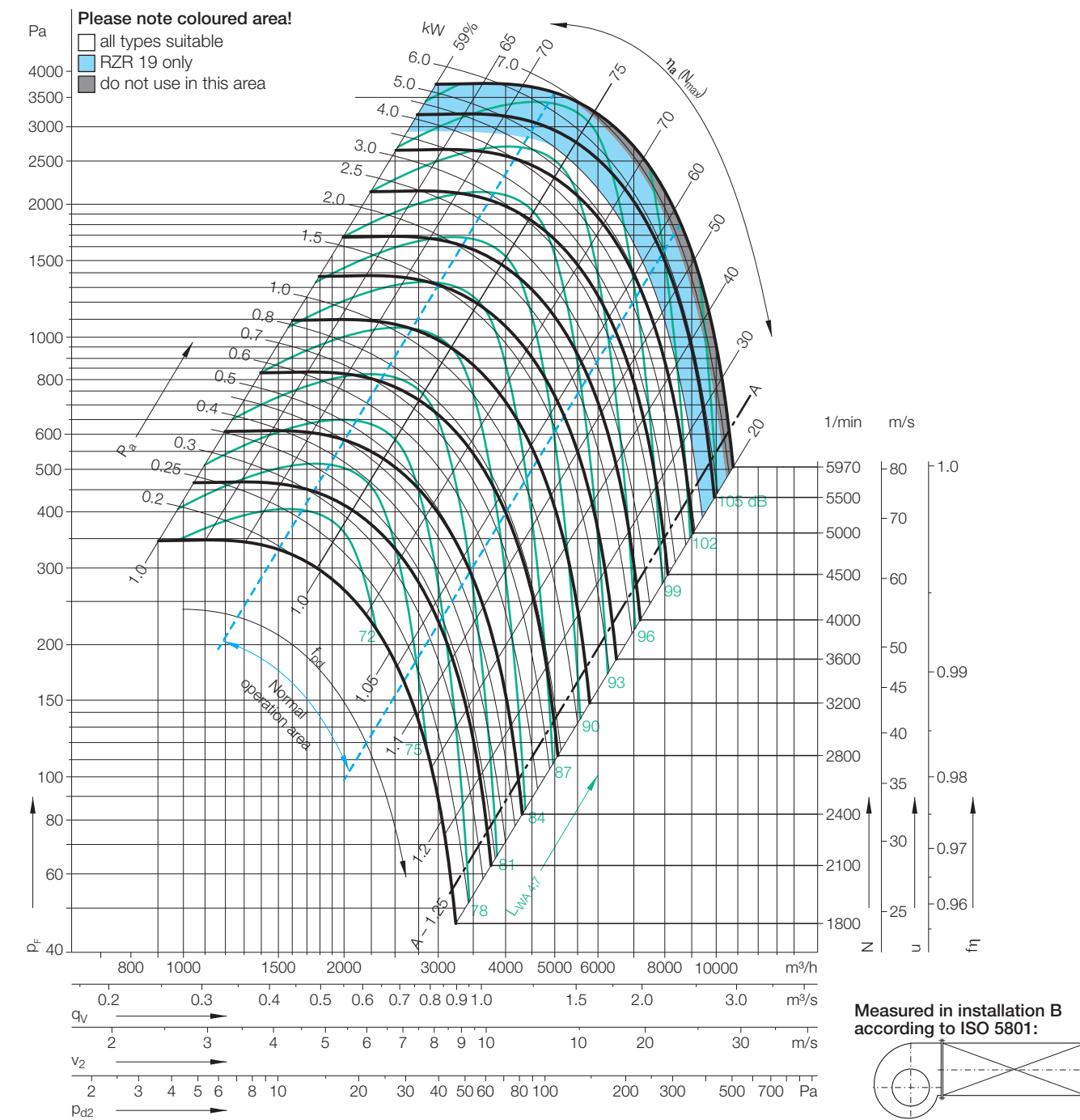
RZR 19-0225 16 kg



Curves

RZR_-0250

Technical Data									
Impeller Data				Impeller Data				Speed limits n_{max} for ATEX execution	
Impeller diameter	D_r	256	mm	Impeller weight	m	4,8	kg	RZR 11/12	4620 1/min
Number of blades	z	11		Density of media	ρ_1	1,2	kg/m ³	RZR 19	5076 1/min
Moment of Inertia	J	0,052	kgm ²	Tolerance class (DIN 24166)		2			



Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_m									
Speed	Duty point	63	125	250	500	1000	2000	4000	8000 Hz
≤ 2984 1/min	$\leq 0.8 q_{Vopt}$	-4	2	0	-2	-5	-10	-14	-21
	$> 0.8 - 1.2 q_{Vopt}$	-7	0	-2	-2	-5	-9	-14	-22
	$> 1.2 - 1.6 q_{Vopt}$	-10	-4	-4	-2	-4	-8	-15	-24
	$> 1.6 q_{Vopt}$	-12	-7	-6	-2	-4	-8	-13	-24
		-12	-7	-6	-2	-4	-8	-13	-24
Speed	Duty point	63	125	250	500	1000	2000	4000	8000 Hz
> 2984 1/min	$\leq 0.8 q_{Vopt}$	-7	-1	-2	-2	-4	-10	-16	-23
	$> 0.8 - 1.2 q_{Vopt}$	-12	-4	-5	-3	-4	-10	-15	-23
	$> 1.2 - 1.6 q_{Vopt}$	-14	-7	-8	-4	-4	-9	-12	-21
	$> 1.6 q_{Vopt}$	-15	-10	-11	-4	-4	-9	-12	-19
		-15	-10	-11	-4	-4	-9	-12	-19

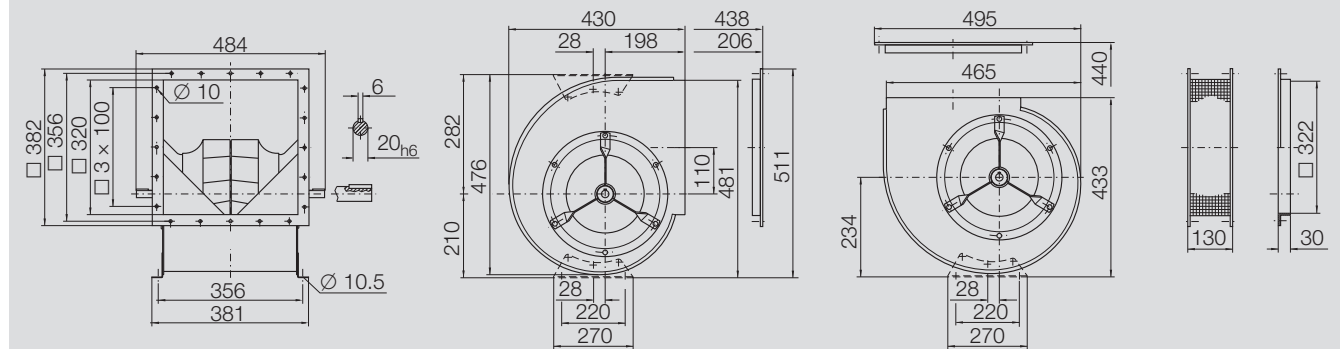
Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_m									
Speed	Duty point	63	125	250	500	1000	2000	4000	8000 Hz
≤ 2984 1/min	$\leq 0.8 q_{Vopt}$	11	8	3	-2	-8	-13	-19	-29
	$> 0.8 - 1.2 q_{Vopt}$	7	5	1	-1	-7	-11	-18	-29
	$> 1.2 - 1.6 q_{Vopt}$	5	3	-1	-1	-6	-9	-17	-20
	$> 1.6 q_{Vopt}$	6	1	-2	-2	-6	-8	-14	-29
		6	1	-2	-2	-6	-8	-14	-29
Speed	Duty point	63	125	250	500	1000	2000	4000	8000 Hz
> 2984 1/min	$\leq 0.8 q_{Vopt}$	8	7	2	-2	-6	-11	-19	-28
	$> 0.8 - 1.2 q_{Vopt}$	4	3	-2	-4	-6	-8	-15	-26
	$> 1.2 - 1.6 q_{Vopt}$	2	0	-4	-5	-6	-8	-13	-24
	$> 1.6 q_{Vopt}$	4	0	-4	-6	-6	-8	-12	-21
		4	0	-4	-6	-6	-8	-12	-21

Dimensions

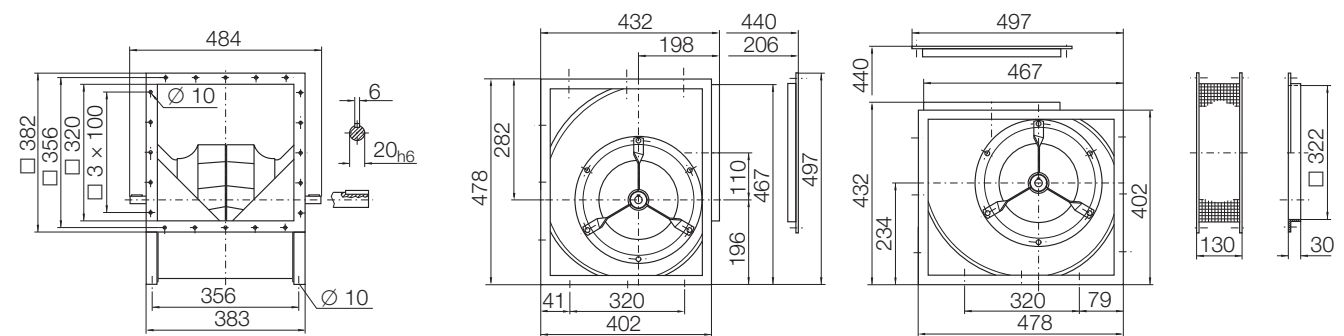
RZR _-0250

Dimensions in mm, subject to change.

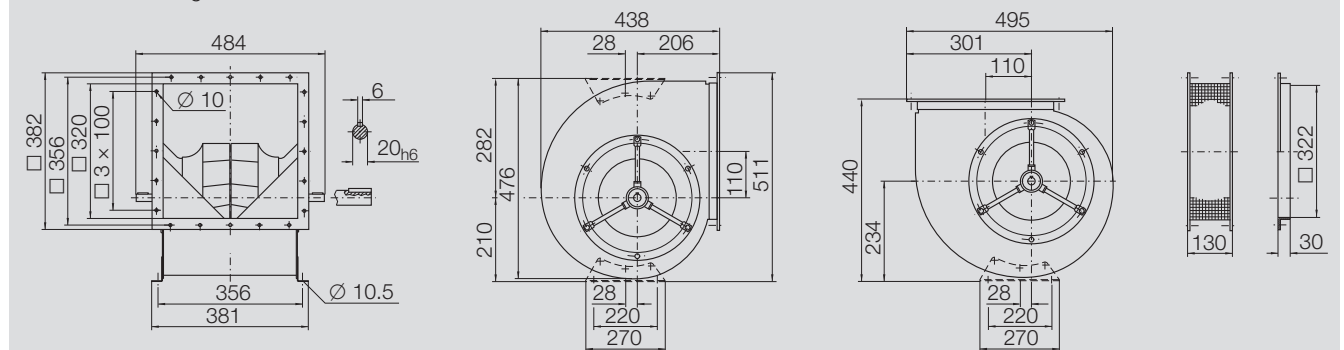
RZR 11-0250 15 kg



RZR 12-0250 17 kg



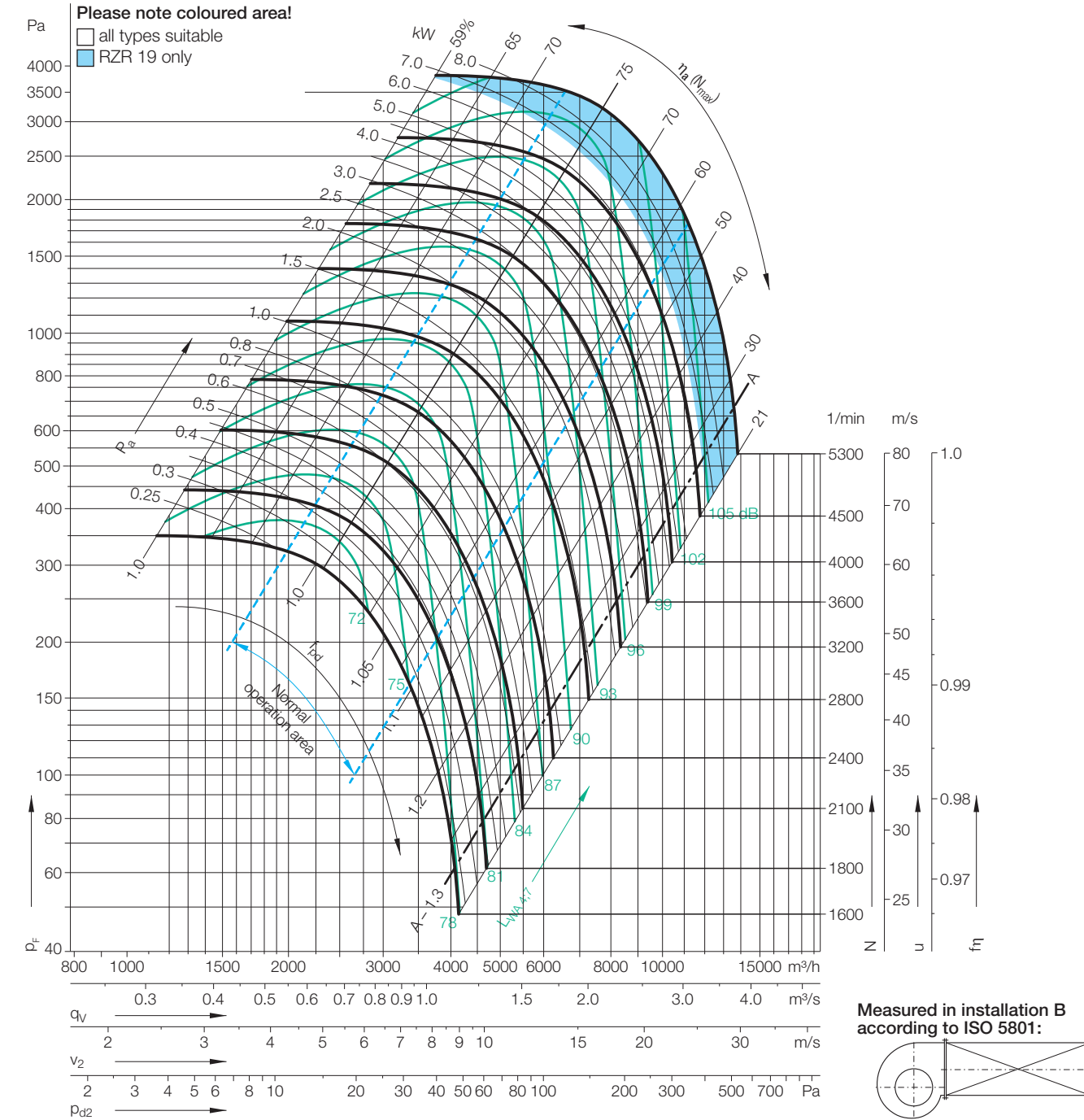
RZR 19-0250 17 kg



Curves

RZR_-0280

Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D _r	288	mm		Impeller weight	m	5,7	kg	
Number of blades	z	11			Density of media	ρ ₁	1,2	kg/m ³	
Moment of Inertia	J	0,082	kgm ²		Tolerance class (DIN 24166)		2		
					Speed limits n _{max} for ATEX execution				
					RZR 11/12/19	4582	1/min		



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

Speed	Duty point
≤2653 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
>2653 1/min	≤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
-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_m

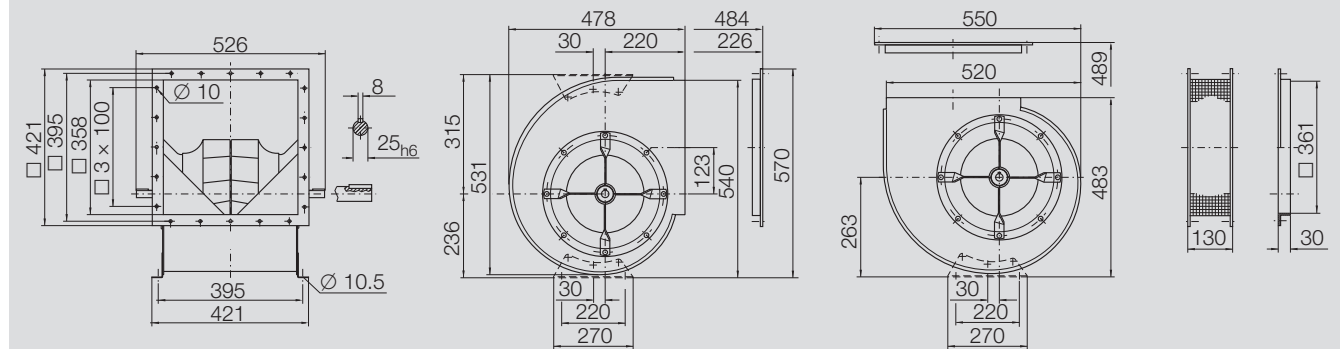
63	125	250	500	1000	2000	4000	8000	Hz
11	8	3	-2	-8	-13	-19	-29	dB
7	5	1	-1	-7	-11	-18	-29	dB
5	3	-1	-1	-6	-9	-17	-20	dB
6	1	-2	-2	-6	-8	-14	-29	dB
63	125	250	500	1000	2000	4000	8000	Hz
8	7	2	-2	-6	-11	-19	-28	dB
4	3	-2	-4	-6	-8	-15	-26	dB
2	0	-4	-5	-6	-8	-13	-24	dB
4	0	-4	-6	-6	-8	-12	-21	dB

Dimensions

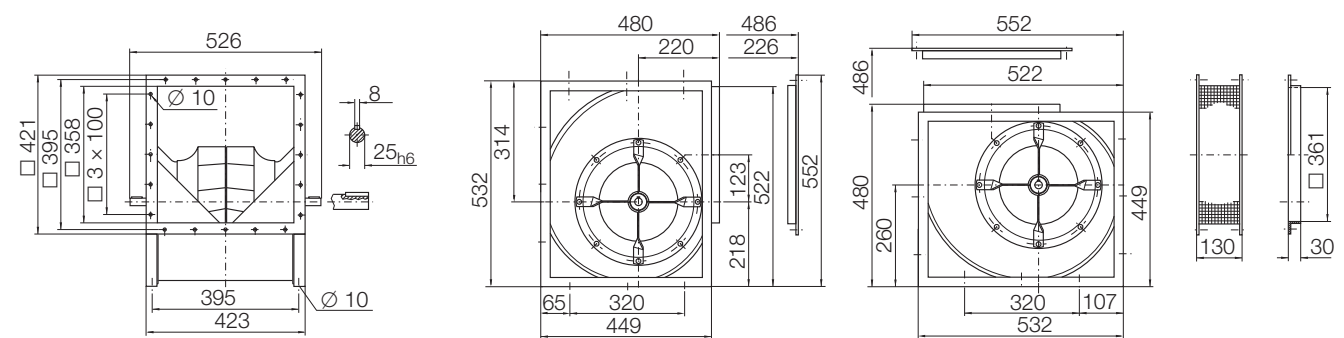
RZR _-0280

Dimensions in mm, subject to change.

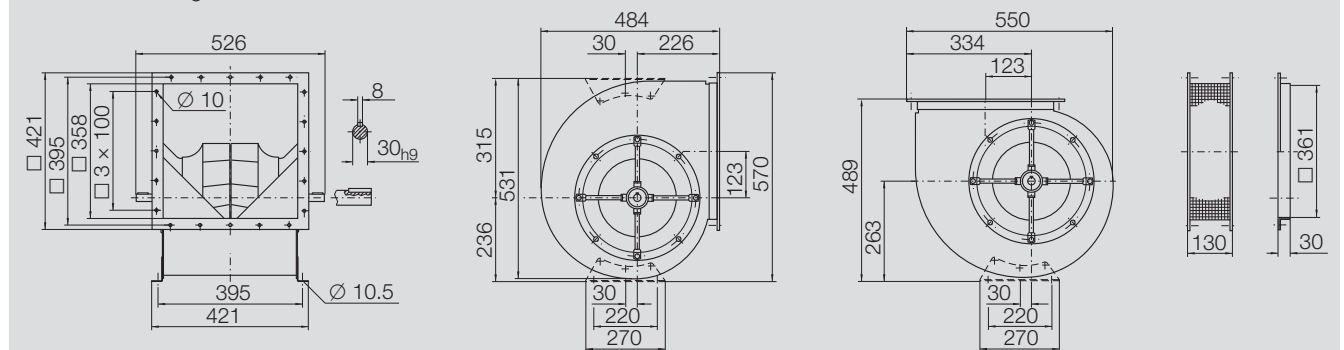
RZR 11-0280 20 kg



RZR 12-0280 23 kg



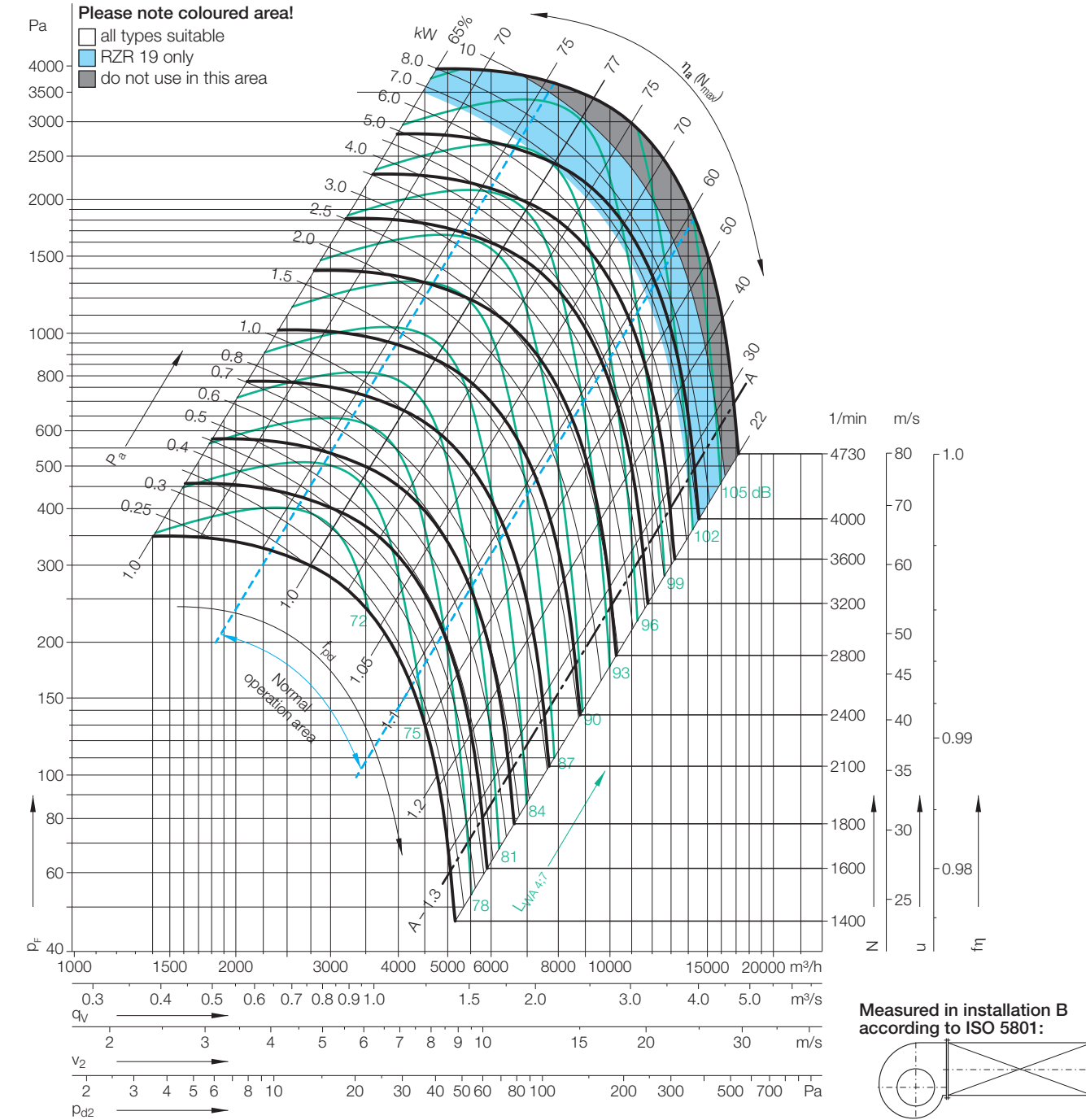
RZR 19-0280 23 kg



Curves

RZR_-0315

Technical Data									
Impeller Data				Impeller Data				Speed limits $n_{\max}$ for ATEX execution	
Impeller diameter	D _r	323	mm	Impeller weight	m	7,1	kg	RZR 11/12	3793 1/min
Number of blades	z	12		Density of media	ρ_1	1,2	kg/m³	RZR 19	4113 1/min
Moment of Inertia	J	0,126	kgm²	Tolerance class (DIN 24166)		1			
									



Relative sound power level for inlet side L _{Wrel7} at octave centre frequencies f _m									
Speed	Duty point	63	125	250	500	1000	2000	4000	8000 Hz
≤2365 1/min	≤0.8 q _{Vopt}	0	2	0	-3	-6	-9	-12	-19
	>0.8–1.2 q _{Vopt}	-2	1	-2	-3	-6	-8	-14	-20
	>1.2–1.6 q _{Vopt}	-3	0	-1	-3	-6	-8	-14	-21
	>1.6 q _{Vopt}	-5	-3	-3	-3	-6	-7	-13	-21
		-5	-3	-3	-3	-6	-7	-13	-21
Speed	Duty point	63	125	250	500	1000	2000	4000	8000 Hz
>2365 1/min	≤0.8 q _{Vopt}	-2	-1	-3	-1	-6	-10	-15	-21
	>0.8–1.2 q _{Vopt}	-7	-4	-5	-1	-6	-9	-14	-21
	>1.2–1.6 q _{Vopt}	-10	-7	-8	-1	-5	-8	-13	-21
	>1.6 q _{Vopt}	-10	-8	-8	-2	-6	-8	-11	-18
		-10	-8	-8	-2	-6	-8	-11	-18

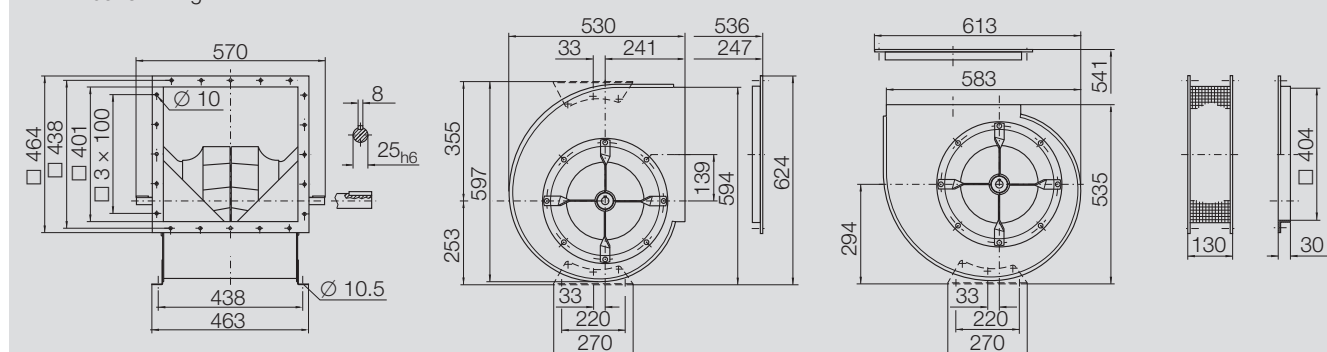
Relative sound power level for discharge side L _{Wrel4} at octave centre frequencies f _m									
63	125	250	500	1000	2000	4000	8000	Hz	
13	7	4	-3	-8	-14	-17	-25	dB	
10	5	3	-2	-7	-13	-17	-25	dB	
7	2	2	-2	-6	-12	-18	-27	dB	
5	1	1	-2	-6	-10	-17	-27	dB	
63	125	250	500	1000	2000	4000	8000	Hz	
11	4	2	0	-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	

Dimensions

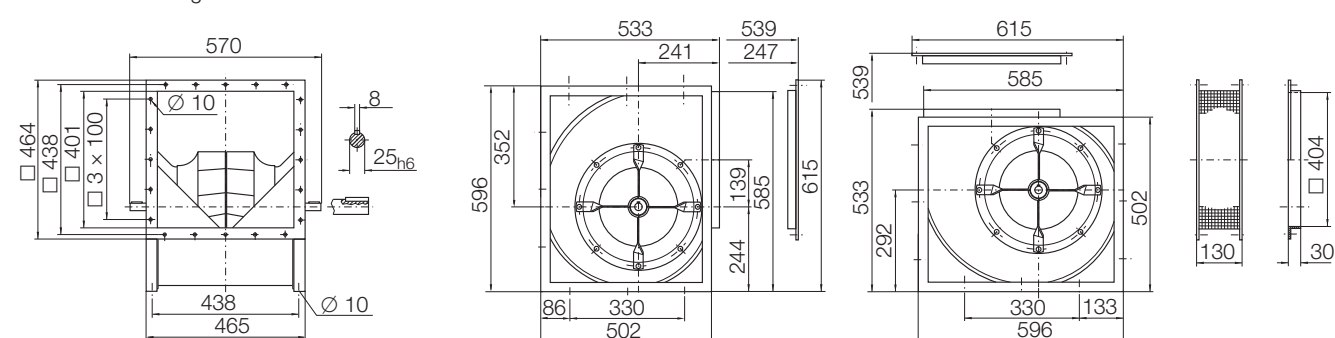
RZR _-0315

Dimensions in mm, subject to change.

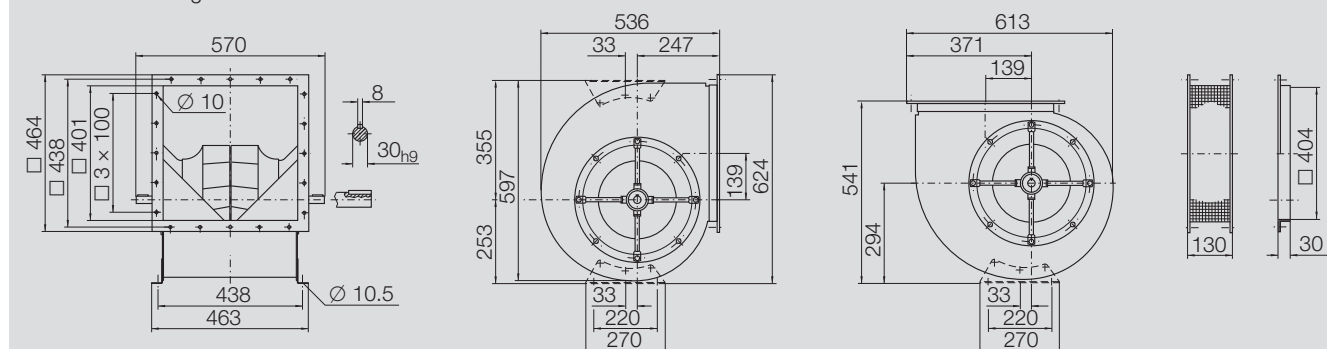
RZR 11-0315 24 kg



RZR 12-0315 27 kg



RZR 19-0315 28 kg



Curves

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

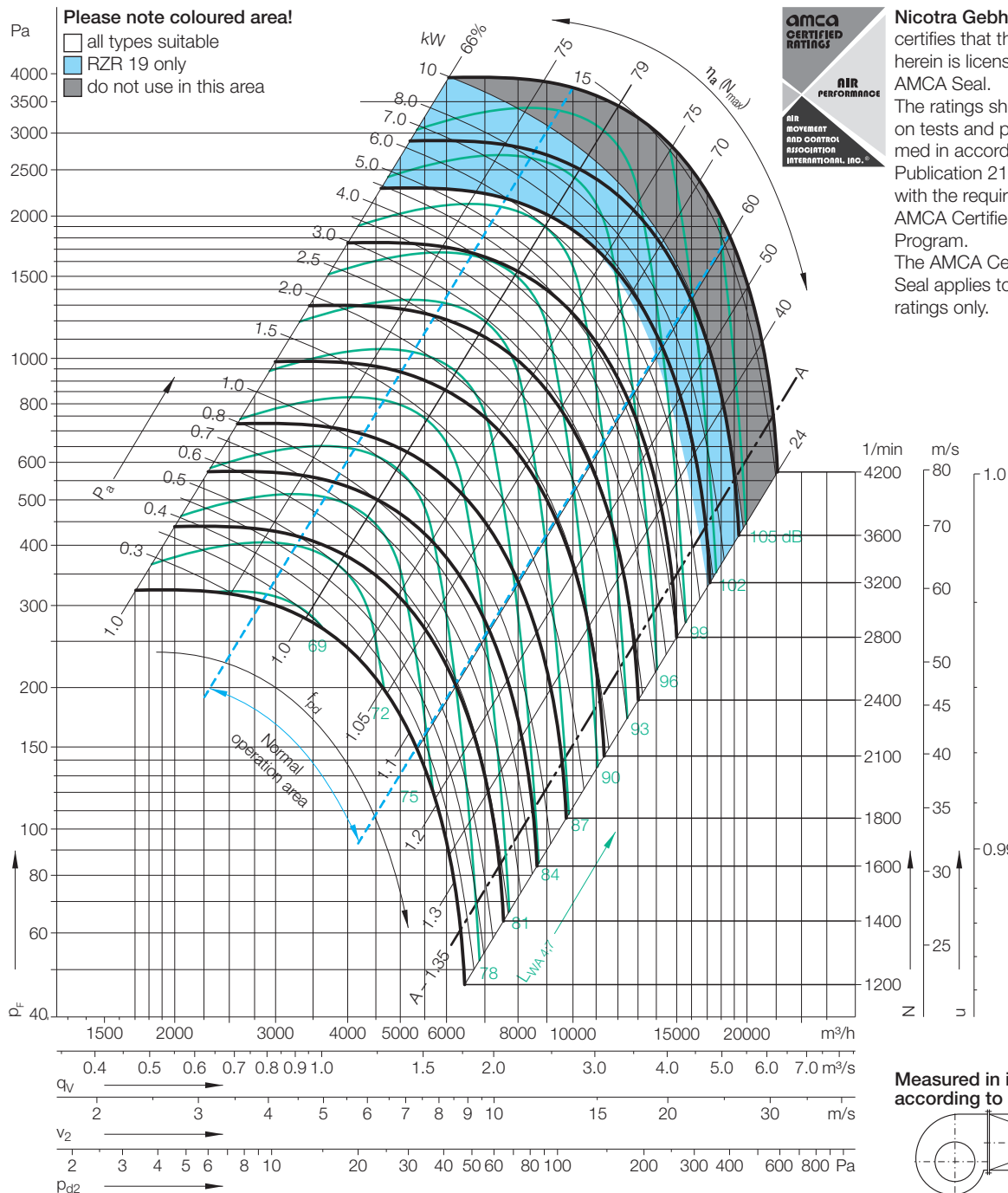
Impeller diameter	D_r	363	mm
Number of blades	z	12	
Moment of Inertia	J	0,220	kgm ²

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



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

Speed	Duty point
≤2105 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
>2105 1/min	≤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	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_m

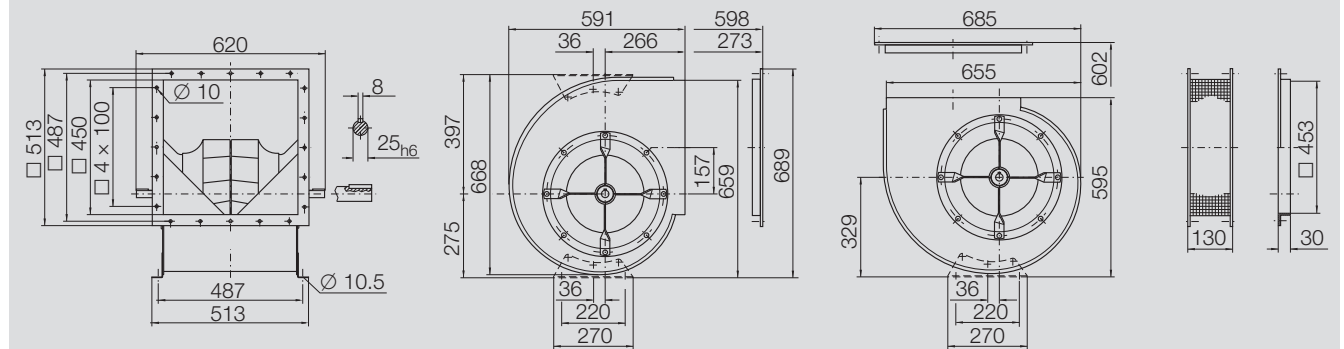
63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

Dimensions

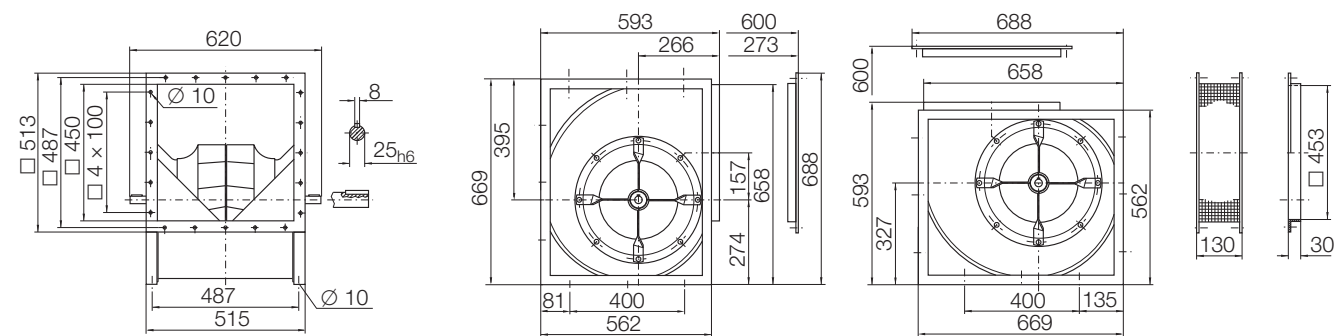
RZR _-0355

Dimensions in mm, subject to change.

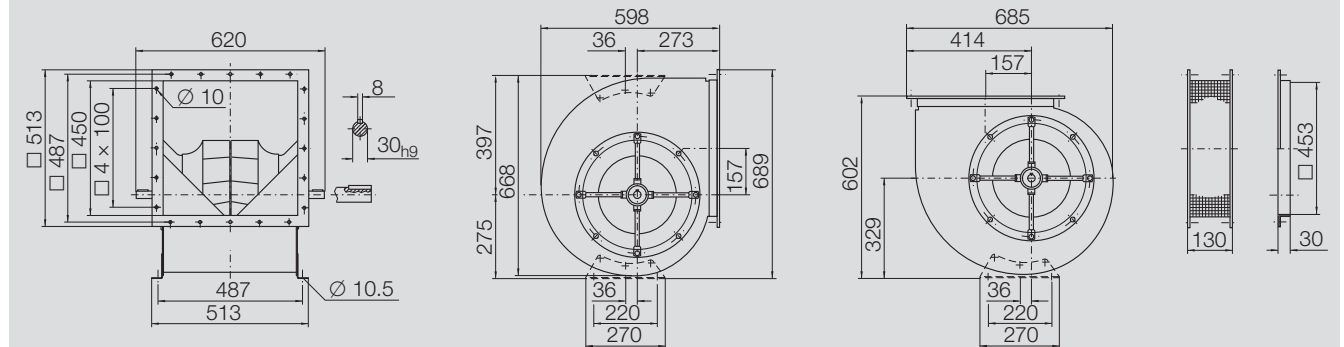
RZR 11-0355 33 kg



RZR 12-0355 36 kg



RZR 19-0355 39 kg



Curves

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

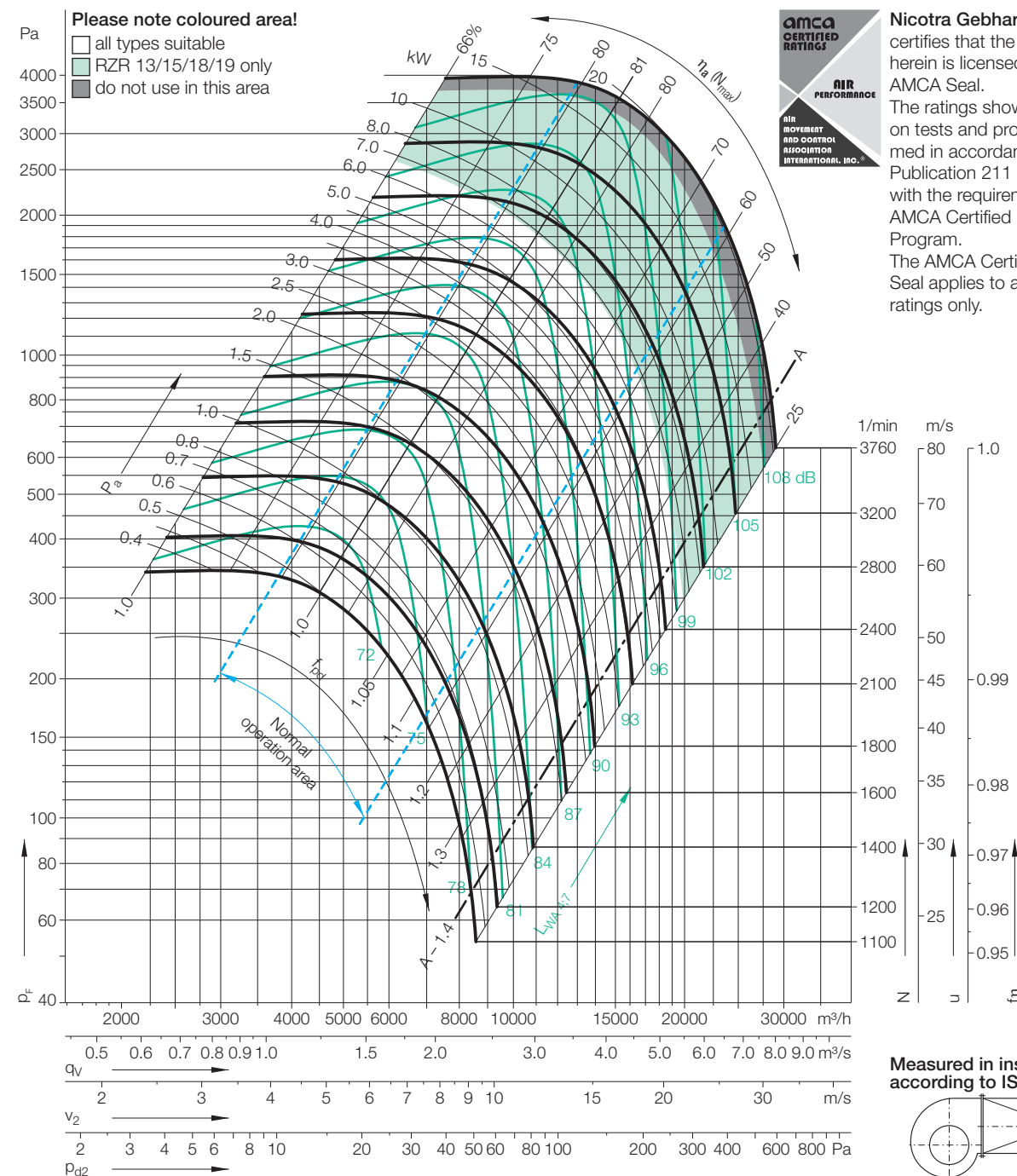
Impeller diameter	D_r	406	mm
Number of blades	z	12	
Moment of Inertia	J	0,330	kgm ²

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



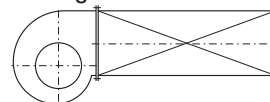
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Measured in installation B according to ISO 5801:

Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_m Relative sound power level for discharge side L_{Wrel4} at octave centre frequencies f_m

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}

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

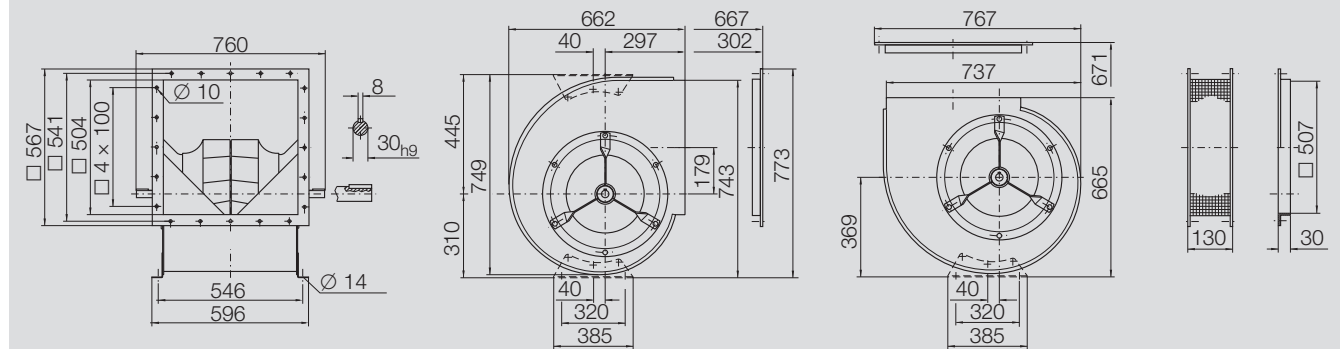
63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

Dimensions

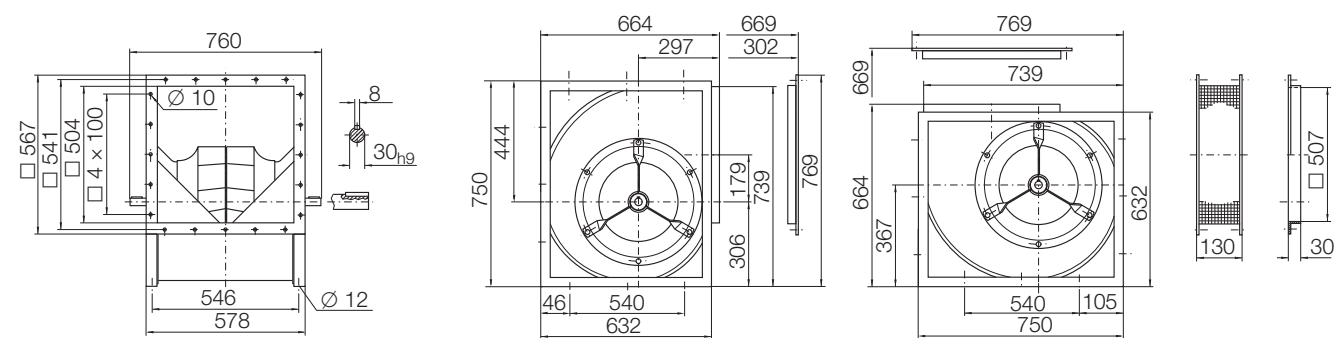
RZR _-0400

Dimensions in mm, subject to change.

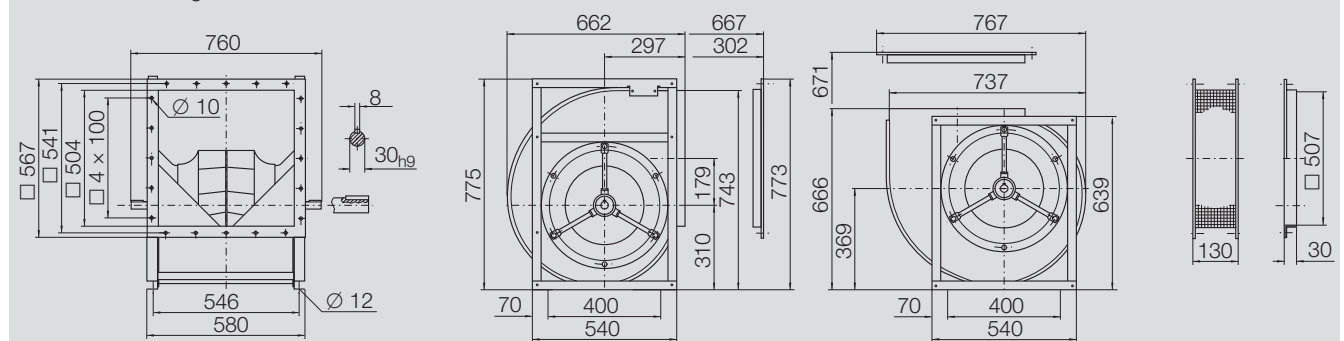
RZR 11-0400 43 kg



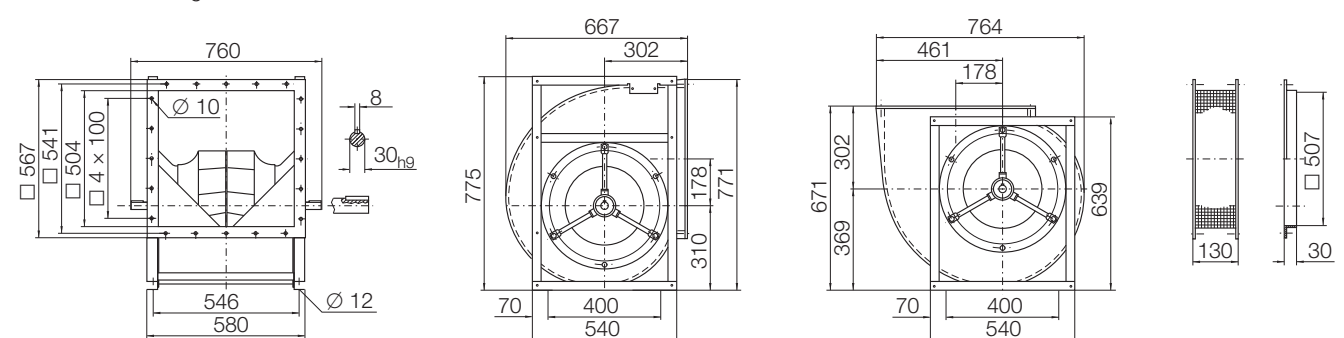
RZR 12-0400 49 kg



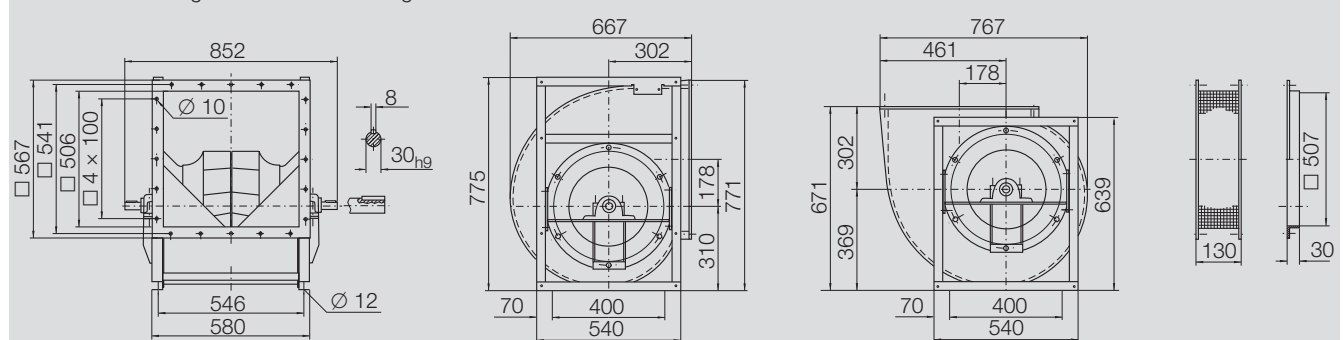
RZR 15-0400 61 kg



RZR 19-0400 66 kg



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



Curves

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

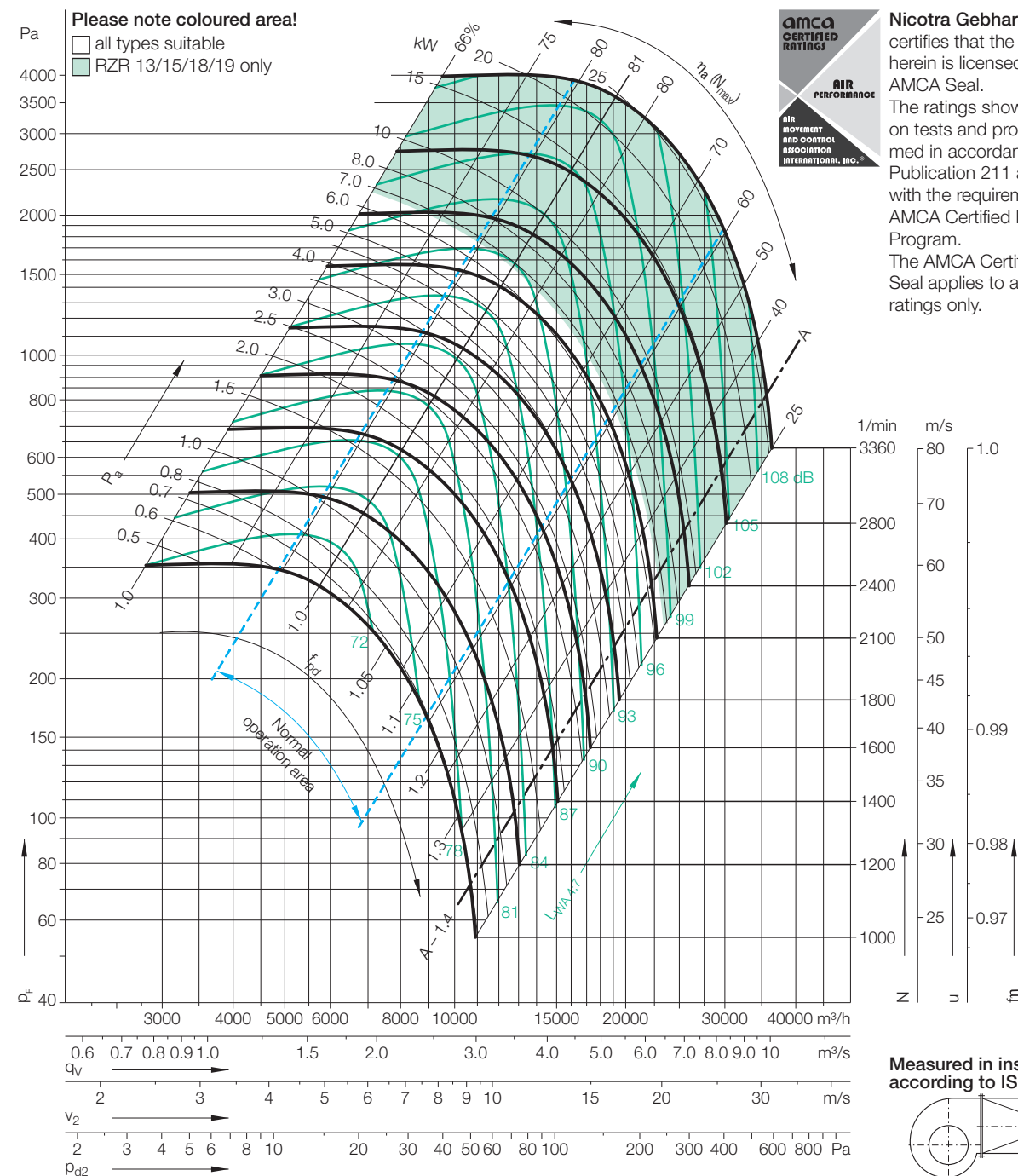
Impeller diameter	D_r	455	mm
Number of blades	z	12	
Moment of Inertia	J	0,600	kgm ²

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



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

Speed	Duty point
≤1679 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
>1679 1/min	≤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	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_m

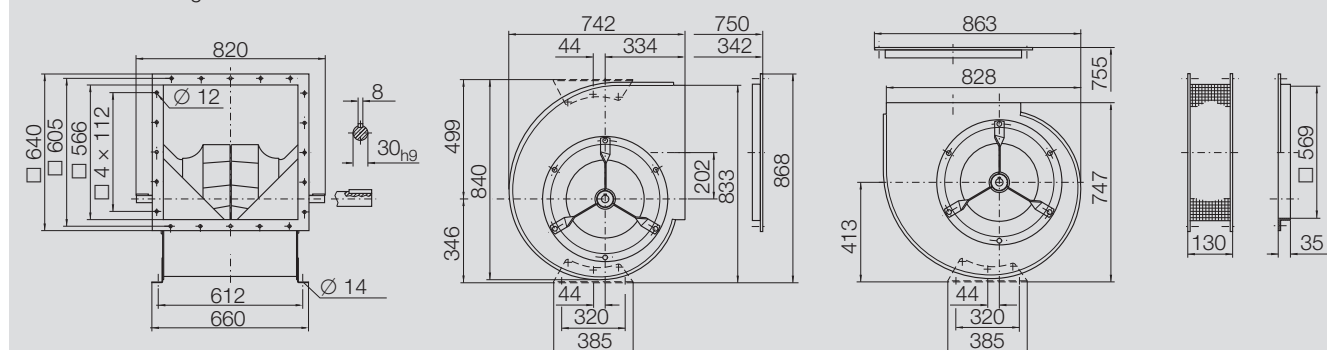
63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

Dimensions

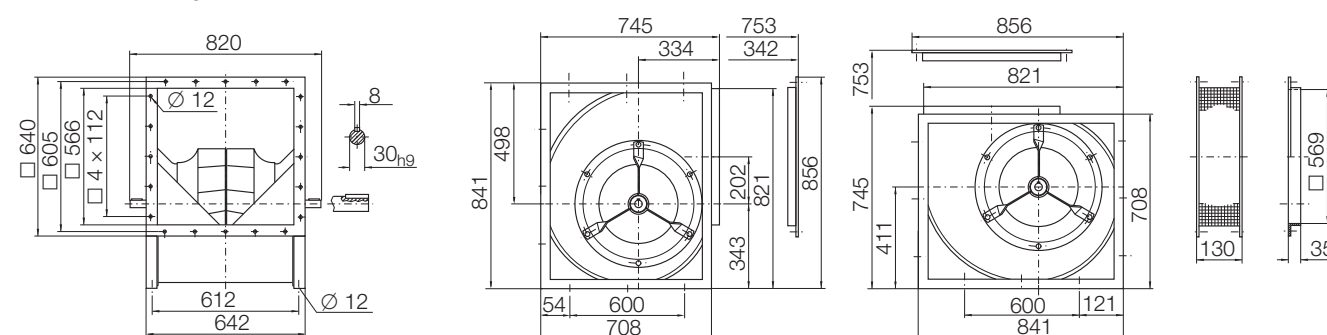
RZR_-0450

Dimensions in mm, subject to change.

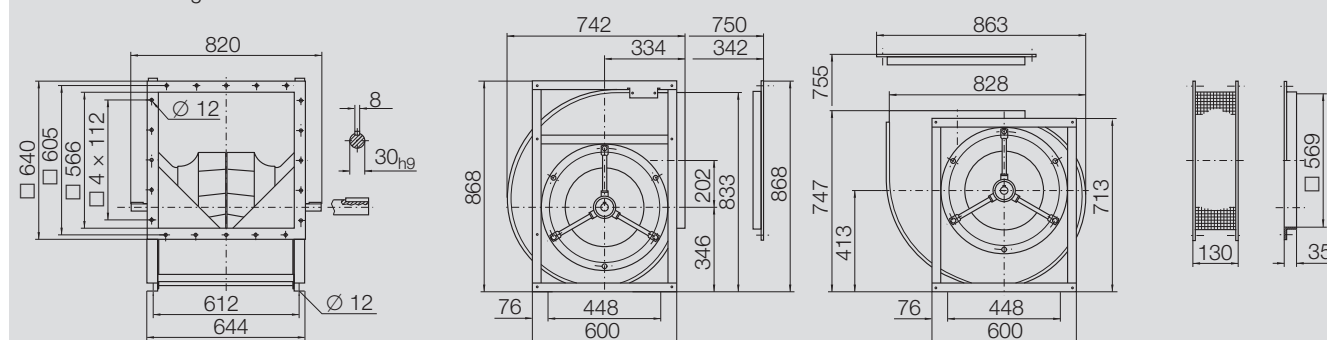
RZR 11-0450 54 kg



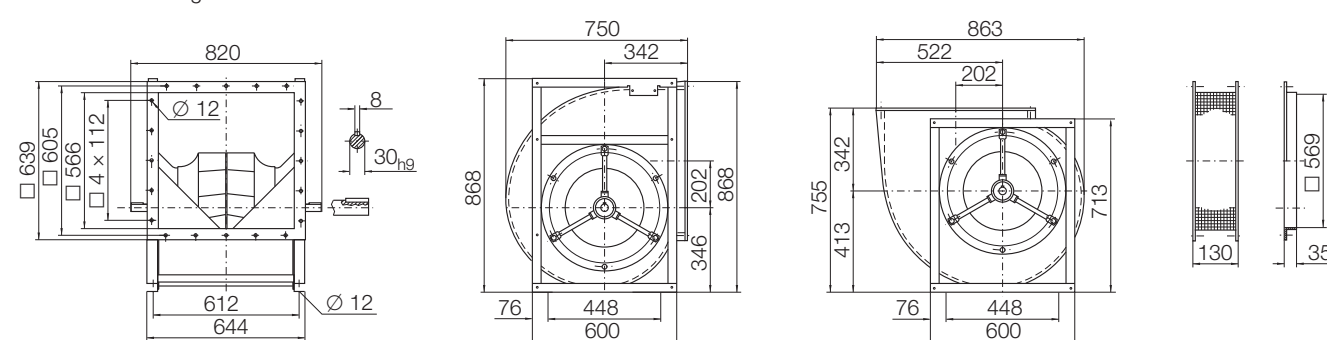
RZR 12-0450 60 kg



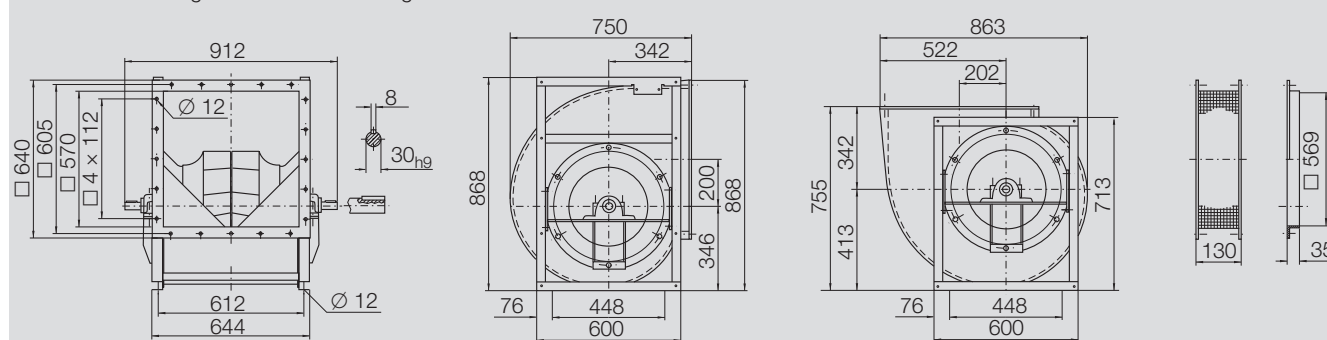
RZR 15-0450 73 kg



RZR 19-0450 82 kg



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



Curves

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

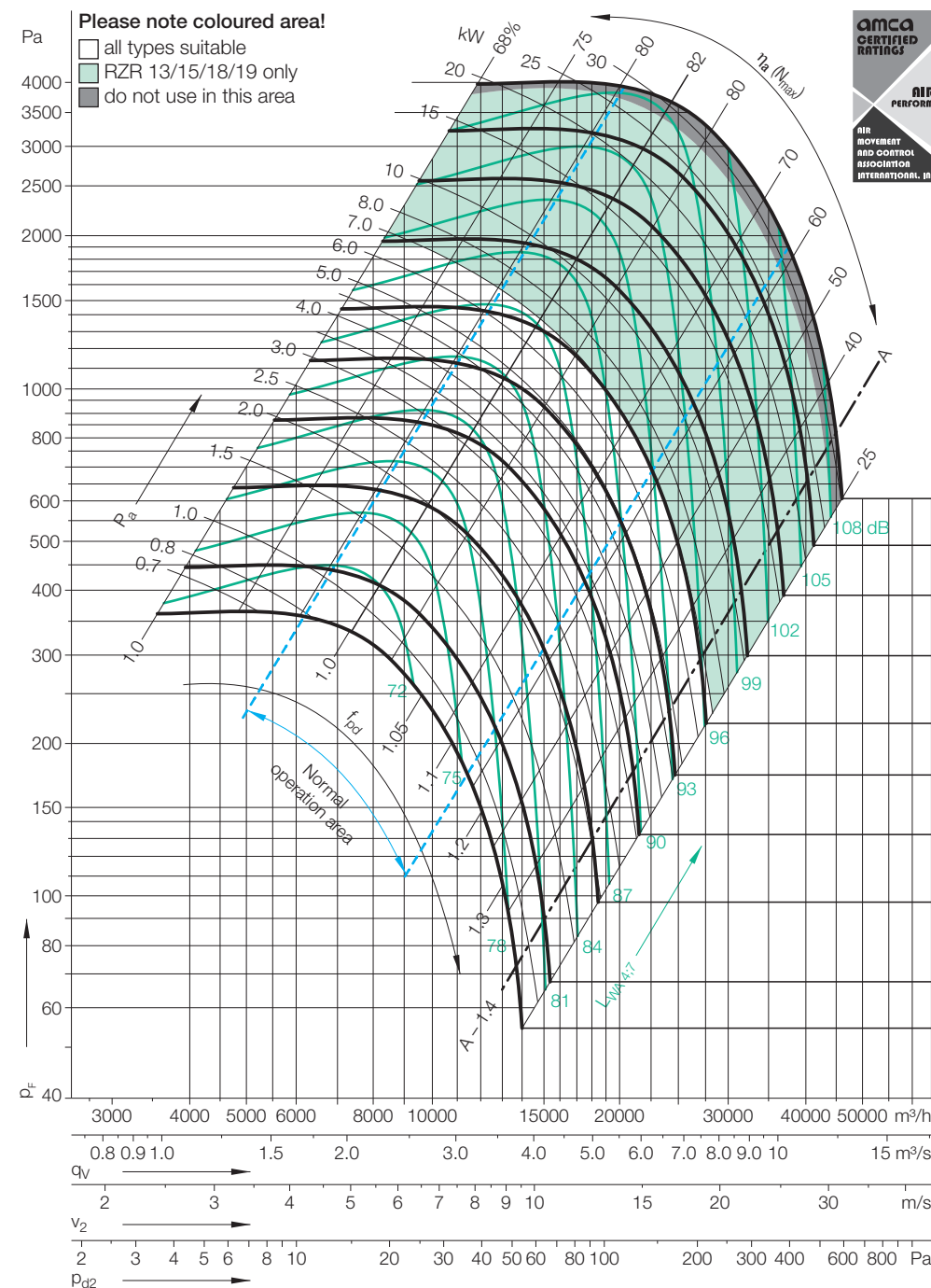
Impeller diameter	D_r	510	mm
Number of blades	z	12	
Moment of Inertia	J	0,900	kgm ²

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



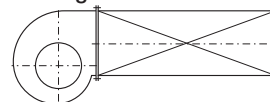
Nicotra Gebhardt GmbH

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

Measured in installation B according to ISO 5801:

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

Speed	Duty point
≤1498 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
>1498 1/min	≤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	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_m

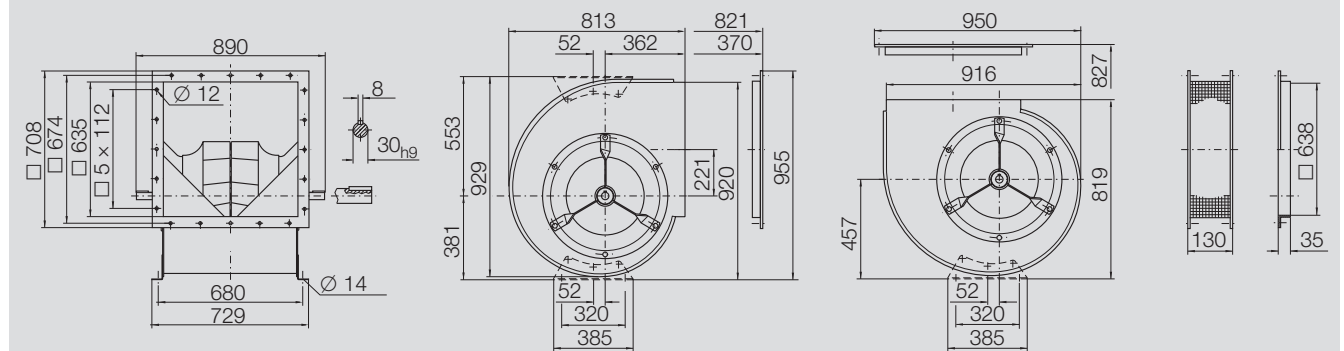
63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

Dimensions

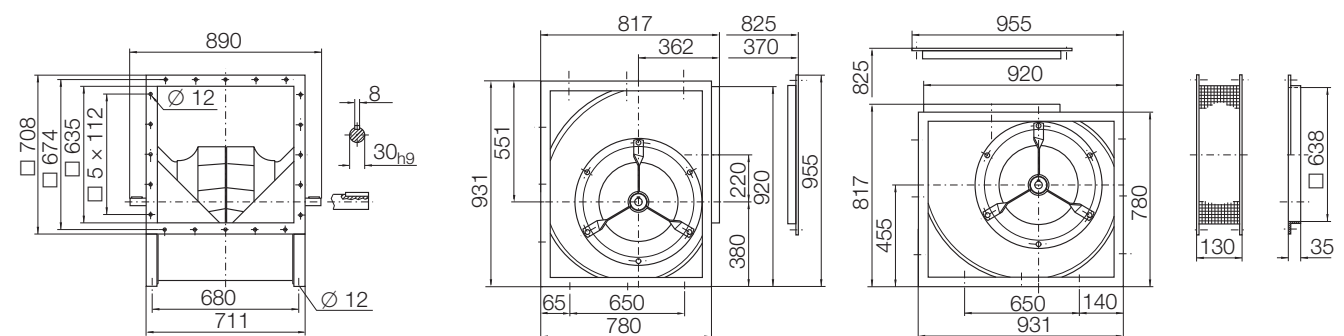
RZR_-0500

Dimensions in mm, subject to change.

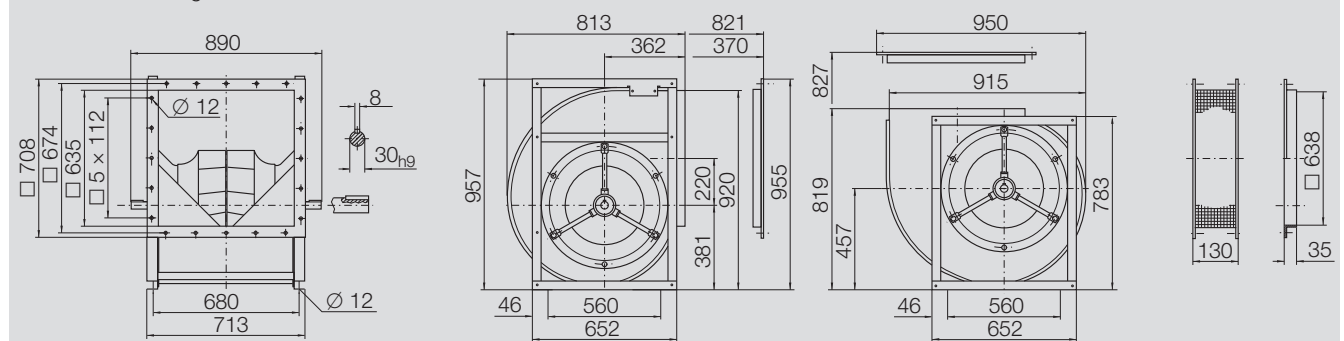
RZR 11-0500 65 kg



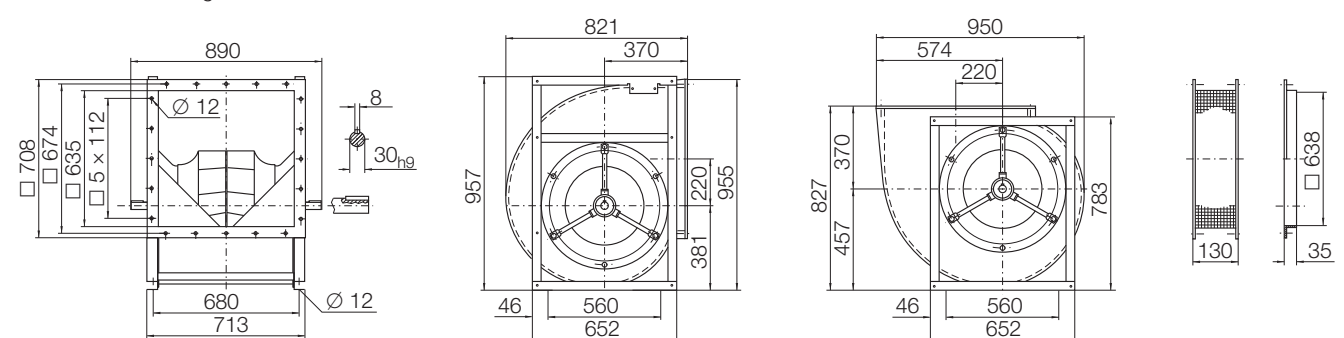
RZR 12-0500 72 kg



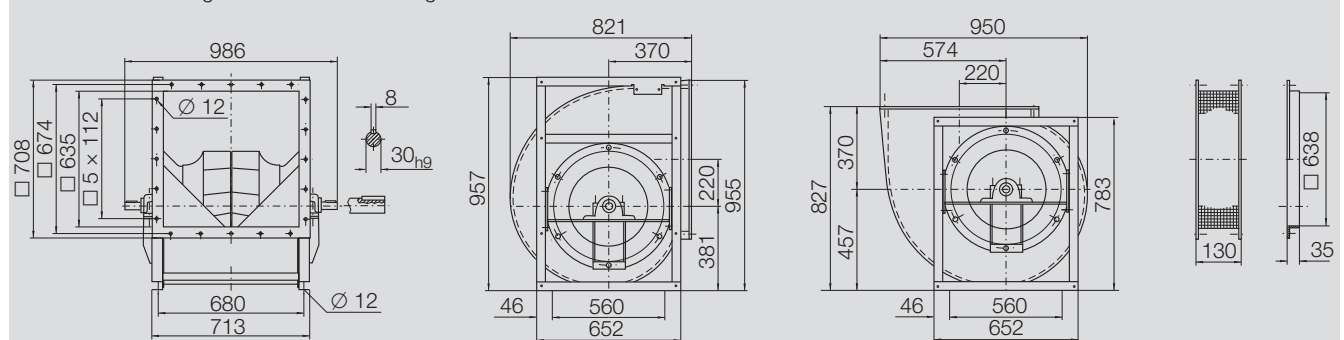
RZR 15-0500 94 kg



RZR 19-0500 105 kg



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



Curves

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

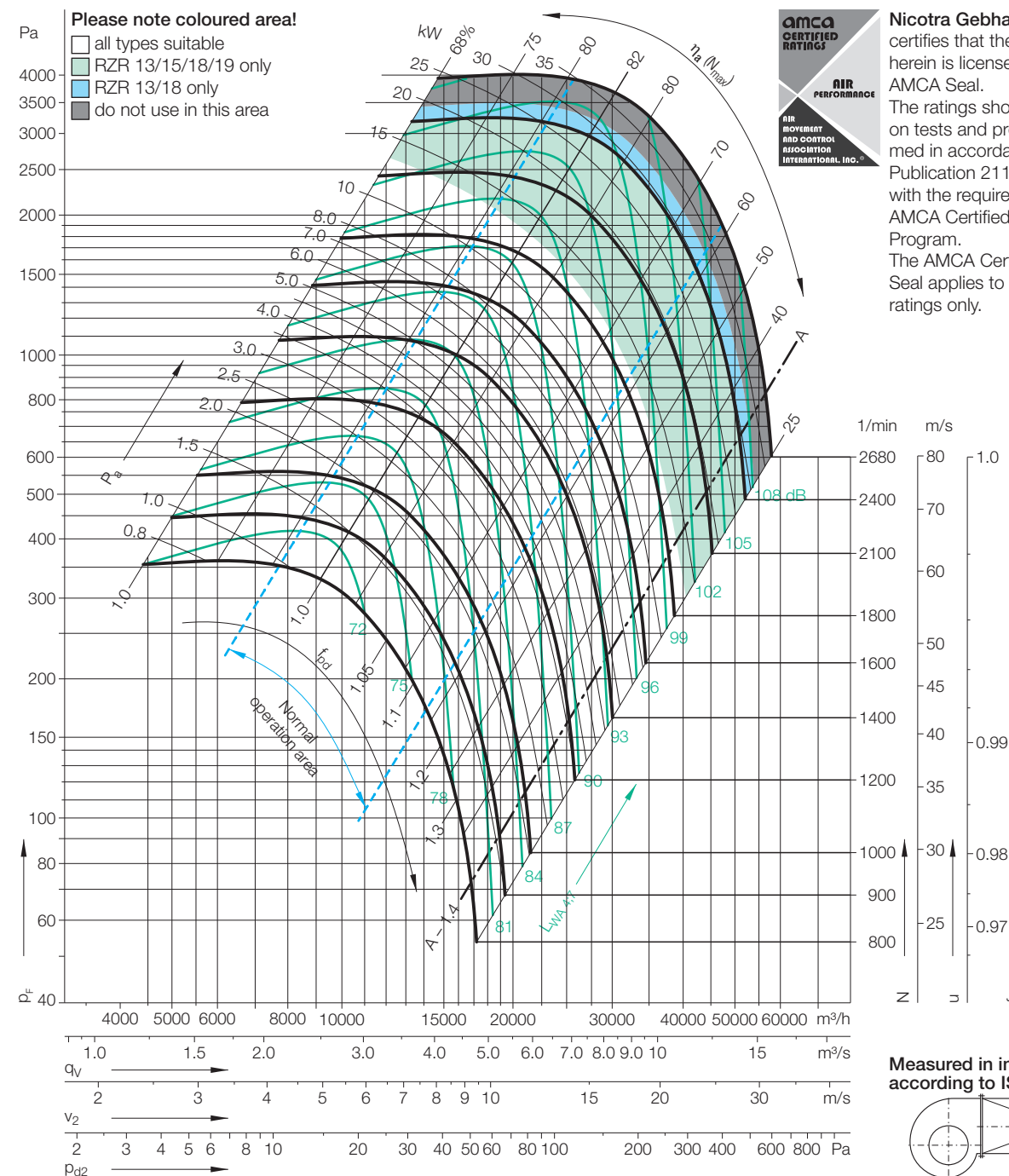
Impeller diameter	D_r	570	mm
Number of blades	z	12	
Moment of Inertia	J	1,700	kgm ²

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



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

Speed	Duty point
≤1340 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
>1340 1/min	≤0.8 q_{Vopt}
	>0.8–1.2 q_{Vopt}
	>1.2–1.6 q_{Vopt}
	>1.6 q_{Vopt}

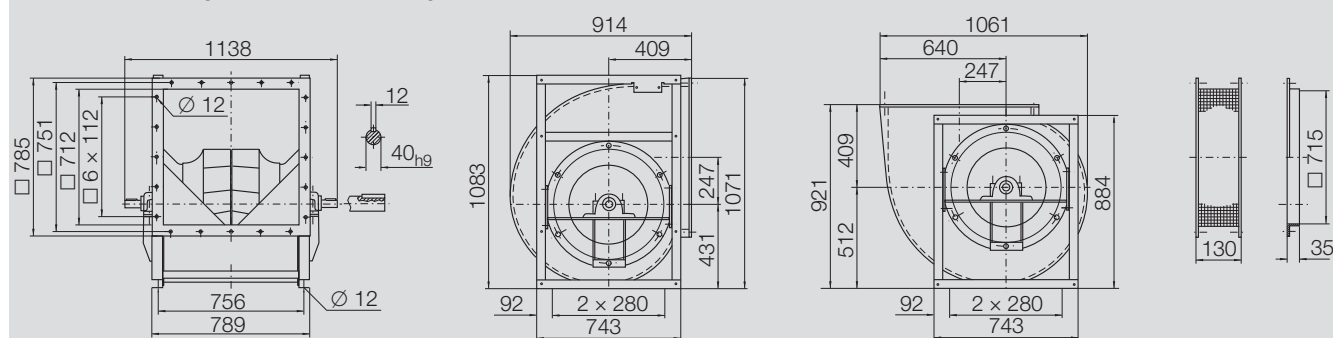
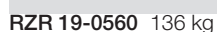
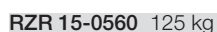
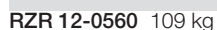
63	125	250	500	1000	2000	4000	8000	Hz
0	2	0	-3	-6	-9	-12	-19	dB
-2	1	-2	-3	-6	-8	-14	-20	dB
-3	0	-1	-3	-6	-8	-14	-21	dB
-5	-3	-3	-3	-6	-7	-13	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-2	-1	-3	-1	-6	-10	-15	-21	dB
-7	-4	-5	-1	-6	-9	-14	-21	dB
-10	-7	-8	-1	-5	-8	-13	-21	dB
-10	-8	-8	-2	-6	-8	-11	-18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

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

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

RZR 11-0560 103 kg



Curves

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

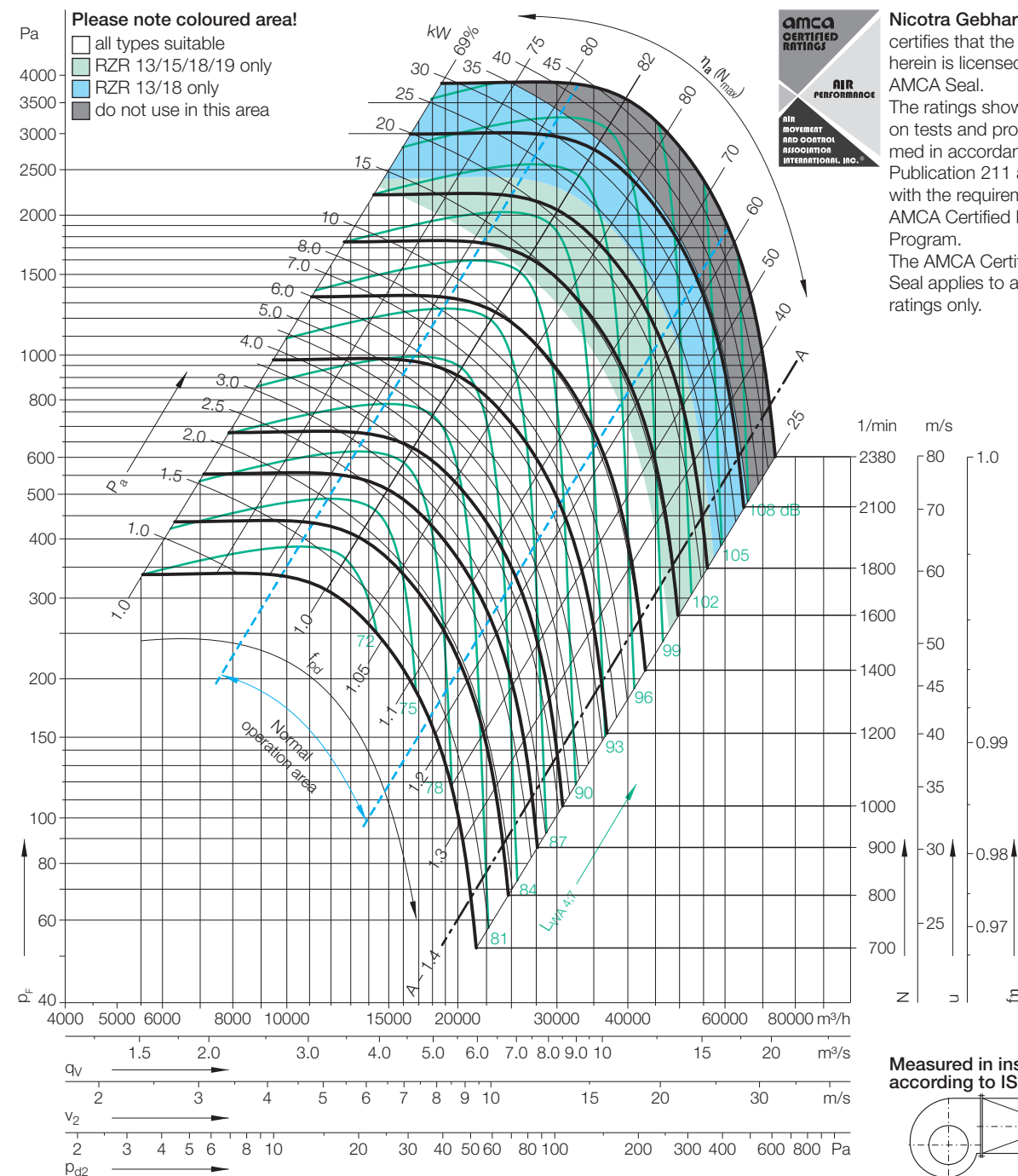
Impeller diameter	D_r	640	mm
Number of blades	z	12	
Moment of Inertia	J	2,400	kgm ²

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



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

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}

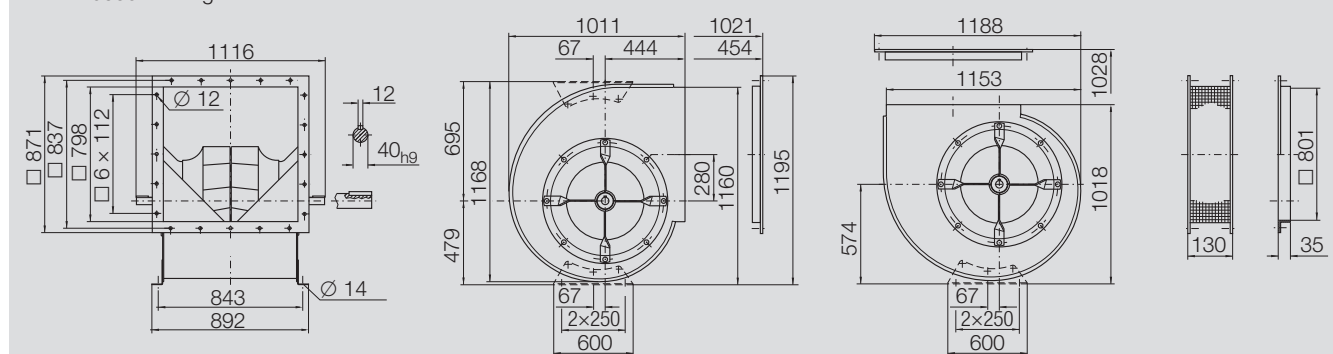
63	125	250	500	1000	2000	4000	8000	Hz
0	2	0	-3	-6	-9	-12	-19	dB
-2	1	-2	-3	-6	-8	-14	-20	dB
-3	0	-1	-3	-6	-8	-14	-21	dB
-5	-3	-3	-3	-6	-7	-13	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-2	-1	-3	-1	-6	-10	-15	-21	dB
-7	-4	-5	-1	-6	-9	-14	-21	dB
-10	-7	-8	-1	-5	-8	-13	-21	dB
-10	-8	-8	-2	-6	-8	-11	-18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

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

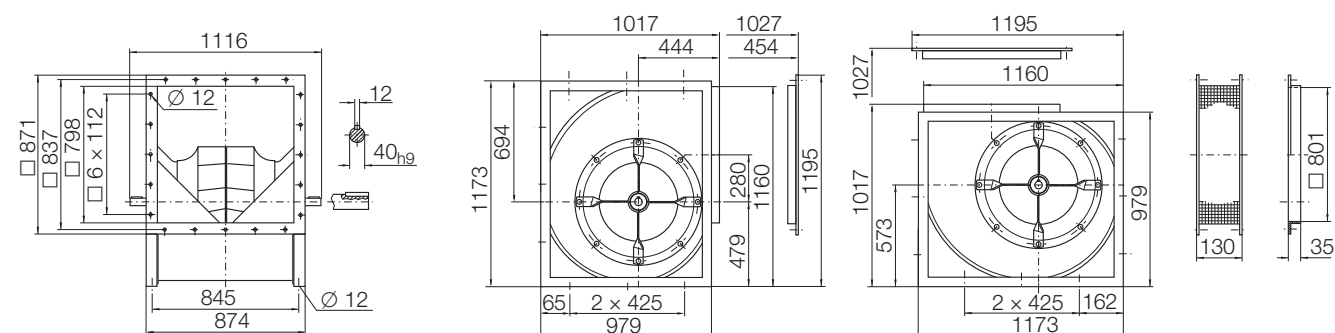
63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

RZR -0630

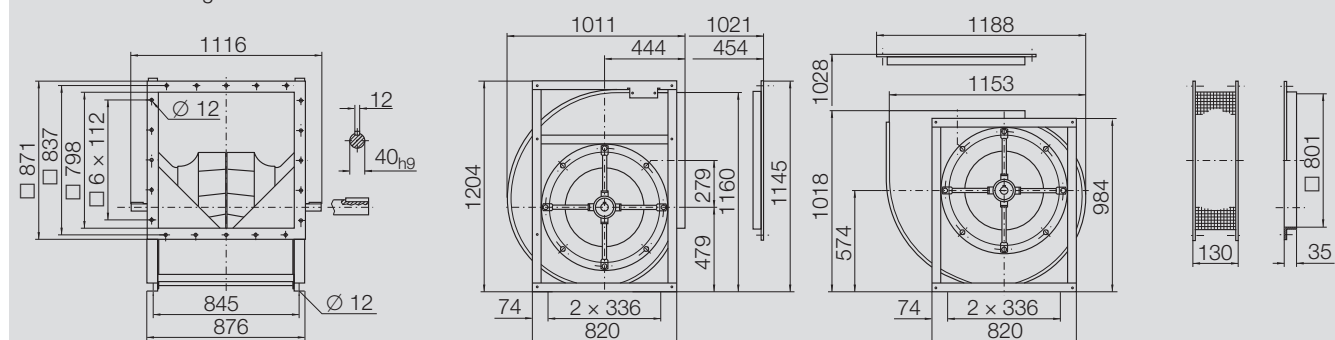
RZR 11-0630 124 kg



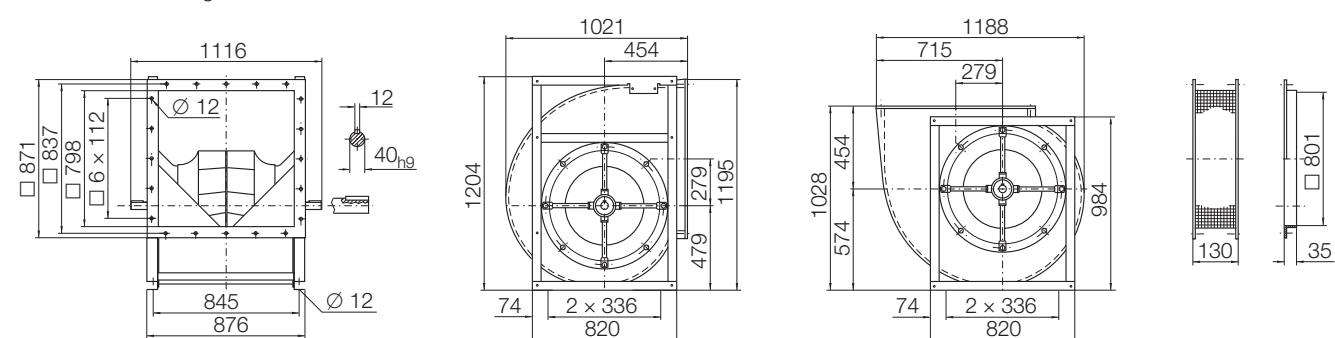
RZR 12-0630 132 kg



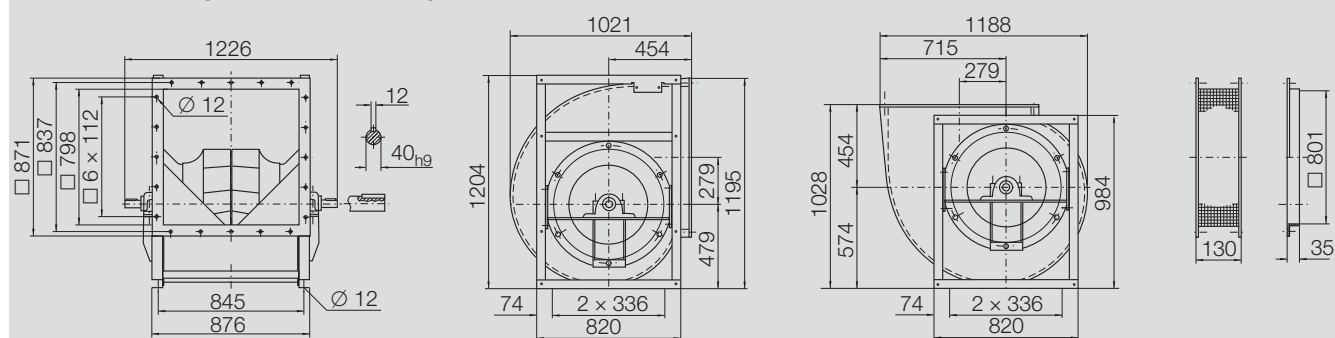
RZR 15-0630 149 kg



RZR 19-0630 162 kg



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



Curves

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

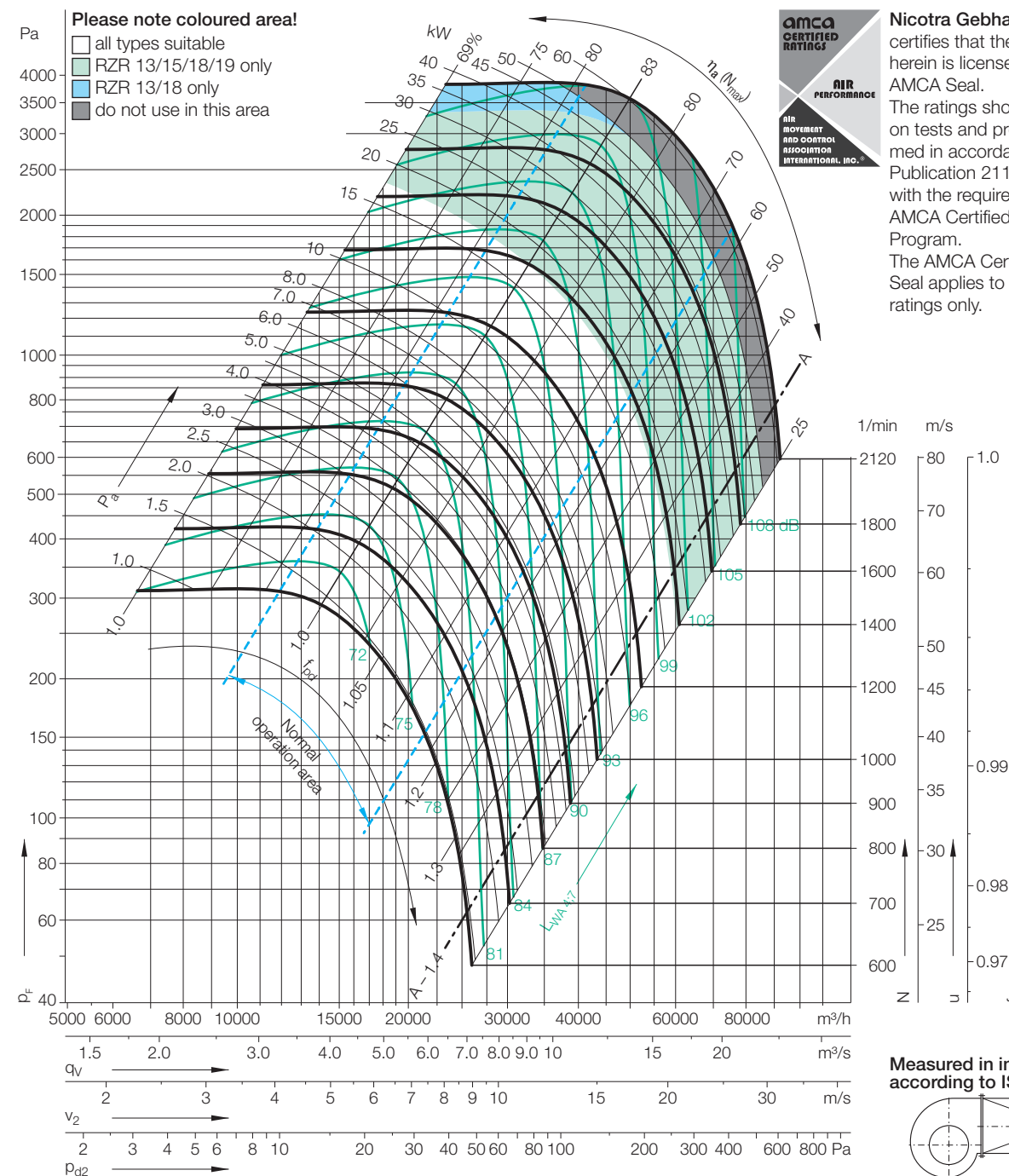
Impeller diameter	D_r	718	mm
Number of blades	z	12	
Moment of Inertia	J	4,800	kgm ²

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

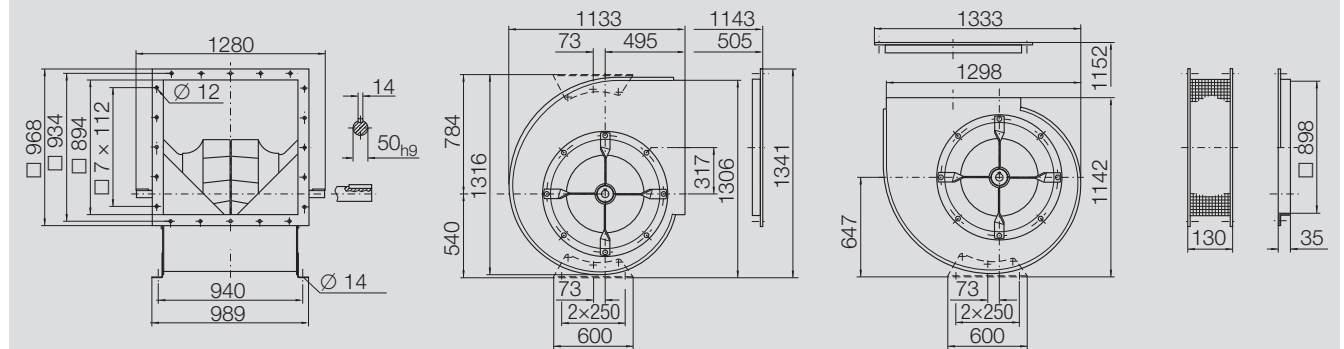


Dimensions

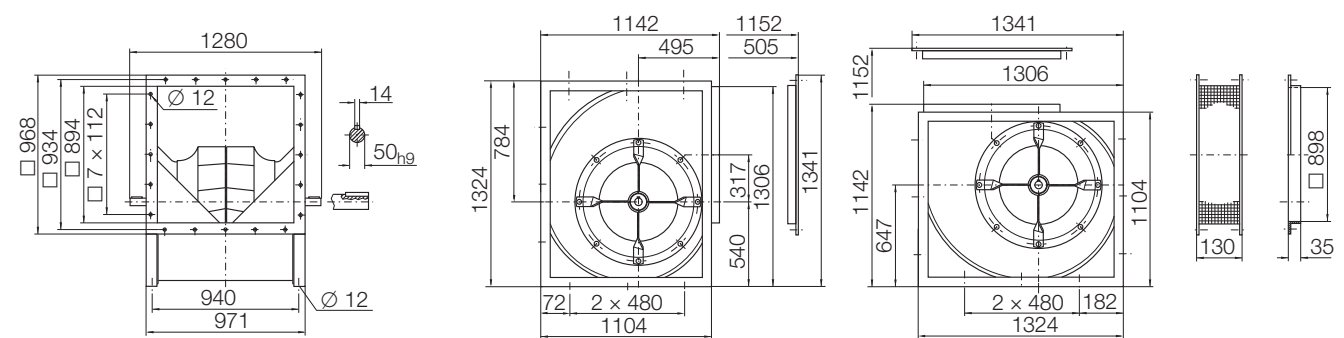
RZR_-0710

Dimensions in mm, subject to change.

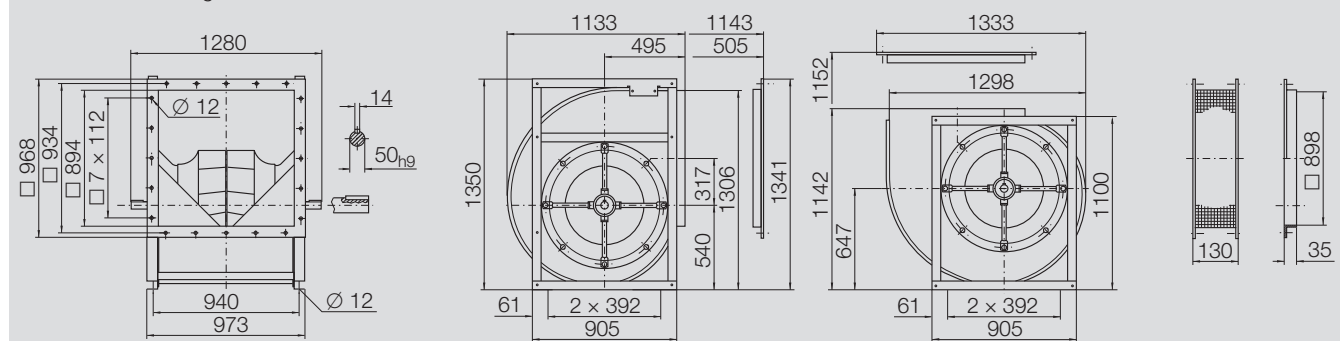
RZR 11-0710 177 kg



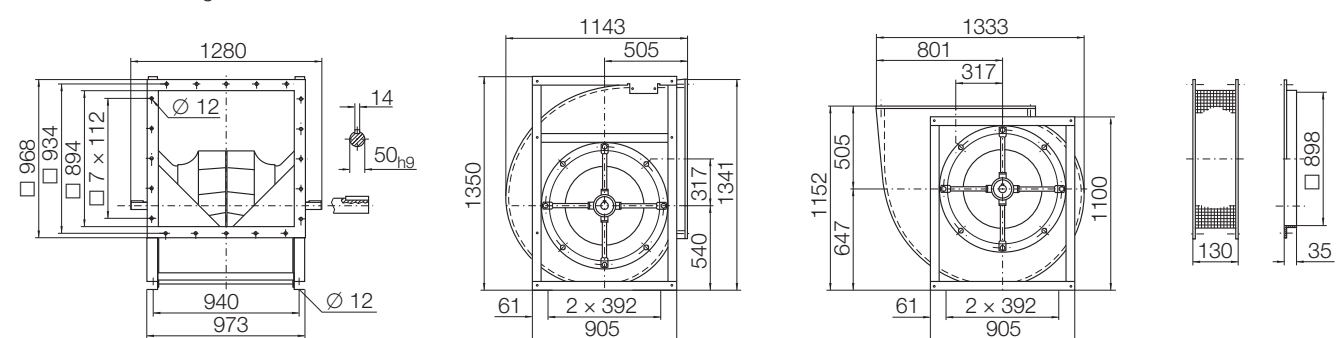
RZR 12-0710 194 kg



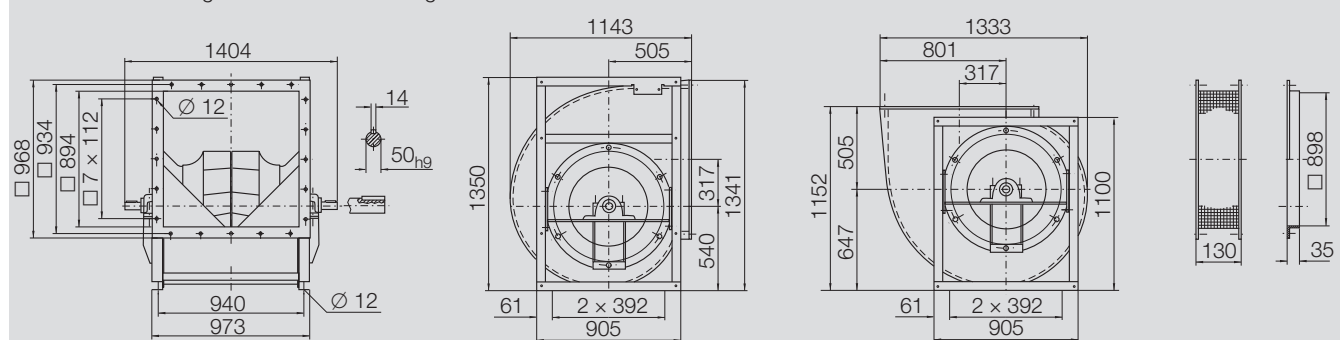
RZR 15-0710 201 kg



RZR 19-0710 225 kg



RZR 18-0710 230 kg RZR 13-0710 254 kg



Curves

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

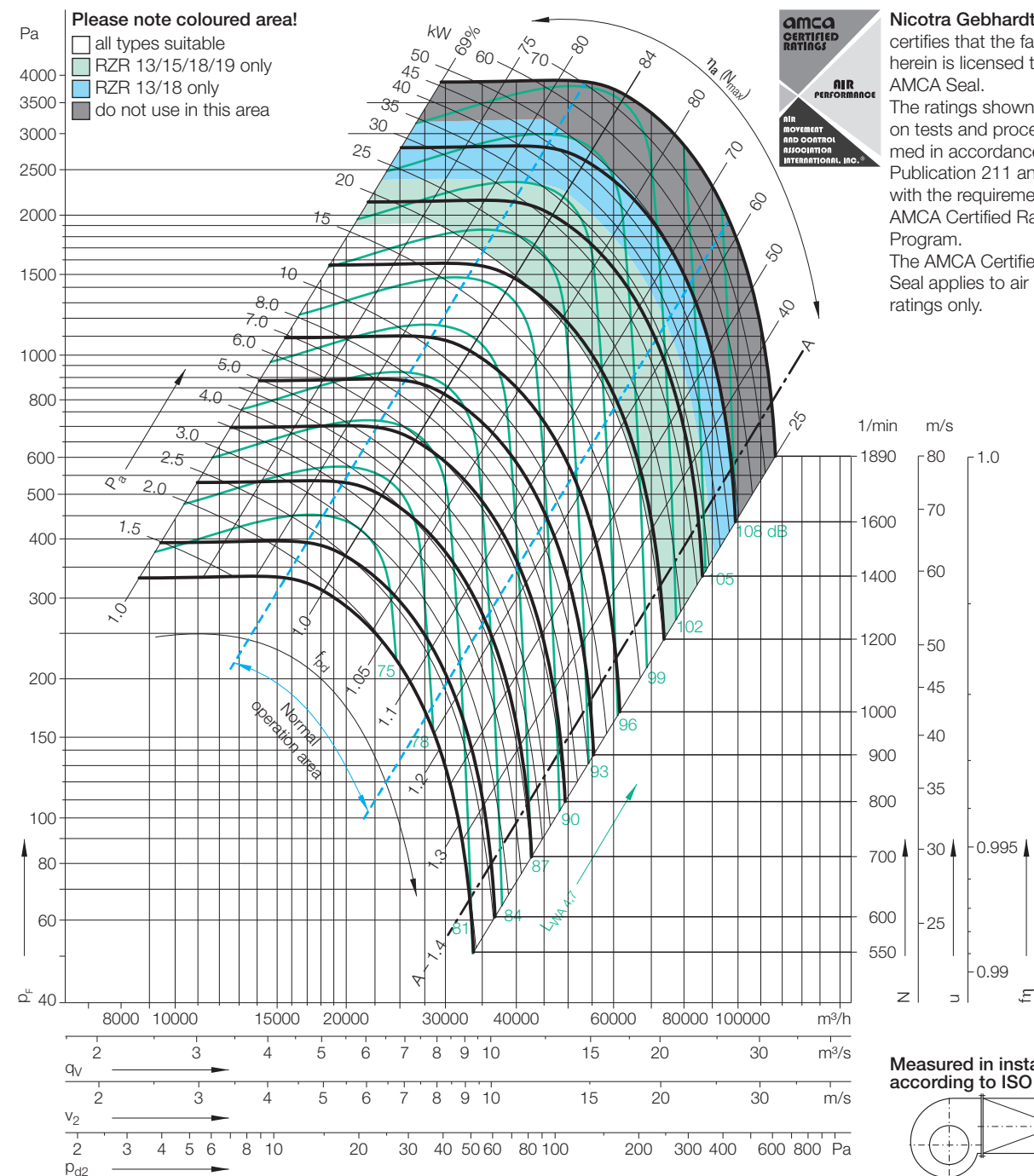
Impeller diameter	D_r	808	mm
Number of blades	z	12	
Moment of Inertia	J	6,850	kgm ²

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



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

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	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$

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_m

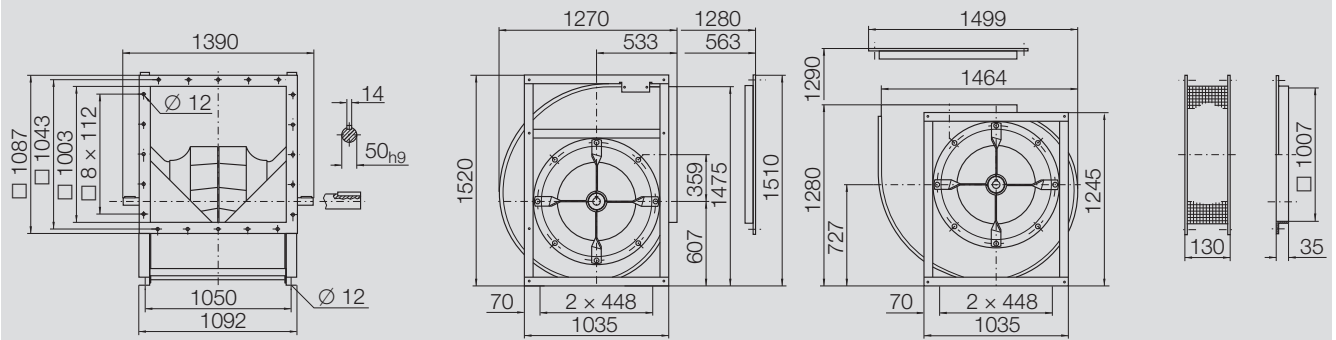
63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

Dimensions

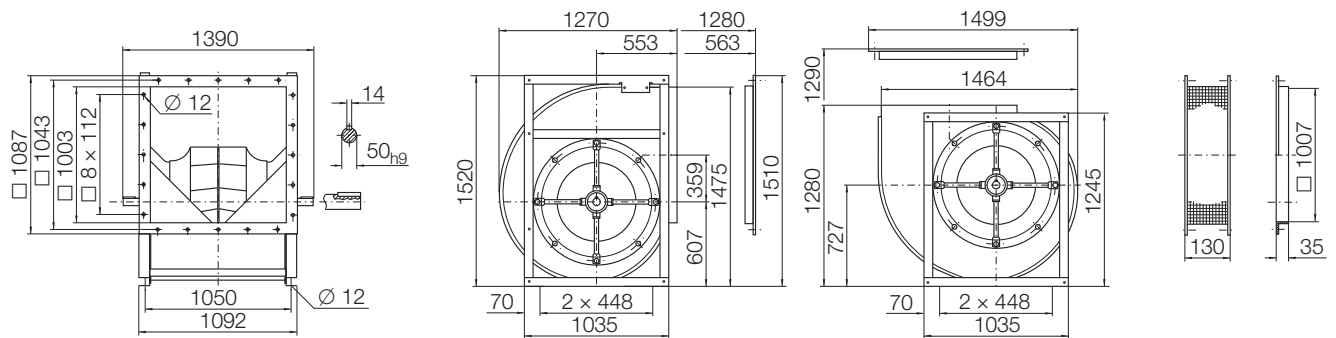
RZR_-0800

Dimensions in mm, subject to change.

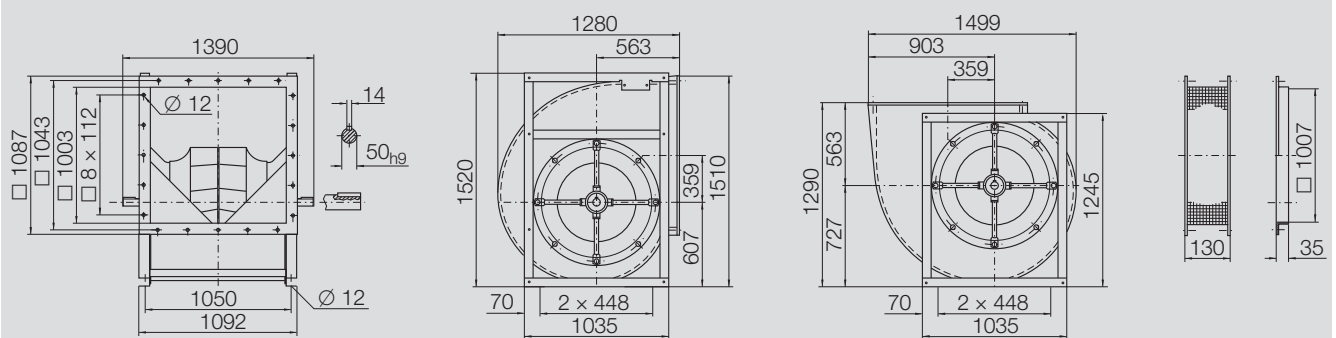
RZR 11-0800 250 kg



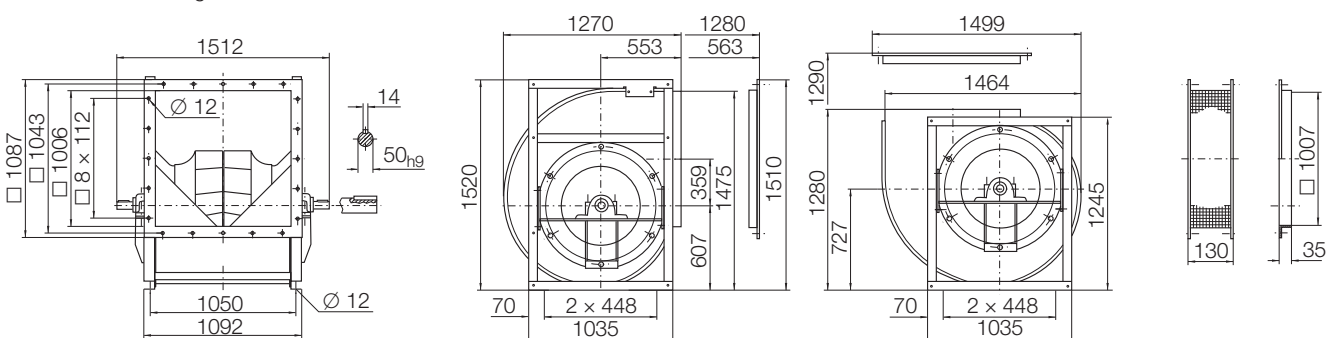
RZR 15-0800 250 kg



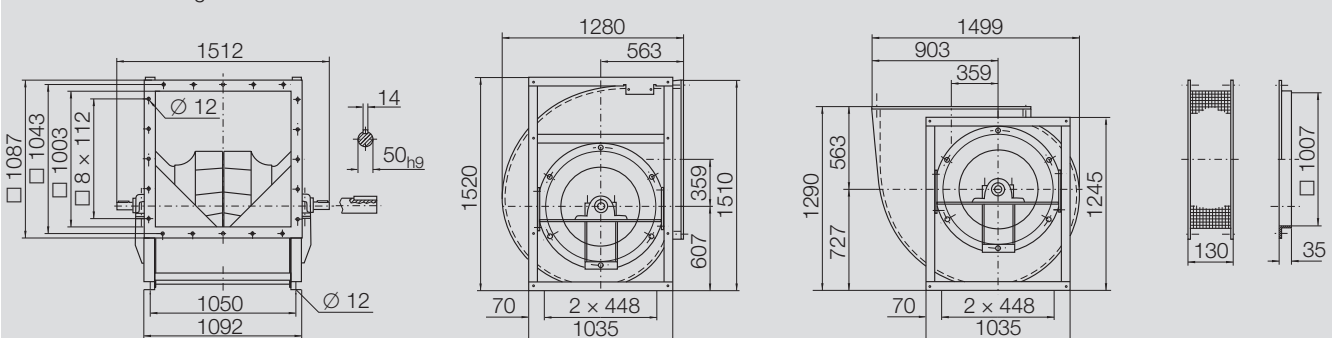
RZR 19-0800 280 kg



RZR 18-0800 289 kg



RZR 13-0800 319 kg



Curves

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

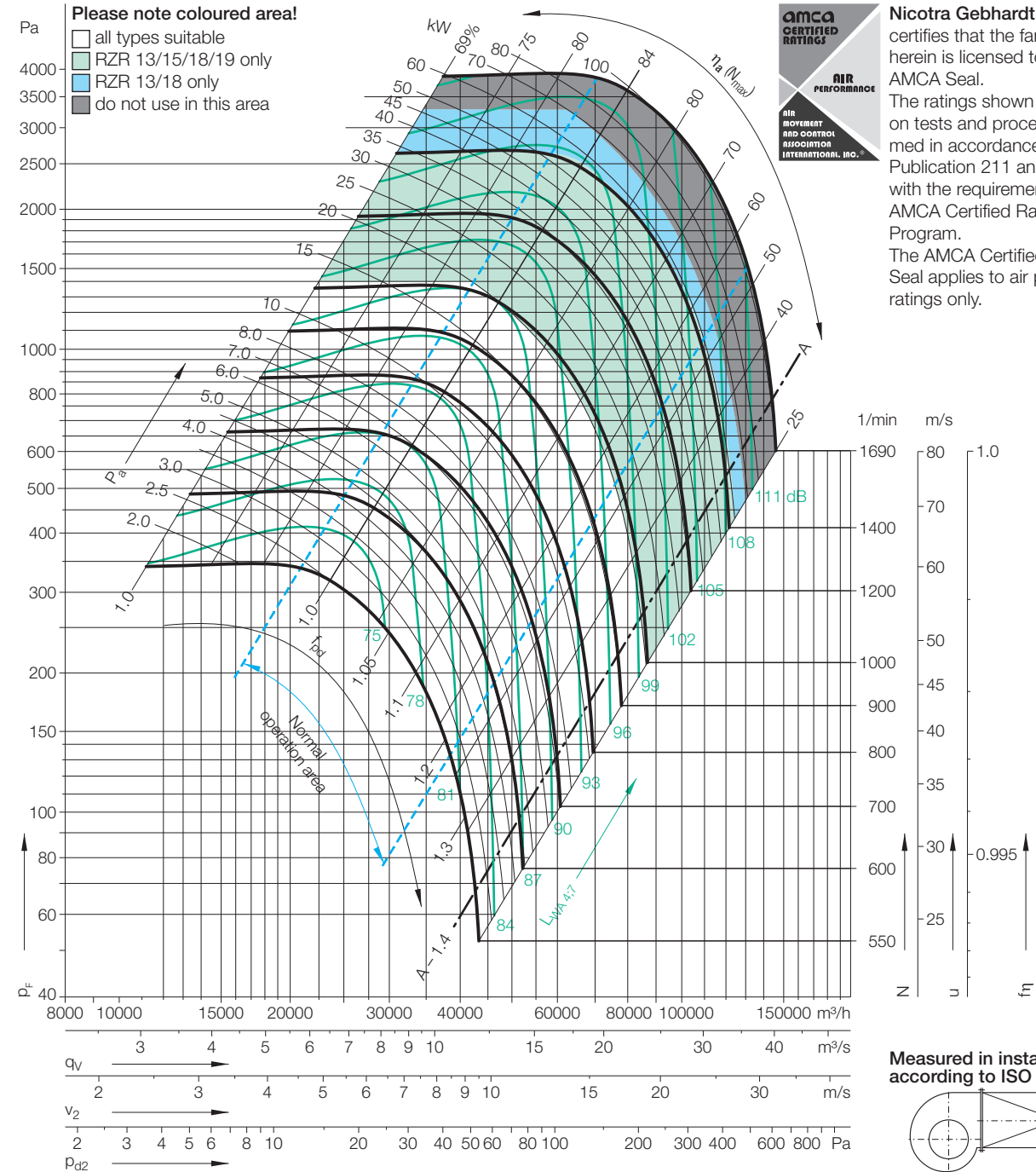
Impeller diameter	D_r	905	mm
Number of blades	z	12	
Moment of Inertia	J	15,50	kgm ²

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



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

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	$\leq 0.8 q_{Vopt}$
	$> 0.8 - 1.2 q_{Vopt}$
	$> 1.2 - 1.6 q_{Vopt}$
	$> 1.6 q_{Vopt}$

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_m

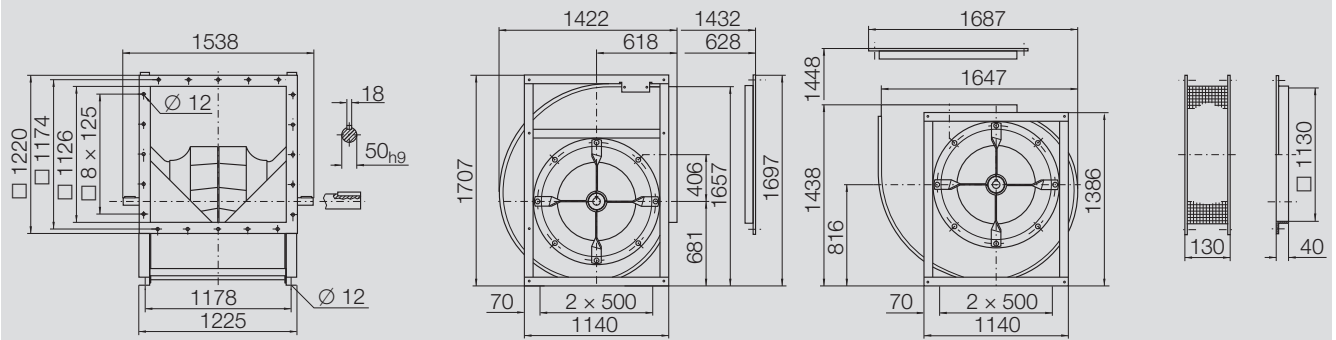
63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

Dimensions

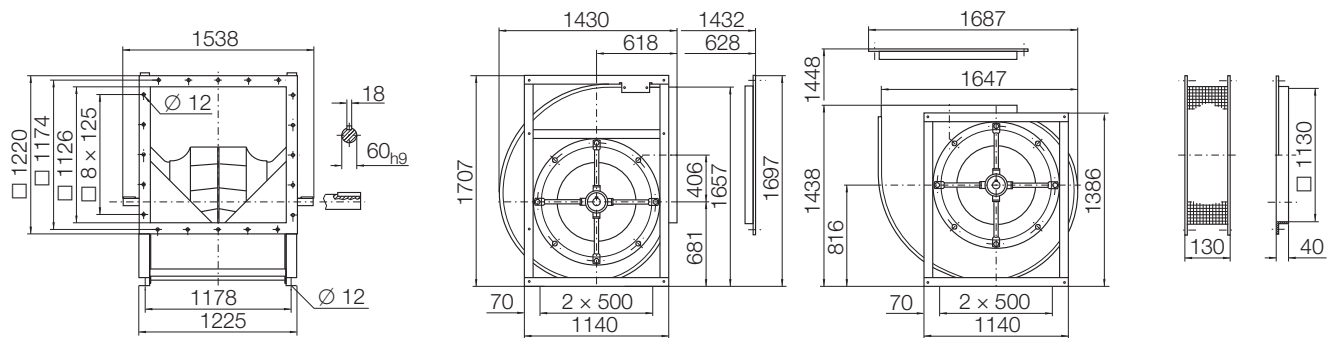
RZR_-0900

Dimensions in mm, subject to change.

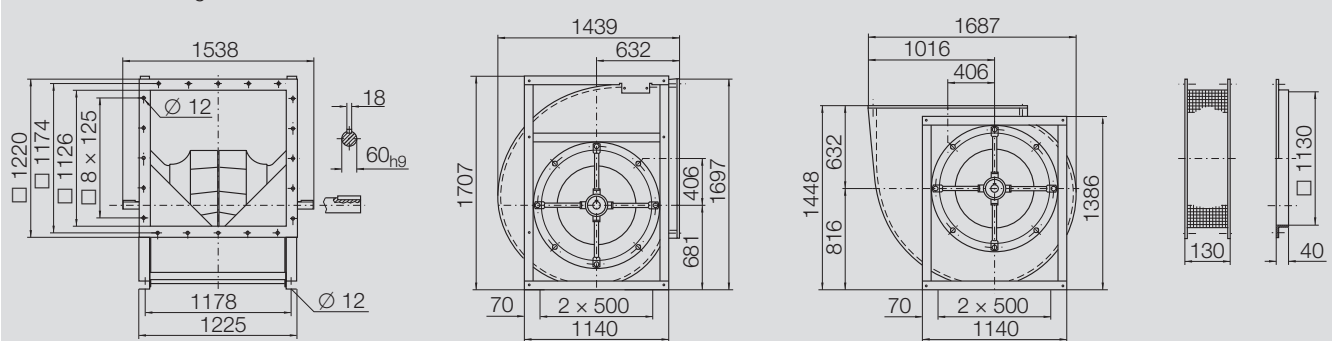
RZR 11-0900 358 kg



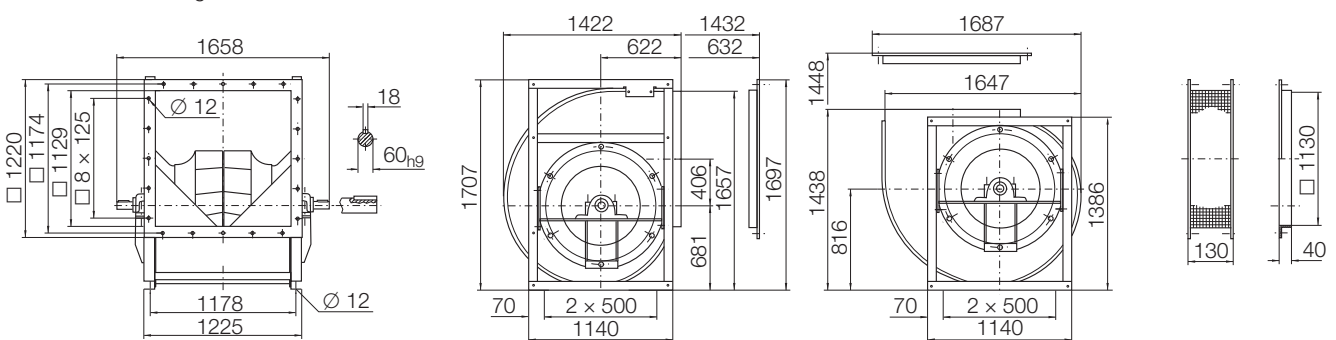
RZR 15-0900 358 kg



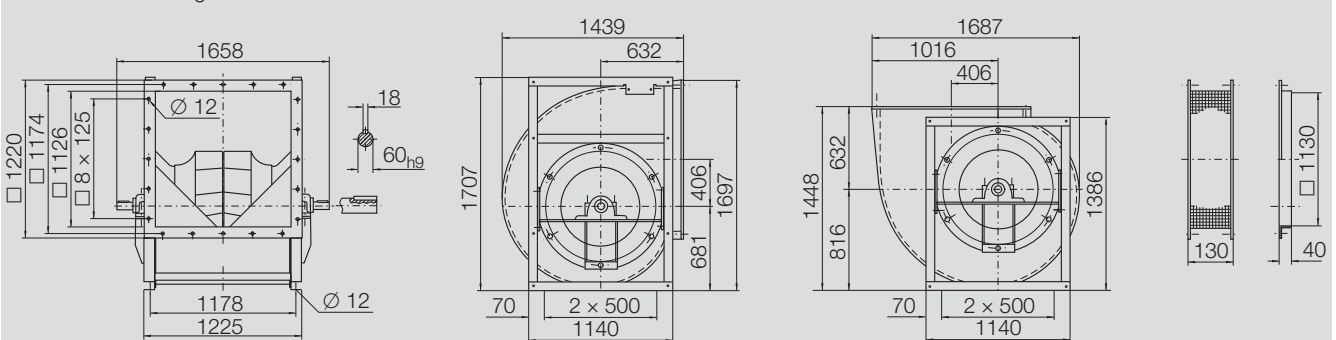
RZR 19-0900 396 kg



RZR 18-0900 409 kg



RZR 13-0900 447 kg



Curves

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

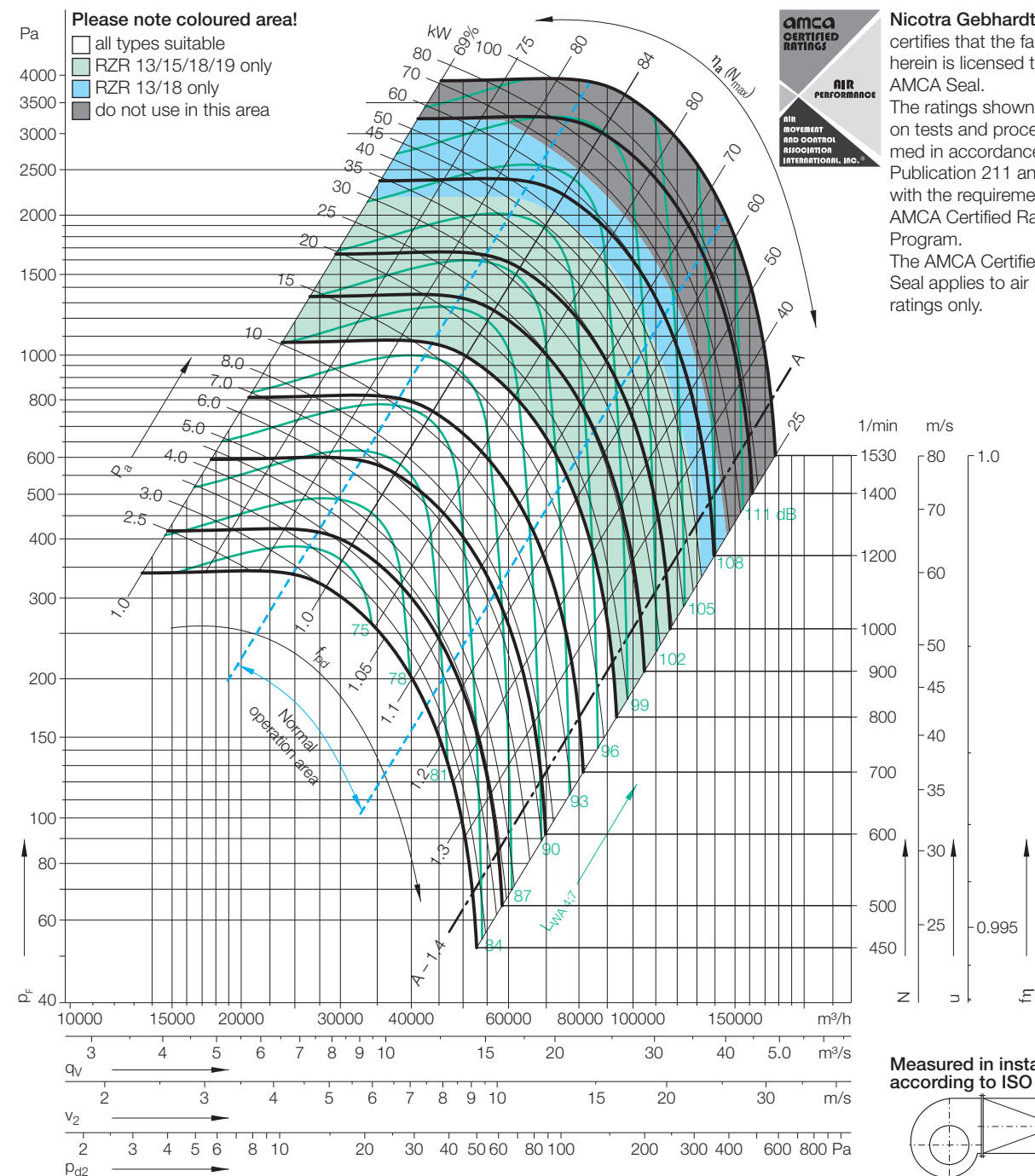
Impeller diameter	D_r	1000	mm
Number of blades	z	12	
Moment of Inertia	J	22,00	kgm ²

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



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_m

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

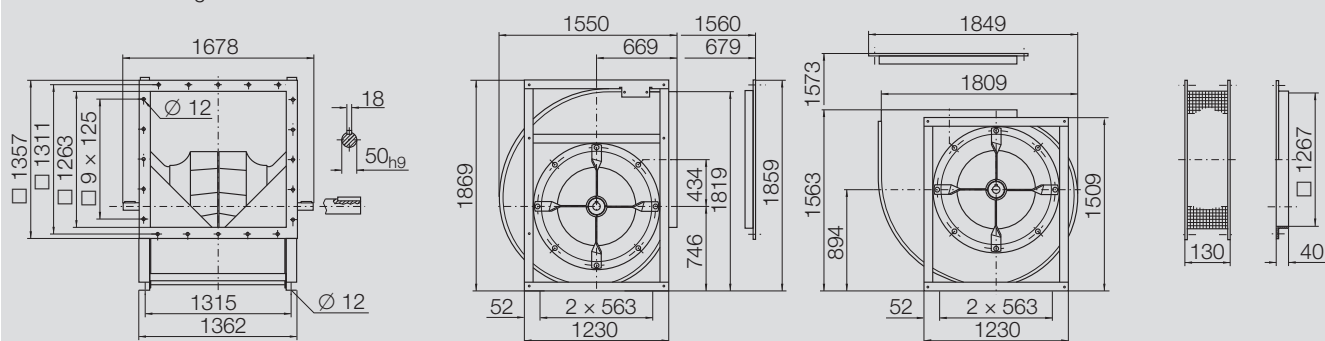
63	125	250	500	1000	2000	4000	8000	Hz
0	2	0	-3	-6	-9	-12	-19	dB
-2	1	-2	-3	-6	-8	-14	-20	dB
-3	0	-1	-3	-6	-8	-14	-21	dB
-5	-3	-3	-3	-6	-7	-13	-21	dB
63	125	250	500	1000	2000	4000	8000	Hz
-2	-1	-3	-1	-6	-10	-15	-21	dB
-7	-4	-5	-1	-6	-9	-14	-21	dB
-10	-7	-8	-1	-5	-8	-13	-21	dB
-10	-8	-8	-2	-6	-8	-11	-18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

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

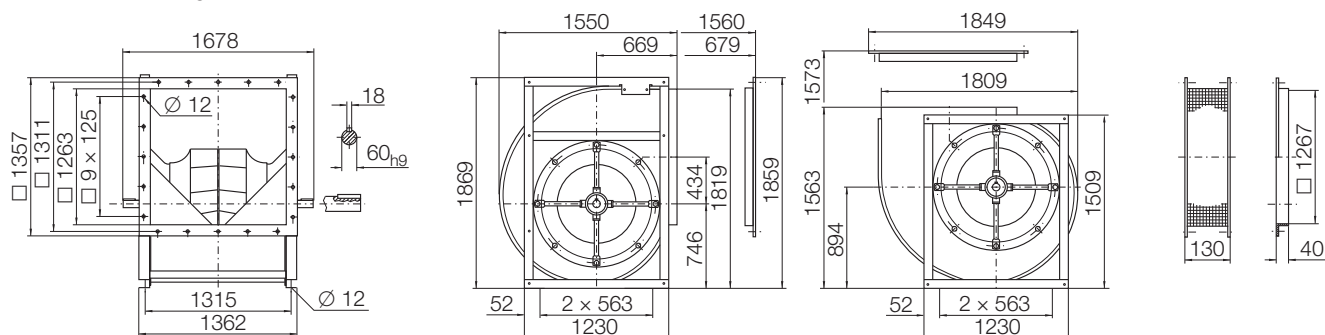
63	125	250	500	1000	2000	4000	8000	Hz
13	7	4	-3	-8	-14	-17	-25	dB
10	5	3	-2	-7	-13	-17	-25	dB
7	2	2	-2	-6	-12	-18	-27	dB
5	1	1	-2	-6	-10	-17	-27	dB
63	125	250	500	1000	2000	4000	8000	Hz
11	4	2	0	-7	-12	-17	-24	dB
7	1	-2	-3	-6	-10	-15	-23	dB
3	-2	-4	-3	-5	-9	-14	-23	dB
2	-3	-5	-3	-5	-9	-12	-21	dB

RZR_-1000

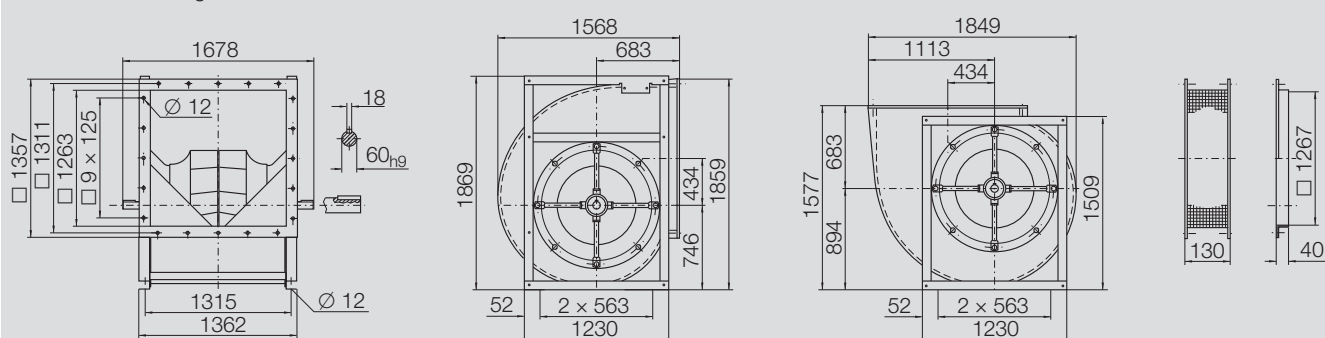
RZR 11-1000 416 kg



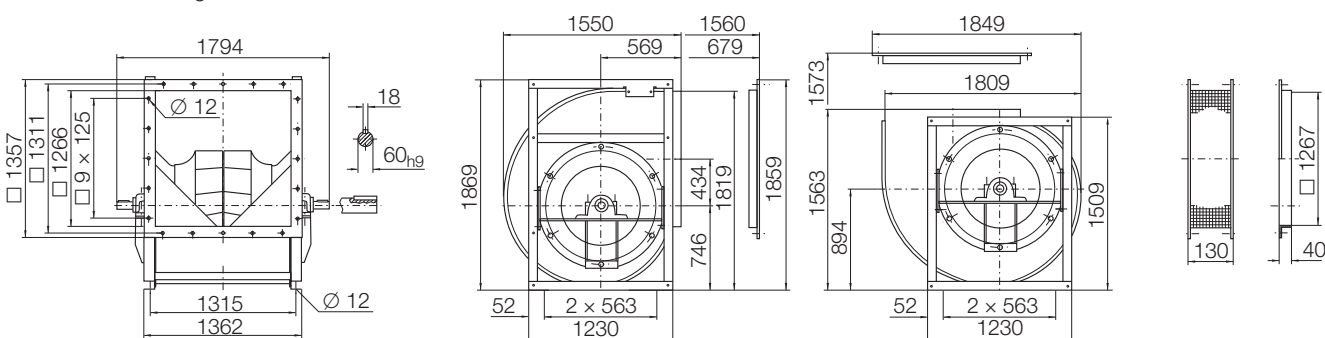
RZR 15-1000 416 kg



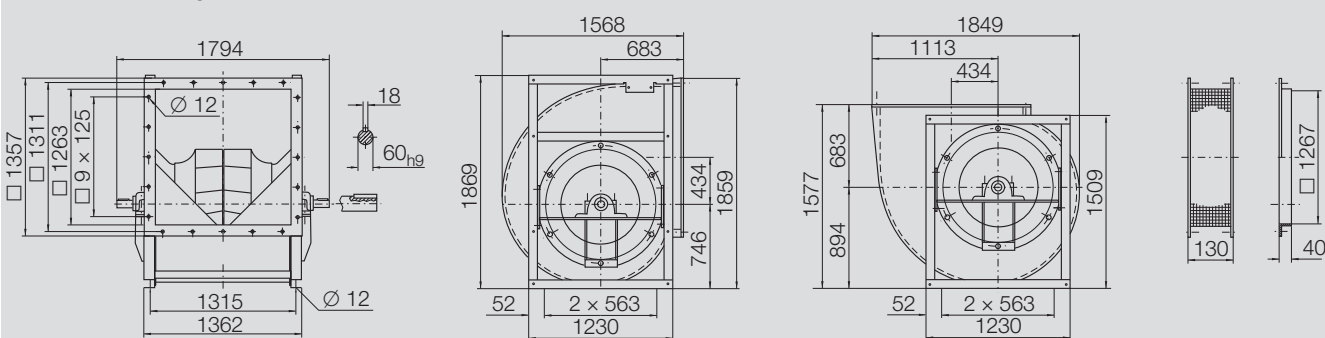
RZR 19-1000 462 kg



RZR 18-1000 471 kg



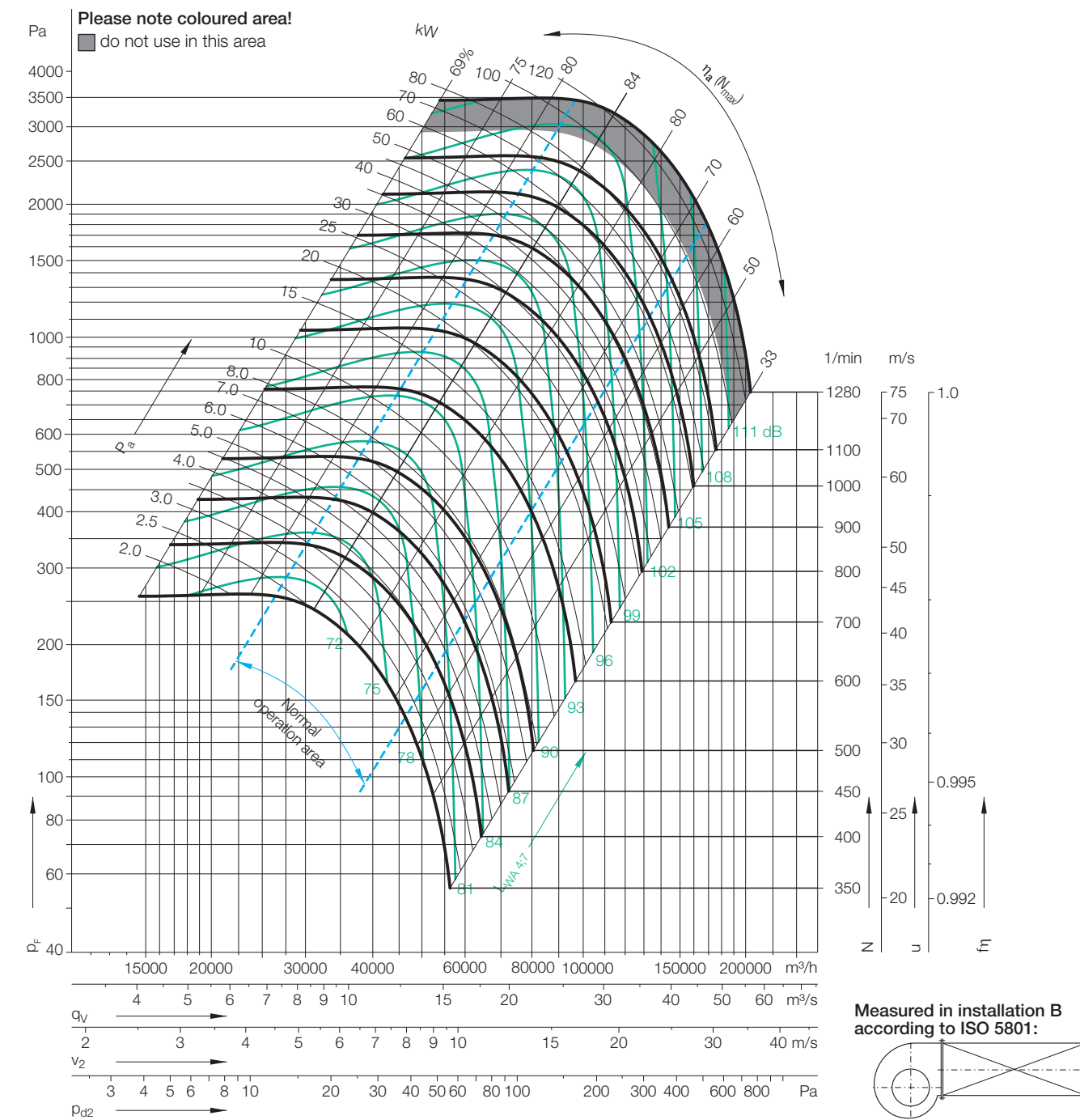
RZR 13-1000 517 kg



Curves

RZR_-1120

Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D _r	1120	mm		Impeller weight	m	200	kg	
Number of blades	z	12			Density of media	ρ ₁	1,2	kg/m ³	
Moment of Inertia	J	32,00	kgm ²		Tolerance class (DIN 24166)		1		
					Speed limits n _{max} for ATEX execution				
					RZR 13	1026	1/min		



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

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

Speed	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
≤682 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
		-10	-7	-8	-3	-6	-9	-14	-21	dB
Speed	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
>682 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

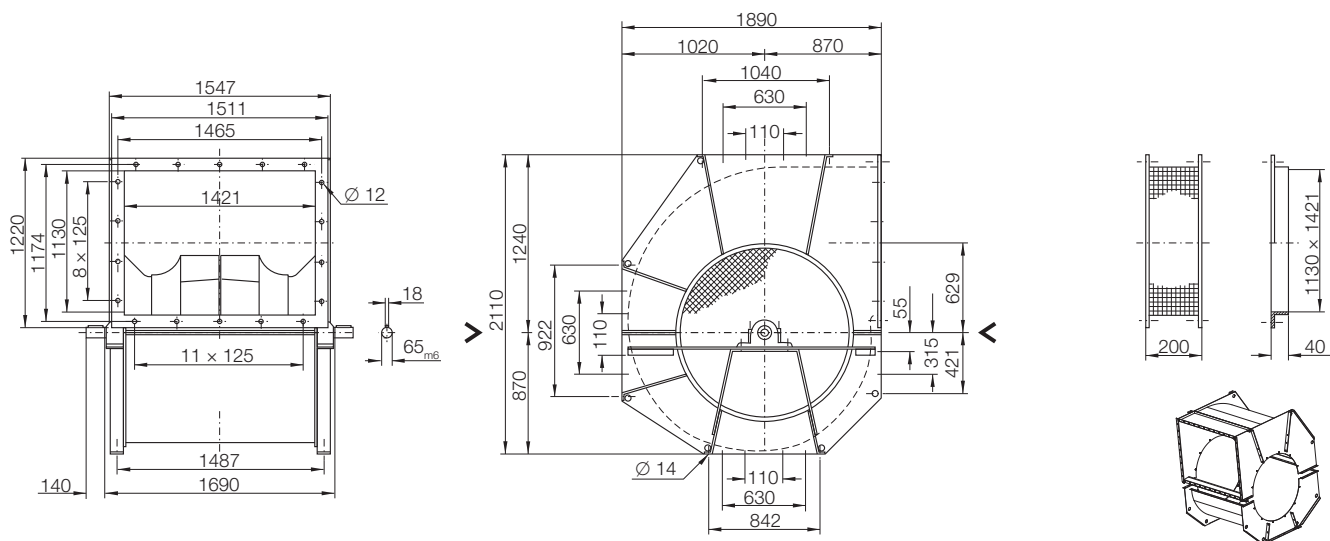
63	125	250	500	1000	2000	4000	8000	Hz
12	7	4	-3	-8	-14	-18	-26	dB
10	5	3	-3	-8	-14	-19	-28	dB
7	2	3	-3	-6	-13	-20	-28	dB
4	1	2	-3	-6	-12	-19	-28	dB
63	125	250	500	1000	2000	4000	8000	Hz
10	4	1	-1	-7	-13	-18	-25	dB
6	2	-2	-3	-6	-12	-15	-25	dB
2	-3	-3	-3	-6	-11	-15	-25	dB
1	-3	-5	-3	-6	-11	-13	-22	dB

Dimensions

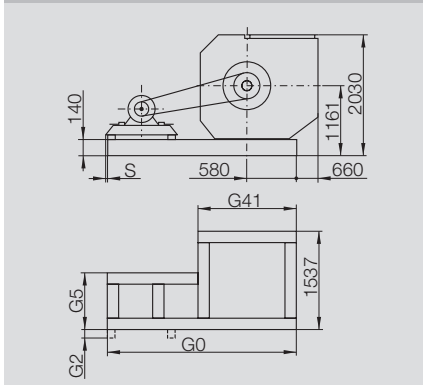
RZR_-1120

Dimensions in mm, subject to change.

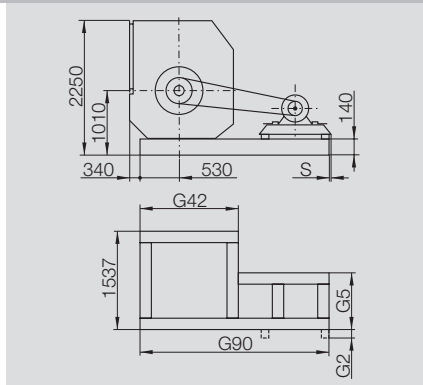
RZR 13-1120 710 kg



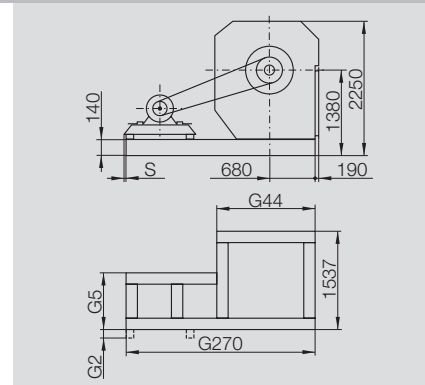
LG 0



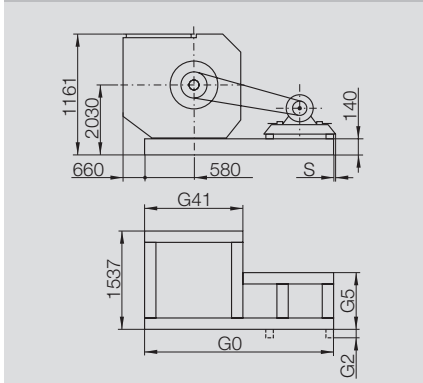
LG 90



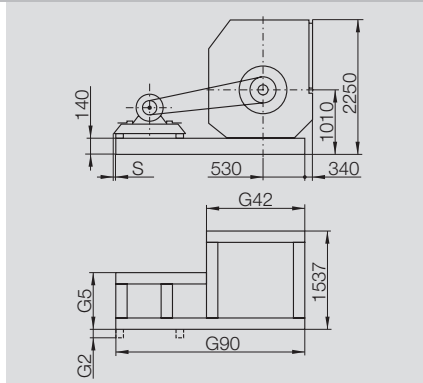
LG 270



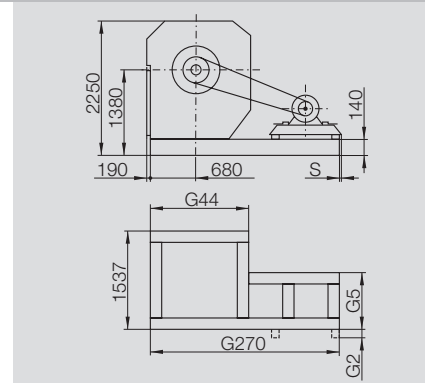
RD 0



RD 90



RD 270

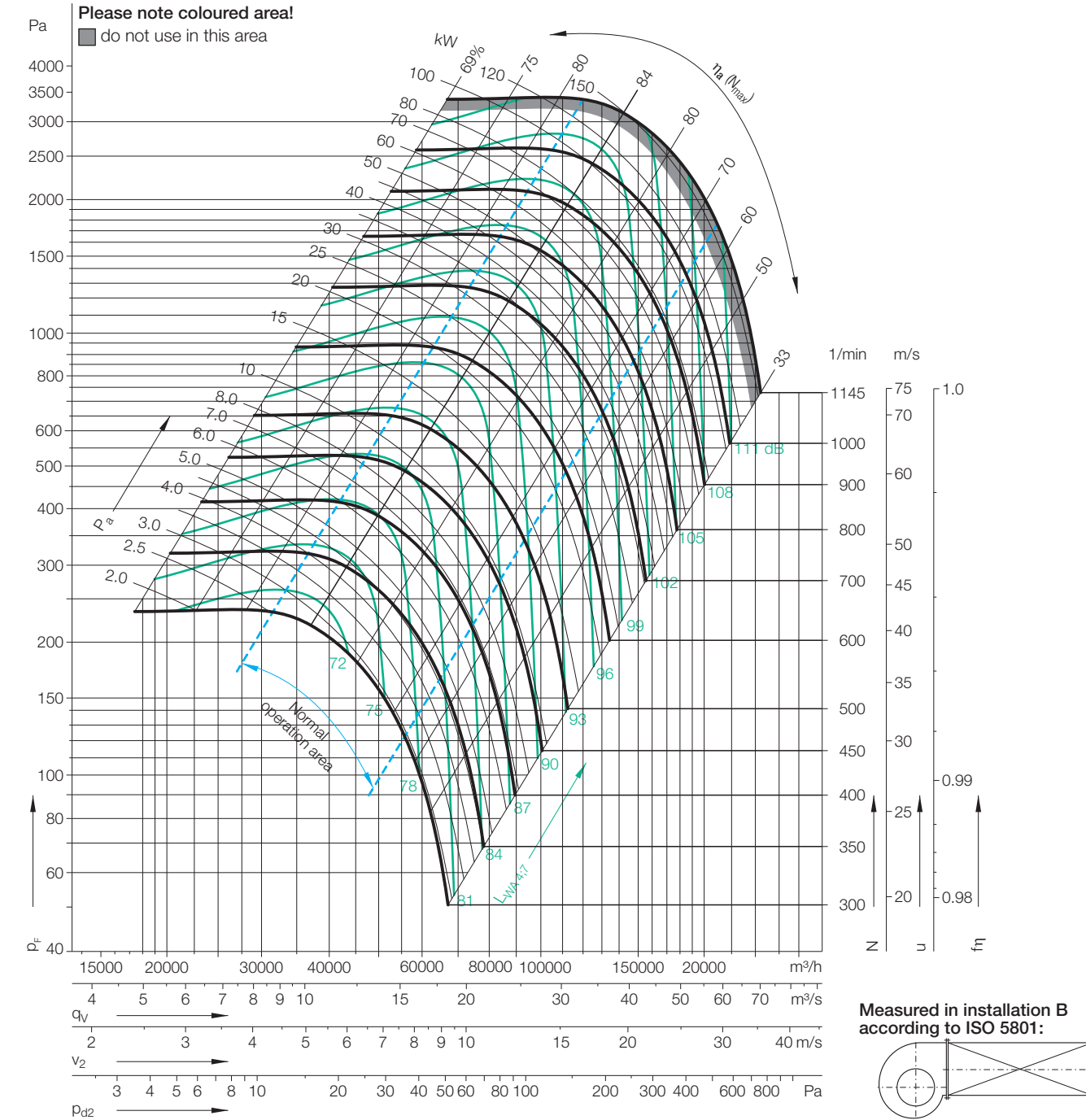


	G0	G90	G270	G41	G42	G44	G2	G5	S
112	1870	2040	2040	1310	1480	1480	52.5	410	—
132	1870	2040	2040	1310	1480	1480	52.5	410	—
160	2110	2210	2360	1480	1580	1730	—	410	3
180	2110	2210	2360	1480	1580	1730	—	410	3
200	2410	2480	2530	1610	1680	1730	—	510	7
225	2410	2480	2530	1610	1680	1730	—	510	7
250	2610	2680	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

Curves

RZR_-1250

Technical Data									
Impeller Data					Impeller Data				
Impeller diameter	D _r	1250	mm		Impeller weight	m	263	kg	
Number of blades	z	12			Density of media	ρ ₁	1,2	kg/m ³	
Moment of Inertia	J	62,50	kgm ²		Tolerance class (DIN 24166)		1		
					Speed limits n _{max} for ATEX execution				
					RZR 13		957	1/min	Ex



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

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

Speed	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
≤611 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
		-5	-3	-2	-3	-5	-7	-14	-21	dB
Speed	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
>611 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
		-10	-7	-8	-3	-6	-8	-11	-20	dB

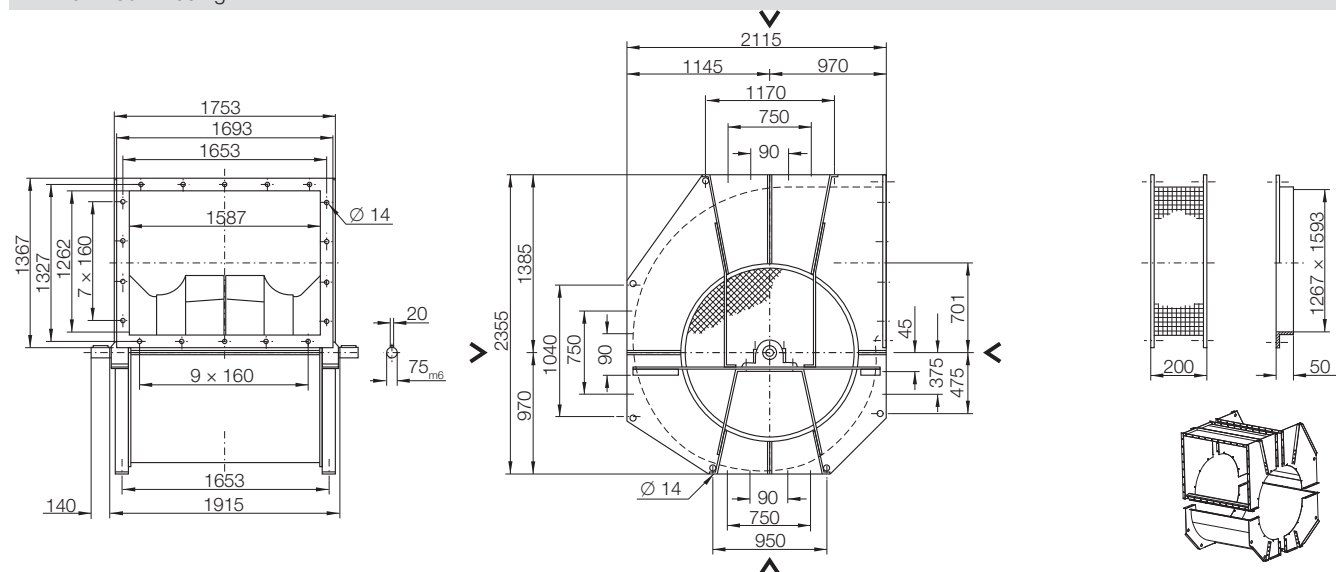
63	125	250	500	1000	2000	4000	8000	Hz
12	7	4	-3	-8	-14	-18	-26	dB
10	5	3	-3	-8	-14	-19	-28	dB
7	2	3	-3	-6	-13	-20	-28	dB
4	1	2	-3	-6	-12	-19	-28	dB
63	125	250	500	1000	2000	4000	8000	Hz
10	4	1	-1	-7	-13	-18	-25	dB
6	2	-2	-3	-6	-12	-15	-25	dB
2	-3	-3	-3	-6	-11	-15	-25	dB
1	-3	-5	-3	-6	-11	-13	-22	dB

Dimensions

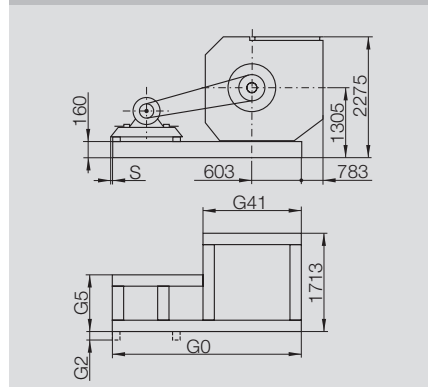
RZR _-1250

Dimensions in mm, subject to change.

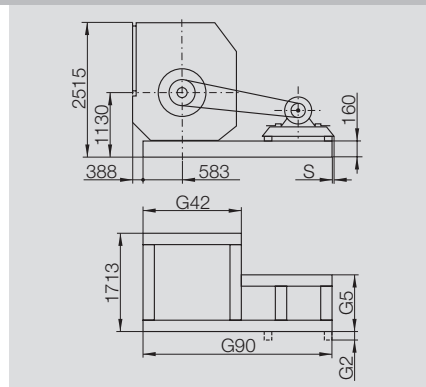
RZR 13-1250 1100 kg



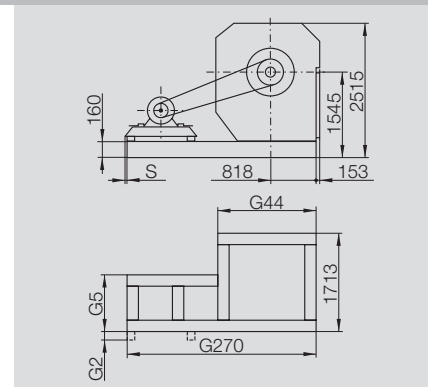
LG 0



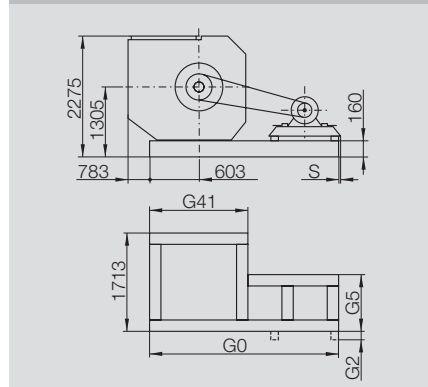
LG 90



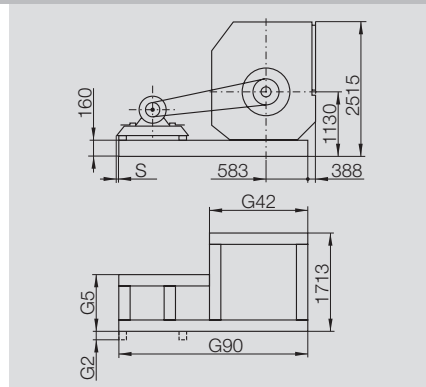
LG 270



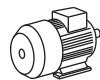
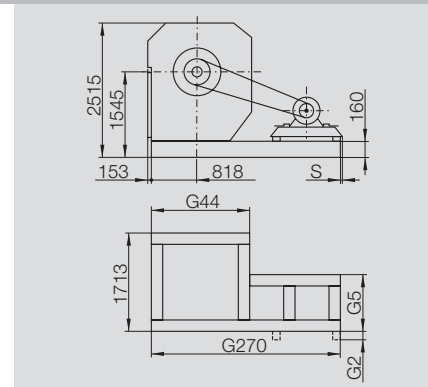
RD 0



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

Curves

RZR_-1400

Technical Data

Impeller Data

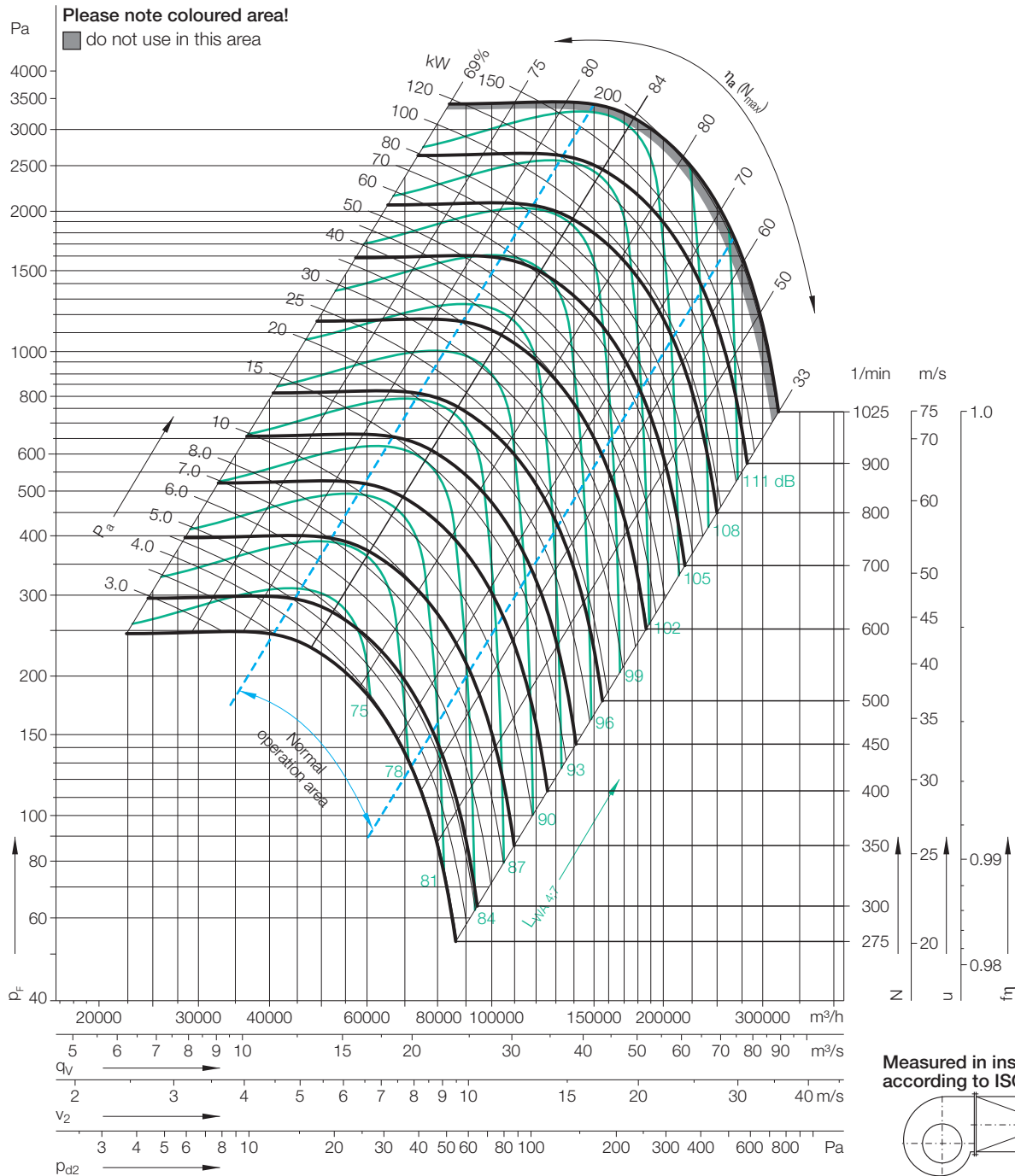
Impeller diameter	D_r	1400	mm
Number of blades	z	12	
Moment of Inertia	J	120,0	kgm ²

Impeller Data

Impeller weight	m	335	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	870	1/min
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Relative sound power level for inlet side L_{Wrel7} at octave centre frequencies f_m

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

Speed	Duty point
≤ 546 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
> 546 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

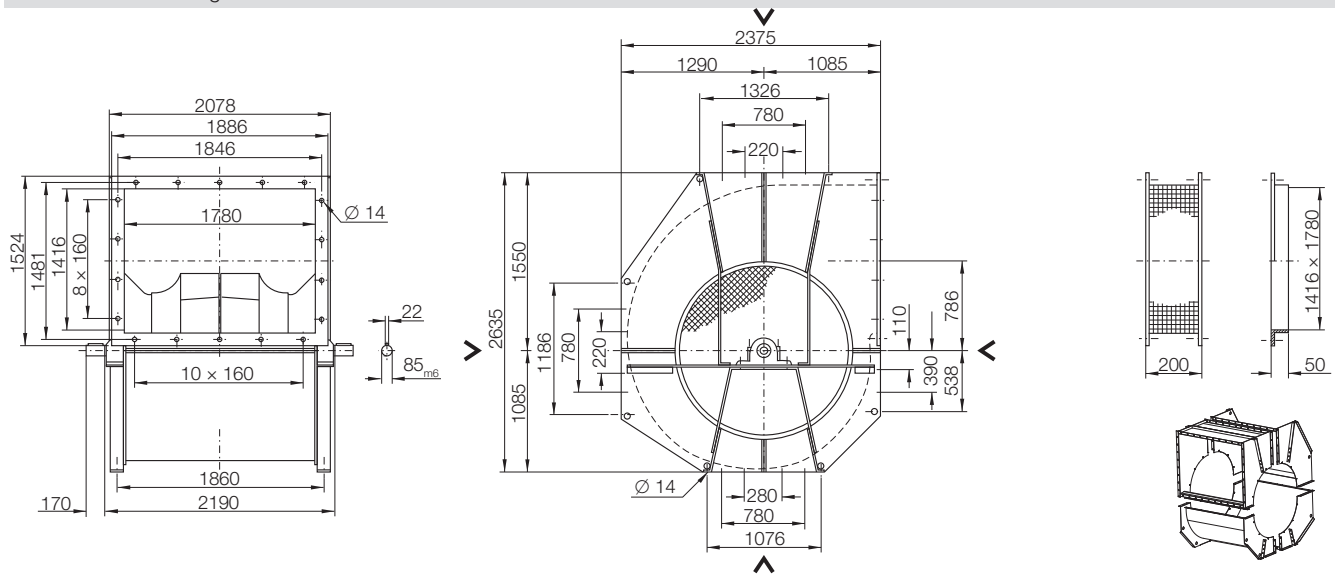
63	125	250	500	1000	2000	4000	8000	Hz
12	7	4	-3	-8	-14	-18	-26	dB
10	5	3	-3	-8	-14	-19	-28	dB
7	2	3	-3	-6	-13	-20	-28	dB
4	1	2	-3	-6	-12	-19	-28	dB
63	125	250	500	1000	2000	4000	8000	Hz
10	4	1	-1	-7	-13	-18	-25	dB
6	2	-2	-3	-6	-12	-15	-25	dB
2	-3	-3	-3	-6	-11	-15	-25	dB
1	-3	-5	-3	-6	-11	-13	-22	dB

Dimensions

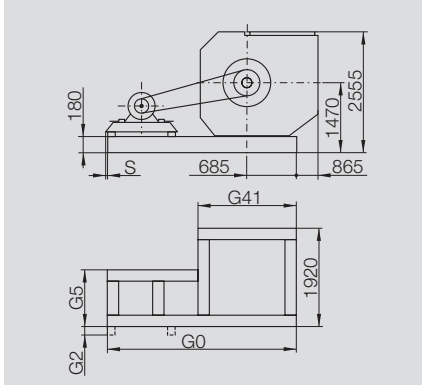
RZR_-1400

Dimensions in mm, subject to change.

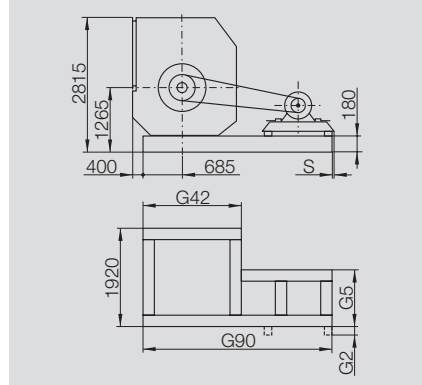
RZR 13-1400 1390 kg



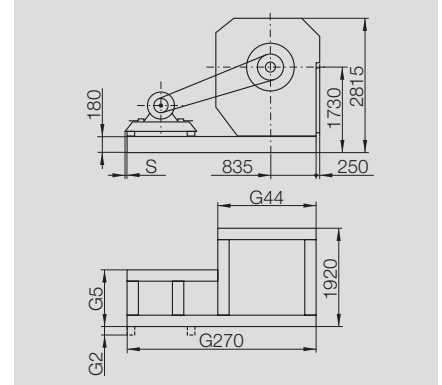
LG 0



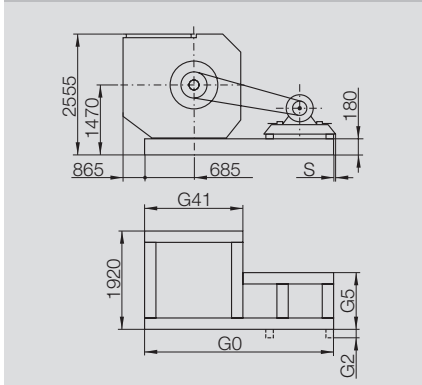
LG 90



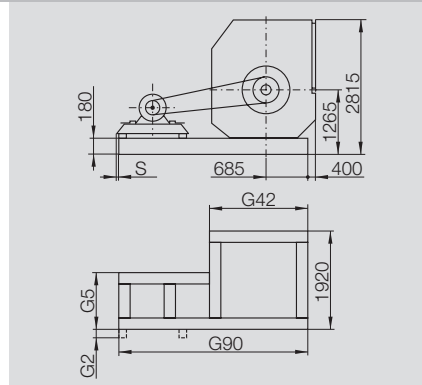
LG 270



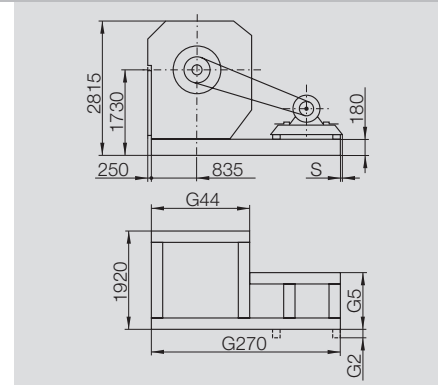
RD 0



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

Curves

RZR_-1600

Technical Data

Impeller Data

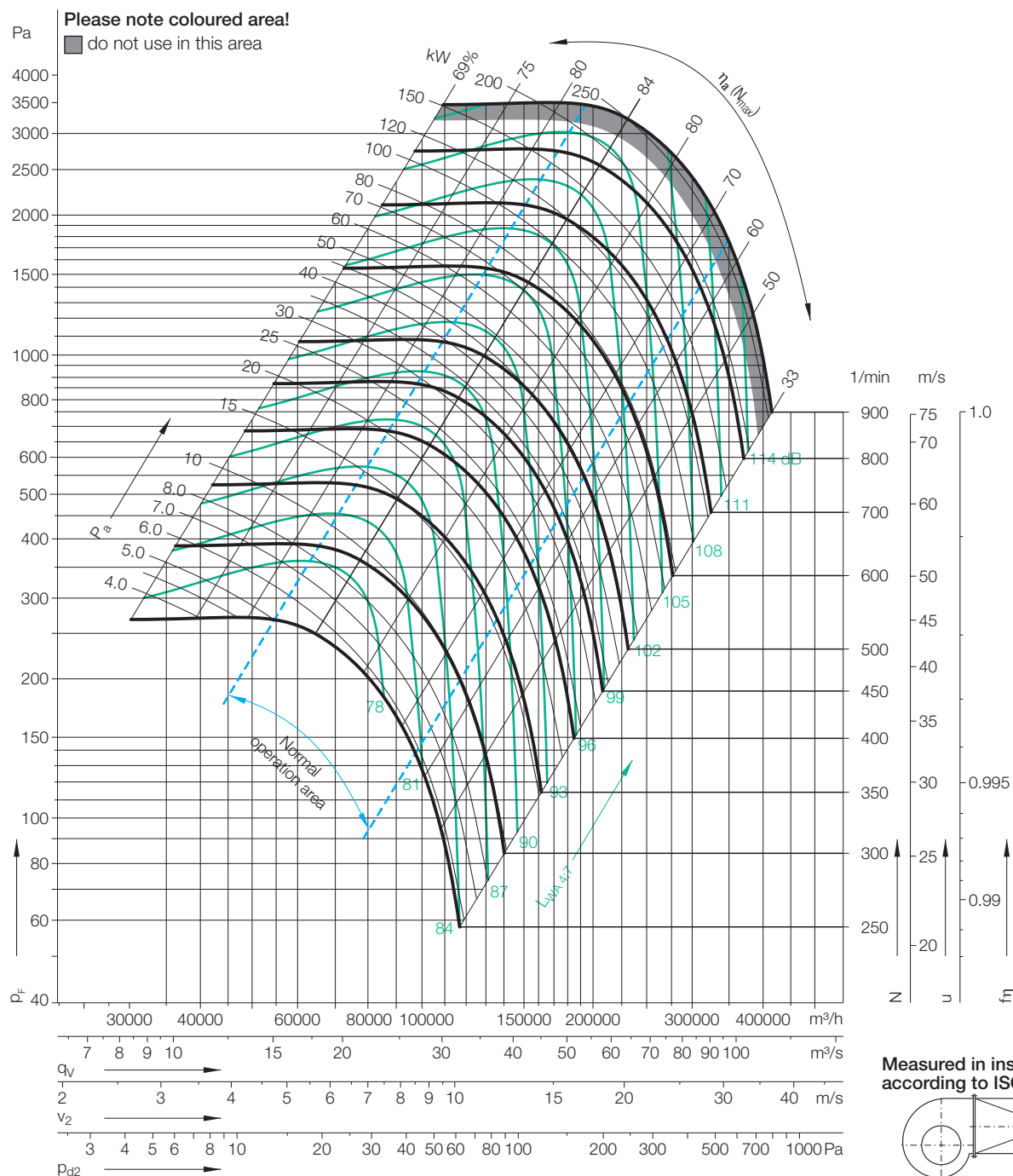
Impeller diameter	D_r	1600	mm
Number of blades	z	12	
Moment of Inertia	J	186,0	kgm ²

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

Speed	Duty point
≤ 478 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
> 478 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_m

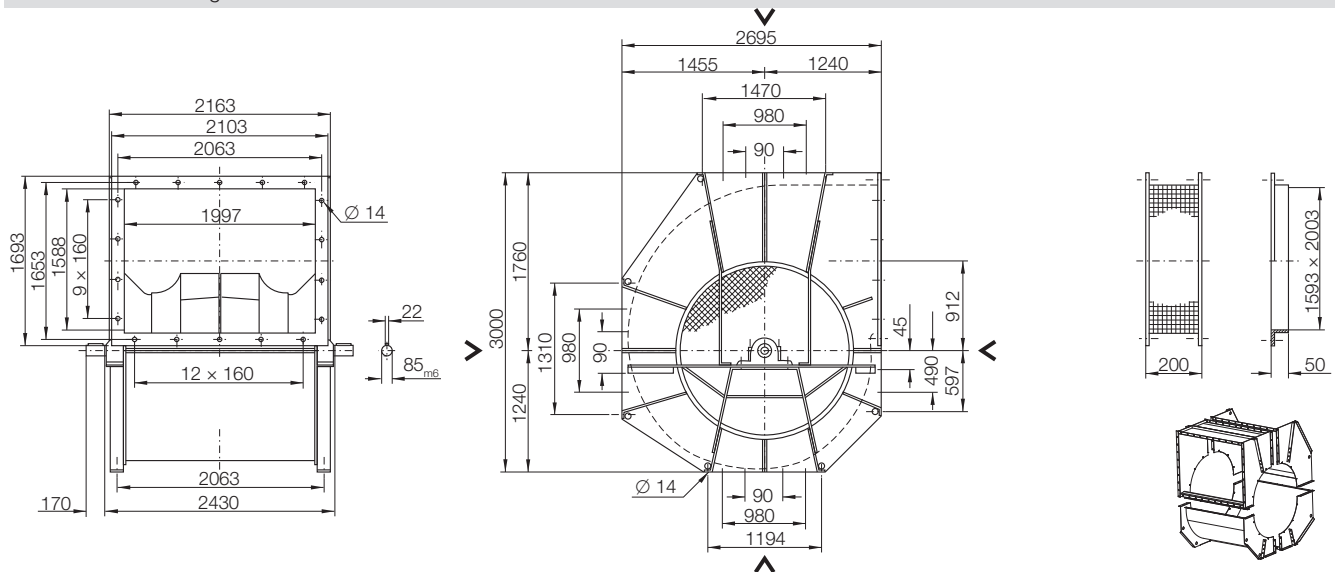
63	125	250	500	1000	2000	4000	8000	Hz
12	7	4	-3	-8	-14	-18	-26	dB
10	5	3	-3	-8	-14	-19	-28	dB
7	2	3	-3	-6	-13	-20	-28	dB
4	1	2	-3	-6	-12	-19	-28	dB
63	125	250	500	1000	2000	4000	8000	Hz
10	4	1	-1	-7	-13	-18	-25	dB
6	2	-2	-3	-6	-12	-15	-25	dB
2	-3	-3	-3	-6	-11	-15	-25	dB
1	-3	-5	-3	-6	-11	-13	-22	dB

Dimensions

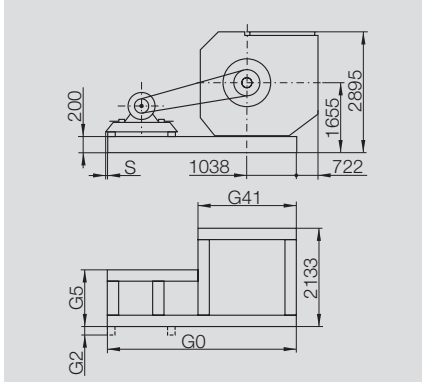
RZR_-1600

Dimensions in mm, subject to change.

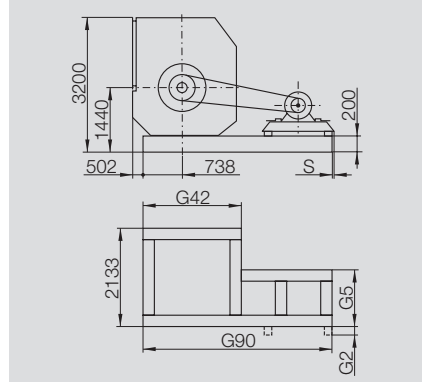
RZR 13-1600 1870 kg



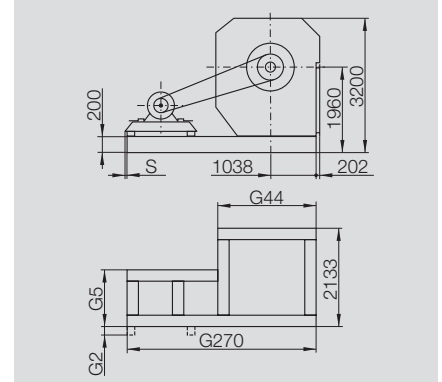
LG 0



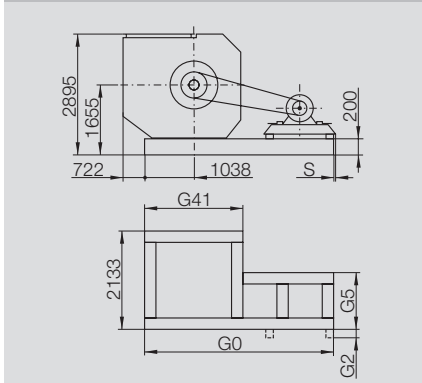
LG 90



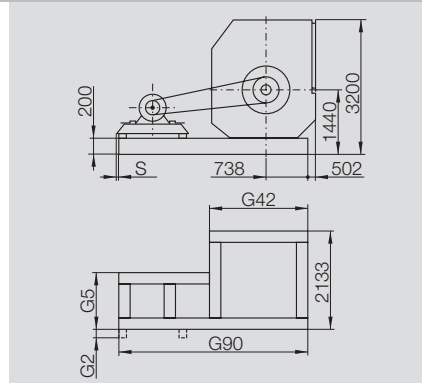
LG 270



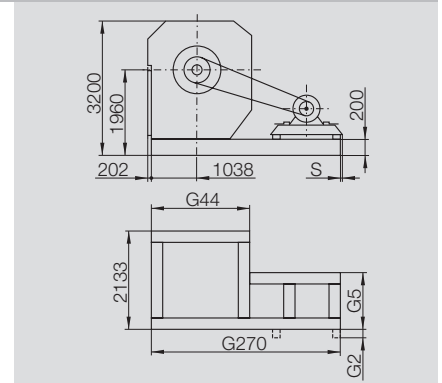
RD 0



RD 90



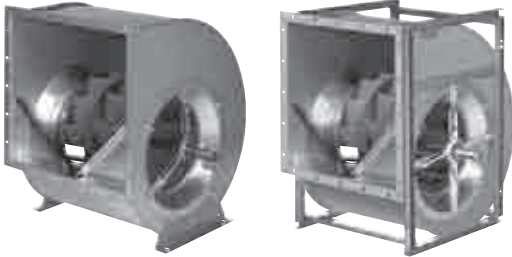
RD 270



	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 *rotavent* 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 aerofoil 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

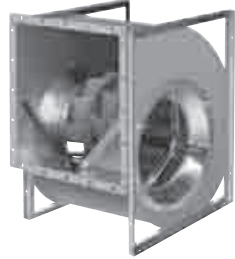
Fan type	=	
Volume	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m ³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_a)	=
Speed	N	= 1/min
Sound power level (A-weighted)	L_{WA}	= dB
Weight	m	= kg

Fittings / Accessories

- Drain plug R 1/2" (B.S.P. 1/2")
- Access door
- Special coating Class S, K or P
- 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 IMV 13
- Copper inlet cone
- Relubrication in Operation (0200/-0710)
 - IWN 01 Standard Grease
 - IWN 11 Moisture Resistant Grease
- Inlet Guards
- Discharge Guard
- Shaft guard
- Discharge Flange
- Discharge Flex (with flexible sleeve)
- Base frame with integrated strain-sledge (0200/-0500)
- Base frame with motor rails (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 *rotavent* 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 aerofoil 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

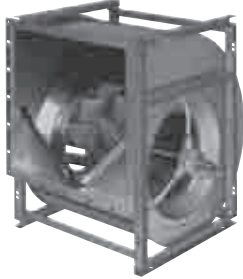
Fan type	=	
Volume	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m ³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_a)	=
Speed	N	= 1/min
Sound power level (A-weighted)	L_{WA}	= dB
Weight	m	= kg

Fittings / Accessories

- Drain plug R 1/2" (B.S.P. 1/2")
- Access door
- Special coating Class S, K or P
- 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 IMV 13
- Copper inlet cone
- Relubrication in Operation
 - IWN 01 Standard Grease
 - IWN 11 Moisture Resistant Grease
- 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 *rotavent*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 aerofoil 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

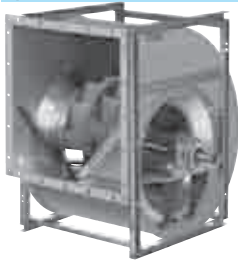
Fan type	=	
Volume	q_v	= m³/h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_a)	=
Speed	N	= 1/min
Sound power level (A-weighted)	L_{WA}	= dB
Weight	m	= kg

Fittings / Accessories

- Drain plug R1/2" (B.S.P. 1/2")
- Access door
- Special coating Class S, K or P
- 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
- Inlet vane controller IVC
- Manual IVC-operating lever
- Volumeter IMV 13
- Copper inlet cone
- Relubrication in operation
 - IWN 01 Standard Grease
 - IWN 11 Moisture Resistant Grease
- 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 *rotavent* 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 aerofoil 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	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m ³
Temperature of gas medium	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 S, K or P
- 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
- Inlet vane controller IVC
- Manual IVC-operating lever
- Volumeter IMV 13
- Copper inlet cone
- Relubrication in operation
 - IWN 01 Standard Grease
 - IWN 11 Moisture Resistant Grease
- 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 *rotavent* 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 aerofoil 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	q_v	= m³/h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m³
Temperature of gas medium	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 K or P
- 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 IMV 13
- Copper inlet cone
- Relubrication in operation
 - IWN 01 Standard Grease
 - IWN 11 Moisture Resistant Grease
- 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

RZR 19-0400/-1000

Specifications



High performance centrifugal fan**rotavent****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 trueaerofoil 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

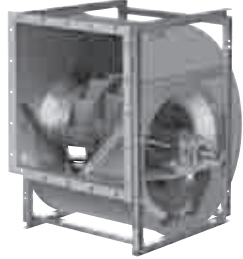
Fan type	=	
Volume	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m ³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_a)	=
Speed	N	= 1/min
Sound power level (A-weighted)	L_{WA}	= dB
Weight	m	= kg

Fittings / Accessories

- Drain plug R 1/2" (B. S. P. 1/2")
- Access door
- Special coating Class K or P
- 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
- Inlet vane controller IVC
- Manual IVC- operating lever
- Volumeter IMV 13
- Copper inlet cone
- Relubrication in operation
 - IWN 01 Standard Grease
 - IWN 11 Moisture Resistant Grease
- 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 *rotavent*RZR 13
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 aerofoil 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	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m ³
Temperature of gas medium	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 K or P
- 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 (Size 0500 upwards)
- Shaft made of stainless steel (1.4305)
- Nuts and bolts of stainless steel (1.4305)
- Tapped hole for measurement of shock impulse
- Inlet vane controller IVC
- Manual IVC-operating lever
- Volumeter IMV 13
- Copper inlet cone
- Relubrication in Operation
 - IVN 01 Standard Grease
 - IVN 11 Moisture Resistant Grease
- 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



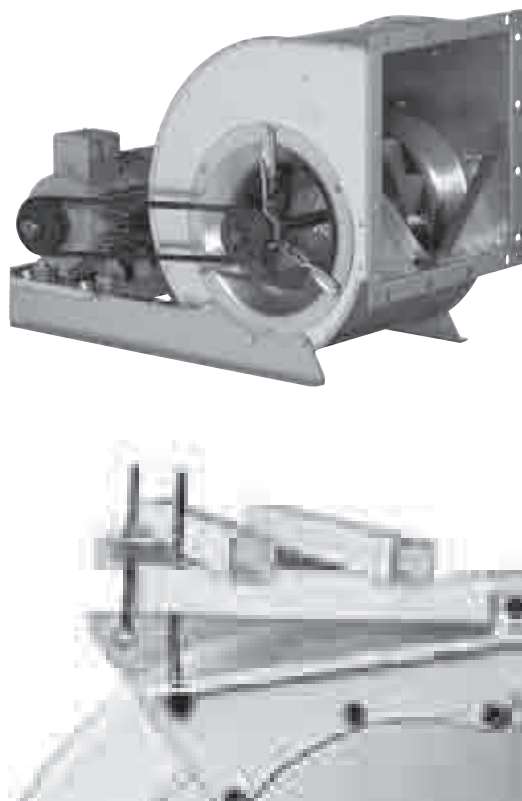
High performance centrifugal fan *rotavent* RZR 1120/-1600
double inlet belt drive.
Heavy duty casing of sheet steel with stiffening members, step welded and painted, with discharge flange.
Casing is split on one axis (Size 1120), split on two axis (Sizes 1250, 1400, 1600).
High performance impeller with 12 hollow section true aerofoil 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

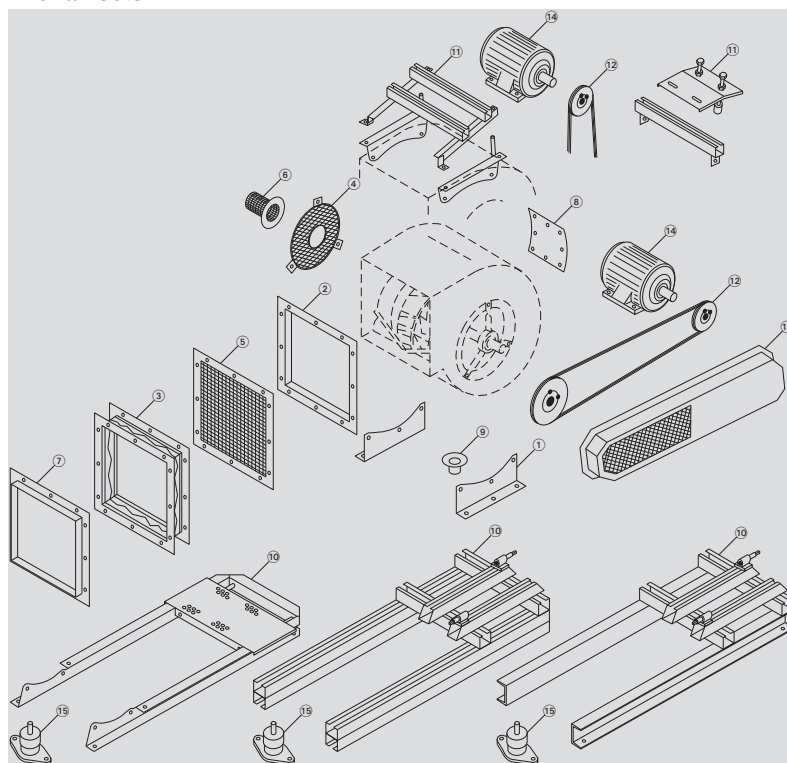
Fan type	=	
Volume	q_v	= m ³ /h
Total pressure increase	p_F	= Pa
Free discharge factor	p_{sF}	= Pa
Density at Inlet	ρ_1	= kg/m ³
Temperature of gas medium	t	= °C
Shaft power	P_a	= kW
Efficiency	(η_a)	=
Speed	N	= 1/min
Sound power level (A-weighted)	L_{WA}	= dB
Weight	m	= kg

Fittings / Accessories

- Drain plug R1"
- Access door
- Special coating Class K or P
- 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 IMV 13
- Copper inlet cone
- Relubrication in operation
 - IWN 01 Standard Grease
 - IWN 11 Moisture Resistant Grease
- 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



The fan sets



- [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 (GSM)
 - Inlet vane controller (RZR)
 - Hand-operated-control for inlet vane controller (RZR)
 - Volumeter (RZR)
 - Copper inlet cone
 - Aluminium inlet cone
 - hot dip galvanised side frame (ADH/RDH)
 - relubricatable bearings
- Fan set (ADH/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 294 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.

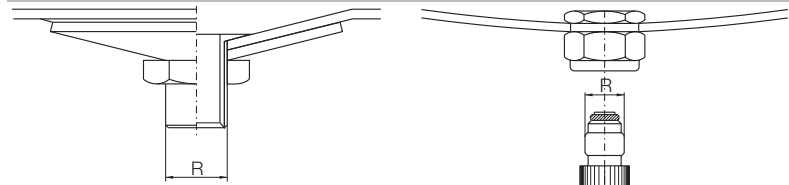
Connecting thread

ADH / RDH = female thread R 1/8"

RZR 0200 /-1000 = male thread R1/2"

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.

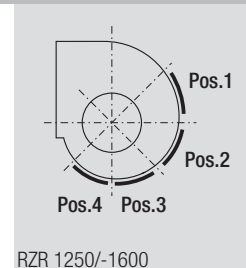
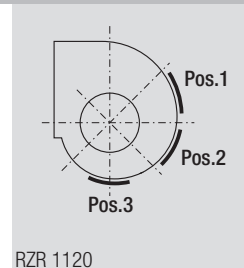
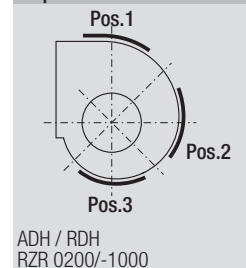
As it can only be opened with a tool, the access door complies with safety and accident prevention regulations. Additional securing with locking bars can be supplied on request.

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



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 for series **RZR rota-vent**.

More detailed information can be found in the leaflet "Corrosion protection systems for any application" or on the internet at www.nicotra-gebhardt.com.

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

For more information see brochure "Corrosion protection systems".

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

For more information see brochure "Corrosion protection systems".

Corrosion protection - Class P100

Degreasing, ironphosphating

- Thermoplastic powder coating

Layer thickness $\geq 100 \mu\text{m}$

Colour RAL 7001

For more information see brochure "Corrosion protection systems".

ADH / RDH

Extended corrosion protection for series ADH 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 Housing



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:

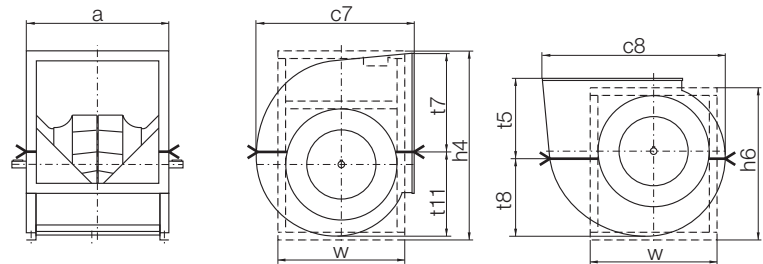
- smaller openings for fan chambers
- easier refitting of fan
- easier transport to site
- easier access to impeller for cleaning and maintenance

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 / 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

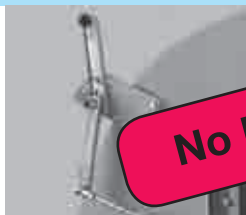


A tapped hole M6 or M8 can be provided in the pedestal bearing cast housing for admission of sensors to measure the shock impulses.

(The measuring connecting piece is not included in the scope of delivery).

Fittings / Accessories

Inlet Van Controllers



No longer available!

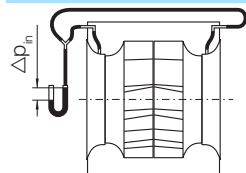
Inlet vane controller for the fan, allowing a variable change of output performance of the fan to adjust it to the required flow rate or pressure demands.

The controller is built into the fan stator with adjustable blades. It is built into the fan housing so that no additional space is taken up.

By changing the setting of the blades, the inlet vane controller provides the drawn air with greater or lesser angular momentum in the direction of rotation of the impeller (drag along). The centrally arranged, compact adjusting mechanism allows an infinitely variable adjustment of the blades between 0 and 90° by employing very little adjustment effort.

Optionally available with manual adjustment as additional equipment.

Volumeter



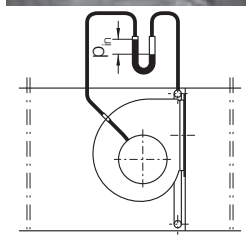
$$q_V = K \times \sqrt{\frac{2}{\rho} \times \Delta p_{Dü}}$$

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. Permitted medium temperature: +80°C (RZR), +70°C (ADH/RDH).

- q_V volume flow [m^3/h]
- K calibration factor [$\text{m}^2\text{s}/\text{h}$]
- ρ density of media [kg/m^3]
- $\Delta p_{Dü}$ pressure difference at cone [Pa]

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.

- Measuring connector in inlet cone
- Hose pipe to connecting piece in the side wall
- Connecting piece (external diameter of 6 mm) for the pressure measurement



Standard-calibration factor K10 <10 %

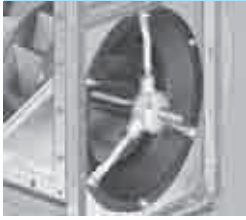
Where fans are built into a plenum, the pressure difference between the static pressure in the inlet side plenum and the pressure on the inlet cone is to be measured. It must be ensured that the static pressure to be measured in front of the inlet cone is not tampered by dynamic pressure fractions. It 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 $0.5 \times D$ 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 K10 $\text{m}^2\text{s}/\text{h}$
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

Fittings / Accessories

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.

Relubrications



ADH / RDH



RZR rotavent

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 are equipped with directly fitted grease nipples.

Multi Position Feet



The brackets are made of galvanised sheet steel enable the fan to be installed with a handing of 0, 90 and 270.

Protection Guards



The fans are designed for installation in equipment and as standard are not equipped with protective guards.

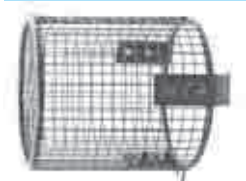
They should not be put into operation before all protective devices are fitted and connected!

Protective measures must be carried out as set out in DIN EN ISO 12 100 "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 294!

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 294, made of painted steel mesh.

Fittings / Accessories

Flanges



For the discharge side connection of channels or system components on the fan, made of galvanized or painted steel.

Flexible Connections



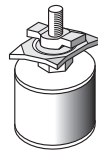
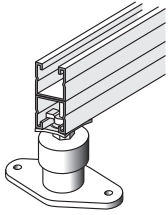
Connecting piece with elastic intermediate section for the vibration or impact-noise decoupled connection of the fan to the system or unit. Made out of two connecting flanges with elastic intermediate section.

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.

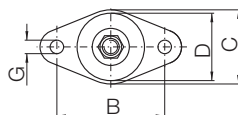
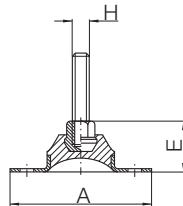
Rubber buffers, for noise insulation only at fan speeds under 800 rpm or 1700 rpm.

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 price list or proSELECTA II.

The AVM-mounts are supplied with the suitable mounting material for the base frame.

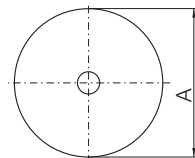
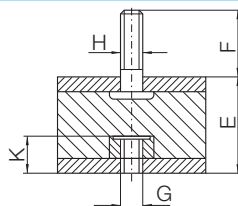
Anti Vibration Rubber Pads



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

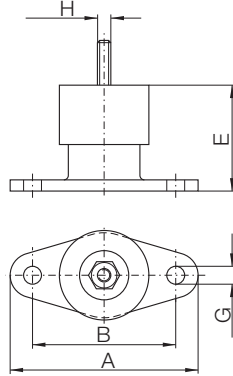


ZBD	ZBD	A	E	F	G	H	K
01-0405A*	01-0405C*	20	25	16	M 6	M 6	6.5
03-0503A*	03-0503C*	25	15	11	M 6	M 6	6.5
01-0504A*	01-0504C*	25	20	11	M 6	M 6	6.5
03-0806A*	03-0806C*	40	30	21	M 8	M 8	9.5
03-1007A	03-1007C*	50	34	26.5	M 10	M 10	10.5
03-1510A*	03-1510C*	75	50	39	M 12	M 12	12.5
02-2008A*	02-2008C*	100	40	44	M 16	M 16	16.5

* A = for U-profile; C = for CC-profile

Fittings / Accessories

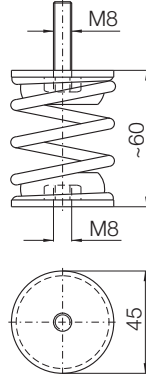
Anti Vibration Spring Diffusers



ZBD	ZBD	A	B	C	D	ca. E	ca. 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	190-85	35	13	M12

* A = for U-profile; C = for CC-profile

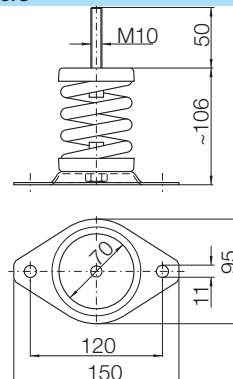
Anti Vibration Spring Diffusers



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

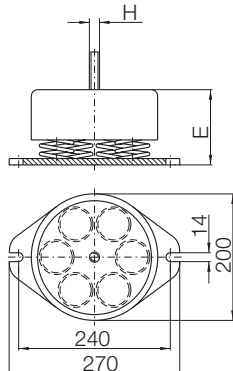
Anti Vibration Spring Diffusers



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



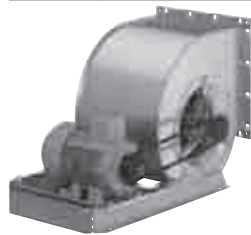
ZBD	ZBD	E	H	kg
80-W603A*	80-W603C*	68-101	M 16	8.3
80-W605A*	80-W605C*	76-101	M 16	8.6
80-W608A*	80-W608C*	86-105	M 16	9.0
80-W612A*	80-W612C*	84-104	M 16	9.3
80-W616A*	80-W616C*	92-105	M 24	9.7

* 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



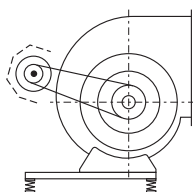
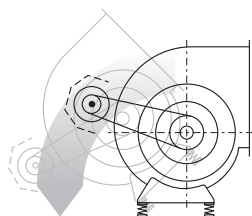
Base frame of stable U-profiles, welded and painted, with holes for attaching the anti-vibration mounts.

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



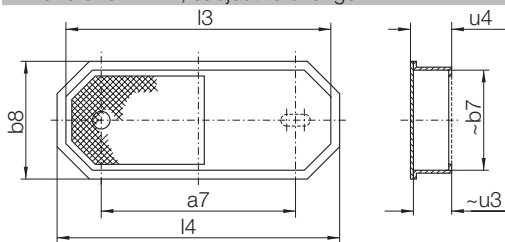
Totally enclosed belt guards are made from galvanised sheet steel in accordance with DIN EN 294-1.

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

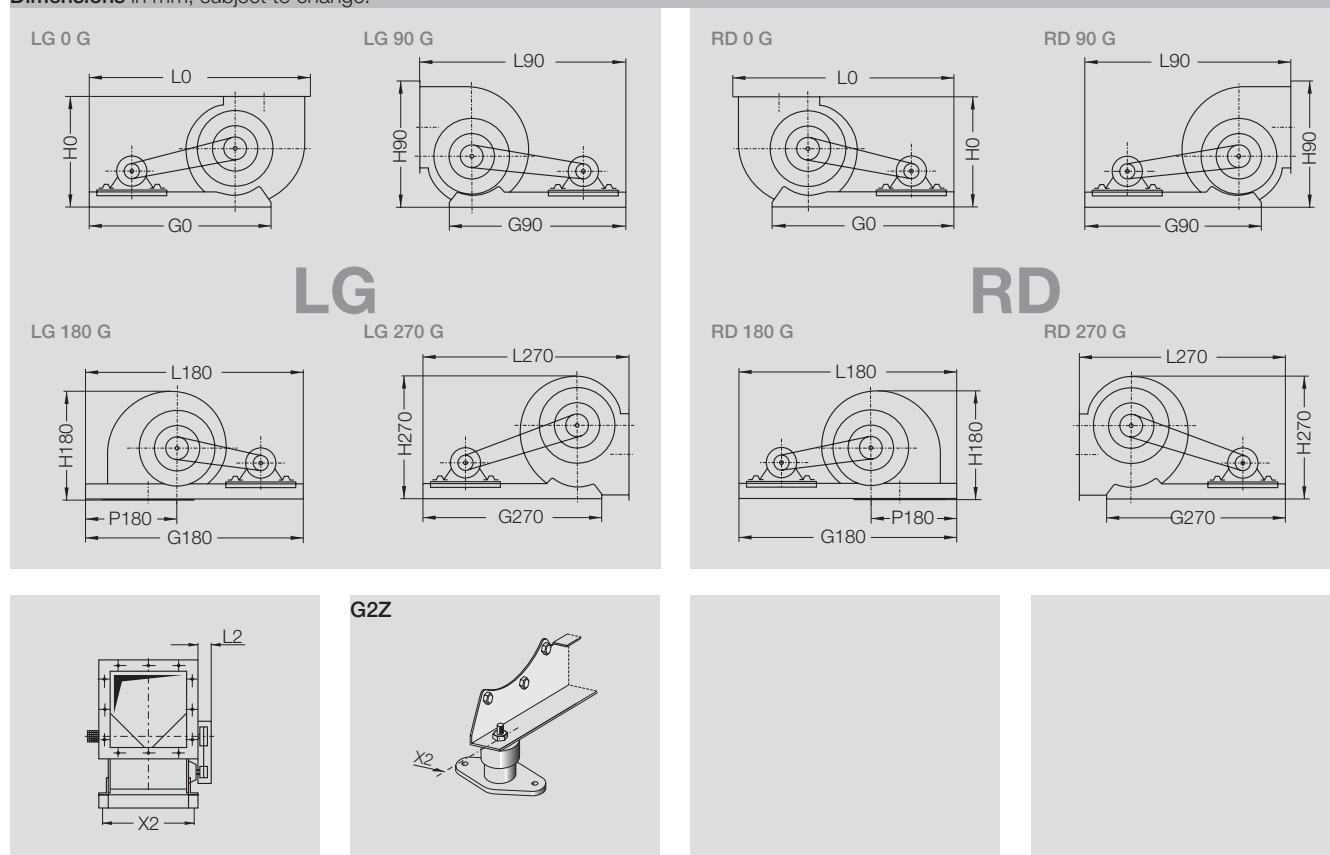
DW_{max} Diameter of the big pulley

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

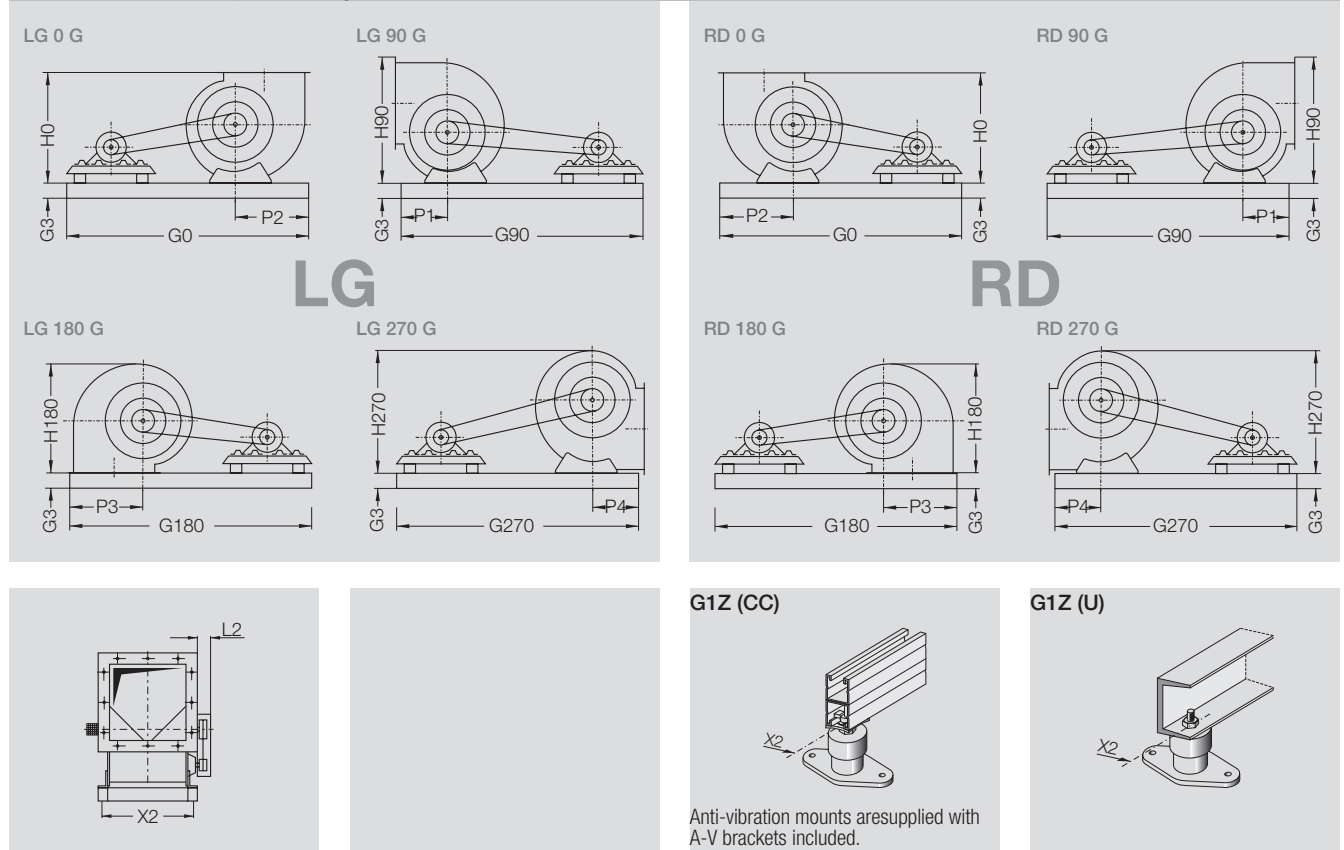
RZR			②	②	②	②				Motor	Base frame ~ kg
RZR			L0	L90	L180	L270	L2	P180	X2	max.	
11-	19-	0200	745	740	880	740	100	396	286	132	6
11-	19-	0225	793	792	925	792	100	423	322	132	7
11-	19-	0250	843	829	974	829	100	450	356	132	7.5
11-	19-	0280	893	876	1031	876	100	482	395	132	8
11-	19-	0315	952	931	1094	931	100	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 pro SELECTA II or on request.

RZR 11-0400/-0710

Fan set arrangement with base frame

Dimensions in mm, subject to change.



RZR		②	②	②	②	G3 for Motorsize					
		G0	G90	G180	G270	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 Base frame ~ kg		
												max.	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

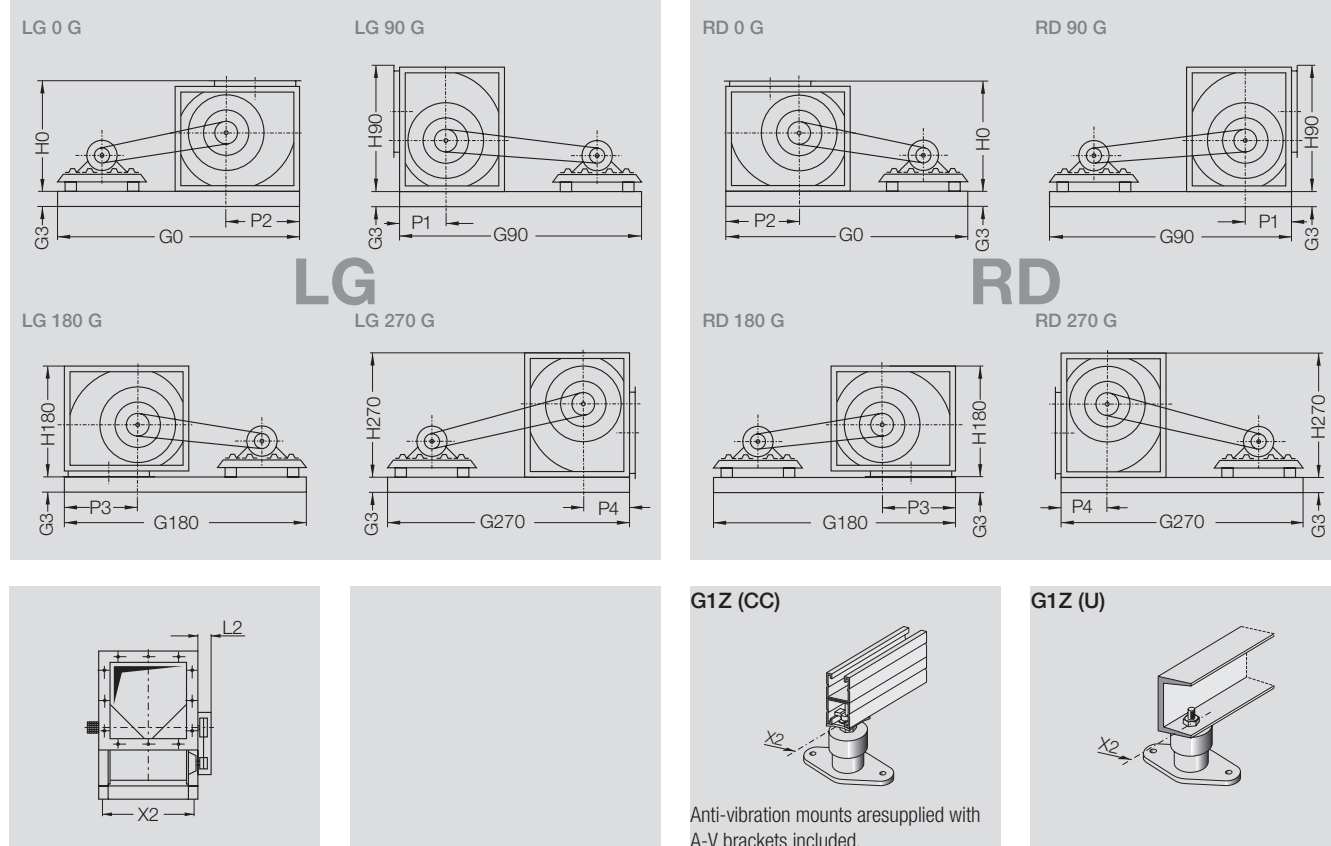
② The base frame length has been determined with the always largest admitted motor size. With smaller motors the frame length will be reduced. For accurate dimensions use pro SELECTA II or on request.

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 Motorsize					
		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			
		④	④	④	④	④	④	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 pro SELECTA II or on request.

③ Dimensions on request.

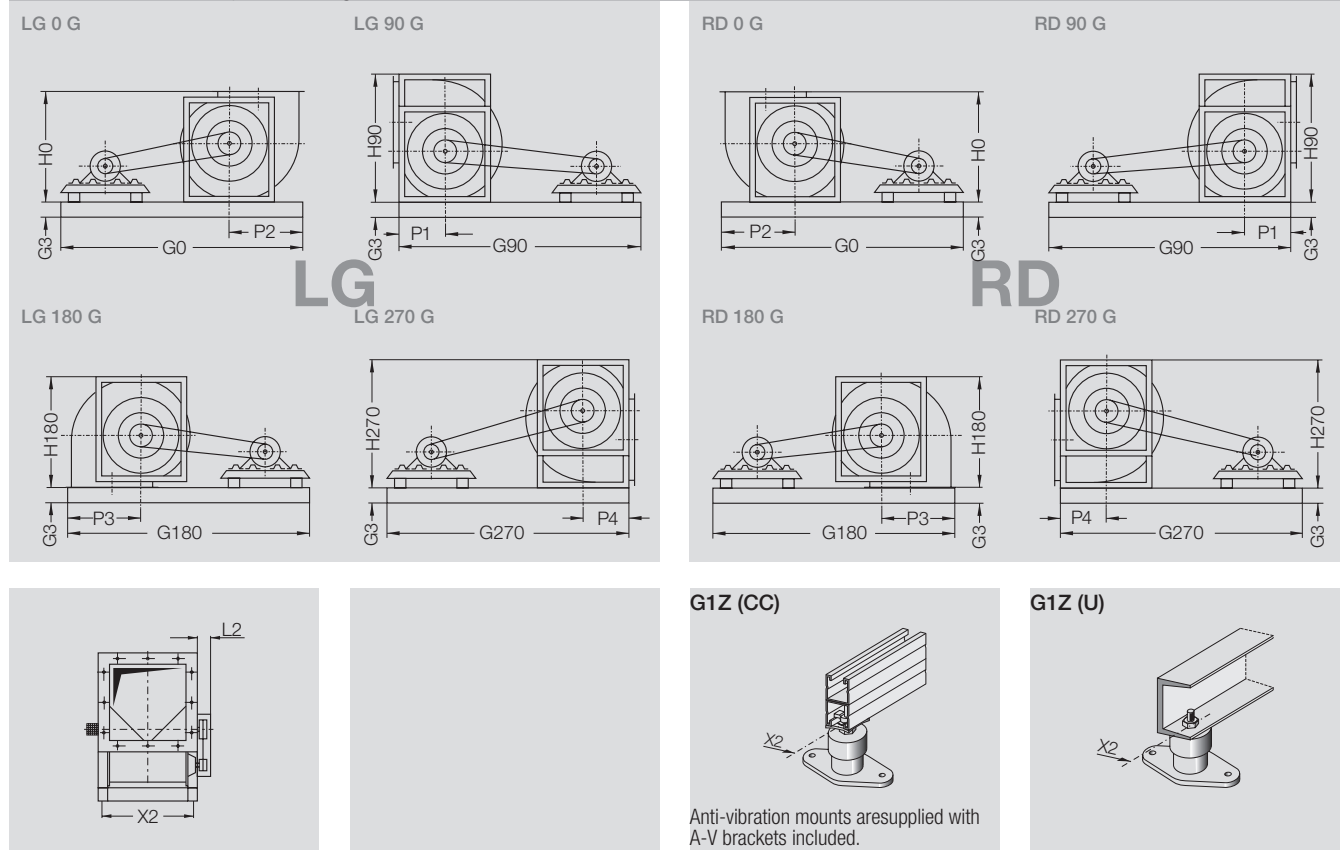
④ The RZR 12-0200 to -0355 can only be supplied as standard basic models.

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 Motorsize					
			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.

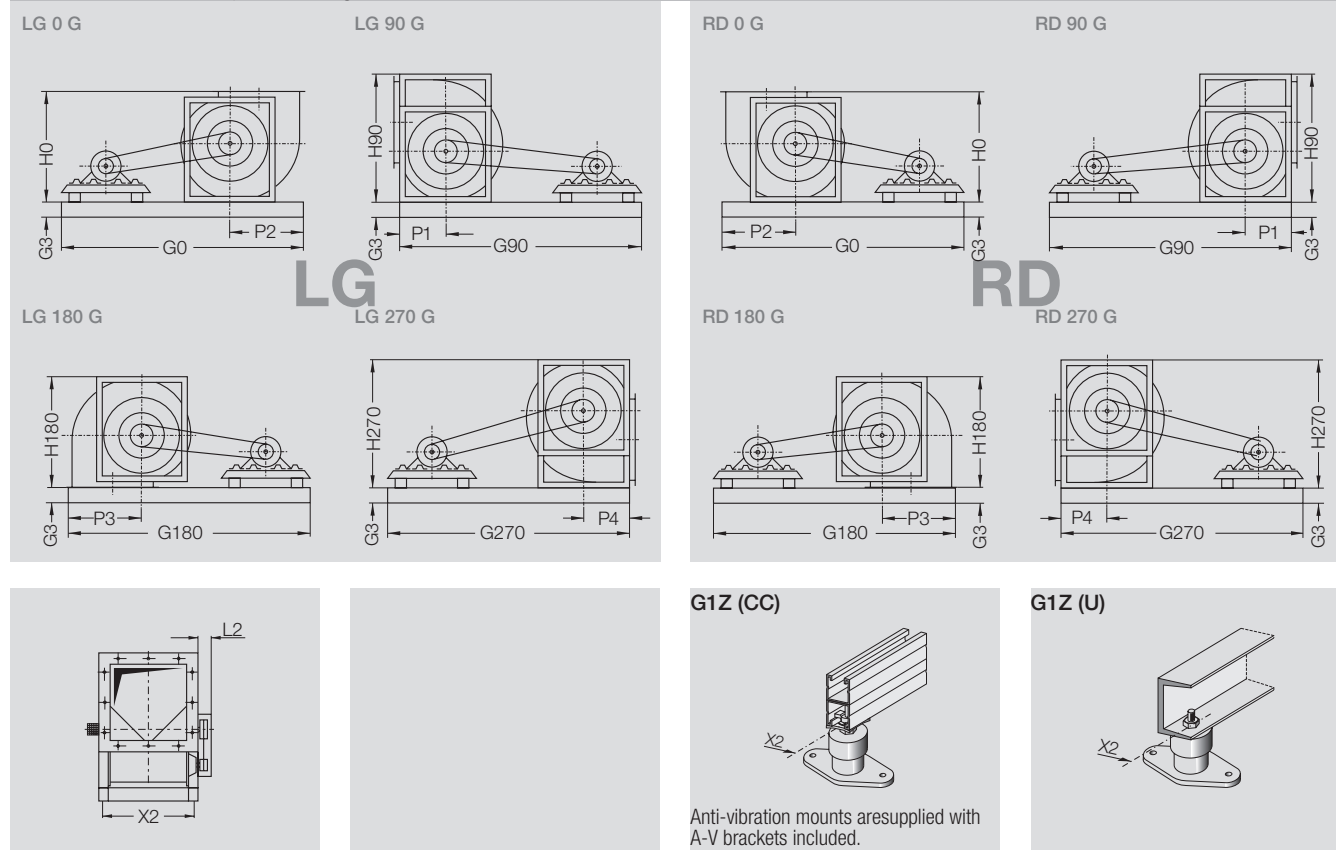
RZR 11-0800/-1000

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 Motorsize					
			CC(2)	U	CC(2)	U	CC(2)	U	CC(2)	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	82-CC	80-U (3)	-
15-	19-	0710	1660	1700	1660	1700	2145	2115	1660	1700	82-CC	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	80-U	100-U	120-U
11-	15-	19- 0900	-	2410	-	2410	-	3052	-	2410	80-U	80-U	80-U	80-U	100-U	120-U
11-	15-	19- 1000	-	2505	-	2505	-	3180	-	2505	80-U	80-U	80-U	80-U	100-U	120-U

RZR	RZR	RZR		H0	H90	H180	H270	L2	P1	P2	P3	P4	X2	Motor max.	Base frame ~ kg			
				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
	15-	19-	0450	755	868	755	868	170	316	316	718	316	614	225	32	③	③	③
	15-	19-	0500	827	957	827	957	170	345	345	766	345	682	225	33	60	—	—
	15-	19-	0560	921	1083	921	1083	210	382	382	851	382	759	225	34	63	—	—
	15-	19-	0630	1028	1204	1028	1204	210	410	410	915	410	846	225	35	68	—	—
	15-	19-	0710	1152	1350	1152	1350	240	464	464	1014	464	943	250	37	94	155	—
11-	15-	19-	0800	1290	1520	1290	1520	250	518	518	1155	518	1048	250	—	67	98	155
11-	15-	19-	0900	1444	1707	1444	1707	260	570	570	1276	570	1179	280	—	72	105	165
11-	15-	19-	1000	1573	1869	1573	1869	260	620	620	1317	620	1316	280	—	77	111	165

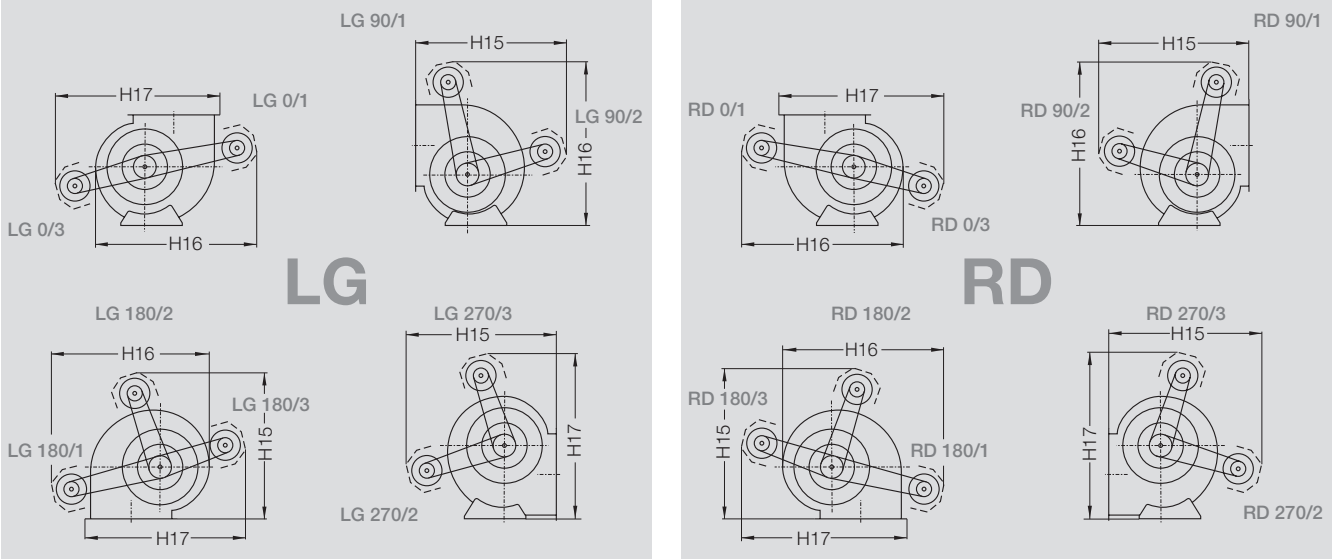
(2) The base frame length has been determined with the always largest admitted motor size. With smaller motors the frame length will be reduced. For accurate dimensions use pro SELECTA II or on request.

(3) Dimensions on request.

RZR 11-0200/-0710
RZR 19-0200/-0355

Fan set arrangement with Pick-A-Back

Dimensions in mm, subject to change.



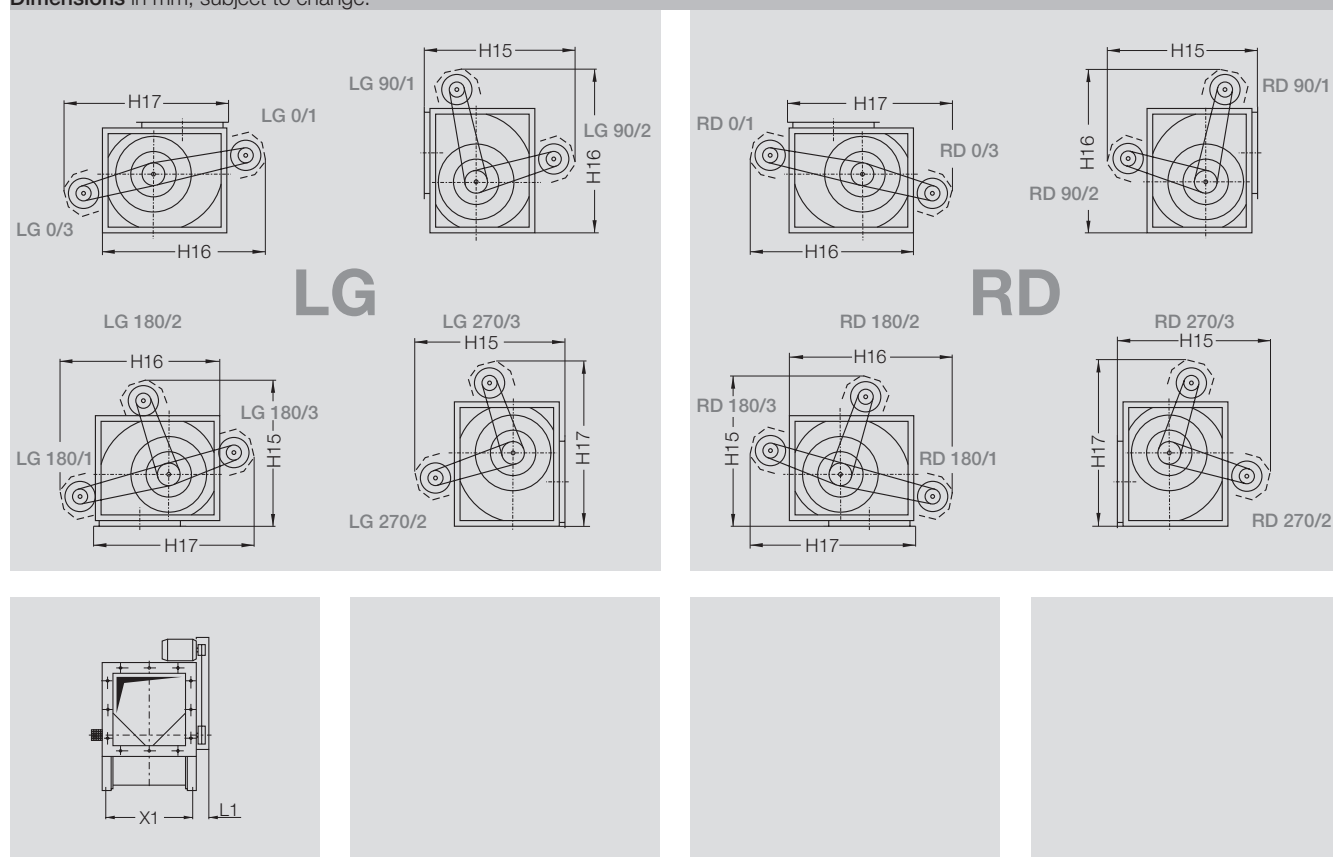
RZR	RZR		① ~ H15	① ~ H16	① ~ H17	L1	X1	Motor max.	Weight ~ kg
11-	19-	0200	650	720	680	100	286	90	1
11-	19-	0225	700	760	720	100	322	100	2
11-	19-	0250	750	850	810	100	356	100	2
11-	19-	0280	860	930	890	100	395	112	3
11-	19-	0315	880	970	960	100	438	112	3
11-	19-	0355	960	1080	1070	100	487	112	3
11-		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.
Dimensions may be subject to chance.

RZR 12-0200/-0710

Fan set arrangement with Pick-A-Back

Dimensions in mm, subject to change.



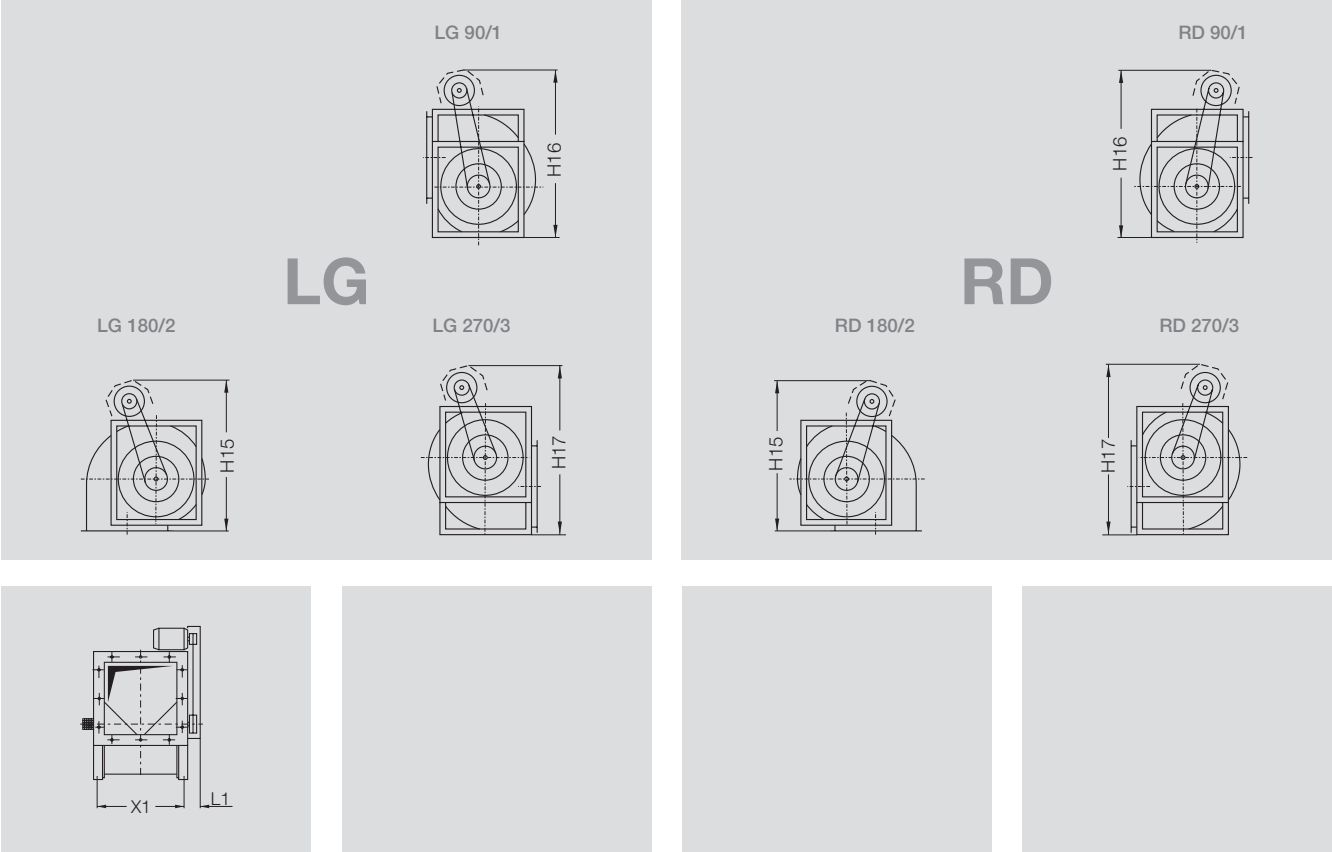
RZR	① ~ H15	① ~ H16	① ~ H17	~ L1	X1	Motor max.	Weight ~ kg
12- 0200	670	670	690	100	286	90	1
12- 0225	710	730	780	100	322	100	1
12- 0250	850	840	860	100	356	100	2
12- 0280	880	920	930	100	395	112	2
12- 0315	950	950	1030	100	438	112	3
12- 0355	1080	1090	1130	100	487	112	3
12- 0400	1190	1290	1280	120	546	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.
Dimensions may be subject to change.

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.
Dimensions may be subject to chance.

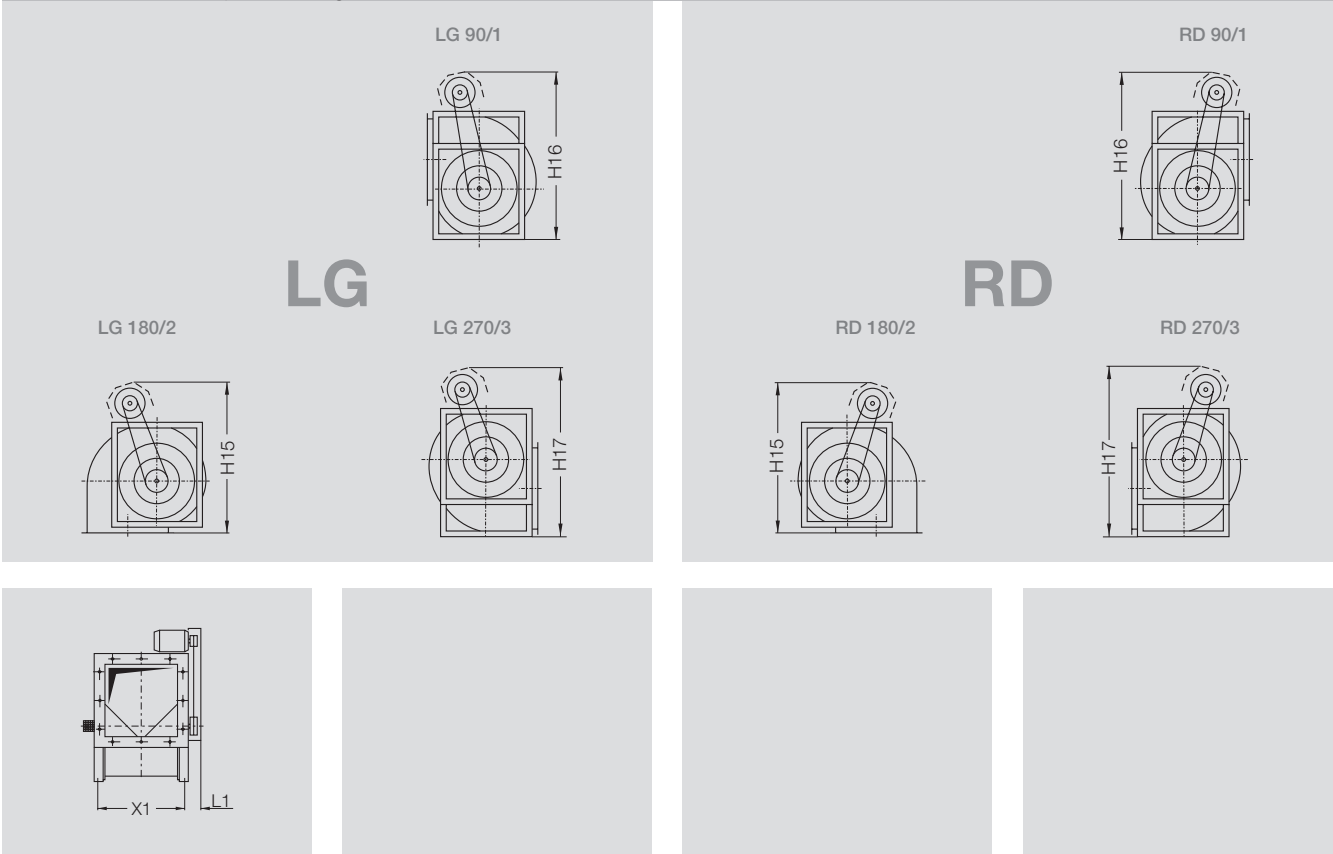
RZR 11-0800/-1000

RZR 15-0400/-1000

RZR 19-0400/-1000

Fan set arrangement with Pick-A-Back

Dimensions in mm, subject to change.



RZR	RZR	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

Minimum 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 (L_{10h} 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.

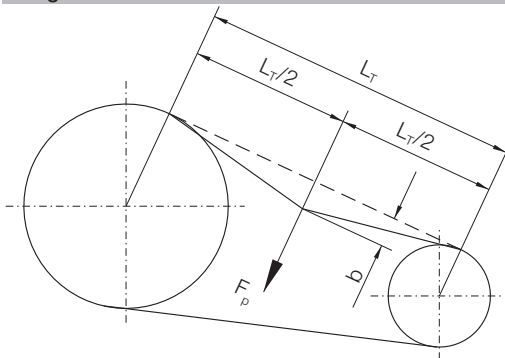
The minimum pulley diameters indicated are to be applied for belt drives selected according to the state of the art and tensioned according to the prescriptions.

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

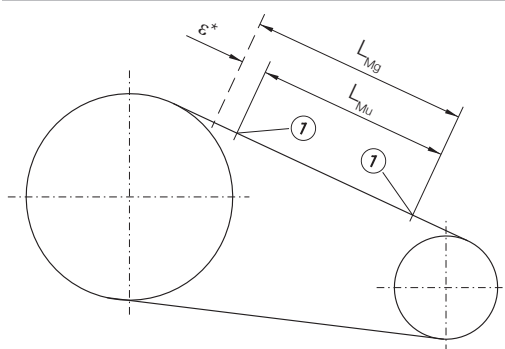
b = Deflection of belt in mm under test force F_p

F_p = Test force N as prescribed by 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

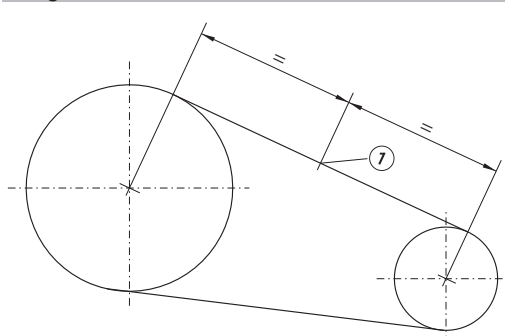
L_{Mg} = Measuring Marks 1 After Tensioning

e^* = Stretching Values as specified by Gebhardt-Documents

Belt Tensioning

The correct belt tension is achieved when the measuring marks L_{Mu} have increased by the stretching value e^* . 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

Minimum recommended Pulley Diameter for ADH

Fan size	Fan execution	Nominal motor power in kW													
		2.2	3	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75
0160	E0/E2	63	71												
	G2E0/E2	63	71												
0180	E0/E2	63	80												
	G2E0/E2	63	80												
0200	E0/E2/E4	71	95	125											
	G2E0/E2	71	95	140											
0225	E0/E2/E4	80	112	140											
	G2E0/E2	80	100	160											
0250	E0/E2	80	112	150											
	E4		90	112	140	180									
	G2E0/E2	80	100	132											
	G2E4		95	125	160	224									
	G2E7					100	118	160							
0280	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					
0315	E0/E2		100	125	180										
	E4			90	125	160	250								
	E6						160	224	250						
	G2E0/E2		112	140	200										
	G2E4			112	140	180	250								
0355	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									
0400	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					
0450	G2E0/E2			100	132	180									
	G2E4				100	140	200	280							
	G2E7								160	190	250	300			
	E0/E2				112	132	212								
	E4					118	180	250							
0500	E6							180	212	250	315				
	G2E0/E2				118	140	200								
	G2E4					112	160	224							
	G2E7								160	180	250	300			
	E0/E2				112	132	200								
0560	E4							224							
	E6							150	190	224	315				
	E7								180	250	315				
	G2E0/E2				118	140	200								
	G2E4					112	160	224							
0630	G2E7								180	212	250	300			
	L/R					132	160	215							
	K						132	200	224						
	K1								160	180	250				
	K2									160	180	200	224		
0710	G2R					132	180	200							
	G2K						132	180	224						
	G2K2										180	224	280	355	
	L/R					132	150	180	250						
	K						132	180	224	250					
0800	K1									180	212	236			
	K2										180	200	224	250	
	G2K								180	200	212				
	G2K2										180	200	224	224	280
	K								160	180	224				
0900	K1										212	236	280		
	K2											200	224	224	280
	G2K									180	200	236			
	G2K2											200	224	224	280
	K									180	212	280			
1000	K2											200	224	224	280
	G2K									180	200	250			
	G2K2											180	190	224	280

Fan Sets

Minimum recommended Pulley Diameter for RDH

Fan size	Fan execution	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								
0355	G2E0/E2														
	G2E4			80	90										
	G2E7					90	112								
	E0/E2			85	100	112									
0400	E4				90	112	125								
	E6					100	112	118	140	150					
	G2E4			100	112	112									
	G2E7						112	125	160						
0450	E0/E2				112	125	180								
	E4					112	140	180							
	E6						125	140	160	212					
	G2E4				100	118	140								
0500	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				100	118	150								
	G2E7								140	150	180				
	E0/E2					140	180	224							
0630	E4						150	200	224						
	E6								150	160	212				
	E7									140	160	160			
	G2E2														
0710	G2E4					112	140								
	G2E7							180	200	280					
	R					140	180	250							
	K						150	200	250						
0800	K1								180	180	236				
	K2									150	180	190	224		
	G2K						140	190							
	G2K2								180	200	280	355			
0900	R						180	224							
	K							224	250	315					
	K1									180	224	250			
	K2										200	212	224		
1000	G2K								180	200	280				
	G2K2												224	224	280
	K								200	250	280				
	K1									180	212	250			
1000	K2											212	224	224	
	G2K													224	280
	G2K2														
	K								180	236	315				
1000	K2												224	224	300
	G2K									190	224	280			
	G2K2												224	224	280
	K														

Fan Sets

Minimum recommended Pulley Diameter for RZR

Fan size	Fan execution	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	11/12/19	71	71	80	100															
0250	11/12/19	71	71	90	112															
0280	11/12	71	71	90	118															
	19	71	71	71	85	112														
0315	11/12	71	85	106	132															
	19	71	71	75	95	125														
0355	11/12	75	95	118	150															
	19	71	71	85	106	140														
0400	11/12	71	80	100	125															
	13/15/18/19	71	71	71	71	85	106	125	140	180										
0450	11/12	71	90	112	140															
	13/15/18/19	71	71	71	71	95	118	140	160	200										
0500	11/12	80	100	125	160															
	13/15/18/19	71	71	71	80	106	132	160	180	224										
0560	11/12	71	71	85	112	150	190													
	13/15/18/19	71	71	71	71	90	112	132	150	190	224									
0630	11/12	71	80	100	132	180	224													
	13/15/18/19	71	71	71	75	100	125	150	170	224	250									
0710	11/12	71	85	112	140	190	236	280												
	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											
	13/15/18/19	71	71	71	71	95	118	140	160	212	236	280	315							
0900	11	95	118	150	200	280	355	400	450											
	13/15/18/19	71	71	71	71	85	106	125	140	180	212	250	300	375						
1000	11	112	140	180	224	315	400	450	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%.

Technical 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. +100C.
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 12 100 "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 294!
Suitable safety guards are available as an optional extra.

Shafts

Shafts ADH/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, as well as RDH X1 and RDH X2 sizes 1120 to 1400 are machined on both ends for fitting a pulley.
The shafts are equipped with a keyway (open shape) at both ends and a key.
For corrosion protection the shafts are galvanised up to fan size 0560.
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.

ADH / RDH - Housig feet / Side frames



For easier installation of the fan the mounting feet and reinforcing frames are provided with eye holes.

Technical Description

Bearings ADH/RDH



ADH E0/ADHL
ADH E2 / ADH R
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 / ADHK
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
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.

Technical Description

Bearings RZR



RZR 11-0200/-1000; RZR 12-0200/-0710 (without relubricators)
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.



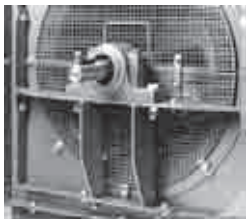
RZR 19-0200/-0355 (without lubricators)
Radial insert ball bearings with spherical outer Ring mounted within cast iron housing, supported from the fan casing by tubular struts.

RZR 19-0200/-0355 (with lubricators)
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 lubricators)
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 lubricators)
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- _ _ _ _ uses standard grease

IWN 11- _ _ _ _ uses moisture resistant grease

Technical Description

Motors



Standard motors of wellknown brand makes, protective system IP55, heat 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 variation

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 *rotavent* 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".

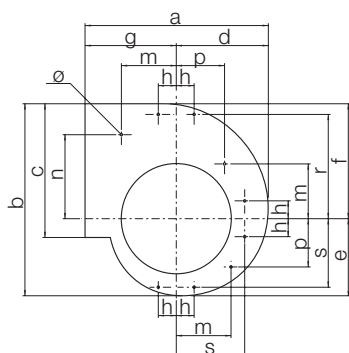
Electric connection

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.

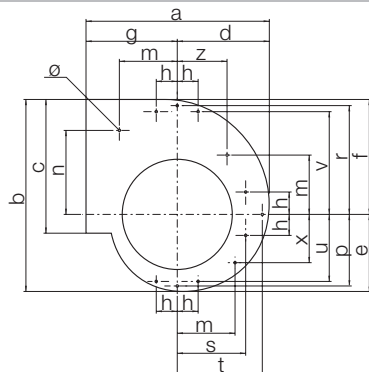
Attachment points on the side plates ADH/RDH

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



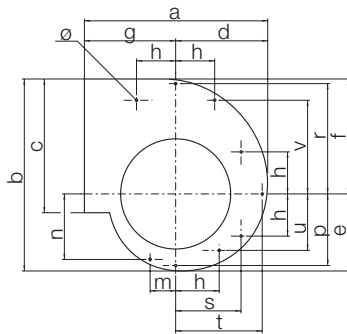
	a	b	c	d	e	f	g	h	m	n
0200	341	362	256	177	147	215	164	40	110	155
0225	379	407	288	199	165	242	180	40	110	184
0250	416	452.5	322	221	183.5	269	195	40	110	209

	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

Technical Description

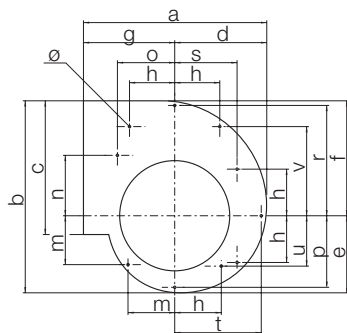
Attachment points on the side plates ADH/RDH

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

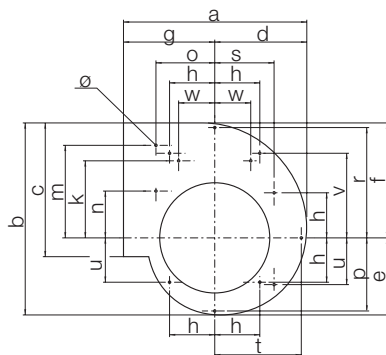
ADH/RDH 0355/-0450



	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

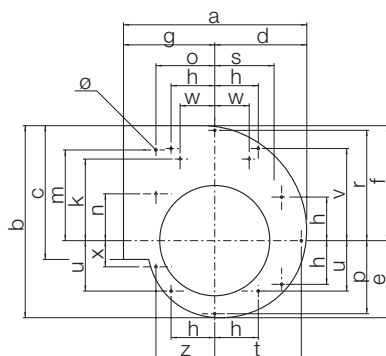
ADH/RDH 0500



	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

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

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

Technical Description

Operating limits ADH

Type	Permissi- le nominal motor power kW	Permis- sible fan speed 1/min	Permissib- le bearing load N	Permissi- ble media tempera- ture C	Fan weight kg	Type	Permissi- le nominal motor power kW	Permis- sible fan speed 1/min	Permissib- le bearing load N	Permissi- ble media tempera- ture C	Fan weight kg
ADH E0-0160	3	4200	420	-20/+80	5	ADH E0-0450	11	1400	1180	-20/+80	42
ADH E2-0160	3	4200	420	-20/+80	6,6	ADH E2-0450	11	1400	1180	-20/+80	50
ADH G2E0-0160	3	3400	420	-20/+80	10,5	ADH E4-0450	15	1500	1320	-20/+100	66
ADH G2E2-0160	4	3400	420	-20/+80	14,5	ADH E6-0450	30	1500	1800	-20/+100	67
ADH E0-0180	3	4000	420	-20/+80	6	ADH G2E0-0450	11	1000	1180	-20/+80	90
ADH E2-0180	3	4000	420	-20/+80	7,8	ADH G2E2-0450	11	1000	1180	-20/+80	107
ADH G2E0-0180	3	3200	420	-20/+80	12,6	ADH G2E4-0450	15	1200	1320	-20/+100	135
ADH G2E2-0180	4	3200	420	-20/+80	17	ADH G2E7-0450	37	1400	2950	-20/+100	159
ADH E0-0200	4	3800	420	-20/+80	7,1	ADH E0-0500	11	1200	1180	-20/+80	57
ADH E2-0200	4	3800	420	-20/+80	9,1	ADH E2-0500	11	1200	1180	-20/+80	65
ADH E4-0200	4	3800	420	-20/+100	12,6	ADH E4-0500	15	1300	1320	-20/+100	85
ADH G2E0-0200	4	2900	420	-20/+80	15	ADH E6-0500	30	1400	1800	-20/+100	86
ADH G2E2-0200	4	2900	420	-20/+80	20	ADH E7-0500	37	1400	2200	-20/+100	105
ADH E0-0225	4	3400	420	-20/+80	8,5	ADH G2E0-0500	11	900	1180	-20/+80	120
ADH E2-0225	4	3400	420	-20/+80	10,7	ADH G2E2-0500	11	900	1180	-20/+80	140
ADH E4-0225	4	3400	420	-20/+100	14,5	ADH G2E4-0500	15	1000	1320	-20/+100	176
ADH G2E0-0225	4	2600	420	-20/+80	18	ADH G2E7-0500	45	1400	4000	-20/+100	221
ADH G2E2-0225	4	2600	420	-20/+80	24	ADH E0-0560	15	1100	1450	-20/+80	72
ADH E0-0250	4	2800	420	-20/+80	10,5	ADH E2-0560	15	1100	1450	-20/+80	86
ADH E2-0250	4	2800	420	-20/+80	13	ADH E4-0560	18,5	1200	1760	-20/+100	134
ADH E4-0250	7,5	3000	450	-20/+100	18	ADH E6-0560	30	1300	2550	-20/+100	142
ADH G2E0-0250	4	2200	420	-20/+80	22	ADH E7-0560	45	1300	3700	-20/+100	150
ADH G2E2-0250	4	2200	420	-20/+80	29	ADH G2E2-0560	15	800	1450	-20/+80	185
ADH G2E4-0250	7,5	2300	450	-20/+100	38	ADH G2E4-0560	18,5	900	1760	-20/+100	268
ADH G2E7-0250	15	2800	1250	-20/+100	44	ADH G2E7-0560	45	1200	4000	-20/+100	319
ADH E0-0280	5,5	2500	530	-20/+80	14,2	ADH L-0630	15	900	1450	-20/+80	91
ADH E2-0280	5,5	2500	530	-20/+80	18	ADH R-0630	15	900	1450	-20/+80	106
ADH E4-0280	11	2700	660	-20/+100	24	ADH K-0630	18,5	1000	1760	-20/+100	170
ADH G2E0-0280	5,5	2000	530	-20/+80	30	ADH K1-0630	30	1100	2550	-20/+100	175
ADH G2E2-0280	5,5	2000	530	-20/+80	39	ADH K2-0630	45	1100	3700	-20/+100	180
ADH G2E4-0280	11	2200	660	-20/+100	50	ADH G2R-0630	15	700	1450	-20/+80	230
ADH G2E7-0280	22	2400	1700	-20/+100	59	ADH G2K-0630	18,5	750	1760	-20/+100	342
ADH E0-0315	5,5	2100	530	-20/+80	18	ADH G2K2-0630	55	1000	4000	-20/+100	393
ADH E2-0315	5,5	2100	530	-20/+80	22	ADH L-0710	18,5	750	1800	-20/+80	118
ADH E4-0315	11	2400	660	-20/+100	29	ADH R-0710	18,5	750	1800	-20/+80	135
ADH E6-0315	18,5	2400	1050	-20/+100	30	ADH K-0710	22	850	1900	-20/+100	201
ADH G2E0-0315	5,5	1600	530	-20/+80	38	ADH K1-0710	37	900	3550	-20/+100	208
ADH G2E2-0315	5,5	1600	530	-20/+80	48	ADH K2-0710	55	900	5800	-20/+100	225
ADH G2E4-0315	11	1900	660	-20/+100	60	ADH G2K-0710	30	700	3000	-20/+100	532
ADH G2E7-0315	30	2100	2000	-20/+100	73	ADH G2K2-0710	75	800	7000	-20/+100	537
ADH E0-0355	7,5	1800	840	-20/+80	23	ADH K-0800	22	750	1900	-20/+100	249
ADH E2-0355	7,5	1800	840	-20/+80	29	ADH K1-0800	37	800	3550	-20/+100	261
ADH E4-0355	15	2000	940	-20/+100	41	ADH K2-0800	55	800	5800	-20/+100	278
ADH E6-0355	22	2000	1450	-20/+100	42	ADH G2K-0800	30	600	3000	-20/+100	665
ADH G2E0-0355	7,5	1500	840	-20/+80	49	ADH G2K2-0800	75	700	7000	-20/+100	670
ADH G2E2-0355	7,5	1500	840	-20/+80	63	ADH K-0900	30	650	3000	-20/+100	306
ADH G2E4-0355	15	1700	940	-20/+100	84	ADH K1-0900	45	700	3900	-20/+100	316
ADH G2E7-0355	30	1900	2000	-20/+100	98	ADH K2-0900	75	700	7000	-20/+100	320
ADH E0-0400	7,5	1600	840	-20/+80	31	ADH G2K-0900	37	500	3000	-20/+100	801
ADH E2-0400	7,5	1600	840	-20/+80	38	ADH G2K2-0900	75	600	7000	-20/+100	806
ADH E4-0400	15	1800	940	-20/+100	52	ADH K-1000	37	600	3000	-20/+100	333
ADH E6-0400	22	1800	1450	-20/+100	53	ADH K1-1000	45	600	3900	-20/+100	356
ADH G2E0-0400	7,5	1200	840	-20/+80	66	ADH K2-1000	75	650	7000	-20/+100	360
ADH G2E2-0400	7,5	1200	840	-20/+80	82	ADH G2K-1000	37	450	3000	-20/+100	894
ADH G2E4-0400	15	1400	940	-20/+100	108	ADH G2K2-1000	75	500	7000	-20/+100	899
ADH G2E7-0400	37	1800	2950	-20/+100	133						

Technical Description

Operating limits RDH

Type	Permissi- le nominal motor power kW	Permis- sible fan speed 1/min	Permissi- le bearing load N	Permissi- ble media tempera- ture C	Fan weight kg	Type	Permissi- le nominal motor power kW	Permis- sible fan speed 1/min	Permissi- le bearing load N	Permissi- ble media tempera- ture C	Fan weight kg
RDH E0-0180	2,2	6800	420	-20/+80	5,3	RDH E6-0500	30	2650	1800	-20/+100	92
RDH E2-0180	2,2	6800	420	-20/+80	7,1	RDH E7-0500	37	2800	2200	-20/+100	110
RDH E0-0200	3	6000	420	-20/+80	6,6	RDH G2E4-0500	11	1200	1320	-20/+100	197
RDH E2-0200	3	6000	420	-20/+80	8,5	RDH G2E7-0500	30	2200	3000	-20/+100	235
RDH E4-0200	3	6800	420	-20/+100	11,8	RDH E0-0560	15	1950	1450	-20/+80	79
RDH E0-0225	4	5800	420	-20/+80	7,8	RDH E2-0560	15	1950	1450	-20/+80	92
RDH E2-0225	4	5800	420	-20/+80	9,9	RDH E4-0560	18,5	2100	1760	-20/+100	141
RDH E4-0225	4	6000	420	-20/+100	13,6	RDH E6-0560	30	2400	2550	-20/+100	148
RDH E0-0250	4	4600	420	-20/+80	13,3	RDH E7-0560	37	2600	3700	-20/+100	153
RDH E2-0250	4	4600	420	-20/+80	15,7	RDH G2E4-0560	11	1100	1760	-20/+100	301
RDH E4-0250	5,5	5400	450	-20/+100	21	RDH G2E7-0560	30	1900	3000	-20/+100	336
RDH G2E4-0250	5,5	2900	450	-20/+100	46	RDH R-0630	15	1600	1450	-20/+80	119
RDH G2E7-0250	7,5	3500	660	-20/+100	49	RDH K-0630	18,5	1700	1760	-20/+100	173
RDH E0-0280	5,5	4000	530	-20/+80	17,8	RDH K1-0630	30	2000	2550	-20/+100	180
RDH E2-0280	5,5	4000	530	-20/+80	21	RDH K2-0630	45	2300	3700	-20/+100	185
RDH E4-0280	7,5	4700	660	-20/+100	28	RDH G2K-0630	15	1000	1760	-20/+100	370
RDH G2E4-0280	5,5	3000	660	-20/+100	61	RDH G2K2-0630	37	1400	3000	-20/+100	408
RDH G2E7-0280	11	3400	940	-20/+100	65	RDH R-0710	15	1300	1800	-20/+80	165
RDH E0-0315	5,5	3500	530	-20/+80	21	RDH K-0710	22	1500	1900	-20/+100	220
RDH E2-0315	5,5	3500	530	-20/+80	25	RDH K1-0710	37	1700	3550	-20/+100	240
RDH E4-0315	7,5	4100	660	-20/+100	32	RDH K2-0710	55	2000	5800	-20/+100	250
RDH E6-0315	11	4500	1050	-20/+100	34	RDH G2K-0710	30	1400	3000	-20/+100	580
RDH G2E4-0315	5,5	2200	660	-20/+100	70	RDH G2K2-0710	75	1700	7000	-20/+100	586
RDH G2E7-0315	11	3300	1320	-20/+100	79	RDH K-0800	22	1200	1900	-20/+100	270
RDH E0-0355	7,5	3300	840	-20/+80	29	RDH K1-0800	37	1400	3550	-20/+100	297
RDH E2-0355	7,5	3300	840	-20/+80	34	RDH K2-0800	55	1650	5800	-20/+100	305
RDH E4-0355	11	3800	940	-20/+100	46	RDH G2K-0800	30	1150	3000	-20/+100	747
RDH E6-0355	15	4000	1450	-20/+100	47	RDH G2K2-0800	75	1400	7000	-20/+100	753
RDH G2E4-0355	7,5	2000	940	-20/+100	104	RDH K-0900	30	1100	3000	-20/+100	343
RDH G2E7-0355	11	2600	1320	-20/+100	109	RDH K1-0900	45	1250	3900	-20/+100	355
RDH E0-0400	7,5	2700	840	-20/+80	36	RDH K2-0900	75	1500	7000	-20/+100	375
RDH E2-0400	7,5	2700	840	-20/+80	42	RDH G2K-0900	37	1000	3000	-20/+100	883
RDH E4-0400	15	3100	940	-20/+100	57	RDH G2K2-0900	75	1100	7000	-20/+100	889
RDH E6-0400	22	3500	1450	-20/+100	58	RDH K-1000	37	1000	3000	-20/+100	415
RDH G2E4-0400	7,5	1600	940	-20/+100	126	RDH K1-1000	45	1000	3900	-20/+100	430
RDH G2E7-0400	18,5	2800	1760	-20/+100	144	RDH K2-1000	75	1300	7000	-20/+100	450
RDH E0-0450	11	2500	1180	-20/+80	50	RDH G2K-1000	37	800	3000	-20/+100	1048
RDH E2-0450	11	2500	1180	-20/+80	57	RDH G2K2-1000	75	800	7000	-20/+100	1054
RDH E4-0450	15	2800	1320	-20/+100	73	RDH X1-1120	55	900	8000	-20/+100	610
RDH E6-0450	30	3200	1800	-20/+100	75	RDH X2-1120	110	1170	8000	-20/+100	890
RDH G2E4-0450	11	1400	1320	-20/+100	160	RDH X1-1250	75	800	8000	-20/+100	950
RDH G2E7-0450	18,5	2200	1760	-20/+100	176	RDH X2-1250	132	1050	10000	-20/+100	1140
RDH E0-0500	11	2100	1180	-20/+80	62	RDH X1-1400	90	720	9000	-20/+100	1370
RDH E2-0500	11	2100	1180	-20/+80	70	RDH X2-1400	160	930	12500	-20/+100	1390
RDH E4-0500	15	2350	1320	-20/+100	90						

Technical Description

Operating limits RZR

Type	Permissi- le nominal motor power kW	Permis- sible fan speed 1/min	Permissi- le bearing load N	Permissi- ble media tempera- ture C	Fan weight kg	Type	Permissi- le nominal motor power kW	Permis- sible fan speed 1/min	Permissi- le bearing load N	Permissi- ble media tempera- ture C	Fan weight kg
RZR 11-0200	7,5	7490	480	-20/+80	11	RZR 12-0560	15	2205	1830	-20/+80	109
RZR 12-0200	7,5	7490	480	-20/+80	12	RZR 15-0560	37	2400	2950	-20/+80	125
RZR 19-0200	7,5	7490	480	-20/+80	13	RZR 18-0560	37	2490	2950	-20/+80	140
RZR 11-0225	7,5	6640	500	-20/+80	13	RZR 19-0560	37	2400	2950	-20/+80	136
RZR 12-0225	7,5	6640	500	-20/+80	15	RZR 13-0560	37	2490	2950	-20/+80	151
RZR 19-0225	7,5	6640	500	-20/+80	16	RZR 11-0630	15	1838	1960	-20/+80	124
RZR 11-0250	7,5	5250	540	-20/+80	15	RZR 12-0630	15	1838	1960	-20/+80	132
RZR 12-0250	7,5	5250	540	-20/+80	17	RZR 15-0630	37	1880	3000	-20/+80	149
RZR 19-0250	7,5	5970	540	-20/+80	17	RZR 18-0630	37	2380	3000	-20/+80	167
RZR 11-0280	7,5	5235	630	-20/+80	20	RZR 19-0630	37	1880	3000	-20/+80	162
RZR 12-0280	7,5	5235	630	-20/+80	23	RZR 13-0630	37	2380	3000	-20/+80	180
RZR 19-0280	11	5300	850	-20/+80	23	RZR 11-0710	18,5	1627	2080	-20/+80	177
RZR 11-0315	7,5	4418	660	-20/+80	24	RZR 12-0710	18,5	1627	2080	-20/+80	194
RZR 12-0315	7,5	4418	660	-20/+80	27	RZR 15-0710	55	2000	4400	-20/+80	201
RZR 19-0315	11	4730	910	-20/+80	28	RZR 18-0710	55	2120	4400	-20/+80	230
RZR 11-0355	7,5	3200	720	-20/+80	33	RZR 19-0710	55	2000	4400	-20/+80	225
RZR 12-0355	7,5	3200	720	-20/+80	36	RZR 13-0710	55	2120	4400	-20/+80	254
RZR 19-0355	11	4187	950	-20/+80	39	RZR 11-0800	22	1300	2150	-20/+80	250
RZR 11-0400	7,5	3027	1020	-20/+80	43	RZR 15-0800	55	1470	4500	-20/+80	250
RZR 12-0400	7,5	3027	1020	-20/+80	49	RZR 18-0800	55	1700	4500	-20/+80	289
RZR 15-0400	30	3600	1970	-20/+80	61	RZR 19-0800	55	1470	4500	-20/+80	280
RZR 18-0400	30	3600	1970	-20/+80	70	RZR 13-0800	55	1700	4500	-20/+80	319
RZR 19-0400	30	3600	1970	-20/+80	66	RZR 11-0900	22	1000	2180	-20/+80	358
RZR 13-0400	30	3600	1970	-20/+80	75	RZR 15-0900	75	1430	6000	-20/+80	358
RZR 11-0450	7,5	2504	1080	-20/+80	54	RZR 18-0900	75	1540	6000	-20/+80	409
RZR 12-0450	7,5	2504	1080	-20/+80	60	RZR 19-0900	75	1430	6000	-20/+80	396
RZR 15-0450	30	3360	2000	-20/+80	73	RZR 13-0900	75	1540	6000	-20/+80	447
RZR 18-0450	30	3360	2000	-20/+80	83	RZR 11-1000	22	800	2200	-20/+80	416
RZR 19-0450	30	3360	2000	-20/+80	82	RZR 15-1000	75	1140	6200	-20/+80	416
RZR 13-0450	30	3360	2000	-20/+80	92	RZR 18-1000	75	1400	6200	-20/+80	471
RZR 11-0500	7,5	2050	1140	-20/+80	65	RZR 19-1000	75	1140	6200	-20/+80	462
RZR 12-0500	7,5	2050	1140	-20/+80	72	RZR 13-1000	75	1400	6200	-20/+80	517
RZR 15-0500	30	2920	2040	-20/+80	94	RZR 13-1120	132	1220	10000	-20/+80	710
RZR 18-0500	30	2920	2040	-20/+80	105	RZR 13-1250	160	1100	15000	-20/+80	1100
RZR 19-0500	30	2920	2040	-20/+80	105	RZR 13-1400	200	1000	20000	-20/+80	1390
RZR 13-0500	30	2920	2040	-20/+80	116	RZR 13-1600	250	860	20000	-20/+80	1870
RZR 11-0560	15	2205	1830	-20/+80	103						

Technical Description

Performance and AMCA



AMCA

Nicotra Gebhardt certifies that the Centrifugal Fans shown here in, except for the RZR fans from size 0200 to 0315 and the RDH fans from size 1120 to 1400, 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.

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.

The increase in static pressure p_{sF} when a duct is fitted to the discharge (Installation B) can be calculated from the equation:

$$p_{sF} = p_F - p_{d2}$$

Where no duct is fitted (Installation A) there is no static pressure regain. The increase in pressure p_{sF} can be calculated from formula:

$$p_{sF} = p_F - f_{pd} \times p_{d2}$$

ADH 0160 /-0560; $f_{pd} = 1.90$

ADH 0630 /-1000; $f_{pd} = 1.66$

RDH 0180 /-1000; $f_{pd} = 1.74$

RDH 1120 /-1400; $f_{pd} = 1.15$

RZR 0200 /-1000; $f_{pd} = \text{see fan curves}$

RZR 1120 /-1600; $f_{pd} = 1.00$

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.

Efficiency ADH / 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:

$$\eta_a = \eta_r \times \frac{P_r}{P_r + P_b}$$

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).

Motor nominal power ADH/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.

$$P_N \geq P_a \times f_p$$

The factor f_p is an estimated value. As an approximate value, the figures below are suggested.

ADH		RDH / RZR	
$P_a < 0.75 \text{ kW}$	$f_p = 1.30$	$P_a < 0.75 \text{ kW}$	$f_p = 1.25$
$P_a \geq 0.75 \text{ kW} \dots < 10 \text{ kW}$	$f_p = 1.20$	$P_a \geq 0.75 \text{ kW} \dots < 10 \text{ kW}$	$f_p = 1.15$
$P_a \geq 10 \text{ kW}$	$f_p = 1.15$	$P_a \geq 10 \text{ kW}$	$f_p = 1.12$

Technical Description

Performance

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:

$$t_A = \frac{8 \times J \times N^2}{P_N \times 10^6}$$

where:

t_A = run time in seconds

J = moment of inertia in kgm^2

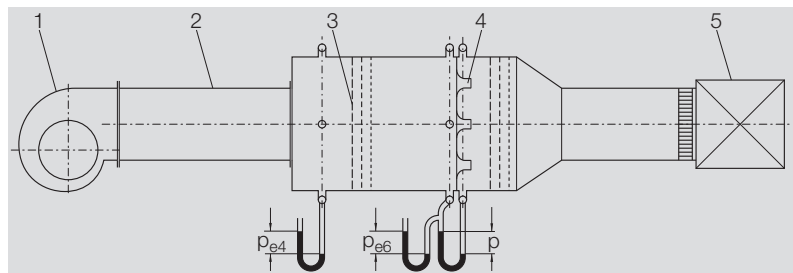
N = fan speed in rpm

P_N = motor rating in kW

(Impeller weight and moment of inertia can be found on the performance diagram for each fan size.)

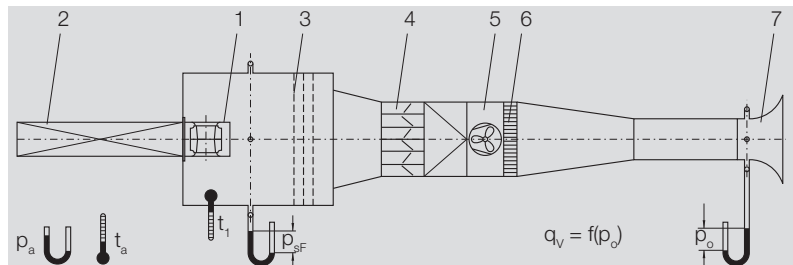
If t_A exceeds the motor manufacturer's recommendation or the tripping period of the electrical gear, a larger motor must be used or the starting gear has to be selected for heavy starting.

Fan curves measurement ADH/RDH - AMCA 210-99 / ISO 5801



- 1 = Test fan
- 2 = Discharge duct
- 3 = Screen
- 4 = Multiple nozzles
- 5 = Auxiliary fan and damper

Fan curves measurement RZR - ISO 5801 / DIN 24 163



- 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

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: $L_{WA\ G2} = L_{WA} + 3\ \text{dB}$

Technical Description

Sound



Noise measurements are undertaken in accordance with DIN 45635-38 "Noise Measurement of Machines: Fans".

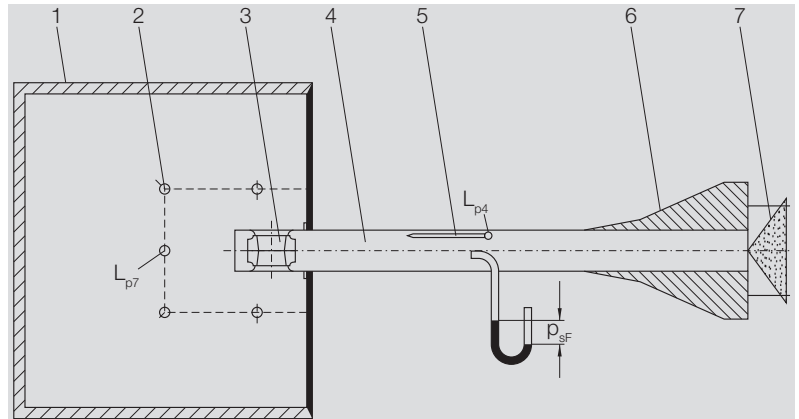
Induct Method for the Discharge

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 45 635-1 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 *rotavent*

The "A" weighted sound power level are identical for fan intake (L_{WA7}) as well as for fan discharge (L_{WA4}).

A-sound power level ADH / 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:

$$L_{WA4} = L_{WA7} + \Delta L_{Wrel4}(A)$$

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.

Technical Description

Sound

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.

It 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:

RZR

$$L_{Wfc7} = L_{WA4;7} + L_{Wrel7}$$

$$L_{Wfc4} = L_{WA4;7} + L_{Wrel4}$$

ADH / RDH

$$L_{Wfc7} = L_{WA7} + L_{Wrel7}$$

$$L_{Wfc4} = L_{WA7} + L_{Wrel4}$$

The noise correction data L_{Wrel4} and 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.

$$f_{BP} = \frac{N \times z}{60}$$

f_s = Blade passing frequency in Hz

N = Fan speed in 1/min

z = No of blades (see curve pages)

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:

$$L_{Wfc6} = L_{Wfc4} + L_{Wer}$$

ADH/RDH/ RZR	f_m	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

Technical Description

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 an 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 / RDH in ATEX-Execution on request.

Technical Description

Operating limits RZR ATEX

Type	ATEX Product Name	Permissible fan speed 1/min	Permissible shaft power kW	Permissible nominal motor power kW	Type	ATEX Product Name	Permissible fan speed 1/min	Permissible shaft power kW	Permissible nominal motor power kW
RZR 11-0200	RZR 11-0200-2G	6513	4,7	5,5	RZR 13-0500	RZR 13-0500-2G	2534	21,3	24
RZR 12-0200	RZR 12-0200-2G	6513	4,7	5,5	RZR 18-0500	RZR 18-0500-2G	2000	9,7	11
RZR 19-0200	RZR 19-0200-2G	6513	4,7	5,5	RZR 11-0560	RZR 11-0560-2G	1660	9,7	11
RZR 11-0225	RZR 11-0225-2G	5774	4,7	5,5	RZR 12-0560	RZR 12-0560-2G	1660	9,7	11
RZR 12-0225	RZR 12-0225-2G	5774	4,7	5,5	RZR 13-0560	RZR 13-0560-2G	2163	26,6	30
RZR 19-0225	RZR 19-0225-2G	5774	4,7	5,5	RZR 18-0560	RZR 18-0560-2G	1660	9,7	11
RZR 11-0250	RZR 11-0250-2G	4620	4,7	5,5	RZR 11-0630	RZR 11-0630-2G	1367	9,7	11
RZR 12-0250	RZR 12-0250-2G	4620	4,7	5,5	RZR 12-0630	RZR 12-0630-2G	1367	9,7	11
RZR 19-0250	RZR 19-0250-2G	5076	4,7	5,5	RZR 13-0630	RZR 13-0630-2G	2055	32,8	37
RZR 11-0280	RZR 11-0280-2G	4582	6,5	7,5	RZR 18-0630	RZR 18-0630-2G	1367	9,7	11
RZR 12-0280	RZR 12-0280-2G	4582	6,5	7,5	RZR 11-0710	RZR 11-0710-2G	1128	9,7	11
RZR 19-0280	RZR 19-0280-2G	4582	9,7	11	RZR 12-0710	RZR 12-0710-2G	1128	9,7	11
RZR 11-0315	RZR 11-0315-2G	3793	6,5	7,5	RZR 13-0710	RZR 13-0710-2G	1825	40,9	45
RZR 12-0315	RZR 12-0315-2G	3793	6,5	7,5	RZR 18-0710	RZR 18-0710-2G	1128	9,7	11
RZR 19-0315	RZR 19-0315-2G	4113	9,7	11	RZR 11-0800	RZR 11-0800-2G	927	9,7	11
RZR 11-0355	RZR 11-0355-2G	3110	6,5	7,5	RZR 18-0800	RZR 18-0800-2G	927	9,7	11
RZR 12-0355	RZR 12-0355-2G	3110	6,5	7,5	RZR 13-0800	RZR 13-0800-2G	1474	40,9	45
RZR 19-0355	RZR 19-0355-2G	3555	9,7	11	RZR 11-0900	RZR 11-0900-2G	767	9,7	11
RZR 11-0400	RZR 11-0400-2G	2552	6,5	7,5	RZR 18-0900	RZR 18-0900-2G	767	9,7	11
RZR 12-0400	RZR 12-0400-2G	2552	6,5	7,5	RZR 13-0900	RZR 13-0900-2G	1339	68	75
RZR 13-0400	RZR 13-0400-2G	3145	16,4	18,5	RZR 11-1000	RZR 11-0100-2G	650	9,7	11
RZR 18-0400	RZR 18-0400-2G	2913	9,7	11	RZR 18-1000	RZR 18-1000-2G	650	9,7	11
RZR 11-0450	RZR 11-0450-2G	2111	6,5	7,5	RZR 13-1000	RZR 13-1000-2G	1217	68	75
RZR 12-0450	RZR 12-0450-2G	2111	6,5	7,5	RZR 13-1120	RZR 13-1120-2G	1026	83,6	92
RZR 13-0450	RZR 13-0450-2G	2922	21,3	24	RZR 13-1250	RZR 13-1250-2G	957	122	135
RZR 18-0450	RZR 18-0450-2G	2410	9,7	11	RZR 13-1400	RZR 13-1400-2G	870	145	160
RZR 11-0500	RZR 11-0500-2G	1752	6,5	7,5	RZR 13-1600	RZR 13-1600-2G	748	181	200
RZR 12-0500	RZR 12-0500-2G	1752	6,5	7,5					

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 EU Machine Guidelines. They are delivered with a manufacturer's declaration. The assessment of the dangers associated with the fan and necessary safety measures is based on the VDMA Unit sheet 24 167: Fans; Safety requirements. The operating instructions give which safety measures are still necessary on assembly to ensure that the fans comply with the EU Machine Guideline 98/37/EG, with the Modifications 91/368/EWG, 93/44/EWG and 93/68/EWG.

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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