QR280ABP

CENTRALIZED
HEAT RECOVERY UNIT
COMPACT SIZE AND SILENT

APPLICATION

Whole-house heat recovery unit, suitable for vertical installation. Can be installed in cupboard or narrow spaces thanks to its **compact sizes.**

SPECIFICATION

Outer fan casing manufactured from powder coated galvanised sheet steel providing long lasting and robust construction. The unit is finished in white RAL 9010.

Internal structure manufactured from EPP (expanded polypropylene) providing reduced sound emissions and maximised air tightness and thermal insulation.

EC external rotor motors fitted as standard for energy saving. Provided with integral thermal protection, mounted on sealed for life ball bearings.

Backward curved centrifugal impeller dynamically balanced and directly driven by the motor to provide a smooth airflow through the unit.

Highly efficient **counterflow heat exchanger** to maximise thermal recovery.

FEATURES & BENEFITS

Ease of installation: fixing brackets supplied to hang the unit easily on the wall.

Removable front panel for quick access to filters and heat exchanger.

G4 filters easy removable for cleaning. Remote F7 filter cassette on request.

Integral physical bypass for free cooling during the summer season: automatic operation in the ABP version.

Automatic anti-frost protection to prevent frost building up on the intake side of the heat exchanger.

Two drainage holes to meet climate requirement.

Tested to the latest standards: units are tested in the TÜV Rheinland recognised laboratory at Aerauliqa, meaning accurate, up to date information on electrical safety, performance and noise level that can be relied upon.
Designed and manufactured in accordance with EN60335-2-80 (Low Voltage Directive) and the EMC Directive (Electromagnetic Compatibility).

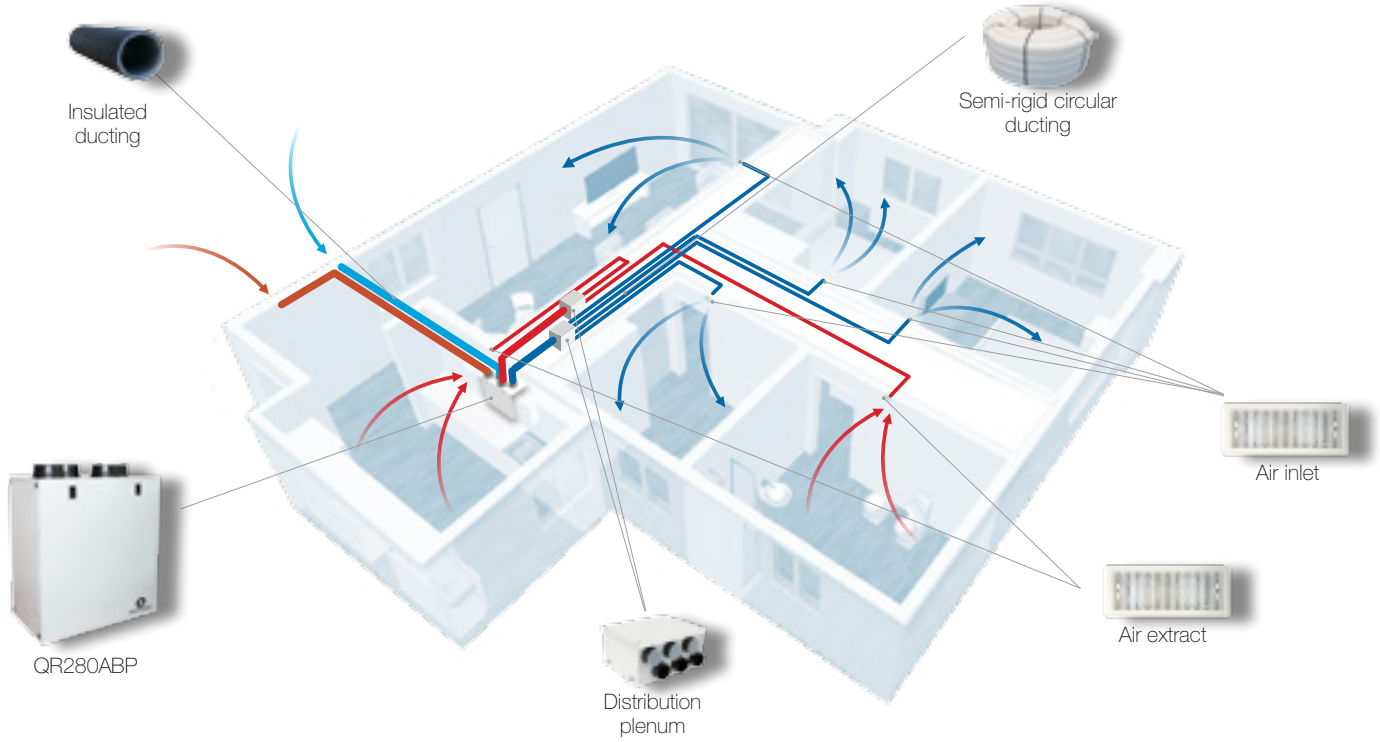
OPERATION

The unit is supplied with a multi-function LCD display (CTRL-DSP) for automatic control and convenience, providing:

- 3 speeds setting (adjustable).
- Boost option.
- Holiday mode.
- Night mode: during night time the automatic operation via sensors is deactivated to prevent undesired speed rise and consequent noise increase.
- Automatic Bypass.
- Airflow balancing.
- Filter replacement and fan failure indicator.
- Working hour counter.
- Setting saving and loading.
- Volt-free contacts for remote ambient sensors (SEN-HY, SEN-PIR, SEN-CO_2).
- Analogic input 1-10V for "slave" function if connected to BMS (home automation) system.
- Integral S/L terminal for boost from remote switch, i.e. light or dedicated switch.
- Connection to remote pre/post heating element.
- Connection to remote dehumidifying element.
- Possible change of orientation of the atmosphere spigots.

CTRL-DSP

Example of a complete ventilation system



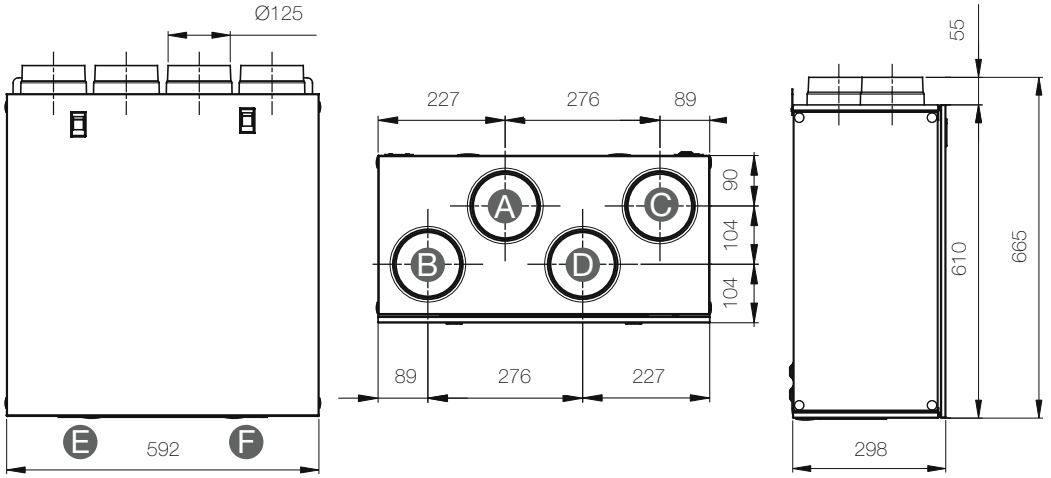
Application: new build.

How it works: a continuous running heat recovery unit (QR280) transfers heat from humid air extracted from wet rooms to warm incoming fresh air which is ducted to habitable rooms. Thanks to the easy-to-fit air distribution system each single ambient can be properly ventilate: the boost function enables rapid extract of increased moisture or pollutant levels. It also provides discrete installation and very quite operation.

Energy saving: the preheated/precooled fresh air and continuous air changes reduce the demand for additional heating/air-conditioning.
The EC brushless motors significantly reduce the electricity consumption.

Indoor Air Quality: a correctly specified mechanical ventilation system can ensure the quality of the indoor air is constantly maintained for the health and well-being of the occupants as well as of the building. Duly maintained filters ensure that incoming air is suitably filtered of dust and pollen before if enters the home.

Dimensions (mm) and Weight



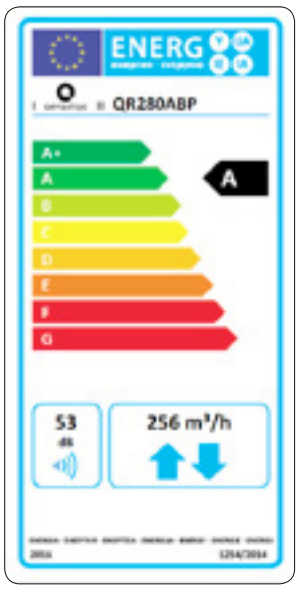
Model	QR280ABP
Weight Kg	21,4
A	Intake air from outiside
B	Exhaust air to outside
C	Supply air to inside
D	Extract air from inside
E	Winter condensation drainage
F	Summer condensation drainage

LEFT orientation

QR280ABP

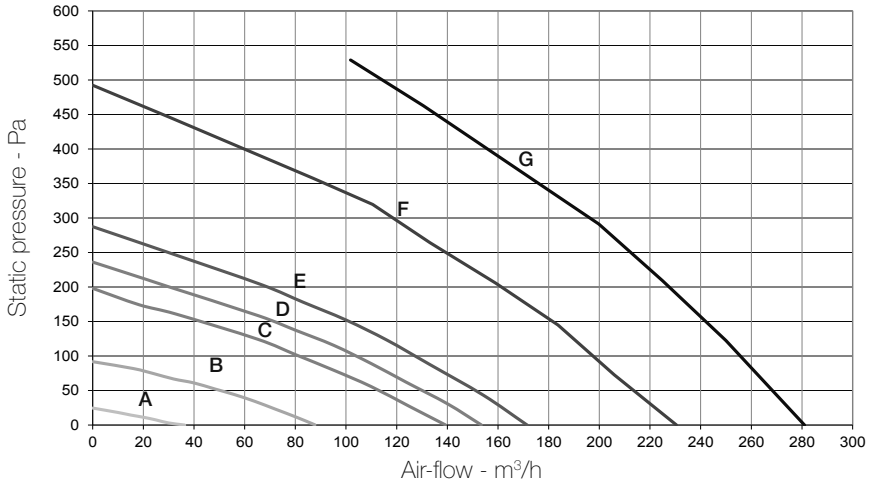
Product fiche - ErP Directive, Regulations 1253/2014 - 1254/2014

a)	Mark	-	AERAULIQA		
b)	Model	-	QR280ABP		
c)	SEC class	-	A	A	B
c1)	SEC warm climates	kWh/m².a	-15,2	-11	-7,2
c2)	SEC average climates	kWh/m².a	-39,3	-34,4	-30,1
c3)	SEC cold climates	kWh/m².a	-76,8	-70,7	-65,5
	Energy label	-	Yes		
d)	Unit typology	-	Residential - bidirectional		
e)	Type of drive	-	Variable speed drive		
f)	Type of Heat Recovery System	-	Heat recovery		
g)	Thermal efficiency of heat recovery	%	80		
h)	Maximum flow rate @ 100 Pa	m³/h	256		
i)	Electric power input (maximum flow rate)	W	105		
j)	Sound power level (L_{WA})	dBA	53		
k)	Reference flow rate	m³/h	179		
l)	Reference pressure difference	Pa	50		
m)	Specific power input (SPI)	W/m³/h	0,385		
n1)	Control factor	-	0,65	0,85	1
n2)	Control typology	-	Local demand control		
o1)	Maximum internal leakage rate	%	1,5		
o2)	Maximum external leakage rate	%	1,5		
p1)	Internal mixing rate	%	N/A		
p2)	External mixing rate	%	N/A		
q)	Visual filter warning	-	Visual filter warning on display		
r)	Instructions to install regulated grilles	-	N/A		
s)	Internet address for preassembly/disassembly instructions	-	www.aerauliqa.com		
t)	Airflow sensitivity to pressure variations	%	N/A		
u)	Indoor/outdoor air tightness	m³/h	N/A		
v1)	AEC - Annual electricity consumption - warm climates	kWh	2	3,5	4,8
v2)	AEC - Annual electricity consumption - average climates	kWh	2,5	3,9	5,3
v3)	AEC - Annual electricity consumption - cold climates	kWh	7,9	9,3	10,7
w1)	AHS - Annual heating saved - warm climates	kWh	20,3	19,7	19,3
w2)	AHS - Annual heating saved - average climates	kWh	44,9	43,6	42,6
w3)	AHS - Annual heating saved - cold climates	kWh	87,8	85,3	83,4
	Ambient temperature max	°C	40		
	Degree of protection IP	-	X2		
	Marking	-	CE		



- 220-240 V ~ 50-60Hz
- Air performance measured according to ISO 5801 a 230V 50Hz, air density 1,2 Kg/m³
- data measured in the TÜV Rheinland recognised laboratory in Aerauliqa

Performance curve



Intake curve according to Reg.1253/2014 (ErP)

Curve	Speed %	W max	m³/h max
A (min)	23	9	36
B	30	17	88
C	46	33	139
D	60	41	153
E	77	51	172
F	92	100	230
G (max)	100	167	281