

QR400 - QR550



QR400



QR550

CENTRALISED HEAT RECOVERY UNIT

APPLICATION

Whole-house heat recovery unit, suitable for vertical mounting.

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 counter flow heat exchanger to maximise thermal recovery. Thermal efficiency of the heat exchanger upto 90% (test method in conformity with the norm EN308).

FEATURES & BENEFITS

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

Heat exchange of the unit upto 92% efficiency.

Quick access to filters and heat exchanger for maintenance. QR550 is equipped with an external sheet metal cover, finished in white RAL9010.

G4 filters, removable for cleaning. The unit is also provided with the F7 filter accessory at the intake side.

Integrated bypass for free cooling; manual on QR550MBP model, automatic on QR400ABP and QR550ABP.

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 Aerauliga, meaning accurate, up to date information on electrical safety, performance and noise level that can be relied upon. Thermal efficiency and SFP (Specific Fan Power) measured at BRE independent laboratory (UK). Designed and manufactured in accordance with EN60335-2-80 (Low Voltage Directive) and the EMC Directive (Electromagnetic Compatibility).

VERSIONS

QR400M - QR550MBP

- One speed
- Two speed
- Variable speed with remote control CTRL-M
- Variable speed with remote home automation system (BMS) or ballast potentiometer
- 3 speed with remote control CTRL-S: free cooling option included.
- Manual Bypass on QR550MBP.

QR400ABP - QR550ABP

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

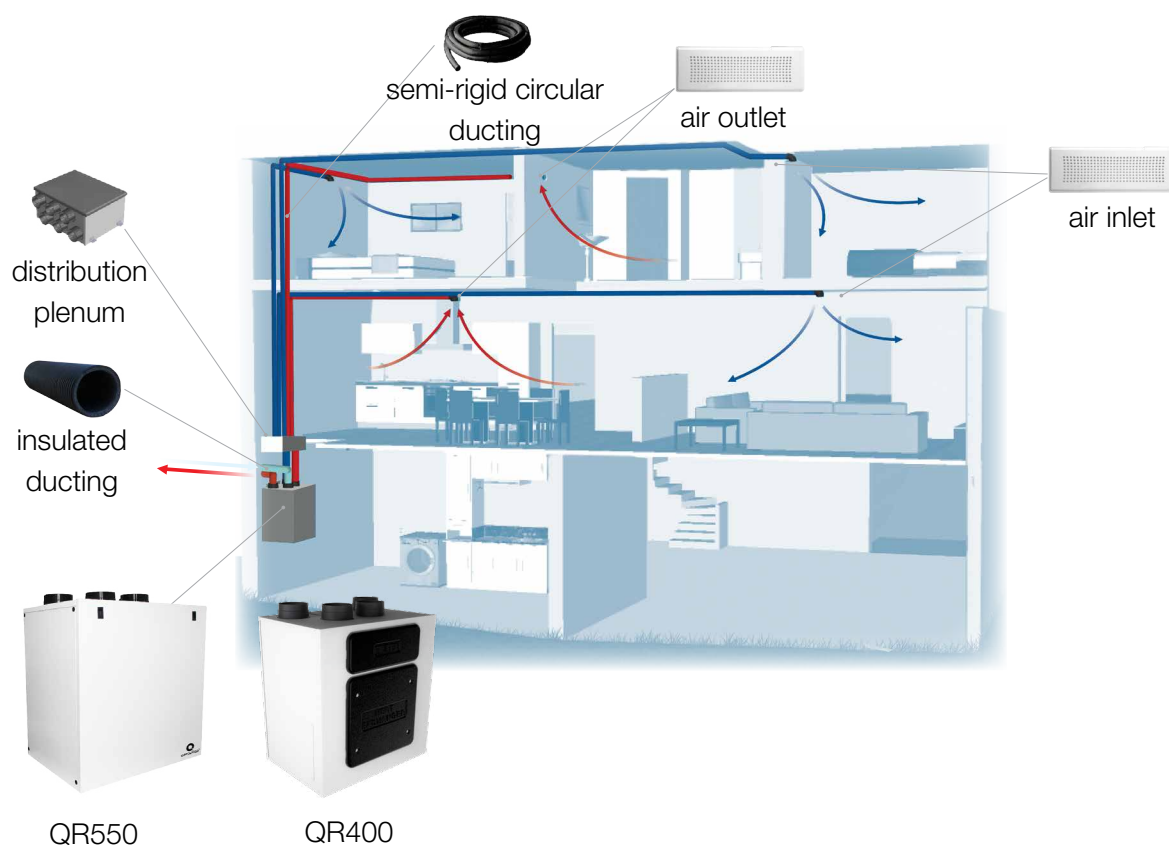
- 3 speeds setting
- Boost option
- Holiday mode
- Night mode: during night time the automatic operation via sensors is deactivated to prevent undesired speed rise and consequent noise increase.
- Automatic Bypass.
- Airflow balancing.
- Filter replacement and fan failure indicator.
- Working hour counter
- Setting saving and loading.
- Volt-free contacts for remote ambient sensors (SEN-HY, SEN-PIR, SEN-CO₂).
- 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.



CTRL-DSP

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Example of a complete ventilation system



Application: new build houses and apartments

How it works: a continuous running heat recovery unit 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 fresh air and continuous air changes reduce the demand for additional heating. 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 it enters the home.

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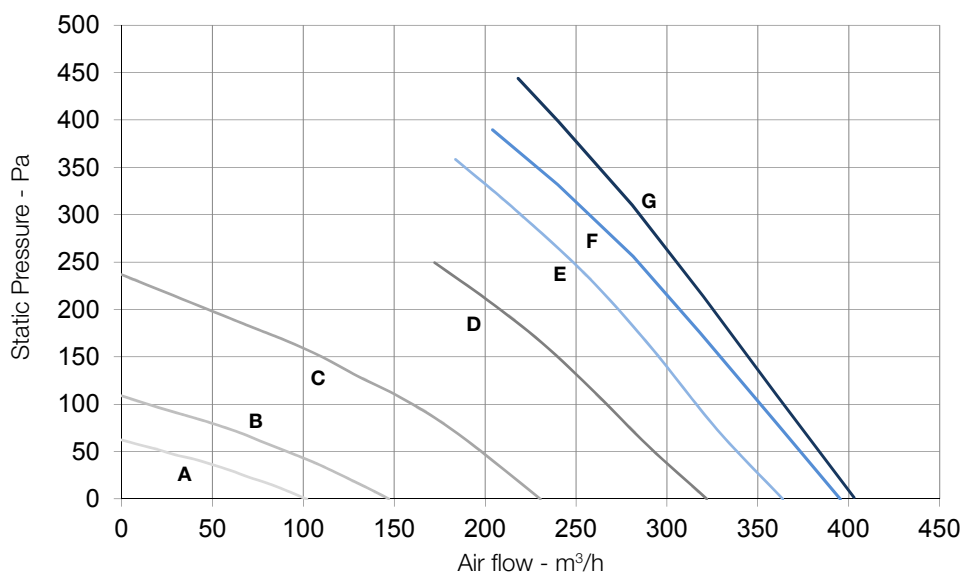
Performances

Model	QR400	QR550
Air flow m ³ /h max	403	550
Power W max (total)	160	333
Sound Pressure dB(A) @3m	26	34 ²⁾
Unit Efficiency %	92 ¹⁾	92 ²⁾
SFP (Specific Fan Power) W/l/s	0,59 ¹⁾	0,59 ²⁾
Ambient temperature °C max	40	40
Marking	CE	CE

- 220-240 V ~ 50-60Hz
- air performance measured according to ISO 5801 at 230V 50Hz, air density 1,2 Kg/m³
- data measured in the TÜV Rheinland recognised laboratory in Aeraulica
- sound pressure level at 3m in free field, 40% speed
- ¹⁾ tested at independent laboratory BRE (UK)
- ²⁾ preliminary data

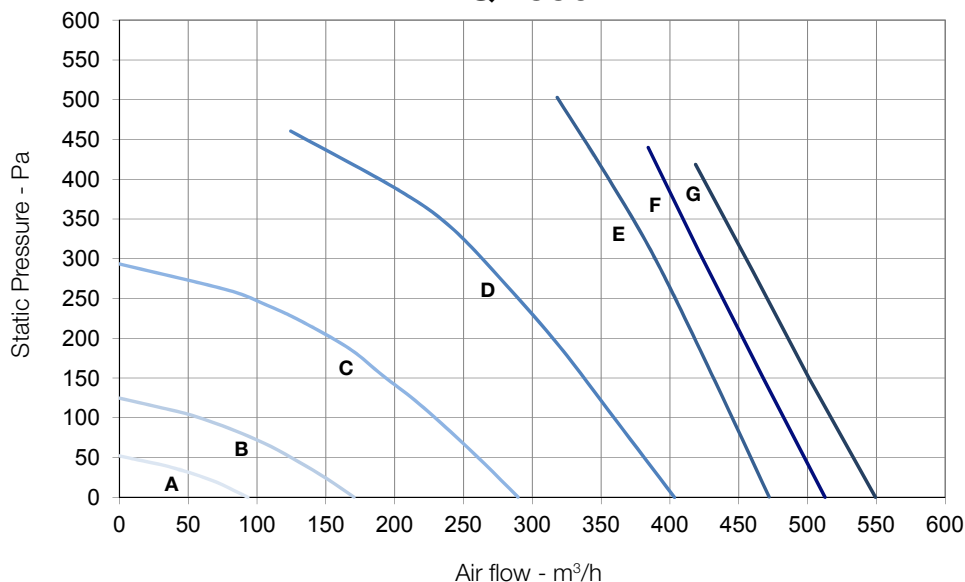
Curves

QR400



Position	W max	m ³ /h max
A (min)	12	102
B	19	149
C	43	230
D	88	322
E	134	364
F	149	395
G (max)	160	403

QR550

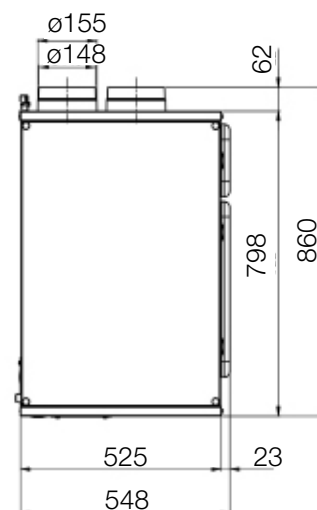
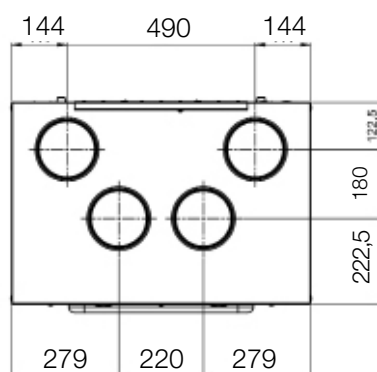
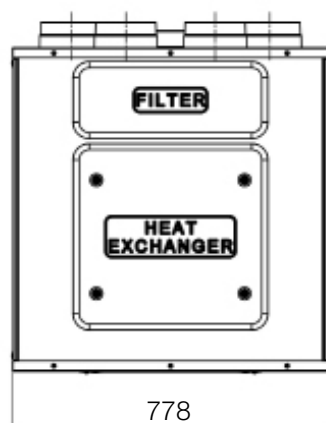


Position	W max	m ³ /h max
A (min)	10	94
B	24	170
C	68	289
D	150	403
E	286	472
F	311	513
G (max)	333	550

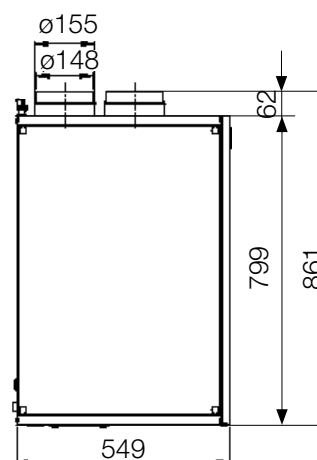
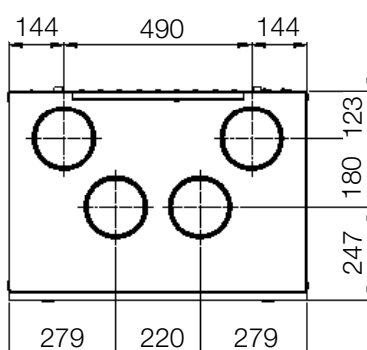
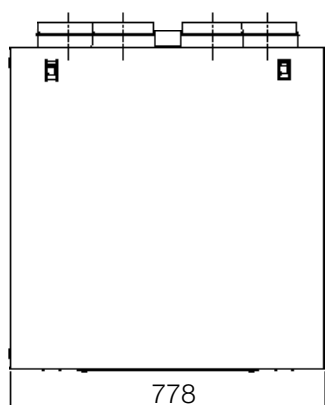
QR400 - QR550

Dimensions (mm)

QR400



QR550



Controls and Sensors



CTRL-M
for EC motor control



CTRL-S
Multi-speed selector



SEN-HY
Humidistat



SEN-PIR
PIR sensor



SEN-CO2
CO₂ sensor