QR340A

ErP 2018 | IPX4

CENTRALISED HEAT RECOVERY UNIT

APPLICATION

Whole-house heat recovery unit, suitable for ceiling or false-ceiling installation, for horizontal 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 **counterflow heat exchanger** to maximise thermal recovery.

FEATURES & BENEFITS

Ease of installation: 290mm height (315mm max., including fixing brackets and drain connection) to overcome shallow ceiling voids.

Simplified connection: the product is supplied pre-cabled.

ISO Coarse 60% (G4) filters easy removable for cleaning from the outside: no need to remove the access panel. **ISO ePM1 60% (F7) filter** on request.

Integral automatic bypass for free cooling during the summer season.

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

Double drain connections 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).

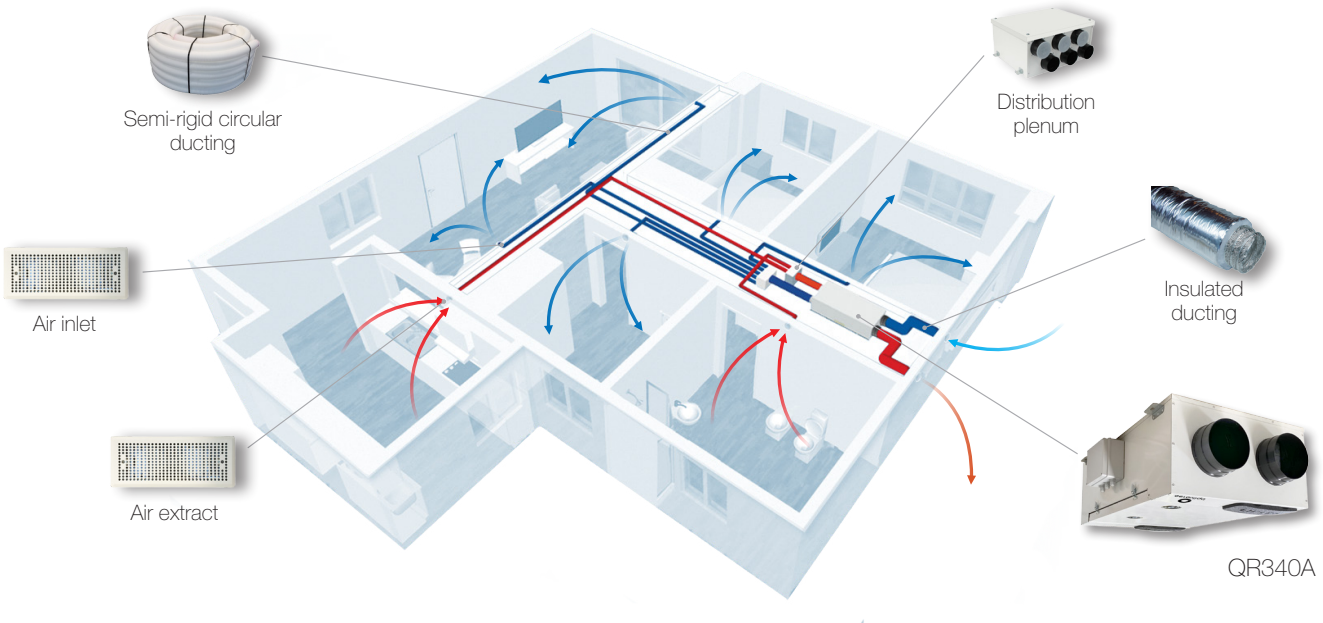
OPERATION

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

- 3 speed settings (adjustable).
- Boost option.
- Holiday mode.
- Night mode.
- Weekly timer.
- Bypass setting.
- Airflow balancing.
- Filter replacement and fan failure indicator.
- Working hour counter.
- Setting saving and loading.
- Suitable for remote ambient sensors (SEN-HY, SEN-CO2 or SEN-PIR).
- ModBus interface.
- Connection to remote pre/post heating element.
- Connection to remote water coil for heating.

CTRL-DSP
(supplied as standard)

Example of a complete ventilation system

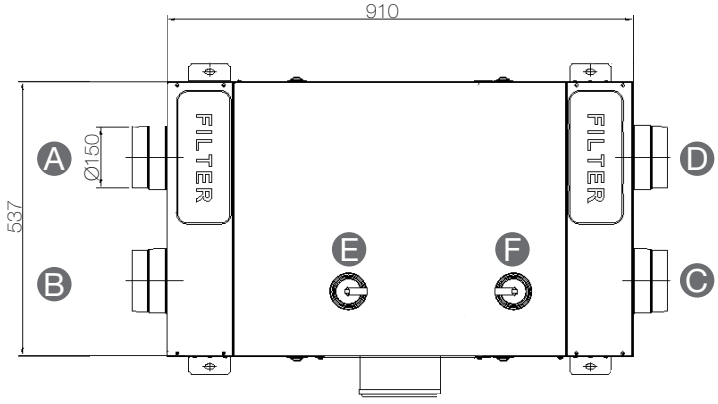


How it works: a continuous running heat recovery unit (QR340A) transfers heat from humid air extracted from wet rooms to warm incoming fresh air which is ducted to habitable rooms. Thanks to the easy-to-fit air distribution system each single ambient can be properly ventilate: the boost function enables rapid extract of increased moisture or pollutant levels. It also provides discrete installation and very quite operation.

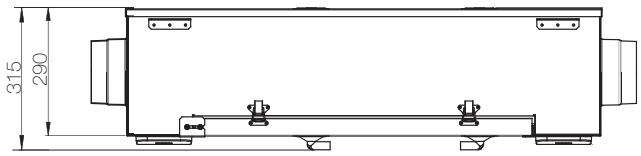
Energy saving: the preheated/precooled fresh air and continuous air changes reduce the demand for additional heating/air-conditioning. The EC brushless motors significantly reduce the electricity consumption.

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 (kg)



bottom view



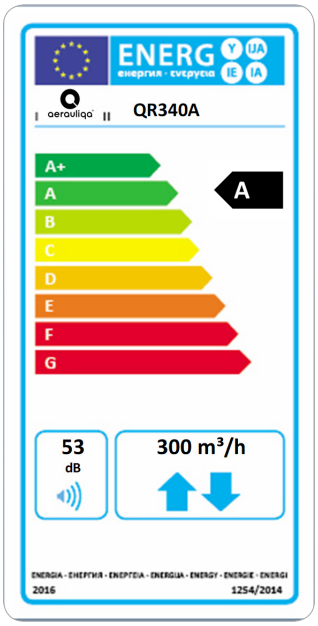
side view

Modello	QR340A
Peso	23,5
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

QR340A

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

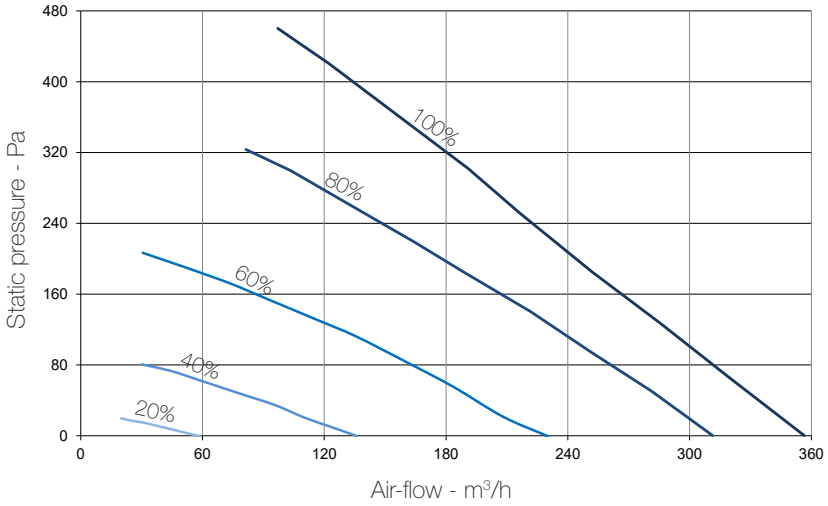
a)	Mark	-	AERAULIQA		
b)	Model	-	QR340A		
c)	SEC class	-	A	A	B
c1)	SEC warm climates	kWh/m².a	-15,8	-12,0	-8,5
c2)	SEC average climates	kWh/m².a	-40,3	-35,8	-31,4
c3)	SEC cold climates	kWh/m².a	-83,2	-77,5	-66,8
	Energy label	-	Yes		
d)	Unit typology	-	Residential - bidirectional		
e)	Type of drive	-	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	300		
i)	Electric power input (maximum flow rate)	W	170		
j)	Sound power level (L_{WA})	dBA	53		
k)	Reference flow rate	m³/h	210		
l)	Reference pressure difference	Pa	50		
m)	Specific power input (SPI)	W/m³/h	0,343		
n1)	Control factor	-	0,65	0,85	1
n2)	Control typology	-	Local demand control	Central demand control	Manual control (no DCV)
o1)	Maximum internal leakage rate	%	2,5		
o2)	Maximum external leakage rate	%	1		
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 pre/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	1,8	3,1	4,3
v2)	AEC - Annual electricity consumption - average climates	kWh	1,8	3,1	4,7
v3)	AEC - Annual electricity consumption - cold climates	kWh	1,8	3,1	10,1
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
	Sound pressure @ 3m(1)	dB(A)	22		
	Ambient temperature max	°C	+40		
	Degree of protection IP	-	X4		
	Marking	-	CE		



- 220-240V ~ 50/60Hz.
- air performance measured according to ISO 5801 a 230V 50Hz, air density 1,2Kg/m³.
- data measured in the TÜV Rheinland accredited internal laboratory according to the operating document IEC OD 2048 (level CTF1) for the IEC 60335-1 and IEC 60335-2-80 Standards.

(1) sound pressure level @ 3m in free field, breakout, speed 40%, for comparative purposes only.

Performance curve



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

Speed %	W max	m³/h max
20	10	59
40	23	136
60	55	230
80	113	311
100	170	357

Sound level

	Lw dB - SOUND POWER OCTAVE BAND								Lp dB(A)
Speed 100%	125	250	500	1 K	2 K	4 K	8K	Tot	@3m
Breakout	59	59	61	55	55	48	37	66	41

	Lw dB - SOUND POWER OCTAVE BAND								Lp dB(A)
Speed 80%	125	250	500	1 K	2 K	4 K	8K	Tot	@3m
Breakout	56	57	56	51	51	44	32	62	37

	Lw dB - SOUND POWER OCTAVE BAND								Lp dB(A)
Speed 60%	125	250	500	1 K	2 K	4 K	8K	Tot	@3m
Breakout	50	56	48	43	43	35	22	58	31

	Lw dB - SOUND POWER OCTAVE BAND								Lp dB(A)
Speed 40%	125	250	500	1 K	2 K	4 K	8K	Tot	@3m
Breakout	45	48	40	35	32	22	15	50	22

	Lw dB - SOUND POWER OCTAVE BAND								Lp dB(A)
Speed 20%*	125	250	500	1 K	2 K	4 K	8K	Tot	@3m
Breakout	-	-	-	-	-	-	-	-	< 9

Lp dB(A) @3m, breackout, for comparative purposes only.
* measurements comparable with test chamber background noise.