QR280M

ErP 2018 | IPX2

CENTRALISED
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 AND BENEFITS

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

Simplified connection: the product is supplied pre-cabled.

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

ISO ePM10 50% (M5) filters easy removable for cleaning. **ISO ePM1 55% (F7) filter** on request.

Integral manual bypass for free cooling during the summer season.

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

Double drain connections 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

3 speed with remote control CTRL-S and manual activation of the bypass.

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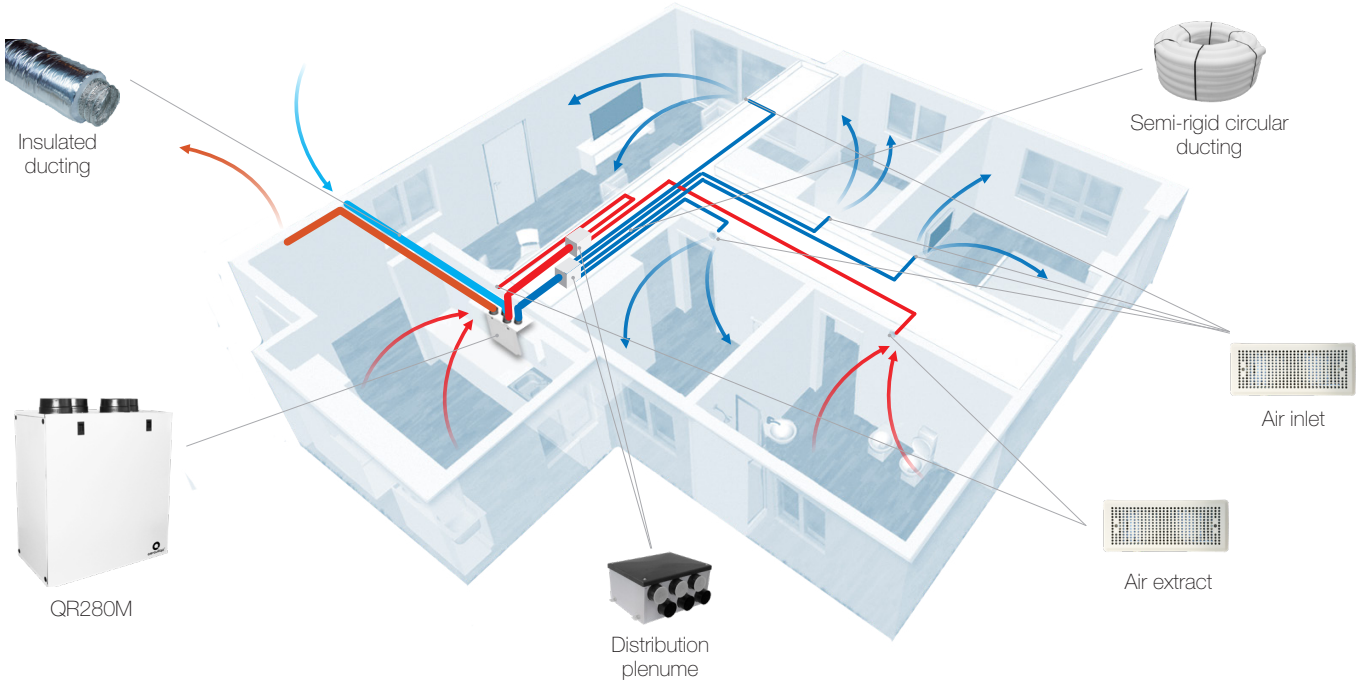
Example of a complete ventilation system

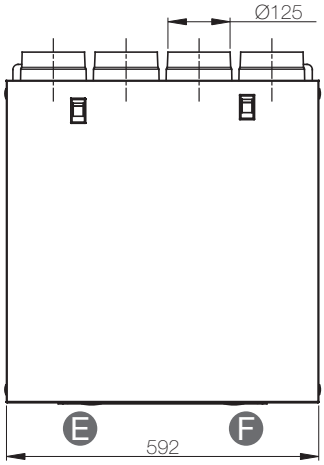


How it works: a continuous running heat recovery unit (QR280M) transfers heat from humid air extracted from wet rooms to warm incoming fresh air which is ducted to habitable rooms. Thanks to the easy-to-fit air distribution system each single ambient can be properly ventilate: the boost function enables rapid extract of increased moisture or pollutant levels. It also provides discrete installation and very quite operation.

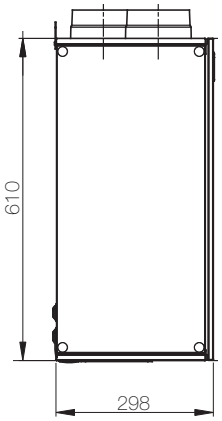
Energy saving: the preheated/precooled fresh air and continuous air changes reduce the demand for additional heating/air-conditioning. The EC brushless motors significantly reduce the electricity consumption.

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.

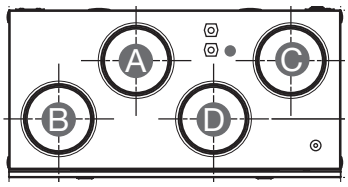
Dimensions (mm) and Weight (kg)



front view



top view



side view

Model	QR280M
Weight	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

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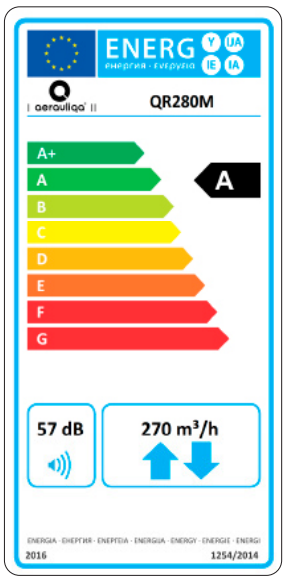
Product fiche - ErP Directive, Regulations 1253/2014 - 1254/2014

a)	Mark	-	AERAULIQA	
b)	Model	-	QR280M	
c)	SEC class	-	A	B
c1)	SEC warm climates	kWh/m².a	-12,0	-8,4
c2)	SEC average climates	kWh/m².a	-36,2	-32,3
c3)	SEC cold climates	kWh/m².a	-73,9	-69,3
	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	%	85%	
h)	Maximum flow rate @ 100 Pa	m³/h	270	
i)	Electric power input (maximum flow rate)	W	170	
j)	Sound power level (L_{WA})	dBA	57	
k)	Reference flow rate	m³/h	189	
l)	Reference pressure difference	Pa	50	
m)	Specific power input (SPI)	W/m³/h	0,370	
n1)	Control factor	-	0,85	1
n2)	Control typology	-	Central demand control	Manual control (no DCV)
o1)	Maximum internal leakage rate	%	2,9%	
o2)	Maximum external leakage rate	%	1,3%	
p1)	Internal mixing rate	%	N/A	
p2)	External mixing rate	%	N/A	
q)	Visual filter warning	-	Visual warning	
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	3,4	4,6
v2)	AEC - Annual electricity consumption - average climates	kWh	3,8	5,1
v3)	AEC - Annual electricity consumption - cold climates	kWh	9,2	10,5
w1)	AHS - Annual heating saved - warm climates	kWh	20,4	20,0
w2)	AHS - Annual heating saved - average climates	kWh	45,0	44,3
w3)	AHS - Annual heating saved - cold climates	kWh	88,1	86,7
	Sound pressure @ 3m(1)	dB(A)	24	
	Ambient temperature max	°C	+40	
	Degree of protection IP	-	X2	
	Marking	-	CE	



- 220-240V ~ 50/60Hz
- air performance according to ISO 5801 at 230V 50Hz, air density 1,2 Kg/m³.
- data according to the test report issued by the independent laboratory IMQ S.p.a.
- thermal performances according to EN 13141-7
- sound levels according to EN ISO 3741

(1) sound pressure level @ 3m in free field, breakout, speed 50%, for comparative purposes only.

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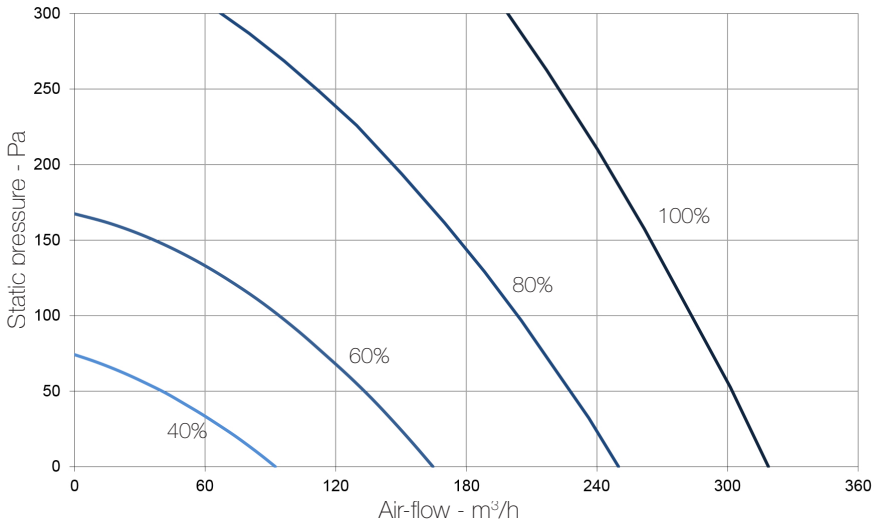
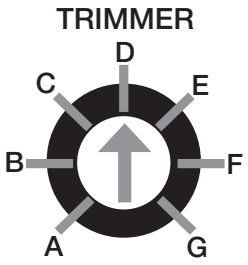
Performance curve



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



Trimmer Position	Speed %	W max	m³/h max
A	20	8	55
B	40	14	92
C	53	21	143
D	60	33	165
E	70	41	197
F	80	86	250
G	100	178	319

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
Intake	53	56	58	54	47	36	29	62	38
Supply	56	62	70	70	63	55	50	74	43
Extract	55	57	59	53	49	34	29	63	38
Exhaust	59	64	76	72	65	57	51	78	55
Breakout	55	59	60	61	60	51	37	67	45

	Lw dB - SOUND POWER OCTAVE BAND								Lp dB(A)
Velocità 80%	125	250	500	1 K	2 K	4 K	8K	Tot	@3m
Lato immissione aria dall'esterno	51	54	50	50	43	29	27	58	33
Lato immissione aria verso l'interno	55	66	61	62	59	47	42	69	46
Lato estrazione aria dall'interno	53	58	50	50	42	27	26	60	34
Lato espulsione aria verso l'esterno	56	75	63	64	61	49	44	76	51
Involucro	53	58	53	53	54	44	31	62	38

	Lw dB - SOUND POWER OCTAVE BAND								Lp dB(A)
Velocità 60%	125	250	500	1 K	2 K	4 K	8K	Tot	@3m
Lato immissione aria dall'esterno	43	46	42	42	35	21	19	50	25
Lato immissione aria verso l'interno	47	58	53	54	51	39	34	61	38
Lato estrazione aria dall'interno	45	50	42	43	34	20	18	52	26
Lato espulsione aria verso l'esterno	48	68	55	56	53	41	36	68	43
Involucro	46	51	45	46	46	36	23	54	30

	Lw dB - SOUND POWER OCTAVE BAND								Lp dB(A)
Speed 40%	125	250	500	1 K	2 K	4 K	8K	Tot	@3m
Intake	38	44	36	30	22	13	18	45	17
Supply	43	47	48	42	36	24	21	52	27
Extract	39	44	37	28	22	13	18	46	17
Exhaust	44	47	49	44	37	25	20	52	28
Breakout	39	43	38	35	32	21	20	46	20

Lp dB(A) @3m for comparative purposes only.