AirDesign®

Efficient Energy Recovery Units

FANTECH

Air Handling

Engineered to deliver superior indoor air quality

The Air Design ERU EC Series Energy Recovery Units are engineered to deliver superior indoor air quality while maximising energy efficiency in commercial buildings.

The range includes two variants tailored to different climate conditions: one featuring a sensible heat exchanger and the other an enthalpy exchanger.

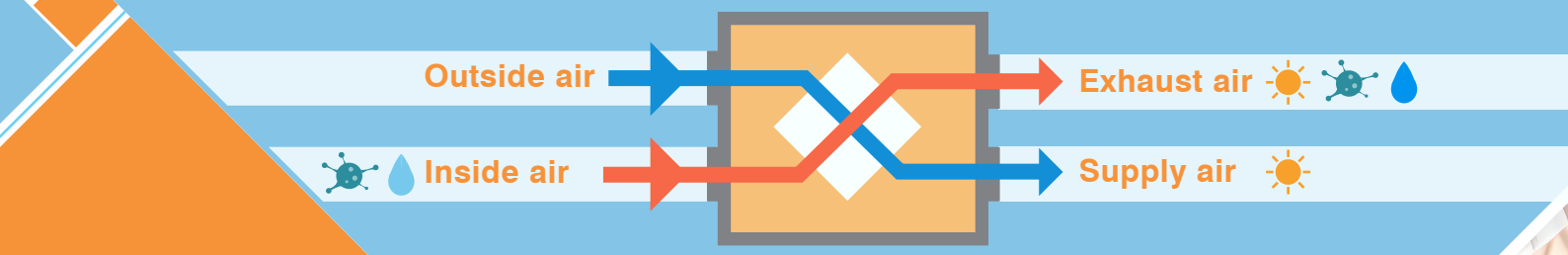
Heat

Humidity

Airborne particles

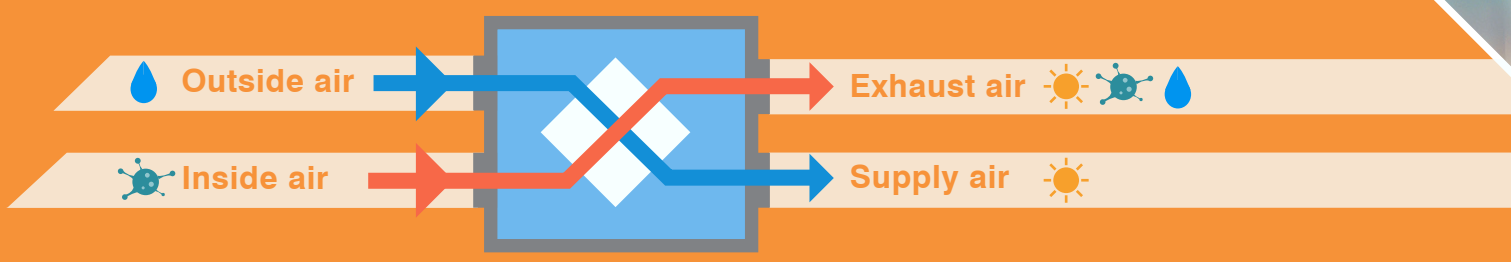
Heat Recovery Ventilation (HRV)

In cooler climates, models with sensible heat exchangers transfer only thermal energy, to pre-warm or pre-cool the incoming air without affecting humidity levels. This improves comfort and reduces the load on heating or cooling systems.



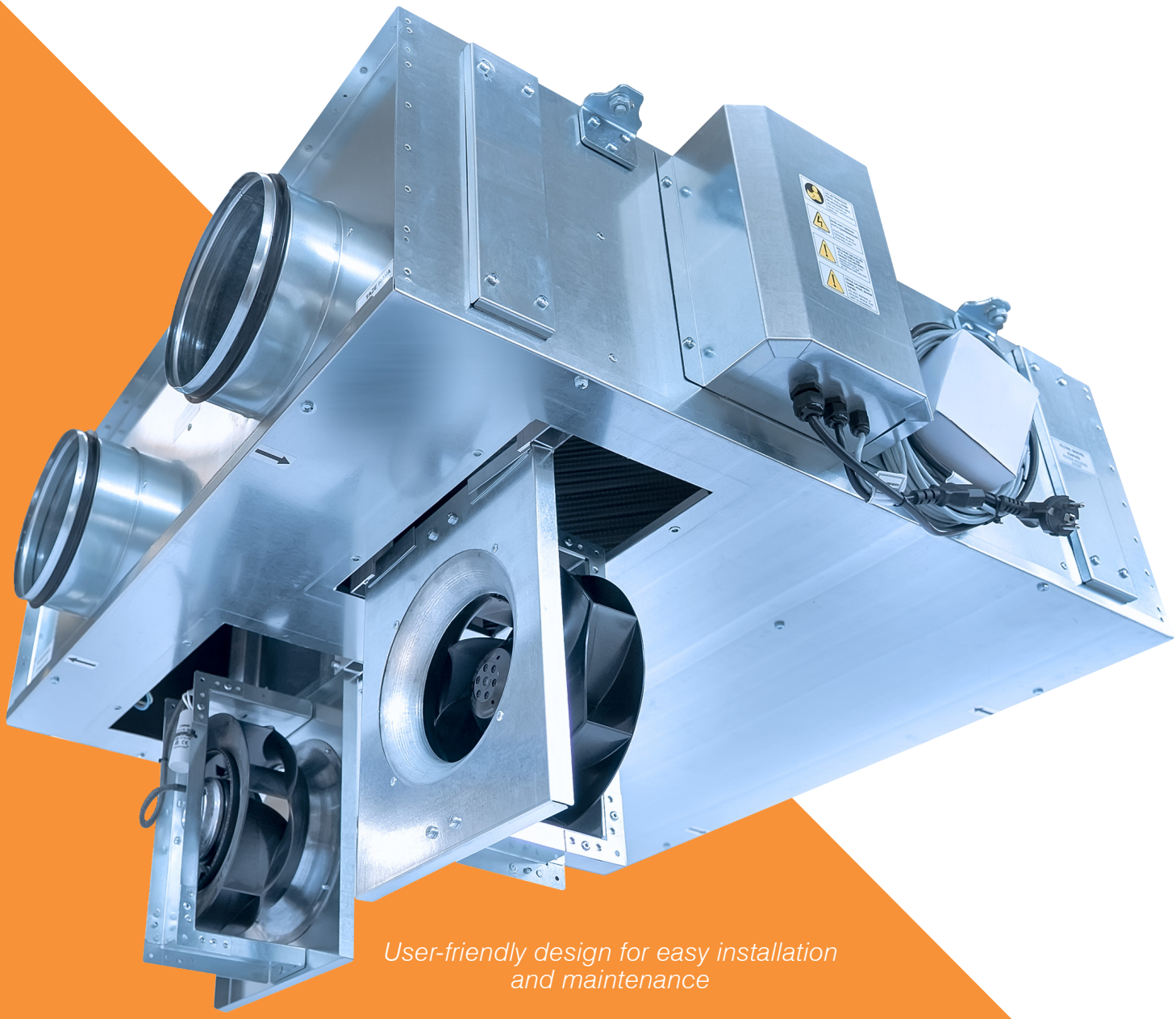
Energy Recovery Ventilation (ERV)

For warmer humid climates, units equipped with enthalpy exchangers enable high-efficiency transfer of both heat and moisture between incoming and outgoing air streams. This enhances pre-cooling performance and helps regulate indoor humidity levels.



Features

- Available in two exchanger types: Sensible, Heat Recovery Ventilation Exchangers (HRV) and Enthalpy, Energy Recovery Ventilation Exchangers (ERV)
- HRV models are available in 150, 250, 300, 420, 500, 700, 950, 1300 and 1700 L/s capacities. ERV models are available in 250, 300, 420, 500, 700, 950 and 1300 L/s capacities.
- High-efficiency, low-noise EC plug fans, with backward curved impeller
- User-friendly design for easy installation and maintenance
- Enhanced indoor air quality and extended service life with G4 panel filter
- Efficient noise and heat insulation provided by 14mm rubber lining on all internal surfaces



User-friendly design for easy installation and maintenance

Flexible Control Options

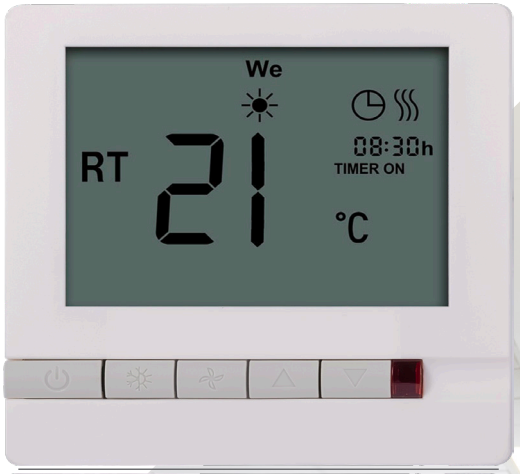
A range of wall-mounted controllers offering intuitive, fully configurable modes and functions via a touchscreen interface. These controllers manage airflow and regulate heat exchange between indoor and outdoor environments, maintaining balanced ventilation while recovering energy. A variety of sensor options are also available.

Advanced features include scheduling capabilities, such as pre-cooling or pre-heating spaces before occupancy or lowering indoor temperatures during specific periods. Additional functions include automatic adjustment based on outdoor weather conditions, full compatibility with BMS systems, and Modbus integration.

SEC Standard Controller
- Adjusting fresh air speed and exhaust air speed separately (5 Stages)
- Control of hot water coil valve manually or automatically
- Warning for clogged filter (optional)
- BMS on-off control

FEC Functional Controller
- Besides having all features of SEC, it has the following additional features.
- Timer Function
- Room temperature sensor
- Control with Modbus
- Compatible with CO_2 Sensors

PRO Professional Controller
- PRO can be in addition to the SEC and FEC controller, perform the following functions.
- Device Status Output
- Control with Bacnet (optional)



How to order

ERU | | EC | - | |

Energy Recovery Unit: **ERU**

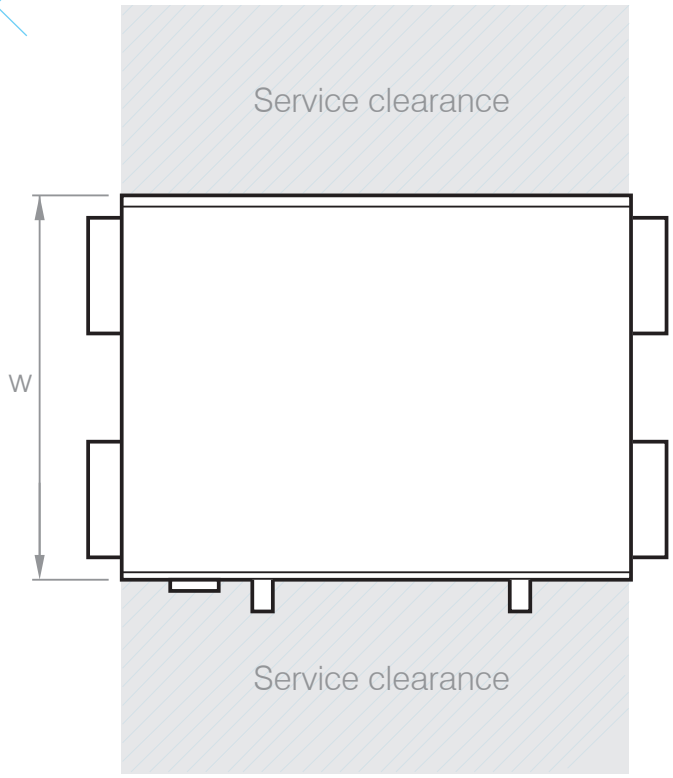
Nominal airflow: **150** L/s*, **250** L/s, **300** L/s, **420** L/s, **500** L/s, **700** L/s, **950** L/s, **1300** L/s, **1700**L/s

The 150 L/s and 1700 L/s capacities are not available in the ERV series

Electronically Commutated motors: **EC**

Heat Recovery Ventilation: **HRV**
Enthalpy Recovery Ventilation: **ERV**

Dimensions



Model No.	ERU150EC -HRV	ERU250EC..	ERU300EC..	ERU420EC..	ERU500EC..	ERU700EC..	ERU950EC..	ERU1300EC..	ERU1700EC -HRV
Length (L)	805	905	940	1155	1155	1285	1310	1325	1430
Width (W)	725	855	1005	1025	1025	1325	1310	1505	1570
Height (H)	300	330	445	435	435	435	590	685	690
Duct Connection (Ø)	160	200	250	300	300	355	400	400	500
Service Clearance (space on each side)	400	525	600	625	625	675	695	695	905
Weight (Kg)	28.5	39	61	67	67	102	146	172	210

Dimensions in mm
Model numbers above ending with two dots denote either -HRV or -ERV

Technical Data

Model No.	ERU150EC-HRV	ERU250EC..	ERU300EC..	ERU420EC..	ERU500EC..	ERU700EC..	ERU950EC..	ERU1300EC..	ERU1700EC-HRV
Airflow 150 Pa* (m^3/s)	0.17	0.24	0.29	0.42	0.50	0.69	0.94	1.30	1.78
Heat Recovery Efficiency#	Efficiency up to 70%, depending on working conditions								
Electrical Data	230 Volt / 50 – 60 Hz / 1~								400 Volt / 50 – 60 Hz/ 3~
	2×85 W	2×170 W	2×170 W	2×270 W	2×500 W	2×500 W	2×780 W	2×1300 W	2 x 1500 W
Specific Fan Power SFP (kWs/m^3)**	1.02	1.40	1.16	1.29	2	1.48	1.67	2	1.69
Working Temperature Limits	-25/+60 °C	-25/+60 °C	-25/+55 °C	-25/+45 °C	-25/+60 °C	-25/+60 °C	-25/+60 °C	-25/+55 °C	-25/+55 °C
Air Filter	F4 Panel Filters for Fresh and Exhaust Air								

* External static pressure

** According to EN 13779 at 150 Pa operating point

According to EN 308 at 150 Pa operating point

Model numbers above ending with two dots denote either -HRV or -ERV

Sound Data

ERU150EC-HRV

Sound Power (Lw)		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Inlet	dB(A)	37	44	56	40	29	26	26
Outlet		36	44	50	37	32	27	23

Sound Pressure (Lp*)		* Sound Pressure at 3 metres
Inlet	dB(A)	33
Outlet		27

ERU250EC..

Sound Power (Lw)		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Inlet	dB(A)	33	44	50	51	51	52	49
Outlet		34	45	50	55	57	54	51

Sound Pressure (Lp*)		* Sound Pressure at 3 metres
Inlet	dB(A)	37
Outlet		41

ERU300EC..

Sound Power (Lw)		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Inlet	dB(A)	46	51	55	55	53	51	45
Outlet		46	52	57	59	61	55	49

Sound Pressure (Lp*)		* Sound Pressure at 3 metres
Inlet	dB(A)	39
Outlet		44

Model numbers above ending with two dots denote either -HRV or -ERV

Sound Data

ERU420EC..

Sound Power (Lw)		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Inlet	dB(A)	47	53	62	52	53	48	40
Outlet		48	59	65	65	68	60	49

Sound Pressure (Lp*)		* Sound Pressure at 3 metres
Inlet	dB(A)	41
Outlet		51

ERU500EC..

Sound Power (Lw)		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Inlet	dB(A)	47	53	62	52	53	48	40
Outlet		48	59	65	65	68	60	49

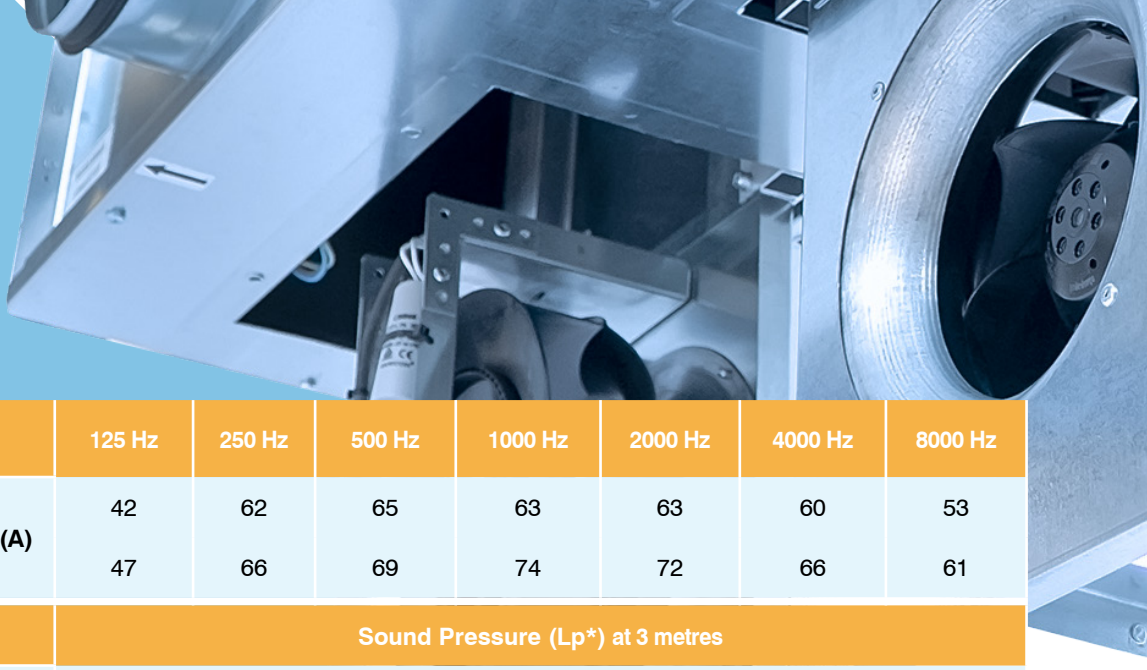
Sound Pressure (Lp*)		* Sound Pressure at 3 metres
Inlet	dB(A)	41
Outlet		51

ERU700EC..

Sound Power (Lw)		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Inlet	dB(A)	50	61	61	58	58	56	48
Outlet		58	67	66	69	69	63	56

Sound Pressure (Lp*)		* Sound Pressure at 3 metres
Inlet	dB(A)	44
Outlet		53

Model numbers above ending with two dots denote either -HRV or -ERV



Sound Data

ERU950EC..

Sound Power (Lw)		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Inlet	dB(A)	42	62	65	63	63	60	53
Outlet		47	66	69	74	72	66	61
Sound Pressure (Lp*)		**Sound Pressure (Lp*) at 3 metres**						
Inlet	dB(A)	48						
Outlet		47						

ERU1300EC..

Sound Power (Lw)		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Inlet	dB(A)	57	66	65	64	69	64	57
Outlet		57	68	77	75	72	68	61
Sound Pressure (Lp*)		**Sound Pressure (Lp*) at 3 metres**						
Inlet	dB(A)	52						
Outlet		59						

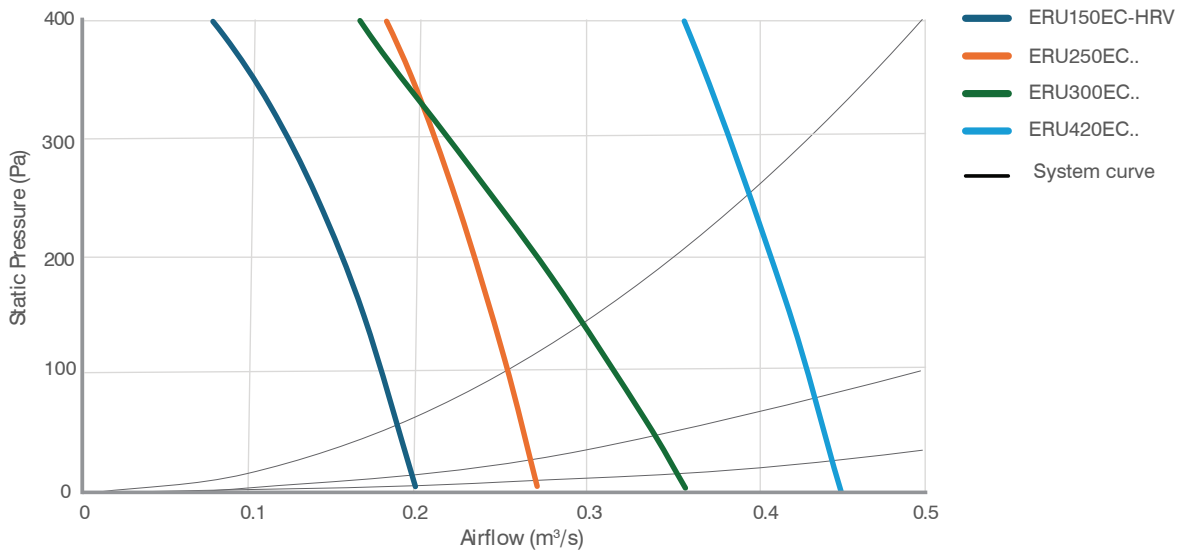
ERU1700EC-HRV

Sound Power (Lw)		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Inlet	dB(A)	64	69	71	70	67	64	60
Outlet		65	66	73	79	72	69	64
Sound Pressure (Lp*)		**Sound Pressure (Lp*) at 3 metres**						
Inlet	dB(A)	54						
Outlet		60						

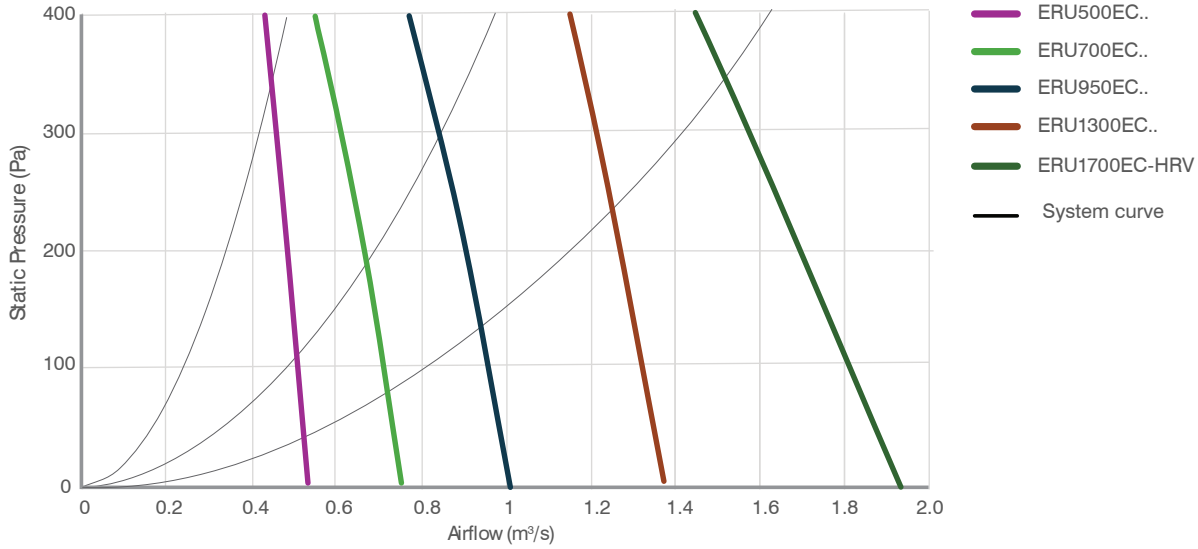
Model numbers above ending with two dots denote either -HRV or -ERV

Performance Curves

ERU150EC.. to ERU420EC..



ERU500EC.. to ERU1700EC..



Model numbers above ending with two dots denote either -HRV or -ERV

A dedicated network of air management specialists

Fantech has an extensive network of dedicated ventilation and air management specialists that are committed to providing exceptional customer service in every capital city and region of Australia. The network consists of Fantech facilities as well as agents in northern and southern New South Wales, northern Queensland, Canberra and Tasmania.

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