

HRU Heat Recovery Units

Ultra High Efficiency Premium Heat Recovery Units



Systemair New Zealand is a wholly-owned subsidiary of global HVAC leader Systemair Group. With 28 production facilities and sales organisations in 50+ countries, Systemair Group is **#ByYourSide**.

Simplicity and reliability:

The values and business concepts of Systemair Group are core; manufacture and market high-quality ventilation products. Based on our Group business concept and values, and with our customers in focus, we aim to be your most efficient and helpful partner in mastering your indoor air quality challenges.

Selection software:

We save you time and money with our fansSelect selection software and REVit plugin. Transposition errors caused by manually entering BIM data is a thing of the past.

Green Ventilation:

As the Green Ventilation solutions leader, our products have outstanding energy efficiency combined with well-thought-out material consumption and production methods. We actively develop solutions and techniques such as heat recovery, night cooling, and demand-control-ventilation for the New Zealand building market.

Quality and customer experience:

Your customer experience is always our priority. When you need an indoor air quality solution, we manage the process with you from quote to despatch. Our Customer Service Group is with you for the long-haul, just like our fans.

Testing:

We don't cut corners. Manufactured to the highest standard, we test every fan before leaving the factory for quality and performance. On-site acceptance testing is available by request.





- High efficiency counter-flow non-permeable with heat recovery efficiency up to 90%.
- Complies with European Energy Directive ErP 2018
- Double skin
- C5 anti corrosion class



Description

HRU heat recovery units are equipped with a high efficiency counter-flow non-permeable heat exchanger. This premium range of ceiling mounted units for commercial applications range from 50 l/s to 1000l/s. The slimline design makes the units easy to mount in small spaces, ceiling voids and above false ceilings. The units are designed for residential and commercial interiors such as shops, offices, classrooms, restaurants and sport facilities.

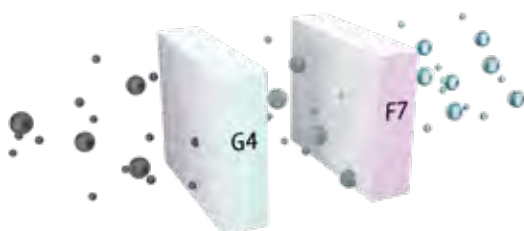
Casing – Double skin

The casing panel is made of Aluzinc with powder coating finish filled with 20mm mineral wool for model 300,550 and 900 and 40mm for the model of 1500,2500 and 3500. Corrosion class C5 according to ISO12944 class C5. Smooth internal surface for superior hygienic qualities.

Filter

Units are supplied with G4 panel filter on both supply air side and extract air side. The supply air side can be fitted with F7 filter as an option.

HRU 300/550/900 have side withdraw filter, HRU 1500/2500/3500 large models have both side and bottom filter access.



Fans

High efficiency EC motor with backward-curved centrifugal impeller. Low power consumption and low noise with stable operation at any speed in any climate.



Heat exchanger

High efficiency counter-flow non-permeable with heat recovery efficiency up to 90%. This complies to European energy directive ErP-2018. The high efficiency significantly reduces the building heating/cooling load and lowers the running cost of HVAC systems.

Bypass

The units are equipped with core bypass damper with actuator that operates automatic free-cooling and free-heating functions.

Control

The units are equipped with an integrated automation system. The on-board control board has various I/O that enables unit control by wall mount controller, external sensors or by a third party smart home system and BMS. The units can be controlled via Modbus or BACnet network.

- Mobile APP control via wifi network.
- Stand-by pre-configured set speeds.
- 7 days timer control.
- In-built PI controller for Controlling air quality, Humidity and temperature.
- Boost model function.
- Auto By-pass operation.
- External 0-10V speed control function.
- 0-10V output for electric heater modulation control.
- In-built temperature sensors for real time temperature display and temperature control.
- Fire alarm input to shut down the operation in the event of fire.



Noise Level

HRU300

	Octave-Frequency, Hz								LwA	LpA (3 m)
	63	125	250	500	1000	2000	4000	8000		
LwA Fresh air dB	14	53	68	65	67	69	64	64	75	54
LwA Supply air dB	13	51	65	54	51	47	37	28	66	45
LwA Extract air dB	12	47	62	66	61	64	55	61	71	50
LwA Exhaust air dB	11	45	61	52	51	48	38	34	62	41
LwA Environment dB	17	30	43	45	36	35	31	35	48	27

HRU550

	Octave-Frequency, Hz								LwA	LpA (3 m)
	63	125	250	500	1000	2000	4000	8000		
LwA Fresh air dB	26	60	68	54	53	48	40	29	69	48
LwA Supply air dB	27	62	71	66	68	68	66	64	76	55
LwA Extract air dB	26	60	68	54	53	48	40	29	69	48
LwA Exhaust air dB	24	55	65	53	53	49	41	35	66	45
LwA Environment dB	29	40	46	46	38	36	34	36	50	30

HRU900

	Octave-Frequency, Hz								LwA	LpA (3 m)
	63	125	250	500	1000	2000	4000	8000		
LwA Fresh air dB	30	64	72	69	74	73	71	71	80	59
LwA Supply air dB	29	62	69	58	59	53	45	36	70	49
LwA Extract air dB	29	60	69	72	70	71	64	70	78	57
LwA Exhaust air dB	28	58	68	59	61	56	48	44	69	48
LwA Environment dB	33	42	47	49	44	41	39	43	53	33



HRU1500

	Octave-Frequency, Hz								LwA	LpA (3 m)
	63	125	250	500	1000	2000	4000	8000		
LwA Fresh air dB	57	54	54	48	47	44	41	33	52	31
LwA Supply air dB	62	62	66	67	70	72	69	62	76	55
LwA Extract air dB	57	54	54	48	47	44	41	33	52	31
LwA Exhaust air dB	61	61	65	66	69	71	68	61	75	54
LwA Environment dB	54	52	54	39	38	40	37	31	48	28

HRU2500

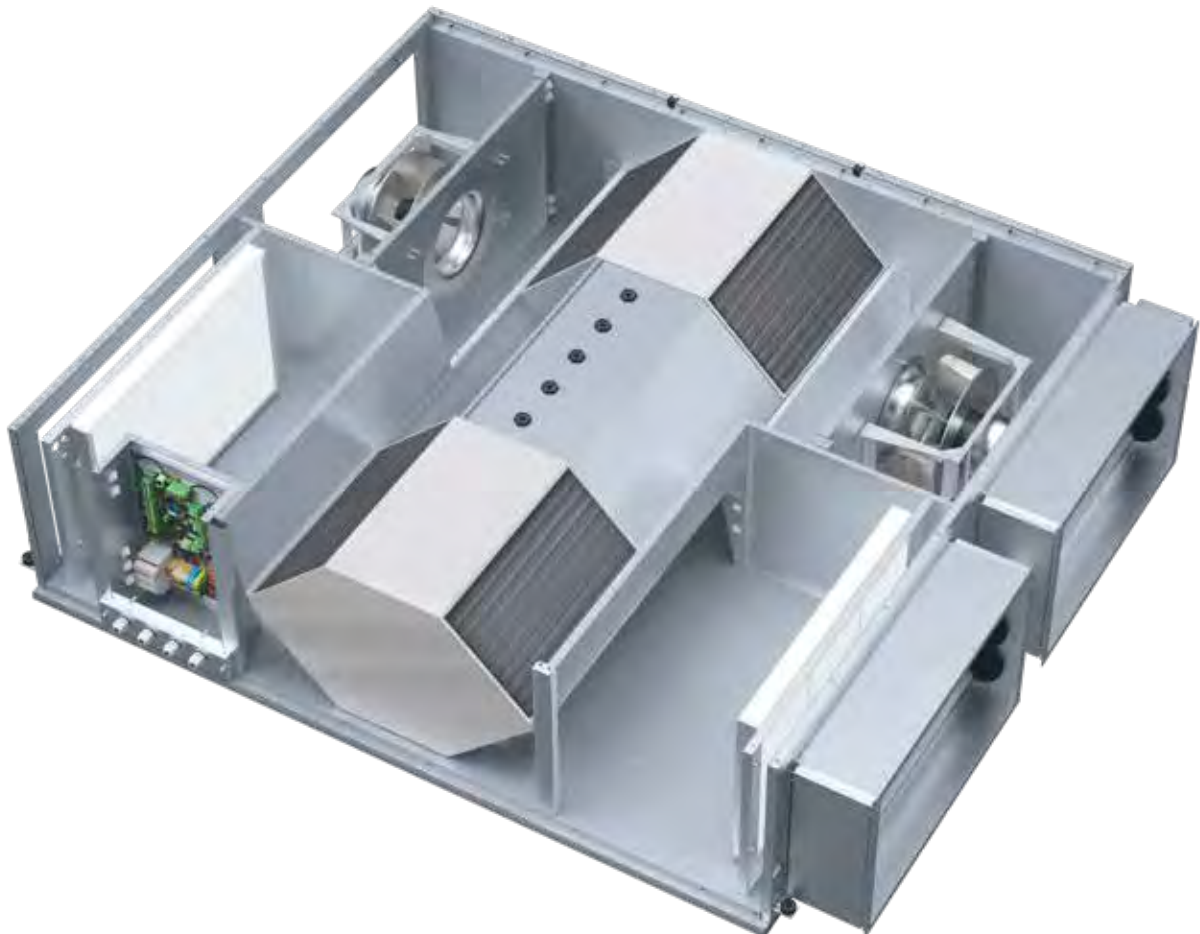
	Octave-Frequency, Hz								LwA	LpA (3 m)
	63	125	250	500	1000	2000	4000	8000		
LwA Fresh air dB	65	72	64	58	51	44	39	35	61	40
LwA Supply air dB	70	80	76	77	74	72	67	64	79	58
LwA Extract air dB	65	72	64	58	51	44	39	35	61	40
LwA Exhaust air dB	69	79	75	76	73	71	66	63	78	57
LwA Environment dB	62	70	64	49	42	40	35	33	58	38

HRU3500

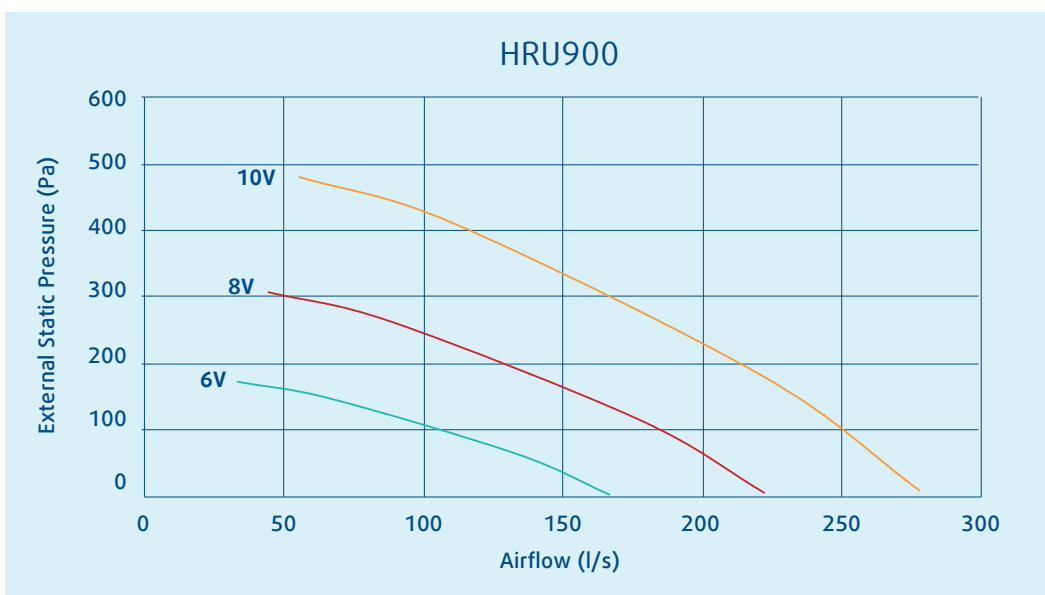
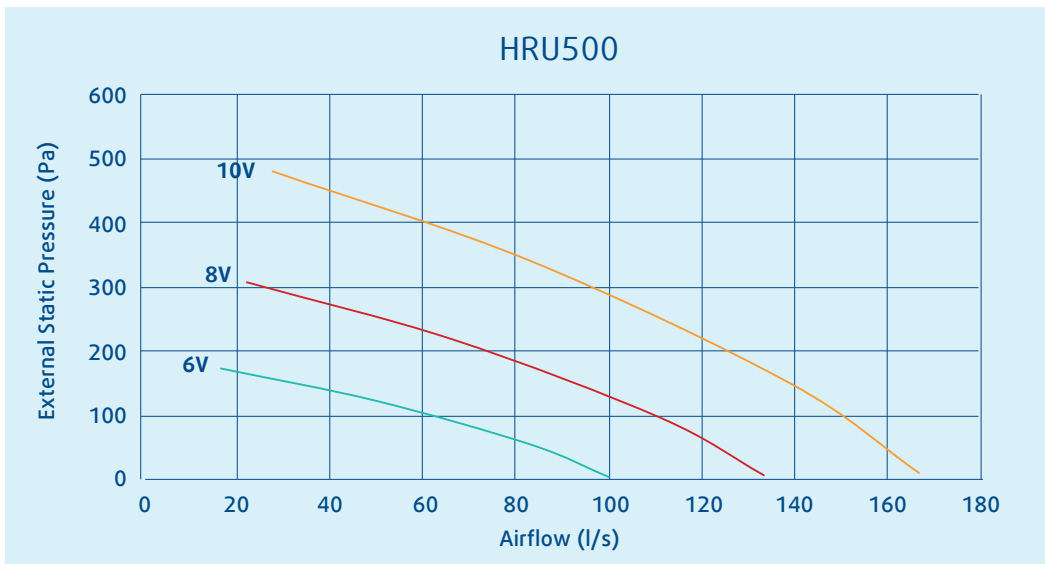
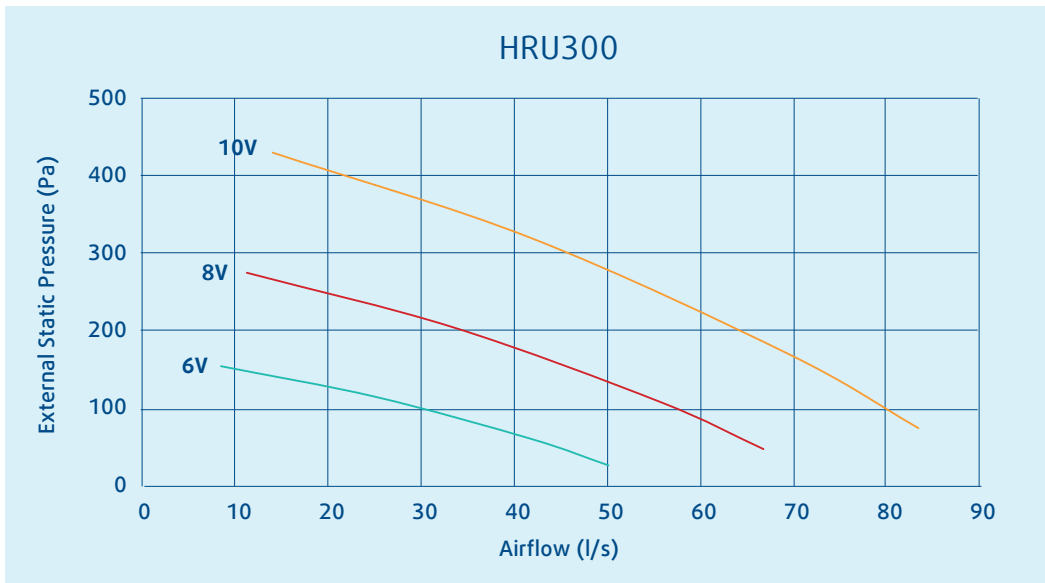
	Octave-Frequency, Hz								LwA	LpA (3 m)
	63	125	250	500	1000	2000	4000	8000		
LwA Fresh air dB	66	60	63	57	55	48	42	37	60	39
LwA Supply air dB	71	68	75	76	78	76	70	66	82	61
LwA Extract air dB	66	60	63	57	55	48	42	37	60	39
LwA Exhaust air dB	70	67	74	75	77	75	69	65	81	60
LwA Environment dB	63	58	63	48	46	44	38	35	56	36

Technical Data

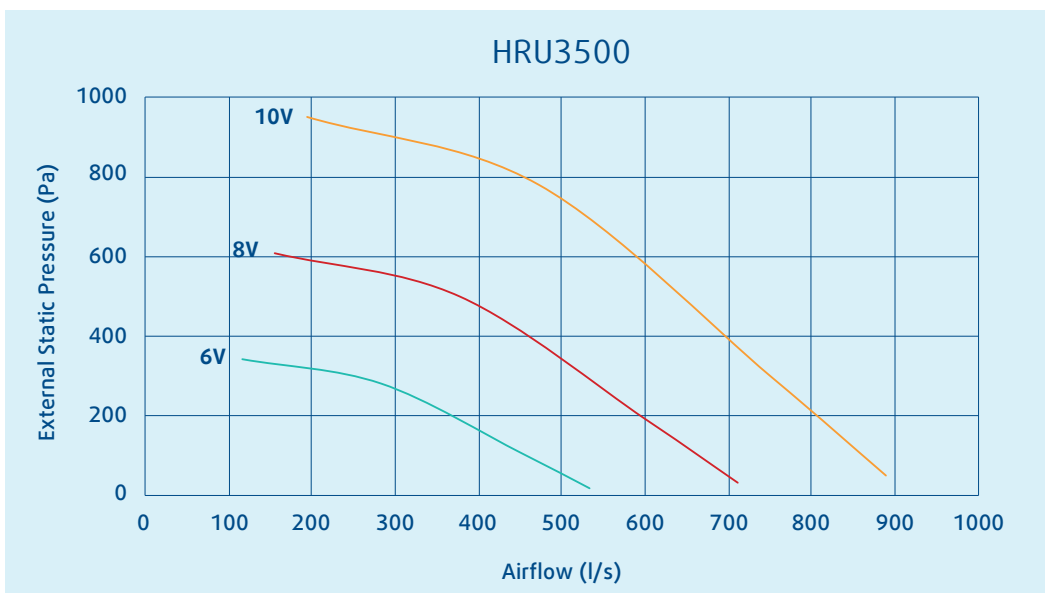
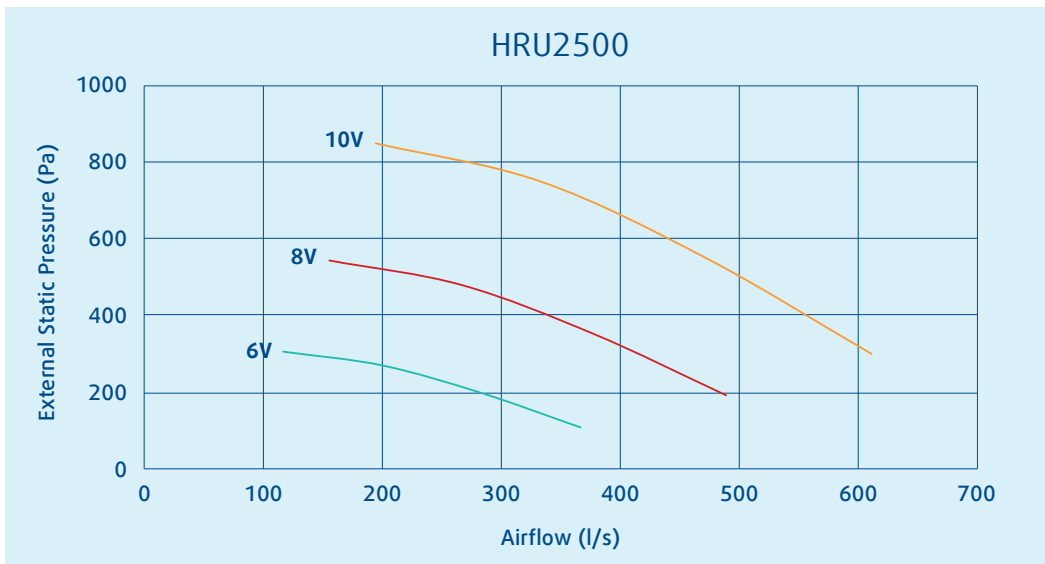
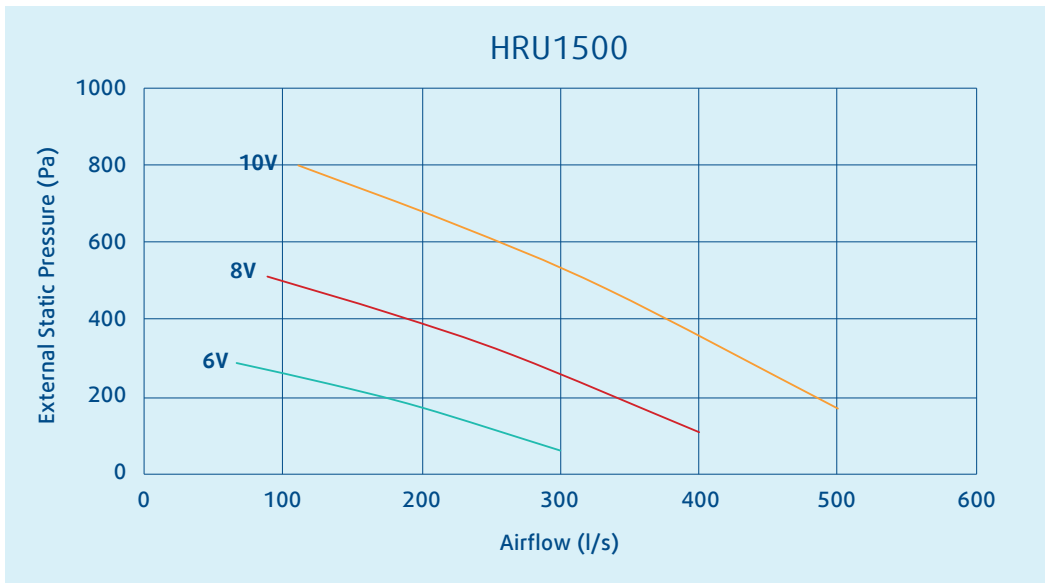
Unit	HRU300	HRU550	HRU900	HRU1500	HRU2500	HRU3500
Power Supply (V/PH)	230/1	230/1	230/1	230/1	230/1	400/3
Max Unit Power Without electric Heater (W)	180	297	442	920	1480	2240
Integrated Electric Heater (kW)	1.5	2	3.3	N/A	N/A	N/A
Max Unit Current Without electric Heater (A)	1.4	2.4	3.1	4	6.5	3.6
Integrated Electric Heater current (A)	6.5	8.7	14.3	N/A	N/A	N/A
Fan Full Speed (RPM)	3270	3100	2720	3000	2640	2400
Operating Temperature (°C)	-20 to 40 °C	-20 to 40 °C	-20 to 40 °C	-20 to 40 °C	-20 to 40 °C	-20 to 40 °C
Case Material	Aluzinc + Powder Coating	Aluzinc + Powder Coating	Aluzinc + Powder Coating	Aluzinc + Powder Coating	Aluzinc + Powder Coating	Aluzinc + Powder Coating
Panel	Double Skin	Double Skin	Double Skin	Double Skin	Double Skin	Double Skin
Insulation	20mm Mineral Wool	20mm Mineral Wool	20mm Mineral Wool	40mm Mineral Wool	40mm Mineral Wool	40mm Mineral Wool
Anti Corrosion Class	C5	C5	C5	C5	C5	C5
By-pass Damper	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
Extract Filter	G4	G4	G4	G4	G4	G4
Supply Filter	G4 (F7 Option)	G4 (F7 Option)	G4 (F7 Option)	G4 (F7 Option)	G4 (F7 Option)	G4 (F7 Option)
Connection size (mm)	160Ø	200Ø	250Ø	600x350	600x350	600x350
Weight (kg)	44	67	111	215	220	290
Heat Recovery Efficiency (%)	Up to 90%	Up to 90%	Up to 90%	Up to 90%	Up to 90%	Up to 90%
Heat Exchanger Type	Counterflow Non-Permeable	Counterflow Non-Permeable	Counterflow Non-Permeable	Counterflow Non-Permeable	Counterflow Non-Permeable	Counterflow Non-Permeable



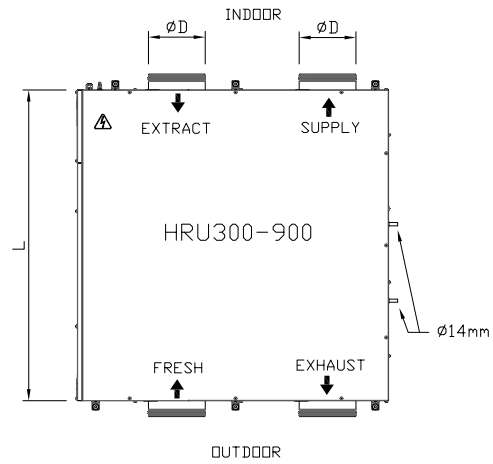
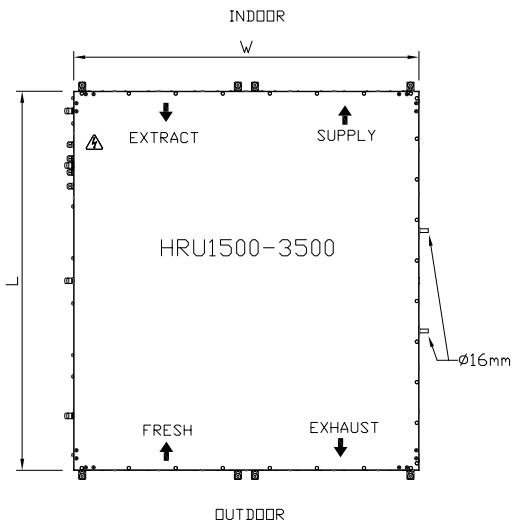
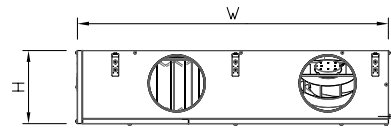
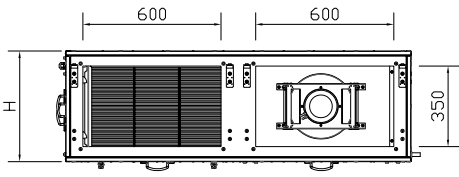
Fan Curves



Fan Curves



Dimension



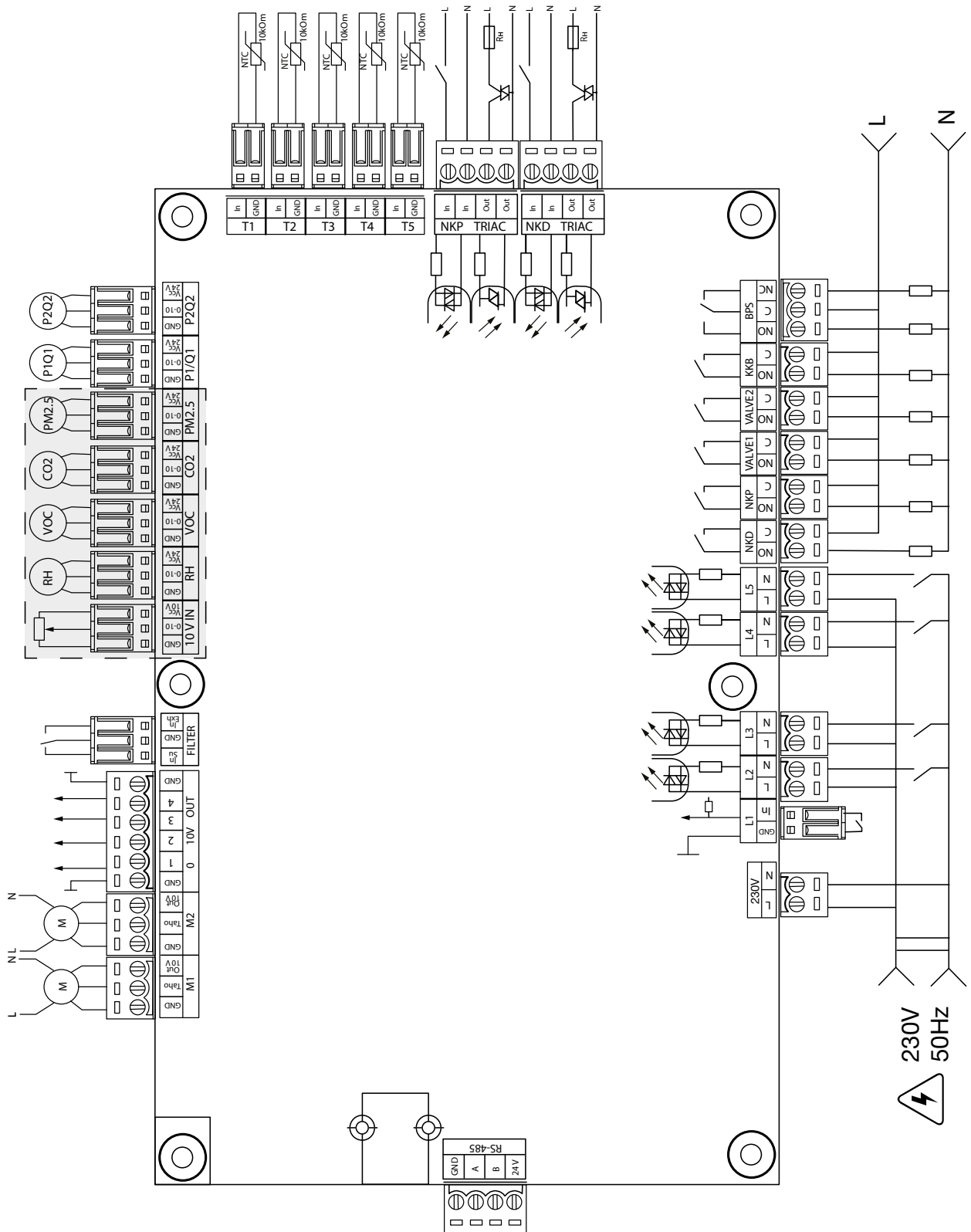
HRU1500-3500


MODEL	HRU1500	HRU2500	HRU3500
L	1646	1646	1880
W	1500	1500	1500
H	480	480	630
Connection	600x350	600x350	600x350
Weight	215	220	290

HRU300-900

MODEL	HRU300	HRU550	HRU900
L	1238	1238	1349
W	485	827	1351
H	281	280	318
Connection D	160 ϕ	200 ϕ	250 ϕ
Weight	44	67	111

Controller Wiring Diagram



 - Electric shock hazard!

Prioritise. Simplify. Trust.





Systemair New Zealand Ltd

Ph 0800 100 326
nzsales@systemair.nz
www.systemair.nz