



RHE  
Vertical discharge (VD)



RHE  
Horizontal discharge (HD)

High efficient heat recovery units up to 88% with rotary wheel, plug-fans with backward curved blades and EC external-rotor motor.

Pre-configured control system for easy start-up. The casing is made of 50 mm thick, self-supporting double skinned panels (mineral wool, 40 kg/m<sup>3</sup>, thermal conductivity 0.037 W/ mK). The outer skin is made from coated steel (RAL7024) with a high resistance against corrosion (class: RC3) and UV light (class: RUV3) according to EN 10169 and the inner skin is made from pre-galvanised steel. Support feet are made from 3 mm, black coated pre-galvanised steel, 100 mm high with possibility to fit anti-vibration mounts or leveling feet.

Easy access to all components via large hinged front doors.

Circular inlet and discharge connection flanges with EPDM rubber seal strip, VELODUCT® tightness class D up to size 3500, rectangular connections for the sizes 6000, 8000 and 10000.

#### Application

Public buildings, commercial offices, stores, schools and restaurants.

#### Range

3 versions:

- horizontal discharge HD.
- vertical discharge VD.
- horizontal discharge for outdoor installation (HD OI).

7 sizes: 1300 m<sup>3</sup>/h, 1900 m<sup>3</sup>/h, 2500 m<sup>3</sup>/h, 3500 m<sup>3</sup>/h, 6000 m<sup>3</sup>/h, 8000 m<sup>3</sup>/h and 10000 m<sup>3</sup>/h.

4 models:

- RHE D: without additional heater.
- RHE DI: with built-in electric post-heating.
- RHE DC: with built-in hot water coil.
- RHE DFR: with built-in reversible hot/chilled water coil (chilled water coil only for HD version available).

Built-in and connected control system (Plug & Play).

Ranges of product according to the type of operating control:

#### VAV - variable air volume

Fan speed can be adjusted with a 0 - 10V signal from the remote touchscreen panel (included) or an external CO<sub>2</sub>, temperature or humidity sensor (accessories).

#### CAV - constant air volume

Manual pre-setting of 2 working points the fans are controlled separately.

#### COP - constant pressure

Constant pressure measured by an external sensor (accessory).

#### Fan / Motor

Plug-fan with backward curved blades, external rotor EC motor with maintenance free ball bearings and permanent lubrication, with integrated electronic protection (locked-rotor, phase failure, under-voltage, over-temperature, short-circuit).

Electrical supply:

RHE 1300 and 1900: 1 ~ 230V, 50/60Hz, IP54, Class B.

RHE 2500 / 3500 / 6000: 3 ~ 400V, 50/60Hz, IP54, Class B.

RHE 8000 / 10000: 3 ~ 400V, 50/60Hz, IP54, Class F.

RHE - standard range

RHE-SO - range with sorption exchanger wheel



Selection software



ectechnology

### REFERENCE

<b>R</b>	<b>H</b>	<b>E</b>	-	<b>2</b>	<b>5</b>	<b>0</b>	<b>0</b>	-	<b>HD</b>	-	<b>DC</b>	-	<b>OI</b>	-	<b>SO</b>
1				2					3		4		5		6

- 1 - Serie.
- 2 - Size.
- 3- **HD**: horizontal discharge.  
**VD**: vertical discharge.
- 4- **D**: Standard range.  
**DI**: Range with built-in electric heater.  
**DC**: Range with built-in hot water coil.  
**DFR**: Range with build in reversible water coil.
- 5 - **OI**: Outdoor installation.
- 6 - **SO**: Sorption.

#### Electric heater (DI)

- Heater elements are made of stainless Steel AISI 430.
- Built-in overheating protection thermostat with automatic reset at 70°C and manual reset at 120°C.

#### Hot water coil (DC)

- 2 row hot water coil made of copper pipes and aluminium fins.
- Motorized (24V) 3 way valve for proportional (0-10V) control (accessory).
- Anti-frost protection by clamp-on temperature sensor to the return flow pipe.

#### Hot / Chilled water, reversible coil (DFR)

- 2 row hot water coil made of copper pipes and aluminium fins.
- Motorized (24V) 3 way valve for proportional (0-10V) control (accessory).
- Anti-frost protection by clamp-on temperature sensor to the return flow pipe.
- With welded stainless steel condensate dip tray and droplet separator.
- Condensate drain (diameter 1/2") located under the unit and has to be connected to a siphon.
- Build-in changeover thermostat (THCO) which controls a mixing valve in dependence of the outdoor temperature.

#### Filter

- G4 filter on the extracted air to protect the heat exchanger.
- G4 and F7 filters on the outdoor air.
- The filter clogging is checked by differential pressure sensor measuring and transmitting the pressure drop to the control.

#### Control system

- Build-in programmable control system (Plug & Play).
- Modbus communication protocol.
- Remote touchscreen panel (ETD) included.

### ELECTRONIC MICROPROCESSOR FEATURES AND FUNCTIONS

RHE control system	D	DI	DC	DFR
<b>MAIN COMPONENTS</b>				
<b>Internal electrical box – composition:</b>				
• Main power connection switch / safety circuit breaker	●	●	●	●
• Controller and terminal strip integrated into the unit, easy access main side	●	●	●	●
<b>FUNCTIONS</b>				
<b>Air flow control</b>				
• Constant air volume (CAV): 2 different setpoint speed on supply and exhaust air	●	●	●	●
• Variable air volume (VAV): signal 0-10V coming from an outdoor probe (CO <sub>2</sub> , temperature, relative humidity, etc.) or a manual percentage across the control panel	●	●	●	●
• Constant pressure (COP) value measured by an outdoor pressure sensor (SPRD+KTPR = Accessories)	●	●	●	●
• Time programming (week timer, Holiday periods...)	●	●	●	●
• Extending running BOOST by external contact demand	●	●	●	●
• On/Off system by external contact	●	●	●	●
<b>Temperature control</b>				
<b>Temperature sensor:</b>				
• Outdoor air temperature sensor	●	●	●	●
• Extract air temperature sensor	●	●	●	●
• Supply air temperature sensor	●	●	●	●
• Frost protection sensor on water coil (DC-DFR)			●	●
• «CHANGE OVER» thermostat installed on water input pipe (DFR)				●
• Free cooling by switching off the heat exchanger rotation (Intermittant rotation of wheel reduces risk of dust clogging)	●	●	●	●
• Outdoor air damper actuator control (damper-accessory)	●	●	●	●
<b>Internal electric resistance control:</b>				
• Proportional control (PWM) for the electric heater		●		
<b>Internal water coil control:</b>				
• Motorized 3 way valve proportional 0-10 V unmounted			⊗	⊗
<b>External water coil(s) control:</b>				
• Power control of the external hot or cold water coil by a signal proportional 0-10V	⊗ (1)	⊗ (1)	⊗ (2)	⊗ (3)
• Supply air duct sensor TGA3 PT1000	⊗	⊗	⊗	⊗
• Frost protection sensor on water coil TGA1 PT1000	⊗	⊗		⊗
• CHANGE OVER thermostat to be installed on water input pipe	⊗	⊗		
<b>Security and alarm control</b>				
• Filter clogging indication	●	●	●	●
• Malfunction of connected sensor	●	●	●	●
• Malfunction of fan	●	●	●	●
• Result deviates too much from the set point (Airflow, Pressure, T°)	●	●	●	●
• Fire alarm (contact available)	●	●	●	●
• Communication failure between controller and display control	●	●	●	●
• Frost protection for the water coil (force the heating valve to open thereby preventing freeze-up of the heater if water T° lower than 7°C on heating mode - stop the unit if the water T° do not increase)	●	●	●	●
• Alarm management (40 latest alarms)	●	●	●	●
<b>Communication</b>				
• Remote touch screen panel	●	●	●	●
• Maintenance display DSP	⊗	⊗	⊗	⊗
• Modbus via integrated RS485 communication port	●	●	●	●
• BACNET	⊗	⊗	⊗	⊗

● Included

⊗ Accessory

(1) hot or chilled water coil, (2) chilled water coil, (3) hot water coil

### TECHNICAL CHARACTERISTICS

#### Hot water coil data for units with vertical discharge (VD)

RHE 1300 VD – Airflow 1300 m <sup>3</sup> /h										
T° Outdoor air	T° Extract air	Air T° after the heat recovery (coil input)	Water T° (°C)	Power (kW)	Air T° outlet (°C)	Outlet air relative Humidity (% RH)	Air pressure drop (Pa)	Water flow (l/h)	Water pressure drop (kPa)	End treated pipe connection Ø (")
-10°C -90% RH	20°C 50% RH	12°C – 53% RH	45/40	4,8	23,36	26	84	846	12	1/2"
			60/40	5,14	23,9	25,3	84	224	5,1	1/2"
			80/60	8,86	32,3	15,6	84	391	6,2	1/2"
			90/70	10,71	36,5	12,3	84	475	6,8	1/2"

RHE 1900 VD – Airflow 1900 m <sup>3</sup> /h										
T° Outdoor air	T° Extract air	Air T° after the heat recovery (coil input)	Water T° (°C)	Power (kW)	Air T° outlet (°C)	Outlet air relative Humidity (% RH)	Air pressure drop (Pa)	Water flow (l/h)	Water pressure drop (kPa)	End treated pipe connection Ø (")
-10°C -90% RH	20°C 50% RH	12°C – 51% RH	45/40	7,85	24,1	23	67	1358	33,9	1/2"
			60/40	8,77	25,5	21	67	382	6,9	1/2"
			80/60	14,4	34,3	13	67	637	10,2	1/2"
			90/70	17,3	38,7	10,3	67	767	12,4	1/2"

RHE 2500 VD – Airflow 2500 m <sup>3</sup> /h										
T° Outdoor air	T° Extract air	Air T° after the heat recovery (coil input)	Water T° (°C)	Power (kW)	Air T° outlet (°C)	Outlet air relative Humidity (% RH)	Air pressure drop (Pa)	Water flow (l/h)	Water pressure drop (kPa)	End treated pipe connection Ø (")
-10°C -90% RH	20°C 50% RH	13°C – 51% RH	45/40	10,67	25,5	23	49	1848	25	3/4"
			60/40	12,05	27,1	21	49	525	6,3	3/4"
			80/60	20,02	36	12	49	883	8,9	3/4"
			90/70	24	41	9	49	1065	10,6	3/4"

RHE 3500 VD – Airflow 3500 m <sup>3</sup> /h										
T° Outdoor air	T° Extract air	Air T° after the heat recovery (coil input)	Water T° (°C)	Power (kW)	Air T° outlet (°C)	Outlet air relative Humidity (% RH)	Air pressure drop (Pa)	Water flow (l/h)	Water pressure drop (kPa)	End treated pipe connection Ø (")
-10°C -90% RH	20°C 50% RH	13°C – 51% RH	45/40	15,3	25,9	22,7	44	2655	34,3	3/4"
			60/40	17,4	27,7	20,4	44	762	7,1	3/4"
			80/60	28,8	37,2	11,9	44	1272	10,8	3/4"
			90/70	34,5	41,9	7,6	44	1531	13	3/4"

#### Water coil data for units with horizontal discharge, hot water or reversible hot/cold water coil DC-DFR

RHE 1300 HD – Airflow 1300 m <sup>3</sup> /h										
T° Outdoor air	T° Extract air	Air T° after the heat recovery (coil input)	Water T° (°C)	Power (kW)	Air T° outlet (°C)	Outlet air relative Humidity (% RH)	Air pressure drop (Pa)	Water flow (l/h)	Water pressure drop (kPa)	End treated pipe connection Ø (")
-10°C -90% RH	20°C 50% RH	12,3°C – 53% RH	45/40	5,81	25,4	23	44	1006	18,2	1/2"
			60/40	6,47	26,9	21	44	282	5,8	1/2"
			80/60	10,7	36	12	44	474	7,6	1/2"
			90/70	12,8	41	9,5	44	571	8,8	1/2"
35°C - 40% RH	26°C 50% RH	28,3°C – 58% RH	07/12	3,56	22,4	77	92	612	10,7	1/2"

RHE 1900 HD – Airflow 1900 m <sup>3</sup> /h										
T° Outdoor air	T° Extract air	Air T° after the heat recovery (coil input)	Water T° (°C)	Power (kW)	Air T° outlet (°C)	Outlet air relative Humidity (% RH)	Air pressure drop (Pa)	Water flow (l/h)	Water pressure drop (kPa)	End treated pipe connection Ø (")
-10°C -90% RH	20°C 50% RH	12°C – 51% RH	45/40	8,9	25,8	21	37	1542	16,7	3/4"
			60/40	9,98	27	19	37	435	5,7	3/4"
			80/60	16,4	37	11	37	724	7,3	3/4"
			90/70	19,6	42	8,5	37	871	8,3	3/4"
35°C - 40% RH	26°C 50% RH	28°C – 58% RH	07/12	5,47	22	78	79	940	10,2	3/4"

### TECHNICAL CHARACTERISTICS

Water coil data for units with horizontal discharge, hot water or reversible hot/cold water coil DC-DFR

RHE 2500 HD – Airflow 2500 m <sup>3</sup> /h										
T° Outdoor air	T° Extract air	Air T° after the heat recovery (coil input)	Water T° (°C)	Power (kW)	Air T° outlet (°C)	Outlet air relative Humidity (% RH)	Air pressure drop (Pa)	Water flow (l/h)	Water pressure drop (kPa)	End treated pipe connection Ø (")
-10°C -90% RH	20°C 50% RH	13°C - 51% RH	45/40	11,7	26,8	21	33	2032	37,9	3/4"
			60/40	13,5	28,9	18,1	33	591	7,4	3/4"
			80/60	22,1	39	10	33	978	11,3	3/4"
			90/70	26,4	44	8	33	1175	13,7	3/4"
35°C -40% RH	26°C 50% RH	28°C - 59% RH	7/12	7,6	21,8	78	72	1307	19,7	3/4"

RHE 3500 HD – Airflow 3500 m <sup>3</sup> /h										
T° Outdoor air	T° Extract air	Air T° after the heat recovery (coil input)	Water T° (°C)	Power (kW)	Air T° outlet (°C)	Outlet air relative Humidity (% RH)	Air pressure drop (Pa)	Water flow (l/h)	Water pressure drop (kPa)	End treated pipe connection Ø (")
-10°C -90% RH	20°C 50% RH	13°C - 51% RH	45/40	16,8	27,1	21,1	28	2910	30,6	3/4"
			60/40	19,3	29,2	18,7	28	843	6,8	3/4"
			80/60	31,7	39,6	10,4	28	1400	10	3/4"
			90/70	37,9	44,8	7,9	28	1683	11,9	3/4"
35°C -40% RH	26°C 50% RH	28°C - 59% RH	07/12	10,9	21,7	79	63	1873	16,5	3/4"

RHE 6000 HD – Airflow 6000 m <sup>3</sup> /h										
T° Outdoor air	T° Extract air	Air T° after the heat recovery (coil input)	Water T° (°C)	Power (kW)	Air T° outlet (°C)	Outlet air relative Humidity (% RH)	Air pressure drop (Pa)	Water flow (l/h)	Water pressure drop (kPa)	End treated pipe connection Ø (")
-10°C 90% RH	20°C 50% RH	13°C - 48% RH	45/40	26,38	26,2	21,4	37	4568	15	1"
			60/40	29,35	27,7	19,6	37	1279	5,5	1"
			80/60	49,51	37,6	11,3	37	2184	7	1"
			90/70	59,55	42,5	8,7	37	2643	8	1"
35°C -40% RH	26°C -50% RH	28°C - 59% RH	07/12	16,57	22,2	78	84	2847	9,7	1"

RHE 8000 HD – Airflow 8000 m <sup>3</sup> /h										
T° Outdoor air	T° Extract air	Air T° after the heat recovery (coil input)	Water T° (°C)	Power (kW)	Air T° outlet (°C)	Outlet air relative Humidity (% RH)	Air pressure drop (Pa)	Water flow (l/h)	Water pressure drop (kPa)	End treated pipe connection Ø (")
-10°C 90% RH	20°C 50% RH	13°C - 48% RH	45/40	36,45	26,7	20,8	32	6311	15,7	1 1/4"
			60/40	40,81	28,3	18,9	32	1779	5,6	1 1/4"
			80/60	68,57	38,5	10,7	32	3024	7,2	1 1/4"
			90/70	82,35	45,6	8,2	32	3655	8,2	1 1/4"
35°C -40% RH	26°C -50% RH	28°C - 59% RH	07/12	23,1	22	78	72	3981	10,1	1 1/4"

RHE 10000 HD – Airflow 10000 m <sup>3</sup> /h										
T° Outdoor air	T° Extract air	Air T° after the heat recovery (coil input)	Water T° (°C)	Power (kW)	Air T° outlet (°C)	Outlet air relative Humidity (% RH)	Air pressure drop (Pa)	Water flow (l/h)	Water pressure drop (kPa)	End treated pipe connection Ø (")
-10°C 90% RH	20°C 50% RH	13°C - 51% RH	45/40	46	27	21,8	29	8019	22	1 1/4"
			60/40	52	28	19,6	29	2290	6,1	1 1/4"
			80/60	87	39	11,6	29	3864	8,4	1 1/4"
			90/70	105	44	8,45	29	4662	9,9	1 1/4"
35°C -40% RH	26°C -50% RH	28°C - 60% RH	07/12	30	21,9	79,7	68	5227	13,2	1 1/4"

### ELECTRICAL CHARACTERISTICS

Standard (condensation wheel) + sorption wheel (SO)

#### D/DC/DFR Models

Model	Heat exchanger motor (1)			Fan motor (2)				Global unit		
	Power supply voltage	Nominal power (W)	Current (A)	Voltage (V)	Frequency (Hz)	Max. absorbed power (W)	Current (A)	Power supply voltage	Total supply power (kW)	Total current max. (A)
RHE 1300 D/DC/DFR (SO)	230 V single phase	40	0,2	230 V single phase	50/60	700	3	230 V single phase	2	7,3
RHE 1900 D/DC/DFR (SO)	230 V single phase	40	0,2	230 V single phase	50/60	715	3,1	230 V single phase	2	7,5
RHE 2500 D/DC/DFR (SO)	400 V three phase	55	0,28	400 V three phase + N	50/60	1000	1,6	400 V three phase + N	3	4,5
RHE 3500 D/DC/DFR (SO)	400 V three phase	55	0,28	400 V three phase + N	50/60	1000	1,7	400 V three phase + N	3	4,6
RHE 6000 D/DC/DFR (SO)	400 V three phase	55	0,28	400 V three phase + N	50/60	1850	2,9	400 V three phase + N	4	7,2
RHE 8000 D/DC/DFR (SO)	400 V three phase	120	0,35	400 V three phase + N	50/60	2730	4,2	400 V three phase + N	6	9,8
RHE 10000 D/DC/DFR (SO)	400 V three phase	120	0,35	400V three phase + N	50/60	3000	4,6	400 V three phase	6,5	10,5
RHE 1300 DI (SO)	230 V single phase	40	0,2	230 V single phase	50/60	700	3	230 V single phase	6	24,6
RHE 1900 DI (SO)	230 V single phase	40	0,2	230 V single phase	50/60	715	3,1	230 V single phase	10	42,2
RHE 2500 DI (SO)	400 V three phase	55	0,28	400 V three phase + N	50/60	1000	1,6	400 V three phase + N	15	21,8
RHE 3500 DI (SO)	400 V three phase	55	0,28	400 V three phase + N	50/60	1000	1,7	400 V three phase + N	18	26,3
RHE 6000 DI (SO)	400 V three phase	55	0,28	400 V three phase + N	50/60	1850	2,9	400 V three phase + N	28	41,9
RHE 8000 DI (SO)	400 V three phase	120	0,35	400 V three phase + N	50/60	2730	4,2	400 V three phase + N	42	61,8
RHE 10000 DI (SO)	400V three phase	120	0,35	400 V three phase + N	50/60	3000	4,6	400 V three phase	55	79,8

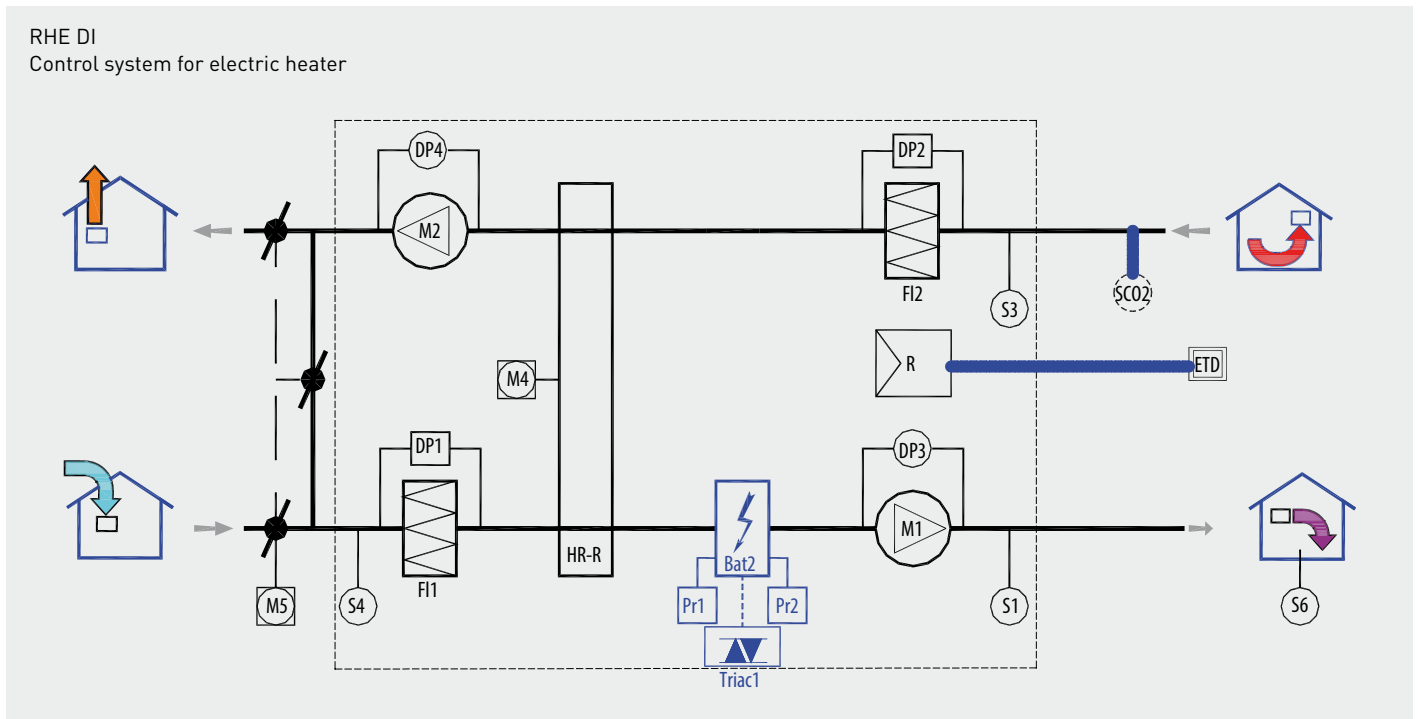
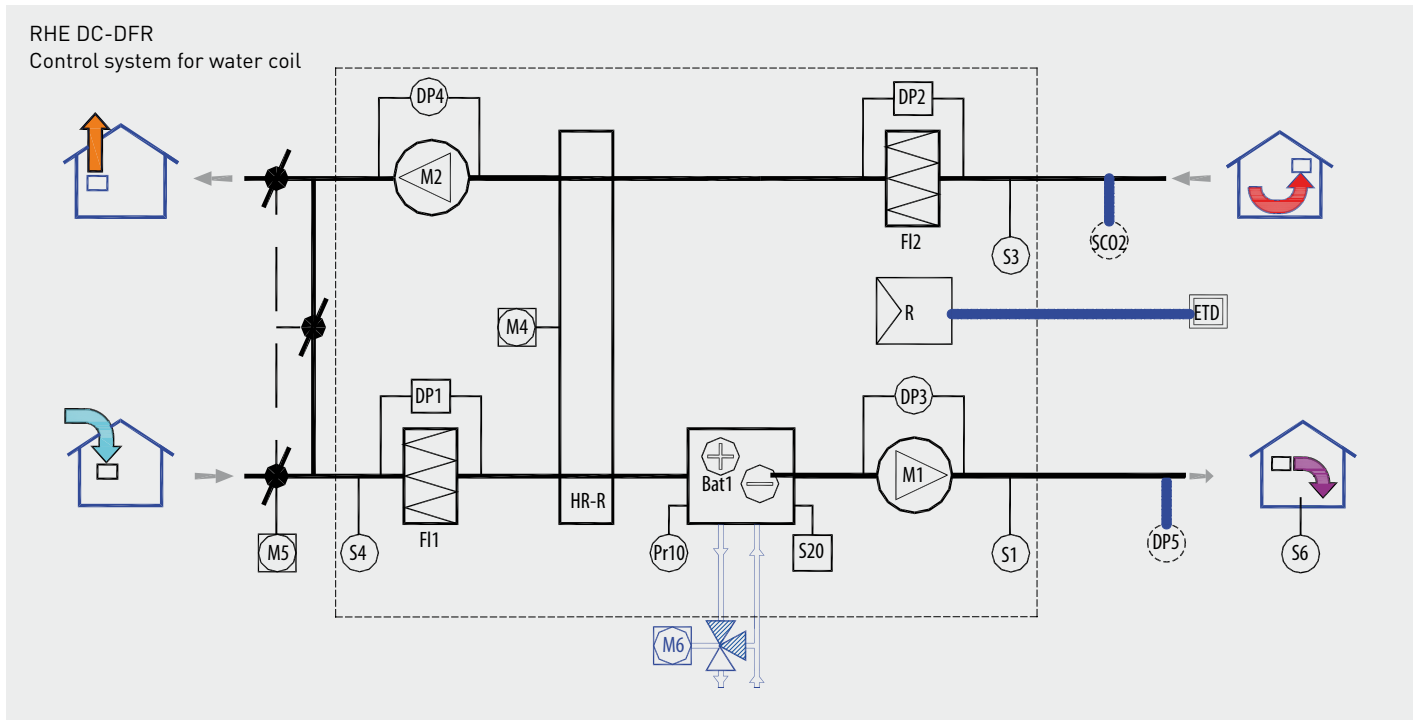
(1) 1 wheel drive motor per unit (2) Data for 1 fan motor - Each unit has 2 fan motors.

#### DI Model

Electric heater

Size	Power supply	Unit power (kW)	Unit current (A)
1300	230 V single phase	4	17,4
1900	230 V single phase	8	34,8
2500	400V three phase + N	12	17,3
3500	400V three phase + N	15	21,7
6000	400V three phase + N	24	34,7
8000	400V three phase + N	36	52
10000	400V three phase +N	48	69,3

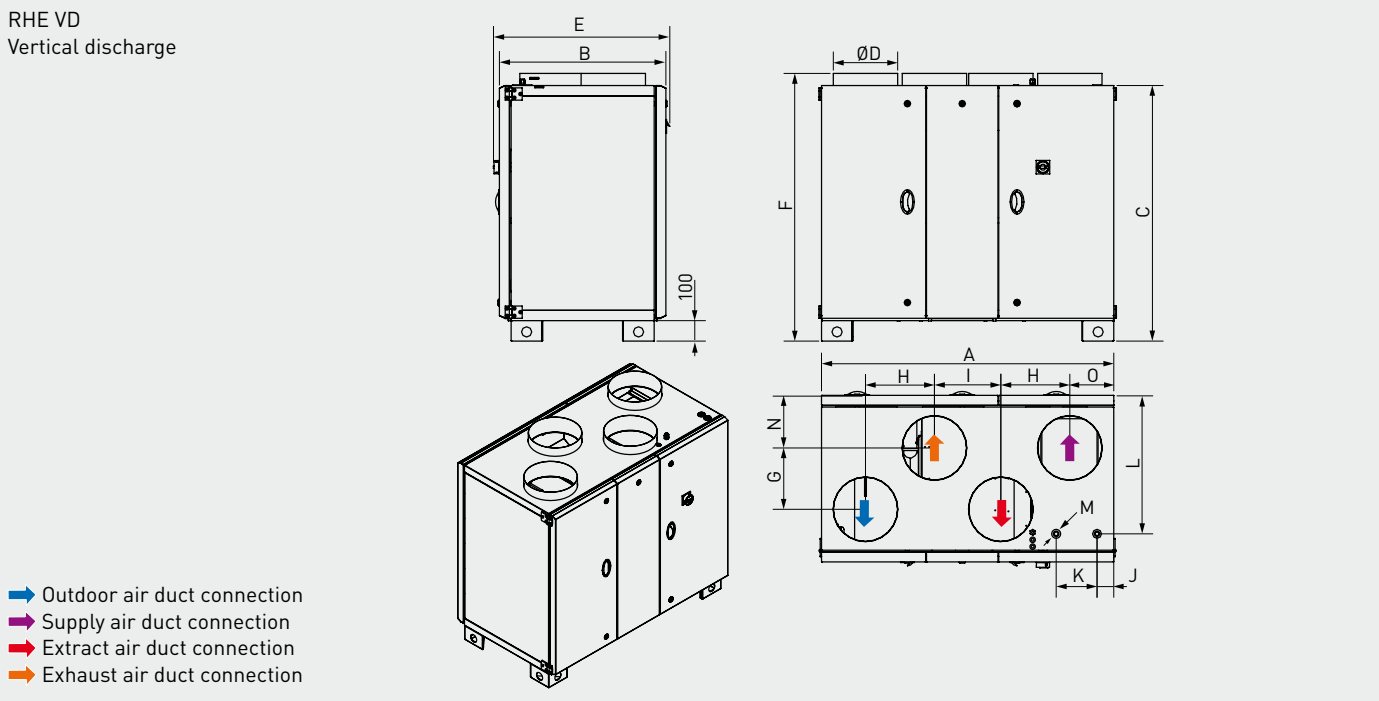
### SCHEMATIC DIAGRAM



- |    |  |      |                                       |         |                                 |
|----|--|------|---------------------------------------|---------|---------------------------------|
| M1 | Supply air fan motor                   | SCO2 | Air quality sensor (accessory)        | Pr10    | Antifrost sensor                |
| M2 | Exhaust air fan motor                  | RH-R | Rotary wheel                          | Pr1/Pr2 | Security thermostat (manu/auto) |
| M4 | Rotary exchanger motor                 | Fi1  | Outdoor air filters                   | S20     | Thermostat change-over          |
| M5 | Fresh air motorized damper (accessory) | Fi2  | Extract air filter                    | Bat 1   | Water coil                      |
| M6 | 3 way valve actuator (accessory)       | DP1  | Outdoor air filter pressure guard     | Bat 2   | Electrical heating resistance   |
| S1 | Supply air T° sensor                   | DP2  | Extract air filter pressure guard     | R       | Controller CORRIGO E28          |
| S3 | Extract air T° sensor                  | DP3  | Supply air fan pressure transmitter   | ETD     | Room touch screen display       |
| S4 | Outdoor T° sensor                      | DP4  | Exhaust air fan pressure transmitter  |         |                                 |
| S6 | Room T° sensor                         | DP5  | Duct pressure transmitter (accessory) |         |                                 |

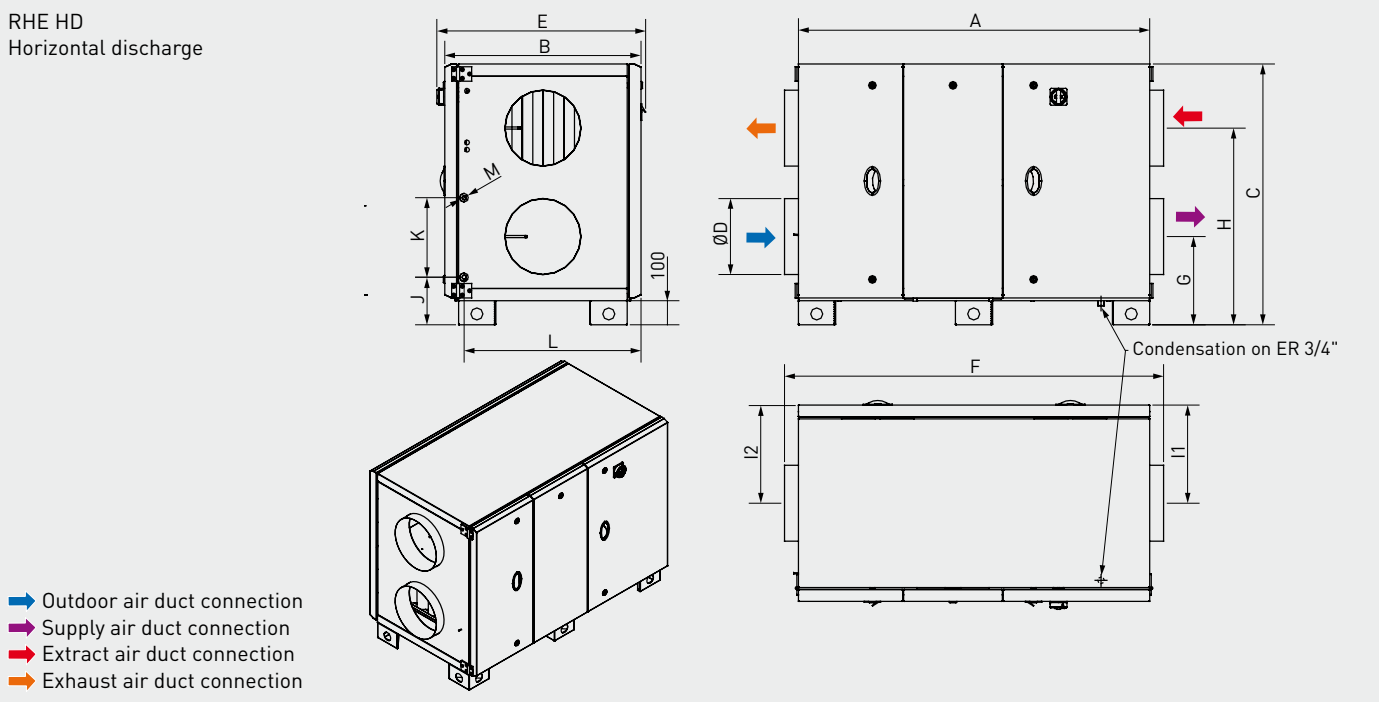
### DIMENSIONS (mm)

RHE VD  
Vertical discharge



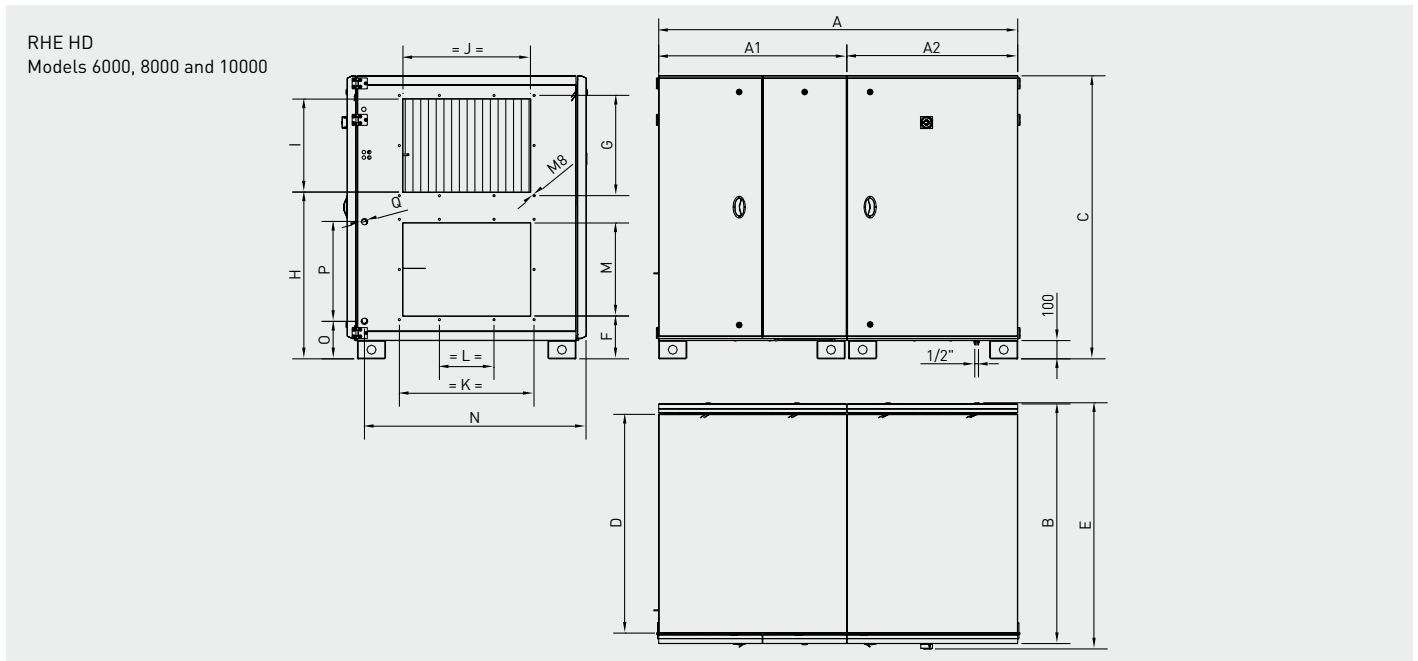
Model	A	B	C	ØD	E	F	G	H	I	J	K	L	M	N	O	Weight (kg)
RHE 1300 VD	1285	715	1125	250	750	1185	200	310	300	101	195	569	1/2"	258	183	196
RHE 1900 VD	1490	815	1250	315	850	1309	300	355	350	90	255	689	1/2"	258	215	257
RHE 2500 VD	1740	965	1350	355	1000	1410	400	420	400	105	307	825	3/4"	283	250	328
RHE 3500 VD	1900	1125	1530	450	1156	1590	450	460	400	105	367	985	3/4"	338	290	395

RHE HD  
Horizontal discharge



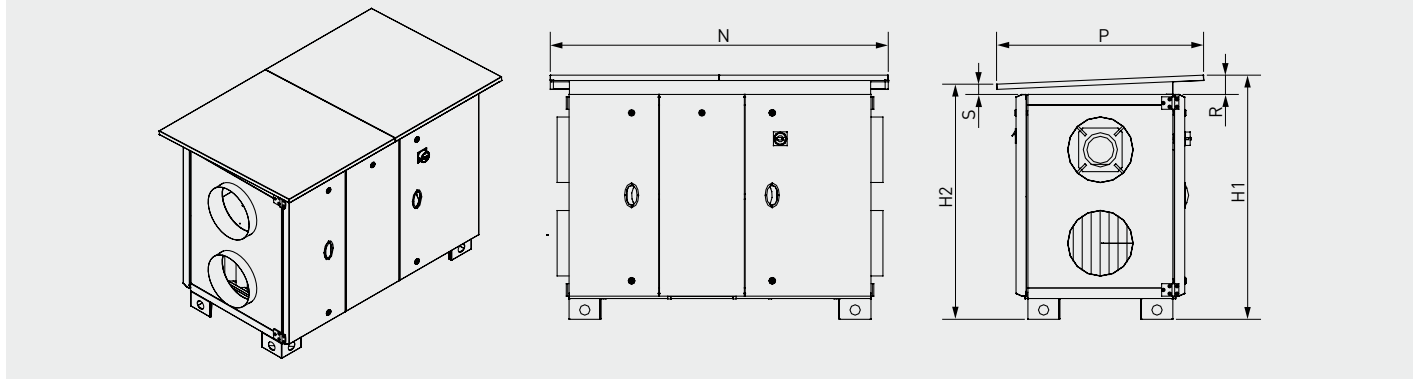
Model	A	B	C	ØD	E	F	G	H	I1	I2	J	K	L	M	Weight (kg)
RHE 1300 HD	1309	715	983	315	763	1425	329	754	327,5	357,5	210	255	625	1/2"	173
RHE 1900 HD	1459	815	1085	355	851	1575	356	826	407,5	407,5	194	337	719	3/4"	217
RHE 2500 HD	1558	965	1183	400	1000	1675	379	904	482,5	482,5	204	367	869	3/4"	242
RHE 3500 HD	1558	1125	1363	450	1160	1675	436	1026	562,5	562,5	204	457	1030	3/4"	323

### DIMENSIONS (mm)

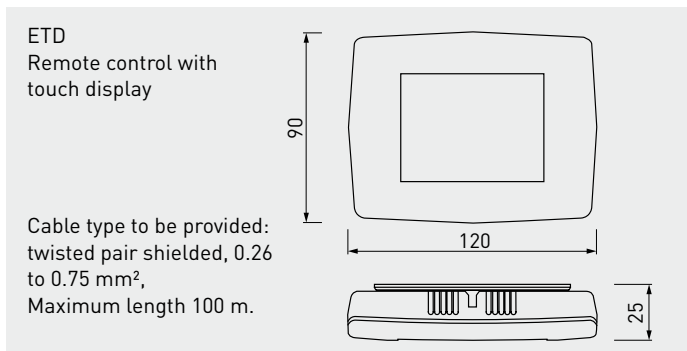


Model	A	A1	A2	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	Weight A1 (kg)	Weight A2 (kg)	Weight (kg)
RHE 6000 HD	1972	1034	938	1315	1553	1200	1350	235	550	915	510	700	740	300	510	1217	205	548	1"	290	240	530
RHE 8000 HD	2112	1114	998	1565	1803	1450	1600	245	650	1050	610	900	940	300	610	1444	216	653	1 1/4"	490	300	790
RHE 10000 HD	2412	1263	1149	1735	1971	1320	1770	285	650	1175	610	1100	1140	600	610	1614	214	743	1 1/4"	584	394	977

Outdoor version: Only for horizontal discharge versions (HD OI)

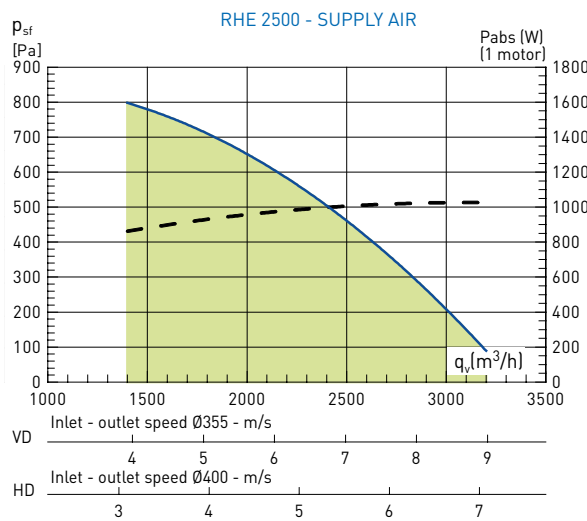
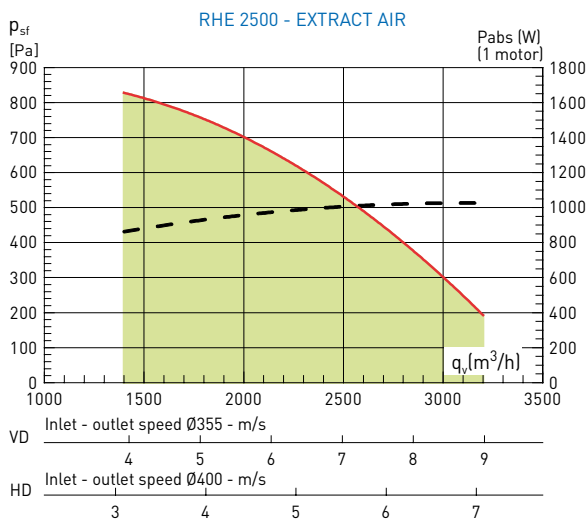
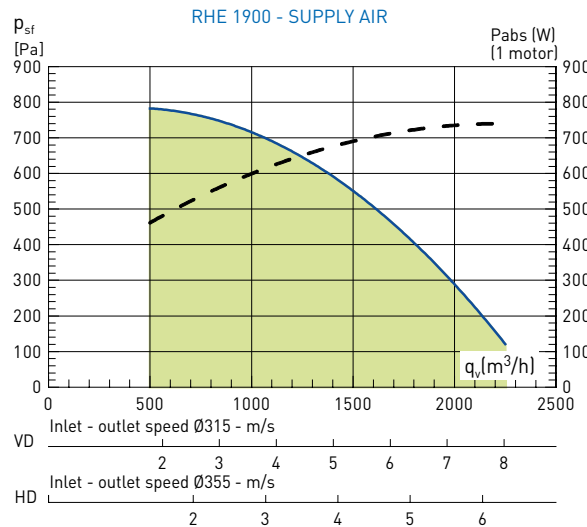
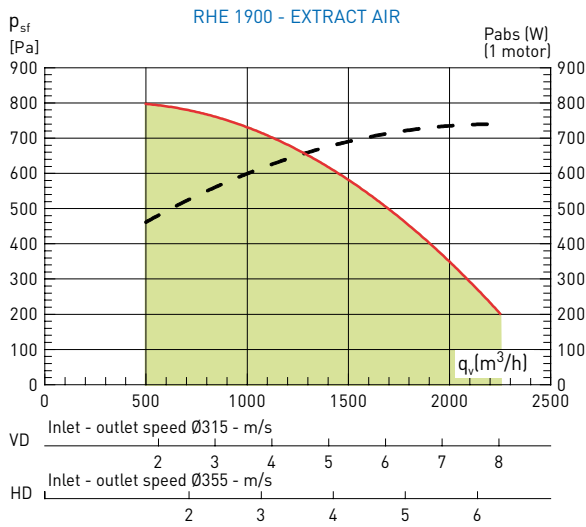
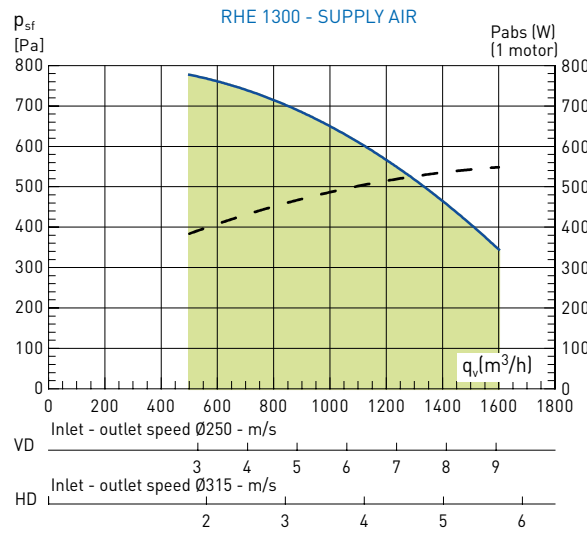
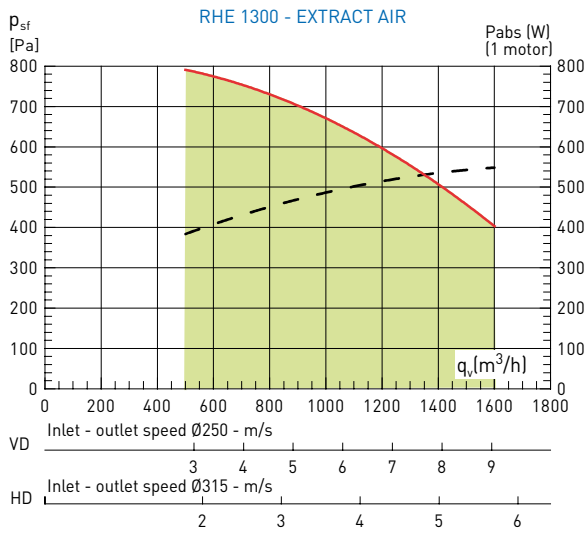


Model	H1	H2	N	P	R	S
RHE 1300 HD OI	1068	1036	1568	900	85	54
RHE 1900 HD OI	1171	1136	1719	1000	89	54
RHE 2500 HD OI	1276	1236	1818	1150	94	54
RHE 3500 HD OI	1462	1416	1818	1309	99	54
RHE 6000 HD OI	1659	1606	2232	1500	106	54
RHE 8000 HD OI	1917	1856	2372	1750	115	54
RHE 10000 HD OI	2093	2026	2672	1920	122	54

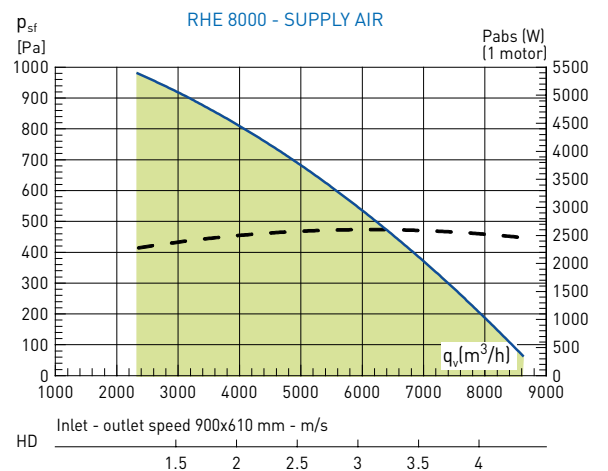
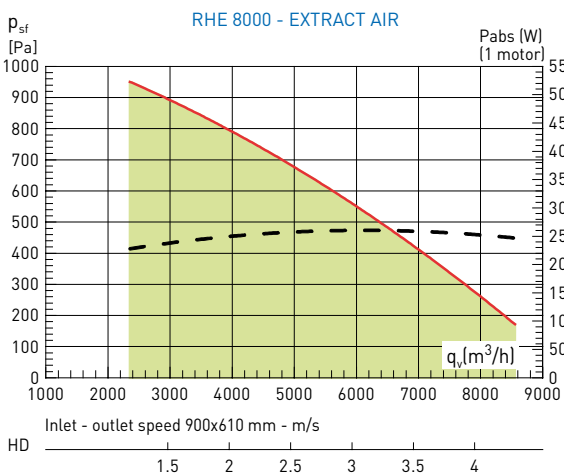
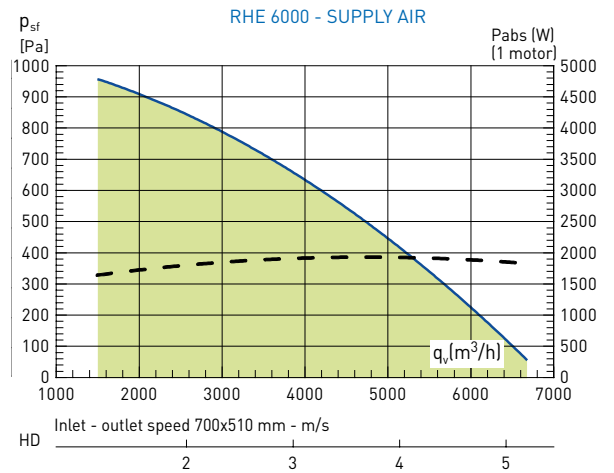
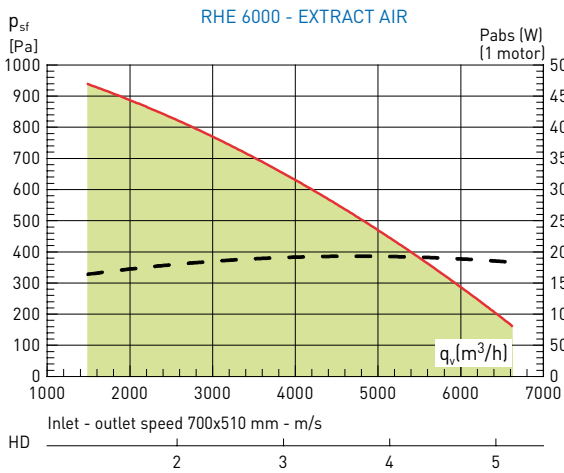
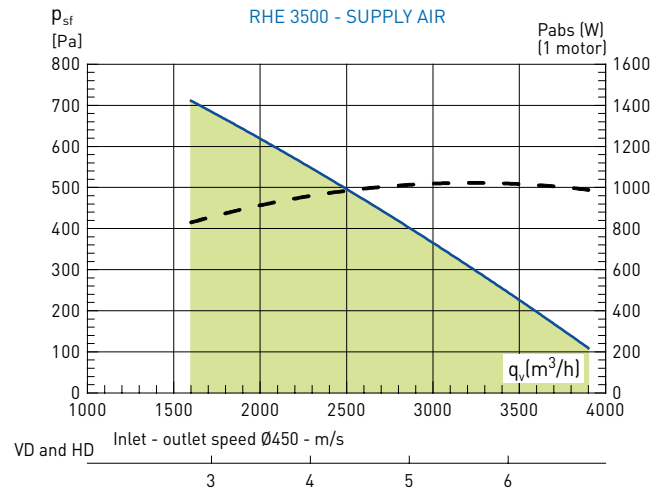
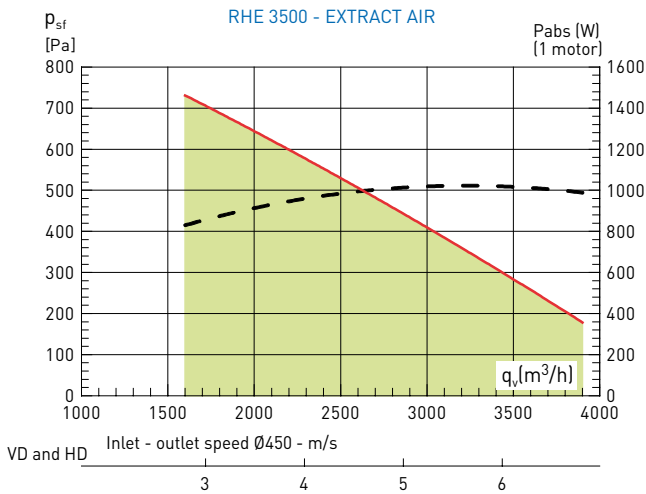




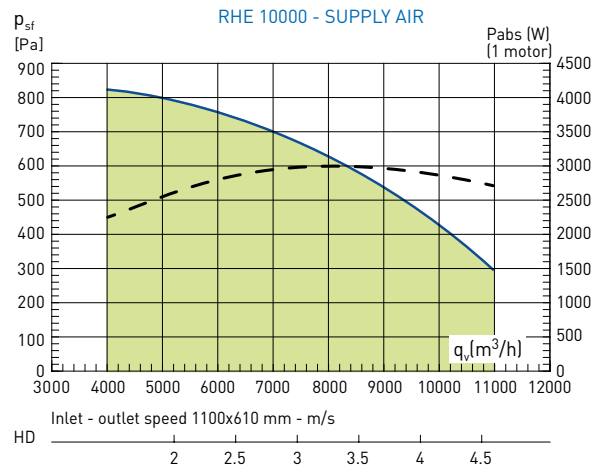
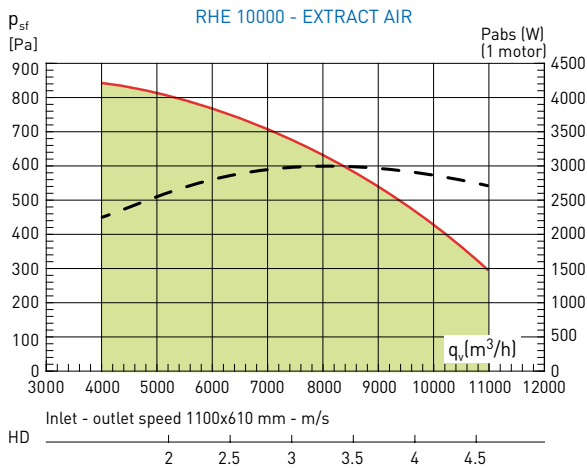
### PERFORMANCE CURVE



### PERFORMANCE CURVE



### PERFORMANCE CURVE



### THERMAL CHARACTERISTICS

RHE 1300								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 26°C RH 50%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)
	500	85	16	41	4,7	85	27	81
700	83	16	42	6,5	84	27	81	2
900	81	15	44	8,2	81	27	79	2,5
1000	80	15	42	8,7	80	27	79	2,7
1100	78	14	44	9,5	78	27	78	2,9
1200	76	14	45	10,1	76	27	77	3,1
1300	74	14	46	10,8	74	28	76	3,3

RHE 1300 SO (SORPTION)								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 25°C RH 45%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)
	500	85	16	58	5,5	85	27	46
700	83	16	59	7,6	84	27	46	6,5
900	81	15	60	9,5	81	27	46	8,1
1000	80	15	61	10,4	80	27	47	8,9
1100	78	14	61	11,1	78	27	47	9,5
1200	76	14	62	11,9	76	27	47	10,2
1300	74	14	63	12,6	74	28	47	10,8

RHE 1900								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 25°C RH 45%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)
	500	84	16	42	4,7	84	27	81
750	84	16	41	7	84	27	81	2,2
1000	84	16	42	9,3	84	27	81	2,8
1250	82	15	43	11,4	82	27	80	3,5
1500	79	15	43	13	79	27	79	4
1750	76	14	45	14,8	76	27	77	4,5
1900	74	14	46	15,7	74	28	76	4,8

RHE 1900 SO (SORPTION)								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 25°C RH 45%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)
	500	84	16	58	5,5	84	27	46
750	84	16	58	8,2	84	27	46	7
1000	84	16	59	10,9	84	27	46	9,3
1250	82	15	60	13,3	82	27	46	11,4
1500	79	15	61	15,4	79	27	47	13,2
1750	76	14	62	17,3	76	27	47	14,8
1900	74	14	63	18,3	74	28	47	15,7

RHE 2500								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 25°C RH 45%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)
	1400	84	16	42	13	84	27	81
1600	83	16	42	14,8	83	27	80	4,5
1800	82	16	43	16,5	82	27	80	5
2000	81	15	44	18,1	81	27	79	5,5
2200	80	15	42	19,2	80	27	79	6
2400	78	15	43	20,7	78	27	78	6,4
2600	77	14	45	22	77	27	77	6,8

RHE 2500 SO (SORPTION)								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 25°C RH 45%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)
	1400	84	16	59	15,3	84	27	46
1600	83	16	59	17,3	83	27	46	14,8
1800	82	16	59	19,3	82	27	46	16,5
2000	81	15	60	21,1	81	27	46	18
2200	80	15	61	22,8	80	27	47	19,5
2400	78	15	61	24,4	78	27	47	20,9
2600	77	14	62	25,9	77	27	47	22,1

# HIGH EFFICIENCY HEAT RECOVERY UNITS WITH ROTARY WHEEL

## RHE Series



### THERMAL CHARACTERISTICS

RHE 3500								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 25°C RH 45%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)
	1600	85	16	41	15	85	27	81
1900	84	16	42	17,7	84	27	81	5,4
2200	83	16	42	20,4	83	27	81	6,2
2500	82	16	43	23	82	27	80	7
2800	81	15	44	25,4	81	27	79	7,7
3100	80	15	42	27,1	80	27	79	8,4
3500	78	14	44	29,9	78	27	78	9,2

RHE 3500 SO (SORPTION)								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 25°C RH 45%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)
	1600	85	16	58	17,6	85	27	46
1900	84	16	58	20,8	84	27	46	17,8
2200	83	16	59	23,9	83	27	46	20,4
2500	82	16	59	26,8	82	27	46	22,9
2800	81	15	60	29,5	81	27	46	25,3
3100	80	15	61	32,1	80	27	47	27,5
3500	78	14	62	35,2	78	27	47	30,2

RHE 6000								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 25°C RH 45%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)
	2000	88	17	40	19,6	88	26	83
2750	87	17	41	26,7	87	26	82	8,2
3500	85	16	42	33,5	85	26	82	10,2
4250	83	16	41	38,8	83	27	80	12
5000	80	15	43	44,4	80	27	79	13,6
5500	78	14	45	47,8	78	27	78	14,5
6000	76	14	44	49,7	76	27	77	15,4

RHE 6000 SO (SORPTION)								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 25°C RH 45%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)
	2000	88	17	57	22,9	88	26	45
2750	87	17	57	31,3	87	26	46	26,7
3500	85	16	58	39	85	26	46	33,2
4250	83	16	59	45,9	83	27	46	39,1
5000	80	15	60	52	80	27	47	44,4
5500	78	14	61	55,6	78	27	47	47,5
6000	76	14	62	59	76	27	47	50,4

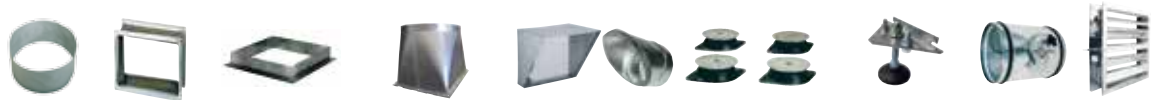
RHE 8000								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 25°C RH 45%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)
	2500	88	17	40	24,4	88	26	83
3000	88	17	40	29,3	88	26	83	9
4000	87	17	41	38,9	87	26	82	11,9
5000	86	16	42	47,9	86	26	82	14,6
6000	83	16	43	56,3	83	27	80	17
7000	81	15	43	62,5	81	27	79	19,2
8000	78	14	45	69,5	78	27	78	21,1

RHE 8000 SO (SORPTION)								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 25°C RH 45%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)
	2500	88	17	57	28,6	88	26	45
3000	88	17	57	34,4	88	26	45	29,3
4000	87	17	57	45,6	87	26	46	38,8
5000	86	16	58	55,7	86	26	46	48
6000	83	16	59	65,1	83	27	46	55,5
7000	81	15	60	73,4	81	27	47	62,7
8000	78	14	61	80,8	78	27	47	69

RHE 10000								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 25°C RH 45%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible heat recovery (kW)
	4000	88	17	40	39,1	88	26	83
5000	87	17	41	48,6	87	26	82	14,8
6000	86	17	41	57,7	86	26	82	17,6
7000	85	16	43	66,4	85	27	81	20,1
8000	83	16	42	72,8	83	27	80	22,4
9000	80	15	43	80,2	80	27	79	24,6
10000	78	15	45	87,1	78	27	78	26,5

RHE 10000 SO (SORPTION)								
Airflow (m³/h)	WINTER Outdoor air -5°C RH 80% Extract air 20°C RH 50%				SUMMER Outdoor air 35°C RH 50% Extract air 25°C RH 45%			
	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)	Temperature efficiency (sensible heat) (%)	T° supply air	% RH supply air	Sensible + latent heat recovery (kW)
	4000	88	17	57	45,8	88	26	45
5000	87	17	57	56,9	87	26	46	48,5
6000	86	17	58	67,3	86	26	46	57,4
7000	85	16	58	77	85	27	46	65,7
8000	83	16	59	85,9	83	27	46	73,4
9000	80	15	60	94,1	80	27	47	80,3
10000	78	15	61	101,5	78	27	47	86,7

### ACCESSORIES



Model	Connection (mm)	Flexible connection	Rectangular flange	Rectangular-circular reduction	Rain cap	Antibratation feet (1 pack = 4 uds.) <sup>(1)</sup>	KIT adjustable feet (1 kit = 4 or 6 uds.) <sup>(2)</sup>	Anti-freeze damper <sup>(3)</sup>
RHE 1300 VD	Ø250	ACOPEL F400-250/160 N	-	-	APC-250	PAVZ 80 SH 60	KIT 4 AF RHE	REEV 250
RHE 1900 VD	Ø315	ACOPEL F400-315/160 N	-	-	APC-315	PAVZ 80 SH 60	KIT 4 AF RHE	REEV 315
RHE 2500 VD	Ø355	ACOPEL F400-355/160 N	-	-	APC-355	PAVZ 100 SH 75	KIT 6 AF RHE	REEV 355
RHE 3500 VD	Ø450	ACOPEL F400-450/160 N	-	-	APC-450	PAVZ 100 SH 75	KIT 6 AF RHE	REEV 450
RHE 1300 HD	Ø315	ACOPEL F400-315/160 N	-	-	APC-315	PAVZ 80 SH 60	KIT 4 AF RHE	REEV 315
RHE 1900 HD	Ø355	ACOPEL F400-355/160 N	-	-	APC-355	PAVZ 80 SH 60	KIT 4 AF RHE	REEV 355
RHE 2500 HD	Ø400	ACOPEL F400-400/160 N	-	-	APC-400	PAVZ 100 SH 75	KIT 6 AF RHE	REEV 400
RHE 3500 HD	Ø450	ACOPEL F400-450/160 N	-	-	APC-450	PAVZ 100 SH 75	KIT 6 AF RHE	REEV 450
RHE 6000 HD	700x510	ACOPEL RECT 6000	BRL 700x510	PRRE 700x510/630	APPR-6000 APPA-6000	PAVZ 100 SH 75	KIT 4 AF RHE	MLD 6000 T
RHE 8000 HD	900x610	ACOPEL RECT 8000	BRL 900x610	PRRE 900x610/800	APPR-8000 APPA-8000	PAVZ 100 SH 75	KIT 4 AF RHE	MLD 8000 T
RHE 10000 HD	1100x610	ACOPEL RECT 10000	BRL 1100x610	PRRE 1100x610/900	APPR-10000 APPA-10000	PAVZ 100 SH 75	KIT 4 AF RHE	MLD 10000 T

<sup>(1)</sup> RHE 3500, 6000 and 8000 models is necessary to use 2 packs PAVZ 100 SH 75.

<sup>(2)</sup> RHE 6000 and 8000 models is necessary to use 2 kits 4 AF RHE.

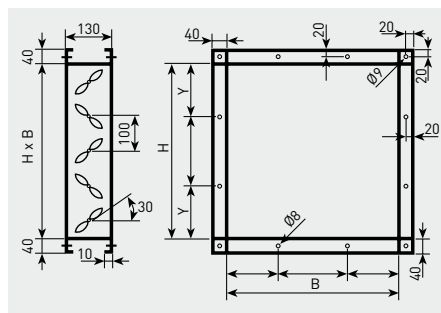
<sup>(3)</sup> To obtain a motorized damper must be mounted a servomotor LF-230S, LF 24 S (electrical accessories).



Model	Filters				Quantity to order
	AFR RHE G4	AFR RHE M5	AFR RHE F7	AFR RHE F9	
RHE 1300	AFR RHE 1300 G4	AFR RHE 1300 M5	AFR RHE 1300 F7	AFR RHE 1300 F9	1
RHE 1900	AFR RHE 1900 G4	AFR RHE 1900 M5	AFR RHE 1900 F7	AFR RHE 1900 F9	1
RHE 2500	AFR RHE 2500 G4	AFR RHE 2500 M5	AFR RHE 2500 F7	AFR RHE 2500 F9	2
RHE 3500	AFR RHE 3500 G4	AFR RHE 3500 M5	AFR RHE 3500 F7	AFR RHE 3500 F9	2
RHE 6000	AFR RHE 6000 G4	AFR RHE 6000 M5	AFR RHE 6000 F7	AFR RHE 6000 F9	2
RHE 8000	AFR RHE 8000 G4	AFR RHE 8000 M5	AFR RHE 8000 F7	AFR RHE 8000 F9	3
RHE 10000	AFR RHE 10000 G4	AFR RHE 10000 M5	AFR RHE 10000 F7	AFR RHE 10000 F9	4



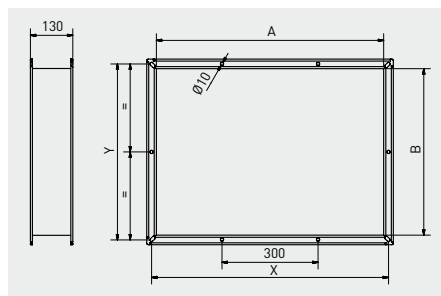
**MLD**  
Anti-freeze damper.



Model	B	H
MLD 6000 T	700	510
MLD 8000 T	900	610
MLD 10000 T	1100	610

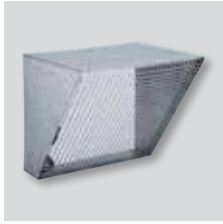


**ACOPEL RECT**  
Rectangular elastic coupling.

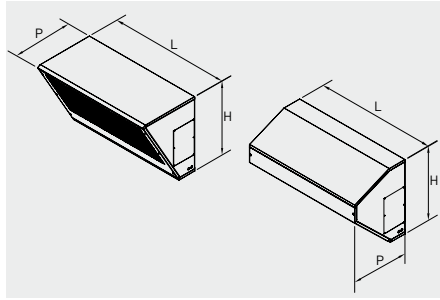


Model	A	B	X	Y
ACOPEL RECT 6000	710	520	740	550
ACOPEL RECT 8000	910	620	940	650
ACOPEL RECT 10000	1110	620	1140	650

### ACCESSORIES



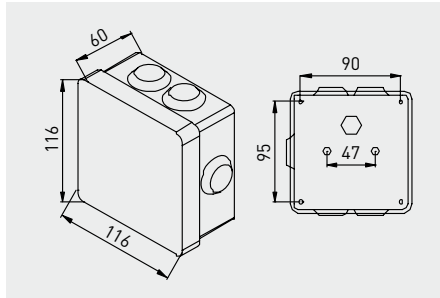
**APPR/APPA**  
Protection guard for exhaust air / inlet outdoor air.



Model	Description	H	L	P
APPR 6000	Exhaust air	647	1062	506
APPR 8000	Inlet outdoor air	747	1262	564
APPR 10000	Inlet outdoor air	747	1465	564
APPA 6000	Exhaust air	647	1062	506
APPA 8000	Inlet outdoor air	747	1262	564
APPA 10000	Inlet outdoor air	747	1465	564



**SPRD B**  
Pressure sensor. Specially adapted for the range RHE when constant pressure (COP) control is required.



Model	Electrical supply	Maximum power (W)	Output	IP Protection	Pressure range
SPRD B	12-24Vdc	8mA	0,5-4,5Vdc	Box IP54	0 - 800Pa



**SHUR**  
Duct mounted RH (Relative Humidity) sensor. (VAV operation).



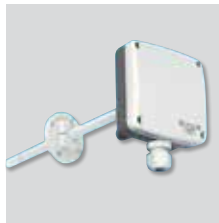
**SC02-A**  
Ambient CO<sub>2</sub> and temperature sensor.



**KTPR**  
Kit of 2 pressure taps + screws + 2 m Translucid tube.



**SC02-AD**  
Ambient CO<sub>2</sub> and temperature sensor with display.



**SC02-G**  
CO<sub>2</sub> sensor for the duct.



**LF 230 S**  
[AC 230V, 50/60Hz]  
**LF 24 S**  
[AC 24V 50/60Hz/ DC 24V]  
Servo motor with spring motor. 4 Nm. Control signal On/Off.



**3-WAY VALVES WITH PROPORTIONAL ACTUATOR**  
Three way motorised control valve.