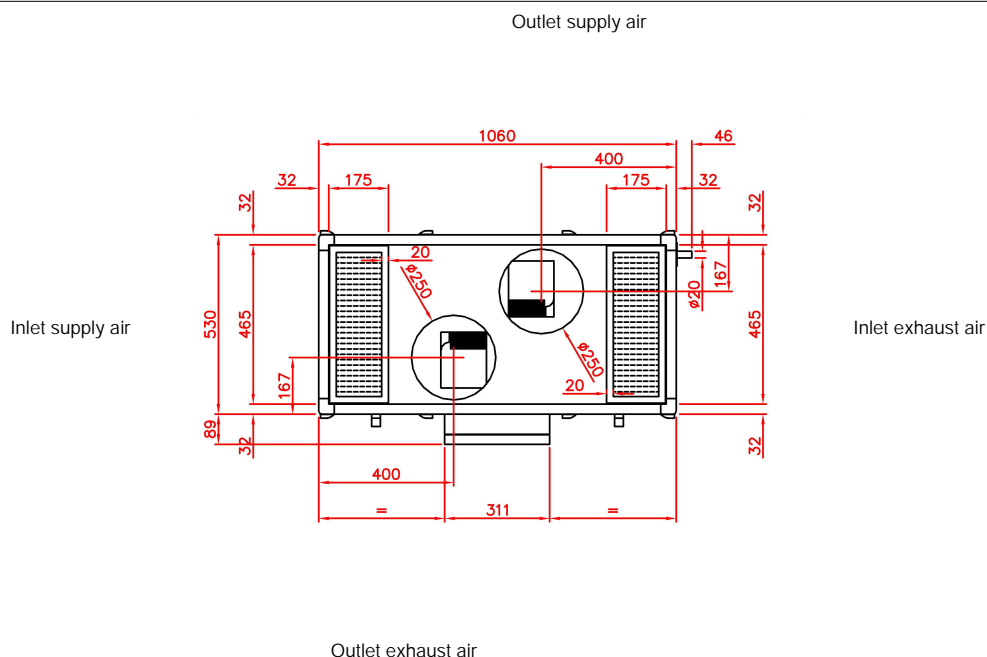
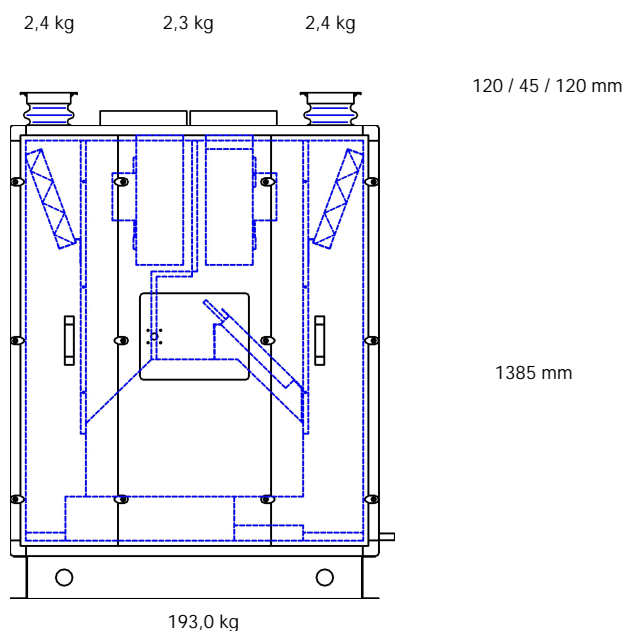


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Model : **HRup 800 / NVr / MSa / MSa / SR / SR**

The HRup series is a range of mechanical home ventilation units (up to 2000 m3/h) with high efficiency (90 % and more) heat recovery, consisting of aluminium counterflow heat exchangers, a stainless steel drain pan, G4 and F7 class filters and of TAC technology centrifugal fans with high efficiency electronic motors. It will be delivered ready to use, entirely pre-cabled (the options as well) and with a remote control which will allow to control the unit without opening it. All that'll need to be done is to connect the power (outside the unit), to connect the remote control and to set the parameters and that's it ! The device will be delivered as standard with a modulating by-pass (100%), and its pre-cabled control. The new control is designed to receive and monitor the different options available according to your needs. The structure of the unit is in extruded anodized aluminium profile, articulated around strengthened polypropylene modules. Panels are 30 mm double skin. The outside is made of polyester pre-painted steel, and the inside is made of galvanized steel. The heat and sound insulation is made of 28mm fireproofed rockwool panels, in conformity with the European standards for the environment. The HRup series is mounted on base frame, and is made in one piece (mono block). All the access doors to the filters are equipped with handles. Airtightness of the group allows to classify the device in class 1 for the internal leaks and class 2 for the external leaks according to standard EN 13141-7.



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Supply : Fans + Regulation	
Voltage :	1 x 230 V
Intensity :	5,5 A max.
Electrical protection :	D8A - 10kA - AC3

Fans - TAC

Units are equipped with high efficiency TAC technology fans. They are driven by electronically commutated motors and allow accurate control of the fan's actual working point. The efficiency of the motor remains between 85% and 60%, whatever the working point. The motor is a permanent magnet DC driven motor but AC power supplied.

	<u>Supply</u>	<u>Exhaust</u>		Fan name :	DS 10-4 TAC 1/2 HRu800
Airflow :	810	810	m³/h	Number of fans :	1 + 1
Internal pressure drop :	262	271	Pa	Sound power spectrum (fan only)-(dB re.10E-12 W/m²)	
External pressure drop :	201	192	Pa		
Extra available pressure drop :	0	0	Pa		
Rotation speed :	1588	1588	rpm		
Voltage :	230	230	V		
Intensity :	2,19	2,19	A		
Power :	349	349	W		
SFP W/(m³/h) [W/(l/s)] :	0,43 [1,55]	0,43 [1,55]			

	63	125	250	500	1000	2000	4000	8000	Hz
S	85,2	80,2	75,2	68,2	70,2	63,2	58,2	53,2	dBL
E	85,2	80,2	75,2	68,2	70,2	63,2	58,2	53,2	dBL

Radiated A weighted Sound pressure level for ducted unit
in free field (d=3m)

42,7 dBA

(RF=600000000/DF=1/ZF=20,40)-(dB re. 20 µPa)

Regulation	
The units are delivered fully pre-wired as standard ('plug & play') with general switch and complete control of the unit. The latter includes all the necessary components and is fully wired to T° probes, fans, general switch, modulating by-pass , as well as all options such as pre and post heating (except HRup 450). Connect the power supply and configure the parameters and the unit is ready to run.	
The regulation monitors each component:	
<ul style="list-style-type: none"> •Setting and piloting of TAC fans in selected mode: CA (constant flow), CP (constant pressure measured by an optional external sensor), LS (link with signal 0 - 10V, for example a CO2 air quality sensor) or TQ (constant torque) •Automatic freecooling control via the modulating bypass •Antifrost system of the air/air heat exchanger (airflow modulation, electrical coil or via modulating bypass) •Control of internal post-heating coil (water or electrical) •Control of external post-heating coil (water or electrical) or cooling coil (water), or reversible coil (heating or cooling water coil) •Open/Close motorized dampers •Time slot management (scheduling) •Alarms management (fire, pressure, maintenance, component failure,...) •Display and management of all system parameters via RC, GRC, BMS or web page (option) •MODBUS communication (RTU, TCP/IP and GPRS) or KNX (option) 	

Heat Recovery unit - CF

The heat exchanger is an air/air high efficiency counterflow heat exchanger, executed in sea water resistant aluminium, at a temperature of up to 80°C. The airtightness tests according to DIN1946 show a leakage rate of 0.017 % at 400 Pa difference between the 2 air streams. The heat exchanger is compliant to standard EN 308.

Air pressure :1013 mbar

	Supply	Exhaust		Supply	Exhaust	
Airflow :	810	810	m³/h	Air outlet temperature :	17,9	-5,5 °C
	0,23	0,23	m³/s	Relative humidity out :	4,3	100,0 %
Airspeed through HRU :	2,12	2,48	m/s	Humidity out :	0,5	2,4 g/kg
Air inlet temperature :	-19,9	22,0	°C	Total capacity (W.B.) :	10,3	kW
Relative humidity in :	85,0	40,0	%	HRU efficiency (W.B.) :	90,3	%
Humidity in :	0,5	6,6	g/kg	Pressure drop in REC :	172	236 Pa

Post-heating (Warm water) - NVr	
It 's a warm water coil of post-heater to allow an accurate control of the supply air temperature. It is delivered ready to be connected to the hot water circuit, with a motorized 3-ways valve and a complete pre-wired regulation. Just key in the assignment temperature, the regulation will modulate the capacity of the heating coil to reach the assignment, according to the resulting temperature after the heat exchanger.	
	Connection diam. : 1/2"
Coil name :	HRg 800-1
Number of rows :	1
Number of circuits :	1
Total capacity :	1,41 kW
Air inlet T° :	14,9 °C
Outlet air T° :	20,0 °C
Airflow :	810 m³/h
Air speed :	2,25 m/s
Air pressure drop :	15 Pa
Fluid type :	Etylen Glycol
Glycol %age :	40 %
Fluid T° in/out :	80,0 / 46,6 °C
Fluid flow :	41 l/h
Fluid pressure drop :	0,13 kPa

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Filter - G/F					
The heat recovery ventilation unit is equipped with G4 zig-zag filters at the inlet of the polluted air (or F7 filter as an option) and filters F7 class filters at inlet of the fresh air, to protect the heat exchanger and guarantee an air quality inside the building. They are easily accessible for maintenance by the access doors equipped with handles.					
Filter class :	F7 (Compact)	Dimensions :	470 x 287 x 50 mm	Air speed :	<u>Supply</u>
					1,67 m/s
Filter class :	G4 (Plane Z)	Dimensions :	470 x 287 x 50 mm	Air speed :	<u>Exhaust</u>
					1,67 m/s
Filter class :	G4 (Plane Z)	Dimensions :	470 x 287 x 50 mm	Filter pressure drop :	75 Pa
					35 Pa

Circular outlet - SR ø 250 mm

Base frame - BA

Flexible connection (air in) - MS
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