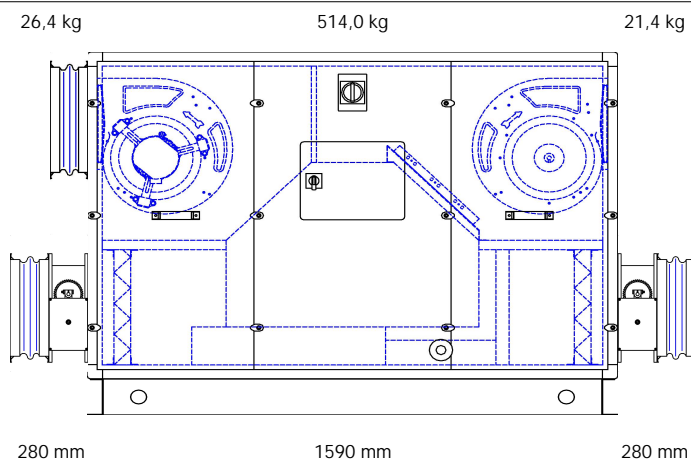
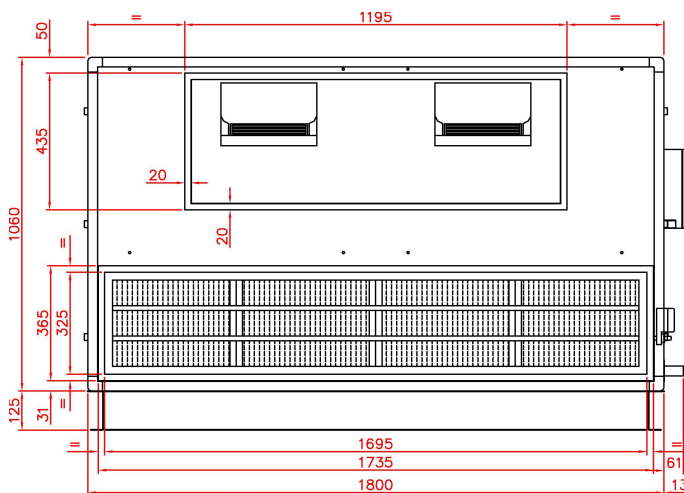


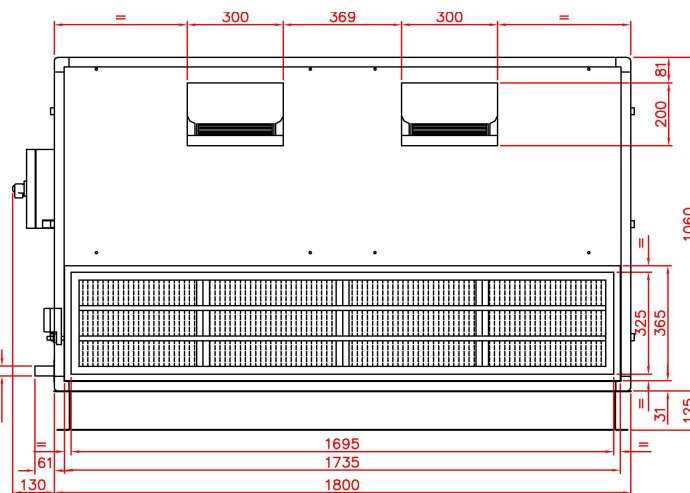
Model : **HRglobal 4000 TAC4 / KWout / MS / CTm / MS / CTm / MS**



**Outlet exhaust air / Inlet supply air**



**Outlet supply air / Inlet exhaust air**



The HRglobal series is a range of mechanical home ventilation units (up to 6000 m<sup>3</sup>/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 100% by-pass, 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 EPS panels, in conformity with the European standards for the environment. The HRglobal series is mounted on base frame, and is made in one piece (mono block). All the access doors to the fans and 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. A unit with the same characteristics can be offered with all airflow connections oriented upwards. The HRup solution can solve many space availability problems, up to 2000 m<sup>3</sup>/h. In case of limited height, we can also offer the HRflat range, up to 2000 m<sup>3</sup>/h as well.

Model : **HRglobal 4000 TAC4 / KWout / MS / CTm / MS / CTm / MS**

**Supply : Fans + Regulation**

Voltage : 3 x 400 V + N  
 Intensity : 18,0 A max.  
 Electrical protection : D20A - 10kA - AC3

**Supply : Electric coil KWout**

Voltage : 3 x 400 V + N  
 Intensity : 17,3 A max.

**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>	
Airflow :	4100	4100	m³/h
Internal pressure drop :	282	291	Pa
External pressure drop :	350	350	Pa
Extra available pressure drop :	26	17	Pa
Rotation speed :	1520	1530	rpm
Voltage :	230	230	V
Intensity :	10,20	10,34	A
Power :	1750	1776	W

Fan name : DD 11-9 TAC 3/4 HRg4000  
 Number of fans : 2 + 2

Sound power spectrum (fan only)-(dB re.10E-12 W/m²)

	63	125	250	500	1000	2000	4000	8000	Hz
S	94,9	89,9	84,9	77,9	79,9	72,9	67,9	62,9	dBL
E	95,0	90,0	85,0	78,0	80,0	73,0	68,0	63,0	dBL

Radiated A weighted Sound pressure level for ducted unit  
 in free field (d=3m) **52,0 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 regulation of the unit. The latter includes all the necessary components and is fully wired to T° probes, fans, general switch, by-pass, as well as all options such as pre and post heating, dampers. Connect the power supply and configure the parameters and the unit is ready to run.

The regulation monitors each component:

- Setting and piloting of TAC fans in selected mode: CA (constant flow), CP (constant pressure measured by an optional external sensor) or LS (link with signal 0 - 10V, for example a CO2 air quality sensor).
- Automatic freecooling control with bypass
- Antifrost system of the air/air heat exchanger (airflow modulation or electrical coil)
- 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) (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

	<u>Supply</u>	<u>Exhaust</u>		<u>Supply</u>	<u>Exhaust</u>	
Airflow :	4100	4100	m³/h	17,6	-7,4	°C
	1,14	1,14	m³/s	4,2	100,0	%
Airspeed through HRU :	1,92	2,25	m/s	0,5	2,0	g/kg
Air inlet temperature :	-21,0	22,0	°C	53,1		kW
Relative humidity in :	90,0	35,0	%	89,8		%
Humidity in :	0,5	5,7	g/kg	178	245	Pa

**Post-heating (Electric) - KWout**

An electrical heating coil allows a better outlet temperature control, thus enhancing the comfort level on the premises. It is delivered completely pre-wired with its regulation; it allows adding up to 10°C to the resultant temperature after the heat exchanger. All you need to do is to key in the assignment temperature; the regulator will then modulate the power supply of the heating coil, according to the resultant temperature after the heat exchanger, to reach the assigned temperature.

Maximal capacity :	12 kW	Air speed :	2,41 m/s	Air inlet temperature :	17,6 °C
Supply :	3 x 400 V - 50 Hz	Pressure drop :	16 Pa	Air outlet temperature :	26,3 °C (12,0 kW)



Model : **HRglobal 4000 TAC4 / KWout / MS / CTm / MS / CTm / MS**

#### Filter - G/F

The heat recovery ventilation unit is equipped with G4 zig-zag filters at the inlet of the polluted air 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.

					<u>Supply</u>	<u>Exhaust</u>	
Filter class :	F7 (Compact)	Dimensions :	436 x 370 x 50 mm	Air speed :	1,76		m/s
		Quantity :	4	Filter pressure drop :	80		Pa
Filter class :	G4 (Plane Z)	Dimensions :	436 x 370 x 50 mm	Air speed :		1,76	m/s
		Quantity :	4	Filter pressure drop :		38	Pa

#### Damper(s) - CTm

It 's a damper delivered motorized and pre-wired, to cut the draft during the powering off of the device. It comes with a pre-wired servo motor and is controlled by the regulation. The frame and the aerofoil blades are in galvanised steel, the bearings are in nylon. The external gears, in plastic material, allow a transmission without looseness or deformation.

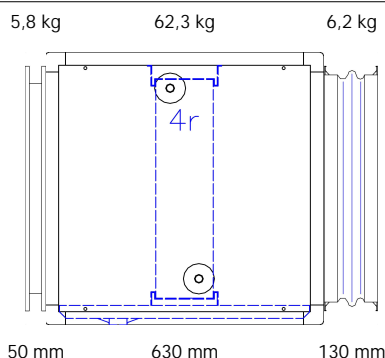
					<u>Supply</u>	<u>Exhaust</u>	
External dimensions :	365 x 1735 mm			Air speed :	2,41	2,41	m/s
Internal dimensions :	285 x 1655 mm			Damper pressure drop :	8	8	Pa

#### Base frame - BA

**Flexible connection (air in) - MS**

**Flexible connection (air out) - MS**

Model : **HRglobal 4000 TAC4 / BA W / BA TK / BA MS**



mounting on the unit



deported mounting

#### Manufacturing info

882308 / BA W

882314 / BA TK

882319 / BA MS

The BA option is an add-on section to the HRglobal unit, equipped with a water or a direct expansion (dx) coil and a drain pan. The water coil can be supplied with hot or cold water in order to control the supply air temperature to the room. The kit is delivered with the regulation and the temperature sensors used to control the motorized 3-way valve. The latter is controlled by a 0-10V output signal. The 3-way valve is included in the kit. The dx coil is provided without regulation. This additional section can be placed indoors or outdoors and can be equipped with flexible connections, circular connections and counter-frames.

#### Cooling coil - FRr

Coil name : MB 55-4  
Number of rows : 4  
Number of circuits : 18  
Total capacity : 28,84 kW  
Sensible capacity : 14,53 kW

T°/RH air in : 32,0 / 60,0 °C / %  
T°/RH air out : 21,0 / 87,3 °C / %  
Airflow : 4100 m³/h  
Air speed : 1,89 m/s  
Air pressure drop : 65 Pa

Connection diam. : 1"  
Fluid type : Etylen Glycol  
Glycol %age : 35 %  
Fluid T° in/out : 7,0 / 13,9 °C  
Fluid flow : 4022 l/h  
Fluid pressure drop : 22,98 kPa

#### Mounting frame - TK

#### Flexible connection - MS

