

Company :	Date :	2018/06/11.
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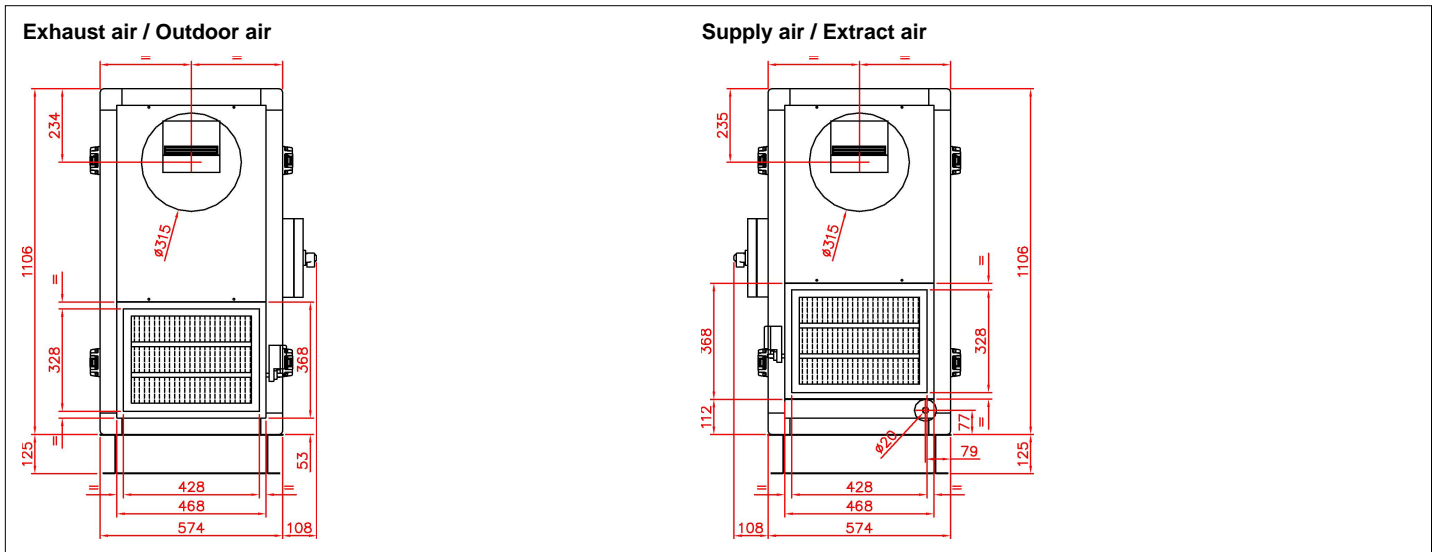
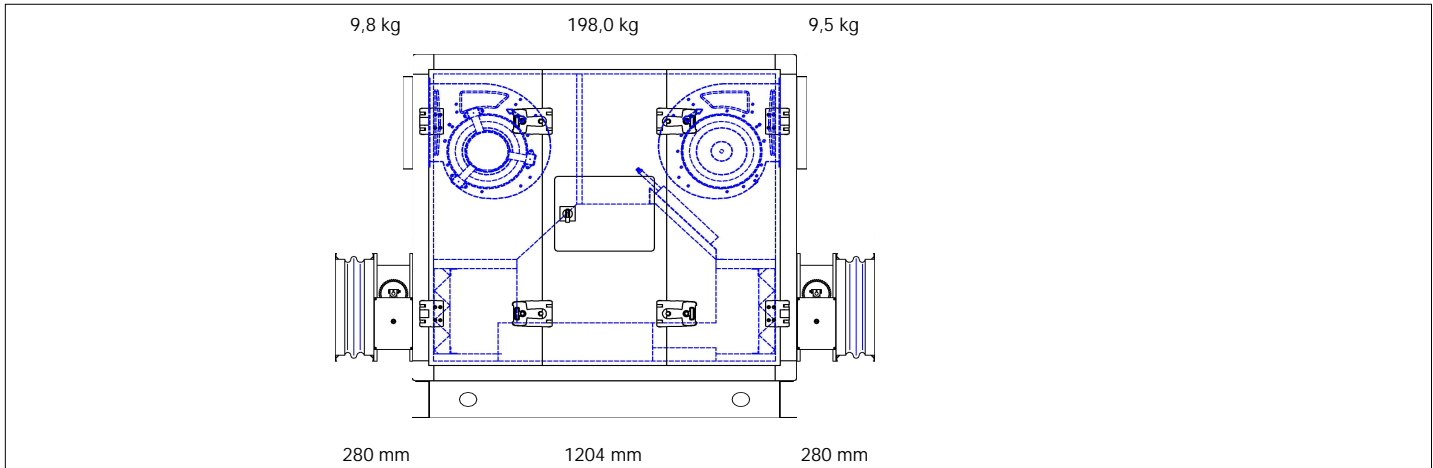
Model :	GLOBAL PX 800 FW R
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The GLOBAL PX FW series is a range of mechanical home ventilation units (up to 6.000 m³/h or 1.666 l/s) with high efficiency (>90% acc. EN308) heat recovery, consisting of aluminium counterflow heat exchangers, a stainless steel drain pan, M5 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 50 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 mineral wool. The GLOBAL PX FW series is mounted on base frame, and is made in one piece (mono block). The doors are equipped with handles and hinges. 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.

EN1886 Classification :

Mechanical resistance class of the envelope: D1
Thermal transmittance class U : T3
Thermal bridge class Kb : TB3
Airtightness of the envelope class (exhaust and supply airstreams) : L2
Airtightness around the filters class (exhaust and supply airstreams) : F9



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Supply : Fans + Controls	
Voltage :	1 x 230 V - 50 Hz
Intensity :	5,5 A max.
Electrical protection :	D8A - 10kA - AC3

Fans - TAC																															
Units are equipped with high efficiency TAC (Total Airflow Control) 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 :	800 800 m ³ /h																														
Internal pressure drop :	299 267 Pa																														
External pressure drop :	200 200 Pa																														
Extra available pressure drop :	118 150 Pa																														
Rotation speed :	1754 1704 rpm																														
Voltage :	230 230 V																														
Intensity :	1,98 1,89 A																														
Power :	312 296 W																														
Specific fan power, SFPv (clean filters) :	2,74 kW/(m ³ /s)																														
	Fan name : DD 9-5 TAC 1/3																														
	Number of fans : 1 + 1																														
	Sound power spectrum (fan only)-(dB re.10E-12 W/m ²)																														
	<table border="1"> <thead> <tr> <th></th> <th>63</th> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> <th>8000</th> <th>Hz</th> </tr> </thead> <tbody> <tr> <td>S</td> <td>85,8</td> <td>80,8</td> <td>75,8</td> <td>68,8</td> <td>70,8</td> <td>63,8</td> <td>58,8</td> <td>53,8</td> <td>dBL</td> </tr> <tr> <td>E</td> <td>85,2</td> <td>80,2</td> <td>75,2</td> <td>68,2</td> <td>70,2</td> <td>63,2</td> <td>58,2</td> <td>53,2</td> <td>dBL</td> </tr> </tbody> </table>		63	125	250	500	1000	2000	4000	8000	Hz	S	85,8	80,8	75,8	68,8	70,8	63,8	58,8	53,8	dBL	E	85,2	80,2	75,2	68,2	70,2	63,2	58,2	53,2	dBL
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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) 33,7 dBA																														
	(RF=600000000/DF=1/ZF=20,40)-(dB re. 20 µPa)																														

Controls	
The units GLOBAL PX FW are delivered fully pre-wired as standard ('plug & play') with main switch and complete control of the unit. The latter includes all the necessary components and is fully wired to T° probes, fans, main switch, modulating 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 controller monitors each component:	
<ul style="list-style-type: none"> •Setting and piloting of TAC (Total Airflow Control) 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 TACtouch, 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. The technical selection as presented below is realised with the Eurovent certified selection software from our supplier of the rotary heat exchanger.	
Eurovent Certification Diploma N° : 05.03.243 & 11.07.006	
Updates of this document are available via: http://www.eurovent-certification.com .	
Air pressure :	1013 mbar
	<u>Supply</u> <u>Exhaust</u>
Airflow :	800 800 m ³ /h
	0,22 0,22 m ³ /s
Airspeed through HRU :	2,08 2,45 m/s
Air inlet temperature :	-21,0 22,0 °C
Relative humidity in :	90,0 40,0 %
Humidity in :	0,5 6,6 g/kg
Pressure drop in HRU :	167 230 Pa
	<u>Supply</u> <u>Exhaust</u>
Air outlet temperature :	17,3 -5,8 °C
Relative humidity out :	4,3 100,0 %
Humidity out :	0,5 2,3 g/kg
Capacity (W.B.) :	10,3 kW
Efficiency HRU (W.B.) :	89,0 %
Capacity (D.B.) :	9,1 kW
Efficiency HRU (D.B.) :	79,0 %

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Internal post-heating (Warm water) - NVr

A post-heating water coil is placed inside the unit and makes it possible to control either the supply air temperature in the room, or to manage a comfort temperature of the room by controlling the temperature at the inlet of exhaust air. This coil is delivered ready to be connected to the heating network, with a complete set of controls including a motorized 3 way valve. The 3-way valve has been selected so that 50% of the available pressure drop is above the valve (authority of 0,5). Just key in the desired temperature and the controls will modulate the coil capacity to reach this set value, according to the supply or exhaust temperature (depending on the option chosen). The outside panel of the AHU equipped with plug fans (Backwards) is factory drilled to facilitate the passage of hydraulic connections.

Coil name :	HRg 800-1	Air inlet T° :	12,3 °C	Connection diam. :	1/2"
Number of rows :	1	Outlet air T° :	20,1 °C	Fluid type :	Water
Number of circuits :	1	Airflow :	800 m ³ /h	Glycol %age :	0 %
Total capacity :	2,15 kW	Air speed :	2,22 m/s	Fluid T° in/out :	80,0 / 60,0 °C
		Air pressure drop :	15 Pa	Fluid flow :	94 l/h
				Fluid pressure drop :	0,40 kPa

Filter - G/F

The heat recovery ventilation unit is equipped with M5 class plane filters at the inlet of the polluted air and F7 class plane filters at inlet of the fresh air, to correctly protect the heat exchanger and guarantee optimum air quality inside the building. Filters are easily accessible through the access doors for maintenance purposes. F7 plane filters on both sides (supply & exhaust) are available as an additional option.

				<u>Supply</u>	<u>Exhaust</u>
Filter class :	F7	Dimensions :	470 x 287 x 50 mm	Air speed :	1,65 m/s
		Quantity :	1	Filter pressure drop :	111 Pa
Filter class :	M5	Dimensions :	470 x 287 x 50 mm	Air speed :	1,65 m/s
		Quantity :	1	Filter pressure drop :	31 Pa

Damper(s) - CTm

The dampers are 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 controller of the air handling unit. The frame is in galvanised steel, the blades in aluminum and the bearings and bushes are in nylon. The external gears, in plastic material, allow a transmission without looseness or deformation. The blades are fitted with a rubber sealing.

Air tightness circular dampers according EN 1751: Class 3
 Air tightness rectangular dampers according EN 1751: Class 2

			<u>Supply</u>	<u>Exhaust</u>	
External dimensions :	365 x 465 mm	Air speed :	2,03	2,03	m/s
Internal dimensions :	285 x 385 mm	Damper pressure drop :	6	6	Pa

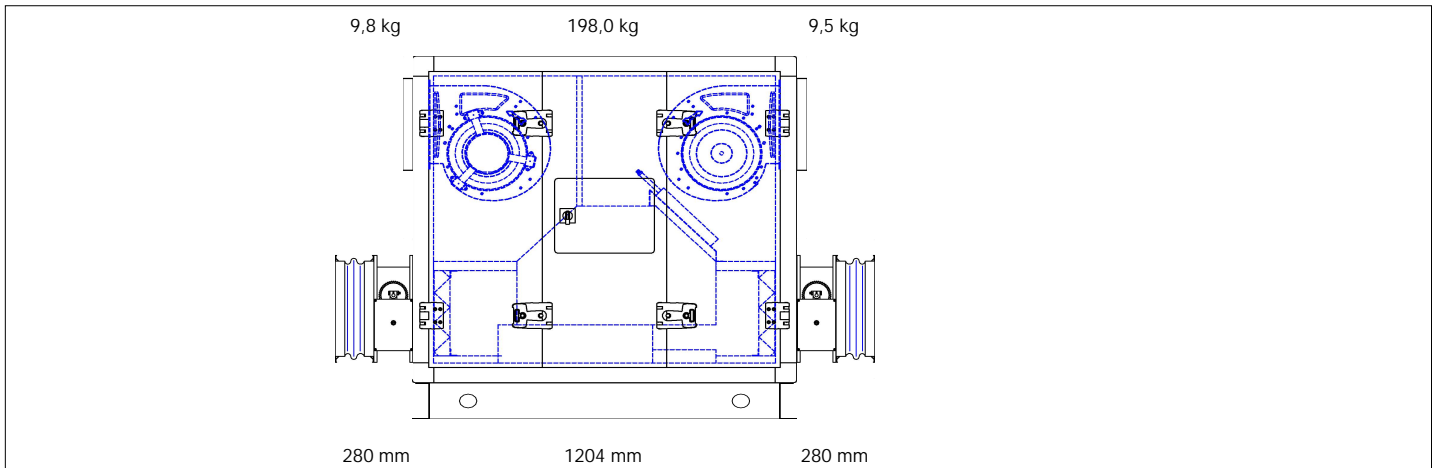
Circular outlet - SR ø 315 mm

Base frame - BA

Flexible connection + Slip Clamp (air in) - MS

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Manufacturing info		
885126	882036	882036
882031	880561	880561
882642	882643	



Detail	
<u>IDCode</u>	<u>Description</u>
885126	GLOBAL PX 800 FW R
882031	GLOBAL PX 800 NV
882642	GLOBAL PX 800 SR (in)
882036	GLOBAL PX 800 CT
880561	GLOBAL PX 800 MSA
882643	GLOBAL PX 800 SR (out)
882036	GLOBAL PX 800 CT
880561	GLOBAL PX 800 MSA

Accessories (included)		
<u>IDCode</u>	<u>Quantity</u>	<u>Description</u>
372096	1	HMI TACtouch touchscreen user interface
370005	1	SAT3 Relay satellite (fan ON or CT+ AL dPA)

Options (not included)		
<u>IDCode</u>	<u>Quantity</u>	<u>Description</u>
510089	1	GF Filter kit GLOBAL PX 800 (M5/F7)
372004	1	KIT SAT TAC5 BA/KW Regulation satellite for external coil (0-10V)
025006	1	SAT TAC5 MODBUS Communication satellite Modbus RTU
370015	1	SENS Wallmounting air quality sensor
370016	1	SENS Duct air quality sensor

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