

Date: 26/03/2013

Subject to change in the interest of technical progress.

# Technical Data

## Mechanical Ventilation Heat Recovery Unit

### maxi flat 450

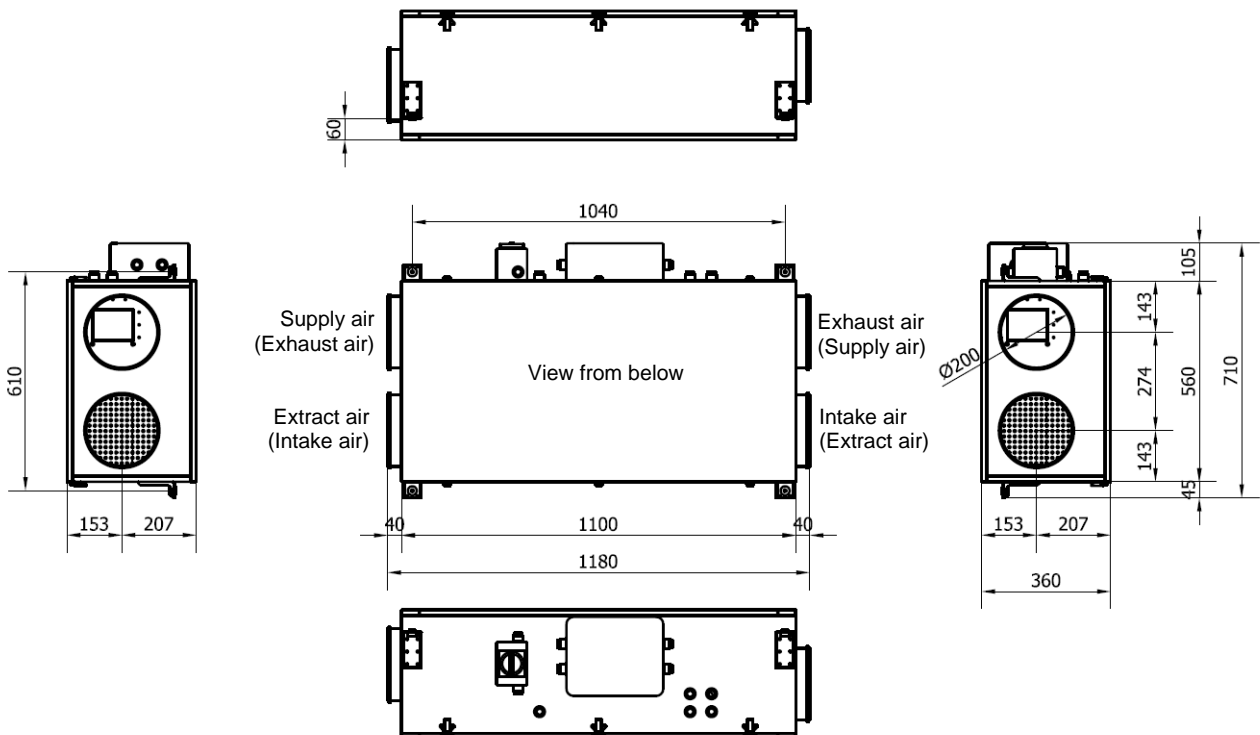


#### Unit design of the product line / Product photo:



- 1 Main switch for power supply fans and control
- 2 Centralized wiring box of the CB4 TAC4 DG circuit (factory pre-wired)
- 3 Supply fan (right device design)
- 4 Exhaust fan (right device design)
- 5 Air/air – heat exchanger and bypass
- 6 Cable gland for performing condensate hose
- 7 Filter
- 8 Access door

#### Unit dimensions:





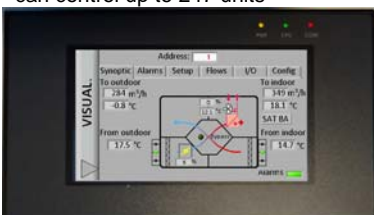

<b>Technical Spezification:</b>	
<b>Air flow:</b>	50 – 450 m³/h
<b>Demension (LxWxH):</b>	(1100 x 665 x 360) mm
<b>Weight:</b>	111 kg (Base unit without any additional components)
<b>Duct connection:</b>	DN 200
<b>Electrical connection:</b>	Fans and control devices: 1 x 230 V, 50/60 Hz; on main switch (pre-wired with centralized wiring box) Electric pre-heating, optionally: 1 x 230 V, 50/60 Hz; separate main switch (pre-wired with main switch)
<b>Power input:</b>	700 W (Base unit without any additional components)
<b>IP Code (acc. to DIN 40050):</b>	IP 44 (Fany) IP 20 (RC TAC4 REC)
<b>Operating range:</b>	-20°C (lower value if option KWin) to +50°C
<b>Heat exchanger:</b>	Aluminum cross counterflow heat exchanger, sea water resistand
<b>Fans:</b>	EC direct current radial fans
<b>Filter:</b>	Filter G4 (Intake air and extract air), optional F7 (Intake air)
<b>Housing:</b>	Compact housing made of an anodised aluminium structure and acoustically and thermally insulated panels in painted steel on the outside (RAL9002) and galvanised steel inside.
<b>Condensate drain:</b>	Stainless steel drip pan, condensate pump and condensate hose Ø 6 mm (1/4") ID
<b>Summer operation:</b>	motorized summer bypass, temperature-controlled, heat exchanger is 100% shut off

<b>Operating Data:</b>					
air flow	Heat exchanger efficiency <sup>1)</sup>	Supply air temperature <sup>1)</sup> (after exchanger)	SFP	Power absorbed <sup>2)</sup>	Sound psessure level <sup>2)</sup> (open field in 3 m distance)
m³/h	%	°C	W/m³/h	W	dB(A)
100	95,6	20,6	0,08	8	11,7
200	93,4	19,9	0,21	42	22,6
300	92,1	19,5	0,38	114	29,5
450	90,7	19,0	0,73	330	36,4

<sup>1)</sup> Values for supply and extract air volume flow at  $t_{Au} = -10\text{ °C}$ ,  $\varphi_{Au} = 90\%$  r.F. and  $t_{Ab} = 22\text{ °C}$ ,  $\varphi_{Ab} = 50\%$  r.F.

<sup>2)</sup> at external pressure of 100 Pa

<b>TAC4 control system:</b>
<ul style="list-style-type: none"> <li>• Fan airflow management (accurate knowledge of fan's working point)</li> <li>• Management of time slots depending from the control units</li> <li>• Signaling/information for all alarms</li> <li>• Fire alarm management</li> <li>• Boost function</li> <li>• Automatic bypass control (freecooling)</li> <li>• Automatic opening and closing motrised dampers (option)</li> <li>• Automatic anti-freeze protection of the counterflow</li> <li>• Regulation of external post-heating/cold coil (option)</li> <li>• Display of all the operating parameters</li> <li>• Control and display systems via WEB pages (TCP/IP or GPRS modules)</li> <li>• Networking units via MODBUS, KNX, or BAcnet communication</li> </ul>

<b>Control options / communications:</b>	
<p><b>RC TAC4, Remote Control with LCD</b></p>  <p>Size: 122 x 66 mm Cable to the control unit: IYSTY 2x2x0,6; max. 1000 m; by costumer</p>	<p><b>TCP/IP TAC4 MODULE</b></p> <p>This is a communication module in TCP/IP with built-in web server</p> <p>This module can be combined with an RC but not with a GRC</p> 
<p><b>GRCTAC4, Grafic Remote Control with touch display</b> - can control up to 247 units</p>  <p>Size: 152 x 87 mm Cable to the control unit: IYSTY 2x2x0,6 with RS-232-connector; 3 m</p>	<p><b>GPRS TAC4 MODULE</b></p> <p>This is a communication module in GPRS with built-in web server</p> <p>This module can be combined with an RC but not with a GRC</p> 
	<p><b>SAT TAC4 MODBUS MODULE</b></p> <p>MODBUS RTU communication circuit to be plugged in the TAC4 regulation circuit.</p> 