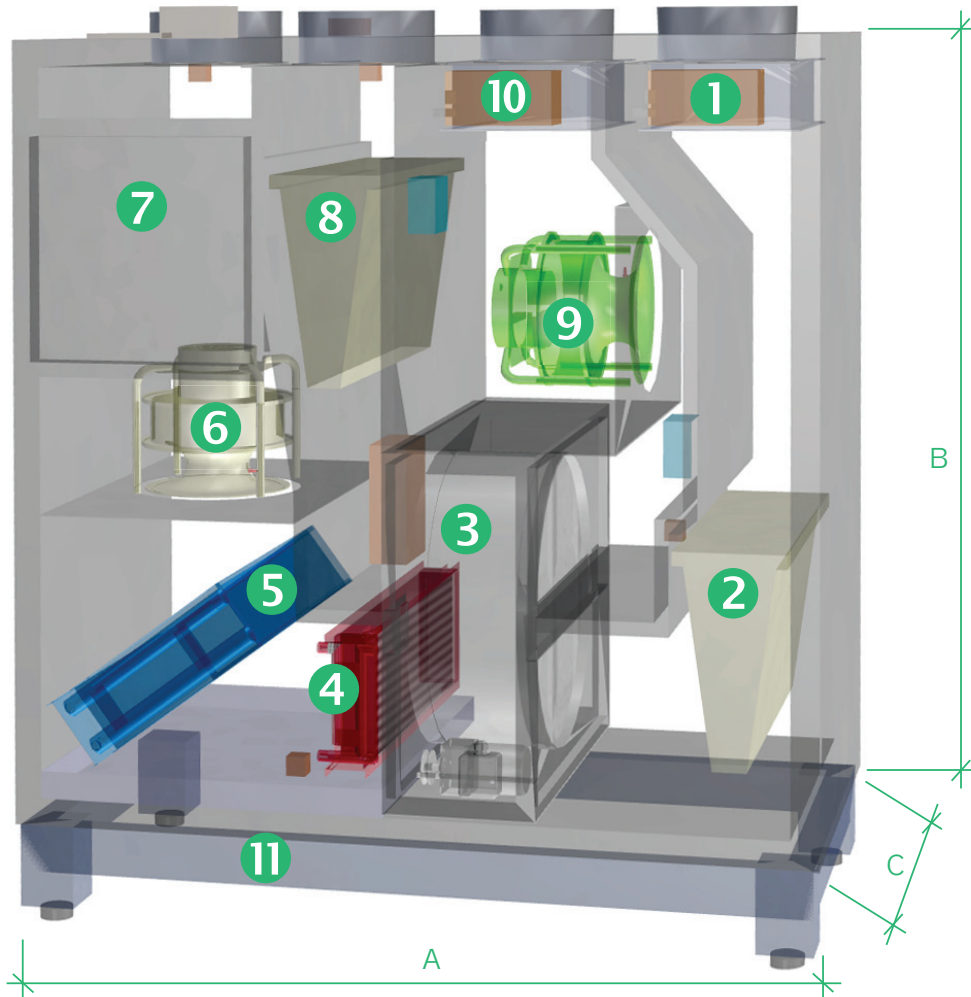


## PREDEFINED TYPE VR-1

Specification of dimensions, components and their parameters in the predefined type cannot be changed. Units for different requirements can be selected using selection options in the current version of the AeroCAD design software.

## CONFIGURATION AND BASIC DIMENSIONS



- ① ⑩ **Internal rectangular dampers** consisting of frames and aluminium flaps are designed to close airflows and are fitted with ON/OFF controlled actuators.
- ② ⑧ **Bag filters** of F7 and M5 filtration class fitted with a filter insert are designed to be used as the first filtration stage.
- ③ A highly effective **rotary heat exchanger** is designed to transfer heat and humidity between the inlet and outlet air. Using an integrated speed controller, it is possible to operate the rotary regenerator at different speeds.
- ④ ⑤ The heat exchanging surface of the **water cooler** and **water heater** is created by aluminium fins pressed with an interference on the copper tubes. The headers are made of welded steel pipes and finished with a synthetic coating.
- ⑥ ⑨ Highly effective **fans** are fitted with low-energy variable-speed EC motors.
- ⑦ The integrated and easy-to-access switchboard of the **VCS control unit** enables full control, high stability, safety and easy handling with optional remote control using the Remak mobile application. Among others, this unit is equipped with temperature sensors detecting the temperatures in the inlet air duct and outdoor air and with a separate room temperature sensor.
- ⑪ The **base frame** is made of galvanised sheet steel and is equipped with 185 mm high support legs.

# CAKE VR-1

## PERFORMANCE PARAMETERS

Size (CAKE performance range) / Order code	VR-1	VR-1-E18-Round-In-Int-35-0 (3852)
Air flow rate (inlet)/air flow rate (outlet)	m <sup>3</sup> /h	1250 / 1250
External pressure (inlet)/external pressure (outlet)	Pa	350 / 350
Air-handling unit dimensions A / B / C (see the diagram)	mm	1478 / 1572 / 750
Air-handling unit duct connection diameter	mm	250
Air-handling unit weight	kg	361
Number of phases/Voltage/Frequency	- / V / Hz	3 / 400 / 50
Total current I <sub>max</sub>	A	13
Total air-handling unit input	kW	0.84
SFP <sub>INT</sub>	W.m <sup>-3</sup> .s	896
ERP Conformity	YES	Ecodesign 2018
Heat recovery efficiency (incl. condensation)	%	up to 90*
Heat recovery output	kW	10.6
Water heater output (temperature gradient 70/50 °C)*	kW	3.2
Water heater connecting diameter	-	DN 10
Water cooler output (temperature gradient 6/12 °C)*	kW	5.4
Water cooler connecting diameter	-	DN 15
Mixing Set Type (water heater)	-	SUMX 1/EU
Mixing Set Type (water cooler)	-	SUMX 1/EU
Connecting diameter of the condensate draining piping	-	DN 30

\*Design parameters of the air for calculation (in conditions according to EN 308):

**Winter operation:** inlet -15 °C/95 % rH, outlet 21 °C/45 % rH; **Summer operation:** inlet 32 °C/40 % rH, outlet 22 °C/55 % rH

## NOISE PARAMETERS

Total sound power level L <sub>WA</sub> [dB(A)]	Inlet	Outlet	Surroundings
Supply air	70	76	48
Extract air	69	75	47
Sound pressure level L <sub>D3</sub> (dB(A)) at distance of 3 m			<b>31</b>

## FAN PERFORMANCE CHARACTERISTICS

