

# CIVIC EC LB 500

## Commercial Single-Room Heat Recovery Ventilator



### Description

- The **Civic EC LB 500** floor-mounted air handling units are intended for single-room ventilation of schools, offices and other public and commercial spaces.
- These air handling units do not require a duct system and provide a simple yet efficient ventilation solution for newly built and renovated spaces.
- Efficient supply and exhaust single-room ventilation with air flow up to 341 CFM.



### Design

#### AIR DAMPERS

- Supply and exhaust dampers are closed automatically while the unit is off to prevent drafts.

#### AIR FILTRATION

- Supply air purification is provided by a MERV8 and a MERV14 panel filters (PM2.5 > 75 %). To meet more stringent air quality requirements, the unit can be upgraded with a MERV14 carbon filter and a HEPA filter (PM2.5 > 95 %) (purchased separately).
- Exhaust air is purified by a MERV8 panel filter.

### Motor

- The units feature high-performance electronically commutated (EC) external rotor motors with forward curved blades. These state-of-the-art units offer excellent energy efficiency. In addition to that, EC motors combine high performance and optimum control over the entire speed range. EC motors have an excellent power efficiency (up to 90 %).

### Key Features

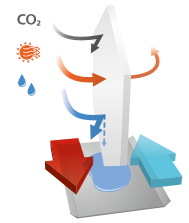
- Efficient supply and exhaust ventilation of individual spaces.
- Modification with an enthalpy heat exchanger available.
- Low-energy EC fans.
- Low noise operation (1.6 Sones).
- Supply air purification by means of two built-in MERV8 and MERV14 filters with the option of carbon or HEPA filters.
- Simple installation.
- Contemporary design.

### Bypass

- The units are equipped with a summer bypass function.

### Heat Exchanger

- The **Civic EC LB 500** unit has a counter-flow heat exchanger made of polystyrene.
  - **In cold season** the heat energy of the extract air flow is absorbed by intake air flow, thus decreasing the heat losses caused by ventilation. Condensate generated during heat recovery is collected in a drain pan and removed to the sewage system.
  - **In warm season** the heat of the outdoor air is absorbed by extract air flow. This way the supply air temperature decreases and heat recovery reduces operation loads for the air conditioner.



### Control Unit and Operation

#### FREEZE PROTECTION

- In units without an electric preheater the supply fan is shut down automatically, using the feedback from the exhaust air temperature sensor, to let the warm extract air thaw the heat exchanger. Then the supply fan turns on and the unit reverts to normal operation.

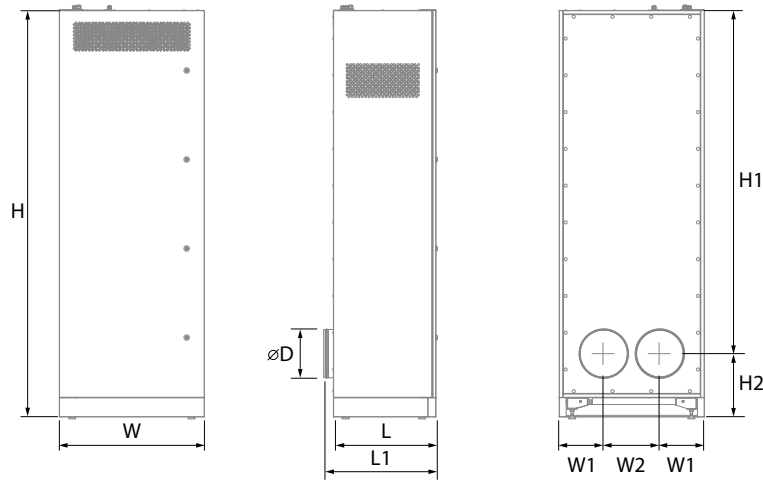
#### CONTROL

- The units may have a built-in or remote control panel.
- There are two types of control panels available: S17, S18.

MODEL	QUANTITY	COMMENTS	PROJECT
			location:
			architect:
			engineer:
			contractor:
			submitted by:

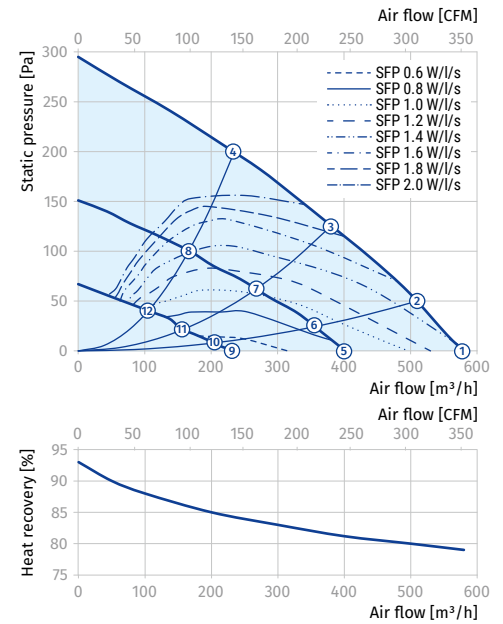
Dimensions [in]

Model	W	W1	W2	L	L1	H	H1	H2	D
Civic EC LB 500	29 1/2	11 7/16	9 1/16	21 1/16	23	85 7/16	72 3/16	13 1/4	9 13/16



Technical Data

Parameters	Civic EC LB 500
Voltage [V / 50 (60) Hz]	1~120
Maximum power consumption without an electric heater [W]	232
Maximum current consumption [A]	3.4
Maximum air flow [CFM (l/s)]	341 (161)
RPM [min <sup>-1</sup> ]	1280
Sound [Sones]	1.6
Transported air temperature [°F (°C)]	-13...+122 (-25...+50)
Casing material	painted steel
Insulation	1 9/16" mineral wool
Filter extract	MERV8
Filter supply	MERV8 and MERV14 (Option: MERV14 Carbon; HEPA Filter)
Connected air duct diameter [in]	9 13/16
Weight [lb]	421±3 %
Heat recovery efficiency [%]	from 73 to 93
Heat exchanger type	counter-flow
Heat exchanger material	aluminium
SEC class	A



FRESH AIR STREAM LENGTH PRODUCED BY CIVIC EC LB 500

