

MAKNA EEC



LARGE AIR FLOW HEAT EXCHANGER WITH MODBUS CONTROL AND EC MOTOR

MANUFACTURING FEATURES

Medium-high efficiency heat recovery unit (Eff.85%) with EC motor and modbus connection for optimized and centralized management. Counter flow heat exchanger, Eurovent certified. Set in insulated steel boxes with polyurethane and foam panels. With total bypass and CTRL-MAX2 control (see options in control panel). Configuration options: without heating, with electric or water battery (cold or hot) integrated in the unit. With filters F7 in fresh air and F7 in exhausted air. Versions for vertical installation.

CHASSIS:

- Composed of three basic modules made of extruded aluminum (two fans, filtration and heat recovery, bypass module).
- Made of sandwich panels with injected polyurethane insulation core, thickness 45 mm and density 42 kg/m3. Internal and external parts made of Aluzinc.

HEAT EXCHANGER:

- Aluminium Counter flow heat exchanger with 79% efficiency.
- Eurovent certified.

FANS:

- PLUG FAN EEC.

FILTERS:

- F7 in fresh air and F7 in exhaust air.

CONTROL:

- CTRL-MAX2: Automatic bypass, manual or automatic speed control by choosing variable flow rate (VAV) and constant pressure (COP). Automatic management of the postheating temperature of the electric coil or cold or hot water coil. Modbus connection.

COP- CONSTANT PRESSURE

VAV - VARIABLE FLOW (CO2 sensor)

APPLICATIONS

- Shopping centers, small shops, banks, hospitality, schools, office buildings, public buildings.

UNDER REQUEST

- Without control.
- With control DPH.
- Manual bypass.
- M5 filter in exhaust air
- Plug&play version (switchboard and prewired control on the machine)
- kit COP+CAV and VAV.

CONFIGURATIONS

- Other special configurations under request.

Accessories



DCO2

FILTROS
RECUPERADORES

SCO2

TEJ

[See maintenance video](#)

Technical data

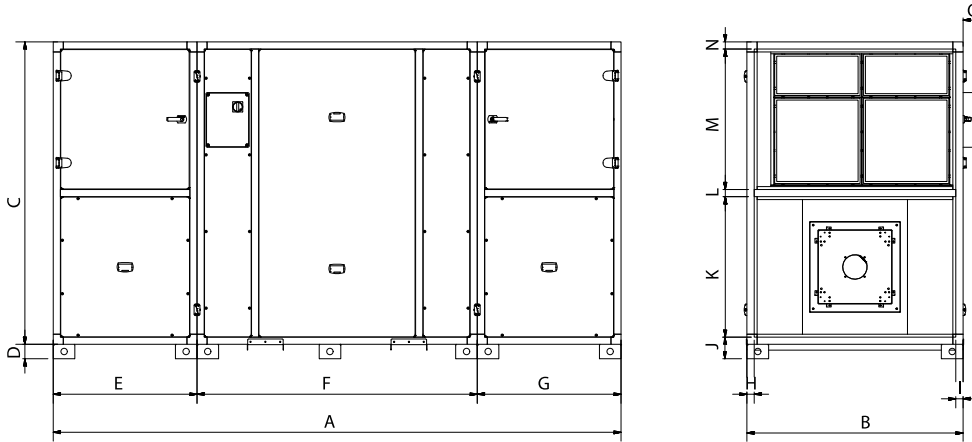
Three-phase motor

Code	Model	R.P.M.	Rated I. (A) 400V	Rated power kW	Max. Airflow m3/h	Sound db (A)**	Weight	Connect. diagram
-	MAKNA 9000 EEC	-	2x4,8	2x2,9	8.000	68	966	-
-	MAKNA 14000 EEC	-	2x8,4	2x5,2	13.000	68	1.270	-

Notes:

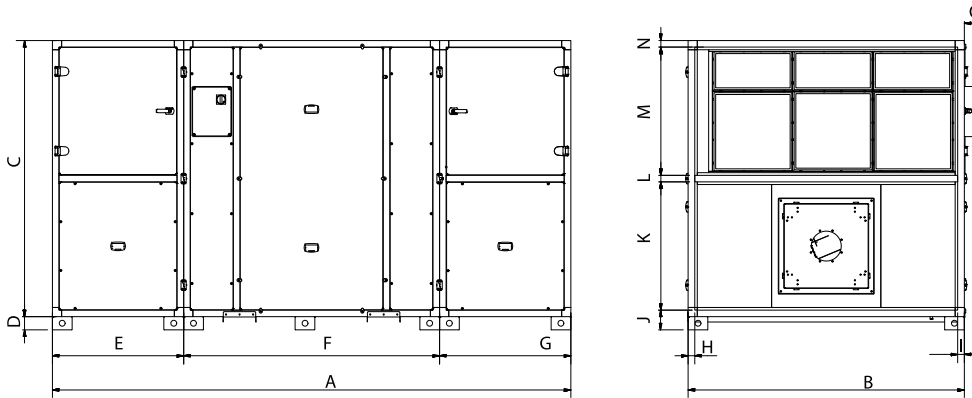
** Total sound pressure level at the point of maximum flow measured in dB(A) in the suction measured in free field at a distance of 6m from the source

Dimensions



Model	A	B	C	D	E	F	G	H	I
MAKNA 9000 EEC	3942	1500	2100	100	998	1946	998	50	50

Model	J	K	L	M	N	O
MAKNA 9000 EEC	150	975	50	975	50	155



Model	A	B	C	D	E	F	G	H	I
MAKNA 14000 EEC	3942	2100	2100	100	998	1946	998	50	50

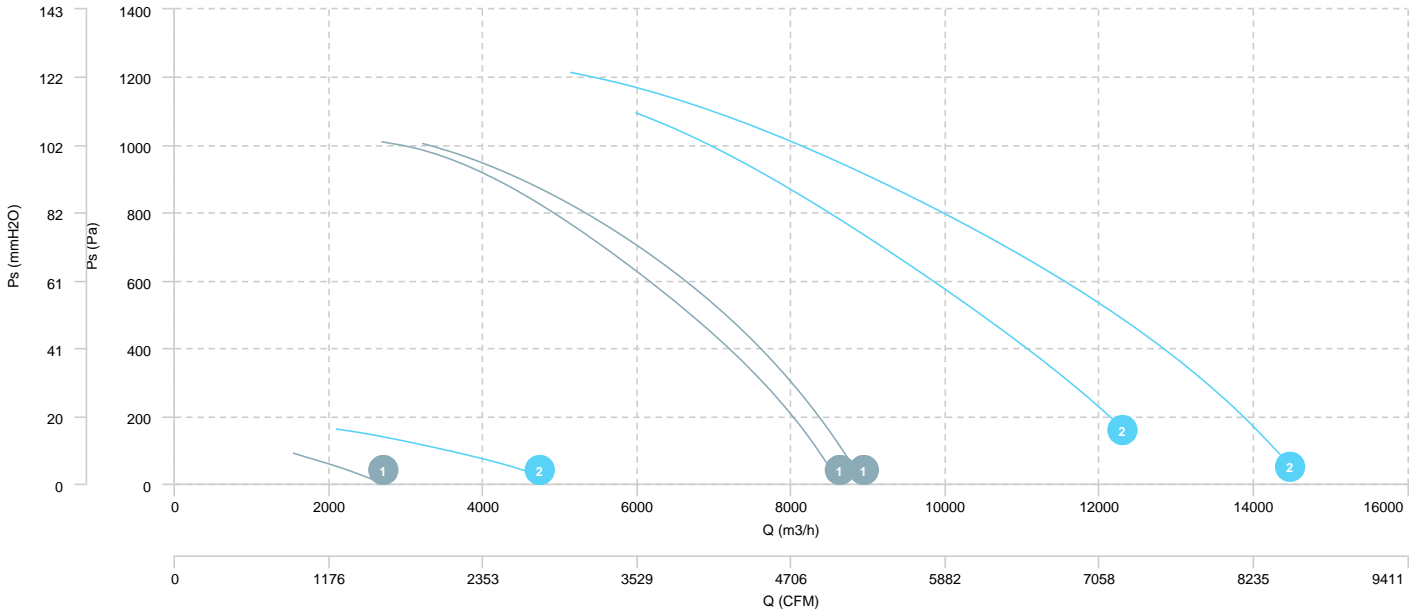
Model	J	K	L	M	N	O
MAKNA 14000 EEC	150	975	50	975	50	155

CHARACTERISTIC CURVE

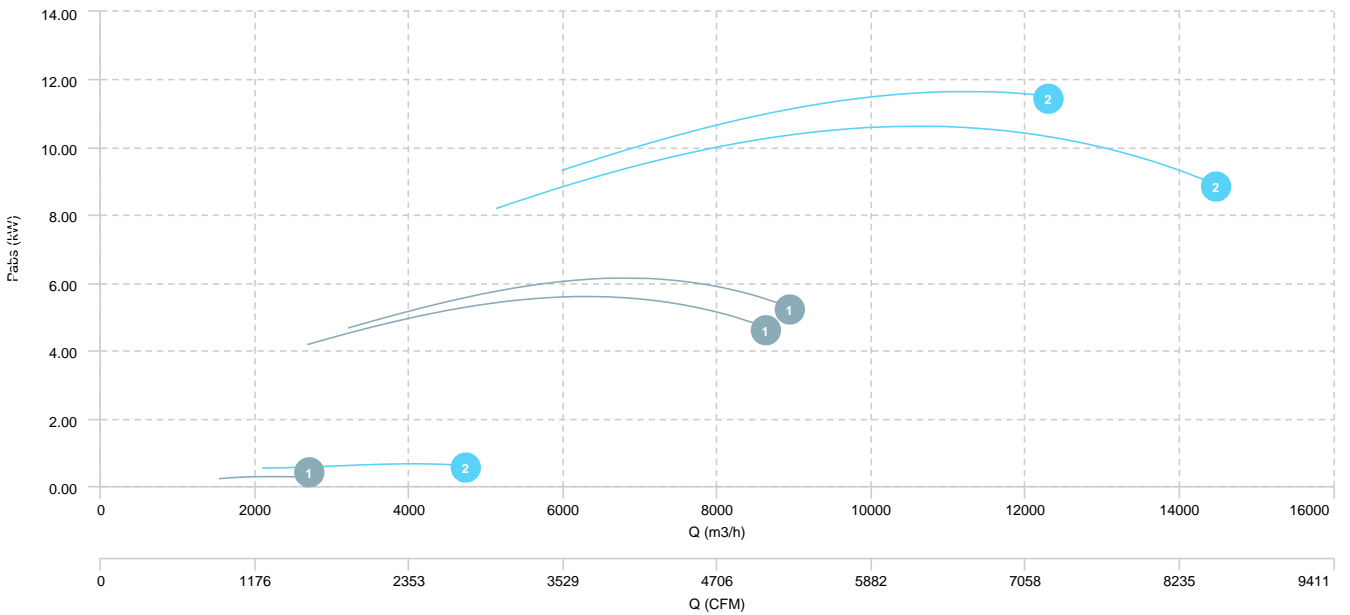
1 MAKNA 9000 EEC

2 MAKNA 14000 EEC

AIR FLOW - PRESSURE



AIR FLOW - ABSORBED POWER



Sound data

Sound power Lw dB (A)										
Model		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Total
MAKNA 9000 EEC	Inlet	-	79	92	92	90	80	93	80	94
	Outlet	-	80	93	93	93	556	76	84	96
	Radiated	-	71	85	76	70	61	52	57	79
MAKNA 14000 EEC	Inlet	-	79	96	93	88	80	75	77	94
	Outlet	-	77	97	94	88	80	76	78	95
	Radiated	-	75	92	81	75	65	59	61	85