

Air handling unit

11059094

DFE® Compact Micro-watt 450 Left + KWIN no HMI

DFE® Compact is a air handling unit with counterflow exchanger, and can be mounted in the ceiling thanks to its small dimensions.



DFE Remote control

PRODUCT BENEFITS

- high-efficiency heat exchanger
- energy-efficient EC motor
- 100% and modulating bypass

Principles of operation

DFE Compact Micro-Watt brings fresh, filtered air into the building and recovers heat from exhaust air using its high-efficiency heat exchanger. The incoming air can be heated and/or cooled using a comprehensive range of coils.

Product description

DFE Compact is ultra compact in size while retaining all the functions and options of a high efficiency AHU (bypass, EC motor, etc.). It is the ideal solution for a suspended ceiling installation, when no space is allocated to a heat recovery AHU.

Fields of application

New, Refurbishment, Non-residential buildings

Installation

- horizontal,
- indoors in a suspended ceiling.

Reference arguments

- Heat recovery ventilation for energy-efficient non-residential buildings.
- Filters and pre-heats the supply airflow.
- «Plug & Play» pre-cabled monobloc unit.
- Left and right access panels available
- 30 mm twin-skin panels. EPS thermal insulation (M1 fire rating).
- Very high-efficiency counterflow heat exchanger (up to 96%). (Eurovent AAHE)
- Low-consumption electronically commutated motor.
- Comprehensive controls:- Constant airflow (CA).- Constant pressure (CPs).- 0-10V signal (LS).- Constant torque (TQ)
- M5 pleated flat filters (option: F7 for fresh air).
- 100% adjustable bypass.
- Proximity switch.
- Ready-installed, pre-cabled condensate discharge lift pump.
- Option: communication to BMS via ModBus RTU or KNX (requires the "SAT ModBus" option).
- Configuration and control via remote control (RC) or TACTouch touchscreen controller (separate accessory).
- Internal clock.
- Stainless steel condensate collection tray.
- Hot/cold water or DX external coils available

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Main characteristics

- Plug & Play pre-cabled monoblock unit,
- double-wall 30 mm panels, polystyrene thermal insulation (M1 fire rating),
- high-efficiency counterflow heat exchanger (•90 %) EUROVENT-certified heat exchanger,
- energy-efficient EC motors,
- Remote Control (RC) included,
- full control:
 - constant airflow (CA),
 - constant pressure (CPs),
 - 0-10 V signal (LS).
- ISO Coarse 65% (G4) flat and pleated filters (optional ISO ePM1 55% (F7) on fresh air),
- 100 % bypass,
- proximity switch,
- pre-installed and pre-cabled condensate discharge pump,
- optional: Communication with BMS in RTU Modbus (requires SAT ModBus option),
- configuration and control via remote control or touch-screen remote control (additional accessory).

Accessories

Désignations	References
Pressure sensor kit DFE	11058050
Relay SAT3	11058149
Connector DFE Compact 2000 D315 - 234x1170	11058423
SAT Modbus relay	11058442
SAT external coil kit	11058443
SAT Wifi DFE TAC 4/5	11060846
SAT ethernet DFE TAC 4/5	11060847
Tactile remote control for DFE Tactouch	11069101
Flexible connector - Ø 200	11096934
Flexible connector - Ø 250	11096935
Flexible connector - Ø 315	11096936
Sens CO2 sensor	11017090
Motor Sfa-S2 On/Off 24/230V	11055045
Standalone detector trip device 230/24V	11906103
Smoke sensor	11058417
MS PRO V2 D200	11094296
MS PRO V2 D250	11094297
MS PRO V2 D315	11094298

Consumables

Désignations	References
G4 Filter Kit Dfe Compact 450	11100234
F7 Filter Kit Dfe Compact 450	11100239
	11100754

Associated services

Commissioning

General data

References	Thickness of insulation (mm)	Available filters	Connection direction	Type of exchanger	Type of motor	Type of impeller
11059094	30	ISO Coarse 65% (G4) flat and pleated filters (optional ISO ePM1 55% (F7) on fresh air).	Horizontal	With plates	EC	Forward curve

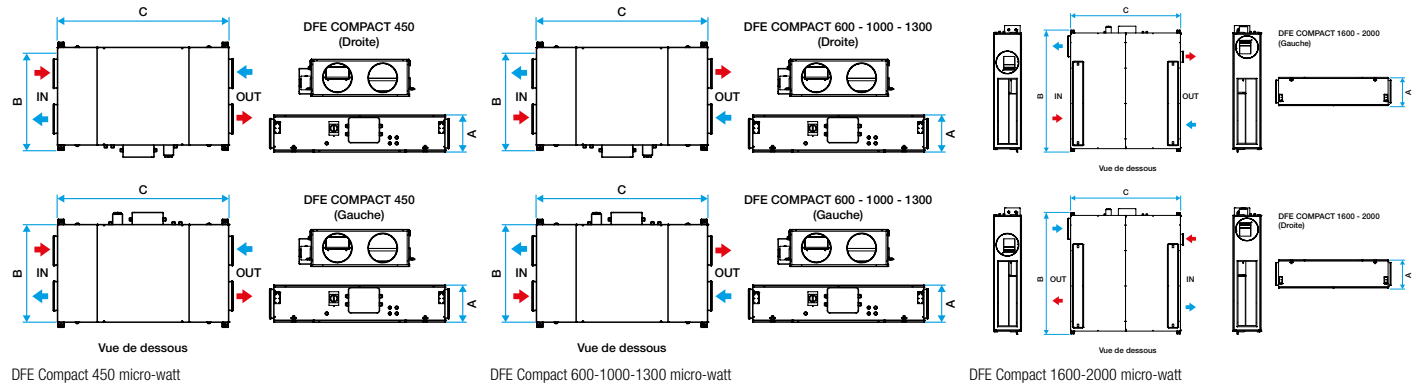
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Dimensional data

References	A (mm)	B (mm)	C (mm)	Ø connection (fresh air or exhaust) (mm)	Ø connection (discharge or air supply) (mm)	Weight (kg)
11059094	360	710	1180	200	200	75



Airflow data

References	Max. airflow (m³/h)
11059094	475

Thermal data

References	Max. exchanger output (%)
11059094	83,5

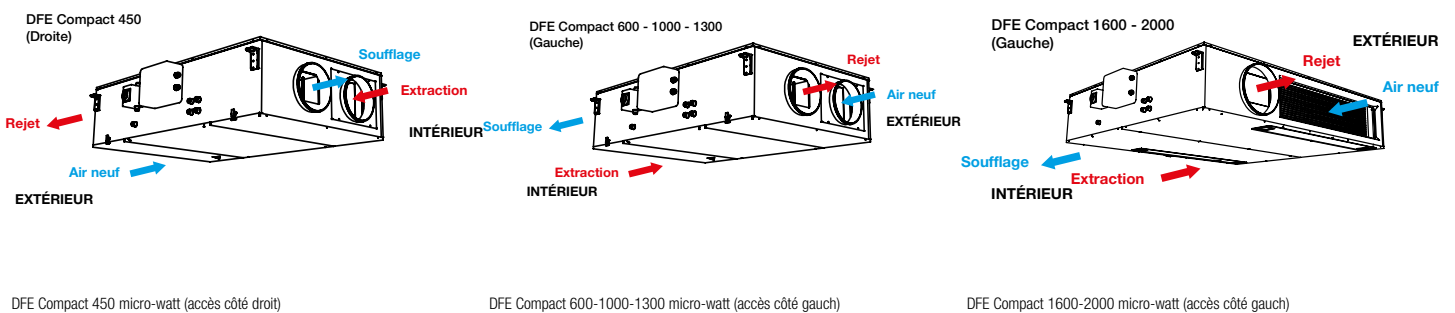
Electrical datas

References	Max. power of electrical coil 1 (kW)	Max. electrical output of unit (kW)	Unit voltage (V)
11059094	1.5	0,25	230

Regulatory data

References	Test values as per standard EN 1886
11059094	D1, L3, F8, T3, TB2

Installation visual 1

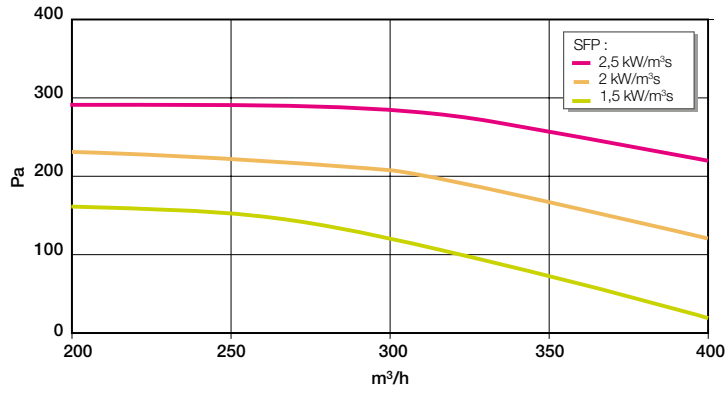


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Curve



- > Aerologic curve as per standard NF EN ISO 5801
- > : Lp in dB(A) = total sound pressure level measured at 4 m from the box fan, free discharge
- > P (Pa) = static pressure
- > P (W) = Power consumption

Caractéristiques aérauliques et consommation d'énergie DFE COMPACT 450