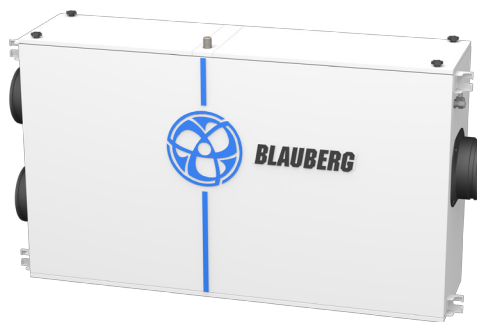


# MERENFORT DOF

Residential Unidirectional Flow Fresh Air Dehumidifier

## Features

- Suitable for high-humidity areas such as villa basements, underground parking lots, etc., and can also be used as a ventilation device.
- Multiple dehumidification modes with good humidity control, and the ability to introduce fresh air.
- Flange size: 150mm.



## Design

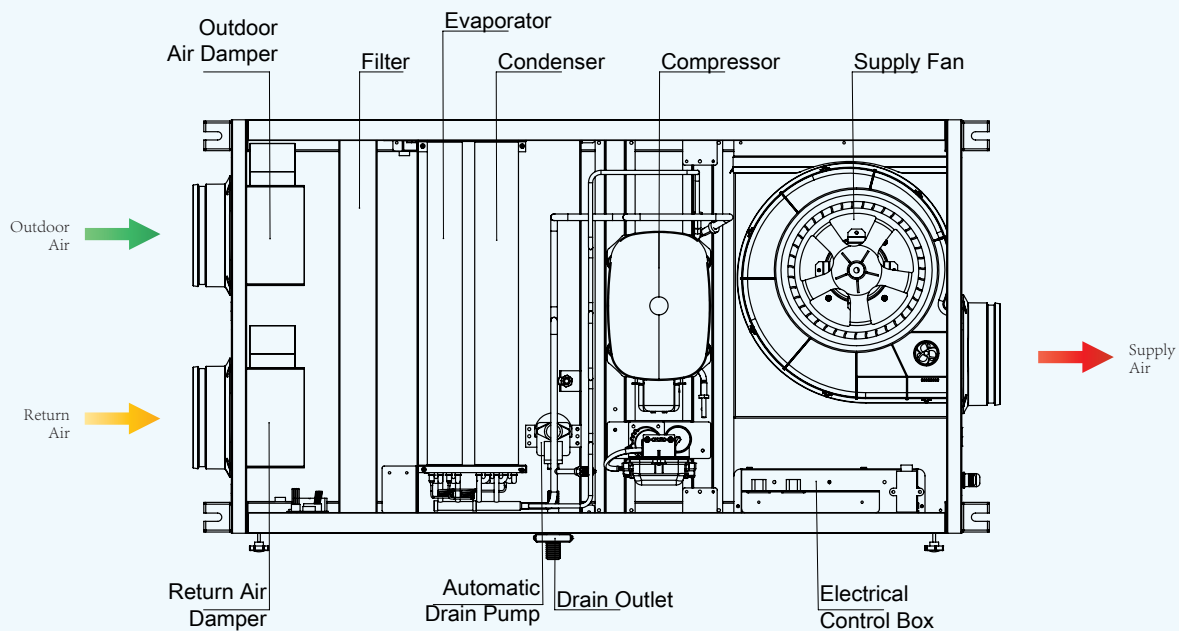
- Constructed with galvanized sheet metal and internally insulated with EPP (Expanded Polypropylene) for excellent thermal insulation and noise reduction.
- The unit is equipped with a removable panel on the side for easy maintenance and filter replacement.
- Flanges are installed at both ends of the supply air dehumidifier for easy connection to ducts.
- The casing features mounting brackets for ceiling installation.
- Electric dampers are installed at both the outdoor air inlet and return air inlet, allowing for a variety of operation modes.
- The return air inlet is equipped with a five-in-one sensor, while the outdoor air inlet has a temperature and humidity sensor for intelligent monitoring.
- RS485 interface is provided as standard, with mobile app control for convenience.

## Compressor

- Uses a high-efficiency piston compressor, energy-saving and quiet.
- The compressor is fixed with a cushioning system, effectively reducing vibration transmission.

## Fan

- Uses a DC forward-tilted volute fan.
- Constant air volume, optimized internal duct structure, low noise.
- Fan dynamic and static balance calibration for smoother operation.



### Air Dehumidification Process

- High-temperature and high-humidity air from the outdoor air and return air inlets enters the unit. It first passes through the evaporator, where it is cooled to below the dew point temperature, causing moisture to condense and be removed from the air. The resulting low-temperature, low-humidity air then passes through the condenser, where it is reheated and transformed into high-temperature, dry air, which is then supplied to the indoor space.

### Filter

- The air inlet is equipped with a G3+H11 composite filter, providing a PM2.5 filtration efficiency of over 97%.
- At the same time, it protects the compressor and the evaporator-condenser, preventing internal blockage.

### Control & Automation

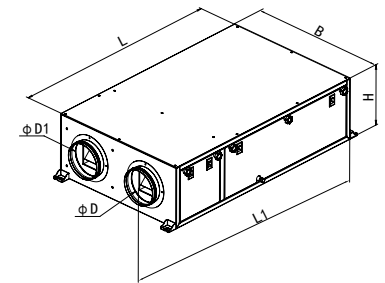
Merenfort DOF Dehumidifier Dedicated Controller:

- Device power switch
- Operation mode switching (Smart Mode, Fresh Air Ventilation, Fresh Air Dehumidification, Powerful Dehumidification, Rapid Purification Mode)
- Dehumidification function switch
- Humidity setting (20-95%)
- Air volume adjustment (High, Medium, Low, Auto)
- Indoor air quality monitoring (Temperature & Humidity, TVOC, PM2.5, CO2)
- RS485 interface, MODBUS RTU protocol, compatible with BMS systems
- Mobile App function for remote monitoring and control



### Installation

- Due to its ultra-thin body, the unit is ideal for ceiling installation in houses with limited space.
- The installation location must provide sufficient space for future maintenance and servicing.
- Proper drainage for condensate must be considered.



### Dimensions

Model	D	D1	B	H	L	L1
MERNFORT DOF 38L/350-AR-2.0	150	150	525	256	932	1042
MERNFORT DOF 70L/500-AR-2.0	150	150	625	268	1062	1172

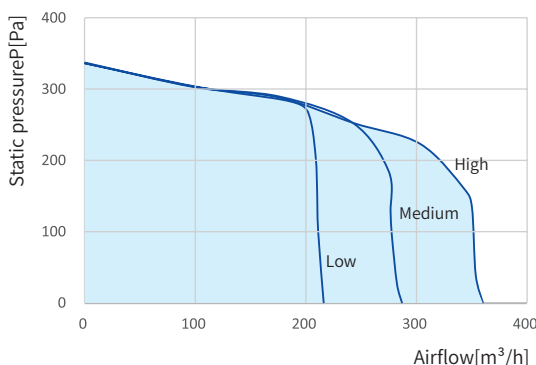
### Technical Parameters

Parameters	MERNFORT DOF 38L/350-AR-2.0	MERNFORT DOF 70L/500-AR-2.0
Rated Voltage [V]	220~	220~
Rated Frequency [Hz]	50	50
Rated Power / Maximum Power [W]	390/610	740/1150
Dehumidification Capacity	30/80[L/D]	70
	27/60[L/D]	40
Rated Airflow [m³/h]	High/Medium/Low: 350/280/210	High/Medium/Low: 500/400/300
Fresh Air Intake Capacity [m³/h]	0-350	0-500
External Static Pressure [Pa]	150	150
Noise Level [dB (A)]	36	42
Applicable Area [m²]	50-75	75-140
Filtration Level	Silver Ion+HEPA	Silver Ion+HEPA
Refrigerant/Charge Amount [g]	R290/200	R290/300
Weight [kg]	43	58
Air Duct Flange Size [mm]	φ150*3	φ150*3

Notes:

- The input power, dehumidification capacity, noise level, and airflow data are all tested under dehumidification mode.
- The airflow, input power, and dehumidification capacity data are measured with 1m air ducts connected to both the air inlet and outlet of the unit, under 0Pa static pressure.
- The noise level is an A-weighted average sound pressure level, with a central value from laboratory tests and a tolerance range of ±3dB.
- The noise level is measured in a noise testing room at a distance of 1.5m below the product, with a 1m silencer pipe connected to the air outlet and a 1m air duct connected to the air inlet.
- The dehumidification operating temperature refers to the inlet air temperature range within which the compressor can start and operate, without affecting fan operation.

MERNFORT DOF 38L/350-AR-2.0



MERNFORT DOF 70L/500-AR-2.0

