

# ROOFTOP AIR HANDLING UNIT RTU



## BASIC INFORMATION:

### › Compact Design:

Includes an integrated air/air heat pump for efficient performance. Installation is straightforward with a pre-prepared frame, designed for quick integration onto any roof.

### › Ideal for Various Applications:

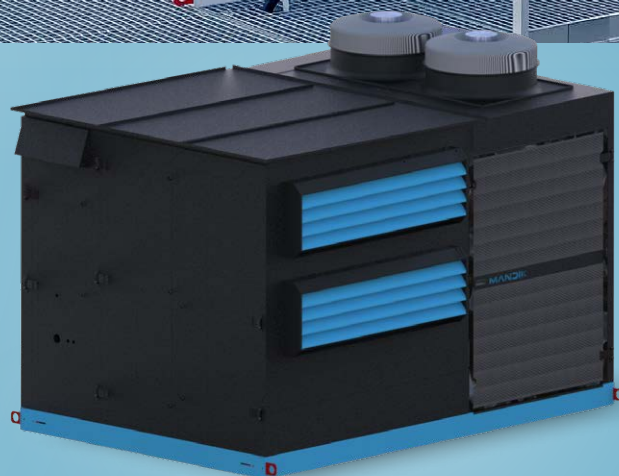
Perfectly suited for shopping malls, warehouses, and production halls, enhancing indoor air quality and climate control where it matters most.

### › Standardized Product Range:

Offering a selection of fixed sizes, performances, and levels tailored to meet the demands of commercial spaces.

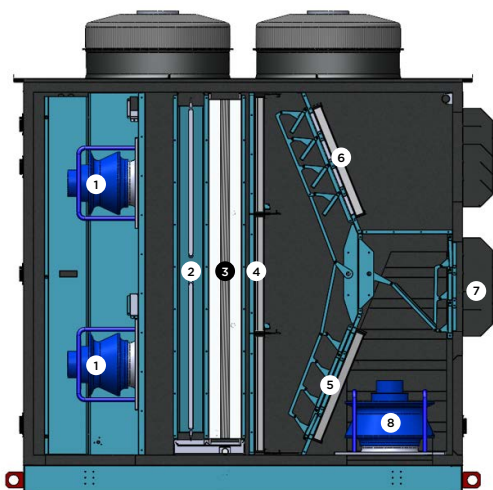
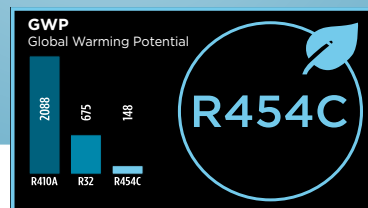
### › Transport-Friendly Dimensions:

Specifically designed to fit within shipping containers for easy and cost-effective transportation.



SCOP = 3.98  
SEER = 4.83 (1)

1) according to EN 14511/2023



- 1 Supply fan
- 2 Electric/water heater
- 3 Heat pump heat exchanger
- 4 Filters

- 5 Mixture damper
- 6 Fresh air damper
- 7 Exhaust air damper
- 8 Exhaust fan

## KEY FEATURES:

- › **Primary Heat Source:**  
Heat pump utilizing refrigerant R454C (GWP 148).
- › **Secondary Heat Source:**  
Optional water or electric heater for additional heating requirements.
- › **Durable Construction:**  
Features a double-skin, powder-coated body with 50 mm insulation for maximum durability and efficiency.
- › **Easy Maintenance:**  
Equipped with a removable stainless steel condensate pan that is easy to clean.
- › **Accessible Design:**  
Access doors are secured with hinges and locks, providing security and ease of maintenance.
- › **Integrated Technology:**  
Includes a switchboard integrated into the unit body for streamlined operations.
- › **Advanced Control:**  
Managed via a new PLC – CLIMAN (a Mandík development), enhancing functionality through smart technology.
- › **Connectivity:**  
In addition to the standard LAN/wifi connection to a local web server, CLIMAN also offers a cloud solution. The unit can be controlled from anywhere in the world via a cloud access using web browser or a mobile application for remote access.

# MANDÍK

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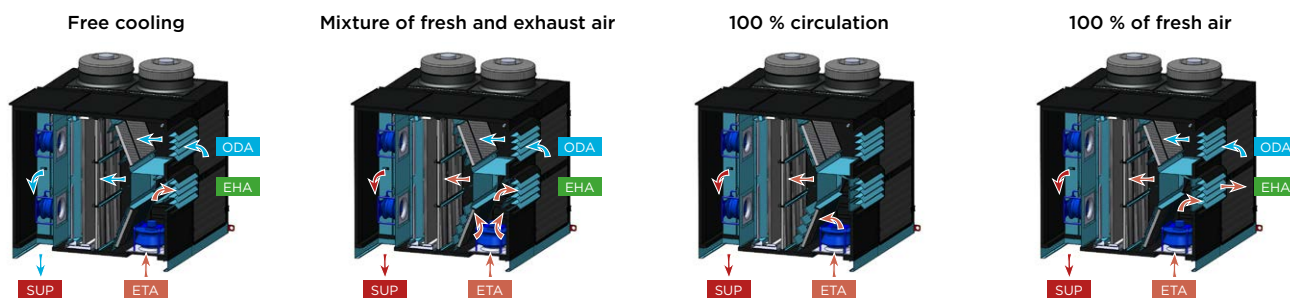
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## GENERAL OVERVIEW

Unit	[-]	A			B				C						
Nominal air flow	[m³/h]	4000	6000	8000	10000	12000	14000	16000	18000	20000	22000	24000	26000	28000	30000
Capacity – Heating (1)	[kW]	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Capacity – Cooling (1)	[kW]	20	30	35	50	55	60	65	90	95	100	105	125	130	140
Electric heater	[kW]	10			30				60						
Water heater (80/60 °C)	[kW]	Up to 60			Up to 100				Up to 160						
No. of compressors (type)	[pcs]	1 (Inverter)			2 (Inverter)				3 (2× Inverter, 1× ON/OFF)				4 (2× Inverter, 2× ON/OFF)		
No. of ref. circuits	[pcs]	1			2				2						
Refrigerant	[-]	R454C			R454C				R454C						
COP (1)	[-]	3.44	3.33	2.98	3.40	3.20	3.15	2.96	3.38	3.30	3.17	3.04	3.20	3.24	3.15
EER (1)	[-]	3.91	3.50	2.92	3.64	3.33	3.20	2.91	3.37	3.24	3.19	2.88	3.02	2.98	2.91
Dimensions (H × W × D)	[mm]	2070 × 2200 × 2650			2070 × 2200 × 3250				2670 × 2050 × 5050						
Weight	[kg]	1233	1248		1680		1698		2602			2672	2712		
Sound power to the surroundings	[dBA]	86			89				91				92		
Sound power in the supply duct	[dBA]	74	78		79		81		93			94			
Sound power in the exhaust duct	[dBA]	85			89				91						
Supply fan – EC (radial free wheel)	[pcs]	1	2		3		4		3			4			
Exhaust fan – EC (radial free wheel)	[pcs]	1			2				2						
Refrigerant fan – EC (axial)	[pcs]	1			2				3			4			
Filterklassen	[-]	G4/M5/F7/F9													
1-stage filter	[-]	4 pcs (592 × 592 × 48)			6 pcs (592 × 592 × 48)				6 pcs (592 × 592 × 48)						
2-stage filter	[-]	6 pcs (592 × 592 × 48)			9 pcs (592 × 592 × 48)				12 pcs (592 × 592 × 48)						
Sensors	[-]	Heat/Humidity/CO <sub>2</sub> /Smoke													
Communication	[-]	ModBus/Analog/(BACnet)													
Regulation	[-]	MCS/Cloud/Room thermostat/ModBus													
Power supply	[V/f/Hz]	400/3/50													
Recommended fuse	[A]	63			100				250						

1) according to EN 14511/2023

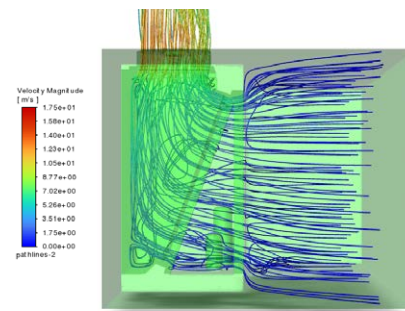


## CERTIFICATION 2025\*:

The Low Voltage Directive	(2014/35/EU)	- LVD
Electromagnetic Compatibility	(2014/30/EU)	- EMC
Pressure Equipment	(2014/68/EU)	- PED
RoHS Directive	(2011/65/EU)	- RoHS
Machinery directive	(2006/42/EC)	- MD
Ecodesign	(2009/125/ES)	

\* This product is in the process of certification.

For the development and optimization of our units, we use state-of-the-art computer simulations in ANSYS Fluent software.



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