

# SUPER NEWS

## INTRODUCING THE NEWLY ENGINEERED R-SERIES COMPACT AIR HANDLING UNIT

### R-SERIES COMPACT AIR HANDLING UNIT



#### 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.

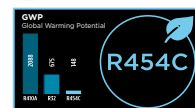
##### Transport-Friendly Dimensions:

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



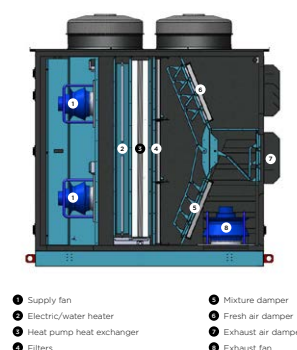
SCOP = 3.98  
SEER = 4.83 (1)

(1) according to EN 14511/2023



#### 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 Mandik 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.

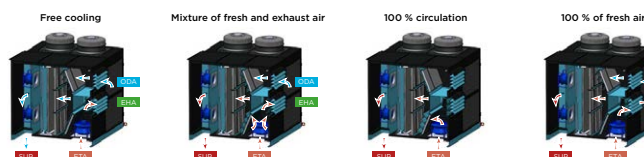


- 1 Supply fan
- 2 Electric/water heater
- 3 Heat pump heat exchanger
- 4 Filters
- 5 Mixture damper
- 6 Fresh air damper
- 7 Exhaust air damper
- 8 Exhaust fan

#### 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 (l)	[kW]	20 30 40	50 60 70 80 90 100 110 120 130 140 150	
Capacity - Cooling (l)	[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 (2x Inverter, 1x ON/OFF) 4 (2x Inverter, 2x ON/OFF)
No. of ref. circuits	[pcs]	1	2	2
Refrigerant	[-]	R454C	R454C	R454C
COP (l)	[-]	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 (l)	[-]	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 x W x D)	[mm]	2070 x 2200 x 2650	2070 x 2200 x 3250	2670 x 2050 x 5050
Weight	[kg]	1233 1248	1680 1698	2602 2672 2712
Sound power to the surroundings	[dB(A)]	86	89	91 92
Sound power in the supply duct	[dB(A)]	74 78	79 81	93 94
Sound power in the exhaust duct	[dB(A)]	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 x 592 x 48)	6 pcs (592 x 592 x 48)	6 pcs (592 x 592 x 48)
2-stage filter	[-]	6 pcs (592 x 592 x 48)	9 pcs (592 x 592 x 48)	12 pcs (592 x 592 x 48)
Sensors	[-]		Heat/Humidity/CO₂/Smoke	
Communication	[-]		ModBus/Analog/(BACnet)	
Regulation	[-]		MCS/Cloud/Room thermostat/ModBus	
Power supply	[V/Hz]		400/3/50	
Recommended fuse	[A]	63	100	250

(1) according to EN 14511/2023

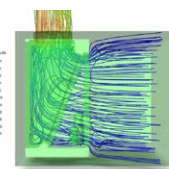


#### CERTIFICATION 2025\*:

The Low Voltage Directive (2014/35/EU)  
Electromagnetic Compatibility (2014/53/EU)  
Pressure Equipment (2011/65/EU)  
RoHS Directive (2006/42/EC)  
Machinery Directive (2009/125/ES)

- LVD  
- EMC  
- PED  
- RoHS  
- MD

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



\* This product is in the process of certification.

**MANDIK**

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