

## GREENDRY Series Dehumidifiers



**Industrial Processing Dehumidifiers**  
High-performance, Energy-efficient, Hygienic Dehumidification



# Company Introduction

Munters is a global leader in energy efficient and sustainable air treatment and climate solutions. Using innovative technologies, Munters creates the perfect climate for customers in a wide range of industries, the largest being the food, pharmaceutical and Li-battery sectors.

Munters has been defining the future of air treatment since 1955. Today manufacturing, sales and service are carried out in more than 30 countries. We have about 4,981 employees and an annual net sales of about SEK 139 billion. Munters is listed on Nasdaq Stockholm.

For more details, please visit <https://www.munters.com>

## Vision

Your Perfect Climate

## Mission

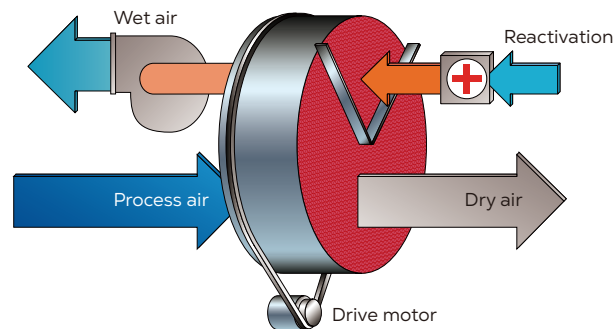
Munters' vision is to be a globally leading supplier of energy efficient solutions for air treatment and climate control technologies.

## Facts and Figures

- Global presence with sales and manufacturing in more than 30 markets
- About SEK 13 billion in annual net sales
- Around 4,900 employees
- 22 manufacturing plants
- Installed base of more than 320,000 air treatment systems



# GREENDRY – A New Generation of Dehumidifiers



Working principle of rotor dehumidification

## Working Principle

- Munters dehumidification systems remove moisture from the air by using desiccant, a material which easily absorbs and holds water vapor;
- Central to the dehumidifiers is a patented desiccant rotor made up of corrugated material which is rotating constantly;
- The wheel's 360° area is divided into two sections: 270° of process section and 90° of reactivation section;
- Air is blown through the rotor and the moisture in the air is absorbed by the desiccant on the rotor material;
- In the reactivation section, ambient air is heated and passed through the rotor to remove the moisture absorbed in the process side of the desiccant rotor;
- The desiccant on the rotor is reactivated and the wheel re-acquires the ability to absorb the moisture;
- With the wheel rotating at low speed, dehumidification and reactivation follow each other continuously, so that dry air is always available for production;
- Special ultra-low dew point energy saving option, escorted by global R & D platform, up to 40% energy saving.

## Advantages of GREENDRY

- High-performance and energy-saving dehumidifier;
- Unique frame-free configuration and hermetically sealed overall foam design;
- Simple and easy operation, with real-time control of equipment operating status;
- Swing door design;
- Enlarged maintenance area;
- Reduced energy consumption and running cost;
- Minimized service cost and frequency;
- Avoidance of mold and corrosion to prevent equipment fault and product loss;
- Enhanced hygienic conditions of the process environment;
- Direct-fired gas react design;
- Higher capacity, shorter flame length, easily meets ANSI/CSA standards.



# GREENDRY – A New Generation of Dehumidifiers

## GREENDRY in Food Industry

- Cryogenic and dry ambient air – desirable production and storage conditions for foodstuff industry;
- Dew point temperature control of the production environment – reduced moisture condensation in production environment in avoidance of mold and bacteria;
- Year-round consistent production – better product quality and increased productivity;
- Effective removal of vapor in cryogenic production and storage environment – reduced ice and frost buildup in food freezing process;
- Dry air provided for food processing such as fluid bed, coating, etc., – shortened drying duration and improved product quality;
- Elimination of cold bridge and condensation thanks to the special construction of the dehumidifier, allowing for easy cleaning and disinfection inside and outside the unit;
- The all-year-long stable air – prerequisite for guaranteed food quality and assurance for health of the production workers.



## GREENDRY in Pharmaceutical Industry

- Dry ambient air desirable for production and transportation conditions of medical products with strong moisture absorption, e.g. tablet, medical powder, capsule, etc.;
- Ideal dry air provided for whole pharmaceutical production process preventing product from deterioration in damp conditions;
- Dry air provided to meet the required low humidity of 20% RH for tableting, milling, and compressing;
- Elimination of dampness and condensation caused by chilled water, ensuring the production environment in compliance with the GMP regulations;
- Hygienic production environment – prerequisite for pharmaceutical product quality and the health of the production workers..

## GREENDRY in Electronics Industry

- Electronics manufacturing requires strictly controlled air environment and a precisely controlled humidity level is essential to ensure product quality;
- Precise humidity control for electronics industry – improved product quality and reliability;
- Perfect dry climate for electronic equipment – preventing electronic equipment from corrosion by dampness;
- Ultra-low air leakage rate – ensuring  $-80^{\circ}\text{C}$  dewpoint air supplying;
- Excellent performance – maintained ultra-low dew point air supplying after years of extended operation;
- Special ultra-low dew point energy saving option, escorted by global R & D platform, up to 40% energy saving.



# GREENDRY – A New Generation of Dehumidifiers

## GREENDRY in Spray Drying Industry

- The entrance of spray drying tower with low humidity and stability improves the output of spray tower, reduces energy consumption per unit finished product and ensures consistency of product quality
- Spray drying is no longer affected by weather condition, and there is no need to adjust operating parameters of the drying process frequently, which ensures consistent output throughout the year
- Reduce the adhesion of raw materials or finished products to the wall of the spray tower, thereby reducing cleaning time and increasing output, which meets the high hygiene standards
- Special ultra-low dew point energy saving option, escorted by global R & D platform, up to 40% energy saving



## GREENDRY in Large Production

- Super large air volume to improve cleanliness of production space
- Reduce the number of equipment, installation cost and equipment failure rate
- Accurate environmental humidity control, improve product quality and reliability
- Create a dry air environment to prevent equipment from corrosion caused by moisture
- Special ultra-low dew point energy saving option, escorted by global R & D platform, up to 40% energy saving

# GREENDRY Features

## Munters' Desiccant Rotor for Dehumidification – Industry Leader with Excellent Performance

- In 1950s, Mr. Carl Munters, a famous Swedish inventor, invented the desiccant wheel (rotor) for dehumidification, and founded Munters;
- Since the birth of rotor dehumidifying technique, Munters, by virtue of constant improvement of production process and method, has secured the Munters desiccant rotor as industry leader, a paragon for the industry to follow;
- Desiccant – Silica Gel is a non-toxic and odorless inert substance with stable chemical properties and strong water absorption capacity;
- Rigorous third-party testing & certification – Proved sterilization effect of Munters Dehumidifying Rotor, free of volatile matters;
- Outstanding treatment technology to ensure zero silica gel loss even at 100%RH;
- Corrosion resistance – proved resistance to chemicals such as sulphur compounds;
- Munters has provided over 300,000 sets of dehumidifiers to high-quality production lines and working environment globally up to date, bringing perfect climate for high-quality products and life of all trades.



Mr. Carl Munters, Founder of Munters A.B.



Various kinds of Munters rotors to meet different application needs

## Mechanical Configuration – Robust & Firm; Easy to clean

GREENDRY series of dehumidifiers adopt the frame-free air conditioning case, which originates from Munters and acquired a patent, to improve the dehumidification performance and durability.

- Elimination of cold bridge effect and condensation on the unit surface without the usage of aluminum frame in traditional air handling units;
- Effective thermo insulation: increased heat insulation of box case with polyurethane foam up to 60mm between the inner and outer panels, resulting in minimized energy loss; Stainless steel as option for the inner panel;
- Reliable airtightness: sealing design at the reactivation section and processing section of the rotors achieves perfect tightness on both sides while reducing rotor resistance;
- Easy cleaning: smooth connections among inner surface transitions and corners inside the box casing, and smooth and flat inner surfaces of the unit allow for easy maintenance;
- Low air leakage rate: the design of hinged access door, cold bridge free door handle, plus high-resilience rubber sealed door frame increases heat insulation performance and minimizes the air leakage rate of the unit.



# GREENDRY Features

## Electrical Control - Intelligent Monitoring

GREENDRY adopts flexible and user-friendly Siemens intelligent logic controller, and can realize real-time detection and control over operating conditions. Meanwhile, Text display allows easy monitoring of a full range of parameters.

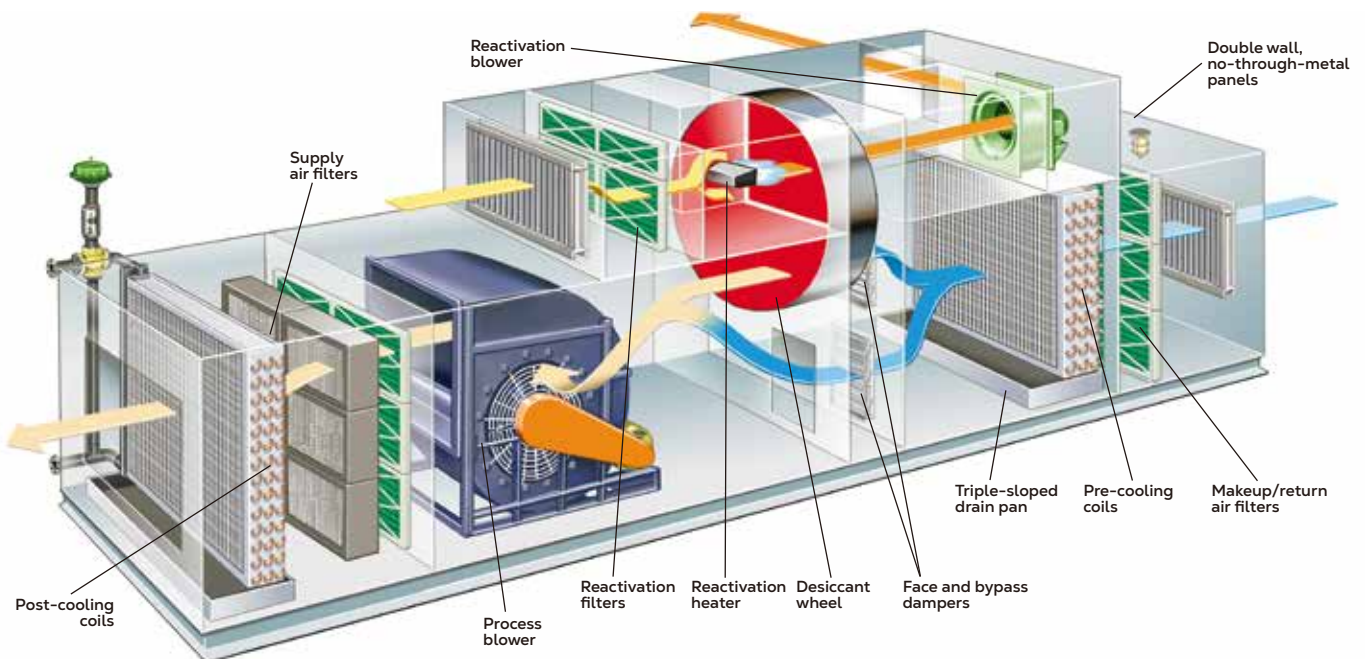
- Operating status;
- Reactivation temperature;
- Process air/supply air temperature/humidity (optional function);
- Status of multistage electrical reactivation;
- Accumulative running timer;
- Other spare interfaces, for extension function.

Detailed alarm information enables easy maintenance and trouble shooting.

- Reactivation overheating warning;
- Rotor stop warning (optional function);
- Process/reactivation filters block alarm (optional function);
- Process/reactivation fan motor overload alarm;
- Reactivation air temperature sensor failure;
- Other extension warning functions.



## Flexible Configuration - Tailor made to your overall solutions



# Rated Datasheet

Basic Units of GREENDRY	MCA-072-20	MCA-072-30	MCA-082-30	MCA-082-40	MCA-102-50
<b>Process Air</b>					
Rated airflow (m <sup>3</sup> /h)	2000	3000	3000	4000	5000
Available external pressure (Pa)	300	300	300	300	300
Fan motor power (kW)/ Pole	1.5/2	1.5/2	1.5/2	3/2	3/2
Current (A) 3Ph 50Hz 380V	3.35	3.35	3.35	6.4	6.4
<b>Reactivation Air</b>					
Rated airflow (m <sup>3</sup> /h)	670	1000	1000	1100	1600
Available external pressure (Pa)	300	300	300	300	300
Fan motor power (kW)/ Pole	1.1/2	1.1/2	1.1/2	1.1/2	1.5/2
Current (A) 3Ph 50Hz 380V	2.5	2.5	2.5	2.5	3.35
<b>Drive Motor</b>					
Drive motor power (kW)	0.02	0.02	0.02	0.02	0.02
Current (A) 3Ph 50Hz 380V	0.13	0.13	0.13	0.13	0.13
<b>Transformer</b>					
Volume (VA) 50Hz 380V (Electric/Steam)	160/100	160/100	160/100	160/100	160/100
Output voltage (V) 50Hz	24	24	24	24	24
<b>Electric Heater</b>					
Power (kW)	22.5	32.7	32.7	37.5	53.1
Current (A) 3Ph 50Hz 380V	34.2	49.7	49.7	57.0	80.7
<b>Electric Power and Rated Current (Electric Heater Reactivation)</b>					
Max. electric power (kW)	25.3	35.5	35.5	41.8	57.8
Current (A) 3Ph 50Hz 380V	41.4	56.6	56.9	67.5	91.8
<b>Steam Heater</b>					
Steam consumption <sup>(1)</sup> (kg/h)	41	60	60	69	99
Steam inlet pipe size	DN25	DN25	DN25	DN25	DN25
Steam outlet pipe size	DN25	DN25	DN25	DN25	DN25
<b>Electric Power and Rated Current (Steam Heater Reactivation)</b>					
Total power (without process fan)	1.3	1.3	1.3	1.3	1.7
Max. electric power (kW)	2.8	2.8	2.8	4.3	4.7
Current (A) 3Ph 50Hz 380V	6.9	6.9	6.9	10	10.8
<b>Weight (kg)</b>					
Electrical reactivation units	680	700	770	800	870
Steam reactivation units	700	730	800	830	900
<b>Other data</b>					
Air filter level (standard)	G4	G4	G4	G4	G4
Fan motor insulation class	Class F	Class F	Class F	Class F	Class F
Rotor's drive motor insulation class	Class F	Class F	Class F	Class F	Class F
Thermostat temperature (°C)	175°C	175°C	175°C	175°C	175°C
AHU height connect with RBU <sup>(6)</sup> (mm)	690	690	690	690	790
RBU length (without process fan)	1735	1735	1735	1735	1825

Contacting coil voltage

External (low voltage) output contacts

Contacting control is AC24V, "NO" contacts for remote control and fault.

(1) Steam consumption is calculated by latent heat of vaporization of 2108.4kJ/kg and gauge pressure of 400kPa;

(2) Gas Burner MAXTON NP-LE AIREFLO<sup>®</sup>, Gas working pressure: 30~50kPa, Gas consumption is calculated by gas calorific value of 8600kcal/Nm<sup>3</sup>

(3) Figures quoted here are rated values, based on air inlet temperature of 12°C and air density of 1.2kg/m<sup>3</sup>, for convenience of customer's quick and easy configuration of air treatment systems such as pre-cooling coil, etc.;

(4) Calculations of technical parameters for customized dehumidification system shall depend upon customer's requirement. Please contact with Munters;

(5) Above specifications are subject to change without prior notice, please refer to the nameplate on the unit.

(6) See remark (7) of page 11.



# Rated Datasheet

Basic Units of GREENDRY	MCA-102-60	MCA-122-70	MCA-122-85	MCA-122-100
<b>Process Air</b>				
Rated airflow (m <sup>3</sup> /h)	6000	7000	8500	10000
Available external pressure (Pa)	300	300	300	300
Fan motor power (kW)/ Pole	4/4	5.5/2	5.5/6	5.5/6
Current (A) 3Ph 50Hz 380V	8.9	11.0	13.0	13.0
<b>Reactivation Air</b>				
Rated airflow (m <sup>3</sup> /h)	1800	2200	2500	2700
Available external pressure (Pa)	300	300	300	300
Fan motor power (kW)/ Pole	1.5/2	1.5/2	1.5/2	2.2/2
Current (A) 3Ph 50Hz 380V	3.35	3.35	3.35	4.75
<b>Drive Motor</b>				
Drive motor power (kW)	0.02	0.02	0.02	0.02
Current (A) 3Ph 50Hz 380V	0.13	0.13	0.13	0.13
<b>Transformer</b>				
Volume (VA) 50Hz 380V (Electric/Steam)	160/100	160/100	160/100	160/100
Output voltage (V) 50Hz	24	24	24	24
<b>Electric Heater</b>				
Power (kW)	60.0	70.2	80.1	90.0
Current (A) 3Ph 50Hz 380V	91.2	106.7	121.7	136.7
<b>Electric Power and Rated Current (Electric Heater Reactivation)</b>				
Max. electric power (kW)	65.7	77.4	87.3	97.9
Current (A) 3Ph 50Hz 380V	104.7	122.3	139.4	155.8
<b>Steam Heater</b>				
Steam consumption <sup>(1)</sup> (kg/h)	112	131	150	169
Steam inlet pipe size	DN25	DN25	DN32	DN32
Steam outlet pipe size	DN25	DN25	DN32	DN32
<b>Electric Power and Rated Current (Steam Heater Reactivation)</b>				
Total power (without process fan)	1.7	1.7	1.7	2.4
Max. electric power (kW)	5.7	7.2	7.2	7.9
Current (A) 3Ph 50Hz 380V	13.3	15.4	17.4	18.8
<b>Weight (kg)</b>				
Electrical reactivation units	900	960	1000	1100
Steam reactivation units	950	1010	1070	1180
<b>Other data</b>				
Air filter level (standard)	G4	G4	G4	G4
Fan motor insulation class	Class F	Class F	Class F	Class F
Rotor's drive motor insulation class	Class F	Class F	Class F	Class F
Thermostat temperature (°C)	175°C	175°C	175°C	175°C
AHU height connect with RBU <sup>(6)</sup> (mm)	790	890	890	890
RBU length (without process fan)	1825	1825	1825	1875
Contactor coil voltage	Contactor control is AC24V, "NO" contacts for remote control and fault.			
External (low voltage) output contacts				

(1) Steam consumption is calculated by latent heat of vaporization of 2108.4kJ/kg and gauge pressure of 400kPa;

(2) Gas Burner MAXTON NP-LE AIREFLO<sup>®</sup>, Gas working pressure: 30~50kPa, Gas consumption is calculated by gas calorific value of 8600kcal/Nm<sup>3</sup>

(3) Figures quoted here are rated values, based on air inlet temperature of 12°C and air density of 1.2kg/m<sup>3</sup>, for convenience of customer's quick and easy configuration of air treatment systems such as pre-cooling coil, etc.;

(4) Calculations of technical parameters for customized dehumidification system shall depend upon customer's requirement. Please contact with Munters;

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(6) See remark (7) of page 11.

# Rated Datasheet

Basic Units of GREENDRY	MCA-074-40	MCA-084-50	MCA-104-60	MCA-124-70	MCA-124-85
<b>Process Air</b>					
Rated airflow (m <sup>3</sup> /h)	4000	5000	6000	7000	8500
Available external pressure (Pa)	300	300	300	300	150
Fan motor power (kW)/ Pole	3/2	4/4	5.5/2	5.5/2	5.5/6
Current (A) 3Ph 50Hz 380V	6.4	8.9	11.0	11.0	13.0
<b>Reactivation Air</b>					
Rated airflow (m <sup>3</sup> /h)	1260	1700	2100	2700	3100
Available external pressure (Pa)	300	300	300	300	300
Fan motor power (kW)/ Pole	1.5/2	2.2/2	2.2/2	2.2/2	2.2/2
Current (A) 3Ph 50Hz 380V	3.35	4.75	4.75	4.75	4.75
<b>Drive Motor</b>					
Drive motor power (kW)	0.02	0.02	0.04	0.04	0.04
Current (A) 3Ph 50Hz 380V	0.13	0.13	0.13	0.13	0.13
<b>Transformer</b>					
Volume (VA) 50Hz 380V (Electric/Steam)	160/100	160/100	160/100	160/100	160/100
Output voltage (V) 50Hz	24	24	24	24	24
<b>Electric Heater</b>					
Power (kW)	42.6	57.6	70.2	90.0	100.2
Current (A) 3Ph 50Hz 380V	64.7	87.5	106.7	136.7	152.2
<b>Electric Power and Rated Current (Electric Heater Reactivation)</b>					
Max. electric power (kW)	47.3	64.0	78.2	98.0	108.2
Current (A) 3Ph 50Hz 380V	75.8	102.5	123.7	153.8	171.3
<b>Steam Heater</b>					
Steam consumption <sup>(1)</sup> (kg/h)	80	108	131	169	187
Steam inlet pipe size	DN25	DN25	DN25	DN32	DN32
Steam outlet pipe size	DN25	DN25	DN25	DN32	DN32
<b>Electric Power and Rated Current (Steam Heater Reactivation)</b>					
Total power (without process fan)	1.7	2.3	2.4	2.4	2.4
Max. electric power (kW)	4.7	6.3	7.9	7.9	7.9
Current (A) 3Ph 50Hz 380V	10.8	14.7	16.8	16.8	18.8
<b>Weight (kg)</b>					
Electrical reactivation units	750	850	1000	1100	1150
Steam reactivation units	800	900	1050	1160	1230
<b>Other data</b>					
Air filter level (standard)	G4	G4	G4	G4	G4
Fan motor insulation class	Class F	Class F	Class F	Class F	Class F
Rotor's drive motor insulation class	Class F	Class F	Class F	Class F	Class F
Thermostat temperature (°C)	175°C	175°C	175°C	175°C	175°C
AHU height connect with RBU <sup>(6)</sup> (mm)	690	690	790	890	890
RBU length (without process fan)	1920	1920	2025	2025	2025

Contacting coil voltage

External (low voltage) output contacts

Contacting control is AC24V, "NO" contacts for remote control and fault.

(1) Steam consumption is calculated by latent heat of vaporization of 2108.4kJ/kg and gauge pressure of 400kPa;

(2) Gas Burner MAXTON NP-LE AIREFLO<sup>®</sup>, Gas working pressure: 30~50kPa, Gas consumption is calculated by gas calorific value of 8600kcal/Nm<sup>3</sup>

(3) Figures quoted here are rated values, based on air inlet temperature of 12°C and air density of 1.2kg/m<sup>3</sup>, for convenience of customer's quick and easy configuration of air treatment systems such as pre-cooling coil, etc.;

(4) Calculations of technical parameters for customized dehumidification system shall depend upon customer's requirement. Please contact with Munters;

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(6) See remark (7) of page 11.

# Rated Datasheet

Basic Units of GREENDRY	MCA-124-100	MCA-134-120	MCA-134-150	MCA-154-150	MCA-154-200
<b>Process Air</b>					
Rated airflow (m <sup>3</sup> /h)	10000	12000	15000	15000	20000
Available external pressure (Pa)	150	N/A <sup>(5)</sup>	N/A	N/A	N/A
Fan motor power (kW)/ Pole	5.5/6	N/A	N/A	N/A	N/A
Current (A) 3Ph 50Hz 380V	13.0	N/A	N/A	N/A	N/A
<b>Reactivation Air</b>					
Rated airflow (m <sup>3</sup> /h)	3330	4000	5000	5000	6670
Available external pressure (Pa)	300	300	300	300	200
Fan motor power (kW)/ Pole	2.2/2	5.5/2	5.5/2	5.5/2	7.5/4
Current (A) 3Ph 50Hz 380V	4.75	11.0	11.0	11.0	15.7
<b>Drive Motor</b>					
Drive motor power (kW)	0.04	0.06	0.06	0.06	0.06
Current (A) 3Ph 50Hz 380V	0.13	0.17	0.17	0.17	0.17
<b>Transformer</b>					
Volume (VA) 50Hz 380V (Electric/Steam)	160/100	630/100	630/100	630/100	630/100
Output voltage (V) 50Hz	24	24	24	24	24
<b>Electric Heater</b>					
Power (kW)	112.5	128	173	160	216
Current (A) 3Ph 50Hz 380V	170.9	194.5	262.8	243.1	328.2
<b>Electric Power and Rated Current (Electric Heater Reactivation)</b>					
Max. electric power (kW)	120.5	141.7	190.2	177.2	235.2
Current (A) 3Ph 50Hz 380V	190.0	223.6	299.0	279.3	369.0
<b>Steam Heater</b>					
Steam consumption <sup>(1)</sup> (kg/h)	206	240	324	300	404
Steam inlet pipe size	DN32	DN40	DN40	DN40	DN50
Steam outlet pipe size	DN32	DN40	DN40	DN40	DN50
<b>Electric Power and Rated Current (Steam Heater Reactivation)</b>					
Total power (without process fan)	2.5	5.7	5.7	5.7	7.7
Max. electric power (kW)	7.9	13.2	16.7	16.7	18.7
Current (A) 3Ph 50Hz 380V	18.8	26.6	33.6	33.6	38.3
<b>Weight (kg)</b>					
Electrical reactivation units	1250	1350	1400	1500	1550
Steam reactivation units	1350	1450	1500	1600	1650
<b>Other data</b>					
Air filter level (standard)	G4	N/A	N/A	N/A	N/A
Fan motor insulation class	Class F	Class F	Class F	Class F	Class F
Rotor's drive motor insulation class	Class F	Class F	Class F	Class F	Class F
Thermostat temperature (°C)	175°C	175°C	175°C	175°C	175°C
AHU height connect with RBU <sup>(6)</sup> (mm)	890	950	950	990	990
RBU length (without process fan)	2025	2195	2195	2195	2225

Contacting coil voltage

External (low voltage) output contacts

Contacting control is AC24V, "NO" contacts for remote control and fault.

(1) Steam consumption is calculated by latent heat of vaporization of 2108.4kJ/kg and gauge pressure of 400kPa;

(2) Gas Burner MAXTON NP-LE AIREFLO<sup>®</sup>, Gas working pressure: 30~50kPa, Gas consumption is calculated by gas calorific value of 8600kcal/Nm<sup>3</sup>

(3) Figures quoted here are rated values, based on air inlet temperature of 12°C and air density of 1.2kg/m<sup>3</sup>, for convenience of customer's quick and easy configuration of air treatment systems such as pre-cooling coil, etc.;

(4) Calculations of technical parameters for customized dehumidification system shall depend upon customer's requirement. Please contact with Munters;

(5) Above specifications are subject to change without prior notice, please refer to the nameplate on the unit.

(6) The process fan of unit 134 and 135 need customization.

(7) See remark (7) of page 11.

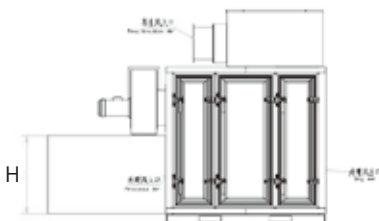
# Rated Datasheet

## Super DH Units of GREENDRY MCA-174-200 MCA-174-250 MCA-194-250 MCA-194-300 MCA-214-300 MCA-214-350

<b>Process Air</b>						
Rated airflow (m <sup>3</sup> /h)	20000	25000	25000	30000	30000	35000
<b>Reactivation Air</b>						
Rated airflow (m <sup>3</sup> /h)	6670	8330	8330	10000	10000	11670
Available external pressure (Pa)	300	300	300	300	300	300
Fan motor power (kW)/ Pole	7.5/4p	7.5/4p	7.5/4p	11/2p	11/2p	11/4p
Current (A) 3Ph 50Hz 380V	15.7	15.7	15.7	21.5	21.5	22
Power factor cosφ	0.82	0.82	0.82	0.86	0.86	0.84
<b>Drive Motor</b>						
Drive motor power (kW)	0.10	0.10	0.20	0.20	0.20	0.20
Current (A) 3Ph 50Hz 380V	0.31	0.31	0.56	0.56	0.56	0.56
<b>Transformer</b>						
Volume (VA) 50Hz 380V	100	100	100	100	100	100
Output voltage (V) 50Hz	24	24	24	24	24	24
<b>Steam Heater</b>						
Steam consumption <sup>(1)</sup> (kg/h)	385	488	488	582	582	674
Steam inlet pipe size	DN50	DN50	DN50	DN50	DN50	DN50
Steam outlet pipe size	DN50	DN50	DN50	DN50	DN50	DN50
<b>Electric Power and Rated Current (Steam Heater Reactivation)</b>						
Max. electric power (kW)	7.8	7.8	7.9	11.4	11.4	11.4
Current (A) 3Ph 50Hz 380V	17.0	17.0	17.2	23.0	23.0	23.0
<b>Weight (kg)</b>						
Gas	1700	1800	2000	2160	2230	2300
<b>Other data</b>						
Air filter level (standard)	N/A	N/A	N/A	N/A	N/A	N/A
Fan motor insulation class	F级	F级	F级	F级	F级	F级
Rotor's drive motor insulation class	F级	F级	F级	F级	F级	F级
Thermostat temperature (°C)	175°C	175°C	175°C	175°C	175°C	175°C

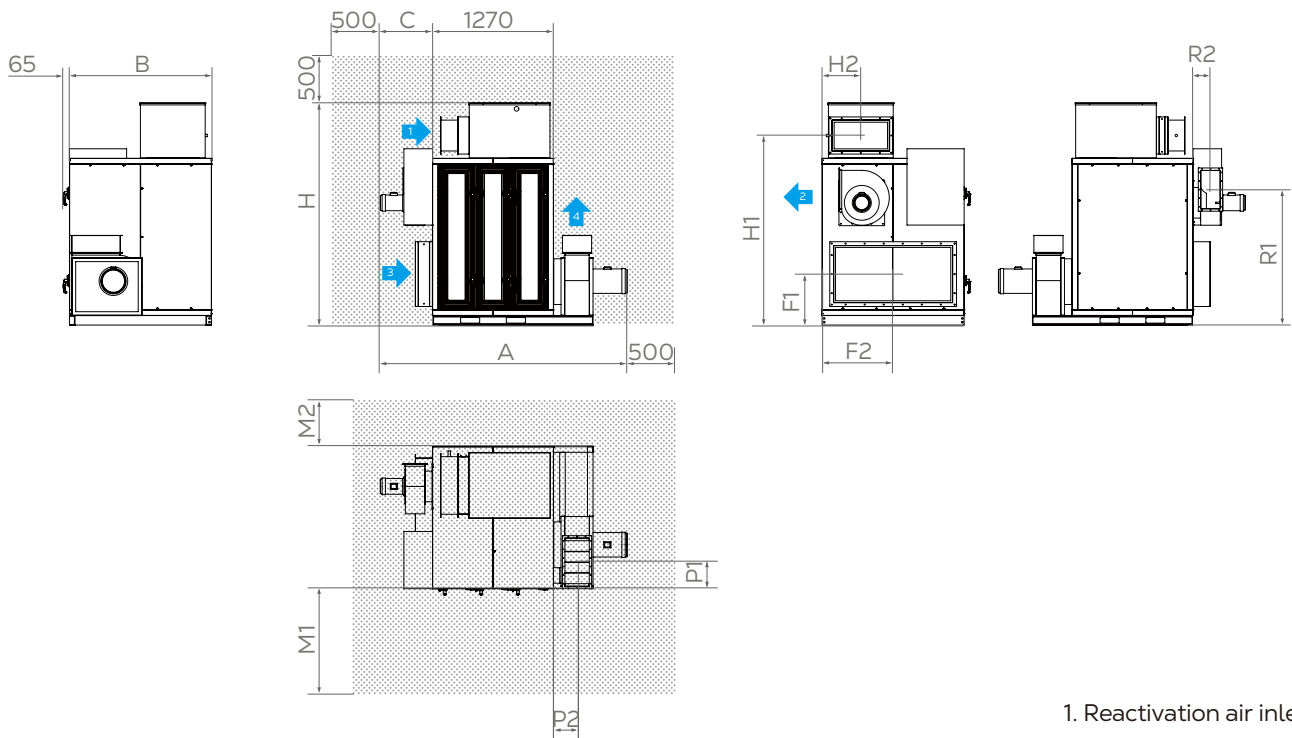
Contacting coil voltage                      Contactor control is AC24V, "NO" contacts for remote control and fault.  
External (low voltage) output contacts

- (1) Steam consumption is calculated by latent heat of vaporization of 2108.4kJ/kg and gauge pressure of 400kPa;
- (2) Figures quoted here are rated values, based on air inlet temperature of 12°C and air density of 1.2kg/m<sup>3</sup>, for convenience of customer's quick and easy configuration of air treatment systems such as pre-cooling coil, etc.;
- (3) Calculations of technical parameters for customized dehumidification system shall depend upon customer's requirement. Please contact with Munters;
- (4) Above specifications are subject to change without prior notice, please refer to the nameplate on the unit.
- (5) The electrical reactivation unit and gas reactivation unit are non-standard options.
- (6) The process fan is a non-standard option.
- (7) See below drawing please.



# Unit Dimensions & Maintenance Space Required (Basic Units with Electrical Reactivation)

Type	A	B	H	C	R1	R2	P1	P2	H1	H2	F1	F2	M1	M2
MCA-072-20E	2500	1190	1846	465	1075	145	230	220	1530	390	435	595	1100	500
MCA-072-30E	2320	1190	1846	465	1075	145	230	220	1530	390	435	595	1100	500
MCA-082-30E	2320	1190	1846	465	1075	145	230	220	1530	390	435	595	1200	500
MCA-082-40E	2415	1190	1846	465	1075	145	250	230	1530	390	435	595	1200	500
MCA-102-50E	2510	1340	2169	555	1335	185	250	230	1830	395	485	670	1400	700
MCA-102-60E	2515	1340	2169	555	1335	185	250	230	1830	395	485	670	1400	700
MCA-122-70E	2610	1490	2331	555	1420	185	280	250	1990	405	535	745	1600	700
MCA-122-85E	2735	1490	2356	555	1420	185	305	360	2010	510	535	745	1600	900
MCA-122-100E	2780	1490	2356	605	1440	195	305	360	2010	510	535	745	1600	900

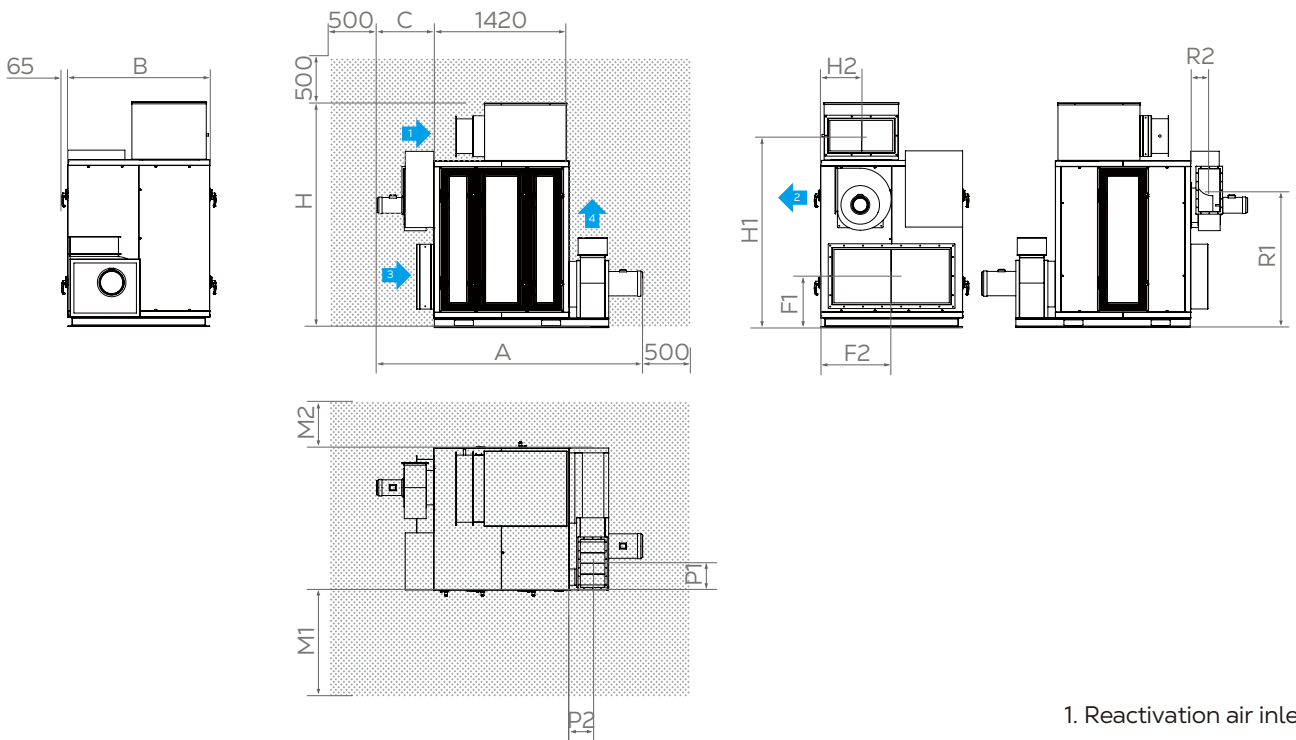


1. Reactivation air inlet
2. Wet air outlet
3. Process air inlet
4. Dry air outlet

1. Above sizes are subject to change without prior notice, please in kind prevail.

# Dimensions & Maintenance Space Required of Dehumidifiers (Basic Units with Electrical Reactivation)

Type	A	B	H	C	R1	R2	P1	P2	H1	H2	F1	F2	M1	M2
MCA-074-40E	2590	1190	1846	500	1085	155	280	230	1530	390	435	595	1100	500
MCA-084-50E	2655	1190	1846	500	1085	155	280	250	1530	370	435	595	1200	500
MCA-104-60E	2800	1340	2169	605	1330	195	230	250	1830	395	485	670	1400	700
MCA-124-70E	2805	1490	2356	605	1440	195	280	250	2010	425	535	745	1600	900
MCA-124-85E	2930	1490	2356	605	1440	195	305	360	2010	425	535	745	1600	900
MCA-124-100E	2930	1490	2356	605	1440	195	305	360	2010	425	535	745	1600	900

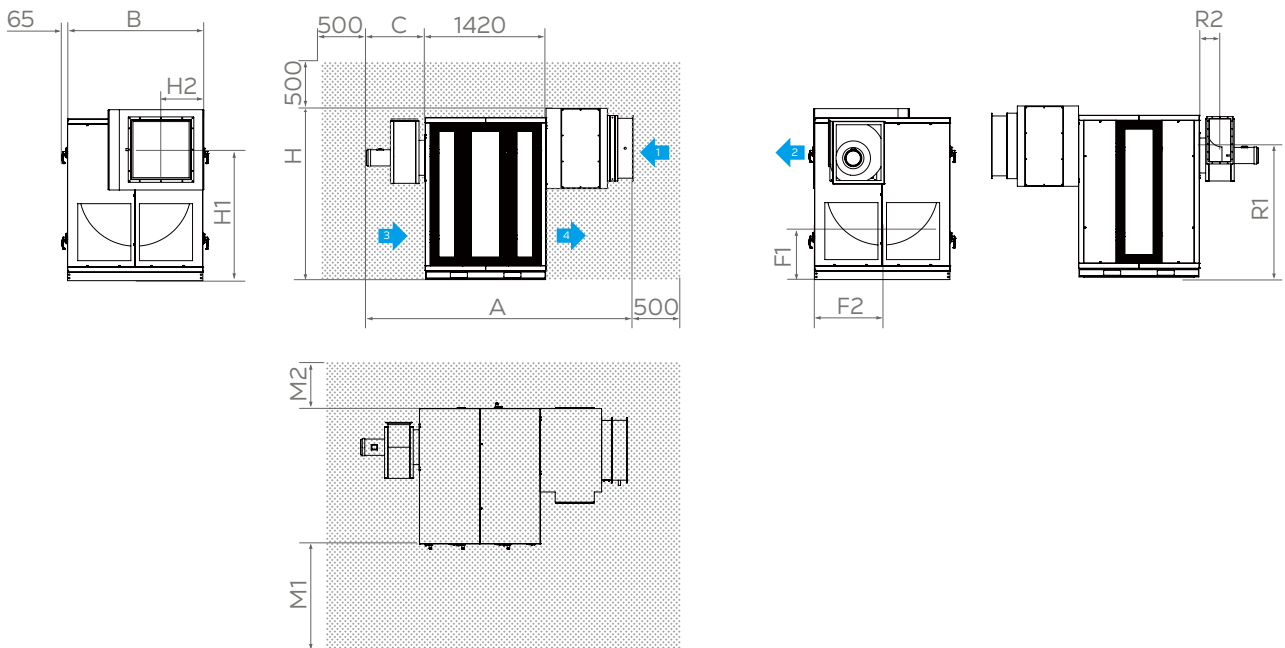


1. Reactivation air inlet
2. Wet air outlet
3. Process air inlet
4. Dry air outlet

1. Above sizes are subject to change without prior notice, please in kind prevail.

# Unit Dimensions & Maintenance Space Required (Basic Units with Electrical Reactivation)

Type	A	B	H	C	R1	R2	H1	H2	F1	F2	M1	M2
MCA-134-120E	3030	1590	2006	775	1605	245	1540	490	570	795	1700	900
MCA-134-150E	3030	1590	2006	775	1605	245	1540	490	570	795	1700	900
MCA-154-150E	3310	1800	2041	775	1645	245	1570	505	590	900	1700	900
MCA-154-200E	3410	1800	2041	805	1670	260	1570	505	590	900	1700	900

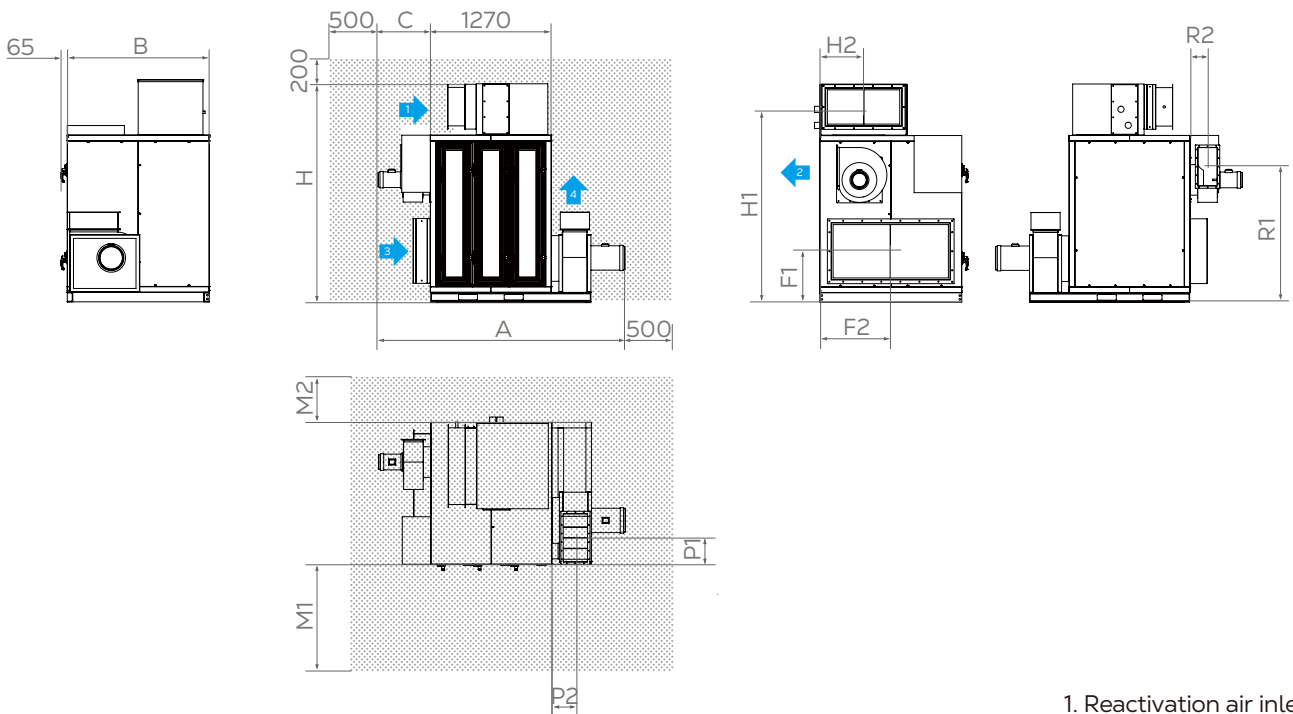


1. Reactivation air inlet
2. Wet air outlet
3. Process air inlet
4. Dry air outlet

1. Above sizes are subject to change without prior notice, please in kind prevail.

# Dimensions & Maintenance Space Required (Basic Units with Steam Reactivation)

Type	A	B	H	C	R1	R2	P1	P2	H1	H2	F1	F2	M1	M2
MCA-072-20S	2320	1190	1745	465	1075	145	230	220	1540	345	435	595	1100	600
MCA-072-30S	2320	1190	1745	465	1075	145	230	220	1540	345	435	595	1100	600
MCA-082-30S	2320	1190	1745	465	1075	145	230	220	1540	345	435	595	1200	600
MCA-082-40S	2415	1190	1745	465	1075	145	250	230	1540	345	435	595	1200	600
MCA-102-50S	2510	1340	2127	555	1335	185	250	230	1885	450	485	670	1400	800
MCA-102-60S	2515	1340	2127	555	1335	185	250	230	1885	450	485	670	1400	800
MCA-122-70S	2610	1490	2290	555	1420	185	280	250	2050	460	535	745	1600	800
MCA-122-85S	2735	1490	2438	555	1420	185	305	360	2095	495	535	745	1600	800
MCA-122-100S	2780	1490	2438	605	1440	195	305	360	2095	495	535	745	1600	800



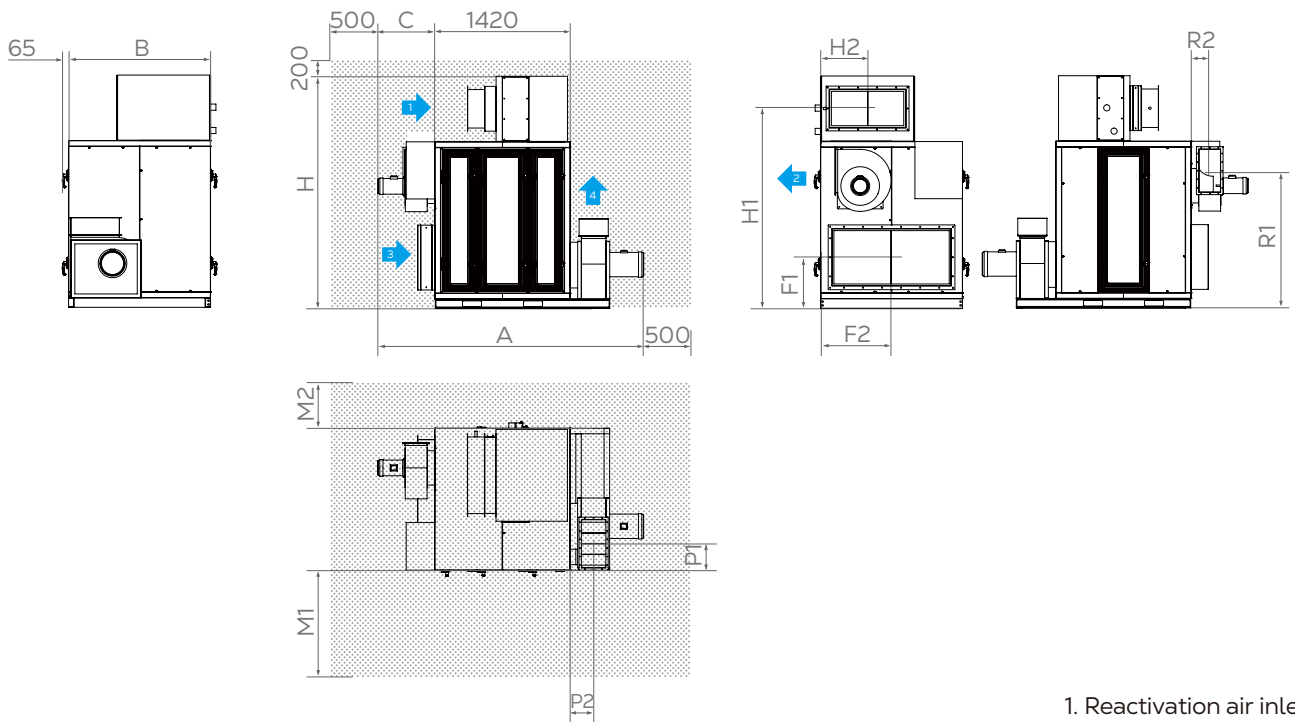
1. Reactivation air inlet
2. Wet air outlet
3. Process air inlet
4. Dry air outlet

1. Above sizes are subject to change without prior notice, please in kind prevail.
2. Unit dimension and maintenance space required of steam reactivation is reference for gas reactivation, please contact Munters for details.



# Dimensions & Maintenance Space Required of Dehumidifiers (Basic Units with Steam Reactivation)

Type	A	B	H	C	R1	R2	P1	P2	H1	H2	F1	F2	M1	M2
MCA-074-40S	2590	1190	1745	500	1085	155	280	230	1535	345	435	595	1100	600
MCA-084-50S	2655	1190	1857	500	1085	155	280	250	1590	355	435	595	1200	600
MCA-104-60S	2800	1340	2127	605	1330	195	230	250	1885	450	485	670	1400	800
MCA-124-70S	2805	1490	2438	605	1440	195	280	250	2095	495	535	745	1600	800
MCA-124-85S	2930	1490	2438	605	1440	195	305	360	2095	495	535	745	1600	800
MCA-124-100S	2930	1490	2438	605	1440	195	305	360	2095	495	535	745	1600	800

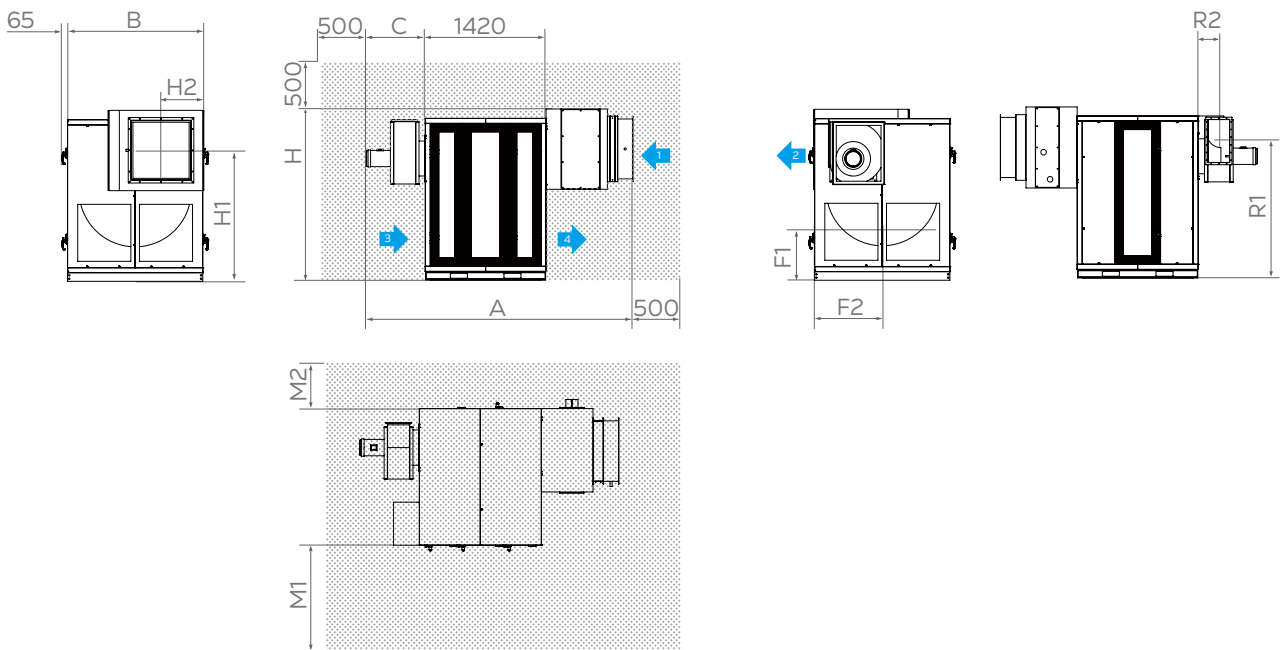


1. Reactivation air inlet
2. Wet air outlet
3. Process air inlet
4. Dry air outlet

1. Above sizes are subject to change without prior notice, please in kind prevail.
2. Unit dimension and maintenance space required of steam reactivation is reference for gas reactivation, please contact Munters for details.

# Dimensions & Maintenance Space Required of Dehumidifiers (Basic Units with Steam Reactivation)

Type	A	B	H	C	R1	R2	H1	H2	F1	F2	M1	M2
MCA-134-120S	3030	1590	2006	775	1605	245	1530	495	570	795	1700	800
MCA-134-150S	3030	1590	2006	775	1605	245	1530	495	570	795	1700	800
MCA-154-150S	3030	1800	2006	775	1645	245	1585	550	590	900	1700	900
MCA-154-200S	3246	1800	2120	805	1670	260	1585	550	590	900	1700	900

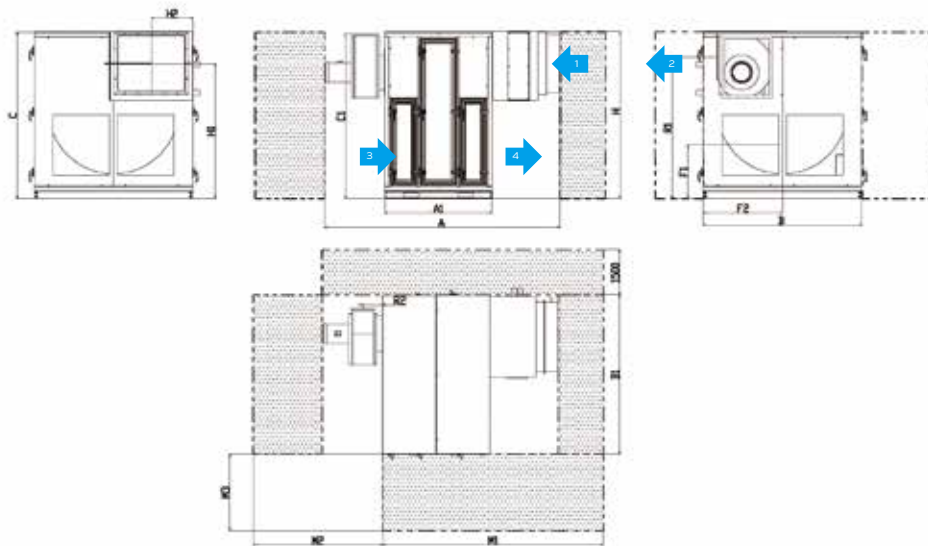


1. Above sizes are subject to change without prior notice, please in kind prevail.
2. Unit dimension and maintenance space required of steam reactivation is reference for gas reactivation, please contact Munters for details.

1. Reactivation air inlet
2. Wet air outlet
3. Process air inlet
4. Dry air outlet

# Dimensions & Maintenance Space Required of Dehumidifiers (Super DH Units with Steam Reactivation)

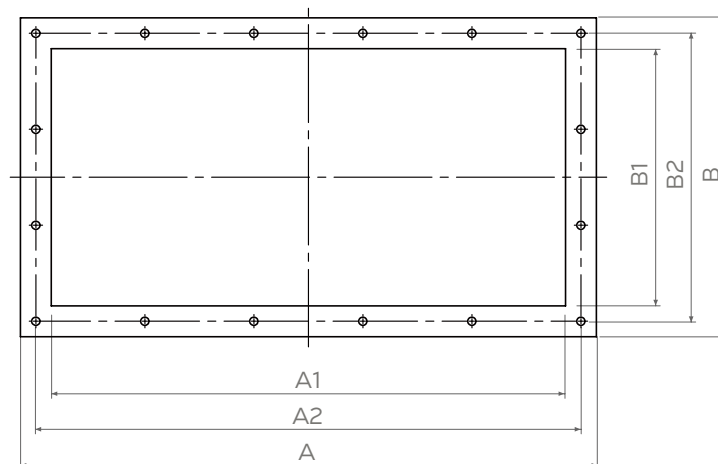
Type	A	A1	B	B1	C	C1	H	R1	R2	H1	H2	F1	F2	M1	M2	M3
MCA-174-200S	1420	3247	2100	2100	2200	2180	2316	1870	260	1770	668	710	1050	4000	1700	2700
MCA-174-250S	1420	3333	2100	2100	2200	2180	2322	1870	260	1770	610	710	1050	4300	1700	2700
MCA-194-250S	1420	3334	2300	2300	2500	2480	2538	2170	260	1955	610	760	1150	4300	2400	3450
MCA-194-300S	1420	3334	2300	2300	2500	2480	2690	2170	260	1955	645	760	1150	5500	2400	3450
MCA-214-300S	1420	3475	2500	2500	2700	2918	2810	2444	437	2127	681	855	1250	5500	2650	3700
MCA-214-350S	1420	3475	2500	2500	2700	2918	2810	2444	437	2127	681	855	1250	5500	2650	3700



1. Reactivation air inlet
2. Wet air outlet
3. Process air inlet
4. Dry air outlet

1. Above sizes are subject to change without prior notice, please in kind prevail.

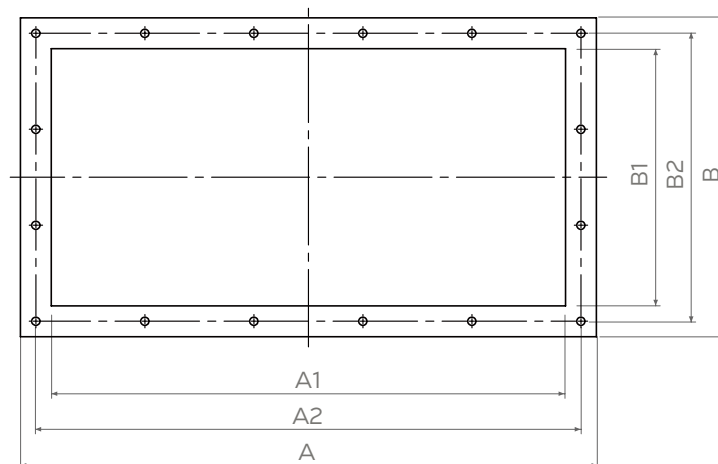
## Flange Size of Units (Basic Units)



Type	Process Air(mm)						Dry Air(mm)						Wet Air(mm)						Reactivation Air(mm)					
	A1	B1	A2	B2	A	B	A1	B1	A2	B2	A	B	A1	B1	A2	B2	A	B	A1	B1	A2	B2	A	B
MCA-072-20E	950	400	990	440	1030	480	404	205	434	235	454	255	256	131	286	161	306	181	440	320	480	360	510	390
MCA-072-30E	950	400	990	440	1030	480	404	205	434	235	454	255	256	131	286	161	306	181	440	320	480	360	510	390
MCA-074-40E	950	400	990	440	1030	480	453	229	483	259	503	279	288	146	318	176	338	196	440	320	480	360	510	390
MCA-082-30E	950	400	990	440	1030	480	404	205	434	235	454	255	256	131	286	161	306	181	440	320	480	360	510	390
MCA-082-40E	950	400	990	440	1030	480	453	229	483	259	503	279	256	131	286	161	306	181	440	320	480	360	510	390
MCA-084-50E	950	400	990	440	1030	480	507	256	537	286	557	306	288	146	318	176	338	196	440	320	480	360	510	390
MCA-102-50E	1100	500	1140	540	1180	580	453	229	483	259	503	279	404	205	434	235	454	255	600	320	640	360	670	390
MCA-102-60E	1100	500	1140	540	1180	580	453	229	483	259	503	279	404	205	434	235	454	255	600	320	640	360	670	390
MCA-104-60E	1100	500	1140	540	1180	580	507	256	537	286	557	306	453	229	483	259	503	279	600	320	640	360	670	390
MCA-122-70E	1250	600	1290	640	1330	680	507	256	537	286	557	306	404	205	434	235	454	255	600	320	640	360	670	390
MCA-122-85E	1250	600	1290	640	1330	680	638	322	668	352	688	372	404	205	434	235	454	255	700	360	740	400	770	430
MCA-122-100E	1250	600	1290	640	1330	680	638	322	668	352	688	372	453	229	483	259	503	279	700	360	740	400	770	430
MCA-124-70E	1250	600	1290	640	1330	680	507	256	537	286	557	306	453	229	483	259	503	279	700	360	740	400	770	430
MCA-124-85E	1250	600	1290	640	1330	680	638	322	668	352	688	372	453	229	483	259	503	279	700	360	740	400	770	430
MCA-124-100E	1250	600	1290	640	1330	680	638	322	668	352	688	372	453	229	483	259	503	279	700	360	740	400	770	430
MCA-134-120E	1350	670	N/A <sup>(1)</sup>	N/A	N/A	N/A	1350	670	N/A	N/A	N/A	N/A	507	256	537	286	557	306	700	700	740	740	770	770
MCA-134-150E	1350	670	N/A	N/A	N/A	N/A	1350	670	N/A	N/A	N/A	N/A	507	256	537	286	557	306	700	700	740	740	770	770
MCA-154-150E	1560	710	N/A	N/A	N/A	N/A	1560	710	N/A	N/A	N/A	N/A	507	256	537	286	557	306	910	760	950	800	980	830
MCA-154-200E	1560	710	N/A	N/A	N/A	N/A	1560	710	N/A	N/A	N/A	N/A	569	288	599	318	619	338	910	760	950	800	980	830

(1) For units 134 & 154, this size is in accordance with the customized process fan. Please contact your local sales for details.

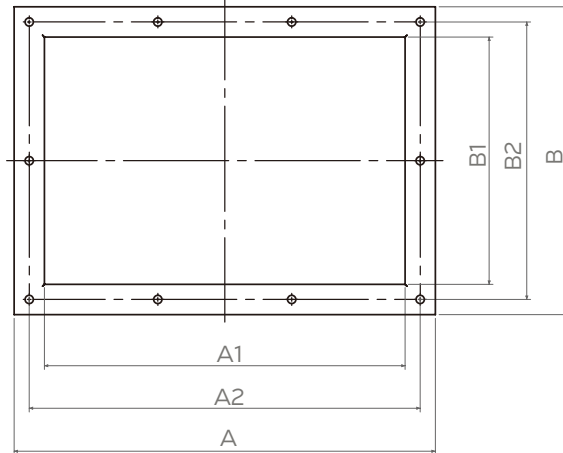
## Flange Size of Units (Super DH Units)



Type	Process Air(mm)						Dry Air(mm)						Wet Air(mm)						Reactivation Air(mm)					
	A1	B1	A2	B2	A	B	A1	B1	A2	B2	A	B	A1	B1	A2	B2	A	B	A1	B1	A2	B2	A	B
MCA-072-20S	950	400	990	440	1030	480	404	205	434	235	454	255	256	131	286	161	306	181	580	340	620	380	650	410
MCA-072-30S	950	400	990	440	1030	480	404	205	434	235	454	255	256	131	286	161	306	181	580	340	620	380	650	410
MCA-074-40S	950	400	990	440	1030	480	453	229	483	259	503	279	288	146	318	176	338	196	580	340	620	380	650	410
MCA-082-30S	950	400	990	440	1030	480	404	205	434	235	454	255	256	131	286	161	306	181	580	340	620	380	650	410
MCA-082-40S	950	400	990	440	1030	480	453	229	483	259	503	279	256	131	286	161	306	181	580	340	620	380	650	410
MCA-084-50S	950	400	990	440	1030	480	507	256	537	286	557	306	288	146	318	176	338	196	600	450	640	490	670	520
MCA-102-50S	1100	500	1140	540	1180	580	453	229	483	259	503	279	404	205	434	235	454	255	800	400	840	440	870	470
MCA-102-60S	1100	500	1140	540	1180	580	453	229	483	259	503	279	404	205	434	235	454	255	800	400	840	440	870	470
MCA-104-60S	1100	500	1140	540	1180	580	507	256	537	286	557	306	453	229	483	259	503	279	800	400	840	440	870	470
MCA-122-70S	1250	600	1290	640	1330	680	507	256	537	286	557	306	404	205	434	235	454	255	800	400	840	440	870	470
MCA-122-85S	1250	600	1290	640	1330	680	638	322	668	352	688	372	404	205	434	235	454	255	800	400	840	440	870	470
MCA-122-100S	1250	600	1290	640	1330	680	638	322	668	352	688	372	453	229	483	259	503	279	800	400	840	440	870	470
MCA-124-70S	1250	600	1290	640	1330	680	507	256	537	286	557	306	453	229	483	259	503	279	800	400	840	440	870	470
MCA-124-85S	1250	600	1290	640	1330	680	638	322	668	352	688	372	453	229	483	259	503	279	800	400	840	440	870	470
MCA-124-100S	1250	600	1290	640	1330	680	638	322	668	352	688	372	453	229	483	259	503	279	800	400	840	440	870	470
MCA-134-120S	1350	670	N/A <sup>(1)</sup>	N/A	N/A	N/A	1350	670	N/A	N/A	N/A	N/A	507	256	537	286	557	306	700	700	740	740	770	770
MCA-134-150S	1350	670	N/A	N/A	N/A	N/A	1350	670	N/A	N/A	N/A	N/A	507	256	537	286	557	306	700	700	740	740	770	770
MCA-154-150S	1560	710	N/A	N/A	N/A	N/A	1560	710	N/A	N/A	N/A	N/A	507	256	537	286	557	306	910	760	950	800	980	830
MCA-154-200S	1560	710	N/A	N/A	N/A	N/A	1560	710	N/A	N/A	N/A	N/A	569	288	599	318	619	338	910	760	950	800	980	830

(1) For units 134 & 154, this size is in accordance with the customized process fan. Please contact your local sales for details.

# Flange Size of Units (High Air Flow Units with Steam Reactivation)



型号	Process Air(mm)						Dry Air(mm)						Wet Air(mm)						Reactivation Air(mm)					
	A1	B1	A2	B2	A	B	A1	B1	A2	B2	A	B	A1	B1	A2	B2	A	B	A1	B1	A2	B2	A	B
MCA-174-200S	1600	800	1640	840	1680	880	1600	800	1640	840	1680	880	569	288	599	318	629	348	910	760	950	800	980	830
MCA-174-250S	1600	800	1640	840	1680	880	1600	800	1640	840	1680	880	569	288	599	318	629	348	910	760	950	800	980	830
MCA-194-250S	1960	850	2000	890	2040	930	1960	850	2000	890	2040	930	569	288	599	318	629	348	910	760	950	800	980	830
MCA-194-300S	1960	850	2000	890	2040	930	1960	850	2000	890	2040	930	569	288	599	318	629	348	1130	760	1172	802	1200	830
MCA-214-300S	2100	990	2140	1030	2180	1070	2100	990	2140	1030	2180	1070	894	438	924	468	954	498	1130	760	1172	802	1200	830
MCA-214-350S	2100	990	2140	1030	2180	1070	2100	990	2140	1030	2180	1070	894	438	924	468	954	498	1130	900	1172	942	1200	970

(1) For all units, this size is in accordance with the customized process fan. Please contact your local sales for details.

# Welcome to Munters Service



Munters Service is dedicated to helping our customers optimise the value of their equipment through planned maintenance programs. Drawing from over 60 years of experience, Munters has developed customizable service programs that extend the life of your equipment, optimise its performance, and ensure continuous operation while saving energy.

## MUNTERS SERVICE PRODUCTS

- Installation Support & Assembly Supervision
- Startup Services & Guaranteed Performance
- Maintenance: PrimaCaire® and ServiceCaire®
- Performance check & inspection

### PrimaCaire® extends the warranty on your new equipment

Munters air treatment products are manufactured from high quality parts and undergo a thorough and complete testing before leaving our factory. Despite these extensive measures, it is still possible for components to fail during operation.

In order to minimise the impact of such failures, Munters offers a variety of warranty options, adapted to your specific requirements, all to secure your peace of mind.

- Extended warranty
- 24/36 month plans
- Performance check
- Service Reports
- Priority scheduling and response
- Covers labour/parts

- Upgrades, reconditioning / Repairs
- Energy Audits
- Training Services
- Spare Parts

### ServiceCaire® Agreements for maximum protection of your equipment

Let Munters take care of your air treatment systems right from the start to help ensure years of successful operation. Regular Performance checks determine the efficiency of the equipment while maintenance plans and visits ensure stable operation.

Munters offers both standard and customisable plans to suit a wide variety of different requirements and needs.

- Flexible Maintenance options (e.g.12/24/36 etc. month plans)
- Performance check & inspections
- Onsite training during ServiceCaire® visits
- 10 % discount on spare parts
- Priority scheduling and response
- Performance history

\* Consult your local Munters Service Team to determine the best option for you.



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Munters Website



Munters WeChat

