

Mycond BreezMe 2023









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### Mycond BreezMe

### SUSPENDED AIR HANDLING UNITS

■ with counter-flow heat exchanger (hex)



ADDITIONAL AIR



Mini-Pleat air filter



Bag filter





Cooler



Heater, Cooler



Sound attenuator



Additional empty space



with rotary heat exchanger and heat pump

MVS030c

MVS021c

MVS021c

 $\leftarrow$  **1 200** m<sup>3</sup>/h – airflow range – **7 500** m<sup>3</sup>/h  $\rightarrow$ 

■ TOP with counter-flow heat exchanger (hex)



← **1250** m $^3$ /h – airflow range – **4000** m $^3$ /h →

### TREATMENT FUNCTIONS



Mini-Pleat air filter



Bag filter



Heater



Cooler



Heater, Cooler



Sound attenuator



Additional empty space

### MYCOND BREEZME CL SUSPENDED AIR HANDLING UNITS



up to 90% recovery efficiency





MINERAL WOOL INSULATION



HIGHLY EFFICIENT HEX COUNTER-FLOW HEAT RECOVERY



ENERGY SAVING AND SILENT FANS WITH EC MOTORS



PLUG&PLAY PRODUCT



INTEGRATED MULTIFUNCTIONAL CONTROLS



## MYCOND BREEZME FLOOR MOUNTED AIR HANDLING UNITS



up to 90% recovery effi ciency



up to 90% recovery effi ciency





Mycond BreezMe FT with hex counter-flow heat exchanger



MINERAL WOOL INSULATION



HIGHLY EFFICIENT ROTARY AND HEX COUNTER-FLOW HEAT EXCHANGER



ENERGY SAVING AND SILENT FANS WITH EC MOTORS



Mycond BreezMe FC

with rotary heat exchanger

or hex counter-flow heat exchanger

PLUG&PLAY PRODUCT



INTEGRATED MULTIFUNCTIONAL CONTROLS

### ■ Mycond BreezMe



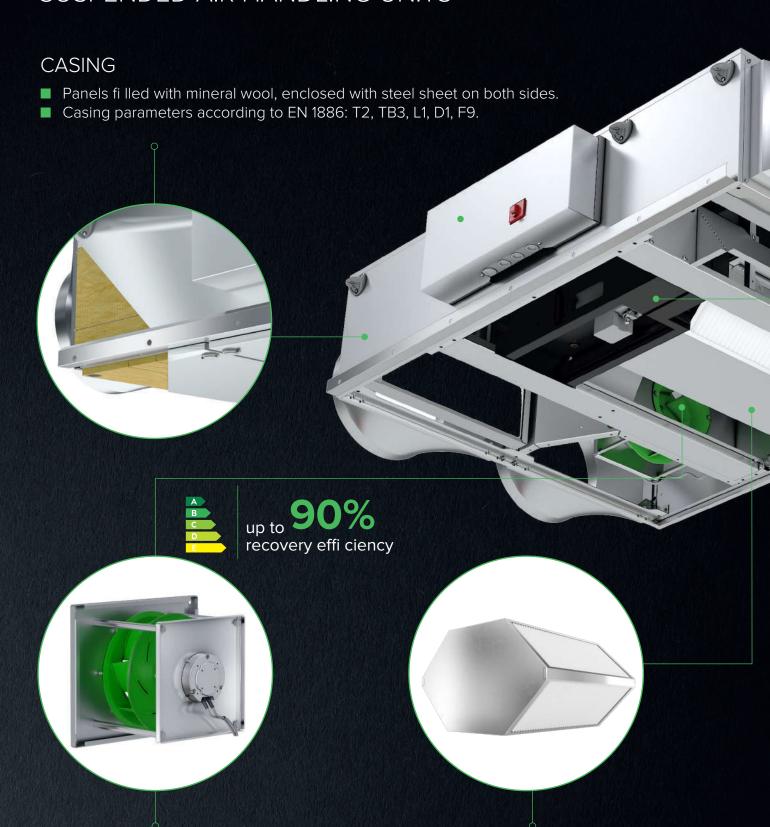


### Standard Air Handling Units





### MYCOND BREEZME CL SUSPENDED AIR HANDLING UNITS



### **EC MOTORS**

 Efficient, silent and low vibrations fan with electronically commutated motor in a IE4 class

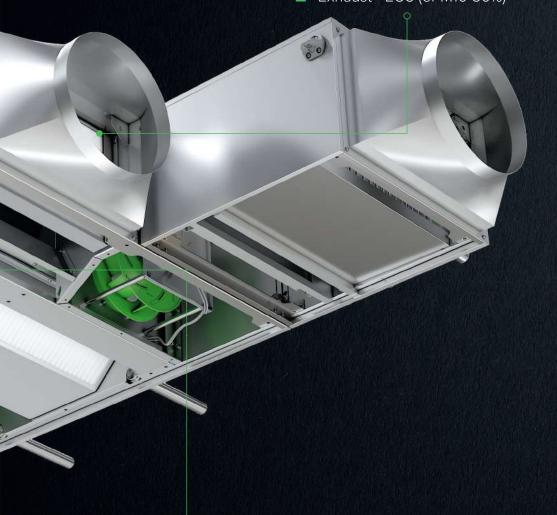
### **ENERGY RECOVERY**

- Highly efficient counterflow hex recovery with by-pass.
- Recovery efficiency reaching 90%.

### MINI-PLEAT FILTERS

Air filters with extended high efficiency filtration surface.

- Supply EU7 (ePM2,5 65%
- Exhaust EU5 (ePM10 50%)





### **RECUPERATOR BY-PASS**

- Stepless adjustment of heat recovery capacity.
- Passive cooling function.
- Recuperator frost protection.



### **CONTROLS**

 Multifunctional controls, integrated with the unit – fully pre-configured and ready to run.

# MYCOND BREEZME FT FLOOR-MOUNTED UNITS WITH VERTICAL DUCT CONNECTION

### **CASING**

- Panels filled with mineral wool, enclosed with steel sheet on both sides.
- Casing parameters according to EN 1886: T2, TB3, L1, D1, F9.
- Fan and fi ter section panels fitted with hinges.





### **DIMENSIONS**

Unit width 88 cm - can be transported through the opening of 90 cm without disassembling the device.

#### **CONTROLS**

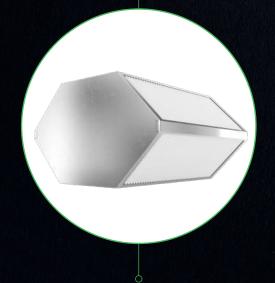
 Multifunctional controls, integrated with the unit – fully pre-confi gured and ready to run.



Air filters with extended high efficiency filtration surface.

- Supply EU7
- Exhaust EU5





### ENERGY RECOVERY

- Highly efficient counterflow hex recovery with by-pass.
- Recovery efficiency reaching 90%.



### **EC MOTORS**

■ Efficient, silent and low vibrations fan with electronically commutated motor in a IE4 class.

### MYCOND BREEZME FC FLOOR MOUNTED AIR HANDLING UNITS

#### **CASING**

- Panels fi lled with mineral wool, enclosed with steel sheet on both sides.
- Casing parameters according to EN 1886: T2, TB3, L1, D1, F9.







### **ENERGY RECOVERY**

- Highly efficient heat wheel driven by EC motor.
- Recovery efficiency reaching 86%.



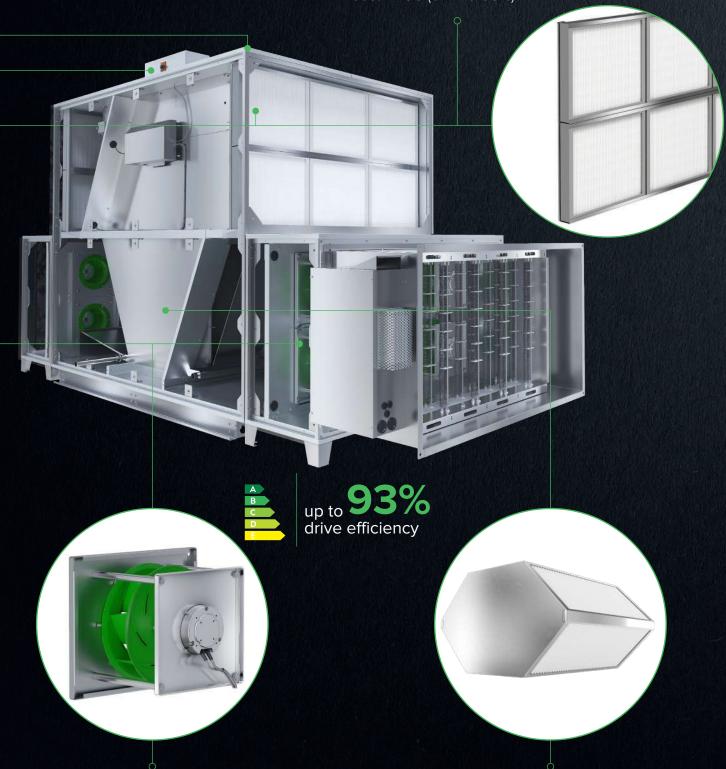
### **CONTROLS**

Multifunctional controls, integrated with the unit—fully pre-confi gured and ready to run.



Air filters with extended high efficiency filtration surface.

- Supply EU7 (ePM2,5 65%)
- Exhaust EU5 (ePM10 50%)



### **EC MOTORS**

Efficient, silent and low vibrations fan with electronically commutated motor in a IE4 class.

### **ENERGY RECOVERY**

- Highly efficient counterflow hex recovery with by-pass
- Recovery efficiency reaching 90%

### MYCOND BREEZME HP FLOOR MOUNTED UNITS WITH HEAT PUMP

#### FOR USE IN ANY FACILITY

- No external refrigeration equipment taking up space in your facility
- No external noise sources

#### **OPTIMUM MATCHING**

- Factory fit of heat pump and air handling unit components
- Manufacturer's warranty on the final air handling unit and heat pump product



#### HIGH ENERGY EFFICIENCY

- High efficiency sorption rotary regenerator for excellent heat and moisture recovery
- Installation of multi-row condensers and evaporators on both sides of the regenerator ensures the most efficient operation of the heat pump



■ The unit is divided into easy to transport and easy to assemble complete functional modules

#### **EASY COMMISSIONING**

- Multifunctional factory assembled controls ready to work as soon as the unit is assembled
- Easy commissioning without service

### COHERENT CONTROL SYSTEM

- Integrated control system for air handling unit and heat pump
- Full monitoring and remote diagnostics of all components

### **HEAT PUMP FUNCTIONS**

- Supply air cooling in summer
- Reduction of supply air heating costs during other periods of the year

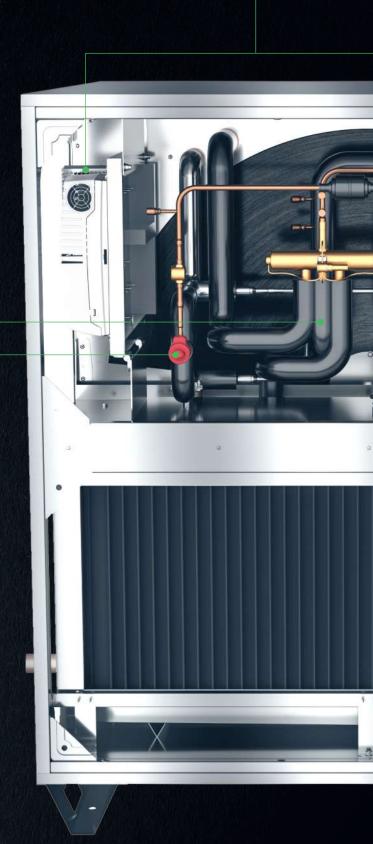
### MYCOND BREEZME HP FLOOR MOUNTED UNITS WITH HEAT PUMP

#### HEATING AND COOLING FUNCTION

- Four-way valve automatically switches reverse operation modes
- Automatic defrosting function in winter

### OPTIMISATION OF COOLING PARAMETERS

 Electronic expansion valve dynamically adjusts fluid flow to current air handling unit parameters



#### ─ SMOOTH REGULATION OF HEATING AND COOLING POWER

- Inverter compressor with DC motor smoothly adjusts cooling and heating power
- Controller equipped with sensors fully controls cooling parameters of the heat pump system



### MULTI-STAGE HEAT PUMP QUALITY CONTROL

- Ongoing monitoring of the production process
- Individual leakage and operational check confirmed by electronic report

### SMOOTH REGULATION OF HEAT RECOVERY POWER

- Electronically controlled stepper motor of the rotary heat exchanger smoothly regulates heat recovery capacity
- In winter time the automation system ensures three-stage frost protection for the rotary heat exchanger

### MYCOND BREEZME CL SUSPENDED AIR HANDLING UNITS

### Base unit overall data

Unit size	Nominal airflow	Airflow rangei	Height	Width	Duct connection heigth	Duct connection width
	[m³/h]	[m³/h]	[mm]	[mm]	[mm]	[mm]
MVS005s	500	150 - 650	400	790	318	335
MVS010s	1000	300 - 1100	400	1150	318	515
MVS015s	1500	450 - 1650	400	1550	318	715
MVS020s	2000	600 - 2200	490	1610	408	743
MVS030s	3000	900 - 3300	490	2160	408	1018

### Section length

Unit size		F	н	с	нс	
	Base unit	Additional air treatment functions				
	[mm]	[mm]	[mm]	[mm]	[mm]	
MVS005s	1230	200	200 - 460	370 - 460	460 - 920	
MVS010s	1500	200	200 - 460	370 - 460	460 - 920	
MVS015s	1500	200	200 - 460	370 - 460	460 - 920	
MVS020s	1828	200	200 - 460	370 - 460	460 - 920	
MVS030s	1828	200	200 - 460	370 - 460	460 - 920	

### Duct accessories

Dimmension WxH [mm]	MVS005s	MVS010s	MVS015s	MVS020s	MVS030s
Flexible connection	305x288	485x288	685x288	730x375	1005x375
Air damper	305x288	485x288	685x288	730x375	1005x375
Rectangle spigot	330x310/300x300	510x310/400x350	710x310/400x350	740x400/500x400	1015x400/800x400
Rounded spigot	330x310/355	510x310/355	710x310/355	740×400/450	1015x400/450

# MYCOND BREEZME FC FLOOR MOUNTED AIR HANDLING UNITS

### Base unit overall data

Unit size	Nominal airflow	Airflow range	Height	Width	Duct connection heigth	Duct connection width
	[m³/h]	[m³/h]	[mm]	[mm]	[mm]	[mm]
MVS021c	2100	840 - 2310	991	967	345	860
MVS030c	3000	900 - 3300	1255	967	480	860
MVS040c	4000	1200 - 4400	1255	1174	480	1065
MVS055c	5500	1650 - 6050	1525	1345	615	1235
MVS075c	7500	2250 - 8250	1765	1486	735	1380
MVS100c	10000	3000 - 11000	1965	1666	835	1560
MVS120c	12000	3600 - 13200	2039	1897	870	1790
MVS150c	15000	4500 - 16500	2241	2091	970	1985

Height includes 90 mm base rail

### Base unit lengths

Unit size	3 0 0	© © © ©		3 × 3 3	3 / S E	3 × E
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
MVS021c	1240	1080	1080	2 230	2 230	2 500
MVS030c	1240	1080	1080	2 230	2 230	2 500
MVS040c	1240	1080	1080	2 230	2 230	2 500
MVS055c	1240	1080	1080	2 290	2 290	2 560
MVS075c	1240	1080	1080	2 530	2 530	2 800
MVS100c	1300	1300	1080	2 570	2 570	2 800
MVS120c	1300	1300	1080	2 670	2 670	2 900
MVS150c	1300	1300	1080	2 730	2 730	2 940

### Additional section length

Unit size	F	н	С	нс	s
<b>3</b> 1111 3120	[mm]	[mm]	[mm]	[mm]	[mm]
MVS021c	310	310 - 710	370 - 710	710	1080
MVS030c	310	310 - 710	370 - 710	710	1080
MVS040c	310	310 - 710	370 - 710	710	1080
MVS055c	310	310 - 630	450 - 790	790	1080
MVS075c	310	310 - 630	450 - 790	790	1080
MVS100c	310	310 - 630	890	890	1080
MVS120c	310	310 - 630	890	890	1080
MVS150c	310	310 - 630	920	920	1080

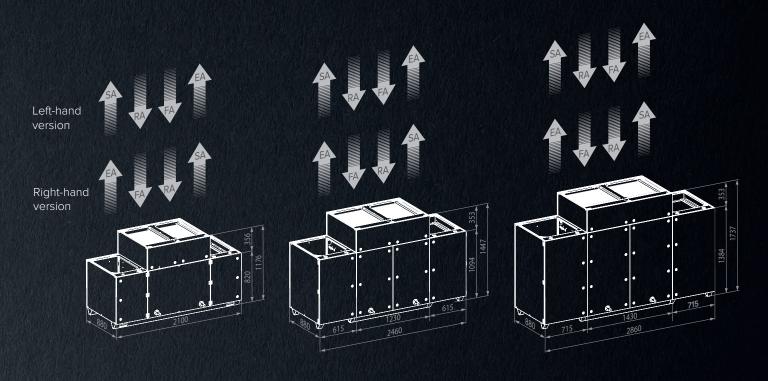
# MYCOND BREEZME FT — FLOOR-MOUNTED UNITS WITH VERTICAL DUCT CONNECTION

### Base unit overall data

Unit size	Nominal airflow	Airflow range	Height	Width	Duct connection
	[m³/h]	[m³/h]	[mm]	[mm]	[mm]
MVS023c	2100	1250-2100	1176	880	700x445
MVS033c	3000	1800-3000	1447	880	700x513
MVS043c	4000	2400-4000	1737	880	700x613

### Base unit lengths

Unit size		(A) 8 (A)	
	[mm]	[mm]	
MVS023c	2100	2100	
MVS033c	2460	2460	
MVS043c	2860	2860	



FA - fresh air intake

SA - fresh air supply to the room

RA - return air intake from the room

EA - exhaust air ejection from the room

### MYCOND BREEZME HP FLOOR MOUNTED UNITS WITH HEAT PUMP

### Base unit overall data

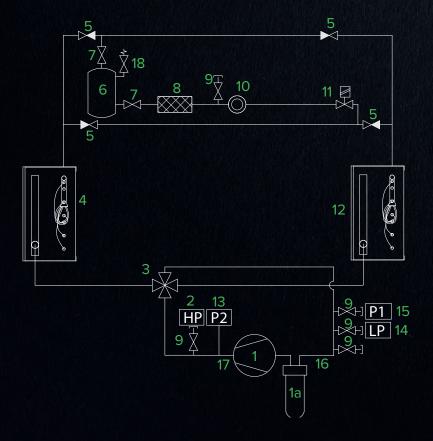
Unit size	Nominal airflow	Airflow range	Height	Width	Duct connection heigth	Duct connection width
	[m³/h]	[m³/h]	[mm]	[mm]	[mm]	[mm]
MVS021c	2100	1200-2100	991	967	345	860
MVS030c	3000	1500-3000	1255	967	480	860
MVS040c	4000	2000-4000	1255	1174	480	1065
MVS055c	5000	2500-5500	1525	1345	615	1235
MVS075c	7500	3750-7500	1765	1486	735	1380

 $<sup>\</sup>ensuremath{^*}\xspace$  - the range of the heat pump function depends on the outdoor air parameters

#### Base unit lengths

Unit size		
	[mm]	[mm]
MVS021c	2140	2140
MVS030c	2140	2140
MVS040c	2140	2140
MVS055c	2140	2140
MVS075c	2140	2140

### Heat pump refrigeration system



#### Refrigeration components

- 1 Compressor
- 1a Liquid separator
- 2 High pressure switch
- 3 4-way valve
- 4 Evaporator/Condenser
- 5 Check valve
- 6 Liquid medium tank
- 7 Shut-off valve (Rotalock)
- 8 Filter drier
- 9 Service valve
- 10 Sight glass
- 11 Electronic expansion valve
- 12 Evaporator/Condenser
- 13 High-pressure transducer
- 14 Low-pressure transducer
- 15 Low-pressure switch
- 16 Suction temperature sensor
- 17 Discharge temperature sensor
- 18 Safety valve

#### Main office

### **MYCOND LIMITED**

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Executive distributor

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