

# CLIM'UP

## AIR/AIR, MONO/MULTISPLIT, REVERSIBLE AIR CONDITIONERS

INDOOR UNIT:  
UME  
wall-mounted  
indoor unit



MONOSPLIT  
OUTDOOR UNIT:  
MOSE



MONOSPLIT  
EMSM  
UME + MOSE  
20 to 70

MULTISPLIT  
OUTDOOR UNIT:  
MUSE  
40 to 120



MULTISPLIT  
Executions with  
different  
indoor unit

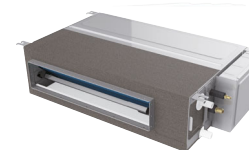
INDOOR UNIT: UME  
wall-mounted  
indoor unit  
20 to 50



INDOOR UNIT: UCE  
console mounted  
on floor or ceiling  
25 to 50



INDOOR UNIT: UGE  
ceiling ducted  
25 to 50



INDOOR UNIT: UCARE  
ceiling mounted  
cassette  
25 to 50



### • EMSM:

2.2 to 7 kW monosplit air conditioners for single-phase operation. Comprising an outdoor and indoor unit.

### • MUSE..:

single outdoor units for 4.1 to 13 kW multisplit air conditioners for single-phase operation.

### • UME/UCE/UGE/UCARE:

single indoor units for 2.05 to 5.30 kW multisplit air conditioners for single-phase operation.



Heating and air conditioning



Air/air heat pump



Electricity (energy supplied to the compressor)



Free, natural and renewable energy

## OPERATING CONDITIONS

operating temperature limits  
in heating mode

- Outdoor air: between -15°C and +30°C
- Indoor air: below +30°C

in air conditioning mode

- Outdoor air: between -10°C and +52°C
- Indoor air: above +16°C

CLIM'UP is a range of air/air monosplit (EMSM) and multisplit (MUSE and UME/UCE/UGE/UCARE) air conditioners for blown air heating and air conditioning.

The following monosplit model is available:

- EMSM: with a wall-mounted indoor unit

Simple and compact, designed for new and existing buildings, CLIM'UP offers exemplary performance: SCOP 4.0 to 4.3 and SEER 6.10 to 6.5.

The multisplit version allows up to 5 indoor units, which can be installed in different rooms, to be connected to a single outdoor unit. Each circuit can be controlled using a programmable infrared or wired remote control.

### R32

R32 is the main alternative to F-gas.

This fluid offers numerous advantages:

- a GWP (Global Warming Potential) of just 675 (2088 for R410A, i.e. 3 times higher than R32)
- zero impact on the ozone layer
- 5 to 10 % more efficient than R410A
- less fluid required for the same output (20 to 30 % less fluid than R410A)
- a completely pure fluid which is easier to recycle

### MANDATORY REGULATIONS

For installation and commissioning of equipment that uses refrigerants, refer to prevailing standards.



+ efficiency  
- pollution

# CONTENTS

## MONOSPLIT

- 3 presentation of the monosplit range
- 4 the different monosplit models available
- 5 technical specifications of the monosplit wall-mounted EMSM
- 6 EMSM output tables

## MULTISPLIT

- 8 presentation of the multisplit range
- 9 multisplit models available
- 10 technical specifications of the MUSE outdoor unit
- 11 technical specifications of the UME wall-mounted indoor unit
- 12 technical specifications of the UCE wall-mounted indoor unit
- 13 technical specifications of the UCARE cassette indoor unit
- 14 technical specifications of the UGE ductable indoor unit
- 16 combinations of indoor and outdoor units

- 27 options: remote controls
- 28 options for outdoor units
- 29 important information for installation

## REMINDERS CONCERNING INSTALLATIONS USING R32 REFRIGERANT



R32 = Difluoromethane (Category A2L slightly flammable)

R32 is the main alternative to F-gas. This fluid offers the following advantages:

- a GWP (Global Warming Potential) of just 675 (2088 for R410A, i.e. 3 times higher than R32).
- zero impact on the ozone layer.
- 5 to 10 % more efficient than R410A.
- Less fluid required for identical power output (20 to 30 % less fluid compared to R410A).
- A completely pure fluid which is easier to recycle.

## IMPLICATIONS FOR THE INSTALLER

All the country prevailing standards have to be observed.

# PRESENTATION OF THE MONOSPLIT RANGE

The CLIM'UP air/air heat pump is available in 2 versions:

- an **EMSM** monosplit version comprising one outdoor unit and one indoor unit to be installed in the residence,
- a multisplit version in which up to 5 **UME/UCE/UGE/UCARE** indoor units can be connected to one **MUSE** outdoor unit.

## ADVANTAGES OF THE EMSM

### MONOSPLIT VERSIONS WITH INDOOR AND OUTDOOR UNITS

Monosplit reversible air/air heat pump comprising one MOSE outdoor unit and one indoor unit.

The following monosplit models are available:

- **EMSM 20, 25, 35, 50, 70**: The indoor unit is equipped with a variable speed fan enabling air diffusion up to 15 m in 4 directions. Excellent acoustic comfort with sound power of 58 to 62 dB (A) depending on the model. The condensate and refrigeration connections can be located on the left- or right-hand side of the indoor unit. Large distance between the indoor and outdoor unit: up to 20 m for EMSM 25 and 35, up to 25 m for EMSM 50 and 70 models.

specifications for monosplit model:

- Full DC inverter technology
- The outdoor unit is equipped with a Rotary DC Inverter compressor, a 4-way valve for reversing heating/cooling mode and a modulating fan, using R32 refrigerant fluid.
- It can operate in one of 5 modes: Auto, Cooling, Heating, Dehumidification and ventilation. It also includes the following functions: Night (for optimal thermal and acoustic comfort), Self-clean, Eco (more economical), Turbo (to quickly reach the desired temperature in heating or cooling mode) and draught prevention.
- It is supplied with a programmable infrared remote control (with setpoint temperature memorisation), and can also be remotely controlled using the optional WiFi kit via the SMART CLIM app.
- Automatic restart after a power cut.
- The appliance can operate at low voltage up to 185 V.

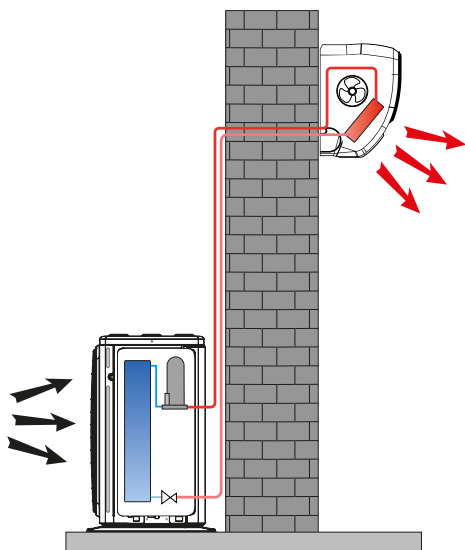
## SIZING

When sizing a monosplit installation, we recommend using the tool available on the De Dietrich PRO website:

[http://pro.diedietrich-heating.com/int/site\\_pro/software/diemasoft/diematools\\_the\\_tool\\_box](http://pro.diedietrich-heating.com/int/site_pro/software/diemasoft/diematools_the_tool_box)

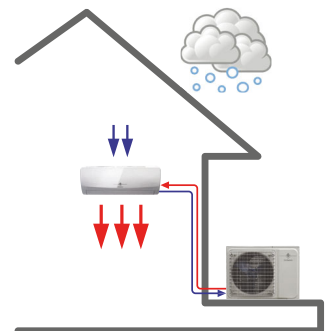
## OPERATING PRINCIPLE

### OPERATING PRINCIPLE OF THE CLIM'UP HEAT PUMP

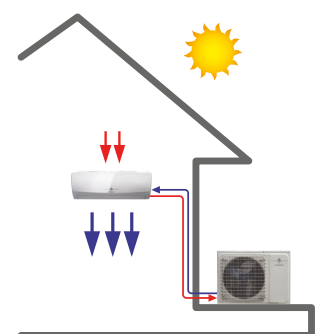


### HEATING MODE AND AIR CONDITIONING MODE

• heating



• air conditioning



# MODELS AVAILABLE

MONOSPLIT

## THE DIFFERENT MONOSPLIT MODELS AVAILABLE



HEAT PUMP	MODEL	OUTPUT	
		IN COOLING MODE (MIN.-MAX.) kw	IN HEATING MODE (MIN.-MAX.) kw
Reversible air/air heat pump comprising one outdoor unit and one wall-mounted indoor unit	EMSM 20	1.00-2.90	1.10-3.00
	EMSM 25	1.00-3.30	1.10-3.30
	EMSM 35	1.20-3.80	1.00-3.80
	EMSM 50	1.90-5.50	1.40-5.60
	EMSM 70	2.90-7.30	2.10-8.00

# TECHNICAL SPECIFICATIONS

OF CLIM'UP MONOSPLIT EMSM

## TECHNICAL SPECIFICATIONS OF EMSM MONOSPLIT AIR CONDITIONERS.

EASYLIFE

### OPERATING CONDITIONS: OPERATING TEMPERATURE LIMITS

In heating mode:

- Outdoor temperature: -15 °C/+24 °C

In air conditioning mode:

- Outdoor temperature: -10 °C/+52 °C

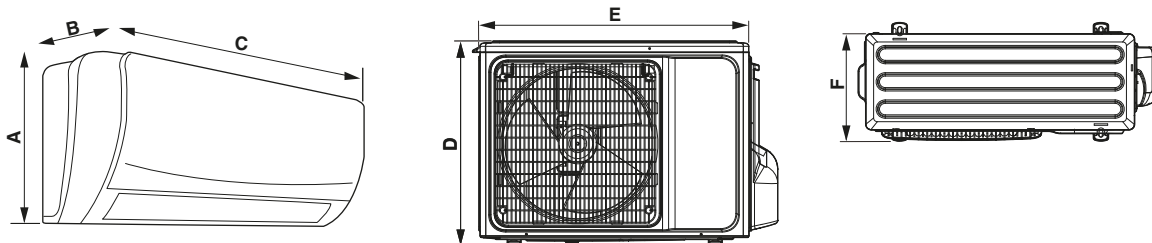


### MODEL

	EMSM	20	25	35	50	70
Nominal output in cooling mode (min.-max.)	kW	2.20 (1.00-2.90)	2.55 (1.00-3.30)	3.60 (1.20-3.80)	5.30 (1.90-5.50)	7.03 (2.90-7.30)
Nominal output in heating mode (min./max.)	kW	2.35 (1.10-3.00)	2.65 (1.10-3.30)	3.70 (1.00-3.80)	5.40 (1.40-5.60)	7.05 (2.10-8.00)
Output in cooling mode	BTU/hr	7500	8700	12200	18000	24000
Output in heating mode	BTU/hr	8000	9000	12600	18400	24000
Output in heating mode at an outdoor temp. of -7 °C (indoor temp. 20 °C)	W	1866	1944	2592	4248	5292
Electrical power consumption in cooling mode at nominal output	kW	0.67	0.78	1.10	1.65	2195
Electrical power consumption in heating mode at nominal output	kW	0.64	0.72	1.02	1.50	1.96
Indoor air flows:						
• High speed air flow rate	m <sup>3</sup> /h	650	650	650	1000	1150
• Medium speed air flow rate	m <sup>3</sup> /h	450	450	450	860	950
• Low speed air flow rate	m <sup>3</sup> /h	395	395	395	688	750
• Silent Mode air flow rate	m <sup>3</sup> /h	350	350	350	600	640
Max. air flow rate (outdoor unit)	m <sup>3</sup> /h	1800	1800	1800	2700	3200
SEER		6.1	6.5	6.1	6.5	6.3
Energy class in cooling mode		A++	A++	A++	A++	A++
SCOP		4.1	4.2	4.2	4.0	4.3
Energy class in heating mode		A+	A+	A+	A+	A+
Acoustic pressure of indoor unit (min. - max.)	dB[A]	20-43	20-41	20-42	20-48	20-49
Sound power of indoor unit	dB[A]	57	53	53	58	59
Acoustic pressure of outdoor unit	dB[A]	50	50	50	53	53
Sound power of outdoor unit	dB[A]	60	60	58	62	64
Refrigerant connections (liquid-gas)	inch	1/4-3/8	1/4-3/8	1/4-3/8	1/4-1/2	1/4-5/8
Min./Max. length between indoor and outdoor units	m	3/20	3/20	3/20	3/25	3/25
Max. height difference between indoor and outdoor units	m	10	10	10	15	15
Nominal charge of R32 refrigerant fluid	kg	0.53	0.58	0.68	1.28	1.44
Voltage / frequency	V/Hz	220-240/50	220-240/50	220-240/50	220-240/50	220-240/50
Nominal current in cooling mode	A	3.00	3.40	4.90	7.36	10.30
Maximum current	A	8	8	9.5	12	16
Maximum power consumption	kW	1.5	1.5	1.90	2.9	3.7
Power cable cross-section	mm <sup>2</sup>	3G1.5	3G1.5	3G1.5	3G1.5	3G2.5
Circuit breaker		C16A	C16A	C16A	C16A	C20A
Cross-section of cable connecting the indoor and outdoor units	mm <sup>2</sup>	5G1.5	5G1.5	5G1.5	5G1.5	5G2.5
Outdoor/indoor unit weight	kg	9/25	9/27	9/27	12.5/35	15/45

## MAIN DIMENSIONS

### EMSM: INDOOR AND OUTDOOR UNITS



DIMENSIONS (mm)	A	B	C	D	E	F
EMSM 20/25/35	300	198	800	546	723	290
EMSM 50	315	235	970	545	806	315
EMSM 70	330	235	1100	700	930	353

### NOTE

The maximum connection distances between the indoor and outdoor units can be found on page 44.

# OUTPUT TABLES

OF CLIM'UP MONOSPLIT EMSM IN COOLING MODE

## OUTPUT IN COOLING MODE OF CLIM'UP MONOSPLIT EMSM 20/25/35/50/70 BASED ON THE OUTDOOR TEMPERATURE

### • CLIM'UP EMSM 20

INDOOR TEMPERATURE (°C)		COOLING CAPACITY (W)					
DB	WB	OUTDOOR TEMPERATURE (°C) (DB)					
		25	30	35	40	45	50
22	15	2475	2292	2200	2112	1964	1800
24	17	2620	2435	2336	2243	2140	2000
27	19	2780	2605	2500	2400	2290	2185
29	21	2920	2748	2638	2532	2350	2290
32	23	3066	2897	2780	2669	2477	2358

### • CLIM'UP EMSM 25

INDOOR TEMPERATURE (°C)		COOLING CAPACITY (W)					
DB	WB	OUTDOOR TEMPERATURE (°C) (DB)					
		25	30	35	40	45	50
22	15	2522	2392	2262	2196	2002	1950
24	17	2678	2548	2444	2314	2184	2080
27	19	2860	2730	2600	2470	2340	2236
29	21	3016	2886	2756	2652	2496	2366
32	23	3172	3042	2938	2808	2652	2548

### • CLIM'UP EMSM 35

INDOOR TEMPERATURE (°C)		COOLING CAPACITY (W)					
DB	WB	OUTDOOR TEMPERATURE (°C) (DB)					
		25	30	35	40	45	50
22	15	3395	3220	3045	2960	2695	2625
24	17	3605	3430	3290	3115	2940	2800
27	19	3850	3675	3500	3325	3150	3010
29	21	4060	3885	3710	3570	3360	3185
32	23	4270	4095	3955	3780	3570	3430

### • CLIM'UP EMSM 50

INDOOR TEMPERATURE (°C)		COOLING CAPACITY (W)					
DB	WB	OUTDOOR TEMPERATURE (°C) (DB)					
		25	30	35	40	45	50
22	15	5529	5244	4959	4572	4389	4275
24	17	5871	5586	5358	5073	4788	4560
27	19	6270	5985	5700	5415	5130	4902
29	21	6612	6327	6042	5814	5472	5187
32	23	6954	6669	6441	6156	5814	5586

### • CLIM'UP EMSM 70

INDOOR TEMPERATURE (°C)		COOLING CAPACITY (W)					
DB	WB	OUTDOOR TEMPERATURE (°C) (DB)					
		25	30	35	40	45	50
22	15	7042	6679	6316	6070	5590	5445
24	17	7478	7115	6824	6461	6098	5808
27	19	7986	7623	7260	6897	6534	6244
29	21	8422	8059	7696	7405	6970	6607
32	23	8857	8494	8204	7841	7405	7115

DB = dry bulb = very moist air/WB = wet bulb = very dry air  
 NOTE: These measurements are based on the unit's nominal output.

# OUTPUT TABLES

OF CLIM'UP MONOSPLIT EMSM IN HEATING MODE

## OUTPUT IN HEATING MODE OF CLIM'UP MONOSPLIT EMSM 20/25/35/50/70 BASED ON THE INDOOR TEMPERATURE

### • CLIM'UP EMSM 20

OUTDOOR TEMPERATURE (°C)		HEATING CAPACITY (W)		
DB	WB	15	20	25
-15	-16	1588	1455	1360
-10	-12	1830	1702	1600
-7	-8	1975	1866	1742
-1	-2	2000	1905	1814
2	1	2070	1980	1900
7	6	2705	2605	2505
10	9	2860	2758	2652
15	12	3023	2936	2800

### • CLIM'UP EMSM 25

OUTDOOR TEMPERATURE (°C)		HEATING CAPACITY (W)		
DB	WB	15	20	25
-15	-16	1728	1593	1485
-10	-12	1917	1782	1674
-7	-8	2052	1944	1809
-1	-2	2133	1998	1890
2	1	2187	2052	1944
7	6	2808	2700	2592
10	9	2970	2862	2727
15	12	3132	3024	2889

### • CLIM'UP EMSM 35

OUTDOOR TEMPERATURE (°C)		HEATING CAPACITY (W)		
DB	WB	15	20	25
-15	-16	2304	2124	1980
-10	-12	2556	2376	2232
-7	-8	2736	2592	2412
-1	-2	2844	2664	2520
2	1	2916	2736	2592
7	6	3744	3600	3456
10	9	3960	3816	3636
15	12	4176	4032	3852

### • CLIM'UP EMSM 50

OUTDOOR TEMPERATURE (°C)		HEATING CAPACITY (W)		
DB	WB	15	20	25
-15	-16	3776	3481	3245
-10	-12	4189	3894	3658
-7	-8	4484	4248	3953
-1	-2	4661	4366	4130
2	1	4779	4484	4248
7	6	6136	5900	5664
10	9	6490	6254	5959
15	12	6844	6608	6313

### • CLIM'UP EMSM 70

OUTDOOR TEMPERATURE (°C)		HEATING CAPACITY (W)		
DB	WB	15	20	25
-15	-16	4704	4337	4043
-10	-12	5219	4851	4557
-7	-8	5586	5292	4925
-1	-2	5807	5439	5145
2	1	5954	5586	5292
7	6	7644	7350	7056
10	9	8085	7791	7424
15	12	8526	8232	7865

DB = dry bulb = very moist air/WB = wet bulb = very dry air  
NOTE: These measurements are based on the unit's nominal output.

# PRESENTATION OF THE MULTISPLIT RANGE

## ADVANTAGES OF THE EMSM

### OUTDOOR UNITS TO BE CONNECTED TO UME../UCE../UGE../UCARE INDOOR UNITS

#### MUSE outdoor unit

- This can be connected to one or more **UME../UCE../UGE../UCARE..** indoor units . Reversible air/air heat pump equipped with full DC inverter technology, a Rotary DC Inverter compressor, a 4-way valve for reversing heating/cooling modes and a modulating fan, using R32 refrigerant.

#### • The following 4 indoor units are available:

- **UME 20, 25, 35, 50:** UME indoor units are equipped with a variable speed fan enabling air diffusion up to 15 m in 4 directions. Its condensate and refrigeration connections can be located on the left- or right-hand side. Up to 5 units can be connected to a MUSE outdoor unit. The indoor unit offers excellent acoustic comfort, with a minimum sound level of 20 dB[A]. Its condensate and refrigeration connections can be located on the left- or right-hand side. It can operate in one of 5 modes: Auto, Cooling, Heating, Dehumidification and ventilation. It also includes the following functions: Night (for optimal thermal and acoustic comfort), Self-clean, Eco (more economical), Turbo (to quickly reach the desired temperature in heating or cooling mode) and draught prevention. Each unit is supplied with a programmable infrared remote control, and can also be remotely controlled using the optional WiFi kit via the SMART CLIM app.



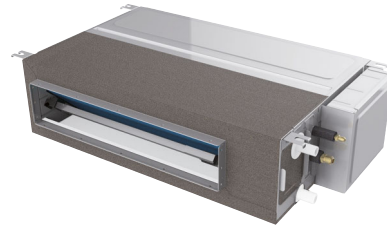
CLIM\_Q0001

- **UCE 25, 35, 50:** UCE indoor units are equipped with a variable speed fan enabling optimised air diffusion in heating or cooling mode. They are suitable for either floor or ceiling installation. They can operate in one of 5 modes: Auto, Cooling, Heating, Dehumidification and Ventilation. It also includes the following functions: Night (for optimal thermal and acoustic comfort), Self-clean, Eco (more economical), Turbo (to quickly reach the desired temperature in heating or cooling mode) and draught prevention. Each unit is supplied with a programmable infrared remote control, and can also be remotely controlled using the optional WiFi kit via the SMART CLIM app.



CLIM\_Q0002

- **UGE 25, 35, 50:** UGE indoor units are equipped with a variable speed fan enabling uniform air diffusion in each room. They can be discreetly installed in a loft or suspended ceiling. They can operate in one of 5 modes: Auto, Cooling, Heating, Dehumidification and Ventilation. It also includes the following functions: Night (for optimal thermal and acoustic comfort), Self-clean, Eco (more economical), Turbo (to quickly reach the desired temperature in heating or cooling mode) and draught prevention. Each unit is supplied with a programmable infrared remote control, and can also be remotely controlled using the optional WiFi kit via the SMART CLIM app.



CLIM\_Q0003

- **UCARE 25, 35, 50:** UCARE indoor units are equipped with a variable speed fan enabling uniform air diffusion over 360°. They can be discreetly installed in a suspended ceiling. They can operate in one of 5 modes: Auto, Cooling, Heating, Dehumidification and Ventilation. It also includes the following functions: Night (for optimal thermal and acoustic comfort), Self-clean, Eco (more economical), Turbo (to quickly reach the desired temperature in heating or cooling mode) and draught prevention. Each unit is supplied with a programmable infrared remote control, and can also be remotely controlled using the optional WiFi kit via the SMART CLIM app.



CLIM\_Q0004

## SIZING

When sizing a multisplit installation, we recommend using the tool available on the De Dietrich PRO website:

[http://pro.dedietrich-heating.com/int/site\\_pro/software/diemasoft/diematools\\_the\\_tool\\_box](http://pro.dedietrich-heating.com/int/site_pro/software/diemasoft/diematools_the_tool_box)



# MODELS AVAILABLE

MULTISPLIT

## THE DIFFERENT OUTDOOR UNITS



CLIM\_G0002

Outdoor unit only

HEAT PUMP	MODEL	OUTPUT	
		IN COOLING MODE (MIN.-MAX.) kw	IN HEATING MODE (MIN.-MAX.) kw
	MUSE 40-2	1.8-4.51	2.05-5.28
	MUSE 50-2	2.0-5.83	2.21-6.16
	MUSE 60-3	2.2-6.71	2.39-7.26
	MUSE 80-3	2.3-8.69	2.45-9.02
	MUSE 100-4	2.50-11.00	2.67-11.20
	MUSE 120-5	2.77-12.7	2.96-12.80

## THE DIFFERENT INDOOR UNITS



CLIM\_G0001

Wall-mounted indoor unit

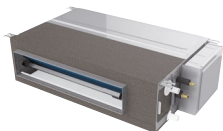
HEAT PUMP	MODEL	OUTPUT	
		IN COOLING MODE (MIN.-MAX.) kw	IN HEATING MODE (MIN.-MAX.) kw
	UME 20	1.13-2.70	0.98-2.50
	UME 25	1.00-3.30	1.10-3.30
	UME 35	1.20-3.80	1.00-3.80
	UME 50	1.90-5.50	1.40-5.60



CLIM\_G0000

Console indoor unit

HEAT PUMP	MODEL	OUTPUT	
		IN COOLING MODE (MIN.-MAX.) kw	IN HEATING MODE (MIN.-MAX.) kw
	UCE 25	1.50-3.55	1.60-3.81
	UCE 35	1.70-3.70	2.03-4.42
	UCE 50	2.50-5.60	3.03-7.03



CLIM\_G0009

Ductable indoor unit

HEAT PUMP	MODEL	OUTPUT	
		IN COOLING MODE (MIN.-MAX.) kw	IN HEATING MODE (MIN.-MAX.) kw
	UGE 25	1.50-3.55	1.70-3.65
	UGE 35	1.71-3.85	1.90-3.92
	UGE 50	2.50-5.80	2.84-6.40



CLIM\_G0011

Cassette indoor unit

HEAT PUMP	MODEL	OUTPUT	
		IN COOLING MODE (MIN.-MAX.) kw	IN HEATING MODE (MIN.-MAX.) kw
	UCARE 25	1.50-3.55	1.60-3.81
	UCARE 35	1.70-3.70	2.03-4.42
	UCARE 50	2.50-5.60	3.03-7.03

# TECHNICAL SPECIFICATIONS

MULTISPLIT

## TECHNICAL SPECIFICATIONS OF MUSE MULTISPLIT OUTDOOR UNITS.

EASYLIFE

### OPERATING CONDITIONS: OPERATING TEMPERATURE LIMITS

#### In heating mode:

Indoor temperature: below +30°C

Outdoor temperature: between -15°C and + 25°C

#### In air conditioning mode:

Indoor temperature: above + 16°C

Outdoor temperature: between -10°C and + 52°C



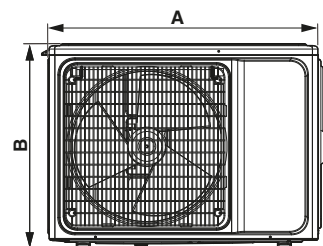
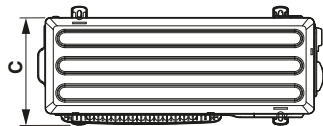
### MODEL

MUSE	40-2	50-2	60-3	80-3	100-4	120-5
Type of product	Bi-split	Bi-split	Tri-split	Tri-split		
Nominal output in cooling mode (min.-max.)	kW 4.1 (1.8-4.51)	5.30 (2.00-5.83)	6.2 (2.2-6.71)	7.9 (2.30-8.69)	10.5 (2.50-11.00)	12.00 (2.77-12.7)
Nominal output in heating mode (min./max.)	kW 4.8 (2.05-5.28)	5.6 (2.21-6.16)	6.6 (2.39-7.26)	8.20 (2.45-9.02)	11.00 (2.67-11.20)	13.0 (2.96-12.80)
Output in cooling mode	BTU/hr 14000	18000	21200	27000	35800	41000
Output in heating mode	BTU/hr 16400	19100	22500	28000	37500	44400
Output in heating mode at an outdoor temperature -7 °C (indoor temp. 20 °C)	W 3456	4032	4752	5904	7920	9360
Electrical power consumption in cooling mode at Pn	kW 1.24	1.75	1.92	2.46	3.92	4.32
Electrical power consumption in heating mode at Pn	kW 1.15	1.54	1.78	2.27	3.04	3.75
Air flow rate	m³/h 2300	2300	3100	3100	4000	4200
SEER	6.2	7.1	6.5	6.3	6.1	6.1
Energy class in cooling mode	A++	A++	A++	A++	A++	A++
SCOP	4.1	4.1	4.4	4.0	4.0	4.0
Energy class in heating mode	A+	A+	A+	A+	A+	A+
Max. acoustic pressure	dB[A] 54	55	56	58	61	61
Sound power	dB[A] 61	62	65	65	68	68
Refrigerant connections (liquid-gas)	Inch 1/4-3/8	1/4-3/8	1/4-3/8	1/4-3/8	1/4-3/8	1/4-3/8
Max. total length between indoor and outdoor units	m 40	40	60	60	80	80
Max. length between indoor and outdoor units	m 25	25	30	30	35	35
Max. height difference between indoor and outdoor units	m 15	15	15	15	15	15
Max. height difference between the indoor units	m 10	10	10	10	10	10
Nominal charge of R32 refrigerant fluid	kg 0.92	0.95	1.10	1.05	2.30	2.30
Pre-charged length	m 15	15	22.5	22.5	30	37.5
Additional charge of refrigerant fluid per extra metre	g 20	20	20	20	20	20
Voltage / frequency	V/Hz 220-240/50	220-240/50	220-240/50	220-240/50	220-240/50	220-240/50
Nominal current in cooling mode	A 5.40	7.6	8.3	10.7	18.7	20.6
Maximum current	A 10	11	13	16	22.5	24.5
Power cable cross-section	mm² 3G1.5	3G1.5	3G1.5	3G2.5	3G4.0	3G4.0
Circuit breaker	C16A	C16A	C16A	C20A	C25A	C25A
Cross-section of cable connecting the indoor and outdoor units	mm² 4G1.5	4G1.5	4G1.5	4G1.5	4G1.5	4G1.5
Net weight	kg 34	36	44	46	74	75

### MAIN DIMENSIONS

#### MULTISPLIT MUSE: OUTDOOR UNITS

· MUSE 40 TO MUSE 120



CUM\_F002

DIMENSIONS (mm)	A	B	C
MUSE 40-2, 50-2	800	545	315
MUSE 60-3, 80-3	834	655	328
MUSE 100-4, 120-5	985	808	395



### TECHNICAL SPECIFICATIONS OF UME INDOOR UNITS

#### OPERATING CONDITIONS: OPERATING TEMPERATURE LIMITS

##### In heating mode:

Indoor temperature : below +30°C

Outdoor temperature : between -15°C and + 30°C

##### In air conditioning mode:

Indoor temperature : above + 16°C

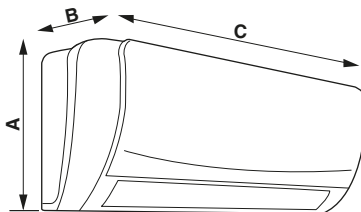
Outdoor temperature : between -10°C and + 52°C

#### MODEL

UME..	20	25	35	50	
Output in cooling mode (min./max.)	kW 2.05 (1.13-2.70)	2.55 (1.00-3.30)	3.60 (1.20-3.80)	5.30 (1.90-5.50)	
Output in heating mode (min./max.)	kW 2.15 (0.98-2.50)	2.65 (1.10-3.30)	3.70 (1.00-3.80)	5.40 (1.40-5.60)	
Output in cooling mode	BTU/hr 7500	8700	12200	18000	
Output in heating mode	BTU/hr 8000	9000	12600	18400	
Electrical power consumption in cooling mode at Pn	kW 0.4	0.4	0.4	0.63	
Electrical power consumption in heating mode at Pn	kW 0.4	0.4	0.4	0.63	
Indoor air flows:	• High speed air flow rate	m <sup>3</sup> /h 650	650	650	1000
	• Medium speed air flow rate	m <sup>3</sup> /h 450	450	450	860
	• Low speed air flow rate	m <sup>3</sup> /h 395	395	395	688
	• Silent Mode air flow rate	m <sup>3</sup> /h 350	350	350	600
Min./max. sound pressure	dB[A] 20-40	20-41	20-42	20-48	
Sound power	dB[A] 51	53	53	58	
Refrigerant connections (liquid-gas)	Inch 1/4-3/8	1/4-3/8	1/4-3/8	1/4-1/2	
Voltage / frequency	V/Hz 220-240/50	220-240/50	220-240/50	220-240/50	
Condensate discharge	mm 16.5	16.5	16.5	16.5	
Net weight	kg 9	9	9	12.5	

### MAIN DIMENSIONS

#### UME: INDOOR UNITS



DIMENSIONS (mm)	A	B	C
UME 20 25 35	300	198	800
UME 50	315	235	970

## TECHNICAL SPECIFICATIONS OF UCE INDOOR UNITS

EASYLIFE

### OPERATING CONDITIONS: OPERATING TEMPERATURE LIMITS

#### In heating mode:

Indoor temperature: below +30°C

Outdoor temperature: between -15°C and + 25°C

#### In air conditioning mode:

Indoor temperature: above + 16°C

Outdoor temperature: between -10°C and + 52°C

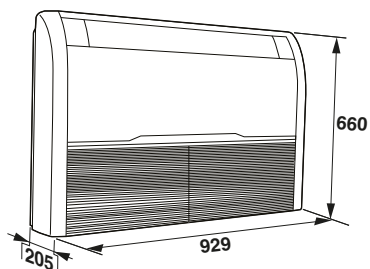


### MODEL

	UCE	25	35	50	
Output in cooling mode (min./max.)	kW	2.80 (1.50-3.55)	3.60 (1.70-3.70)	5.30 (2.50-5.6)	
Output in heating mode (min./max.)	kW	3.00 (1.60-3.81)	3.9 (2.03-4.42)	5.8 (3.03-7.03)	
Output in cooling mode	BTU/hr	9600	12300	18100	
Output in heating mode	BTU/hr	10200	13300	19800	
Electrical power consumption in cooling mode at Pn	W	80	80	80	
Electrical power consumption in heating mode at Pn	W	80	80	80	
Indoor air flows:	• High speed air flow rate	m <sup>3</sup> /h	750	750	850
	• Medium speed air flow rate	m <sup>3</sup> /h	600	600	700
	• Low speed air flow rate	m <sup>3</sup> /h	500	500	600
Min./max. sound pressure	dB[A]	30-39	30-39	40-45	
Sound power	dB[A]	55	55	59	
Refrigerant connections (liquid-gas)	Inch	1/4-1/2	1/4-1/2	1/4-1/2	
Voltage / frequency	V/Hz	220-240/50	220-240/50	220-240/50	
Net weight	kg	26	26	26	

## MAIN DIMENSIONS

### UCE: INDOOR UNITS



CLIM\_F0016

# TECHNICAL SPECIFICATIONS

MULTISPLIT

EASYLIFE



## TECHNICAL SPECIFICATIONS OF UCARE INDOOR UNITS

### OPERATING CONDITIONS: OPERATING TEMPERATURE LIMITS

#### In heating mode:

Indoor temperature : below +30°C

Outdoor temperature : between -15°C and + 25°C

#### In air conditioning mode:

Indoor temperature : above + 16°C

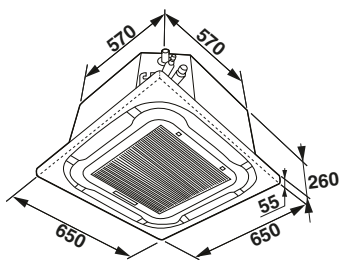
Outdoor temperature : between -10°C and + 52°C

### MODEL

	UCARE	25	35	50	
Output in cooling mode (min./max.)	kW	2.80 (1.50-3.55)	3.60 (1.70-3.70)	5.0 (2.50-5.6)	
Output in heating mode (min./max.)	kW	3.00 (1.60-3.81)	3.9 (2.03-4.42)	5.6 (3.03-7.03)	
Output in cooling mode	BTU/hr	9600	12300	18100	
Output in heating mode	BTU/hr	10200	13300	19800	
Electrical power consumption in cooling mode at Pn	W	70	70	70	
Electrical power consumption in heating mode at Pn	W	70	70	70	
Indoor air flows:	• High speed air flow rate	m <sup>3</sup> /h	700	700	700
	• Medium speed air flow rate	m <sup>3</sup> /h	600	600	600
	• Low speed air flow rate	m <sup>3</sup> /h	530	530	530
Min./max. sound pressure	dB[A]	35-45	35-45	35-45	
Sound power	dB[A]	56	56	56	
Refrigerant connections (liquid-gas)	Inch	1/4-1/2	1/4-1/2	1/4-1/2	
Voltage / frequency	V/Hz	220-240/50	220-240/50	220-240/50	
Net weight	kg	18	18	18	

## MAIN DIMENSIONS

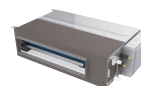
### UCARE: INDOOR UNITS



CIIM\_E004

### TECHNICAL SPECIFICATIONS OF UGE INDOOR UNITS

EASYLIFE



#### OPERATING CONDITIONS: OPERATING TEMPERATURE LIMITS

##### In heating mode:

Indoor temperature: below +30°C

Outdoor temperature: between -15°C and + 25°C

##### In air conditioning mode:

Indoor temperature: above + 16°C

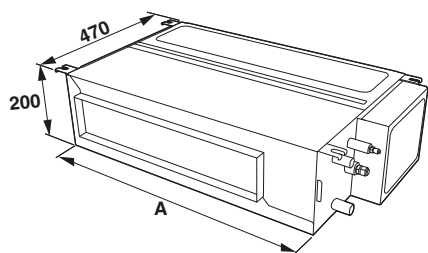
Outdoor temperature: between -10°C and + 52°C

#### MODEL

	UGE	25	35	50	
Output in cooling mode (min./max.)	kW	2.6 (1.50-3.55)	3.60 (1.71-3.85)	5.10 (2.50-5.80)	
Output in heating mode (min./max.)	kW	2.90 (1.70-3.65)	4.00 (1.90-3.92)	5.80 (2.84-6.40)	
Output in cooling mode	BTU/hr	9600	12300	18100	
Output in heating mode	BTU/hr	10200	13300	19800	
Electrical power consumption in cooling mode at Pn	W	55	55	75	
Electrical power consumption in heating mode at Pn	W	55	55	75	
Indoor air flows:	• High speed air flow rate	m <sup>3</sup> /h	600	680	860
	• Medium speed air flow rate	m <sup>3</sup> /h	450	560	660
	• Low speed air flow rate	m <sup>3</sup> /h	380	450	600
Min./max. sound pressure	dB[A]	28-35	31-38	36-42	
Sound power	dB[A]	53	53	55	
Refrigerant connections (liquid-gas)	Inch	1/4-1/2	1/4-1/2	1/4-1/2	
Voltage / frequency	V/Hz	220-240/50	220-240/50	220-240/50	
Net weight	kg	18.5	18.5	24	

### MAIN DIMENSIONS

#### UGE: INDOOR UNITS

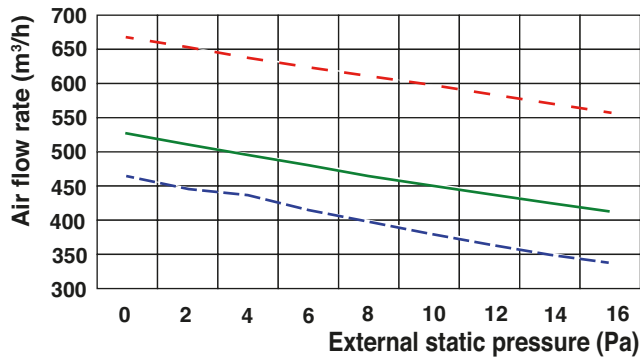


DIMENSIONS (mm)	A
UGE 25	700
UGE 35	700
UGE 50	1000

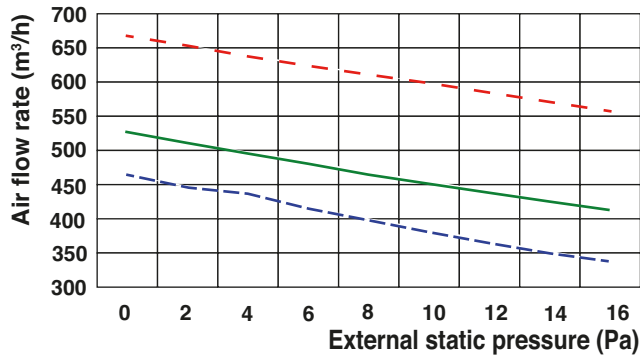
CLIM\_F0015

## FLOW RATE/PRESSURE CURVES BASED ON THE FAN SPEED

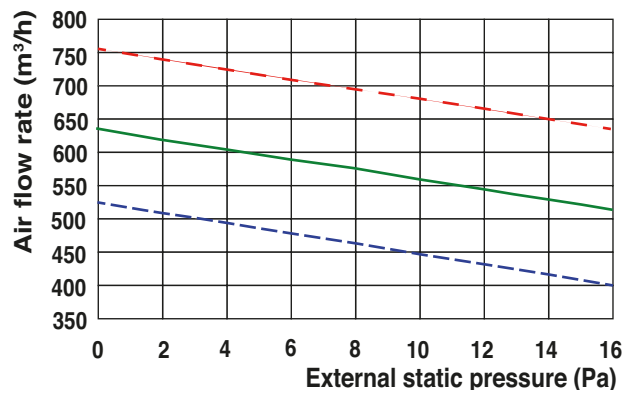
• UGE 25



• UGE 35



• UGE 50



Fan at:

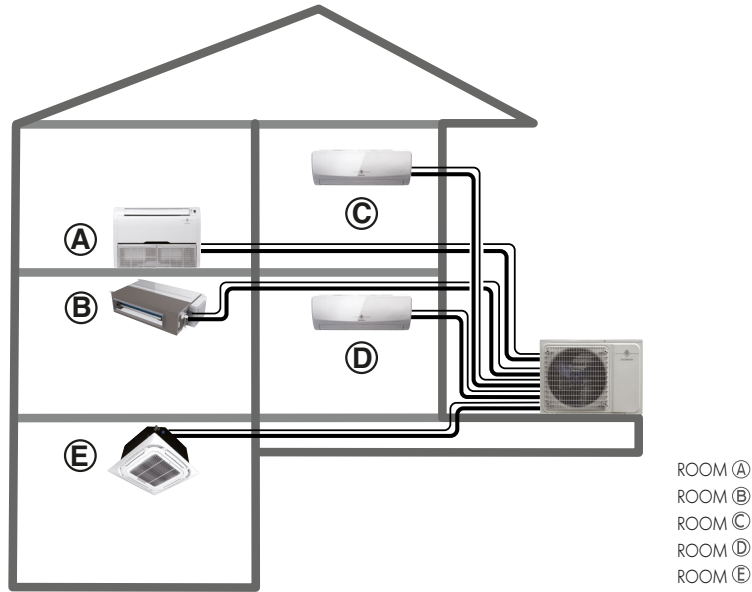
- - - Low speed
- Medium speed
- - - High speed

CLIM\_F0022

# COMBINATIONS

## OF INDOOR AND OUTDOOR UNITS

Each MUSE outdoor unit can be connected to up to 5 UME, UCE, UGE or UCARE indoor units. The table below shows the possible combinations and the available outputs.



CLIM\_F0023

## COMBINATIONS WITH MUSE 40-2

### MUSE 40-2 OUTDOOR UNIT COMBINED WITH 1 OR 2 UME/UCE/UGE/UCARE INDOOR UNITS

• COOLING MODE

	INDOOR/ UCE/UGE/ UCARE UNIT	NOMINAL OUTPUT (KW) (NOM. COOLING)		TOTAL COOLING CAPACITY (KW)			TOTAL POWER CONSUMPTION (KW)		
		ROOM ①	ROOM ②	MIN.	NOMINAL	MAX.	MIN.	NOMINAL	MAX.
<b>EASYLIFE</b> MUSE 40-2 + UME/UCE/UGE/UCARE 	20	2.05	—	1.13	2.05	2.70	0.21	1.28	2.17
	25	2.55	—	1	2.55	3.30	0.21	1.28	2.17
	35	3.60	—	1.20	3.60	3.80	0.21	1.28	2.17
MUSE 40-2 + UME/UCE/UGE/UCARE 	20 + 20	2.05	2.05	1.80	4.1	4.51	0.22	1.32	2.24
	20 + 25	1.83	2.27	1.80	4.1	4.51	0.22	1.32	2.24
	25 + 25	2.05	2.05	1.80	4.1	4.51	0.22	1.32	2.24

• HEATING MODE

	UME INDOOR UNIT	NOMINAL OUTPUT (KW) (NOM. COOLING)		TOTAL COOLING CAPACITY (KW)			TOTAL POWER CONSUMPTION (KW)		
		ROOM ①	ROOM ②	MIN.	NOMINAL	MAX.	MIN.	NOMINAL	MAX.
<b>EASYLIFE</b> MUSE 40-2 + UME/UCE/UGE/UCARE 	20	2.15	—	0.98	2.15	2.50	0.21	1.19	2.17
	25	2.65	—	1.10	2.65	3.30	0.21	1.19	2.17
	35	3.7	—	1	3.7	3.80	0.21	1.19	2.17
MUSE 40-2 + UME/UCE/UGE/UCARE 	20 + 20	2.4	2.4	1.96	4.3	5	0.22	1.23	2.24
	20 + 25	2.15	2.65	2.05	4.8	5.28	0.22	1.23	2.24
	25 + 25	2.40	2.40	2.05	4.8	5.28	0.22	1.23	2.24









# COMBINATIONS

OF INDOOR AND OUTDOOR UNITS







## COMBINATIONS WITH MUSE 50-2

### MUSE 50-2 OUTDOOR UNIT COMBINED WITH 1 OR 2 UME/UCE/UGE/UCARE INDOOR UNITS

• COOLING MODE

MUSE 50-2	EASYLIFE	INDOOR/ UCE/UGE/ UCARE UNIT	NOMINAL OUTPUT (KW) (NOM. COOLING)		TOTAL COOLING CAPACITY (KW)			TOTAL POWER CONSUMPTION (KW)		
			ROOM Ⓐ	ROOM Ⓑ	MIN.	NOMINAL	MAX.	MIN.	NOMINAL	MAX.
 + 		20	2.05	—	1.13	2.05	2.70	0.29	1.79	2.37
		25	2.55	—	1.00	2.55	3.30	0.29	1.79	2.37
		35	3.60	—	1.20	3.60	3.80	0.29	1.79	2.37
		50	5.30	—	1.90	5.30	5.50	0.30	1.81	2.39
 + 		20 + 20	2.05	2.05	2.00	4.1	5.40	0.30	1.83	2.44
		20 + 25	2.05	2.55	2.00	5.30	5.83	0.30	1.83	2.44
		25 + 25	2.55	2.55	2.00	5.30	5.83	0.30	1.83	2.44
		25 + 35	2.20	3.10	2.00	5.30	5.83	0.30	1.83	2.44
		25 + 50	1.72	3.58	2.00	5.30	5.83	0.31	1.85	2.46
		35 + 35	2.65	2.65	2.00	5.30	5.83	0.30	1.83	2.44

• HEATING MODE

MUSE 50-2	EASYLIFE	INDOOR/ UCE/UGE/ UCARE UNIT	NOMINAL OUTPUT (KW) (NOM. COOLING)		TOTAL COOLING CAPACITY (KW)			TOTAL POWER CONSUMPTION (KW)		
			ROOM Ⓐ	ROOM Ⓑ	MIN.	NOMINAL	MAX.	MIN.	NOMINAL	MAX.
 + 		20	2.15	—	0.98	2.15	2.50	0.29	1.58	2.37
		25	2.65	—	1.10	2.65	3.30	0.29	1.58	2.37
		35	3.7	—	1.00	3.7	3.80	0.29	1.58	2.37
		50	5.40	—	1.40	5.40	5.6	0.30	1.60	2.39
 + 		20 + 20	2.15	2.15	1.96	4.3	5	0.30	1.62	2.44
		20 + 25	2.15	2.65	2.08	4.8	5.8	0.30	1.62	2.44
		25 + 25	2.65	2.65	2.21	5.30	6.16	0.30	1.62	2.44
		25 + 35	2.34	3.26	2.21	5.6	6.16	0.30	1.62	2.44
		35 + 35	2.80	2.80	2.21	5.6	6.16	0.30	1.62	2.44


# COMBINATIONS

OF INDOOR AND OUTDOOR UNITS

## COMBINATIONS WITH MUSE 60-3

### MUSE 60-3 OUTDOOR UNIT COMBINED WITH 1, 2 OR 3 UME/UCE/UGE/UCARE INDOOR UNITS

· COOLING MODE

	UME/UCE/UGE/UCARE INDOOR UNIT	NOMINAL OUTPUT (KW) (NOM. COOLING)			TOTAL COOLING CAPACITY (KW)			TOTAL POWER CONSUMPTION (KW)		
		ROOM (A)	ROOM (B)	ROOM (C)	MIN.	NOMINAL	MAX.	MIN.	NOMINAL	MAX.
<b>EASYLIFE</b> MUSE 60-3 UME/UCE/UGE/UCARE 	20	2.05	-	-	1.13	2.05	2.70	0.36	1.96	2.87
	25	2.55	-	-	1.00	2.55	3.30	0.36	1.96	2.87
	35	3.60	-	-	1.20	3.60	3.80	0.36	1.96	2.87
	50	5.30	-	-	1.90	5.30	5.50	0.37	1.98	2.89
MUSE 60-3 UME/UCE/UGE/UCARE 	20 + 20	2.05	2.05	-	2.20	4.10	5.40	0.37	2.00	2.94
	20 + 25	2.05	2.55	-	2.13	4.60	6.00	0.37	2.00	2.94
	20 + 35	2.05	3.60	-	2.20	5.65	6.50	0.37	2.00	2.94
	20 + 50	1.62	4.19	-	2.20	6.20	6.71	0.38	2.02	2.96
	25 + 25	2.55	2.55	-	2.00	5.10	6.60	0.37	2.00	2.94
	25 + 35	2.55	3.60	-	2.20	6.15	6.71	0.37	2.00	2.94
	25 + 50	2.01	4.19	-	2.20	6.20	6.71	0.38	2.02	2.96
	35 + 35	3.10	3.10	-	2.20	6.20	6.71	0.37	2.00	2.94
MUSE 60-3 UME/UCE/UGE/UCARE 	20 + 20 + 20	2.05	2.05	2.05	2.20	6.20	6.71	0.39	2.04	3.00
	20 + 20 + 25	1.91	1.91	2.55	2.20	6.20	6.71	0.39	2.04	3.00
	20 + 20 + 35	1.65	1.65	2.90	2.20	6.20	6.71	0.39	2.04	3.00
	20 + 25 + 25	1.78	2.21	2.21	2.20	6.20	6.71	0.39	2.04	3.00
	20 + 25 + 35	1.55	1.93	2.72	2.20	6.20	6.71	0.39	2.04	3.00
	25 + 25 + 25	2.07	2.07	2.07	2.20	6.20	6.71	0.39	2.04	3.00
	25 + 25 + 35	1.82	1.82	2.57	2.20	6.20	6.71	0.39	2.04	3.00

# COMBINATIONS

OF INDOOR AND OUTDOOR UNITS

## COMBINATIONS WITH MUSE 60-3 (CONTINUED)

### MUSE 60-3 OUTDOOR UNIT COMBINED WITH 1, 2 OR 3 UME/UCE/UGE/UCARE INDOOR UNITS

• HEATING MODE

	INDOOR/UC/ UGE/UCARE UNIT	NOMINAL OUTPUT (KW) (NOM. COOLING)			TOTAL COOLING CAPACITY (KW)			TOTAL POWER CONSUMPTION (KW)		
		ROOM (A)	ROOM (B)	ROOM (C)	MIN.	NOMINAL	MAX.	MIN.	NOMINAL	MAX.
<b>EASYLIFE</b> MUSE 60-3 UME/UC/UGE/UCARE 	20	2.15	-	-	0.98	2.15	2.50	0.36	1.82	2.87
	25	2.65	-	-	1.10	2.65	3.30	0.36	1.82	2.87
	35	3.70	-	-	1.00	3.50	3.80	0.36	1.82	2.87
	50	5.40	-	-	1.40	5.40	5.60	0.37	1.84	2.89
MUSE 60-3 UME/UC/UGE/UCARE 	20 + 20	2.15	2.15	-	1.96	4.30	5.00	0.37	1.86	2.94
	20 + 25	2.15	2.65	-	2.08	4.80	5.80	0.37	1.86	2.94
	20 + 35	2.15	3.70	-	1.98	5.65	6.30	0.37	1.86	2.94
	20 + 50	1.76	4.43	-	2.38	6.60	7.26	0.38	1.88	2.96
	25 + 25	2.65	2.65	-	2.20	5.30	6.60	0.37	1.86	2.94
	25 + 35	2.65	3.70	-	2.10	6.15	7.10	0.37	1.86	2.94
	25 + 50	2.17	4.43	-	2.39	6.60	7.26	0.38	1.88	2.96
	35 + 35	3.30	3.30	-	2.39	6.60	7.26	0.37	1.86	2.94
MUSE 60-3 UME/UC/UGE/UCARE 	20 + 20 + 20	2.15	2.15	2.15	2.39	6.45	7.26	0.39	1.90	3.00
	20 + 20 + 25	2.04	2.04	2.55	2.39	6.60	7.26	0.39	1.90	3.00
	20 + 20 + 35	1.77	1.77	3.05	2.39	6.60	7.26	0.39	1.90	3.00
	20 + 25 + 25	1.90	2.35	2.35	2.39	6.60	7.26	0.39	1.90	3.00
	20 + 25 + 35	1.71	2.11	2.78	2.39	6.60	7.26	0.39	1.90	3.00
	25 + 25 + 25	2.20	2.20	2.20	2.39	6.60	7.26	0.39	1.90	3.00
	25 + 25 + 35	1.99	1.99	2.63	2.39	6.60	7.26	0.39	1.90	3.00







# COMBINATIONS

OF INDOOR AND OUTDOOR UNITS

## COMBINATIONS WITH MUSE 80-3

### MUSE 80-3 OUTDOOR UNIT COMBINED WITH 1, 2 OR 3 UME/UCE/UGE/UCARE INDOOR UNITS

· COOLING MODE

	INDOOR/UCE/ UGE/UCARE UNIT	NOMINAL OUTPUT (KW) (NOM. COOLING)			TOTAL COOLING CAPACITY (KW)			TOTAL POWER CONSUMPTION (KW)		
		ROOM (A)	ROOM (B)	ROOM (C)	MIN.	NOMINAL	MAX.	MIN.	NOMINAL	MAX.
 + 	20	2.05	-	-	1.13	2.05	2.70	0.57	2.50	3.47
	25	2.55	-	-	1.00	2.55	3.30	0.57	2.50	3.47
	35	3.60	-	-	1.20	3.60	3.80	0.57	2.50	3.47
	50	5.30	-	-	1.90	5.30	5.50	0.58	2.52	3.49
 + 	20 + 20	2.05	2.05	-	2.26	4.10	5.40	0.58	2.54	3.54
	20 + 25	2.05	2.55	-	2.13	4.60	6.00	0.58	2.54	3.54
	20 + 35	1.95	3.35	-	2.30	5.65	6.50	0.58	2.54	3.54
	20 + 50	1.82	4.68	-	2.30	7.35	8.20	0.59	2.56	3.56
	25 + 25	2.55	2.55	-	2.00	5.10	6.60	0.58	2.54	3.54
	25 + 35	2.55	3.60	-	2.20	6.15	7.10	0.58	2.54	3.54
	25 + 50	2.55	5.30	2.30	7.85	8.69	0.59	2.56	3.56	
	35 + 35	3.60	3.60	-	2.30	7.20	7.60	0.58	2.54	3.54
 + 	20 + 20 + 20	2.05	2.05	2.05	2.30	6.15	8.69	0.60	2.58	3.60
	20 + 20 + 25	2.05	2.05	2.55	2.30	6.65	8.69	0.60	2.58	3.60
	20 + 20 + 35	2.05	2.05	3.60	2.30	7.70	8.69	0.60	2.58	3.60
	20 + 20 + 50	1.72	1.72	4.45	2.30	7.90	8.69	0.60	2.60	3.62
	20 + 25 + 25	2.05	2.55	2.55	2.30	7.15	8.69	0.60	2.58	3.60
	20 + 25 + 35	1.98	2.46	3.47	2.30	7.90	8.69	0.60	2.58	3.60
	20 + 35 + 35	1.75	3.07	3.07	2.30	7.90	8.69	0.60	2.58	3.60
	25 + 25 + 25	2.55	2.55	2.55	2.30	7.65	8.69	0.60	2.58	3.60
	25 + 25 + 35	2.32	2.32	3.27	2.30	7.90	8.69	0.60	2.58	3.60
	25 + 35 + 35	2.07	2.92	2.92	2.30	7.90	8.69	0.60	2.58	3.60




# COMBINATIONS

OF INDOOR AND OUTDOOR UNITS

## COMBINATIONS WITH MUSE 80-3 (CONTINUED)

### MUSE 80-3 OUTDOOR UNIT COMBINED WITH 1, 2 OR 3 UME/UCE/UGE/UCARE INDOOR UNITS

• HEATING MODE

	INDOOR/UC/E/UCARE UNIT	NOMINAL OUTPUT (KW) (NOM. COOLING)			TOTAL COOLING CAPACITY (KW)			TOTAL POWER CONSUMPTION (KW)		
		ROOM (A)	ROOM (B)	ROOM (C)	MIN.	NOMINAL	MAX.	MIN.	NOMINAL	MAX.
<b>EASYLIFE</b> MUSE 80-3 UME/UC/E/UCARE 	20	2.15	-	-	0.98	2.15	2.50	0.57	2.31	3.47
	25	2.65	-	-	1.10	2.65	3.30	0.57	2.31	3.47
	35	3.5	-	-	1.00	3.50	3.80	0.57	2.31	3.47
	50	5.4	-	-	1.40	5.40	5.60	0.58	2.33	3.49
MUSE 80-3 UME/UC/E/UCARE 	20 + 20	2.15	2.15	-	1.96	4.30	5.00	0.58	2.35	3.54
	20 + 25	2.15	2.65	-	2.08	4.80	5.80	0.58	2.35	3.54
	20 + 35	2.15	3.50	1.98	5.65	6.30	0.58	2.35	3.54	
	20 + 50	2.15	5.40	2.38	7.55	8.10	0.59	2.37	3.56	
	25 + 25	2.65	2.65	-	2.20	5.30	6.60	0.58	2.35	3.54
	25 + 35	2.65	3.50	-	2.10	6.15	7.10	0.58	2.35	3.54
	25 + 50	2.65	5.40	2.45	8.05	8.90	0.59	2.37	3.56	
	35 + 35	3.50	3.50	-	2.00	7.00	7.60	0.58	2.35	3.54
MUSE 80-3 UME/UC/E/UCARE 	35 + 50	3.22	4.98	-	2.40	8.20	9.02	0.59	2.37	3.56
	20 + 20 + 20	2.15	2.15	2.15	2.45	6.45	7.50	0.60	2.39	3.60
	20 + 20 + 25	2.15	2.15	2.65	2.45	6.95	8.30	0.60	2.39	3.60
	20 + 20 + 35	2.15	2.15	3.50	2.45	7.80	8.80	0.60	2.39	3.60
	20 + 20 + 50	1.82	1.82	4.56	2.45	8.20	9.02	0.60	2.41	3.62
	20 + 25 + 25	2.15	2.65	2.65	2.45	7.45	9.02	0.60	2.39	3.60
	20 + 25 + 35	2.12	2.62	3.46	2.45	8.20	9.02	0.60	2.39	3.60
	20 + 35 + 35	2.12	3.14	3.14	2.45	8.20	9.02	0.60	2.39	3.60
	25 + 25 + 25	2.65	2.65	2.65	2.45	7.95	9.02	0.60	2.39	3.60
	25 + 25 + 35	2.47	2.47	3.26	2.45	8.20	9.02	0.60	2.39	3.60
	25 + 35 + 35	2.25	2.97	2.97	2.45	8.20	9.02	0.60	2.39	3.60









# COMBINATIONS

OF INDOOR AND OUTDOOR UNITS

## COMBINATIONS WITH MUSE 100-4

### MUSE 100-4 OUTDOOR UNIT COMBINED WITH 1, 2, 3 OR 4 UME/UCE/UGE/UCARE INDOOR UNITS

· COOLING MODE

	INDOOR/UC/E/UGE/UCARE UNIT	NOMINAL OUTPUT (KW) (NOM. COOLING)				TOTAL COOLING CAPACITY (KW)			TOTAL POWER CONSUMPTION (KW)		
		ROOM (A)	ROOM (B)	ROOM (C)	ROOM (D)	MIN.	NOMINAL	MAX.	MIN.	NOMINAL	MAX.
 + 	20	2.05	-	-	-	1.13	2.05	2.70	0.69	3.99	5.00
	25	2.55	-	-	-	1.00	2.55	3.30	0.69	3.99	5.00
	35	3.60	-	-	-	1.20	3.60	3.80	0.69	3.99	5.00
	50	5.30	-	-	-	1.90	5.30	5.50	0.70	4.01	5.02
 + 	20 + 20	2.05	2.05	-	-	2.26	4.10	5.40	0.70	4.03	5.07
	20 + 25	2.05	2.55	-	-	2.13	4.60	6.00	0.70	4.03	5.07
	20 + 35	2.05	2.55	-	-	2.20	6.15	7.10	0.70	4.03	5.07
	20 + 50	2.05	5.30	-	-	3.10	8.90	9.30	0.70	4.03	5.07
	25 + 25	2.55	2.55	-	-	2.40	7.20	7.60	0.70	4.03	5.07
	25 + 35	2.55	3.60	-	-	2.33	5.65	6.50	0.70	4.03	5.07
	25 + 50	2.55	5.30	-	-	2.90	7.85	8.80	0.71	4.05	5.09
	35 + 35	3.60	3.60	-	-	2.40	7.20	7.60	0.70	4.03	5.07
	35 + 50	3.60	5.30	-	-	2.50	8.90	9.30	0.71	4.05	5.09
	50 + 50	5.25	5.25	-	-	2.50	10.50	11.00	0.71	4.08	5.11
 + 	20 + 20 + 20	2.05	2.05	2.05	-	2.50	6.15	8.10	0.72	4.07	5.13
	20 + 20 + 25	2.05	2.05	2.55	-	2.50	6.65	8.70	0.72	4.07	5.13
	20 + 20 + 35	2.15	2.15	3.60	-	2.50	7.70	9.20	0.72	4.07	5.13
	20 + 20 + 50	2.15	2.15	5.40	-	2.50	9.40	10.90	0.72	4.09	5.15
	20 + 25 + 25	2.05	2.55	2.55	-	2.50	7.15	9.30	0.72	4.07	5.13
	20 + 25 + 35	2.63	3.27	4.61	-	2.50	8.20	9.80	0.72	4.07	5.13
	20 + 25 + 50	2.17	2.55	5.30	-	2.50	9.90	11.00	0.72	4.09	5.15
	20 + 35 + 35	2.33	4.09	4.09	-	2.50	9.25	10.30	0.72	4.07	5.13
	20 + 35 + 50	1.97	3.45	5.08	-	2.50	10.50	11.00	0.72	4.09	5.15
	20 + 50 + 50	1.70	4.40	4.40	-	2.50	10.50	11.00	0.72	4.12	5.17
	25 + 25 + 25	2.55	2.55	2.55	-	2.50	7.65	9.90	0.72	4.07	5.13
	25 + 25 + 35	3.08	3.08	4.34	-	2.50	8.70	10.40	0.72	4.07	5.13
	25 + 25 + 50	2.57	2.57	5.35	-	2.50	10.40	11.00	0.72	4.09	5.15
	25 + 35 + 35	2.55	3.60	3.60	-	2.50	9.75	10.90	0.72	4.07	5.13
25 + 35 + 50	2.34	3.30	4.86	-	2.50	10.50	11.00	0.72	4.09	5.15	
25 + 50 + 50	2.04	4.23	4.23	-	2.50	10.50	11.00	0.72	4.12	5.17	
35 + 35 + 35	3.50	3.50	3.50	-	2.50	10.50	11.00	0.72	4.07	5.13	
35 + 35 + 50	3.02	3.02	4.45	-	2.50	10.50	11.00	0.72	4.09	5.15	
 + 	20+20+20+20	2.05	2.05	2.05	2.05	2.50	8.20	11.00	0.73	4.11	5.20
	20+20+20+25	2.05	2.05	2.05	2.55	2.50	8.70	11.00	0.73	4.11	5.20
	20+20+20+35	2.05	2.05	2.05	3.60	2.50	9.75	11.00	0.73	4.11	5.20
	20+20+20+50	1.88	1.88	1.88	4.86	2.50	10.50	11.00	0.73	4.13	5.22
	20+20+25+25	2.05	2.05	2.55	2.55	2.50	9.20	11.00	0.73	4.11	5.20
	20+20+25+35	2.05	2.05	2.55	3.60	2.50	10.25	11.00	0.73	4.11	5.20
	20+20+25+50	1.80	1.80	2.24	4.66	2.50	10.50	11.00	0.73	4.13	5.22
	20+20+35+35	1.90	1.90	3.35	3.35	2.50	10.50	11.00	0.73	4.11	5.20
	20+20+35+50	1.66	1.66	2.91	4.28	2.50	10.50	11.00	0.73	4.13	5.22
	20+25+25+25	2.05	2.55	2.55	2.55	2.50	9.70	11.00	0.73	4.11	5.20
	20+25+25+35	2.00	2.49	2.49	3.52	2.50	10.50	11.00	0.73	4.11	5.20
	20+25+25+50	1.73	2.15	2.15	4.47	2.50	10.50	11.00	0.73	4.13	5.22
	20+25+35+35	1.82	2.27	3.20	3.20	2.50	10.50	11.00	0.73	4.11	5.20
	20+25+35+50	1.59	1.98	2.80	4.12	2.50	10.50	11.00	0.73	4.13	5.22
	20+35+35+35	1.68	2.94	2.94	2.94	2.50	10.50	11.00	0.73	4.11	5.20
	25+25+25+25	2.55	2.55	2.55	2.55	2.50	10.20	11.00	0.73	4.11	5.20
	25+25+25+35	2.38	2.38	2.38	3.36	2.50	10.50	11.00	0.73	4.11	5.20
	25+25+25+50	2.07	2.07	2.07	4.30	2.50	10.50	11.00	0.73	4.13	5.22
25+25+35+35	2.18	2.18	3.07	3.07	2.50	10.50	11.00	0.73	4.11	5.20	
25+35+35+35	2.01	2.83	2.83	2.83	2.50	10.50	11.00	0.73	4.11	5.20	









# COMBINATIONS

OF INDOOR AND OUTDOOR UNITS

## COMBINATIONS WITH MUSE 100-4 (CONTINUED)

### MUSE 100-4 OUTDOOR UNIT COMBINED WITH 1, 2, 3 OR 4 UME/UCE/UGE/UCARE INDOOR UNITS

• HEATING MODE

	INDOOR/UC/E/ UGE/UCARE UNIT	NOMINAL OUTPUT (KW) (NOM. COOLING)				TOTAL COOLING CAPACITY (KW)			TOTAL POWER CONSUMPTION (KW)		
		ROOM (A)	ROOM (B)	ROOM (C)	ROOM (D)	MIN.	NOMINAL	MAX.	MIN.	NOMINAL	MAX.
 + 	20	2.15	-	-	-	0.98	2.15	2.50	0.54	3.19	3.92
	25	2.65	-	-	-	1.10	2.65	3.30	0.54	3.19	3.92
	35	3.70	-	-	-	1.00	3.50	3.80	0.54	3.19	3.92
	50	5.40	-	-	-	1.40	5.40	5.6	0.55	3.21	3.94
 + 	20 + 20	2.15	2.15	-	-	1.96	4.30	11.20	0.55	3.23	3.99
	20 + 25	2.15	2.65	-	-	2.08	4.80	5.80	0.55	3.23	3.99
	20 + 35	2.15	3.50	-	-	1.98	5.65	6.30	0.55	3.23	3.99
	20 + 50	2.15	5.40	-	-	2.38	7.55	8.10	0.55	3.23	3.99
	25 + 25	2.65	2.65	-	-	2.00	7.00	7.60	0.55	3.23	3.99
	25 + 35	2.65	3.50	-	-	1.98	5.65	6.30	0.55	3.23	3.99
	25 + 50	2.65	5.40	-	2.50	8.05	8.90	0.56	3.25	4.01	4.01
	35 + 35	3.50	3.50	-	-	2.00	7.00	7.60	0.55	3.23	3.99
	35 + 50	3.50	5.40	-	-	2.40	8.90	9.40	0.56	3.25	4.01
	50 + 50	5.40	5.40	-	-	2.67	10.80	11.20	0.56	3.28	4.03
 + 	20 + 20 + 20	2.15	2.15	2.15	-	2.67	6.45	7.50	0.57	3.27	4.05
	20 + 20 + 25	2.15	2.15	2.65	-	2.67	6.95	8.30	0.57	3.27	4.05
	20 + 20 + 35	2.15	2.15	3.50	-	2.67	7.80	8.80	0.57	3.27	4.05
	20 + 20 + 50	2.15	2.15	5.40	-	2.67	9.70	10.60	0.57	3.29	4.07
	20 + 25 + 25	22.15	2.65	2.65	-	2.67	7.45	9.10	0.57	3.27	4.05
	20 + 25 + 35	2.15	2.65	3.50	-	2.67	8.30	9.60	0.57	3.27	4.05
	20 + 25 + 50	2.15	2.65	5.40	-	2.67	10.20	11.20	0.57	3.29	4.07
	20 + 35 + 35	22.15	3.50	3.50	-	2.67	9.15	10.10	0.57	3.27	4.05
	20 + 35 + 50	2.14	3.48	5.38	-	2.67	11.00	11.20	0.57	3.29	4.07
	20 + 50 + 50	21.83	4.59	4.59	-	2.67	11.00	11.20	0.57	3.32	4.09
	25 + 25 + 25	2.55	2.55	2.55	-	2.67	7.95	9.90	0.57	3.27	4.05
	25 + 25 + 35	2.65	2.65	3.50	-	2.67	8.80	10.40	0.57	3.27	4.05
	25 + 25 + 50	2.65	2.65	5.40	-	2.67	10.70	12.20	0.57	3.29	4.07
	25 + 35 + 35	2.65	3.50	3.50	-	2.67	9.65	10.90	0.57	3.27	4.05
	25 + 35 + 50	2.52	3.33	5.14	-	2.67	11.00	11.20	0.57	3.29	4.07
25 + 50 + 50	2.17	4.42	4.42	-	2.67	11.00	11.20	0.57	3.32	4.09	
35 + 35 + 35	3.50	3.50	3.50	-	2.67	10.50	11.20	0.57	3.27	4.05	
35 + 35 + 50	3.10	3.10	4.79	-	2.67	11.00	11.20	0.57	3.29	4.07	
 + 	20+20+20+20	2.15	2.15	2.15	2.15	2.67	8.60	10.00	0.58	3.31	4.12
	20+20+20+25	2.15	2.15	2.15	2.65	2.67	9.10	10.80	0.58	3.31	4.12
	20+20+20+35	2.15	2.15	2.15	3.50	2.67	9.95	11.20	0.58	3.31	4.12
	20+20+20+50	2.15	2.15	2.15	5.40	2.67	11.85	11.20	0.58	3.33	4.14
	20+20+25+25	2.15	2.15	2.65	2.65	2.67	9.60	11.20	0.58	3.31	4.12
	20+20+25+35	2.15	2.15	2.65	3.50	2.67	10.45	11.20	0.58	3.31	4.12
	20+20+25+50	1.91	1.91	2.36	4.81	2.67	11.00	11.20	0.58	3.33	4.14
	20+20+35+35	2.09	2.09	3.41	3.41	2.67	11.00	11.20	0.58	3.31	4.12
	20+20+35+50	1.79	1.79	2.92	4.50	2.67	11.00	11.20	0.58	3.33	4.14
	20+25+25+25	2.15	2.65	2.65	2.65	2.67	10.10	11.20	0.58	3.31	4.12
	20+25+25+35	2.15	2.65	2.65	3.50	2.67	10.95	11.20	0.58	3.31	4.12
	20+25+25+50	1.84	2.27	2.27	4.62	2.67	11.00	11.20	0.58	3.33	4.14
	20+25+35+35	2.00	2.47	3.26	3.26	2.67	11.00	11.20	0.58	3.31	4.12
	20+25+35+50	1.73	2.13	2.81	4.34	2.67	11.00	11.20	0.58	3.33	4.14
	20+35+35+35	1.87	3.04	3.04	3.04	2.67	11.00	11.20	0.58	3.31	4.12
	25+25+25+25	2.65	2.65	2.65	2.65	2.67	10.60	11.20	0.58	3.31	4.12
	25+25+25+35	2.55	2.55	2.55	3.36	2.67	11.00	11.20	0.58	3.31	4.12
	25+25+25+50	2.18	2.18	2.18	4.45	2.67	11.00	11.20	0.58	3.33	4.14
25+25+35+35	2.37	2.37	3.13	3.13	2.67	11.00	11.20	0.58	3.31	4.12	
25+35+35+35	2.22	2.93	2.93	2.93	2.67	11.00	11.20	0.58	3.31	4.12	



















# COMBINATIONS

OF INDOOR AND OUTDOOR UNITS

## COMBINATIONS WITH MUSE 120-5

### MUSE 120-5 OUTDOOR UNIT COMBINED WITH 1, 2, 3, 4, OR 5 UME/UCE/UGE/UCARE INDOOR UNITS

• COOLING MODE

	INDOOR/UCE/UGE/ UCARE UNIT	NOMINAL OUTPUT (KW) (NOM. COOLING)					TOTAL COOLING CAPACITY (KW)			TOTAL POWER CONSUMPTION (KW)			
		ROOM (A)	ROOM (B)	ROOM (C)	ROOM (D)	ROOM (E)	MIN.	NOMINAL	MAX.	MIN.	NOMINAL	MAX.	
 	MUSE 120-5 UME/UCE/UCARE	20	2.05	-	-	-	1.13	2.05	2.70	0.76	4.49	5.52	
		25	2.55	-	-	-	1.00	2.55	3.30	0.76	4.49	5.52	
		35	3.60	-	-	-	1.20	3.60	3.80	0.76	4.49	5.52	
		50	5.30	-	-	-	1.90	5.30	5.50	0.77	4.51	5.54	
 	MUSE 120-5 UME/UCE/UCARE	20 + 20	2.05	2.05	-	-	2.26	4.10	5.40	0.77	4.53	5.59	
		20 + 25	2.05	2.55	-	-	2.13	4.60	6.00	0.77	4.53	5.59	
		20 + 35	2.05	3.60	-	-	2.13	4.60	6.00	0.77	4.53	5.59	
		20 + 50	2.05	5.30	-	-	2.13	4.60	6.00	0.77	4.53	5.59	
		25 + 25	2.55	5.30	-	-	2.40	7.20	7.60	0.77	4.53	5.59	
		25 + 35	2.55	3.60	-	-	2.33	5.65	6.50	0.77	4.53	5.59	
		25 + 50	2.55	5.30	-	-	2.90	7.85	8.80	0.78	4.55	5.61	
		35 + 35	3.60	3.60	-	-	2.40	7.20	7.60	0.77	4.53	5.59	
		35 + 50	3.60	5.30	-	-	2.77	8.90	9.30	0.78	4.55	5.61	
		50 + 50	5.30	5.30	-	-	2.77	10.60	11.00	0.78	4.58	5.63	
 	MUSE 120-5 UME/UCE/UCARE	20 + 20 + 20	2.05	2.05	2.05	-	3.39	6.15	8.10	0.79	4.57	5.65	
		20 + 20 + 25	2.05	2.05	2.55	-	3.26	6.65	8.70	0.79	4.57	5.65	
		20 + 20 + 35	2.05	2.05	3.60	-	3.46	7.70	9.20	0.79	4.57	5.65	
		20 + 20 + 50	2.05	2.05	5.30	-	2.77	9.40	10.90	0.79	4.59	5.67	
		20 + 25 + 25	2.05	2.55	2.55	-	3.13	7.15	9.30	0.79	4.57	5.65	
		20 + 25 + 35	2.05	2.55	3.60	-	2.77	8.20	9.80	0.79	4.57	5.65	
		20 + 25 + 50	2.05	2.55	5.30	-	2.77	9.90	11.50	0.79	4.59	5.67	
		20 + 35 + 35	2.05	3.60	3.60	-	2.77	9.25	10.30	0.79	4.57	5.65	
		20 + 35 + 50	2.05	3.60	5.30	-	2.77	10.95	12.00	0.79	4.59	5.67	
		20 + 50 + 50	1.94	5.03	5.03	-	2.77	12.00	12.70	0.79	4.62	5.69	
 	MUSE 120-5 UME/UCE/UCARE	25 + 25 + 25	2.55	2.55	2.55	-	2.77	7.65	9.90	0.79	4.57	5.65	
		25 + 25 + 35	2.55	2.55	3.60	-	2.77	8.70	10.40	0.79	4.57	5.65	
		25 + 25 + 50	2.55	2.55	5.03	-	2.77	10.40	12.10	0.79	4.59	5.67	
		25 + 35 + 35	2.55	3.60	3.60	-	2.77	9.75	10.90	0.79	4.57	5.65	
		25 + 35 + 50	2.55	3.60	5.30	-	2.77	11.45	12.60	0.79	4.59	5.67	
		25 + 50 + 50	2.33	4.84	4.84	-	2.77	12.00	12.70	0.79	4.62	5.69	
		35 + 35 + 35	3.60	3.60	3.60	-	2.77	10.80	11.40	0.79	4.57	5.65	
		35 + 35 + 50	3.46	3.46	5.09	-	2.77	12.00	12.70	0.79	4.59	5.67	
		35 + 50 + 50	3.04	4.48	4.48	-	2.77	12.00	12.70	0.79	4.62	5.69	
		50 + 50 + 50	4.00	4.00	4.00	-	2.77	12.00	12.70	0.80	4.64	5.71	
 	MUSE 120-5 UME/UCE/UCARE	20+20+20+20	2.05	2.05	2.05	2.05	2.77	8.20	10.80	0.80	4.61	5.72	
		20+20+20+25	2.05	2.05	2.05	2.55	2.77	8.70	11.40	0.80	4.61	5.72	
		20+20+20+35	2.05	2.05	2.05	3.60	2.77	9.75	11.90	0.80	4.61	5.72	
		20+20+20+50	2.05	2.05	2.05	5.30	2.77	11.45	12.70	0.80	4.63	5.74	
		20+20+25+25	2.05	2.05	2.55	2.55	2.77	9.20	12.00	0.80	4.61	5.72	
		20+20+25+35	2.05	2.05	2.55	3.60	2.77	10.25	12.50	0.80	4.61	5.72	
		20+20+25+50	2.05	2.05	2.55	5.30	2.77	11.95	12.70	0.80	4.63	5.74	
		20+20+35+35	2.18	2.18	3.82	3.82	2.77	11.30	12.70	0.80	4.61	5.72	
		20+20+35+50	1.89	1.89	3.32	4.89	2.77	12.00	12.70	0.80	4.63	5.74	
		20+25+25+25	2.54	3.15	3.15	3.15	2.77	9.70	12.60	0.80	4.61	5.72	
 	MUSE 120-5 UME/UCE/UCARE	20+25+25+35	2.29	2.85	2.85	4.02	2.77	10.75	12.70	0.80	4.61	5.72	
		20+25+25+50	1.98	2.46	2.46	5.11	2.77	12.00	12.70	0.80	4.63	5.74	
		20+25+35+35	2.08	2.59	3.66	3.66	2.77	11.80	12.70	0.80	4.61	5.72	
		20+25+35+50	1.82	2.27	3.20	4.71	2.77	12.00	12.70	0.80	4.63	5.74	
		20+35+35+35	1.91	3.36	3.36	3.36	2.77	12.00	12.70	0.80	4.61	5.72	
		25+25+25+25	3.00	3.00	3.00	3.00	2.77	10.20	12.70	0.80	4.61	5.72	
		25+25+25+35	2.72	2.72	2.72	3.84	2.77	11.25	12.70	0.80	4.61	5.72	
		25+25+25+50	2.36	2.36	2.36	4.91	2.77	12.00	12.70	0.80	4.63	5.74	
		25+25+35+35	2.49	2.49	3.51	3.51	2.77	12.00	12.70	0.80	4.61	5.72	
		25+35+35+35	2.29	3.24	3.24	3.24	2.77	12.00	12.70	0.80	4.61	5.72	
 	MUSE 120-5 UME/UCE/UCARE	35+35+35+35	3.00	3.00	3.00	3.00	2.77	12.00	12.70	0.80	4.61	5.72	
		20+20+20+20+20	2.05	2.05	2.05	2.05	2.77	10.25	12.70	0.81	4.65	5.79	
		20+20+20+20+25	2.05	2.05	2.05	2.55	2.77	10.75	12.70	0.81	4.65	5.79	
		20+20+20+20+35	2.05	2.05	2.05	3.60	2.77	11.80	12.70	0.81	4.65	5.79	
		20+20+20+20+50	1.82	1.82	1.82	1.82	2.77	12.00	12.70	0.81	4.67	5.81	
		20+20+20+25+25	2.05	2.05	2.55	2.55	2.77	11.25	12.70	0.81	4.65	5.79	
		20+20+20+25+35	2.00	2.00	2.00	2.49	3.51	2.77	12.00	12.70	0.81	4.65	5.79
		20+20+20+25+50	1.76	1.76	1.76	2.19	4.54	2.77	12.00	12.70	0.81	4.67	5.81
		20+20+20+35+35	1.84	1.84	1.84	3.24	3.24	2.77	12.00	12.70	0.81	4.65	5.79
		20+20+20+35+50	1.63	1.63	1.63	2.87	4.23	2.77	12.00	12.70	0.81	4.67	5.81
 	MUSE 120-5 UME/UCE/UCARE	20+20+25+25+25	2.05	2.05	2.55	2.55	2.55	2.77	11.75	12.70	0.81	4.65	5.79
		20+20+25+25+35	1.92	1.92	2.39	2.39	3.38	2.77	12.00	12.70	0.81	4.65	5.79
		20+20+25+25+50	1.70	1.70	2.11	2.11	4.39	2.77	12.00	12.70	0.81	4.67	5.81
		20+20+25+35+35	1.78	1.78	2.21	3.12	3.12	2.77	12.00	12.70	0.81	4.65	5.79
		20+20+25+35+50	1.58	1.58	1.97	2.78	4.09	2.77	12.00	12.70	0.81	4.67	5.81
		20+20+35+35+35	1.65	1.65	2.90	2.90	2.90	2.77	12.00	12.70	0.81	4.65	5.79
		20+25+25+25+25	2.01	2.50	2.50	2.50	2.50	2.77	12.00	12.70	0.81	4.65	5.79
		20+25+25+25+35	1.85	2.30	2.30	2.30	3.25	2.77	12.00	12.70	0.81	4.65	5.79
		20+25+25+25+50	1.64	2.04	2.04	2.04	4.24	2.77	12.00	12.70	0.81	4.67	5.81
		20+25+25+35+35	1.71	2.13	2.13	3.01	3.01	2.77	12.00	12.70	0.81	4.65	5.79
 	MUSE 120-5 UME/UCE/UCARE	20+25+35+35+35	1.60	1.99	2.81	2.81	2.81	2.77	12.00	12.70	0.81	4.65	5.79
		25+25+25+25+25	2.40	2.40	2.40	2.40	2.40	2.77	12.00	12.70	0.81	0.20	0.34
		25+25+25+25+35	2.22	2.22	2.22	2.22	3.13	2.77	12.00	12.70	0.81	4.65	5.79
		25+25+25+25+50	1.97	1.97	1.97	1.97	4.10	2.77	12.00	12.70	0.81	4.67	5.81
		25+25+25+35+35	2.06	2.06	2.06	2.91	2.91	2.77	12.00	12.70	0.81	4.65	5.79
		25+25+35+35+35	1.92	1.92	2.72	2.72	2.72	2.77	12.00	12.70	0.81	4.65	5.79









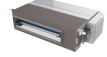




# COMBINATIONS

OF INDOOR AND OUTDOOR UNITS

## COMBINATIONS WITH MUSE 120-5 (CONTINUED)

### MUSE 120-5 OUTDOOR UNIT COMBINED WITH 1, 2, 3, 4, OR 5 UME/UCE/UGE/UCARE INDOOR UNITS

• HEATING MODE

MUSE 120-5	INDOOR/UCE/UGE/UCARE UNIT	NOMINAL OUTPUT (KW) (NOM. COOLING)					TOTAL COOLING CAPACITY (KW)			TOTAL POWER CONSUMPTION (KW)		
		ROOM (A)	ROOM (B)	ROOM (C)	ROOM (D)	ROOM (E)	MIN.	NOMINAL	MAX.	MIN.	NOMINAL	MAX.
		EASYLIFE										
 + 	20	2.15	-	-	-	-	1.13	2.05	2.70	0.76	4.49	5.52
	25	2.65	-	-	-	-	1.00	2.55	3.30	0.76	4.49	5.52
	35	3.70	-	-	-	-	1.20	3.60	3.80	0.76	4.49	5.52
	50	5.40	-	-	-	-	1.90	5.30	5.50	0.77	4.51	5.54
 + 	20 + 20	2.15	2.15	-	-	-	2.26	4.30	5.40	0.77	4.53	5.59
	20 + 25	2.15	2.65	-	-	-	2.13	4.80	6.00	0.77	4.53	5.59
	20 + 35	2.15	3.60	-	-	-	2.13	4.60	6.00	0.77	4.53	5.59
	20 + 50	2.15	3.60	-	-	-	2.03	4.60	6.00	0.77	4.53	5.59
	25 + 25	2.65	2.65	-	-	-	2.40	7.00	7.60	0.77	4.53	5.59
	25 + 35	2.65	3.50	-	-	-	2.33	5.65	6.50	0.77	4.53	5.59
	25 + 50	2.65	5.40	-	-	-	2.90	8.05	8.80	0.78	4.55	5.61
	35 + 35	3.50	3.50	-	-	-	2.40	7.00	7.60	0.77	4.53	5.59
	35 + 50	3.50	5.40	-	-	-	2.77	8.90	9.30	0.78	4.55	5.61
	50 + 50	5.40	5.40	-	-	-	2.77	10.80	11.00	0.78	4.58	5.63
 +  + 	20 + 20 + 20	2.15	2.15	2.15	-	-	3.39	6.45	8.10	0.79	4.57	5.65
	20 + 20 + 25	2.15	2.15	2.65	-	-	3.26	6.95	8.70	0.79	4.57	5.65
	20 + 20 + 35	2.15	2.15	3.50	-	-	3.46	7.80	9.20	0.79	4.57	5.65
	20 + 20 + 50	2.15	2.15	5.40	-	-	2.77	9.70	10.90	0.79	4.59	5.67
	20 + 25 + 25	2.15	2.65	2.55	-	-	3.13	7.45	9.30	0.79	4.57	5.65
	20 + 25 + 35	2.15	2.65	3.50	-	-	2.77	8.30	9.80	0.79	4.57	5.65
	20 + 25 + 50	2.15	2.65	5.40	-	-	2.77	10.20	11.50	0.79	4.59	5.67
	20 + 35 + 35	2.15	3.50	3.50	-	-	2.77	9.15	10.30	0.79	4.57	5.65
	20 + 35 + 50	2.15	3.50	5.40	-	-	2.77	11.05	12.00	0.79	4.59	5.67
	20 + 50 + 50	1.99	5.00	5.00	-	-	2.77	12.00	12.70	0.79	4.62	5.69
	25 + 25 + 25	2.65	2.65	2.65	-	-	2.77	7.95	9.90	0.79	4.57	5.65
	25 + 25 + 35	2.65	2.65	3.50	-	-	2.77	8.80	10.40	0.79	4.57	5.65
	25 + 25 + 50	2.65	2.65	5.40	-	-	2.77	10.70	12.10	0.79	4.59	5.67
	25 + 35 + 35	2.65	3.50	3.50	-	-	2.77	9.65	10.90	0.79	4.57	5.65
	25 + 35 + 50	2.65	3.50	5.40	-	-	2.77	11.55	12.60	0.79	4.59	5.67
	25 + 50 + 50	2.36	4.82	4.82	-	-	2.77	12.00	12.70	0.79	4.62	5.69
35 + 35 + 35	3.50	3.50	3.50	-	-	2.77	10.50	11.40	0.79	4.57	5.65	
35 + 35 + 50	3.39	3.39	5.23	-	-	2.77	12.00	12.70	0.79	4.59	5.67	
35 + 50 + 50	2.94	4.53	4.53	-	-	2.77	12.00	12.70	0.79	4.62	5.69	
50 + 50 + 50	4.00	4.00	4.00	-	-	2.77	12.00	12.70	0.80	4.64	5.71	
 +  +  + 	20+20+20+20	2.15	2.15	2.15	2.15	-	2.77	8.60	10.80	0.80	4.61	5.72
	20+20+20+25	2.15	2.15	2.15	2.65	-	2.77	9.10	11.40	0.80	4.61	5.72
	20+20+20+35	2.15	2.15	2.15	3.50	-	2.77	9.95	11.90	0.80	4.61	5.72
	20+20+20+50	2.15	2.15	2.15	5.40	-	2.77	11.85	12.70	0.80	4.63	5.74
	20+20+25+25	2.15	2.15	2.65	2.65	-	2.77	9.60	12.00	0.80	4.61	5.72
	20+20+25+35	2.15	2.15	2.65	3.50	-	2.77	10.45	12.50	0.80	4.61	5.72
	20+20+25+50	2.15	2.15	2.65	5.40	-	2.77	12.35	12.70	0.80	4.63	5.74
	20+20+35+35	2.15	2.15	3.50	3.50	-	2.77	11.30	12.70	0.80	4.61	5.72
	20+20+35+50	1.95	1.95	3.18	4.91	-	2.77	12.00	12.70	0.80	4.63	5.74
	20+25+25+25	2.15	2.65	2.65	2.65	-	2.77	10.10	12.70	0.80	4.61	5.72
	20+25+25+35	2.15	2.65	2.65	3.50	-	2.77	10.95	12.70	0.80	4.61	5.72
	20+25+25+50	2.01	2.47	2.47	5.04	-	2.77	12.00	12.70	0.80	4.63	5.74
	20+25+35+35	2.15	2.65	3.50	3.50	-	2.77	11.80	12.70	0.80	4.61	5.72
	20+25+35+50	1.88	2.32	3.07	4.73	-	2.77	12.00	12.70	0.80	4.63	5.74
	20+35+35+35	2.04	3.32	3.32	3.32	-	2.77	12.00	12.70	0.80	4.61	5.72
	25+25+25+25	2.65	2.65	2.65	2.65	-	2.77	10.60	12.70	0.80	4.61	5.72
	25+25+25+35	2.65	2.65	2.65	3.50	-	2.77	11.45	12.70	0.80	4.61	5.72
	25+25+25+50	2.38	2.38	2.38	4.85	-	2.77	12.00	12.70	0.80	4.63	5.74
	25+25+35+35	2.59	2.59	3.41	3.41	-	2.77	12.00	12.70	0.80	4.61	5.72
	25+35+35+35	2.42	3.19	3.19	3.19	-	2.77	12.00	12.70	0.80	4.61	5.72
35+35+35+35	3.00	3.00	3.00	3.00	-	2.77	12.00	12.70	0.80	4.61	5.72	
20+20+20+20+20	2.15	2.15	2.15	2.15	2.15	2.77	10.75	12.70	0.81	4.65	5.79	
20+20+20+20+25	2.15	2.15	2.15	2.15	2.65	2.77	11.25	12.70	0.81	4.65	5.79	
20+20+20+20+35	2.15	2.15	2.15	2.15	3.50	2.77	12.10	12.70	0.81	4.65	5.79	
20+20+20+20+50	1.84	1.84	1.84	1.84	4.63	2.77	12.00	12.70	0.81	4.67	5.81	
20+20+20+25+25	2.20	2.20	2.20	2.71	2.71	2.77	12.00	12.70	0.81	4.65	5.79	
20+20+20+25+35	2.05	2.05	2.05	2.52	3.33	2.77	12.00	12.70	0.81	4.65	5.79	
20+20+20+25+50	1.78	1.78	1.78	2.19	4.47	2.77	12.00	12.70	0.81	4.67	5.81	
20+20+20+35+35	1.92	1.92	1.92	3.12	3.12	2.77	12.00	12.70	0.81	4.65	5.79	
20+20+20+35+50	1.68	1.68	1.68	2.74	4.22	2.77	12.00	12.70	0.81	4.67	5.81	
20+20+25+25+25	2.15	2.15	2.65	2.65	2.65	2.77	12.25	12.70	0.81	4.65	5.79	
20+20+25+25+35	1.97	1.97	2.43	2.43	3.21	2.77	12.00	12.70	0.81	4.65	5.79	
20+20+25+25+50	1.72	1.72	2.12	2.12	4.32	2.77	12.00	12.70	0.81	4.67	5.81	
20+20+25+35+35	1.85	1.85	2.28	3.01	3.01	2.77	12.00	12.70	0.81	4.65	5.79	
20+20+25+35+50	1.63	1.63	2.01	2.65	4.09	2.77	12.00	12.70	0.81	4.67	5.81	
20+20+35+35+35	1.74	1.74	2.84	2.84	2.84	2.77	12.00	12.70	0.81	4.65	5.79	
20+25+25+25+25	2.02	2.49	2.49	2.49	2.49	2.77	12.00	12.70	0.81	4.65	5.79	
20+25+25+25+35	1.90	2.34	2.34	2.34	3.09	2.77	12.00	12.70	0.81	4.65	5.79	
20+25+25+25+50	1.66	2.05	2.05	2.05	4.18	2.77	12.00	12.70	0.81	4.67	5.81	
20+25+25+35+35	1.79	2.20	2.20	2.91	2.91	2.77	12.00	12.70	0.81	4.65	5.79	
20+25+25+35+50	1.69	2.08	2.75	2.75	2.75	2.77	12.00	12.70	0.81	4.65	5.79	
25+25+25+25+25	2.40	2.40	2.40	2.40	2.40	2.77	12.00	12.70	0.81	4.65	5.79	
25+25+25+25+35	2.26	2.26	2.26	2.26	2.98	2.77	12.00	12.70	0.81	4.65	5.79	
25+25+25+25+50	1.99	1.99	1.99	1.99	4.05	2.77	12.00	12.70	0.81	4.67	5.81	
25+25+25+35+35	2.13	2.13	2.13	2.81	2.81	2.77	12.00	12.70	0.81	4.65	5.79	
25+25+35+35+35	2.01	2.01	2.66	2.66	2.66	2.77	12.00	12.70	0.81	4.65	5.79	

# COMBINATIONS

OF INDOOR AND OUTDOOR UNITS

## CALCULATING THE OUTPUT OF INDOOR UNITS BASED ON THE COMBINATION

### • COOLING MODE

• multisplit CLIM'UP

COOLING CAPACITY MULTIPLICATION COEFFICIENT BASED ON VARIOUS INDOOR/OUTDOOR TEMPERATURES

INDOOR TEMPERATURE (°C)		OUTDOOR TEMPERATURE (°C)(DB)					
DB	WB	25	30	35	40	45	50
22	15	0.97	0.92	0.87	0.96	0.77	0.75
24	17	1.03	0.98	0.94	0.89	0.84	0.80
27	19	1.10	1.05	1	0.95	0.90	0.86
29	21	1.16	1.11	1.06	1.02	0.96	0.91
32	23	1.22	1.17	1.13	1.08	1.02	0.98

DB = dry bulb = very moist air/WB = wet bulb = very dry air  
 NOTE: These measurements are based on the unit's nominal output.

#### COOLING CAPACITY CALCULATION:

Cooling capacity = cooling capacity multiplication coefficient x nominal cooling capacity.

### • HEATING MODE

• multisplit CLIM'UP

HEATING CAPACITY MULTIPLICATION COEFFICIENT BASED ON VARIOUS INDOOR/OUTDOOR TEMPERATURES

OUTDOOR TEMPERATURE (°C)		INDOOR TEMPERATURE (°C)(DB)		
DB	WB	15	20	25
-15	-16	0.64	0.59	0.55
-10	-12	0.71	0.66	0.62
-7	-8	0.76	0.72	0.67
-1	-2	0.79	0.74	0.70
2	1	0.81	0.76	0.72
7	6	1.04	1	0.96
10	9	1.10	1.06	1.01
15	12	1.16	1.12	1.07

DB = dry bulb = very moist air/WB = wet bulb = very dry air  
 NOTE: These measurements are based on the unit's nominal output.

#### HEATING CAPACITY CALCULATION:

Heating capacity = heating capacity multiplication coefficient x nominal heating capacity.

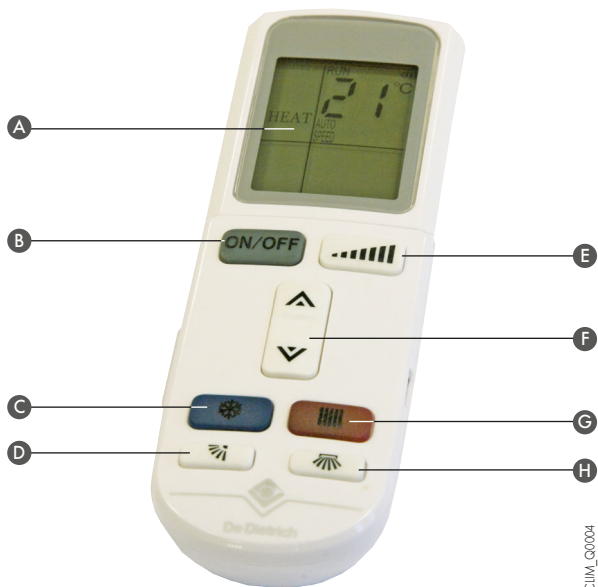
# OPTIONS

MONOSPLIT AND MULTISPLIT

## REMOTE CONTROLS

### INFRARED REMOTE CONTROL

Each monosplit unit is supplied with an infrared remote control to control the temperature, the supply air fan speed and the operating mode (heating or air conditioning). On the multisplit version, each unit is supplied with a remote control. The CLIM'UP can also be remotely controlled using the optional WiFi kit (package EH873 and EH987).



- A LCD display with operating statuses
- B On/Off
- C Air conditioning mode selection
- D Air flow up/down control
- E Ventilation control (air flow speed)
- F Temperature adjustment
- G Heating mode selection
- H Left to right air flow control

CLIM\_G0004

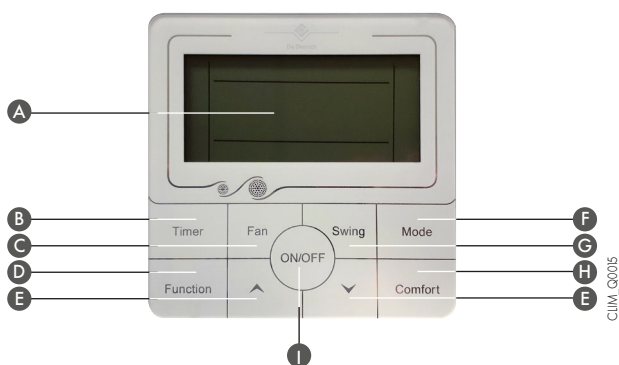
### remote control with open flap



Opening of the flap provides access to additional functions including: timer programming, different operating modes, etc.

CLIM\_G0005

### WIRED REMOTE CONTROL



- A Display
- B Programming
- C Fan speed control
- D Specific functions:
  - Turbo: high fan speed for quick cooling/heating
  - Sleep: "night" function based on the defined temperature curve
  - Eco
  - Anti-mould: once the system has shut down, the fan automatically dries out any moisture on the evaporator
- E Setting
- F Operating modes
- G Air shutter setting
- H Comfort mode
- I Starting/shutting down
- Light sensing: detects interior lighting to reduce the noise from the unit
- Cleaning: automatic evaporator cleaning

CLIM\_G0005

### rear view



A 5 m cable for connecting to the indoor unit is supplied with the remote control.

The connection is made as follows.

INDOOR UNIT	POSITION ON THE REMOTE CONTROL TERMINAL BLOCK
X1	12 V
X2	GND
X3	A
X4	B

CLIM\_G0002

# OPTIONS

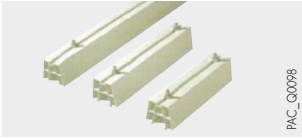
FOR THE OUTDOOR UNIT OF MONOSPLITS AND MULTISPLITS



PAC\_Q0032

## WALL MOUNTING SUPPORT FOR OUTDOOR UNITS + ANTI-VIBRATION MOUNTS - PACKAGE EH95

This kit is used to attach CLIM'UP outdoor units to the wall. It is equipped with anti-vibration mounts which reduce the transmission of vibrations to the ground.



PAC\_Q0098

## FLOOR MOUNTING SUPPORT - PACKAGE EH112

Tough, durable PVC support for mounting the outdoor unit on the ground. Bolts, washers and nuts are included for quick, easy installation.



PAC\_Q0120

## RUBBER FLOOR SUPPORT - PACKAGE EH879

Durable rubber support for mounting the outdoor unit on the ground.



PAC\_Q0097

## 1/4" - 3/8" REFRIGERATION CONNECTION KIT:

- LENGTH 5 m - PACKAGE EH569
- LENGTH 10 m - PACKAGE EH570
- LENGTH 20 m - PACKAGE EH589

## 1/4" - 5/8" PE REFRIGERATION CONNECTION KIT:

- LENGTH 20 m - PACKAGE EH890

High-quality insulated copper pipe limiting heat loss and condensation.



CLIM\_Q0005

## WIFI KIT - PACKAGE EH873

This kit should be installed in **wall-mounted** indoor units and enables control via a smartphone or tablet using the SMART CLIM app, which can be downloaded free from Google Play or App Store.



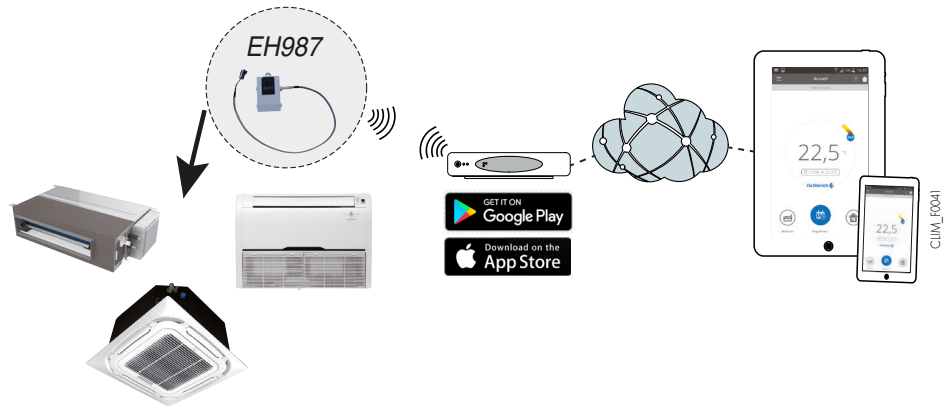
CLIM\_E0035



CLIM\_Q0005

## WIFI KIT - PACKAGE EH987

This kit should be installed in **console, cassette and ductable** indoor units. It enables control via a smartphone or tablet using the SMART CLIM app, which can be downloaded free from Google Play or App Store.



CLIM\_E0041



CLIM\_Q0015

## WIRED REMOTE CONTROL FOR CONSOLE UCE - REF. 7753086

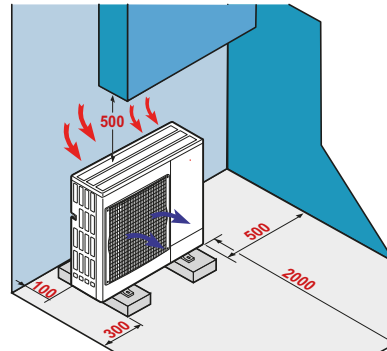
# INFORMATION REQUIRED

FOR INSTALLATION

## INSTALLING MUSE AND EMSM MOSE OUTDOOR UNITS

- The CLIM'UP outdoor unit is installed near to the home, on a patio, on a façade or in a garden. It is designed to operate in the rain but can also be installed under a ventilated cover.
- The outdoor unit must be installed in a location sheltered from prevailing winds, which can affect the performance of the installation.
- The unit should be positioned above the annual snowfall height in the region in which it is installed.
- The location for the outdoor unit should be chosen carefully to meet the environmental requirements: integration in the site, compliance with urban planning and co-ownership rules.
- There should be nothing obstructing the free circulation of air over the heat exchanger at the intake and outlet. A space should therefore be left around the appliance for the purposes of connection, commissioning and maintenance operations (see layout plans below).

minimum distances to be observed (mm)

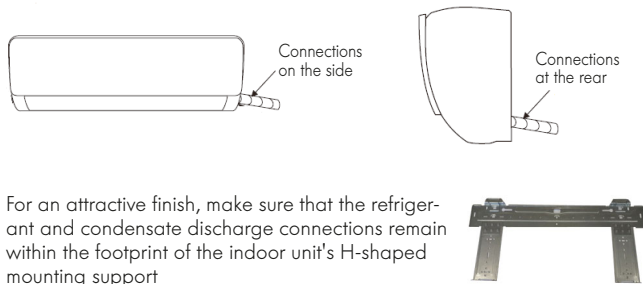


CLIM\_F0004

## INSTALLING THE UME WALL-MOUNTED INDOOR UNIT

### POSITIONING THE UME WALL-MOUNTED INDOOR UNIT

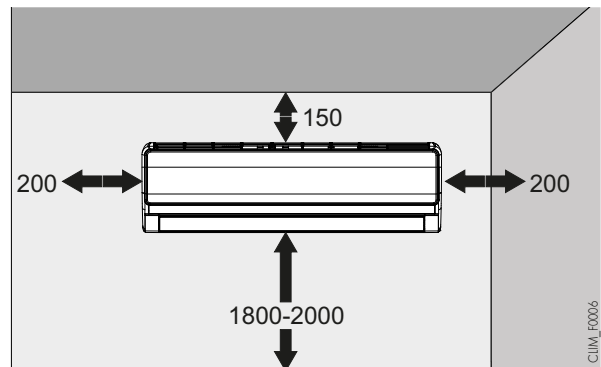
The UME 20/25/35/50/70 indoor unit for the CLIM'UP units is attached to the wall. The minimum distances to be observed during installation are shown in the figure below.



For an attractive finish, make sure that the refrigerant and condensate discharge connections remain within the footprint of the indoor unit's H-shaped mounting support



minimum distances to be observed (mm)



CLIM\_F0005

### AIR FLOW DISTANCES FOR UME INDOOR UNITS

The remote control can control the indoor unit up to a distance of 12 m in a free field, with the infrared remote control oriented towards the indoor unit. The air flow distance of the wall-mounted indoor unit is between 1 and 15 m.

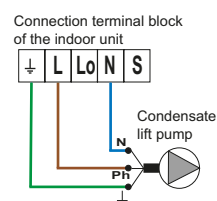


### CONNECTING A CONDENSATE LIFT PUMP

The UME indoor unit can be equipped with a condensate lift pump. The following point must be observed during connection:

1. The installation must comply with applicable standards.
2. The maximum current and output of each indoor unit must be respected.
3. Depending on the make or model, a protection device may be required on the condensate lift pump. (refer to the manufacturer's instructions and recommendations)

connecting the condensate lift pump to the indoor unit



CLIM\_F0003

# INFORMATION REQUIRED

FOR INSTALLATION

## INSTALLING THE UCE CONSOLE INDOOR UNITS

### POSITIONING THE UCE CONSOLE INDOOR UNITS

The UCE 25/35/50 console indoor unit can be installed on the ground or as a ceiling unit and attached to the wall. The minimum distances to be observed during installation are shown in the figure below.

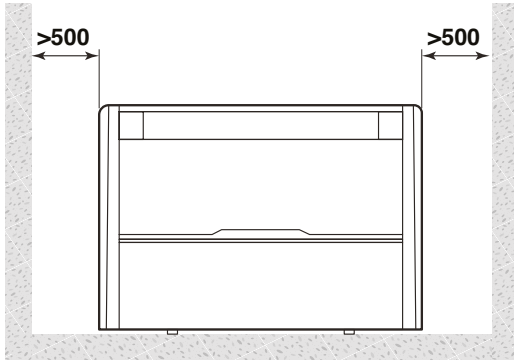


#### floor installation (mm)



CLIM\_Q0008

#### Front view (mm)



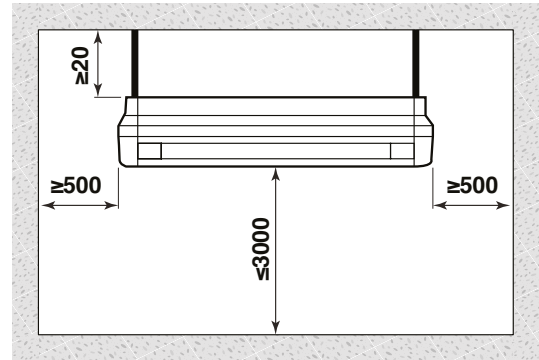
CLIM\_F0029

#### ceiling installation (mm)



CLIM\_Q0007

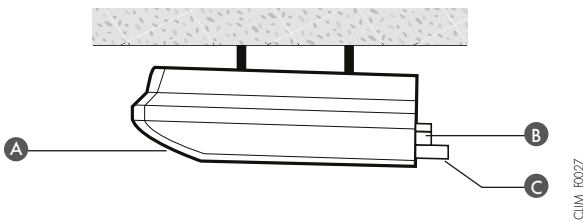
#### Front view (mm)



CLIM\_F0028

### AIR FLOW OF UCE INDOOR UNITS

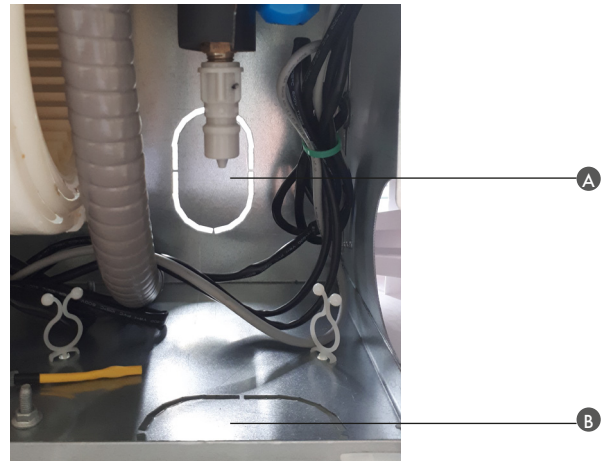
To ensure that the condensate is evacuated, it must be discharged towards the bottom of the unit once installation is complete. Make sure that the front panel is higher, otherwise a leak could occur via the air outlet.



CLIM\_F0027

- A Downward slope between 1 % and 2 %      C Condensate discharge pipes  
B Refrigerant pipes

### INTERNAL VIEW OF THE UCE UNIT



⚠ There are two ways to make the refrigerant connections on the UCE console:

- Route the refrigerant pipes behind the console (A). In this case, it is not possible to use the 1/2" - 3/8" adapter fitting supplied with the appliance (1). A smaller 1/2" - 3/8" connector must be used (e.g. 2 not supplied with the console)
- Route the refrigerant pipes at the base of the console (B). In this case, it is possible to use the 1/2" - 3/8" adapter fitting supplied with the appliance (1).



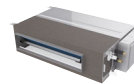
# INFORMATION REQUIRED

FOR INSTALLATION

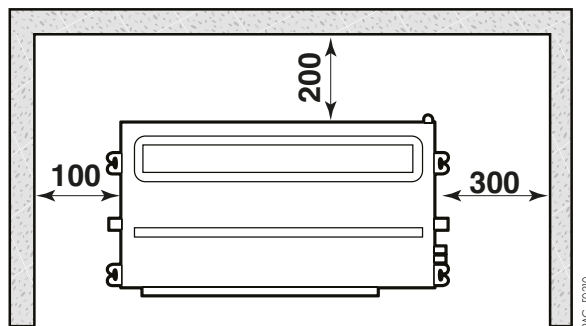
## INSTALLING UGE DUCTABLE INDOOR UNITS

### POSITIONING UGE DUCTABLE INDOOR UNITS

The UGE 25/35/50 ductable indoor unit is designed for installation in a loft or suspended ceiling. The minimum distances to be observed during installation are shown in the figure below.

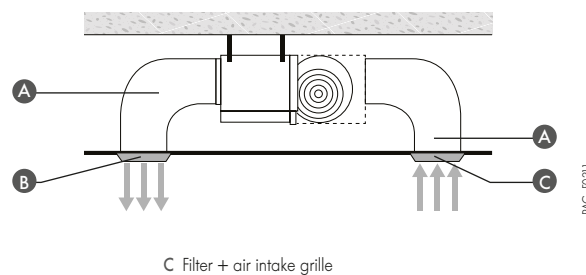
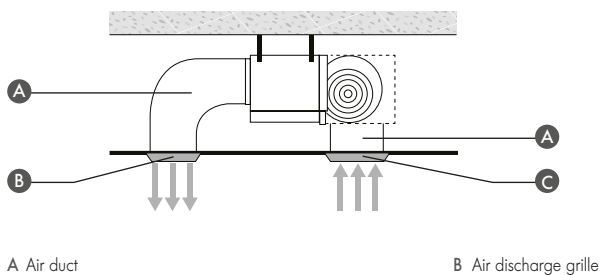


top view (mm)



### AIR FLOW OF UGE INDOOR UNITS

The UGE indoor unit can be installed in accordance with the following principles. To ensure that the condensate is evacuated, it must be discharged towards the bottom of the unit once installation is complete. The condensate pipe must slope downwards and be fitted with insulating material (rubber insulation thicker than 8 mm) to prevent the formation of condensation.



### CONDENSATE LIFT PUMP

The UGE indoor unit is equipped with a condensate lift pump. The following point must be observed during connection:

1. The installation must comply with applicable standards.
2. The maximum current and output of each indoor unit must be respected.
3. Depending on the make or model, a protection device may be required on the condensate lift pump. (refer to the manufacturer's instructions and recommendations)

# INFORMATION REQUIRED

FOR INSTALLATION

## AIR MIXING

Air mixing quality is an important parameter for user comfort. Mixing quality is defined by the mixing rate  $T_{xb}$ . The mixing rate  $T_{xb}$  represents the flow of air swept by the indoor unit divided by the volume of the air conditioned space.

$$T_{xb} = \frac{\text{air flow rate in m}^3/\text{h}}{\text{volume of the space in m}^3}$$

$T_{xb}$	COMFORT LEVEL
$T_{xb} < 10$	Discomfort caused by the air diffusion is very slight
$10 < T_{xb} < 15$	This is the case in premises with large internal spaces, where the air diffusion must be designed to prevent excessive discomfort for occupants
$15 < T_{xb}$	The swept air flow is significant compared to the volume of the space and there is a high risk of discomfort

For air conditioning, comfort is guaranteed for  $4 < T_{xb} < 10$ , and a  $T_{xb}$  of 5 is a good compromise.

## SIZING

For sizing of ducts, we recommend the use of our sizing tools available on the De Dietrich PRO website:

[http://pro.dedietrich-heating.com/int/site\\_pro/software/diemasoft/diematools\\_the\\_tool\\_box](http://pro.dedietrich-heating.com/int/site_pro/software/diemasoft/diematools_the_tool_box)

## ACOUSTIC COMFORT

For the purposes of acoustic comfort, the air speeds in the ducts must be limited:

- $< 5$  m/s in the main duct,
- $< 4$  m/s in the distribution duct,
- $< 2$  m/s at the ventilation outlets

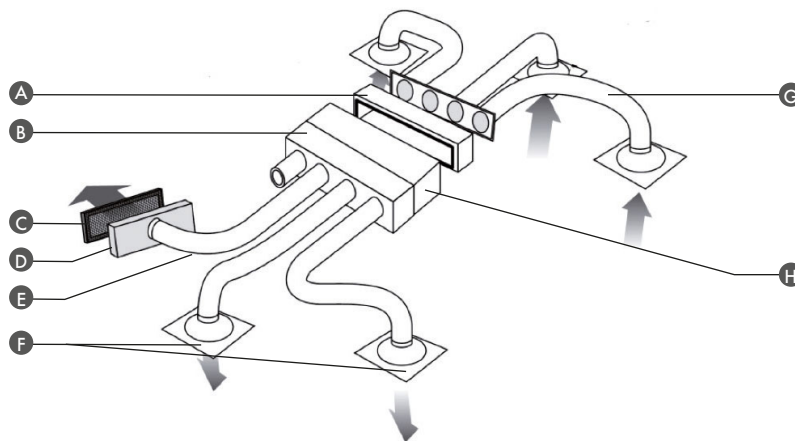
The pressure drops are calculated based on:

- the designed air duct network,
- the air flow rates to be used,
- the size constraints.

The pressure drops should be minimised. To do this, follow the rules below:

- limit the number of accidents (elbows, changes in cross-section, tapping, etc.),
- changes in cross-section should be gradual,
- all elbows are designed with a curve radius equal to at least one and a half times the diameter of the pipe,
- the recommended linear pressure drop is 0.7 Pa/m.

FLOW RATE (m <sup>3</sup> /H)	SPEED (m/S)	DIAMETER (mm) (CIRCULAR PIPES)	CROSS SECTION (mm x mm) (RECTANGULAR PIPES)
130	3	125	100 x 100
200	3	160	200 x 100
350	3.2	200	200 x 150
700	3.8	250	250 x 200
1200	4.6	315	300 x 300



A Return plenum  
B Supply plenum

C Supply grille  
D Diffuser plenum

E Flexible supply hose  
F Diffusers

G Flexible return hose  
H Indoor unit UGE

CLIM\_00016



# INFORMATION REQUIRED

FOR INSTALLATION

## ACOUSTIC COMFORT (CONTINUED)

The air flow rate in a duct is calculated as follows:

$$\text{Air speed in the duct (m/s)} = \frac{\text{Air flow rate in the duct (m}^3\text{/h)}}{\text{Pipe cross-section (m}^2\text{) x 3600}}$$

The table below uses the air flow rate required in the duct and the required air speed to determine the size of the pipe.

Air speed in the duct (m/s) based on the air flow rate at this speed for a given duct

DIAMETER (mm)	CROSS SECTION (m <sup>2</sup> )	2	3	4	5	6	7	8
80	0.005024	36	54	72	90	108	126	144
100	0.00785	56	84	113	141	169	197	226
125	0.01226563	88	132	176	220	264	309	353
160	0.020096	144	217	289	361	434	506	578
180	0.025434	183	274	366	457	549	640	732
200	0.0314	226	339	452	565	678	791	904
250	0.0490625	353	529	706	883	1059	1236	1413
315	0.07789163	560	841	1121	1402	1682	1962	2243
355	0.09892963	712	1068	1424	1780	2136	2493	2849
400	0.1256	904	1356	1808	2260	2712	3165	3617
450	0.1589625	1144	1716	2289	2861	3433	4005	4578
500	0.19625	1413	2119	2826	3532	4239	4945	5652
560	0.246179	1772	2658	3544	4431	5317	6203	7089
630	0.3115665	2243	3364	4486	5608	6729	7851	8973
710	0.3957185	2849	4273	5698	7122	8547	9972	11396

The supply air speed must make it possible to obtain low **residual speeds** in the occupancy zone (see image below). Based on the recommendations of the prevailing standards, the **residual speed (RS)** in the room must be between 0.12 and 0.25 m/s. The range of the air flow must have a terminal speed (TS) of between 0.25 and 0.5 m/s. The range of the air flow must not exceed the depth of the room under nominal operating conditions.



## DIFFERENCE BETWEEN THE SUPPLY AIR AND ROOM TEMPERATURE

In cooling mode: the supply air temperature is 10 to 13 °C, which creates a difference between the supply air and room temperature of 12 to 16 °C.

In heating mode: the difference between the supply air and room temperature may exceed 20 °C in mid-season or during very cold periods, when the output of the thermodynamic unit increases.

AIR DIFFUSION SYSTEM	TEMPERATURE DIFFERENCE (K)	
	COOLING SUPPLY AIR	HEATING SUPPLY AIR
Wall-mounted grilles	8	16
Linear outlets	10	16
Ceiling-mounted diffusers	11	16 to 26 with adjustable cones

# INFORMATION REQUIRED

FOR INSTALLATION

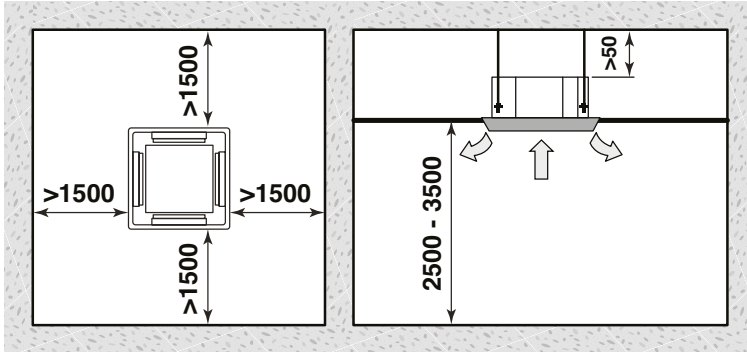
## INSTALLING THE UCARE CASSETTE INDOOR UNIT



### POSITIONING THE UCARE CASSETTE INDOOR UNIT

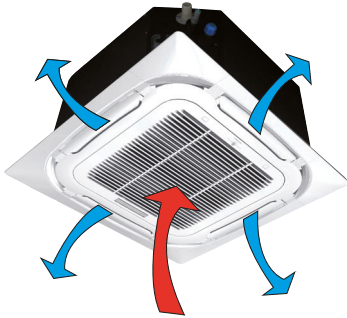
The UCARE 25/35/50 indoor unit cassette is designed for installation in a suspended ceiling. The minimum distances to be observed during installation are shown in the image below (in mm).

distance to be observed between the obstacles (mm)



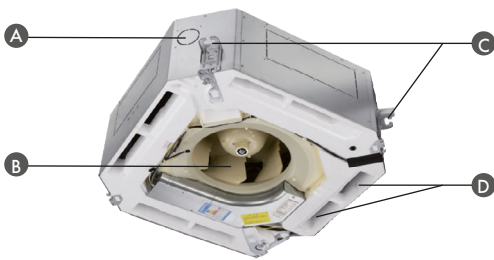
CLIM\_F0024

### AIR FLOW OF UCARE INDOOR UNITS



CLIM\_F0026

### CASSETTE WITHOUT AIR INLET GRILLE



CLIM\_Q0019

A Electrical connection box  
B Fan

C Suspension hook mounting points (x 4)  
D Air outlets (x 4)

### CONDENSATE LIFT PUMP

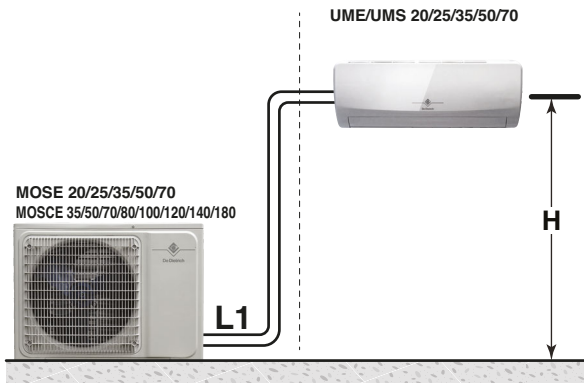
The UCARE indoor unit is equipped with a condensate lift pump. The following point must be observed during connection:

1. The installation must comply with applicable standards.
2. The maximum current and output of each indoor unit must be respected.
3. Depending on the make or model, a protection device may be required on the condensate lift pump. (refer to the manufacturer's instructions and recommendations)

# INFORMATION REQUIRED

FOR INSTALLATION

## MAXIMUM CONNECTION DISTANCES AND ADDITIONAL REFRIGERANT FLUID LOAD FOR CLIM'UP MONOSPLITS



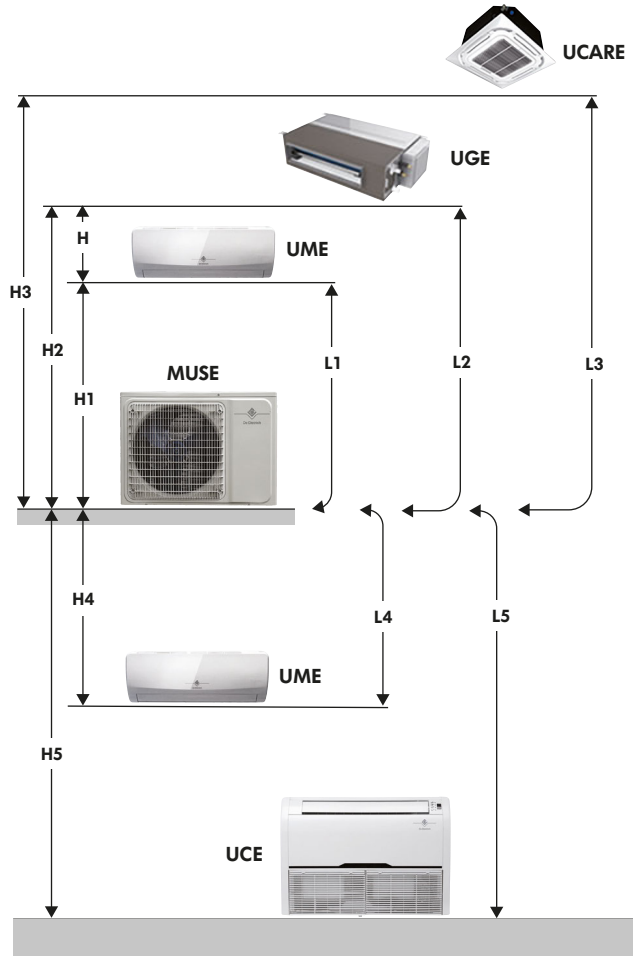
CLIM\_F0030

EMSM MONOSPLIT	UNIT		EMSM 20	EMSM 25	EMSM 35	EMSM 50	EMSM 70
Max. length (between IU/OU)	m	L1	20	20	20	25	25
Height difference (IU above or OU above)	m	H	10	10	10	15	15
Max. pre-charged length (between IU/OU)	m		7	7	7	7	7
Additional charge per metre of tubing	g/m		15	15	15	25	25

# INFORMATION REQUIRED

FOR INSTALLATION

## MAXIMUM CONNECTION DISTANCES AND ADDITIONAL REFRIGERANT FLUID LOAD FOR CLIM'UP MULTISPLITS



CLIM\_F0021

		MUSE 40-2	MUSE 50-2	MUSE 60-3	MUSE 80-3	MUSE 100-4	MUSE 125-5
Max. length between indoor and outdoor units.	L1, L2, L3, L4, L5 (m)	25	25	30	30	35	35
Max. height difference between indoor and outdoor units	H1, H2, H3, H4, H5 (m)	15	15	15	15	15	15
Max. total length between indoor and outdoor units	L1+L2+L3+L4+L5 (m)	40	40	60	60	80	80
Max. height difference between the indoor units	H (m)	10	10	10	10	10	10
Pre-charged length	D (m)	15	15	22.5	22.5	30	37.5
Length of the refrigerant connection	< D (m)	No additional load					
	> D (m)	An additional load is requested: 20 g/m x (length of the refrigerant connection (m) - P)					

# INFORMATION REQUIRED

FOR INSTALLATION

## REFRIGERANT CONNECTION

Commissioning CLIM'UP heat pumps involves operations on the refrigerant circuit.

The appliances must be installed, commissioned, maintained and repaired by qualified, authorised personnel in accordance with the requirements of directives, laws, applicable regulations and good industry practice. See also the "General information" leaflet.



### 1/2" - 3/8" ADAPTER FOR REFRIGERANT CIRCUIT (GAS line)

## MUSE OUTDOOR MODULES

The polystyrene shim on the outdoor unit includes a 12.7 mm (1/2") x 9.52 mm (3/8") adapter that can be used to connect an indoor unit with a 1/2" connection (largest pipe - gas refrigerant line) to the outdoor unit with a 3/8" connection. The delivery details are shown in the table below.

MULTISPLIT OUTDOOR UNITS	REFRIGERANT CONNECTIONS ON MUSE:	ADAPTER
MUSE 40-2	2 x 1/4" - 3/8"	—
MUSE 50-2	2 x 1/4" - 3/8"	—
MUSE 60-3	3 x 1/4" - 3/8"	1 supplied
MUSE 80-3	3 x 1/4" - 3/8"	1 supplied
MUSE 100-4	4 x 1/4" - 3/8"	2 supplied
MUSE 120-5	5 x 1/4" - 3/8"	3 supplied

## INDOOR UNITS

Console, ductable and cassette indoor units are supplied with a 1/2" - 3/8" adapter. Wall-mounted units do not require an adapter. The polystyrene shim on the outdoor unit includes a 12.7 mm (1/2") x 9.52 mm (3/8") adapter that can be used to connect an indoor unit with a 1/2" connection (largest pipe - gas refrigerant line) to the outdoor unit with a 3/8" connection.

MULTISPLIT INDOOR UNITS	REFRIGERANT CONNECTIONS	ADAPTER
<b>WALL-MOUNTED</b>		
UME 20/35/35	1/4" - 3/8"	—
UME 50	1/4" - 1/2"	- *
<b>CONSOLES</b>		
UCE 25/35/50	1/4" - 1/2"	1 supplied
<b>DUCTABLE</b>		
UGE 25/35/50	1/4" - 1/2"	1 supplied
<b>CASSETTES</b>		
UCARE 25/35/50	1/4" - 1/2"	1 supplied

\* Adapter available with the MUSE outdoor unit.

## NOTE

for Clim'up Monosplits, refer to the table of characteristics for the different models:

- p5 for EMSM

for the dimensions of the refrigerant connections.

# INFORMATION REQUIRED

FOR INSTALLATION

## ELECTRICAL CONNECTION

The heat pumps must be electrically installed in accordance with good industry practice, applicable standards, decrees and associated texts, in particular standard NFC 15 100.

### RECOMMENDATION ON CABLE CROSS-SECTIONS AND CIRCUIT BREAKERS TO BE USED

	MUSE	40-2	50-2	60-3	80-3	100-4	120-5
Voltage / frequency	V/Hz	220-240/50	220-240/50	220-240/50	220-240/50	220-240/50	220-240/50
Nominal current in cooling mode	A	5.4	7.6	8.3	10.7	18.7	20.6
Maximum current	A	10	11	13	16	22.5	24.5
Power cable cross-section	mm <sup>2</sup>	3G1.5	3G1.5	3G1.5	3G2.5	3G4.0	3G4.0
Circuit breaker		C16A	C16A	C16A	C20A	C25A	C25A
Cross-section of cable connecting the indoor and outdoor units	mm <sup>2</sup>	4G1.5	4G1.5	4G1.5	4G1.5	4G1.5	4G1.5

	MOSE	20	25	35	50	70
Voltage / frequency	V/Hz	220-240/50	220-240/50	220-240/50	220-240/50	220-240/50
Nominal current in cooling mode	A	3.00	3.40	4.90	7.36	10.30
Maximum current	A	8	8	9.5	12	16
Power cable cross-section	mm <sup>2</sup>	3G1.5	3G1.5	3G1.5	3G1.5	3G2.5
Circuit breaker		C16A	C16A	C16A	C16A	C20A
Cross-section of cable connecting the indoor and outdoor units	mm <sup>2</sup>	5G1.5	5G1.5	5G1.5	5G1.5	5G2.5

## ACOUSTIC INTEGRATION OF HEAT PUMPS

### DEFINITIONS

The acoustic performance levels of the outdoor units are defined by the following two values:

**The sound power L<sub>w</sub> expressed in dB[A]:** it characterises the sound emission capacity of the source, independently of its environment. It allows the appliances to be compared.

**The acoustic pressure L<sub>p</sub> expressed in dB[A]:** this is the value perceived by the human ear, and depends on parameters including the distance from the source and the size and type of walls in the room. The regulations are based on this value.

### NOISE NUISANCE

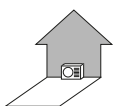
Regulations concerning neighbourhood noise can be found in your prevailing standards. Noise nuisance is defined by the emergence, which is the difference between the sound pressure level measured when the appliance is switched off and the level measured when the appliance is operating in the same location.

The maximum authorised difference is:

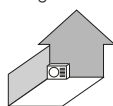
- day (7 am - 10 pm): 5 dB[A]
- night (10 pm - 7 am): 3 dB[A]

### RECOMMENDATIONS FOR ACOUSTIC INTEGRATION OF THE OUTDOOR MODULE

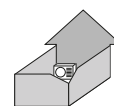
- Do not place it close to where people sleep,
  - Avoid placing it close to a terrace, and do not install the module opposite a wall.
- The increase in the noise level due to the installation configuration is shown in the diagrams below:



- Module positioned against a wall: + 3 dB[A]



- Module positioned in a corner: + 6 dB[A]



- Module positioned in an inner courtyard: + 9 dB[A]

- the layouts shown below are forbidden:



- Ventilation directed towards the neighbouring property



- Module positioned at the edge of the property



- Module positioned under a window

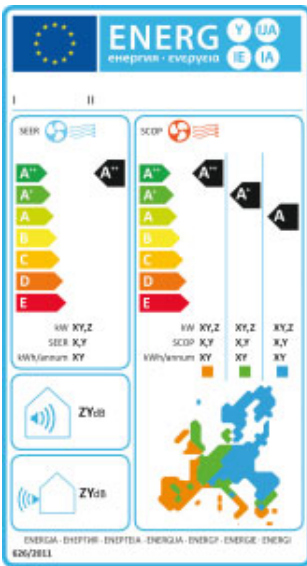
- To limit noise nuisance and the transmission of vibrations, we recommend:
  - installing the outdoor module on a metal frame or an inertia base. This base must weigh at least twice as much as the module, and it must be separate from the building. In all cases, anti-vibration mounts must be installed to reduce the transmission of vibrations.
  - The use of suitable sleeves for routing refrigerant connections through walls,
  - The use of flexible, anti-vibration materials for mountings,
  - The installation on refrigerant connections of vibration damping devices such as loops, bends or elbows.
- It is also recommended to install an acoustic attenuation device, for example:
  - sound-absorbent wall material to be installed on the wall behind the module,
  - a sound barrier: the surface of the barrier must be larger than the outdoor module and positioned as close as possible to it, while allowing air to circulate freely. The barrier must be made from a suitable material such as acoustic bricks, concrete blocks covered with absorbent material. It is also possible to use natural barriers, such as banks of earth.

HPL\_F0029

HPL\_F0029

# SYSTEM ENERGY LABEL

## REFERENCE SCALE FOR THE SYSTEM ENERGY LABEL



To allow the product and its energy performance to be positioned, the scale opposite is valid for the CLIM'UP products system energy label (the generator's scale for outside the system would be A++ to E for heating and air conditioning).



BDR THERMEA France  
S.A.S. with corporate capital of 229 288 696 €  
57, rue de la Gare - F - 67580 Mertzwiller  
Tel. +33 3 88 80 27 00 - Fax +33 3 88 80 27 99  
[www.dedietrich-heating.com](http://www.dedietrich-heating.com)