



Product manual

# Air curtains

**GRAND-EC**

Air distribution

Version 1.0.1  
Date: 13.05.2025

# GRAND-EC

- Lengths: 1; 1.5; 2 and 2.5 m
- **Air flow up to 5090 m³/h** (ISO 27 327-1)
- Very low noise level
- FACE <sup>2 in 1</sup> – suction grille + filter = 2 in 1
- Universal interface for AirGENIO control module connection (BA, CO, SU)
- Easy installation and service
- Standard colour RAL 9016 (any RAL – based colours may be provided on customer's request)

The **GRAND-EC** is an extraordinary high-performance and visually attractive comfortable air curtain for use in representative premises, such as **banks, luxury shops, shopping centres, airports and administrative buildings** with a recommended installation height up to 5 m. The air curtain shall be installed indoor in a dry area with ambient temperatures ranging from 0 °C up to +35 °C and relative humidity of up to 80 %. It is designed for conveying air free of rough dust, grease, chemical fumes, and other impurities. IP rating of the air curtain is IP 20. **The air curtain project shall always be developed by the HVAC designer.**



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## PRODUCT OVERVIEW

-  air-only
-  water heater
-  electric wire heater

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PRIMARY PARAMETERS

Air curtains with electric heater are fitted with automatic heat thermostat and emergency thermostat with manual reset. Air curtains with LPHW coil are designed for the maximum operating water temperature of +100 °C and maximum operating pressure of 1.6 MPa.

| Type               | Recommended installation height [m] | Air output [m3/h] *1 |      |      |      |      |
|--------------------|-------------------------------------|----------------------|------|------|------|------|
|                    |                                     | 100%                 | 80%  | 60%  | 40%  | 20%  |
| GRAND-40-10-N-EC   | 4,0                                 | 1900                 | 1750 | 1600 | 1350 | 950  |
| GRAND-40-15-N-EC   |                                     | 2800                 | 2650 | 2380 | 2000 | 1450 |
| GRAND-40-20-N-EC   |                                     | 3800                 | 3570 | 3200 | 2750 | 1950 |
| GRAND-40-25-N-EC   |                                     | 4700                 | 4470 | 4000 | 3400 | 2400 |
| GRAND-40-10-E10-EC |                                     | 1900                 | 1750 | 1600 | 1350 | 950  |
| GRAND-40-15-E15-EC |                                     | 2800                 | 2650 | 2380 | 2000 | 1450 |
| GRAND-40-20-E19-EC |                                     | 3800                 | 3570 | 3200 | 2750 | 1950 |
| GRAND-40-25-E25-EC |                                     | 4700                 | 4470 | 4000 | 3400 | 2400 |
| GRAND-40-10-W-EC   |                                     | 1850                 | 1700 | 1550 | 1300 | 900  |
| GRAND-40-15-W-EC   |                                     | 2700                 | 2500 | 2270 | 1920 | 1400 |
| GRAND-40-20-W-EC   |                                     | 3700                 | 3470 | 3140 | 2650 | 1900 |
| GRAND-40-25-W-EC   |                                     | 4500                 | 4200 | 3800 | 3200 | 2330 |
| GRAND-50-10-N-EC   | 5,0                                 | 2550                 | 2400 | 2150 | 1800 | 1270 |
| GRAND-50-15-N-EC   |                                     | 3650                 | 3400 | 3100 | 2600 | 1850 |
| GRAND-50-20-N-EC   |                                     | 4650                 | 4350 | 3900 | 3300 | 2400 |
| GRAND-50-25-N-EC   |                                     | 6400                 | 6000 | 5350 | 4500 | 3150 |
| GRAND-50-10-E10-EC |                                     | 2550                 | 2400 | 2150 | 1800 | 1270 |
| GRAND-50-15-E15-EC |                                     | 3650                 | 3400 | 3100 | 2600 | 1850 |
| GRAND-50-20-E19-EC |                                     | 4650                 | 4350 | 3900 | 3300 | 2400 |
| GRAND-50-25-E25-EC |                                     | 6400                 | 6000 | 5350 | 4500 | 3150 |
| GRAND-50-10-W-EC   |                                     | 2450                 | 2300 | 2050 | 1750 | 1200 |
| GRAND-50-15-W-EC   |                                     | 3500                 | 3250 | 2900 | 2400 | 1800 |
| GRAND-50-20-W-EC   |                                     | 4550                 | 4150 | 3700 | 3150 | 2250 |
| GRAND-50-25-W-EC   |                                     | 5900                 | 5500 | 4950 | 4200 | 2850 |

\*1 Airflow volume according ISO27327-1  
\*2 Acoustic pressure values at 3 m distance for maximum speed.  
Directional factor: Q=2.  
\*3 Sound power (LWA) measurements according to ISO 27327-2.

| Type               | Sound power [dB(A)]*1 |     |     |     |     | Acoustic pressure at 3 m [dB(A)]*2 |     |     |     |     |
|--------------------|-----------------------|-----|-----|-----|-----|------------------------------------|-----|-----|-----|-----|
|                    | Fan speed             |     |     |     |     |                                    |     |     |     |     |
|                    | 100%                  | 80% | 60% | 40% | 20% | 100%                               | 80% | 60% | 40% | 20% |
| GRAND-40-10-N-EC   | 75                    | 73  | 71  | 68  | 64  | 53                                 | 52  | 50  | 47  | 42  |
| GRAND-40-15-N-EC   | 76                    | 74  | 72  | 69  | 60  | 54                                 | 53  | 50  | 47  | 38  |
| GRAND-40-20-N-EC   | 78                    | 76  | 74  | 70  | 62  | 56                                 | 55  | 52  | 48  | 40  |
| GRAND-40-25-N-EC   | 80                    | 78  | 75  | 72  | 63  | 58                                 | 56  | 53  | 50  | 41  |
| GRAND-40-10-E10-EC | 75                    | 73  | 71  | 68  | 64  | 53                                 | 52  | 50  | 47  | 42  |
| GRAND-40-15-E15-EC | 76                    | 74  | 72  | 69  | 60  | 54                                 | 53  | 50  | 47  | 38  |
| GRAND-40-20-E19-EC | 78                    | 76  | 74  | 70  | 62  | 56                                 | 55  | 52  | 48  | 40  |
| GRAND-40-25-E25-EC | 80                    | 78  | 75  | 72  | 63  | 58                                 | 56  | 53  | 50  | 41  |
| GRAND-40-10-W-EC   | 74                    | 73  | 71  | 68  | 63  | 53                                 | 51  | 50  | 47  | 42  |
| GRAND-40-15-W-EC   | 76                    | 74  | 73  | 69  | 60  | 55                                 | 53  | 51  | 47  | 38  |
| GRAND-40-20-W-EC   | 77                    | 76  | 73  | 70  | 61  | 56                                 | 54  | 52  | 48  | 40  |
| GRAND-40-25-W-EC   | 79                    | 77  | 75  | 71  | 62  | 57                                 | 55  | 53  | 49  | 40  |
| GRAND-50-10-N-EC   | 77                    | 75  | 73  | 69  | 61  | 56                                 | 54  | 51  | 47  | 39  |
| GRAND-50-15-N-EC   | 78                    | 77  | 76  | 71  | 65  | 57                                 | 55  | 54  | 50  | 43  |
| GRAND-50-20-N-EC   | 80                    | 78  | 76  | 73  | 68  | 58                                 | 57  | 54  | 51  | 46  |
| GRAND-50-25-N-EC   | 81                    | 79  | 77  | 73  | 64  | 59                                 | 57  | 55  | 51  | 42  |
| GRAND-50-10-E10-EC | 77                    | 75  | 73  | 69  | 61  | 56                                 | 54  | 51  | 47  | 39  |
| GRAND-50-15-E15-EC | 78                    | 77  | 76  | 71  | 65  | 57                                 | 55  | 54  | 50  | 43  |
| GRAND-50-20-E19-EC | 80                    | 78  | 76  | 73  | 68  | 58                                 | 57  | 54  | 51  | 46  |
| GRAND-50-25-E25-EC | 81                    | 79  | 77  | 73  | 64  | 59                                 | 57  | 55  | 51  | 42  |
| GRAND-50-10-W-EC   | 78                    | 77  | 76  | 75  | 63  | 57                                 | 56  | 55  | 53  | 42  |
| GRAND-50-15-W-EC   | 78                    | 77  | 75  | 72  | 65  | 57                                 | 56  | 54  | 51  | 43  |
| GRAND-50-20-W-EC   | 79                    | 77  | 76  | 73  | 67  | 58                                 | 56  | 54  | 51  | 46  |
| GRAND-50-25-W-EC   | 80                    | 78  | 76  | 72  | 64  | 58                                 | 56  | 54  | 50  | 42  |

\*1 Sound power (LWA) measurements according to ISO 27327-2.  
\*2 Acoustic pressure values at 3 m distance for maximum speed. Directional factor: Q=2.

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| Type               | Heater power output [kW] |           | Total power input [kW] | Total voltage/ current [V/A] | Motors voltage/ current [V/A] | Temperature increase Δt [°C] | Frequency [Hz] | Weight [kg] <sup>1</sup> |
|--------------------|--------------------------|-----------|------------------------|------------------------------|-------------------------------|------------------------------|----------------|--------------------------|
|                    | 1st level                | 2st level |                        |                              |                               |                              |                |                          |
| GRAND-40-10-N-EC   | -                        | -         | 0,34                   | 230/2,4                      | 230/2,4                       | -                            | 50/60          | 38                       |
| GRAND-40-15-N-EC   | -                        | -         | 0,5                    | 230/3,4                      | 230/3,4                       | -                            | 50/60          | 53                       |
| GRAND-40-20-N-EC   | -                        | -         | 0,68                   | 230/4,4                      | 230/4,4                       | -                            | 50/60          | 68                       |
| GRAND-40-25-N-EC   | -                        | -         | 0,85                   | 230/5,4                      | 230/5,4                       | -                            | 50/60          | 83                       |
| GRAND-40-10-E10-EC | 4,6                      | 9,4       | 9,74                   | 400/16                       | 230/2,4                       | 14,7                         | 50/60          | 42                       |
| GRAND-40-15-E15-EC | 7,6                      | 15        | 15,5                   | 400/25,1                     | 230/3,4                       | 16                           | 50/60          | 57                       |
| GRAND-40-20-E19-EC | 9,8                      | 19        | 19,68                  | 400/31,9                     | 230/4,4                       | 14,9                         | 50/60          | 73                       |
| GRAND-40-25-E25-EC | 12,5                     | 24,5      | 25,35                  | 400/40,8                     | 230/5,4                       | 15,5                         | 50/60          | 89                       |
| GRAND-40-10-W-EC   | -                        | -         | 0,34                   | 230/2,4                      | 230/2,4                       | 6,1 <sup>2</sup>             | 50/60          | 44                       |
| GRAND-40-15-W-EC   | -                        | -         | 0,5                    | 230/3,4                      | 230/3,4                       | 17,1 <sup>2</sup>            | 50/60          | 59                       |
| GRAND-40-20-W-EC   | -                        | -         | 0,68                   | 230/4,4                      | 230/4,4                       | 31,4 <sup>2</sup>            | 50/60          | 75                       |
| GRAND-40-25-W-EC   | -                        | -         | 0,85                   | 230/5,4                      | 230/5,4                       | 43 <sup>2</sup>              | 50/60          | 87                       |
| GRAND-50-10-N-EC   | -                        | -         | 0,50                   | 230/3,3                      | 230/3,3                       | -                            | 50/60          | 42                       |
| GRAND-50-15-N-EC   | -                        | -         | 0,68                   | 230/4,5                      | 230/4,5                       | -                            | 50/60          | 57                       |
| GRAND-50-20-N-EC   | -                        | -         | 0,84                   | 230/5,3                      | 230/5,3                       | -                            | 50/60          | 71                       |
| GRAND-50-25-N-EC   | -                        | -         | 1,20                   | 230/7,2                      | 230/7,2                       | -                            | 50/60          | 89                       |
| GRAND-50-10-E10-EC | 4,6                      | 9,4       | 9,9                    | 400/16,9                     | 230/3,3                       | 11,6                         | 50/60          | 47                       |
| GRAND-50-15-E15-EC | 7,6                      | 15        | 15,68                  | 400/21,2                     | 230/4,5                       | 12,3                         | 50/60          | 61                       |
| GRAND-50-20-E19-EC | 9,8                      | 19        | 19,84                  | 400/32,8                     | 230/5,3                       | 10                           | 50/60          | 77                       |
| GRAND-50-25-E25-EC | 12,5                     | 24,5      | 25,7                   | 400/42,6                     | 230/7,2                       | 11,4                         | 50/60          | 101                      |
| GRAND-50-10-W-EC   | -                        | -         | 0,50                   | 230/3,3                      | 230/3,3                       | 34,5                         | 50/60          | 49                       |
| GRAND-50-15-W-EC   | -                        | -         | 0,68                   | 230/4,5                      | 230/4,5                       | 34,7                         | 50/60          | 63                       |
| GRAND-50-20-W-EC   | -                        | -         | 0,84                   | 230/5,3                      | 230/5,3                       | 36,7                         | 50/60          | 79                       |
| GRAND-50-25-W-EC   | -                        | -         | 1,20                   | 230/7,2                      | 230/7,2                       | 36,1                         | 50/60          | 99                       |

<sup>1</sup> At the maximum air flow and maximum heater power  
<sup>2</sup> Intake air temperature +18°C, water temperature gradient of 90/70 °C and highest fan speed.  
<sup>3</sup> Intake air temperature +18°C, water temperature gradient of 40/30 °C and highest fan speed.  
<sup>4</sup> Weight without controls.

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LPHW coil parameters for water temperature gradient 90 / 70 °C

| Type             | Air output | Heat output | Temperature at exhaust | Pressure loss | Water flow |
|------------------|------------|-------------|------------------------|---------------|------------|
|                  | [m³/h]     | [kW]        | [°C]                   | [kPa]         | [l/s]      |
| GRAND-40-10-W-EC | 1850       | 24,1        | 56,6                   | 8,2           | 0,30       |
| GRAND-40-15-W-EC | 2700       | 35,1        | 56,5                   | 5,5           | 0,43       |
| GRAND-40-20-W-EC | 3700       | 49,4        | 57,6                   | 11,6          | 0,61       |
| GRAND-40-25-W-EC | 4500       | 61          | 58,1                   | 18,4          | 0,75       |
| GRAND-50-10-W-EC | 2450       | 28,5        | 52,5                   | 11,3          | 0,35       |
| GRAND-50-15-W-EC | 3500       | 41,0        | 52,7                   | 7,5           | 0,51       |
| GRAND-50-20-W-EC | 4450       | 55,8        | 54,7                   | 14,6          | 0,69       |
| GRAND-50-25-W-EC | 5900       | 72,0        | 54,1                   | 25,3          | 0,89       |

\* Temperature of intake air: +18 °C

LPHW coil parameters for water temperature gradient 80 / 60 °C

| Type             | Air output | Heat output | Temperature at exhaust | Pressure loss | Water flow |
|------------------|------------|-------------|------------------------|---------------|------------|
|                  | [m³/h]     | [kW]        | [°C]                   | [kPa]         | [l/s]      |
| GRAND-40-10-W-EC | 1850       | 19,7        | 49,5                   | 5,7           | 0,24       |
| GRAND-40-15-W-EC | 2700       | 28,5        | 49,2                   | 3,8           | 0,35       |
| GRAND-40-20-W-EC | 3700       | 40,5        | 50,4                   | 8,1           | 0,50       |
| GRAND-40-25-W-EC | 4500       | 50,2        | 51,0                   | 12,9          | 0,62       |
| GRAND-50-10-W-EC | 2450       | 23,3        | 46,1                   | 7,8           | 0,29       |
| GRAND-50-15-W-EC | 3500       | 33,2        | 46,1                   | 5,0           | 0,41       |
| GRAND-50-20-W-EC | 4450       | 45,6        | 48,0                   | 10,1          | 0,56       |
| GRAND-50-25-W-EC | 5900       | 59,1        | 47,7                   | 17,6          | 0,73       |

\* Temperature of intake air: +18 °C

LPHW coil parameters for water temperature gradient 70 / 50 °C

| Type             | Air output | Heat output | Temperature at exhaust | Pressure loss | Water flow |
|------------------|------------|-------------|------------------------|---------------|------------|
|                  | [m³/h]     | [kW]        | [°C]                   | [kPa]         | [l/s]      |
| GRAND-40-10-W-EC | 1850       | 15,3        | 42,4                   | 3,6           | 0,19       |
| GRAND-40-15-W-EC | 2700       | 21,8        | 41,9                   | 2,3           | 0,27       |
| GRAND-40-20-W-EC | 3700       | 31,5        | 43,2                   | 5,1           | 0,38       |
| GRAND-40-25-W-EC | 4500       | 39,3        | 43,9                   | 8,2           | 0,48       |
| GRAND-50-10-W-EC | 2450       | 18,0        | 39,7                   | 4,9           | 0,22       |
| GRAND-50-15-W-EC | 3500       | 25,4        | 39,5                   | 3,1           | 0,31       |
| GRAND-50-20-W-EC | 4450       | 35,3        | 41,3                   | 6,3           | 0,43       |
| GRAND-50-25-W-EC | 5900       | 46,1        | 41,2                   | 11,1          | 0,56       |

\* Temperature of intake air: +18 °C

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LPHW coil parameters for water temperature gradient 60 / 40 °C

| Type             | Air output | Heat output | Temperature at exhaust | Pressure loss | Water flow |
|------------------|------------|-------------|------------------------|---------------|------------|
|                  | [m³/h]     | [kW]        | [°C]                   | [kPa]         | [l/s]      |
| GRAND-40-10-W-EC | 1850       | 10,8        | 35,2                   | 1,9           | 0,13       |
| GRAND-40-15-W-EC | 2700       | 15,1        | 34,5                   | 1,2           | 0,18       |
| GRAND-40-20-W-EC | 3700       | 22,3        | 35,9                   | 2,7           | 0,27       |
| GRAND-40-25-W-EC | 4500       | 28,2        | 36,6                   | 4,5           | 0,34       |
| GRAND-50-10-W-EC | 2450       | 12,6        | 33,2                   | 2,6           | 0,15       |
| GRAND-50-15-W-EC | 3500       | 17,4        | 32,7                   | 1,5           | 0,21       |
| GRAND-50-20-W-EC | 4450       | 25,0        | 34,4                   | 3,3           | 0,30       |
| GRAND-50-25-W-EC | 5900       | 32,9        | 34,5                   | 6,0           | 0,40       |

\* Temperature of intake air: +18 °C

LPHW coil parameters for water temperature gradient 50 / 30 °C

| Type             | Air output | Heat output | Temperature at exhaust | Pressure loss | Water flow |
|------------------|------------|-------------|------------------------|---------------|------------|
|                  | [m³/h]     | [kW]        | [°C]                   | [kPa]         | [l/s]      |
| GRAND-50-15-W-EC | 3450       | 17,7        | 33,1                   | 7,5           | 0,21       |
| GRAND-50-20-W-EC | 4450       | 23,1        | 33,3                   | 6,8           | 0,28       |
| GRAND-50-25-W-EC | 5850       | 30,6        | 33,4                   | 12,8          | 0,40       |

\* Temperature of intake air: +18 °C

LPHW coil parameters for water temperature gradient 40 / 30 °C

| Type             | Air output | Heat output | Temperature at exhaust | Pressure loss | Water flow |
|------------------|------------|-------------|------------------------|---------------|------------|
|                  | [m³/h]     | [kW]        | [°C]                   | [kPa]         | [l/s]      |
| GRAND-50-15-W-EC | 3450       | 14,7        | 30,6                   | 18,9          | 0,35       |
| GRAND-50-20-W-EC | 4450       | 19,2        | 30,7                   | 17,2          | 0,46       |
| GRAND-50-25-W-EC | 5850       | 25,2        | 30,7                   | 31,7          | 0,61       |

\* Temperature of intake air: +18 °C

LPHW coil parameters for water temperature gradient 35 / 25 °C

| Type             | Air output | Heat output | Temperature at exhaust | Pressure loss | Water flow |
|------------------|------------|-------------|------------------------|---------------|------------|
|                  | [m³/h]     | [kW]        | [°C]                   | [kPa]         | [l/s]      |
| GRAND-50-15-W-EC | 3450       | 9,6         | 26,2                   | 9,1           | 0,23       |
| GRAND-50-20-W-EC | 4450       | 12,6        | 26,3                   | 8,2           | 0,30       |
| GRAND-50-25-W-EC | 5850       | 16,7        | 26,4                   | 15,5          | 0,40       |

\* Temperature of intake air: +18 °C

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Recommended mixing points for LPHW coil  
3-way valve

| Type             | Control module | 90/70 °C        | 80/60 °C        | 70/50 °C        | 60/40 °C        |
|------------------|----------------|-----------------|-----------------|-----------------|-----------------|
|                  |                | 3-way valve     |                 |                 |                 |
| GRAND-40-10-W-EC | BASIC          | ZV3-230-04,0-20 | ZV3-230-04,0-20 | ZV3-230-04,0-20 | ZV3-230-04,0-20 |
|                  |                | RT-3-07         | RT-3-07         | RT-3-07         | RT-3-07         |
|                  | COMFORT        | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 |
|                  | SUPERIOR       | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 |
| GRAND-40-15-W-EC | BASIC          | ZV3-230-04,0-20 | ZV3-230-04,0-20 | ZV3-230-04,0-20 | ZV3-230-04,0-20 |
|                  |                | RT-3-07         | RT-3-07         | RT-3-07         | RT-3-07         |
|                  | COMFORT        | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 |
|                  | SUPERIOR       | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 |
| GRAND-40-20-W-EC | BASIC          | ZV3-230-21,0-20 | ZV3-230-21,0-20 | ZV3-230-21,0-20 | ZV3-230-21,0-20 |
|                  |                | RT-3-07         | RT-3-07         | RT-3-07         | RT-3-07         |
|                  | COMFORT        | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 |
|                  | SUPERIOR       | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 |
| GRAND-40-25-W-EC | BASIC          | ZV3-230-21,0-20 | ZV3-230-21,0-20 | ZV3-230-21,0-20 | ZV3-230-21,0-20 |
|                  |                | RT-3-07         | RT-3-07         | RT-3-07         | RT-3-07         |
|                  | COMFORT        | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 |
|                  | SUPERIOR       | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 |
| GRAND-50-10-W-EC | BASIC          | ZV3-230-04,0-20 | ZV3-230-04,0-20 | ZV3-230-04,0-20 | ZV3-230-04,0-20 |
|                  |                | RT-3-07         | RT-3-07         | RT-3-07         | RT-3-07         |
|                  | COMFORT        | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 |
|                  | SUPERIOR       | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 |
| GRAND-50-15-W-EC | BASIC          | ZV3-230-04,0-20 | ZV3-230-04,0-20 | ZV3-230-04,0-20 | ZV3-230-04,0-20 |
|                  |                | RT-3-07         | RT-3-07         | RT-3-07         | RT-3-07         |
|                  | COMFORT        | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 |
|                  | SUPERIOR       | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 | ZV3-024-04,0-20 |
| GRAND-50-20-W-EC | BASIC          | ZV3-230-21,0-20 | ZV3-230-21,0-20 | ZV3-230-21,0-20 | ZV3-230-21,0-20 |
|                  |                | RT-3-07         | RT-3-07         | RT-3-07         | RT-3-07         |
|                  | COMFORT        | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 |
|                  | SUPERIOR       | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 |
| GRAND-50-25-W-EC | BASIC          | ZV3-230-21,0-20 | ZV3-230-21,0-20 | ZV3-230-21,0-20 | ZV3-230-21,0-20 |
|                  |                | RT-3-07         | RT-3-07         | RT-3-07         | RT-3-07         |
|                  | COMFORT        | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 |
|                  | SUPERIOR       | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 | ZV3-024-06,3-20 |

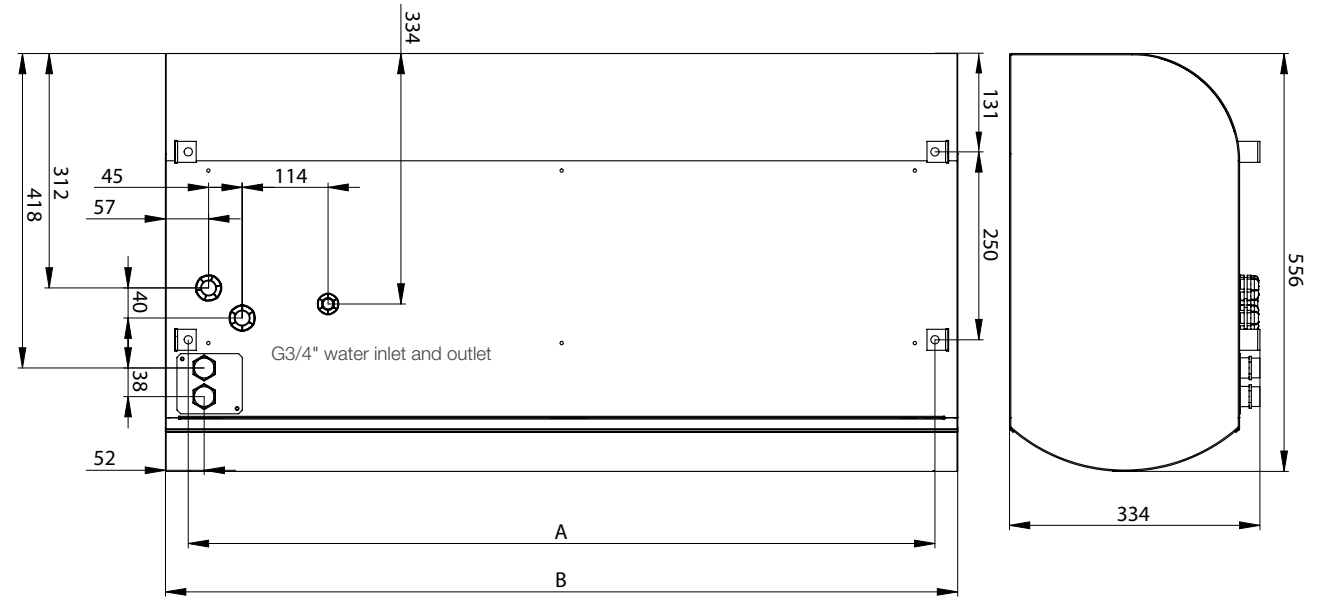
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Recommended mixing points for LPHW coil  
2-way valve

| Type             | Control module | 90/70 °C        | 80/60 °C        | 70/50 °C        | 60/40 °C        |
|------------------|----------------|-----------------|-----------------|-----------------|-----------------|
|                  |                | 2-way valve     |                 |                 |                 |
| GRAND-40-10-W-EC | BASIC          | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 |
|                  | COMFORT        | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
|                  | SUPERIOR       | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
| GRAND-40-15-W-EC | BASIC          | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 |
|                  | COMFORT        | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
|                  | SUPERIOR       | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
| GRAND-40-20-W-EC | BASIC          | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 |
|                  | COMFORT        | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
|                  | SUPERIOR       | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
| GRAND-40-25-W-EC | BASIC          | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 |
|                  | COMFORT        | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
|                  | SUPERIOR       | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
| GRAND-50-10-W-EC | BASIC          | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 |
|                  | COMFORT        | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
|                  | SUPERIOR       | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
| GRAND-50-15-W-EC | BASIC          | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 |
|                  | COMFORT        | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
|                  | SUPERIOR       | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
| GRAND-50-20-W-EC | BASIC          | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 |
|                  | COMFORT        | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
|                  | SUPERIOR       | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
| GRAND-50-25-W-EC | BASIC          | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 | ZV2-230-08,0-20 |
|                  | COMFORT        | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |
|                  | SUPERIOR       | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 | ZV2-024-08,0-20 |

DIMENSIONS



| Type        | Spacing of installation holes A [mm] | Width B [mm] |
|-------------|--------------------------------------|--------------|
| GRAND-50-10 | 994                                  | 1054         |
| GRAND-50-15 | 1494                                 | 1554         |
| GRAND-50-20 | 1994                                 | 2054         |
| GRAND-50-25 | 2394                                 | 2454         |

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ORDERING KEY

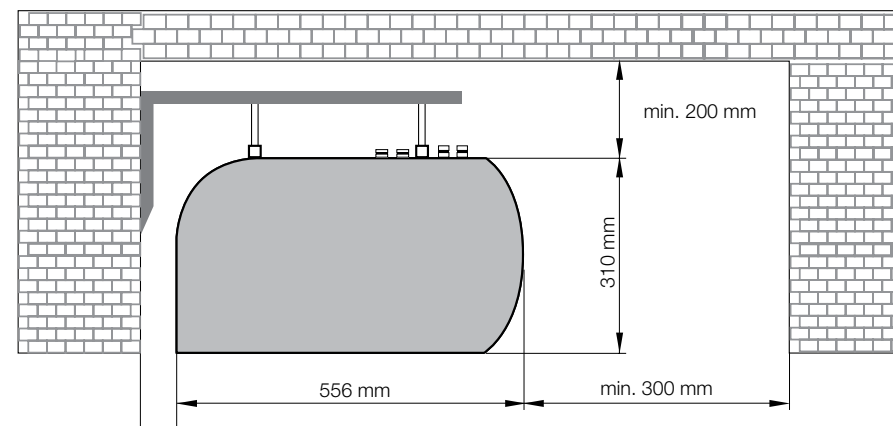
AIR CURTAINS

ORDERING KEY

| (1) Air curtain                                                                                                  | (2) Installation height | (3) Width [mm] | (4) Heating                                                                                                                                                                       | (5) Control                                                                                                                             | (6) Slave/Master | (7) Motor |
|------------------------------------------------------------------------------------------------------------------|-------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------|
| <b>Grand</b>                                                                                                     | -                       | <b>40</b>      | -                                                                                                                                                                                 | <b>10</b>                                                                                                                               | -                | <b>W</b>  |
| (1) Air curtain:<br><b>Grand</b>                                                                                 |                         |                | (4) <b>N</b> – without heating regulation<br><b>E</b> – with electric heater regulation<br><b>2W</b> – 2 row water heater regulation<br><b>3W</b> – 3 row water heater regulation | <b>SU</b>                                                                                                                               | <b>MA</b>        | <b>EC</b> |
| (2) Recommended installation height:<br><b>40</b> - 4m installation height<br><b>50</b> - 5m installation height |                         |                |                                                                                                                                                                                   | (5) <b>BA</b> – Basic control (mechanical)<br><b>CO</b> – Comfort control (touch screen)<br><b>SU</b> – Superior control (touch screen) |                  |           |
| (3) <b>10</b> – 1000mm Width<br><b>15</b> – 1500mm Width<br><b>20</b> – 2000mm Width<br><b>25</b> – 2500mm Width |                         |                |                                                                                                                                                                                   | (6) <b>SL</b> – SLAVE (only for CO, SU)<br><b>MA</b> – MASTER (only for CO, SU)                                                         |                  |           |
|                                                                                                                  |                         |                |                                                                                                                                                                                   | (7) <b>EC</b> – EC motor                                                                                                                |                  |           |

## INSTALLATION AND ASSEMBLY

- The air curtain shall be installed in a horizontal position only.
- The air curtain shall be located as close to the top edge of the doorway as possible, see figure.
- To ensure a correct function it is recommended that the air curtain overlaps the doorway by 100 mm on both sides.
- Correct operation of the air curtain requires that specified distances from the surrounding objects are observed, see figure.
- Position of the heating water and power supply connections shall be taken into consideration during installation.
- Suspension holders are used for installing the air curtains see ACCESSORIES.



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## CONTROL

## CONTROL

The **GRAND-EC** air curtains are produced with universal interface for control module connection. There are three types of control modules available (BA, CO and SU). Control module is a required accessory for each air curtain. Additional change of control system is available. Control module is connected with air curtain by quick connection sockets. The basic differences among individual control module types are given in table underneath.

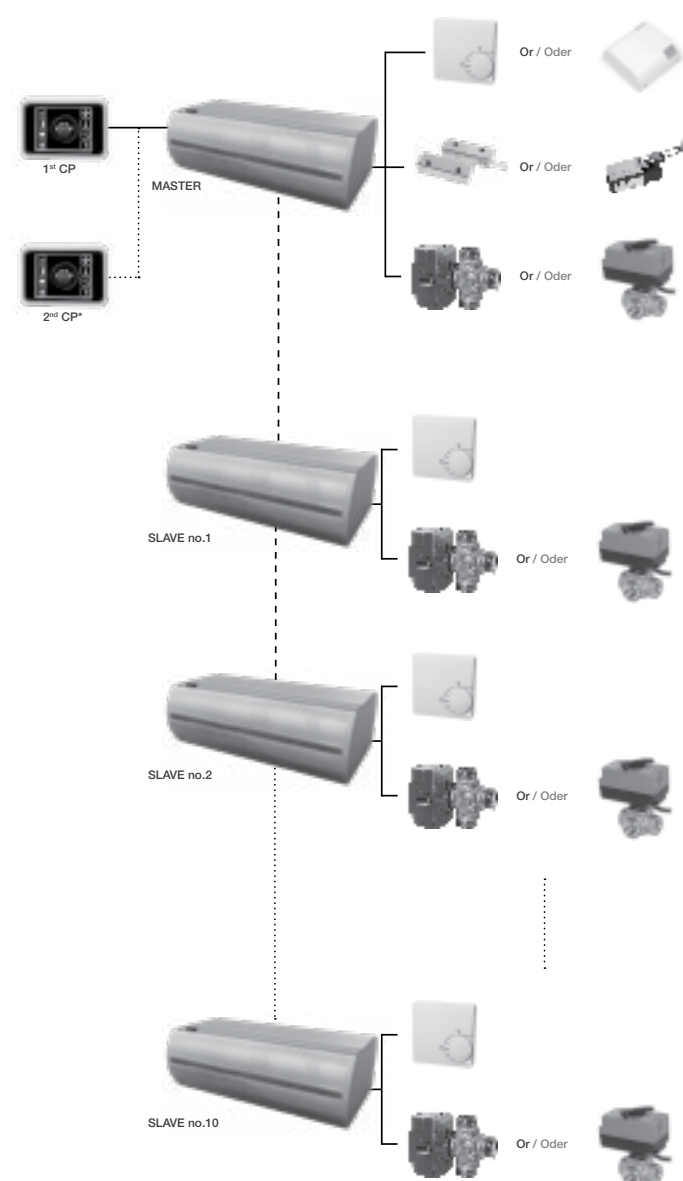
|                                                                                     |                                          |    |                           |                                |
|-------------------------------------------------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------|
| Control                                                                             |                                          | BASIC                                                                                                                                                                                                                                                       | COMFORT                   | SUPERIOR                       |
|    | Type of controller                       | Manual                                                                                                                                                                                                                                                      | Touch screen              | Touch screen                   |
|                                                                                     | Mode                                     | Manual                                                                                                                                                                                                                                                      | Manual / Auto             | Manual / Auto                  |
|    | Control of air output                    | 3 speeds                                                                                                                                                                                                                                                    | 3 speeds                  | 3 speeds (AC)                  |
|    | Control of electric heater               | OFF / Level1 / Level2                                                                                                                                                                                                                                       | OFF / Level1 / Level2     | YES (PWM)                      |
|    | Control of water heater                  | ON/OFF                                                                                                                                                                                                                                                      | ON/OFF                    | 0-10V                          |
|    | Antifreeze protection of LPHW            | NO                                                                                                                                                                                                                                                          | YES                       | YES                            |
|    | Possibility of connecting a door contact | YES (230V)                                                                                                                                                                                                                                                  | YES (12V)                 | YES (12V)                      |
|  | External control                         | NO                                                                                                                                                                                                                                                          | YES                       | YES                            |
|  | Temperature measurement                  | NO                                                                                                                                                                                                                                                          | YES (NTC)*                | YES (NTC)*                     |
|  | Chaining air curtains                    | NO                                                                                                                                                                                                                                                          | YES – max 10+1 pcs        | YES – max 10+1 pcs             |
|  | Indication of selected function          | YES                                                                                                                                                                                                                                                         | YES (Display)             | YES (Display)                  |
|  | Controller connection to air curtain     | Power wire                                                                                                                                                                                                                                                  | Communication cable (UTP) | Communication cable (UTP)      |
|  | Self learning mode Selbstlernmodus       | NO<br>NEIN                                                                                                                                                                                                                                                  | NO<br>NEIN                | YES<br>JA                      |
|  | BMS connection                           | NO                                                                                                                                                                                                                                                          | Modbus RTU                | Modbus RTU, Modbus TCP, BACnet |
|  | Error contact                            | NO                                                                                                                                                                                                                                                          | YES                       | YES                            |
|  | 2 <sup>nd</sup> control panel ready      | NO                                                                                                                                                                                                                                                          | YES                       | YES                            |

\* Temperature sensor included in standard. Temperature shown on display.

## CHAINING EXAMPLE

### COMFORT / SUPERIOR

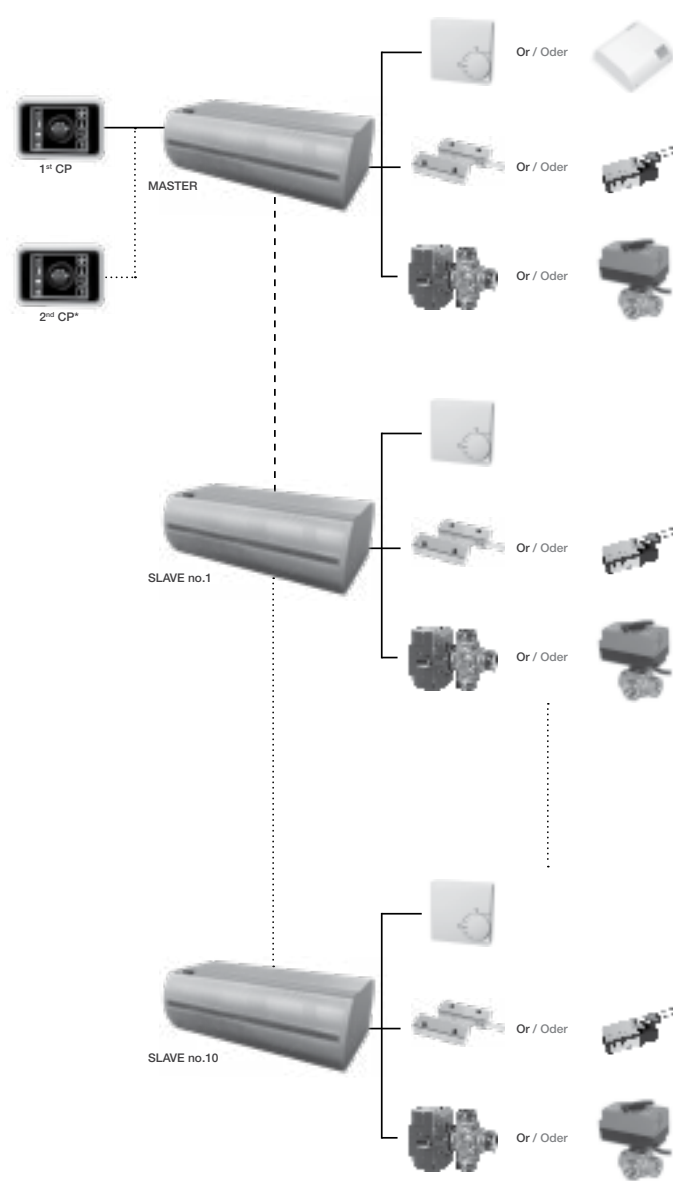
Global Door contact function active



<sup>\*)</sup> Optional accessories

### COMFORT / SUPERIOR

Global Door contact function not active



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CONTROL

## ACCESSORIES

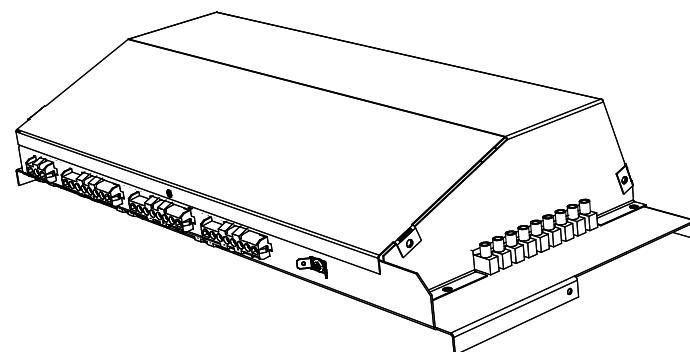
### REQUIRED ACCESSORIES

These accessories shall be ordered to make the air curtain functional.

#### Control module

A control module is a required accessory for air curtain and shall be ordered for each air curtain. Control panel is included in delivery of control module. The ordering key for control modules is provided below.

Communication cable has to be ordered separately as an optional accessory.



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## ACCESSORIES

## OPTIONAL ACCESSORIES

Thermostatic valve TV-1-1/1  
TV-1-1/1



2-way or 3-way valve with servo drive (230V)  
ZV2-230-xx,x-xx  
ZV3-230-xx,x-xx  
(for BA, CO)



3-way valve with servo drive RT  
RT-3-07 (K<sub>vs</sub> 07)  
(for control BA, CO)



2way or 3-way valve with servo drive  
(0-10V)  
ZV2-024-xx,x-xx  
ZV3-024-xx,x-xx  
(for control SU)



Mixing node  
SMU2-230-xx (for control BA, CO)  
SMU2-024-xx (for control SU)



Room thermostat  
TER-P



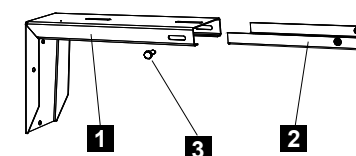
Room temperature sensor  
CT-ROOM



### Wall mounting bracket

Bracket designed for mounting the air curtain to the wall.

- 1 Bracket
- 2 Hanging strip
- 3 Securing screw



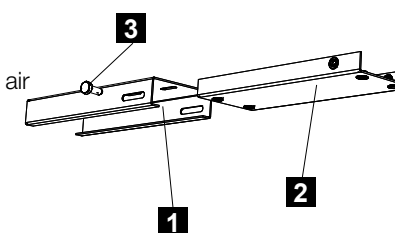
### VCS4-KONZ-STE

- for B and C air curtains (2 pcs. in package)
- wall mounting bracket

### Ceiling holder

The holder is designed for attaching the air curtain to a ceiling.

- 1 Ceiling bracket
- 2 Hanging strip
- 3 Securing screw



### VCS4-KONZ-STR

- for B and C air curtains (2 pcs. in package)
- ceiling holder

### Exit sign for marking of emergency exits.

Suitable for all types of air curtains.

### VCS4-EXIT



### Mechanical industry door switch

#### DS

Heavy-duty door contact for industry use



### Magnetic door contact

Magnetic door contact in metal housing with higher protection against mechanical damage

#### DK-B-3



### 2nd Control panel

ND-REMOTE-CONTROL (for control CO, SU)



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## ACCESSORIES

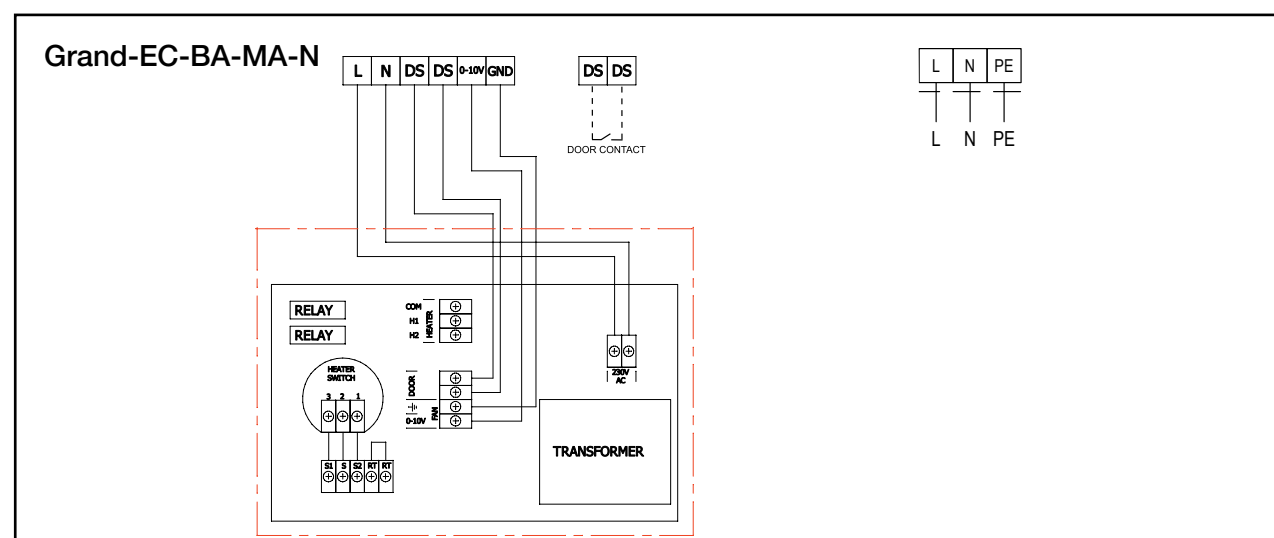
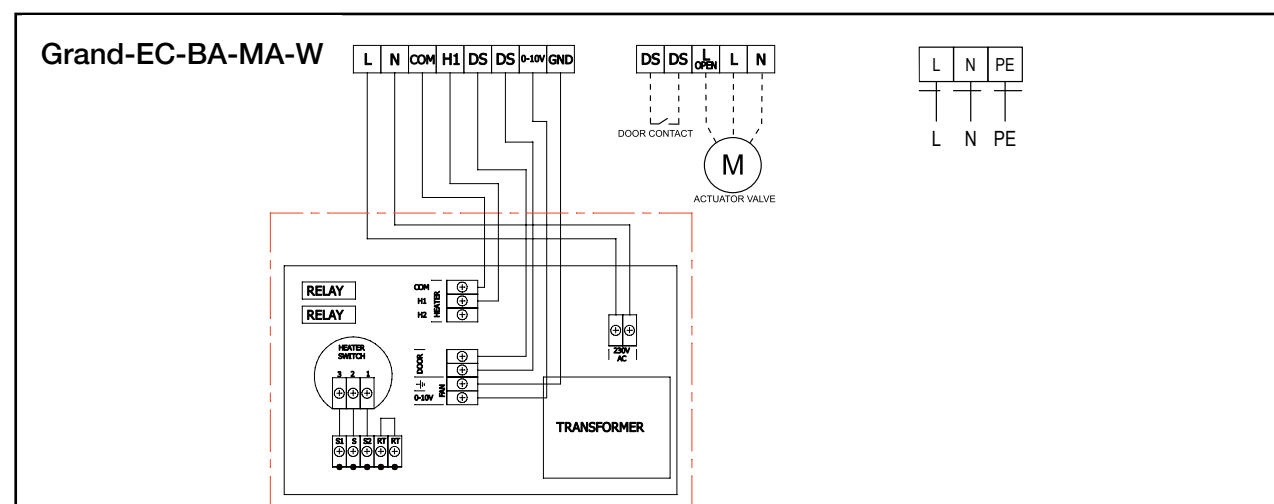
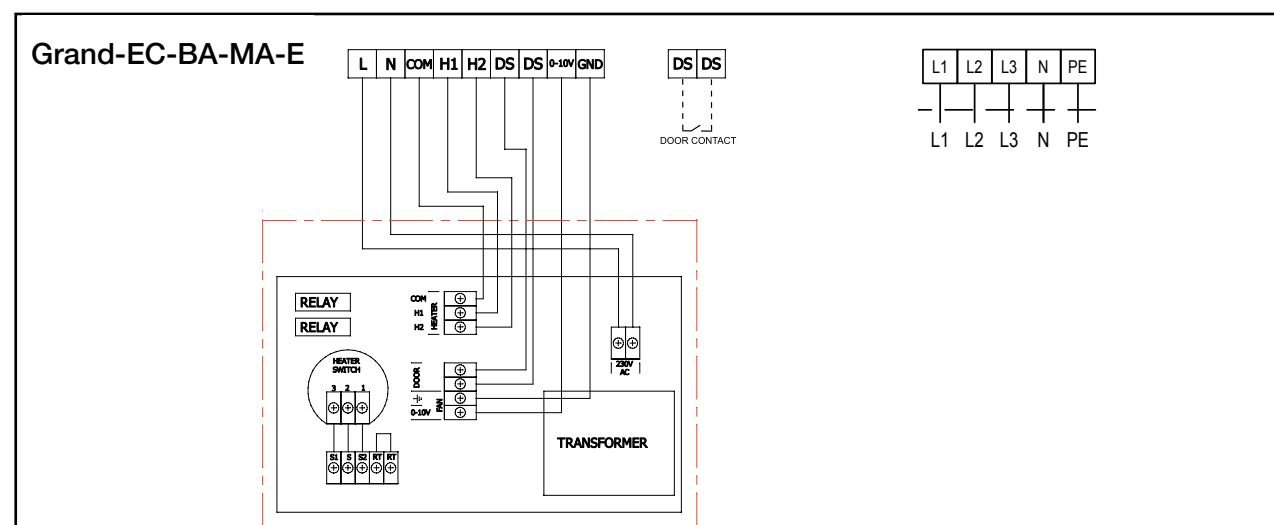
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## DIAGRAMS

## WIRING DIAGRAMS

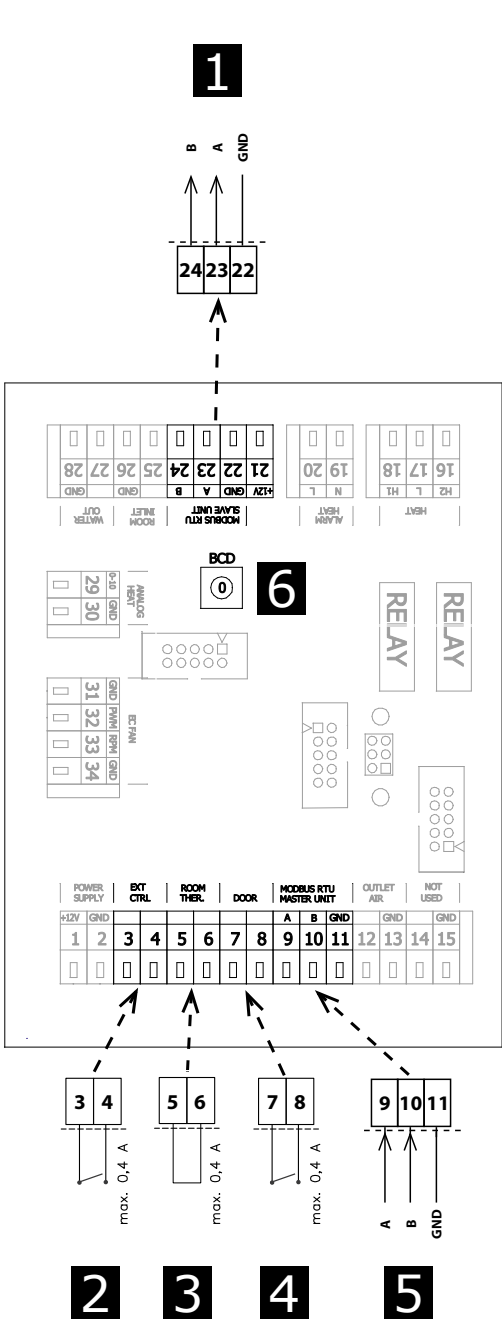
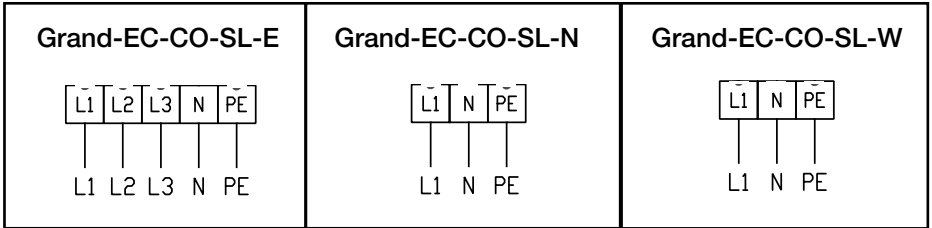
The recommended cross-section of the main power supply cables is stated in the Instruction Manual.

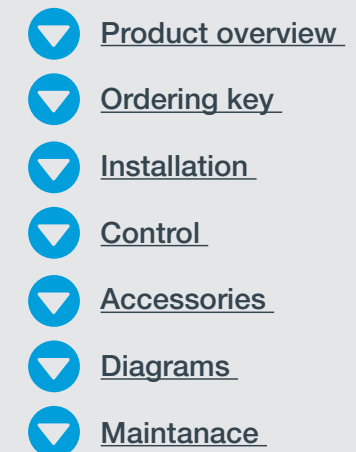
All wiring diagrams provided in the technical catalog are indicative only. When assembling the product, carefully observe the nameplate ratings as well as directions and diagrams affixed directly to the product or enclosed with the product.



# WIRING DIAGRAMS

## AirGENIO COMFORT SLAVE



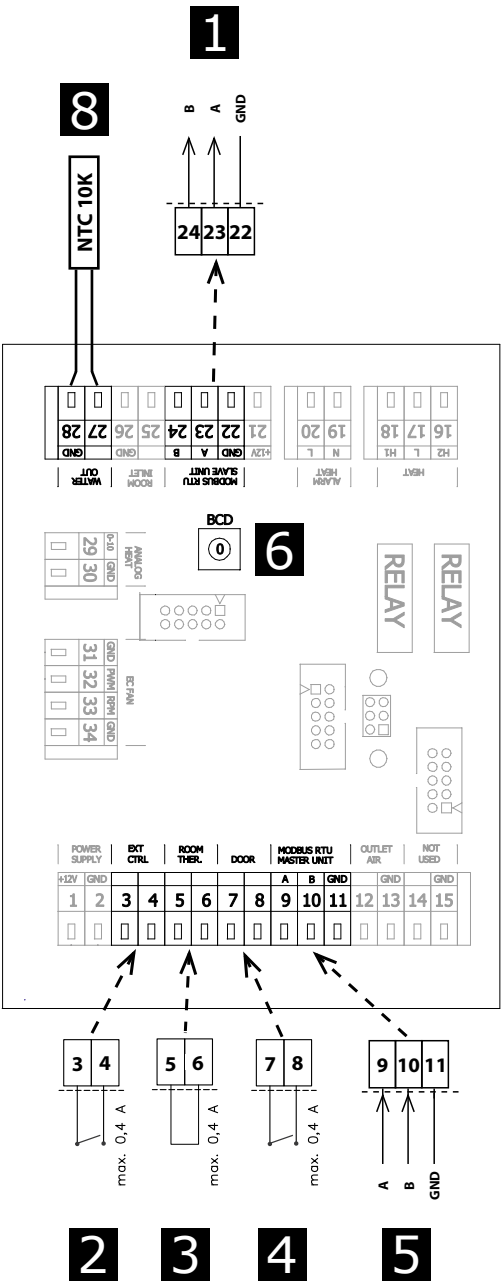
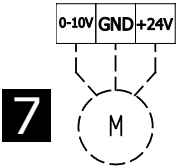
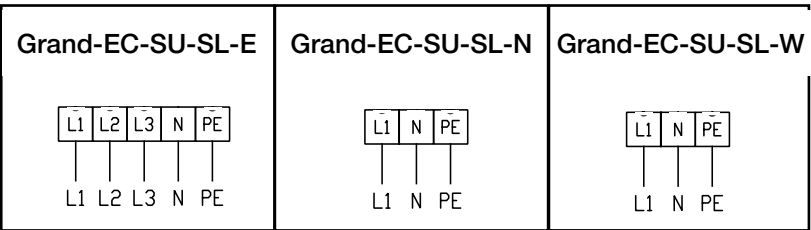


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# WIRING DIAGRAMS

## AirGENIO SUPERIOR SLAVE



|   |                                            |
|---|--------------------------------------------|
| 1 | Signal to SLAVE unit                       |
| 2 | External control - ON/OFF                  |
| 3 | Room thermostat (input)                    |
| 4 | DOOR contact (input)                       |
| 5 | Signal from MASTER unit                    |
| 6 | Address of the slave air curtain           |
| 7 | Water valve control (0-10 V, 24 V)*        |
| 8 | Water return sensor (included in delivery) |

6

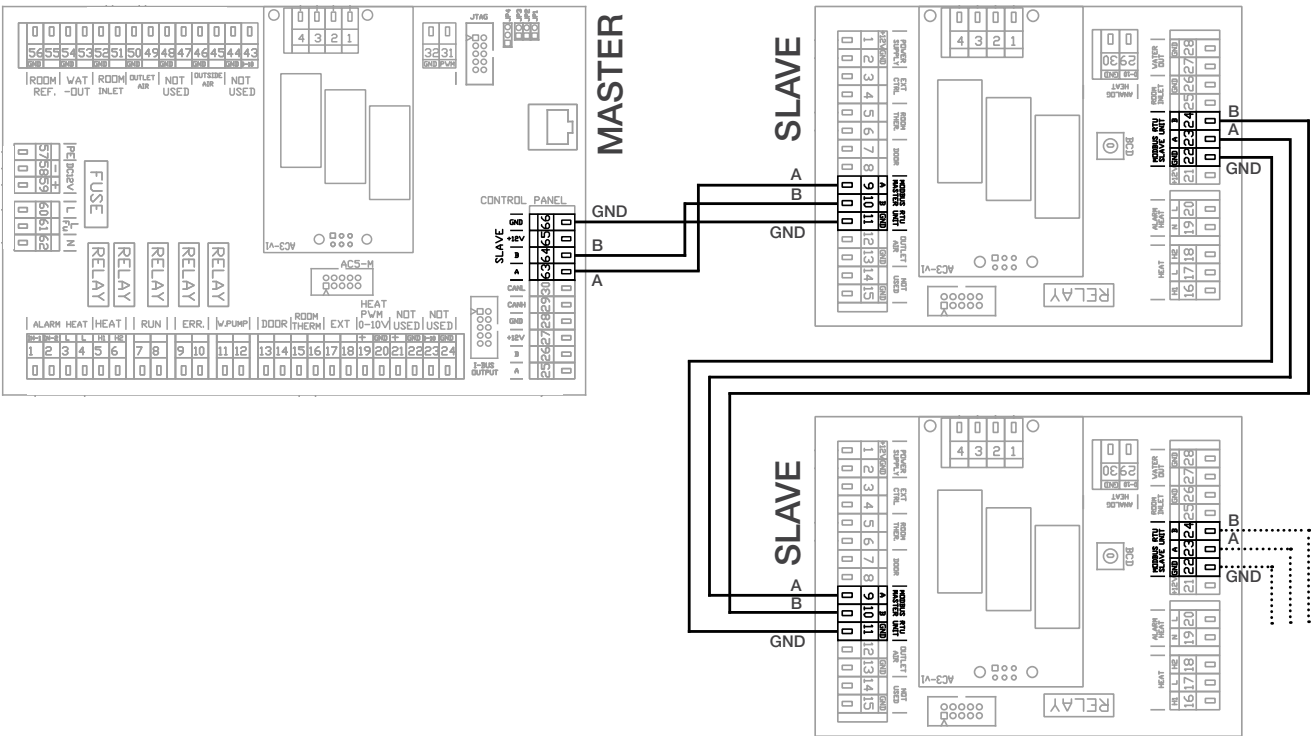
| SLAVE | BCD |
|-------|-----|
| 1     | 1   |
| 2     | 2   |
| 3     | 3   |
| 4     | 4   |
| 5     | 5   |
| 6     | 6   |
| 7     | 7   |
| 8     | 8   |
| 9     | 9   |
| 10    | A   |

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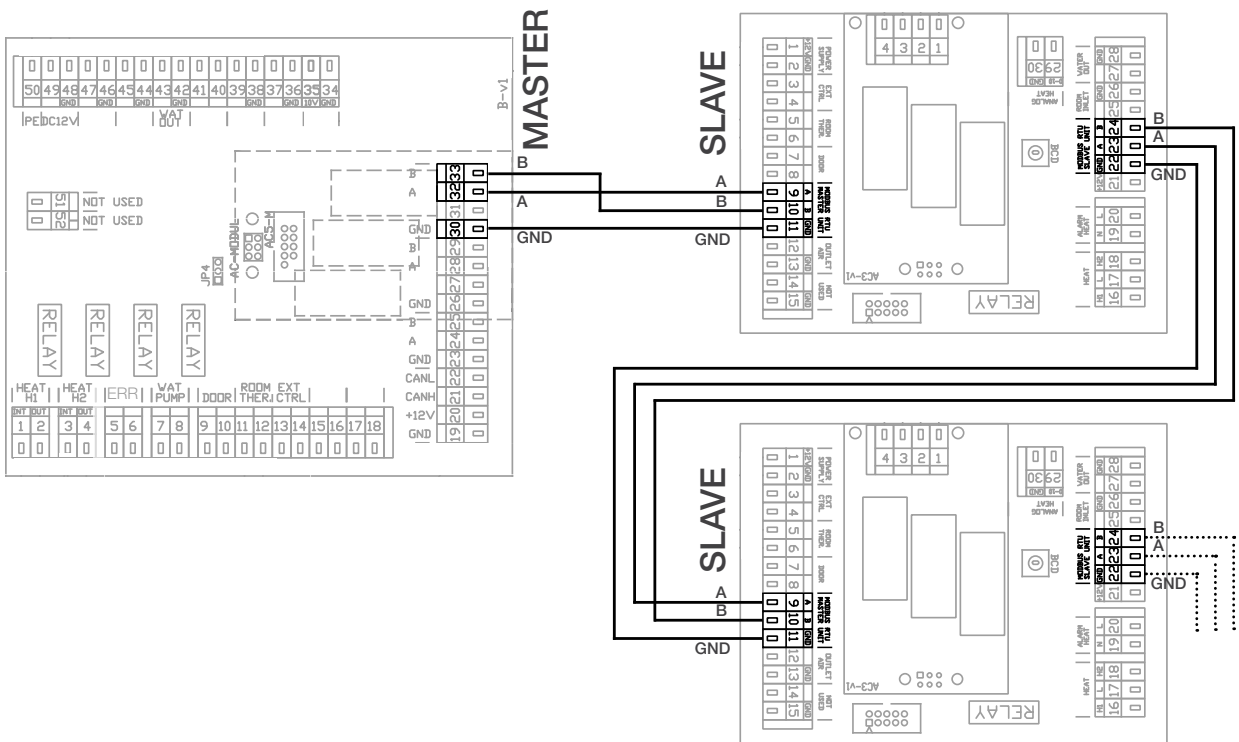
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# WIRING DIAGRAMS

## SUPERIOR



## COMFORT



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## MAINTENANCE

## AIR CURTAINS

### TRANSPORT

After arrival, check the product for transport damage and shortcomings. In case of any damage or shortcomings, immediately contact your supplier.

### STORAGE

If the product is not installed immediately:

- Remove any wrapping.
- Protect product from dust and contamination.
- Do not expose the damper to the effects of weather, store the damper in a dry place.

**Please properly dispose of packaging material!**

### MAINTENANCE AND OPERATION

Klimaoprema products are designed as such do not require cleaning and regular maintenance. However, mechanism should be systematically cleaned for proper operation.

- Provide a systematic cleaning of dust
- Cleaning instruction: clean with a sponge, with water or a mild detergent

### COMMISSIONING

- Carefully unpack - be careful of sharp edges and do not use excessive force for unpacking
- Ensure that all grilles are clean and free from residues and foreign matter.
- Ensure that the devices have been correctly installed
- Before commissioning: check the product functions



## AIR CURTAINS / LUFTSCHLEIER

Images are for informational purposes only and may differ from the actual product.  
Follow the latest versions of the catalog on the website.

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-  [www.klimaoprema.com](http://www.klimaoprema.com)