



DUCTZONE  
HVAC SOFTWARE

# EXAMPLE\_OFFICE OFFICE (MULTIZONING AND MONOZONING SOLUTION)

AIRZONE

Parque Tecnológico Andalucía · Calle Marie Curie 21 · 29590 Málaga

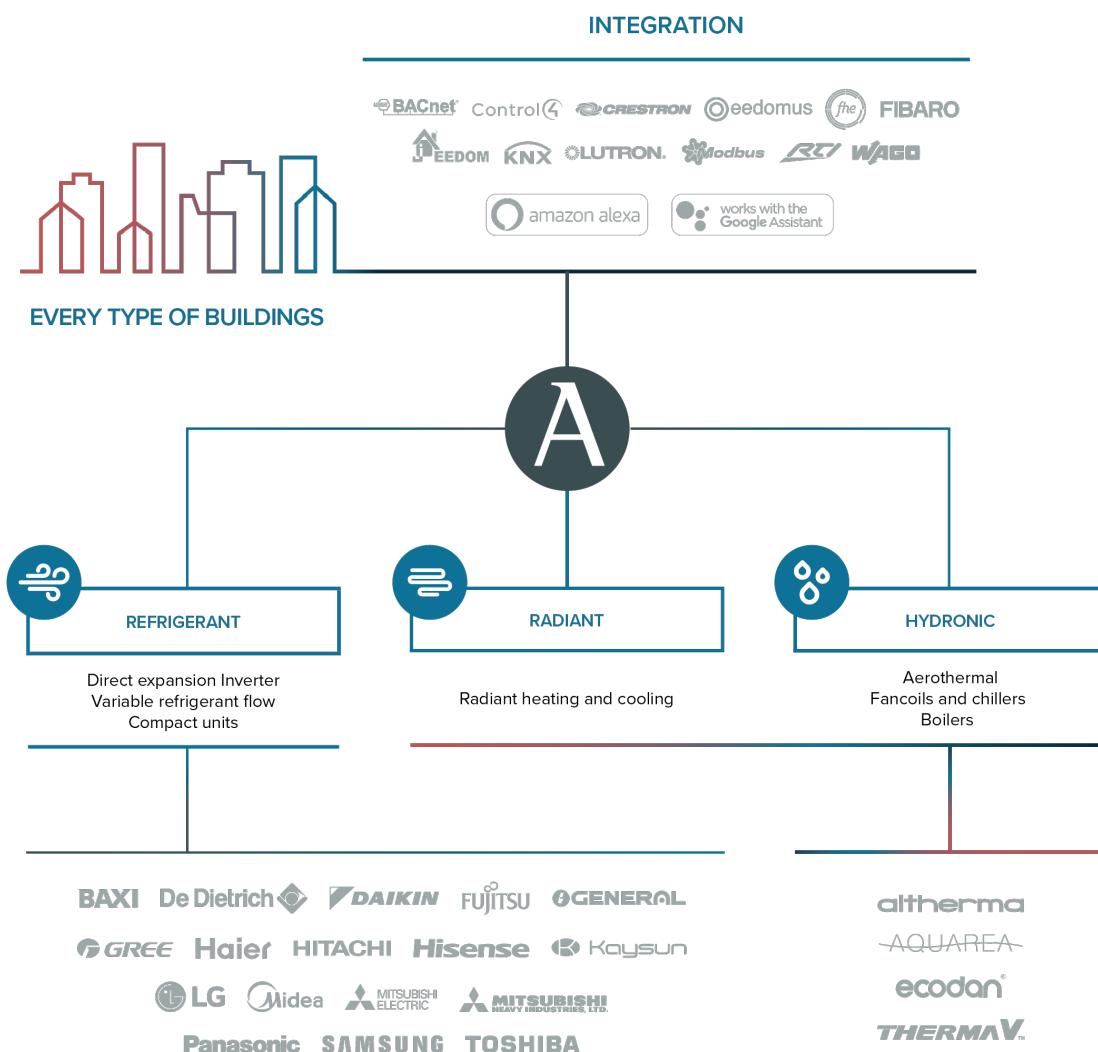
# **Index**

<b>Index</b>	<b>2</b>
Airzone, Smart Climate Control	3
The concept of smart control by Airzone	4
Zoning systems	4
Quality assurance	5
BREEAM	5
LEED	6
Energy consumption optimization	6
Effective control	7
Eco-Adapt algorithm	7
Smart control for the whole installation	7
BMS Integration	7
What is VAF System?	9
Connection scheme	10
Installation scheme	11
Duct calculation details	12
List of materials	15

# Airzone, Smart Climate Control

Airzone is the world leader in HVAC climate control systems. With over 20 years of experience, it is one of the most prestigious companies in the HVAC industry. Airzone Solutions allow the user to control different types of technologies with the same interface.

ALL AIRZONE SYSTEMS CAN BE COMBINED INTO THE SAME PROJECT, INTEGRATED WITH OTHER CONTROL SYSTEMS AND ALSO CONTROLLED REMOTELY.



If you have any questions, please contact us at [projects@airzonecontrol.com](mailto:projects@airzonecontrol.com) and our Projects Department will help you in anything you need.

	EASYZONE	VAF
Single split	✓	✓
Multi-split	✓	✓
VRF (heat pump)	✓	✓
VRF (heat recovery)		✓
Fancoil (2 pipes)	✓	
Underfloor heating	✓	✓

## The concept of smart control by Airzone

The smart control performed by our systems allows the user to achieve an optimal level of thermal and acoustic comfort as **every single zone is controlled independently**.

Airzone controllers manage the entire installation and favor a more rational use of energy.

We offer numerous possible combinations so that our solutions can be adapted to the needs of the user and the installation.



An Airzone Integrated Zoning System transforms a traditional ducted HVAC system into a multizone system, basing its operation on two main factors:

- Optimization of the HVAC system energy use, thanks to the dedicated Airzone Communication Gateways.
- Providing the highest thermal comfort range to every zone.

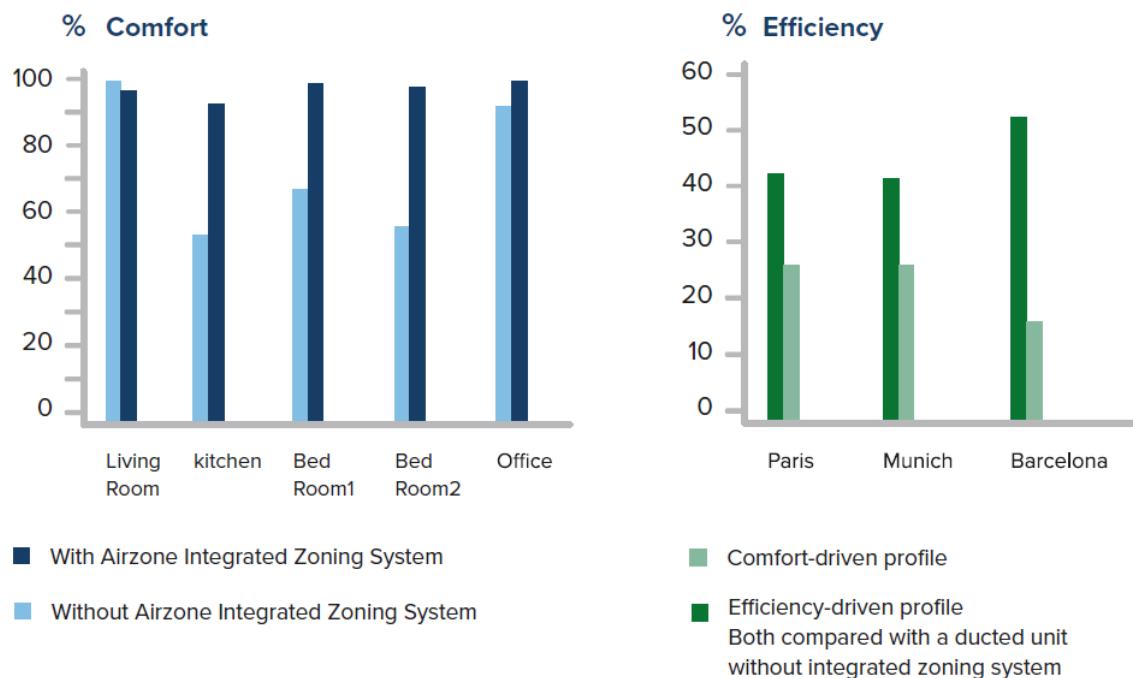
The Airzone Integrated Zoning Systems allow to increase energy savings as well as diminish first costs. This happens by means of the communications between Inverter units and Airzone system, as well as efficiency algorithms.

It allows to individually control the temperature of every zone conditioned by the same ducted indoor unit. This occurs thanks to the communications that exist between the sensors installed on each zone and the motorized elements installed on ducts. Therefore, the system covers only the thermal load of those zones where both thermal demand and occupancy exist.

### Zoning systems

The Integrated Zoning System developed by **Airzone** allows to regulate the air flow supplied to each airconditioned zone and may satisfy the thermal needs of each one of them. In addition, it includes several efficiency algorithms which **by controlling Inverter heat pumps** (operation mode, set point temperature, fan speed, etc.) **optimizes energy using**.

These facts produce an **increase of both comfort** number of hours and **energy savings** as can be seen in the following figures, extracted from an independent study from the Energy Researching Group of the University of Malaga, Spain, with the title “Report over the Airzone integrated zoning model and its comparison to a non-zoned system”.



## Quality assurance

Our commitment to the highest quality is our hallmark. We design, develop and manufacture all our products. They are respectful with the environment and comply with all the international directives in terms of energy efficiency.

- US FCC certificate
- Intertek 4008862 UL Listed
- ISO Certificates: 9001 and 14001

For further information about US FCC certificate, please visit <https://fccid.io/SVS>

For further information about our certifications, please contact us at [projects@airzonecontrol.com](mailto:projects@airzonecontrol.com)

## BREEAM

**BREEAM**(Building Research Establishment Environmental Assessment Methodology) is a system of assessing, rating and certifying the sustainability of buildings. Using this system, buildings are given an overall scoring based on an objective evaluation.



The BREEAM ratings range from Acceptable to pass, Good, Very Good, Excellent to Outstanding. BREEAM evaluates 10 categories, and Airzone can improve the score in the following categories:



Management: "Sustainable Management"



Health and Wellbeing: "Thermal Comfort" and "Thermal Zoning"



Energy: "Energy efficiency"



Pollution: "GWP refrigerant – Building facilities"



Innovation: "Exemplary level in Energy efficiency and Sustainable management"

For further information, please visit [www.breeam.com](http://www.breeam.com).

## LEED

**LEED** (Leadership in Energy and Environmental Design) is a system for assessing environmental performance in the construction or renovation of buildings, which aims to achieve a rational and effective use of energy of materials and water



In LEED you can reach four levels: Certificate, Silver, Gold and Platinum. This certification method evaluates buildings according to 8 criteria and Airzone can obtain extra points in the following categories:



Energy and atmosphere: "Optimization of energy efficiency" and "Energy consumption measurement"



Indoor environmental quality: "Thermal Comfort"



Innovation in design: "Optimization of energy efficiency"

For further information, please visit <https://new.usgbc.org/leed>.

## Energy consumption optimization

To achieve a high degree of comfort and reduce energy consumption, the communication between the control system and AC unit is required to be perfect. **The Airzone communication gateway®** is the device that enables this bi-directional communication, improving fundamental features of the operation of the AC units.

Thanks to the **Airzone communication gateway®**, Inverter/VRF systems **work in partial load most of the time**, resulting in the optimization of their performance. Our systems modify the Partial Load Ratio (PLR) by adjusting the set-point temperature of the AC unit based on the return temperature, boosting the performance of the unit. Thanks to this optimization of the energy consumption, zoned AC units can save up to **53% more than non-zoned Inverter AC units**.

Airzone communications gateways® are compatible with most AC units of the main manufacturers in the HVAC industry.



## Effective control

Airzone has developed a series of energy-efficiency algorithms that improve the energy performance of the installation. Additionally, they offer multiple benefits to both installers and users.

### *Eco-Adapt algorithm*

Airzone systems allow you to limit the highest and lowest set-point temperature both in cooling and heating. Whether it is from the Airzone Cloud webserver or from the Airzone Blueface thermostat, the user can choose among the different Eco-Adapt modes, depending on the desired limit temperatures, to optimize the energy consumption and save money.

## Smart control for the whole installation

The user can perform a complete and effective control of the installation thanks to our interfaces, either from our state-of-the-art thermostats or remotely using the Airzone Cloud webserver.

Our interfaces allow the user to control the temperature, set schedules, change the operating mode or refer to the weather information, among many other features.



### *BMS Integration*

Our Communication with building management control systems is carried out using the **Modbus RTU native protocol**.

We can apply Airzone control to other home and building automation systems, thanks to the development of integration gateways that use different protocols such as **BACnet** and **KNX**, as well as enable communication with other open protocols, such as **LonWorks**.

In order to continue to offer fully integrated solutions, we work directly with integrated building

management companies. An example is our collaboration with **Wago** and **Lutron**.

Users with an Airzone Cloud webserver connected to their systems will be able to enjoy voice control functionalities, using **Amazon Alexa** or **Google Assistant**.





## What is VAF System?

VAF is the ideal control system for HVAC since it combines the control of multi-zone and individual fancoils with the control of radiant heating. Moreover, it can also integrate different technologies such as chilled water and direct expansion in the same interface.

The performance of the VAF system lies on the combination of different types of Zone Modules: individual indoor unit control, radiant element control and motorized dampers for air supply. All these modules are connected to the Main Control Board through the Communication Bus. Other elements such as Airzone Communication Gateways with zoned indoor units or the Airzone Cloud Webserver connect directly with the Main Control Board.

### *System Features*

- ✓ Individual control up to 10 zones.
- ✓ In the same zone it is possible to control both air conditioning and radiant heating.
- ✓ Integrated control of the AC units thanks to the dedicated Communication Gateways.
- ✓ Communication Gateways of 3 speeds and 0-10 V for chilled water ducted indoor units available.
- ✓ Combination of ducted and ductless units.
- ✓ Flow distribution with weight adjustment through the Q-Adapt algorithm.
- ✓ Adjustable Air.
- ✓ All zone modules can be connected to wired or wireless thermostats.
- ✓ Notifications of the AC unit errors on Airzone thermostats.
- ✓ Integration into Modbus and/or BACnet Building Management Systems.

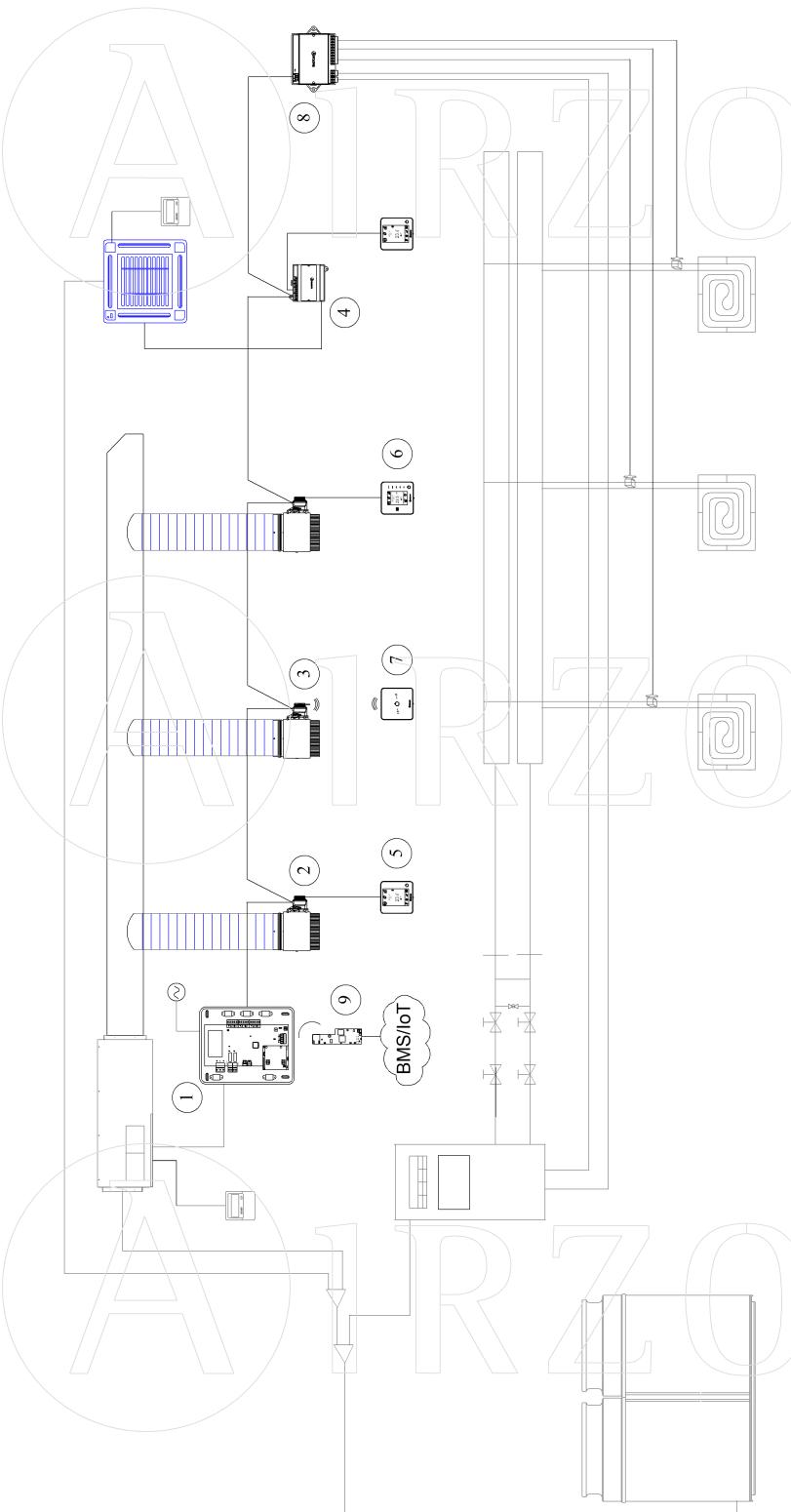
### *Features by Zone*

- ✓ Selection of the operation mode.
- ✓ Automatic power off by window contact.
- ✓ Delayed power off by occupancy detection.
- ✓ Input for remote temperature sensing.

**For more technical information please visit <http://myzone.airzoneusa.com>**

# Connection scheme

## DUCTED AND DUCTLESS UNITS + ZONE-SUPPLEMENTAL HEAT



(1)	AZVAFR[X][XXX]	Airzone VAF Control Board with [XXX] Communication Region [X]
(2)	AZVAFDAMPER[XXX]C	Airzone VAF [XX] Wired Intelligent Round Damper
(3)	AZVAFDAMPER[XXX]R	Airzone VAF [XX] Wireless Intelligent Round Damper
(4)	AZVAFZN[XXXX]C	Airzone VAF Wired Zone Module with [XXX] Communication
(5)	AZVAFBLUEFACECB	Airzone VAF Wired Blueface Principal Controller White
(6)	AZVAFTHINKCB	Airzone VAF Wired Think Controller White
(7)	AZVAFILTERB	Airzone VAF Wireless Lite Controller White
(8)	AZVAFSOUTPUTS	Airzone VAF Relay Radiant Heat Control Module
(9)	AZVAFWEBSLOUDC	Airzone VAF Ethernet Cloud Webserver

For more technical information:  
<http://myzone.airzoneusa.com/>

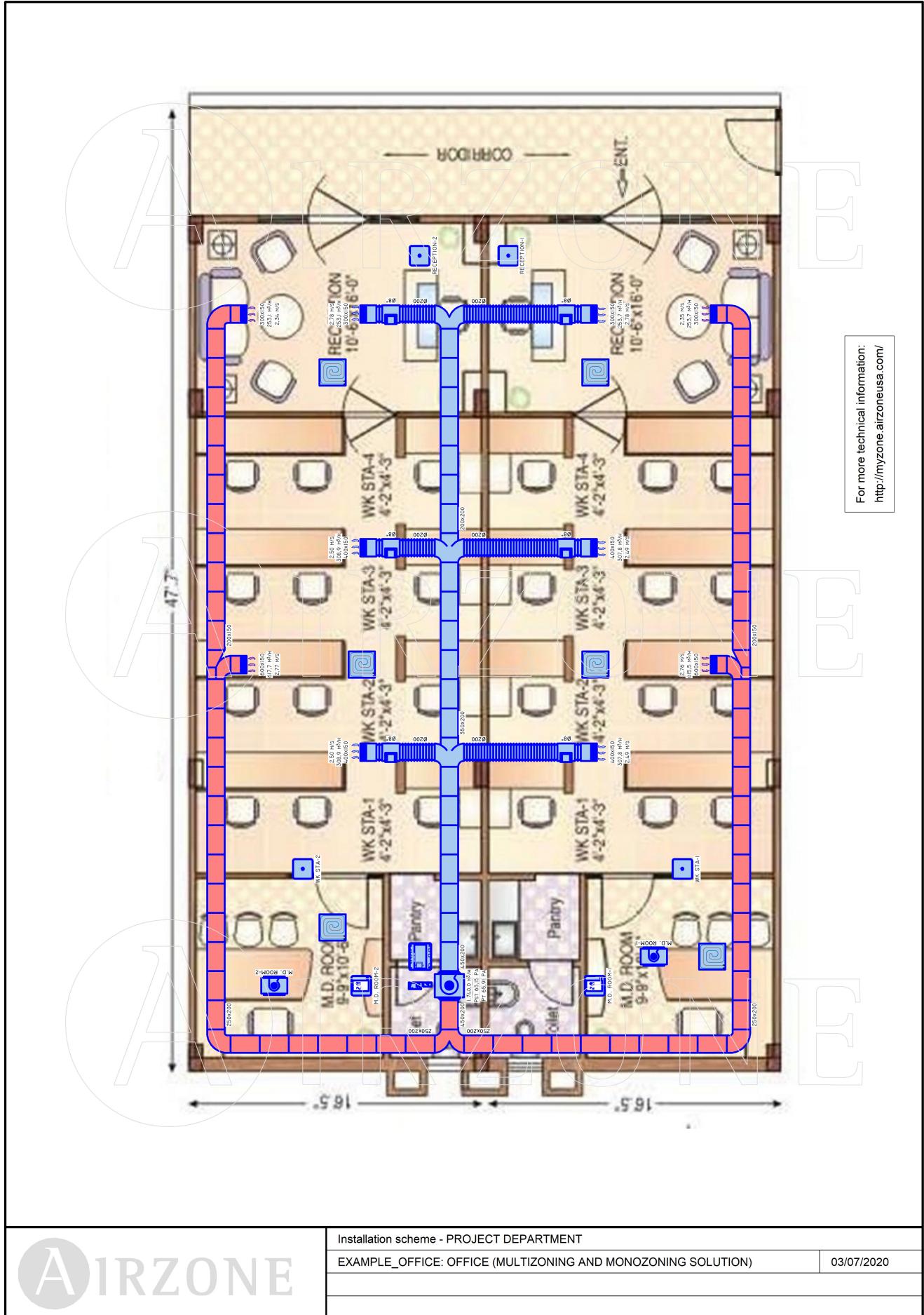


Connection scheme - PROJECT DEPARTMENT

EXAMPLE\_OFFICE: OFFICE (MULTIZONING AND MONOZONING SOLUTION)

03/07/2020

## Installation scheme



## Duct calculation details

EQUIPMENT FEATURES											
Reference	Technology	Air flow (m³/h)	Total pressure (Pa)	Static pressure (Pa)	Gateway	Bypass damper					
DAIKIN FBA 100A	Direct expansion DX	1.740,0	65,91	65,15	AZVAFR#DAI	-					
ZONES											
Reference			Surface area (m²)	Air flow (m³/h) Supply/Return	Diffusion		Control				
M.D. ROOM-1			9,8	0,0			Term. M.D. ROOM-1: BLUEFACE THERMOSTAT				
M.D. ROOM-2			9,8	0,0			Term. M.D. ROOM-2: BLUEFACE THERMOSTAT				
RECEPTION-1			15,6	253,7	RECEPTION 1 - R04		Term. RECEPTION-1: LITE THERMOSTAT				
RECEPTION-2			15,6	253,1	RECEPTION 2 - R02		Term. RECEPTION-2: LITE THERMOSTAT				
WK STA-1			38,0	615,5	WK STA-1 - WK STA 1 - R03		Term. WK STA-1: LITE THERMOSTAT				
WK STA-2			38,1	617,7	WK STA-2 - WK STA 2 - R01		Term. WK STA-2: LITE THERMOSTAT				
Total			126,9	1.740,0/1.740,0	-		-				
RESULTS IN DUCTS											
Section	Dimensions (Horz.xVert.) or Ø (mm)	Area (m²)	eqv. Ø (mm)	Leng. (m)	eqvl. (m)	Air flow (m³/h)	Veloc. (m/s)	ΔPs (Pa)	ΔPf (Pa)	ΔPt (Pa)	Pt. Final (Pa)
C01	450x200	0,09000	321	0,50	0,56	1.740,0	5,37	0,72	0,65	1,37	1,37
C02	450x200	0,09000	321	0,50	0,00	1.740,0	5,37	0,00	0,65	0,65	2,02
C03	450x200	0,09000	321	0,50	0,00	1.740,0	5,37	0,00	0,65	0,65	2,67
C04	450x200	0,09000	321	0,50	0,00	1.740,0	5,37	0,00	0,65	0,65	3,31
C02	450x200	0,09000	321	0,50	0,00	1.740,0	5,37	0,00	0,65	0,65	3,96
C03	450x200	0,09000	321	0,50	0,00	1.740,0	5,37	0,00	0,65	0,65	4,61
C04	450x200	0,09000	321	0,50	0,00	1.740,0	5,37	0,00	0,65	0,65	5,26
C06	350x200	0,07000	286	0,50	1,18	1.123,4	4,46	1,21	0,51	1,72	6,97
C05	350x200	0,07000	286	0,50	0,00	1.123,4	4,46	0,00	0,51	0,51	7,49
C06	350x200	0,07000	286	0,50	0,00	1.123,4	4,46	0,00	0,51	0,51	8,00
C07	350x200	0,07000	286	0,50	0,00	1.123,4	4,46	0,00	0,51	0,51	8,51
C08	350x200	0,07000	286	0,50	0,00	1.123,4	4,46	0,00	0,51	0,51	9,02
C09	350x200	0,07000	286	0,50	0,00	1.123,4	4,46	0,00	0,51	0,51	9,53
C15	200x200	0,04000	218	0,50	2,12	506,7	3,52	1,89	0,45	2,33	11,87
C10	200x200	0,04000	218	0,50	0,00	506,7	3,52	0,00	0,45	0,45	12,31
C11	200x200	0,04000	218	0,50	0,00	506,7	3,52	0,00	0,45	0,45	12,76
C16	200x200	0,04000	218	0,50	0,00	506,7	3,52	0,00	0,45	0,45	13,20
C17	200x200	0,04000	218	0,50	0,00	506,7	3,52	0,00	0,45	0,45	13,65
C18	200x200	0,04000	218	0,50	0,00	506,7	3,52	0,00	0,45	0,45	14,10
C19	200x200	0,04000	218	0,50	0,00	506,7	3,52	0,00	0,45	0,45	14,54
C20	Ø200	0,03142	200	0,50	10,08	253,1	2,24	7,45	0,37	7,82	22,37
C21	Ø200	0,03142	200	0,50	0,00	253,1	2,24	0,00	0,37	0,37	22,74
C22	Ø200	0,03142	200	0,50	10,03	253,7	2,24	7,45	0,37	7,82	22,37
C23	Ø200	0,03142	200	0,50	0,00	253,7	2,24	0,00	0,37	0,37	22,74
C24	Ø200	0,03142	200	0,50	0,00	253,7	2,24	0,00	0,37	0,37	23,11
C25	Ø200	0,03142	200	0,50	0,00	253,7	2,24	0,00	0,37	0,37	23,48
C26	Ø200	0,03142	200	0,50	12,69	308,9	2,73	13,49	0,53	14,02	23,55
C27	Ø200	0,03142	200	0,50	0,00	308,9	2,73	0,00	0,53	0,53	24,08
C28	Ø200	0,03142	200	0,50	12,76	307,8	2,72	13,47	0,53	14,00	23,53
C29	Ø200	0,03142	200	0,50	0,00	307,8	2,72	0,00	0,53	0,53	24,06
C30	Ø200	0,03142	200	0,50	0,00	307,8	2,72	0,00	0,53	0,53	24,59
C31	Ø200	0,03142	200	0,50	0,00	307,8	2,72	0,00	0,53	0,53	25,12
C40	Ø200	0,03142	200	0,50	19,24	307,8	2,72	20,32	0,53	20,85	26,11
C41	Ø200	0,03142	200	0,50	0,00	307,8	2,72	0,00	0,53	0,53	26,63
C42	Ø200	0,03142	200	0,50	0,00	307,8	2,72	0,00	0,53	0,53	27,16
C43	Ø200	0,03142	200	0,50	0,00	307,8	2,72	0,00	0,53	0,53	27,69
C38	Ø200	0,03142	200	0,50	19,16	308,9	2,73	20,37	0,53	20,90	26,16
C39	Ø200	0,03142	200	0,50	0,00	308,9	2,73	0,00	0,53	0,53	26,69
C01	450x200	0,09000	321	0,50	2,62	1.740,0	5,37	3,39	0,65	4,04	4,04
C02	250x200	0,05000	244	0,50	2,63	870,8	4,84	3,68	0,70	4,38	8,42
C03	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	9,12
C04	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	9,82
C05	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	10,52
C06	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	11,22
C07	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	11,92
C08	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	12,62

C09	250x200	0,05000	244	0,50	2,44	870,8	4,84	3,42	0,70	4,12	16,74
C10	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	17,44
C11	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	18,14
C12	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	18,84
C13	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	19,54
C14	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	20,24
C15	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	20,94
C16	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	21,64
C17	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	22,34
C18	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	23,04
C19	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	23,74
C20	250x200	0,05000	244	0,50	0,00	870,8	4,84	0,00	0,70	0,70	24,44
C21	200x150	0,03000	189	0,50	2,48	253,1	2,34	1,28	0,26	1,53	25,98
C22	200x150	0,03000	189	0,50	0,00	253,1	2,34	0,00	0,26	0,26	26,24
C23	200x150	0,03000	189	0,50	0,00	253,1	2,34	0,00	0,26	0,26	26,49
C24	200x150	0,03000	189	0,50	0,00	253,1	2,34	0,00	0,26	0,26	26,75
C25	200x150	0,03000	189	0,50	0,00	253,1	2,34	0,00	0,26	0,26	27,01
C26	200x150	0,03000	189	0,50	0,00	253,1	2,34	0,00	0,26	0,26	27,26
C27	200x150	0,03000	189	0,50	0,00	253,1	2,34	0,00	0,26	0,26	27,52
C28	200x150	0,03000	189	0,50	0,00	253,1	2,34	0,00	0,26	0,26	27,78
C29	200x150	0,03000	189	0,50	0,00	253,1	2,34	0,00	0,26	0,26	28,03
C30	200x150	0,03000	189	0,50	0,00	253,1	2,34	0,00	0,26	0,26	28,29
C31	200x150	0,03000	189	0,50	0,00	253,1	2,34	0,00	0,26	0,26	28,55
C32	250x200	0,05000	244	0,50	2,64	869,2	4,83	3,68	0,70	4,38	8,42
C33	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	9,12
C34	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	9,81
C35	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	10,51
C36	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	11,21
C37	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	11,91
C38	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	12,61
C39	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	13,31
C40	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	14,00
C41	250x200	0,05000	244	0,50	2,44	869,2	4,83	3,40	0,70	4,10	18,11
C42	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	18,80
C43	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	19,50
C44	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	20,20
C45	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	20,90
C46	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	21,60
C47	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	22,29
C48	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	22,99
C49	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	23,69
C50	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	24,39
C51	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	25,09
C52	250x200	0,05000	244	0,50	0,00	869,2	4,83	0,00	0,70	0,70	25,78
C53	200x150	0,03000	189	0,50	2,50	253,7	2,35	1,29	0,26	1,55	27,33
C54	200x150	0,03000	189	0,50	0,00	253,7	2,35	0,00	0,26	0,26	27,59
C55	200x150	0,03000	189	0,50	0,00	253,7	2,35	0,00	0,26	0,26	27,85
C56	200x150	0,03000	189	0,50	0,00	253,7	2,35	0,00	0,26	0,26	28,11
C57	200x150	0,03000	189	0,50	0,00	253,7	2,35	0,00	0,26	0,26	28,36
C58	200x150	0,03000	189	0,50	0,00	253,7	2,35	0,00	0,26	0,26	28,62
C59	200x150	0,03000	189	0,50	0,00	253,7	2,35	0,00	0,26	0,26	28,88
C60	200x150	0,03000	189	0,50	0,00	253,7	2,35	0,00	0,26	0,26	29,14
C61	200x150	0,03000	189	0,50	0,00	253,7	2,35	0,00	0,26	0,26	29,40
C62	200x150	0,03000	189	0,50	0,00	253,7	2,35	0,00	0,26	0,26	29,65
C63	200x150	0,03000	189	0,50	0,00	253,7	2,35	0,00	0,26	0,26	29,91

#### RESULTS AT VENTS

Ref.	Dimensions (Horz.xVert.) or Ø (mm)	Rat. Q (m <sup>3</sup> /h)	S. level (dBA)	Out. s. (m <sup>2</sup> )	Out. v. (m/s)	ΔPs (Pa)	ΔPb (Pa)	Throw (m)	ΔPv (Pa)
RECEPTION 2	300x150	253,1	< 15	0,02530	2,78	0,25	3,78	4,30	26,77
RECEPTION 1	300x150	253,7	< 15	0,02530	2,78	0,26	3,79	4,31	27,53
WK STA-2	400x150	308,9	< 15	0,03430	2,50	0,60	2,96	4,50	27,64
WK STA-1	400x150	307,8	< 15	0,03430	2,49	0,59	2,93	4,49	28,65
WK STA 1	400x150	307,8	< 15	0,03430	2,49	0,59	2,93	4,49	31,22
WK STA 2	400x150	308,9	< 15	0,03430	2,50	0,60	2,96	4,50	30,25
R01	600x150	617,7	22	0,06200	2,77	2,88	5,67	7,48	33,00
R02	300x150	253,1	16	0,03000	2,34	0,92	3,84	4,32	33,31
R03	600x150	615,5	21	0,06200	2,76	2,86	5,63	7,45	34,28
R04	300x150	253,7	16	0,03000	2,35	0,93	3,86	4,33	34,69

#### Abbreviations:

Rat. Q: Rated air flow	eqv. Ø: Equivalent diameter
S. level.: Regenerated individual sound level at head unit	Leng: Duct length
Out. s.: Effective output surface area	eqvl: Equivalent length of transformation pieces

*Out. v: Output velocity*

$\Delta P_s$ : Total pressure loss at input transformation piece

$\Delta P_b$ : Total pressure loss at vent

$\Delta P_{fv}$ : Total pressure loss from fan

$\Delta P_s$ : Total pressure loss at input transformation piece

$\Delta P_f$ : Pressure loss due to friction

$\Delta P_t$ : Total pressure loss

$\Delta P_{t\text{ Final}}$ : Total pressure loss from fan



## Airzone recommendation

### List of materials

File code:	EXAMPLE_OFFICE
Description:	OFFICE (MULTIZONING AND MONOZONING SOLUTION)
Date:	03/07/2020

Item	Description	Units
AZVAFZMDAIC	WIRED ZONE MODULE WITH DAIKIN COMMUNICATION	2
AZVAFRxDAI	CONTROL BOARD WITH DAIKIN COMMUNICATION	1
AZVAFLITECB	WIRED LITE CONTROLLER	4
AZVAFBLUEFACECB	BLUEFACE PRINCIPAL CONTROLLER	2
AZVAF5OUTPUTS	RELAY RADIANT HEAT CONTROL MODULE	2
AZVAFWSLOUDC	ETHERNET CLOUD WEB SERVER	1
AZVAFDAMPER08C	8" WIRED INTELLIGENT ROUND DAMPER	6

#### Other materials:

m <sup>2</sup>	Rectangular / Insulation panels duct (plus 10% offcuts)	59,17096
m	Circular / Flexible Ø200 duct	8,89

NOTE: Duct length is not exact since the ductwork has been sized by means of a simplified template.