



# Smart Home and Climate+

## VILLA Energy Class A+++

VirtoSmart Climate Solution is an intelligent solution for creating and maintaining the most comfortable indoor climate in homes and businesses



## VILLA 300 TOTAL AND 150 LIVING SPACE SQUARE METERS



3 Bedrooms +3 Bathrooms  
Living area, Kitchen  
Garden, Terrace , Pool

### KEY FEATURES FOR SMART CLIMATE 24/7, 365 DAYS A YEAR



Energy cost  
40-80 Euro Monthly



Temperature 21-23 Celsius  
depending on room



Humidity 55-65% depending  
on room



PPM 350-800





## **SMART LIGHT FEATURE**

You want to have light 125 LUX within all the house or area without touching any switcher.

Smart Virto will manage this level by opening/closing curtains, rolls and dimming light.

Using sun and internal lights.

Live Monitor management and live info.

Estimate of engineering equipment and the cost of installation work.



# Virto Smart Home Functionality

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## AIR QUALITY MANAGEMENT

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- humidity control
- constant temperature control
- PPM control and management

## POOL MANAGEMENT

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- automatic opening/closing
- water saving
- chemical control – displayed
- heating using solar panels/heat pumps
- cooling in summer

## AIR-TO-WATER HEAT PUMP CLIMATE CONTROL

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- maximum comfort, safety and energy efficiency — generation of the required amount of thermal energy for an ideal climate in building both in winter and summer
- environmentally friendly way to cool and heat your building, no high temperatures, pressures, CO2 emission
- 2 to 3 times less energy consumption than a gas or diesel boiler or a conventional air conditioner
- Energy efficiency class "A++"





## **UNDERFLOOR HEATING CONTROL**

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- maximum comfort of building heating during the winter period
- independent temperature control in all rooms of the building
- lower operating costs due to the reduced temperature of the heat transfer medium

The integration of a heat pump with underfloor heating is currently the most energy efficient solution available on market.

## **THE CONTROL OF THE SANITARY HOT WATER PREPARATION EQUIPMENT**

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- the required amount of sanitary hot water for the entire building
- recirculation for instant domestic hot water supply anywhere in the building
- 4-5 times lower costs for domestic hot water preparation
- automatic legionella protection
- energy efficiency class A+



## **THE CONTROL OF THE INDEPENDENT FAN COIL SYSTEM**

- cooling of the building in summer and emergency heating in winter
- independent temperature control in all rooms of the building
- maintaining the comfortable humidity level
- additional outdoor air supply for room ventilation

## **AUTOMATIC CLIMATE CONTROL SYSTEM ENSURES**

- control and independent management of the temperature in all rooms in the building (10 zones), as well as the control of fan coils. The total number of zones is 10.
- automatic alternation of temperature scenarios depending on time of day, season, outside temperature and weather, presence of people in the room, etc.
- the learning curve and sophisticated optimisation algorithms ensure the lowest possible energy costs for your home
- the possibility of manual or fully automatic control
- control of the hot water recirculation circuit according to a preset scenario
- short-term activation of circulation pumps, valves, fuel pumps to prevent their calcination in case of long periods of non-use of the building



## **AUTOMATIC LIGHTING CONTROL SYSTEM**

- LED lighting with 12 or 24 volt connection
- automatic, remote and manual control of lighting
- possibility of dimming lighting in all rooms
- possibility of lighting colour control in all rooms (RGBW)
- possibility of changing lighting scenarios in all rooms
- lighting control via motion detectors
- presence imitation - repeating lighting scenarios when the building is empty
- safety of use and energy saving



## SECURITY AND SIGNALLING CONTROL SYSTEM

- visual and/or acoustic signalling in the case of an alarm (sensors for water, smoke, movement, presence, lighting, humidity, temperature, CO2 (optional), glass break, door/window opening, noise, pressure)
- push notification or email in case of an alarm, which can be remotely deactivated
- voice notification via phone in case of an alarm
- presence imitation (repetition of the weekly scenario - lighting, roller shutters)
- possibility of alarm connection to police or security company control

## VIDEO MANAGEMENT SYSTEM

- possibility of remote connection and video control with video recording capability for up to 12 months
- transmission of image and video according to pre-set scenarios or security system activation







## **ACCESS CONTROL SYSTEM**

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- control of access to the building
- possibility of access control to rooms with electronic keys
- personalisation of magnetic key owners
- access statistics for personalised key holders
- modification of lighting, climate, access control, roller shutters per user
- push notification or email message in case of access control system actuation
- voice notification via phone
- Intercom system with a connection via internet (optional)

## **ROLLER SHUTTERS CONTROL SYSTEM**

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- independent control of all roller shutters in a building
- possibility to raise/lower all the roller shutters in a building, on a floor or in room
- control of lighting and heating/cooling in the building via scenarios for roller shutters



## **ROLLER SHUTTERS CONTROL SYSTEM**

- presence imitation — repeating of daily/weekly/monthly roller shutters scenarios while owners are away
- different scenarios for roller shutters control when the security system is activated
- remote, including via internet, automatic and manual control of roller shutters in all room

## **ELECTRICITY CONTROL AND ELECTRICITY METERING SYSTEM**

- statistical monitoring of electricity consumption in kW for any period of time (hour/day/week/month/year)
- statistical monitoring of kWh consumed (current consumption) in any period of time (hour/day/week/month/year)
- possibility to use a multi-tariff schedule (day/night tariff)
- possibility to limit or disconnect power supply in a whole building or separate rooms (optional)



## WATER CONTROL AND WATER METERING SYSTEM

- statistical monitoring of water consumption for any period of time (hour/day/week/month/year)
- statistics on water consumption (current consumption) at any time period (hour/day/week/month/year)
- multi-rate tariff (day/night tariff) option
- possibility to limit or disconnect the water supply in a building

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