



Air to water heat pumps

BI-ZONE KIT BZKA7V3



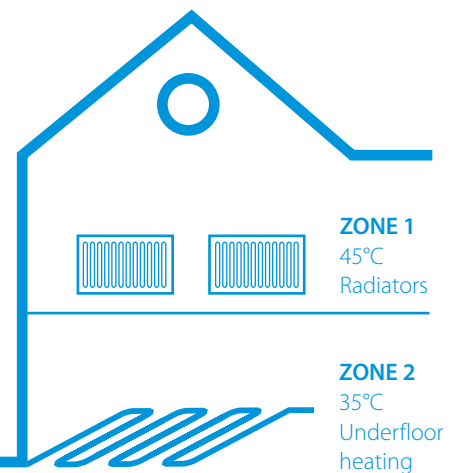
Regulation
of 2 separate
temperature
zones

Compatible
with the entire
Daikin Altherma
product line

For Daikin Altherma Low Temperature, High Temperature
and Hybrid heat pumps

BI-ZONE KIT

The bi-zone kit, which is compatible with all Daikin Altherma heat pumps, allows one unit to regulate two zones where the temperature of the outlets is different.



A complete offering with all of the necessary components: a practical, easy to install system.

✓ Components

- › 1 Inverter Class A circulator for the radiator zone
- › 1 Inverter Class A circulator for the floor zone
- › 1 exterior wireless probe
- › 1 mixer valve
- › 4 isolation valves
- › 1 controller
- › 2 wireless ambient temperature thermostats

✓ Operating Principle

- › This kit, combined with a Daikin Altherma heat pump, serves to distribute and regulate two zones in which the water temperatures are different.
- › The heat pump produces water at the temperature of the zone where the control requires a higher water temperature (radiators or fan coil units). The bi-zone kit will adjust that temperature to the one set for the underfloor heating.
- › That water temperature is constantly adjusted based on the exterior temperature.
- › The ambient temperature thermostats in each zone simultaneously communicate with the receiver, located near the heat pump, and with the bi-zone kit controller. The controller, by means of the signals received, communicates with the exterior probe to provide the ideal temperature based on the parameters selected.



✓ Advantages

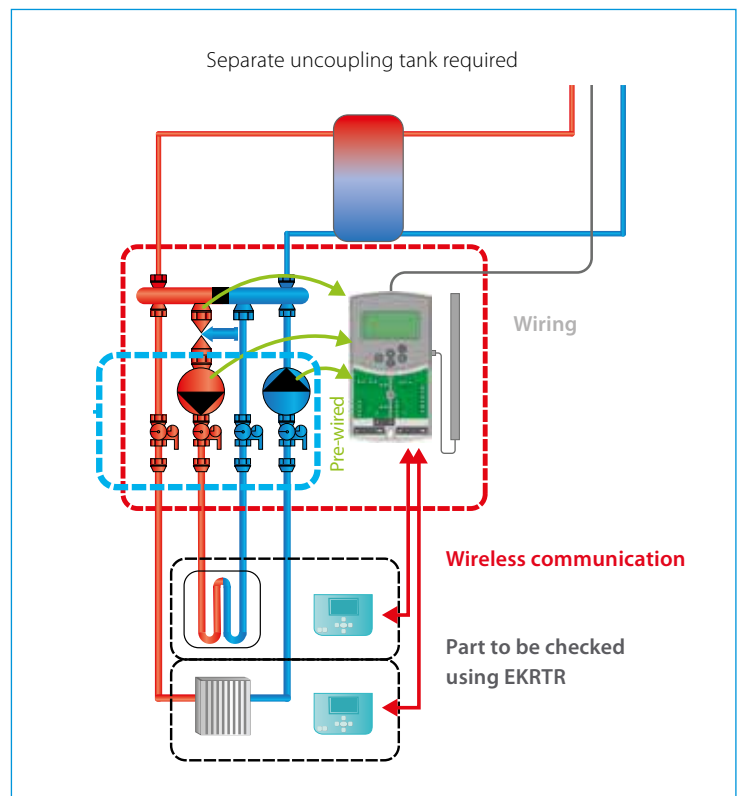
- › Highly efficient control of 2 temperature zones due to a double water law
- › Heating/Cooling mode
- › Factory-installed wireless components
- › Complete system for new constructions.

General characteristics

Leader/follower operation

**When the “leader” and “follower” ambient temperature thermostats are in the same mode:
Heating or Cooling: A demand by the “follower” thermostat will be processed even if there is no longer a demand by the leading ambient temperature thermostat.**

- › Leader ambient temperature thermostat ON - Follower ambient temperature thermostat OFF => Bi-zone kit ON => Daikin heat pump ON
- › Leader ambient temperature thermostat OFF - Follower ambient temperature thermostat ON => Bi-zone kit ON => Daikin heat pump ON
- › Leader ambient temperature thermostat OFF - Follower ambient temperature thermostat OFF => Bi-zone kit OFF => Daikin heat pump OFF
- › Leader ambient temperature thermostat ON - Follower ambient temperature thermostat OFF => Bi-zone kit ON => Daikin heat pump ON



Heating/cooling selection

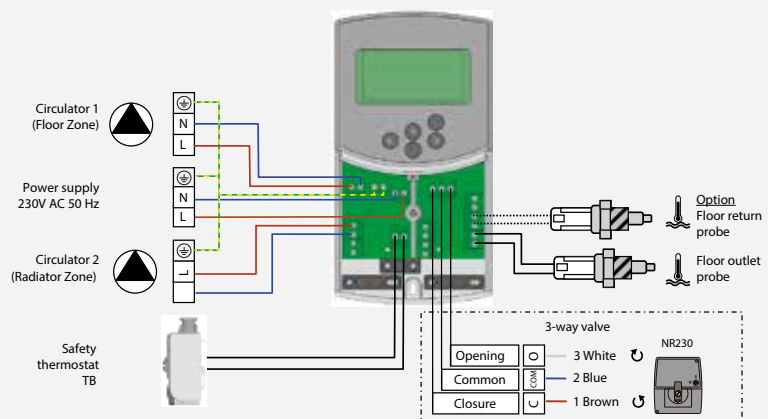
The leading ambient temperature thermostat defines the Heating/Cooling mode.

- › Heating leader ambient temperature thermostat - Heating follower ambient temperature thermostat => Heating bi-zone kit => **Daikin heat pump heating**.
- › Cooling leader ambient temperature thermostat - Cooling follower ambient temperature thermostat => Cooling bi-zone kit => **Daikin heat pump cooling**.
- › Heating leader ambient temperature thermostat - Cooling follower ambient temperature thermostat => Heating bi-zone kit => **Daikin heat pump heating**. The follower ambient temperature thermostat is ignored, even if the ambient temperature in the room is higher than the temperature set for the room in cooling mode.
- › Cooling leader ambient temperature thermostat - Heating follower ambient temperature thermostat => Cooling bi-zone kit => **Daikin heat pump cooling**. The follower ambient temperature thermostat is ignored, even if the ambient temperature in the room is lower than the temperature set for the room in heating mode.

Electrical hook-up of the controller

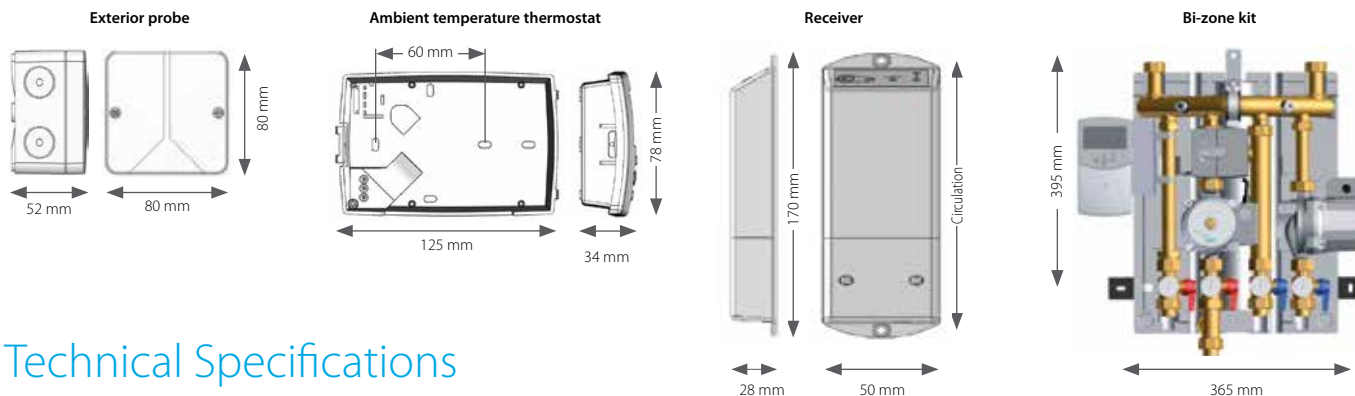
The controller has a default configuration for installation of an underfloor heating/cooling floor + radiators.

If the installation is of the heating/cooling + fan coil units type, the parameters are easy to change.



Component dimensions

All of the components (thermostat, exterior probe, receiver and controller) are factory-configured.



Technical Specifications

3-way mixer valve

Motor	
Power supply	230 V ~ 50/60 Hz
Power	2.5 W (5 Nm)
Adjustment angle	90°
Adjustment time	140 seconds
Manual operation	
Working ambient temperature	0°C – 50°C
Protection rating	IP 40
Valve	
Kvs value	6.3
Maximum pressure	10 bars
Possible adjustment angle	90°
Working ambient temperature	-20°C – 110°C

3-way mixer valve with 30% deviation

Technical data	
Working temperature range	-20°C – 110°C
Working pressure limit	10 bars
Maximum effective pressure	2 bars
Possible adjustment angle	90°
Motor torque required	3 Nm
Materials	
Mixer valve body	Ms58 brass
Ball valve shutter/axle	Ms58 brass
Valve body lid	Ms58 brass
Drive shaft	Plastic
O-ring	EPDM elastomer

Circulation pump

Circulator	
Type of construction	Yonos Para RS 15/6 130
Power supply	230 V ~ 50 Hz
Power	3 – 45 W
Maximum flow rate	3.3 m ³ /h
Draft height	6.2
Temperature range for applications in HVAC systems (heating, ventilation and air conditioning) at max. ambient temperature	of 57°C = 0 to 95°C - of 60°C = 0 to 90°C - of 67°C = 0 to 70°C
Protection rating	IP x4 D
EEI	≤ 0.20

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