

Yutaki Cascade installation 1/3 – schematic n°2

Common heating / cooling household in combination with individual DHW production

Type of application

In the schematic below, the production of DHW and space heating/cooling is simultaneous. This installation is suitable when there are different demands of DHW applications (different DHW setting temperature, different DHW usage patterns, variety of DHW volume required).

Additional information:

In this scenario, Yutaki Cascade Controller can operate for space heating – cooling application and each configured Yutaki slave can operate for DHW when needed. Each circuit 2 will continue working by using mixing kit and accumulated water into C1 buffer tank.

In this scenario, Yutaki Cascade Controller manage both space heating/cooling household and Yutaki DHW production:

Circuit 1 and circuit 2 management is performed by means of Yutaki Cascade Controller

Circuit 1 and circuit 2 can have wired/wireless/none thermostats or any combination option

Installer shall determine proper usage of collector systems

Configuration in Yutaki cascade controller side

Circuit 1: Enable at gradient/point/fixed temperature (thermostat option) (direct circuit)

Circuit 2: Enable at gradient/point/fixed temperature (thermostat option) (mixing circuit)

DHW: Disabled

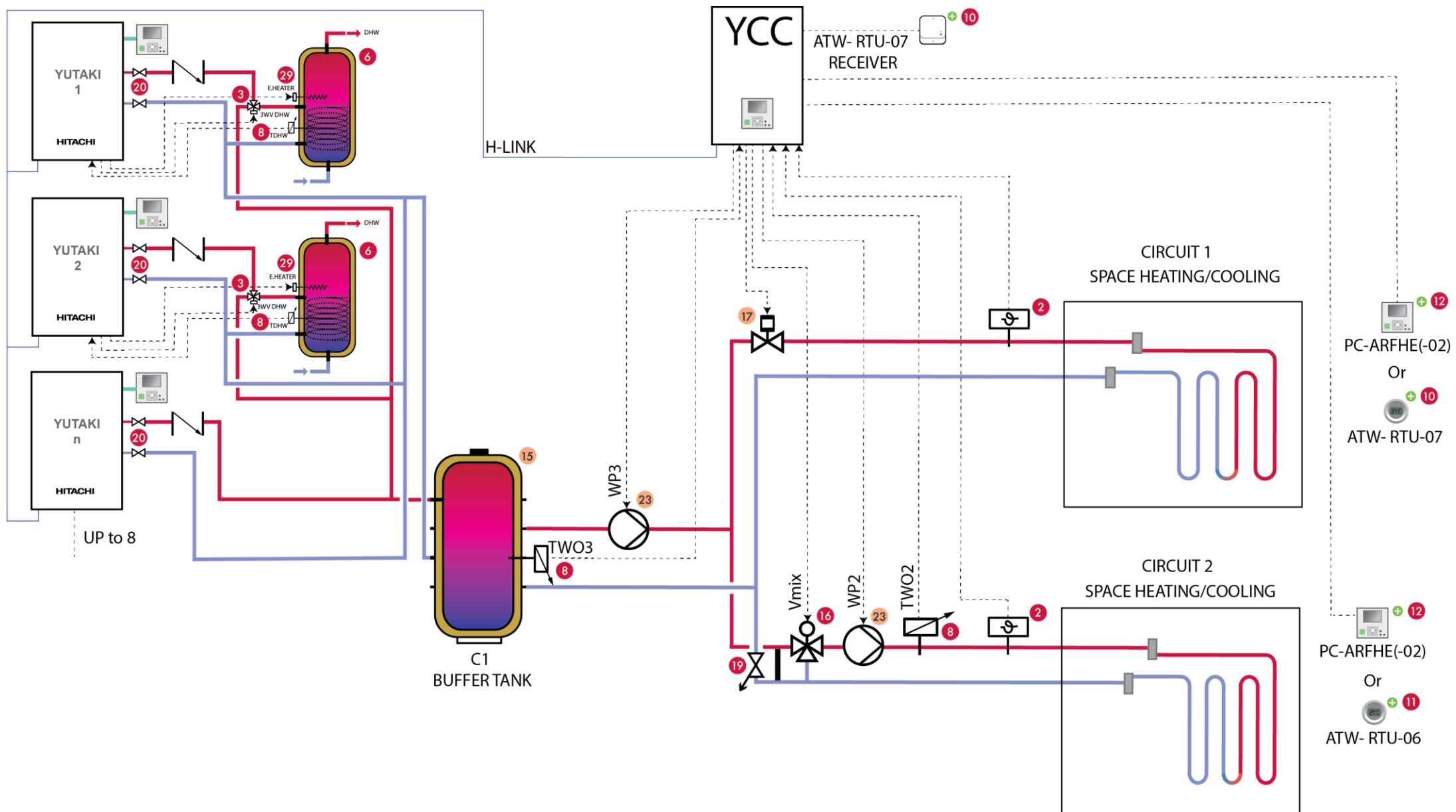
Cascade configuration menu (example in case that 6 modules are connected)

	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6	Module 7	Module 8
Status	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Disabled	Disabled
Refrigerant cycle address	0	1	2	3	4	5	6	7
Indoor unit address	0	0	0	0	0	0	0	0
Individual DHW	-	-	-	-	-	-	-	-
Status	Enabled	Enabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
Type	Master	Master	-	-	-	-	-	-

Configuration in Yutaki slave side

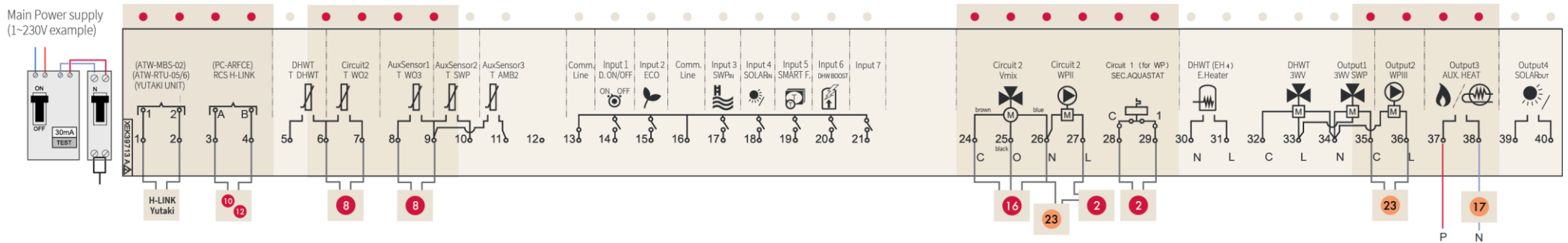
- 1. Central control:** Cascade mode – enabled
- 2. Circuit 1:** Enabled at fixed setting temperature (without room thermostat)
- 3. Circuit 2:** Disabled
- 4. DHW:** Enabled (by central controller automatically)
- 5. Additional configuration:**
 - Each unit need to assign refrigerant address (0/1/2/3/4/5/6/7) in accordance with Yutaki Cascade Controller modules configuration
 - The water pump in each slave unit can be set to Standard (continuous operation) or Economic mode (operation only in case there is operation demand from the Cascade Controller or if the slave unit has its own tank and is in demand ON conditions)

Yutaki Cascade installation 2/3 – schematic n°2



Yutaki Cascade installation 3/3 – schematic n°2

Yutaki cascade controller terminal board



Legends

- ATW heat pump
 - Underfloor heating
 - Aquastat
 - Motorized 3 way valve
 - DHW tank
 - Universal water temperature sensor
 - Option 10: Wireless intelligent thermostat + receiver
 - Option 11: Wireless intelligent thermostat 2nd circuit
 - Option 12: Wired room thermostat
 - Buffer tank
 - Mixing valve
 - 2 way valve
 - Balancing valve
 - Stop valve
 - Pump
 - DHW electric heater
 - Non-reversible valve
 - Yutaki cascade controller
- Hitachi accessories
● Field supply accessories