



improve your life

**DHW by eMix – closed circuit
solution**

argoclima

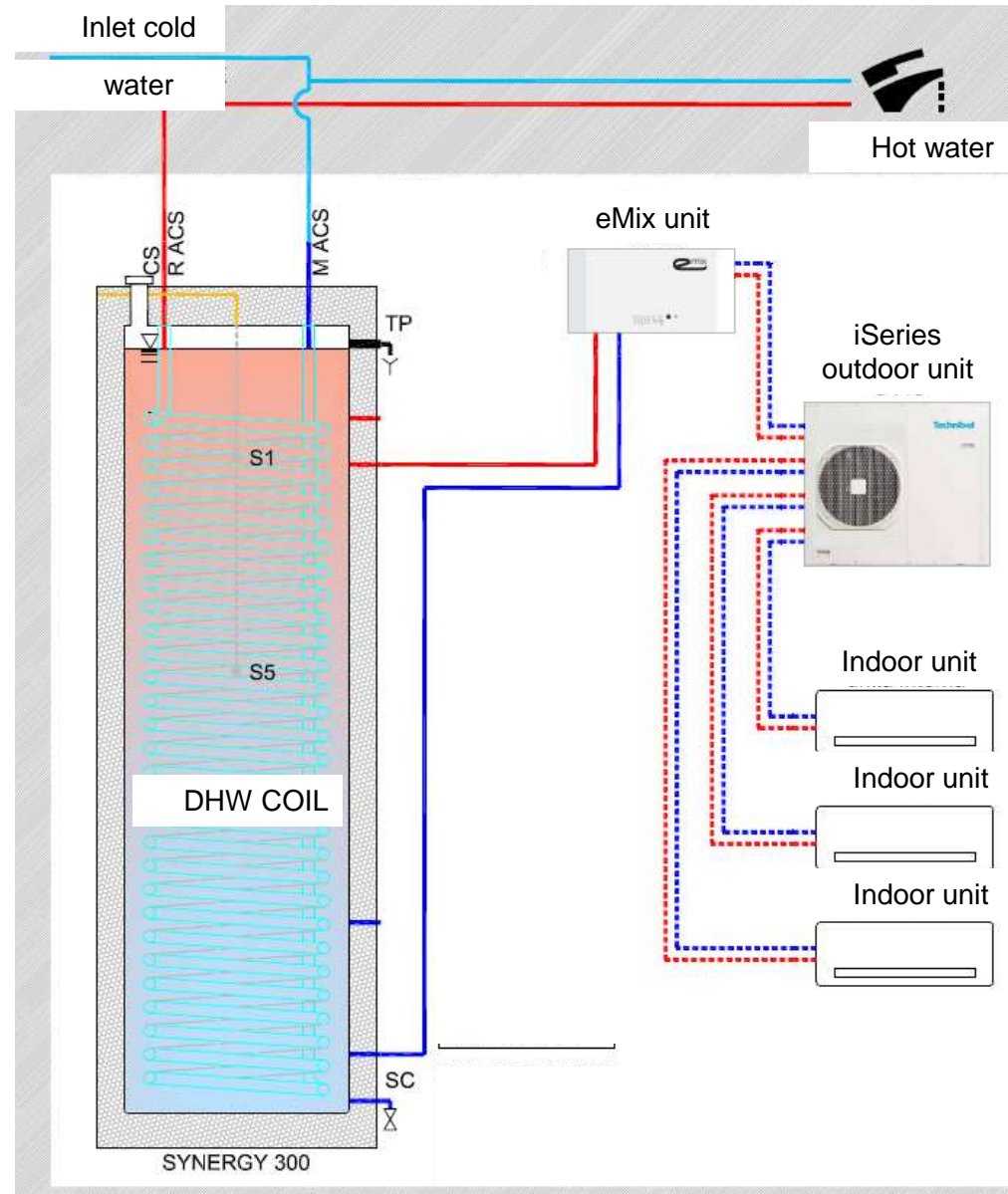
Introduction

This application note will show you another example of the high flexibility of eMix and iSeries. By this application, the installer can sell an instantaneous domestic hot water solution based on the iSeries heat pump. This application maintains all the benefits of heat recovery, cooling during DHW operation, mixed indoor unit between air to air and air to water for floor heating/cooling... (see iSeries concepts).

Basically the tap water is circulating inside a long coil placed in a water tank, continuously pre-heated by the eMix which is installed in a closed circuit (not directly in contact with tap water). The idea is to realize a closed circuit of domestic hot water, using a specific buffer tank model.

Check the next slide for more details.

This is a solution typically applied by one of iSeries installer, where you can easily understand the concept (pay attention to the coil inside the buffer tank)



Test data

- Buffer tank volume: 300 liters
- Heat exchanger length: 25 meters
- Water temperature set-point (inside tank): 50° C
- Cold water inlet temperature: 15° C
- Hot water outlet temperature: 47° C

eMix unit will maintain technical hot water set-point. Domestic hot water is heated passing through buffer tank coil. A mixing valve is suggested on tap line (otherwise you can use taps with mixing element).

Benefits

- You can use this application in order to provide an instantaneous solution with eMix unit.
 - No legionella issues (hot water is not stocked inside tank).
 - Good solution for retrofit installation where you can not change buffer tank or modify tap water circuit.
-



improve your life

Thank You

argoclima