PROJECT

Xativa

CLIENT

Xativa apartment block

MARKET / TIME

Spain / 2012

APPLICATION

Residentials

RANGE

VRF

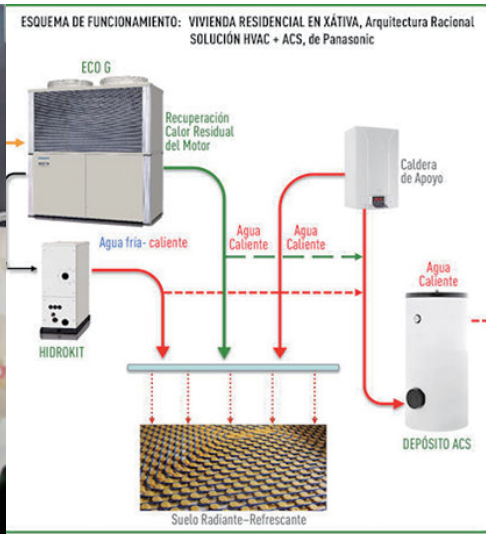
Year Installation: 2012

Background: A seven storey apartment block located in Xativa will include 176 flats, 8 staircases and 2 basement parking areas. This extensive project has been developed by Rational Architecture, a company that promotes efficient construction and sustainability.

Project Challenge: As part of the project, Rational Architecture was provided with a detailed brief including the installation of a heat pump to control ventilation and air flow. Heat Pumps would cool the building residents during the hot summer and equally heat during the cooler winter seasons. Another important requirement was that this building would be submitted for approval to the recently-introduced "20-20-20" European Objective. This European objective aims to eventually increase energy efficiency in Europe by 2020. This requires a 20% reduction of primary energy consumption within the European Union. In order to achieve this, greenhouse gas emissions need to be reduced by 20%, and the contribution of renewable energy needs to be increased by 20%.

Solution: Panasonic's ECO G System was chosen. With the temperatures in Valencia reaching on average 40°C during the summer and 15°C in the winter, the Panasonic's heat pump system works to control water temperature. This means they remain low during the appropriate season, avoiding high energy consumption which is produced when unnecessary high temperatures of water is generated. This operation is reversed during the warmer months. Within the building, each apartment housed two ECO G systems, one 20 HP and one 30 HP unit, creating a total of 282 kW per room.

Building Energy analysis: The ECO G System has an annual COP average of 1,412 and EER of 1,557. This is higher than the ratings of conventional heat



pumps due to the efficiency of the system at low temperature. As a result, the development is sustainable, energy efficient and constructed to a high standard.

Installation Data
Range: ECO G

List of Products

- Panasonic's ECO G System

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