

Title (en)

Heating cooling unit

Title (de)

Heiz- und/oder Kühleinheit

Title (fr)

Unité de chauffage et/ou de refroidissement

Publication

**EP 1746370 B1 20120829 (EN)**

Application

**EP 06116924 A 20060710**

Priority

IT PD20050223 A 20050718

Abstract (en)

[origin: EP1746370A2] A heating cooling unit, intended for meeting the thermal requirements of a building, comprising a box shaped supporting structure which is intended for being installed on the roof of the building and wherein there are contained: an air treatment station (10) for treating an air flow intended for conditioning one or more main rooms of the building, such station comprising heat exchange means (11,12) suitable for regulating the air flow temperature; a refrigeration circuit (20a,20b,20c), operating according to a vapor compression cycle, which is susceptible of providing a heat load generated by a condensation stage and a cool load generated by an evaporation stage; a first and a second hydraulic circuit (30,40) which are suitable for thermally connecting, through a thermal carrier fluid circulating therein, the refrigeration circuit (20) to the heat exchange means of the air treatment station (10) for regulating the air flow temperature by means of the heat load and/or the cool load, at least one of the two hydraulic circuits (30,40) being provided with a tank (31,41) for allowing the storage of the thermal carrier fluid, as well as with a delivery header (32,42) and with a return header (33,43) for allowing the thermal carrier fluid to circulate outside the heating cooling unit (1) and to feed conditioning devices located into secondary rooms of the building; - a hot sanitary water production circuit (50) which is thermally connected to one of the two hydraulic circuits for at least partly absorbing the heat load of the refrigeration circuit and is intended for being hydraulically connected to a water distribution network of the building; and a heat integration circuit (60), provided with a boiler (63), which can be thermally connected in parallel to one of the two hydraulic circuits and to the hot sanitary water production circuit (50) for integrating the heat load of the refrigeration circuit (20) in respectively heating the thermal carrier fluid and the sanitary water.

IPC 8 full level

**F25B 29/00** (2006.01); **F25D 17/02** (2006.01)

CPC (source: EP)

**F25B 29/003** (2013.01); **F25D 17/02** (2013.01); **F25B 13/00** (2013.01); **F25B 40/04** (2013.01); **F25B 2313/02741** (2013.01)

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