

Title (en)
Air conditioning and dehumidification integrated system

Title (de)
Integrierte Klima- und Entfeuchtungsanlage

Title (fr)
Système intégré de climatisation et de déshumidification

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Application
EP 10425383 A 20101215

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Abstract (en)
The present invention relates to an air conditioning and dehumidification integrated system (1, 1'), comprising a thermal source, a conditioning/dehumidification unit (20), for cooling and dehumidifying air by means of a desiccant solution, refrigerant means (40), connected with said conditioning/dehumidification unit (20), suitable for cooling said desiccant solution to a set beforehand temperature by controlling its temperature, to introduce said desiccant solution again into said conditioning/dehumidification unit (20), a tank (30), loop circuit connected with said conditioning/dehumidification unit (20) and with said refrigerant means (40), wherein a reserve of said desiccant solution from said conditioning/dehumidification unit (20) is collected, and means (60; 70) for regenerating said desiccant solution connected with said tank (30), said regeneration means (60; 70) being capable to re-concentrate said desiccant solution diluted that comes from said conditioning/dehumidification unit (20), extracting water therefrom using thermal energy obtained by said thermal source, in order to return said desiccant solution to said tank (30), characterized in that said regeneration means (60; 70) comprise a membrane distiller (61; 71) of the liquid/liquid type.

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