

Title (en)  
AIR-CONDITIONING METHOD AND DEVICE

Title (de)  
VERFAHREN UND VORRICHTUNG ZUR KONDITIONIERUNG VON LUFT

Title (fr)  
PROCÉDÉ ET DISPOSITIF POUR CONDITIONNER DE L'AIR

Publication  
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Application  
**EP 18765013 A 20180814**

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Abstract (en)  
[origin: WO2019052761A1] The invention relates to a method for air-conditioning a temperature-isolated test area of a test chamber for receiving a test object, said test area being closable with respect to the surroundings, and to a test chamber. A temperature ranging from -20 °C to +180 °C is produced within the test area using a cooling device (10) of a temperature-controlling device of the test chamber, comprising a cooling circuit (11) with a coolant, a heat exchanger (12), a compressor (13), a condenser (14), and an expansion element (15). The coolant of the high-pressure side is cooled by means of an internal heat exchanger (19) of the cooling circuit, said heat exchanger being connected to the high-pressure side (17) of the cooling circuit upstream of the expansion element and downstream of the condenser in the flow direction and to a low-pressure side (18) of the cooling circuit upstream of the compressor and downstream of the heat exchanger in the flow direction. A zeotropic coolant is used as the coolant, and the coolant of the high-pressure side is cooled by means of the internal heat exchanger in order to lower the evaporation temperature at the expansion element.

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