

Title (en)
COMPRESSION REFRIGERATION SYSTEM FOR ELECTRIC REFRIGERATION CHAMBERS

Title (de)
KOMPRESSIONSKÄLTEANLAGE FÜR ELEKTRISCHE KÄLTEKAMMER

Title (fr)
SYSTÈME FRIGORIFIQUE À COMPRESSION POUR CHAMBRE FRIGORIFIQUE ÉLECTRIQUE

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Abstract (en)
[origin: WO2021121546A1] The invention relates to a compression refrigeration system (100) having at least three thermally coupled refrigerant circuits (I, II, III), including a first refrigerant circuit (I) with a first refrigerant, which is liquefied or can be liquefied in a condenser (102) and is evaporated or can be evaporated in an evaporator (104) of a first heat exchanger (120), a second refrigerant circuit (II) with a second refrigerant, which is liquefied or can be liquefied in a condenser of the first heat exchanger (120), thereby dispensing heat to the first refrigerant circuit (I), and is evaporated or can be evaporated in an evaporator (204) of a second heat exchanger (230), and a third refrigerant circuit (III) with a third refrigerant, which is liquefied or can be liquefied in a condenser (302) of the second heat exchanger (230), thereby dispensing heat to the second refrigerant circuit (II), and is evaporated or can be evaporated in an evaporator (304). Each of the three refrigerant circuits (I, II, III) additionally has: at least one compressor (101, 201, 301) for compressing gaseous refrigerant and an expansion valve (103, 203, 303) for expanding liquefied refrigerant. Additionally, a third heat exchanger (130) is provided for thermally coupling the first refrigerant circuit (I) to the third refrigerant circuit (III), wherein the first refrigerant of the first refrigerant circuit (I) absorbs or can absorb heat from the third refrigerant of the third refrigerant circuit (III) in order to cool the third refrigerant of the third refrigerant circuit (III) in the third heat exchanger (130).

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