

Title (en)

Device and method for reliable starting of ORC systems

Title (de)

Vorrichtung und Verfahren zum zuverlässigen Starten von ORC Systemen

Title (fr)

Dispositif et procédé de démarrage fiable de systèmes ORC

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2015059069A1] The invention relates to a thermodynamic cycle device, comprising a working medium; an evaporator (2) for evaporating the working medium; an expansion machine (3) for generating mechanical energy while expanding the evaporated working medium; a capacitor (4) for condensing the working medium, and a pump (1) for pumping the condensed working medium to the capacitor. The geometrical arrangement of the evaporator is selected such that prior to starting the pump, the condensed working medium flows from the capacitor to the evaporator by force of gravity, the working medium can circulate in a closed circuit via the evaporator and the condenser, whereby in particular a predetermined forward-flow height of the liquid working medium can be provided at the pump. The invention further relates to a method for starting the thermodynamic cycle device according to the invention, comprising the following steps: acting upon the evaporator with heat and evaporating the working medium in the evaporator, as a result of which working medium flows to the capacitor; condensing the working medium in the capacitor; starting the pump upon reaching or exceeding a predetermined forward-flow height of the working medium at the pump.

IPC 8 full level

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