

Title (en)
REFRIGERATION AND/OR LIQUEFACTION DEVICE AND METHOD THEREOF

Title (de)
KÜHLANLAGE UND/ODER VERFLÜSSIGUNGSANLAGE UND VERFAHREN DAFÜR

Title (fr)
DISPOSITIF DE RÉFRIGÉRATION ET/OU DE LIQUÉFACTION ET PROCÉDÉ CORRESPONDANT

Publication
EP 2941602 A1 20151111 (FR)

Application
EP 13803118 A 20131108

Priority
• FR 1350018 A 20130103
• FR 2013052686 W 20131108

Abstract (en)
[origin: WO2014106697A1] Refrigeration device comprising a working circuit in a loop for the working gas and comprising, in series: a compression station (1), a cold box (2), a system (14) for the exchange of heat between the cooled working gas and a user (10), a system for the additional pre-cooling of the working gas leaving the compression station (2) comprising an auxiliary cryogenic fluid volume (3), the cold box (2) comprising a first cooling stage for the working gas comprising a first (5) and a second (15) heat exchanger, these being connected both in series and in parallel to the working circuit at the outlet of the compression station (1), the first cooling stage also comprising a third heat exchanger (25) selectively exchanging heat with the auxiliary fluid, characterized in that the third heat exchanger (25) is connected both in series and in parallel to the first (5) and to the second (15) heat exchangers, the working circuit comprising a recuperation pipe (125) fitted with at least one valve (225) and which connects the outlet of the third heat exchanger (25) to the second heat exchanger (15).

IPC 8 full level
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Citation (search report)
See references of WO 2014106697A1

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FR 3000541 A1 20140704; **FR 3000541 B1 20150123**; CN 104884878 A 20150902; CN 104884878 B 20170811; EP 2941602 A1 20151111; EP 2941602 B1 20170419; JP 2016504558 A 20160212; JP 6284950 B2 20180228; KR 102124677 B1 20200623; KR 20150103020 A 20150909; US 10520225 B2 20191231; US 2015345834 A1 20151203; WO 2014106697 A1 20140710

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