

Title (en)
FACILITY AND METHOD FOR REFRIGERATION AND/OR LIQUEFACTION OF A FLUID

Title (de)
ANLAGE UND VERFAHREN ZUR KÜHLUNG UND/ODER VERFLÜSSIGUNG EINES FLUIDS

Title (fr)
INSTALLATION ET PROCÉDÉ DE RÉFRIGÉRATION ET/OU DE LIQUEFACTION D'UN FLUIDE

Publication
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Application
EP 21783505 A 20210928

Priority
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Abstract (en)
[origin: WO2022073799A1] Disclosed is a facility (1) for the refrigeration and/or liquefaction of a fluid, comprising a circuit (2) of fluid to be cooled comprising an upstream end (21) intended to be connected to a source of fluid to be cooled and a downstream end (22) intended to be connected to a member for collecting the cooled and/or liquefied fluid; the facility (1) comprising an assembly of heat exchanger(s) (3, 4) in thermal exchange with the circuit (2) of fluid to be cooled; the facility (1) comprising a cooling device in thermal exchange with the assembly of heat exchanger(s) (3, 4); the cooling device comprising a refrigerator (5) with a refrigeration cycle for a cycle gas in a working circuit; the working circuit of the refrigerator (5) comprising a mechanism (6) for compressing the cycle gas, a system (3, 4) for cooling the cycle gas, a mechanism (7) for expanding the cycle gas and a system (4, 3) for heating the cycle gas; the mechanism (7) for expanding the cycle gas comprising several turbines (7) secured to shafts mounted so as to be able to rotate on aerostatic bearings (17); the facility (1) comprising mechanisms for braking the turbines (17), the braking mechanisms each comprising a braking compressor (27) secured to a shaft of a turbine (7) and a braking gas circuit (9) incorporating the braking compressor (27); the braking gas circuits (9) comprising a system for cooling the braking gas downstream of the braking compressor (27) and a mechanism (11) for expanding the braking gas; the facility (1) being equipped with a compressed lifting gas circuit comprising an end connected to a compressed lifting gas source and a downstream end connected to the bearings (17), and being characterised in that the compressed lifting gas source comprises at least one of the braking circuits (9).

IPC 8 full level
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