

Title (en)  
COMBINED REFRIGERATION AND POWER PLANT

Title (de)  
KOMBINIERTES KÜHL- UND KRAFTWERK

Title (fr)  
CENTRALE ÉLECTRIQUE ET RÉFRIGÉRATION COMBINÉE

Publication  
**EP 3488161 A1 20190529 (EN)**

Application  
**EP 17742395 A 20170710**

Priority

- GB 201612552 A 20160720
- EP 2017067291 W 20170710

Abstract (en)  
[origin: WO2018015199A1] A combined refrigeration and power plant (10). The power plant (10) comprises an internal combustion engine (16) an air cycle machine refrigerator (45) driven by the internal combustion engine (16) and configured to refrigerate atmospheric air to provide working fluid to a combined refrigeration and power generation cycle, a refrigerated air storage unit (62) configured to store working fluid produced by the air cycle machine refrigerator; and first and second heat exchangers (15, 27). The first heat exchanger arrangement (15) is configured to exchange heat between a device to be cooled (14) and the working fluid, and the second heat exchanger arrangement (27) is configured to exchange heat between the working fluid downstream of the first heat exchanger (15) in the combined refrigeration and power generation cycle and waste heat from the internal combustion engine (16); and a generator turbine (42) configured to receive heated working fluid from the second heat exchanger arrangement (27), and configured to power an electrical generator (12).

IPC 8 full level  
**F25B 27/02** (2006.01)

CPC (source: EP US)  
**F25B 9/004** (2013.01 - EP US); **F25B 9/06** (2013.01 - EP US); **F25B 27/00** (2013.01 - EP US); **F25B 2327/001** (2013.01 - EP US); **F25B 2400/141** (2013.01 - US); **Y02A 30/274** (2017.12 - EP US)

Citation (search report)  
See references of WO 2018015199A1

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AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2018015199 A1 20180125**; EP 3488161 A1 20190529; GB 201612552 D0 20160831; US 2019309997 A1 20191010

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**EP 2017067291 W 20170710**; EP 17742395 A 20170710; GB 201612552 A 20160720; US 201716311569 A 20170710