

Title (en)
MACHINE FOR CONVERTING RESIDUAL HEAT INTO MECHANICAL ENERGY

Title (de)
MASCHINE ZUR UMWANDLUNG VON RESTWÄRME IN MECHANISCHE ENERGIE

Title (fr)
MACHINE DE CONVERSION DE CHALEUR FATALE EN ÉNERGIE MÉCANIQUE

Publication
EP 3861196 A1 20210811 (FR)

Application
EP 19795290 A 20191001

Priority
• FR 1859135 A 20181002
• FR 2019052315 W 20191001

Abstract (en)
[origin: WO2020070432A1] The invention relates to a machine for converting heat into mechanical energy, comprising an expansion valve (EXP) producing mechanical energy from a flow of vapour of a fluid, an evaporator (EVAP) heated by a heat source (Sh) at a high temperature (Th) and configured to supply the expansion valve with vapour; a condenser (COND) cooled by a cold source (Sb) at a low temperature (Tb) and configured to condense vapour delivered by the expansion valve; a liquid circuit (VL) configured to transfer the fluid in the liquid phase from the condenser to the evaporator; a vapour circuit (VV) configured to transfer the fluid in the vapour phase from the evaporator to the condenser; and valves configured in order, in a first so-called active time, to shut off the liquid and vapour circuits (VV, VL), and in a second so-called inactive time, to open the liquid and vapour circuits.

IPC 8 full level
F01K 27/00 (2006.01)

CPC (source: EP US)
F01K 1/08 (2013.01 - US); **F01K 25/08** (2013.01 - US); **F01K 27/005** (2013.01 - EP US)

Designated contracting state (EPC)
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)
FR 3086694 A1 20200403; **FR 3086694 B1 20231222**; CN 112789391 A 20210511; CN 112789391 B 20230630; EP 3861196 A1 20210811; EP 3861196 B1 20231129; EP 3861196 C0 20231129; ES 2970119 T3 20240527; HR P20240158 T1 20240426; PL 3861196 T3 20240325; RS 65145 B1 20240229; US 11230949 B2 20220125; US 2021332723 A1 20211028; WO 2020070432 A1 20200409

DOCDB simple family (application)
FR 1859135 A 20181002; CN 201980065251 A 20191001; EP 19795290 A 20191001; ES 19795290 T 20191001; FR 2019052315 W 20191001; HR P20240158 T 20191001; PL 19795290 T 20191001; RS P20240142 A 20191001; US 201917250959 A 20191001