

Title (en)
HEATING AND COOLING TECHNOLOGIES INCLUDING TEMPERATURE REGULATING PAD WRAP AND TECHNOLOGIES WITH LIQUID SYSTEM

Title (de)
HEIZ- UND KÜHLTECHNOLOGIEN, EINSCHLIESSLICH TEMPERATURREGELNDER KISSENHÜLLE UND TECHNOLOGIEN MIT FLÜSSIGSYSTEM

Title (fr)
TECHNOLOGIES DE CHAUFFAGE ET DE REFROIDISSEMENT COMPRENANT UNE ENVELOPPE DE COUSSIN DE RÉGULATION DE TEMPÉRATURE ET TECHNOLOGIES AVEC SYSTÈME LIQUIDE

Publication
EP 3602641 A1 20200205 (EN)

Application
EP 18771254 A 20180321

Priority
• US 201762473966 P 20170320
• US 201715526954 A 20170515
• US 201762563702 P 20170927
• US 2018023443 W 20180321

Abstract (en)
[origin: WO2018175506A1] A heating and cooling device is disclosed comprising at least one integral low voltage heating and cooling source and an efficient flexible heat distribution means having a thermal conductivity of from 375 to 4000 W/mK for distributing the heat and cool across a surface. Further aspects include thermal interface compounds to provide full thermal contact as well as the use of a phase change material to provide a long lasting heating and/or cooling effect without the use of external electrical input. Preferred applications include automotive and furniture seating heating and cooling, along with outdoor garments having distributed heating and cooling effects. Additional aspects include a thermal pad wrap and a thermally conductive liquid system for heat/cool distribution.

IPC 8 full level
H10N 10/13 (2023.01); **B82Y 30/00** (2011.01); **F25B 29/00** (2006.01); **H10N 10/17** (2023.01)

CPC (source: EP)
A61F 7/007 (2013.01); **F25B 21/04** (2013.01); **H10N 10/13** (2023.02); **H10N 10/17** (2023.02); **A61F 2007/0075** (2013.01); **A61F 2007/0247** (2013.01); **A61F 2007/0292** (2013.01); **B82Y 30/00** (2013.01)

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)
WO 2018175506 A1 20180927; BR 112019019628 A2 20200414; EP 3602641 A1 20200205; EP 3602641 A4 20210113

DOCDB simple family (application)
US 2018023443 W 20180321; BR 112019019628 A 20180321; EP 18771254 A 20180321