

Title (en)
UMBRELLA HAVING AN ANTI-INVERSION MECHANISM

Title (de)
REGENSCHIRM MIT UMDREHSCHUTZMECHANISMUS

Title (fr)
PARAPLUIE DOTÉ D'UN MÉCANISME ANTI-RETOURNEMENT

Publication
EP 3500128 A4 20200115 (EN)

Application
EP 17841773 A 20170120

Priority
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• US 2017014241 W 20170120

Abstract (en)
[origin: WO2018034691A1] An umbrella has a plurality of ribs attached to a runner by main struts. The umbrella has an anti-inversion mechanism formed of a plurality of anti-inversion struts. Each anti-inversion strut is pivotally coupled to one respective main strut and is pivotally connected to a floating joint member that is freely movable along a length of one respective rib. The anti-inversion mechanism also includes a stop that is fixedly attached to the rib and restricts the degree of travel of the floating joint member along the rib and is positioned to prevent the respective rib from inverting in response to an applied force.

IPC 8 full level
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A45B 25/22 (2013.01 - EP KR); **A45B 2023/0056** (2013.01 - EP)

Citation (search report)
• [A] US 2011108074 A1 20110512 - YOU CHING-CHUAN [TW]
• [A] DE 817791 C 19511018 - NEUMANN WILLI
• [A] DE 390403 C 19240222 - WILHELM KOPP
• [A] US 2006283490 A1 20061221 - GOBEL EBERHARD [DE]
• [A] CN 2381177 Y 20000607 - ASIA UMBRELLA INDUSTRY CO LTD [CN]
• See references of WO 2018034691A1

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

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WO 2018034691 A1 20180222; AU 2017313652 A1 20190321; AU 2017313652 B2 20230629; CA 3033639 A1 20180222;
CN 109982599 A 20190705; CN 109982599 B 20210601; EP 3500128 A1 20190626; EP 3500128 A4 20200115; EP 3500128 B1 20210505;
ES 2881519 T3 20211129; JP 2019524343 A 20190905; JP 6905581 B2 20210721; KR 102321539 B1 20211103; KR 20190051986 A 20190515;
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