

Title (en)
METHOD AND DEVICE FOR OPTIMISING PHOTOVOLTAIC PANELS AND PHOTOVOLTAIC PANELS OPTIMISED USING THIS METHOD

Title (de)
VERFAHREN UND VORRICHTUNG ZUR OPTIMIERUNG VON FOTOVOLTAISCHEN PANEELN UND MIT DIESEM VERFAHREN OPTIMIERTE FOTOVOLTAISCHE PANEELE

Title (fr)
PROCEDE ET DISPOSITIF D'OPTIMISATION DE PANNEAUX PHOTOVOLTAIQUES ET PANNEAUX PHOTOVOLTAIQUES OPTIMISES SELON CE PROCEDE

Publication
EP 4248497 A1 20230927 (FR)

Application
EP 21819086 A 20211119

Priority
• FR 2011935 A 20201120
• EP 2021082366 W 20211119

Abstract (en)
[origin: WO2022106652A1] Method for optimising an existing generating system with photovoltaic cells, which system is provided with an existing photovoltaic panel (100, 200, 300) or a group of existing photovoltaic panels, each existing panel being provided with a first plurality P of cells of a first type which are interconnected in series or in series/parallel, comprising: determining (1) the operating voltage VMPP of the existing panel or group of panels; constructing (2) one or more additional panel modules (10, 51, 52, 53) comprising a second plurality Q of thin-layer cells of a second type and with a band gap different from the cells of the existing panel or the existing panels of the group of existing panels, the second plurality Q of the additional module being configured to supply an operating voltage V1 equal to within $\pm 10\%$ of the voltage VMPP of the panel or the group of existing panels; positioning (3) the additional module in an overlapping manner on or under the existing panel or any one of the panels of the group of existing panels, the module being connected in parallel to the existing panel or the group of existing panels or positioning (3) the plurality of additional modules in an overlapping manner on or under several of the existing panels of the group of existing panels, the plurality of modules being connected in parallel to the group of existing panels.

IPC 8 full level
H01L 31/043 (2014.01); **H01L 25/04** (2023.01); **H01L 31/02** (2006.01)

CPC (source: EP US)
H01L 25/043 (2013.01 - EP); **H01L 31/02008** (2013.01 - EP); **H01L 31/043** (2014.12 - EP); **H02S 30/00** (2013.01 - US); **H02S 40/36** (2014.12 - US); **H02S 50/10** (2014.12 - US); **Y02E 10/50** (2013.01 - EP)

Citation (search report)
See references of WO 2022106652A1

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
FR 3116677 A1 20220527; CN 117083712 A 20231117; EP 4248497 A1 20230927; US 2023421094 A1 20231228;
WO 2022106652 A1 20220527

DOCDB simple family (application)
FR 2011935 A 20201120; CN 202180076852 A 20211119; EP 2021082366 W 20211119; EP 21819086 A 20211119;
US 202118253087 A 20211119