

Title (en)
ACTIVE IMPLANTABLE MEDICAL DEVICE FOR COMBINED TREATMENT OF CARDIAC RHYTHM AND OF RESPIRATORY RHYTHM

Title (de)
AKTIVES IMPLANTIERBARES MEDIZINPRODUKT ZUR KOMBINIERTEN BEHANDLUNG VON HERZRHYTHMUS UND ATMUNGSRHYTHMUS

Title (fr)
DISPOSITIF MÉDICAL IMPLANTABLE ACTIF DE TRAITEMENT COMBINÉ DU RYTHME CARDIAQUE ET DU RYTHME RESPIRATOIRE

Publication
[EP 3429680 A1 20190123 \(FR\)](#)

Application
[EP 17710572 A 20170317](#)

Priority

- FR 1652297 A 20160318
- EP 2017056419 W 20170317

Abstract (en)
[origin: WO2017158174A1] This device comprises an autonomous subcutaneous unit (110) with a leaktight body, incorporating a control circuit for the cardiac rhythm, a control circuit for the respiratory rhythm, and a combined operating circuit for operating the control circuits for cardiac rhythm and respiratory rhythm. It additionally comprises at least one cardiostimulation microprobe (120) with at least one electrode (122) implanted in or on the myocardium, and at least one neurostimulation microprobe (130; 140) with at least one electrode (132; 142) to be implanted on or near a nerve (NPCPG; NPCPD) of the patient. The device overall is in the form of an autonomous hybrid capsule integrating, within one and the same assembly, the autonomous unit (110), the cardiostimulation probe (120) and the neurostimulation probes (130; 140), without an electrical connector between the electronic circuits and the microprobes, and each of the probes is a continuation of the leaktight body of the autonomous unit (110) at one side of the latter.

IPC 8 full level
[A61N 1/36](#) (2006.01); [A61N 1/362](#) (2006.01)

CPC (source: EP US)
[A61N 1/0551](#) (2013.01 - US); [A61N 1/056](#) (2013.01 - US); [A61N 1/3601](#) (2013.01 - EP US); [A61N 1/3611](#) (2013.01 - EP US);
[A61N 1/36114](#) (2013.01 - EP US); [A61N 1/36139](#) (2013.01 - US); [A61N 1/362](#) (2013.01 - EP US); [A61N 1/365](#) (2013.01 - US);
[A61N 1/37217](#) (2013.01 - US); [A61N 1/37512](#) (2017.07 - US); [A61N 1/3756](#) (2013.01 - US)

Citation (search report)
See references of WO 2017158174A1

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 2017158174 A1 20170921](#); EP 3429680 A1 20190123; US 2019070411 A1 20190307

DOCDB simple family (application)
[EP 2017056419 W 20170317](#); EP 17710572 A 20170317; US 201716084939 A 20170317