Title (en)

POSITIONING UNIT FOR A CHARGING STATION, AND METHOD FOR MAKING CONTACT

Title (de)

POSITIONIEREINHEIT FÜR EINE LADESTATION UND VERFAHREN ZUR KONTAKTIERUNG

Title (fr)

UNITÉ DE POSITIONNEMENT POUR UNE STATION DE CHARGE ET PROCÉDÉ POUR ÉTABLIR UN CONTACT

Publication

EP 4045352 A1 20220824 (DE)

Application

EP 19797184 A 20191017

Priority

EP 2019078272 W 20191017

Abstract (en)

[origin: WO2021073745A1] The invention relates to a positioning unit (10) and to a method for forming an electrically conductive connection between a stationary charging station and a vehicle, in particular an electric bus or the like, by means of a positioning unit, wherein, by means of the positioning unit, an electrical charging contact (11) of the positioning unit is movable relative to the charging contact surface and can be brought into contact therewith, wherein the positioning unit has a positioning apparatus (12) and a drive apparatus (13) for driving the positioning apparatus, the charging contact being positionable by means of the positioning apparatus between a contact position, for current transmission, and an entry position, for current interruption, the drive apparatus having an adjusting drive for generating an adjusting force acting on the positioning apparatus and a spring device (15) which mechanically interacts with the adjusting drive, the spring device comprising at least one contact spring (16), wherein a contact force on the charging contact surface can be formed by the adjusting drive and the contact spring, the positioning apparatus comprising a fixed bearing (17), an upper segment (18) arranged on the fixed bearing so as to be linearly movable in a vertical adjusting direction, and a lower segment (19) arranged on the upper segment so as to be linearly movable in the vertical adjusting direction, wherein the contact spring is coupled to the fixed bearing and the upper segment, the upper segment being movable relative to the lower segment by means of the adjusting drive.

IPC 8 full level

B60L 5/42 (2006.01); **B60L 53/30** (2019.01); **B60L 53/35** (2019.01)

CPC (source: EP KR US)

B60L 5/42 (2013.01 - EP KR); **B60L 53/14** (2019.02 - KR); **B60L 53/16** (2019.02 - US); **B60L 53/30** (2019.02 - EP); **B60L 53/35** (2019.02 - EP KR US); B60L 2200/18 (2013.01 - KR US); B60Y 2200/143 (2013.01 - KR); B60Y 2200/91 (2013.01 - KR); Y02T 10/70 (2013.01 - EP KR); Y02T 10/7072 (2013.01 - EP KR); Y02T 90/12 (2013.01 - EP KR); Y02T 90/14 (2013.01 - EP)

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 2021073745 A1 20210422; AU 2019470169 A1 20220421; CA 3153987 A1 20210422; CN 114929506 A 20220819; EP 4045352 A1 20220824; JP 2023502565 A 20230125; JP 7328450 B2 20230816; KR 20220082861 A 20220617; US 2024131942 A1 20240425

DOCDB simple family (application)

EP 2019078272 W 20191017; AU 2019470169 A 20191017; CA 3153987 A 20191017; CN 201980101370 A 20191017; EP 19797184 A 20191017; JP 2022521664 A 20191017; KR 20227015499 A 20191017; US 201917769254 A 20191016