



US 20220352735A1

(19) **United States**(12) **Patent Application Publication**
NITZSCHNER et al.(10) **Pub. No.: US 2022/0352735 A1**(43) **Pub. Date: Nov. 3, 2022**(54) **ADAPTER****Publication Classification**(71) Applicant: **Hilti Aktiengesellschaft**, Schaan (LI)(51) **Int. Cl.**
H02J 7/00 (2006.01)**B25F 5/00** (2006.01)(72) Inventors: **Michael NITZSCHNER**, Augsburg (DE); **Muralidhar VENKATRAMAN**, Kaufering (DE); **Leonard JANCZYK**, Landsberg am Lech (DE)(52) **U.S. Cl.**
CPC **H02J 7/0045** (2013.01); **B25F 5/00** (2013.01); **H02J 7/0047** (2013.01); **H02J 7/0029** (2013.01)(21) Appl. No.: **17/762,828**(57) **ABSTRACT**(22) PCT Filed: **Oct. 6, 2020**(86) PCT No.: **PCT/EP2020/077939**

§ 371 (c)(1),

(2) Date: **Mar. 23, 2022**

An adapter for releasably connecting a power tool to a rechargeable battery, and a first and a second interface, a first set of control electronics and a second set of control electronics and a switching element for reversibly setting the second control electronics to an activation mode or deactivation mode, wherein in the activation mode at least a first transistor can be driven such that electrical energy can pass from the rechargeable battery to the power tool. A system with the power tool and adapter and a method for open-loop and closed-loop control of an adapter are also provided.

(30) **Foreign Application Priority Data**

Oct. 16, 2019 (EP) 19203585.5

