



US 20220368128A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0368128 A1**  
(43) **Pub. Date:** **Nov. 17, 2022**(54) **NON-INVASIVE LOAD IDENTIFICATION  
METHOD BASED ON FINGERPRINT  
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CN2020/141885, filed on Dec. 31, 2020.**Publication Classification**(51) **Int. Cl.**  
**H02J 3/00** (2006.01)  
**H02J 3/16** (2006.01)  
(52) **U.S. Cl.**  
CPC ..... **H02J 3/003** (2020.01); **H02J 3/16**  
(2013.01)(57) **ABSTRACT**

A non-intrusive load identification method based on the Power Fingerprint characteristics of the load is provided. The method includes: S1, collecting Power Fingerprint characteristic data of several loads of the same type; S2, after preprocessing Power Fingerprint characteristic data of load, establishing convolution neural network based on attention mechanism to learn load characteristics; S3, using sliding time window algorithm to realize load switching event detection, In order to extract the change of electrical data of user bus before and after the switching event, the non-intrusive load identification problem is converted into the single load identification problem; S4, the load identification is realized, and the extracted electrical information features of single load are identified using the trained model. The provided fingerprint feature recognition model can identify and separate the unique load Power Fingerprint feature information, and realize load identification, to solve the practical problem of non-intrusive load identification in complex scenes.

