

# (19) United States

# (12) Patent Application Publication (10) Pub. No.: US 2023/0231418 A1 Harrison

Jul. 20, 2023 (43) **Pub. Date:** 

## (54) DRIVER APPARATUS

(71) Applicant: Energy Research Lab Ltd, London

(72) Inventor: Lee Harrison, Wilstead (GB)

Assignee: Energy Research Lab Ltd, London

(21) Appl. No.: 18/189,487

(22) Filed: Mar. 24, 2023

## Related U.S. Application Data

Continuation of application No. PCT/GB21/52501, filed on Sep. 24, 2021.

### (30)Foreign Application Priority Data

Sep. 24, 2020 (GB) ...... 2015127.0

### **Publication Classification**

(51)	Int. Cl.	
	H02J 50/10	(2006.01)
	H01F 27/24	(2006.01)
	H01F 27/28	(2006.01)
	H01F 7/02	(2006.01)

(52) U.S. Cl. CPC ...... H02J 50/10 (2016.02); H01F 27/24 (2013.01); H01F 27/28 (2013.01); H01F 7/02 (2013.01)

#### (57)ABSTRACT

An inductively powered device driver comprising a secondary winding to be coupled to a primary winding and a ferrite core formed of two separable parts, and further comprising a permanent magnet attached to each part of the ferrite core. The permanent magnet(s) are preferably separated from the ferrite core by an insulator. One part of the ferrite core preferably comprises a metal plate positioned between the two parts of the ferrite core.

