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Chapeau(10) **Pub. No.: US 2023/0231331 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **MAGNETIC ELECTRICAL PLUG
INTERFACE**(71) Applicant: **Carrier Corporation**, Palm Beach
Gardens, FL (US)(72) Inventor: **Lucas Chapeau**, Isneauville (FR)(21) Appl. No.: **18/155,422**(22) Filed: **Jan. 17, 2023**(30) **Foreign Application Priority Data**

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(57)

ABSTRACT

A magnetic electrical plug interface for charging a transport refrigeration unit, TRU. The magnetic electrical plug interface includes a first electrical connector and a second electrical connector. The first electrical connector includes: a socket having a closed end and an open end; a first magnetic body including a first electrical contact, the first magnetic body is slidable in the socket; a resilient biasing element configured to bias the first magnetic body towards the closed end of the socket; and a second electrical contact fixed towards the open end of the socket. The second electrical connector includes: a second magnetic body including a third electrical contact. In an unplugged configuration in which the first electrical connector is disengaged from the second electrical connector, the resilient biasing element is configured to maintain a separation between the first electrical contact and the second electrical contact.

