



US 20230230750A1

(19) **United States**(12) **Patent Application Publication**
Mi(10) **Pub. No.: US 2023/0230750 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **TRANSFORMER WITH INTERLEAVED
SHIELDING WINDINGS***H01F 41/04* (2006.01)*H01F 27/24* (2006.01)*H01F 27/32* (2006.01)*H01F 27/29* (2006.01)(71) Applicant: **Silanna Asia Pte Ltd**, Singapore (SG)(72) Inventor: **Ningliang Mi**, Arlington Heights, IL
(US)(52) **U.S. Cl.**CPC *H01F 27/289* (2013.01); *H02M 3/33576*(2013.01); *H01F 41/04* (2013.01); *H01F**27/24* (2013.01); *H01F 27/325* (2013.01);*H01F 27/29* (2013.01)(73) Assignee: **Silanna Asia Pte Ltd**, Singapore (SG)(21) Appl. No.: **18/161,593**(22) Filed: **Jan. 30, 2023**

(57)

ABSTRACT**Related U.S. Application Data**(63) Continuation of application No. 17/443,279, filed on
Jul. 23, 2021, now Pat. No. 11,605,497.(60) Provisional application No. 63/059,447, filed on Jul.
31, 2020.**Publication Classification**(51) **Int. Cl.***H01F 27/28* (2006.01)*H02M 3/335* (2006.01)

A transformer includes first and second primary windings serially electrically connected in a primary-side series combination. The transformer further includes a secondary winding disposed between the first primary winding and the second primary winding. The transformer further includes first and second shielding windings serially electrically connected in a shielding series combination. The first shielding winding is disposed between the first primary winding and the secondary winding, and the second shielding winding is disposed between the second primary winding and the secondary winding.

