

BLDC Motor Design Considering Core Loss Caused by Welding

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Abstract : This paper deals with the effects of welding performed for the manufacture of laminations in a stator in the case of prototype motors that are manufactured in small quantity. As a result of performing the no-load test for an IPM (interior permanent magnet)-type BLDC (brushless direct current) motor manufactured by welding both inside and outside of the stator, it was found that more DC input than expected was provided. To verify the effects of welding, a stator was re-manufactured by bonding, and DC inputs provided during the no-load test were compared.

Keywords : welding, stator, Eddy current, BLDC

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