DESCRIPTION

BRUSHLESS DC MOTOR

TECHNICAL FIELD

[0001] The present disclosure relates to a brushless DC motor provided on a ceiling fan.

BACKGROUND ART

[0002] A ceiling fan on which a brushless DC motor is mounted has been known. For example, PTL 1 describes a ceiling fan in which blades for blowing air is provided at a distal end of a cylindrical housing extending downward from a ceiling. The ceiling fan includes a brushless DC motor for rotating the blades. The brushless DC motor includes a motor body including a stator and a rotor, and a drive circuit that drives the motor body. The drive circuit is disposed above the motor body in the housing.

Citation List

Patent Literature

[0003] PTL 1: Unexamined Japanese Patent Publication No. 2016-063678

SUMMARY

[0004] In a ceiling fan on which the brushless DC motor is mounted, it is desirable to provide a height of a blade from a floor surface at a high position from the viewpoint of dispersing an air flow in a wide range. Thus, when a ceiling height is determined, it is advantageous that a housing of the ceiling fan is vertically short. In order to shorten the housing up and down, it is necessary to reduce a thickness of the brushless DC motor in which the motor body and the drive circuit are combined.

[0005] Embodiments of the present disclosure provide a brushless DC motor capable of reducing a thickness of a ceiling fan.

[0006] A brushless DC motor according to an aspect of the present disclosure is a brushless DC motor provided on a ceiling fan. The brushless DC motor includes a stator that has a stator core around which a coil is wound, a shaft that is fixed to a central portion of the stator core, a bearing, a rotor that has a magnet surrounding the stator core, and a circuit board that has a primary-side power supply circuit