[0018]

PTL 1: Japanese Patent No. 4649934

SUMMARY

[0019]

According to one aspect of the present disclosure, there is provided a ceiling fan comprising a brushless direct-current (DC) motor equipped with a drive coil; an inverter circuit that includes an upper stage and a lower stage, each of which forms a bridge connection by a plurality of switching elements; a drive logic controller that performs pulse width modulation (PWM) control to a DC voltage to be applied to the inverter circuit, and controls a drive logic for sequentially energizing the drive coil; a duty instruction unit that instructs an ON/OFF duty in the PWM control; a power supply current detector that detects current supplied to the inverter circuit; a power supply voltage detector that detects a voltage supplied to the inverter circuit; and a power supply power calculator that calculates power supply power from a detection value of the power supply current detector and a detection value of the power supply voltage detector, wherein the duty instruction unit determines the duty instruction value, based on a calculation value of the power supply power calculator.

BRIEF DESCRIPTION OF DRAWINGS

[0021]

FIG. 1 is a view illustrating an outer appearance of a ceiling fan according to the present invention.

CLAIMS

1. A ceiling fan comprising:

a brushless direct-current (DC) motor equipped with a drive coil;

an inverter circuit that includes an upper stage and a lower stage, each of which forms a bridge connection by a plurality of switching elements;

a drive logic controller that performs pulse width modulation (PWM) control to a DC voltage to be applied to the inverter circuit, and controls a drive logic for sequentially energizing the drive coil;

a duty instruction unit that instructs an ON/OFF duty in the PWM control;

a power supply current detector that detects current supplied to the inverter circuit;

a power supply voltage detector that detects a voltage supplied to the inverter circuit; and

a power supply power calculator that calculates power supply power from a detection value of the power supply current detector and a detection value of the power supply voltage detector,

wherein

the duty instruction unit determines the duty instruction value, based on a calculation value of the power supply power calculator.