

PATENT SPECIFICATION

(11) 1 275 334

DRAWINGS ATTACHED

1 275 334

(21) Application No. 20308/70 (22) Filed 28 April 1970

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(51) International Classification H02K 5/06

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H2A 13X 25A 2C1 2C5

(54) IMPROVEMENTS IN OR RELATING TO THE ELECTRIC CEILING FAN MOTORS



(71) We, FOONG WENG CHEW and FOONG WENG HING, both Malaysians and both of 83 Kuala Kangsar Road, Ipoh, West Malaysia, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to electric ceiling fan motors.

Known electric ceiling fan motors generally include three separate parts, namely an upper housing, a lower cover and a rotor. In order to achieve efficient operation of such motors it is necessary that all three of these parts be carefully machined so that they may be fitted together in precision alignment.

According to the present invention there is provided an electric ceiling fan motor including a stator and a one piece rotatable housing cast upon the rotor of the motor such that the rotor forms a part of the housing, the housing having two bearing seats formed therein and containing bearings upon which the housing is rotatable, wherein the rotor is in the form of a ring which surrounds said stator, and wherein the fan includes a plastics material cover fitted to said housing to enclose said stator therebetween.

Generally the housing will be formed by die-casting.

The present invention will now be described by way of example and with reference to the accompanying drawing, which is; an exploded sectional elevation of part of an electric ceiling fan motor.

The electric ceiling fan motor shown in the drawing comprises a one-piece die-cast dished housing 1. At the centre of the housing 1 is an elongate aperture 2 having a circular cross section. Bearing seats 3, also having a circular cross section of slightly larger diameter than the aperture 2, are formed coaxially with, and at each end of, the aperture 2. The housing also includes a ring shaped rotor 4 which is coaxial with the aperture 2, and which forms part of the periphery of the housing.

[Price 25p]

In use, the housing 1 rotates upon bearings (not shown) fitted to a spindle (not shown) which extends through the aperture 2. To the lower end of the spindle is fitted the stator of the motor.

The housing is fitted with a decorative bottom cover 5, of plastics material, and the stator is thereby enclosed between the housing 1 and the cover 5.

During manufacture and before assembly of the motor, the housing is rotated on the bearing seats formed therein and, during such rotation, the housing is trued by either a machine tool knife or a high speed grinder.

WHAT WE CLAIM IS:—

1. An electric ceiling fan motor including a stator, and a one-piece rotatable housing cast upon the rotor of the motor such that the rotor forms a part of said housing, the housing having two bearing seats formed therein and containing bearings upon which the housing is rotatable, wherein the rotor is in the form of a ring which surrounds said stator, and wherein said fan includes a plastics material cover fitted to said housing to enclose said stator therebetween.

2. An electric ceiling fan motor as claimed in claim 1, wherein said one-piece housing complete with bearing seats is formed by a die-casting operation.

3. An electric ceiling fan motor as claimed in claim 1 or claim 2 wherein, before assembly of the motor, the housing is rotated on the bearing seats formed therein and, during such rotation, the housing is trued by either a machine tool knife or a high speed grinder.

4. An electric ceiling fan motor substantially as herein described with reference to the accompanying drawing.

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