

BRUSHLESS DC MOTOR AND CEILING FAN USING SAME

ABSTRACT

5 Provided is a brushless DC motor comprising: a shaft(3), a stator core
(1), a rotor holder (5), a plurality of magnets (6), and a control circuit board (10).
The stator core (1) includes a plurality of slots, and is fixed to the shaft (3).
The plurality of slots is arranged along a periphery of the stator core (1). The
rotor holder (5) has an inner peripheral surface facing the stator core (1). The
10 plurality of magnets (6) are arranged on the inner peripheral surface of the
rotor holder (5) along a peripheral of the rotor holder (5). The control circuit
board (10) allows the shaft (3) to pass therethrough, and is adjacent to the
stator core (1) along the rotational axis of the shaft. The control circuit board
(10) includes at least one Hall element configured to detect magnetic forces of
15 the magnets (6). The at least one Hall element is held by an element holder
inserted into at least one of the slots of the stator core (1).

Fig. 2