Apple Energy Presents

INDIA'S MOST ENERGY EFFICIENT FAN
Gorilla Ceiling Fan

- ◎ **Super energy efficient BLDC Motor**
- ◎ **Highest service value (air delivery/watt)**
- ◎ **No humming noise from motor**
- ◎ **Consistent performance even at low voltage and power fluctuation**
- ◎ **No heating of fan even after long hours of runtime resulting in extra-long life**
- ◎ **Operates at same speed from 110v-285v**
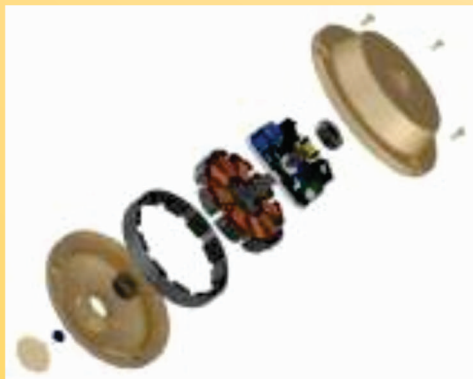
Operated by Smart remote

Comes with Timer and Sleep mode

Runs 3 times longer on an inverter
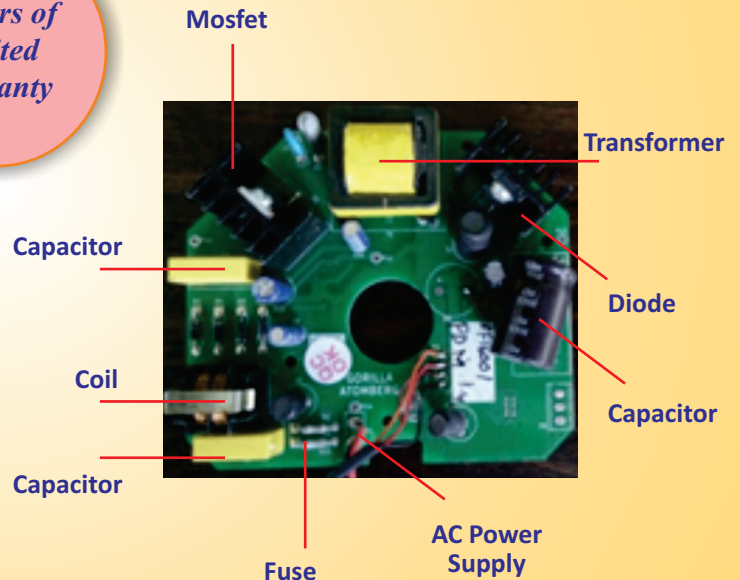
3 years of limited warranty

What really makes it so efficient?

Mosfet

Transformer

Capacitor

Diode

Coil

Capacitor

Capacitor

Fuse

AC Power Supply

**Gorilla Motor**

Remote sensor & LED indicator

Irrespective of the Input Voltage the fan internally runs on 24V DC

In the stator instead of Windings, permanent Magnets are used.

Smart electronics which provide only required amount of power to the motor.

No power losses due to resistance due to removal of Regulator

Expanded view of motor with various parts

About BLDC
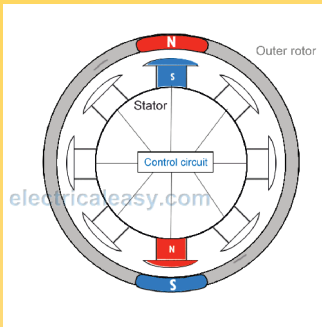
BLDC stands for Brushless Direct Current, as name says BLDC motor has no mechanical brush for commutation of the windings. Commutation is deployed by help of smart electronics which is responsible for sensing the magnet rotor position with respect to stator and controls the motor driving switches. Winding magnetic field react with field of permanent magnets on the rotor to develop the required torque. The following two designs are used for Commutation in BLDC:
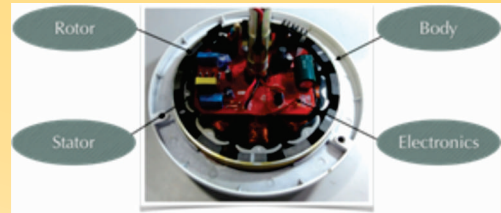

1. Sensor less - In sensor less design to understand the position of the magnet the motor generates a Back EMF. The advantage of this design is unlike sensor design there is nil chance of mechanical sensor getting damaged. This improves the life of the motor. This is the method used in Gorilla Ceiling Fan.

2. Sensor Design - Hall effect Sensor is used in sensor based design which determine the position of magnet. As it's a mechanical component there is a chance of damages.

How it runs ?

Stator windings of a circuit. The control circuit energies proper winding at proper time, in a pattern which
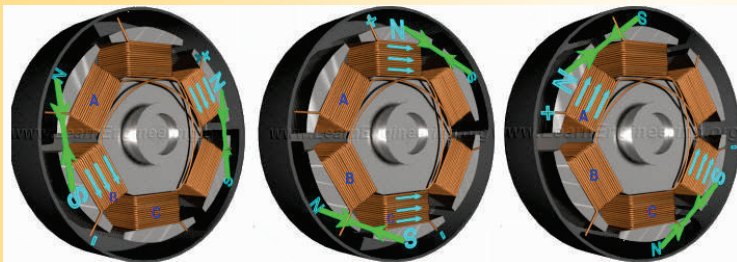
rotates around the stator. The rotor magnet tries to align with the energized electromagnet of the stator, and as soon as it aligns, the next electromagnet is energized. Thus the rotor keeps running.

Return on Investment

	Gorilla	5 Star	Normal Induction Fan
Power Consumption(W)	28	50-60	75
No of Units per day for 16 Hours usage	0.448	0.8	1.2
No of Units consumed per Year	163.52	292	438
Bill (Rs 6/Unit)	981.12	1752	2628
Total Savings (INR)		770.88	1646.88

Gorilla can save upto Rs.1,647/- Per year