

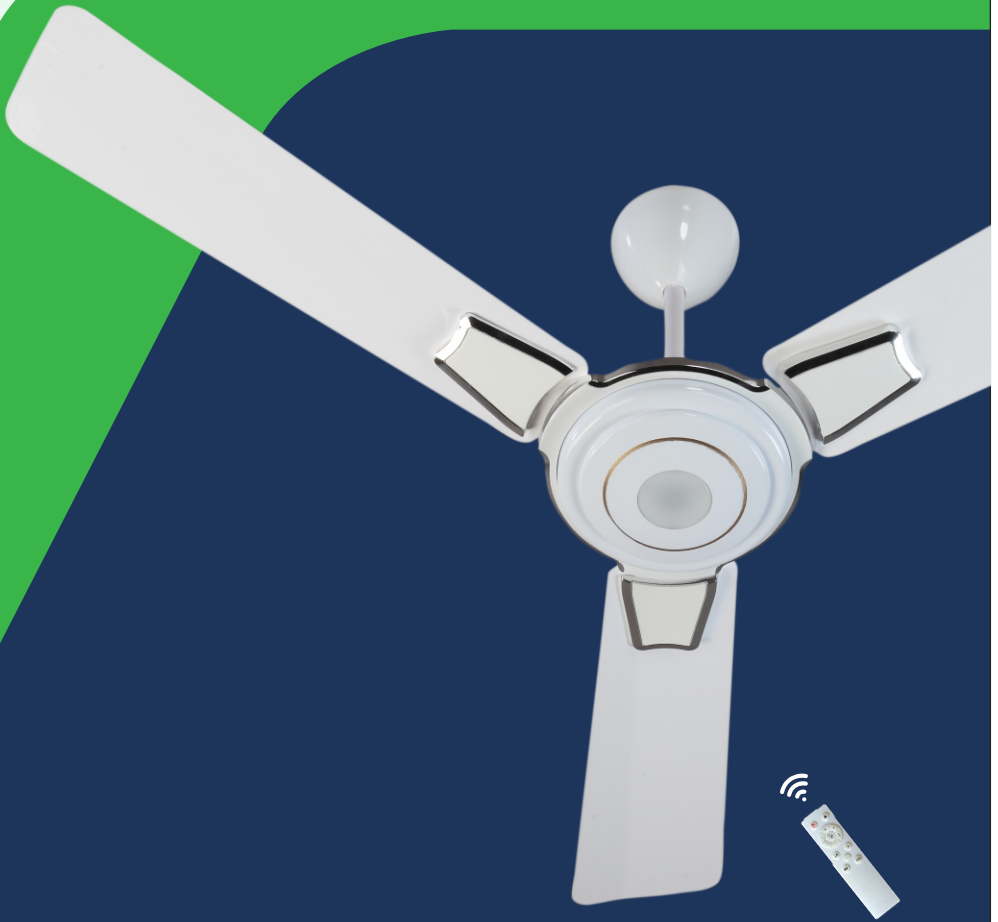


HOZON70™

IT SAVES 70% POWER

We help you conserve
precious energy


An ISO9001:2015 Company



 www.hozonfan.com

**EMBEDDED ELECTRONICS
+ IOT + AI**

HIGH EFFICIENT BLDC
MOTOR TECHNOLOGY


Hozon Tech Innovation Pvt. Ltd. pioneer in manufacturing Innovative power saving solutions under the brand name of RULAC, Lumenpulse, Aviot from last 27 years is happy to introduce  **HOZON70™**, which saves 70% power.

An Electronic ceiling fan operates on high efficient BLDC motor controlled by Microelectronics hardware and Embedded software which design to work on remote, Wi-fi, Bluetooth, Mobile app and voice command by Alexa/ Google Home.

ANNUAL SAVINGS POTENTIAL

DESCRIPTION	CONVENTIONAL FAN 1200MM (A1)	HOZON 70 FAN 1200MM (A2)
Consumption (Wattage)	95	30
Approx. Usage (hours/day)	16	16
No. of days in a year	330	330
Energy used units/year (KWH)	501	158
Electricity Rate (per unit) (₹)	8	8
Annual Electricity cost (₹)	4008	1264
Annual Savings (A1-A2) (₹)	-	2744
2 Years Savings (A1-A2)*2 (₹)	-	5488
Speed (RPM)	350	350
Air Delivery (m3/min)	220	220
Saving per month (₹)	-	229

Energy efficient BLDC
(Brushless Direct Current) Motor



**KEY
FEATURES**

Full Speed on only
30W energy consumption

Smart Remote with boost,
sleep & timer mode options

Wide operating voltage range-
120 -300 V

Runs 3 Times Longer - On inverter
in comparison with ordinary fan

70% lesser energy consumption,
saves upto ₹2750 per year

Rust free aluminium
pressure die cast bodies
with powder coating

Zero Heating of motor
results in increased life of fan

Remote Operation to
control speed

Saves cost of fan regulator

Dust resistant paint

What is BLDC?

A brushless DC motor is an electronically commuted DC motor which does not have brushes. The controller provides pulses of current to the motor windings which control the speed and torque of the synchronous motor.

WORKING PRINCIPLE

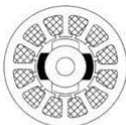
These types of motors are highly efficient in producing a large amount of torque over a vast speed range. In brushless motors, permanent magnets rotate around a fixed armature & overcome the problem of connecting current to the armature. Commutation with electronics has a large scope of capabilities and flexibility. They are known for smooth operation & holding torque when stationary.

Brushless DC motor has only two basic parts: rotor and the stator. The rotor is the rotating part and has rotor magnets whereas stator is the stationary part and contains stator windings. In BLDC permanent magnets are attached in the rotor and move the electromagnets to the stator. The high power transistors are used to activate electromagnets for the shaft turns. The embedded controller performs power distribution by using a solid-state circuit.

Basically, BLDC are of two types, one is outer rotor motor and other is inner rotor motor. The basic difference between the two is only in designing, their working principles are same.

Inner Rotor Design

In an inner rotor design, rotor is located in the centre of the motor & stator winding surround the rotor. As the rotor is located in the core, rotor magnets do not insulate heat inside and heat get dissipated easily. Due to this reason, inner rotor designed motor produces a large amount of torque and validly used.



INNER ROTOR

Outer Rotor Design

In an outer rotor design, rotor is located in the centre of the motor & stator winding surround the rotor. As the rotor is located in the core, rotor magnets do not insulate heat inside and heat get dissipated easily. Due to this reason, inner rotor designed motor produces a large amount of torque and validly used.



OUTER ROTOR

Advantages of Brushless DC Motor

- BLDC motor can operate at high-speed.
- There is no sparking and much less noise during operation.
- More electromagnets could be used on the stator for more precise control.
- BLDC motors accelerate and decelerate easily as they are having low rotor inertia.
- High performance motor that provides large torque per cubic inch over a vast speed range.
- BLDC motors do not have brushes which make it more reliable, high life expectancies, and maintenance free operation.
- There is no ionizing sparks from the commutator, and electromagnetic interference is also get reduced.
- Such motors cooled by conduction and no air flow are required for inside cooling.
- Brushless motors are more efficient as its velocity is determined by the frequency at which current is supplied, not the voltage.
- As brushes are absent, the mechanical energy loss due to friction is less which enhanced efficiency.

POWER CONSUMPTIONS

Power consumption @ each speed limit ratio

*	CONTROL	WATTAGE (W)	RPM
*	Speed Control Limit 1	3	110
**	Speed Control Limit 2	7	150
***	Speed Control Limit 3	11	200
****	Speed Control Limit 4	16	250
*****	Speed Control Limit 5	20	300
*****	Speed Control Limit 6	28	350
0	Boost Speed Mode	33	365

Technical Specification

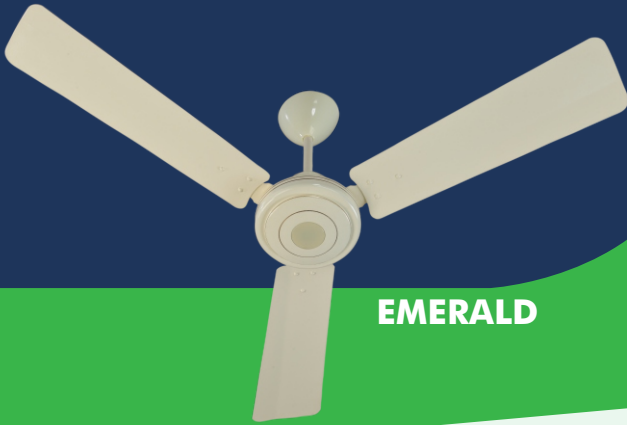
THD : <10%

Power Factor: >0.96

Working Voltage : 120V-300V

1200MM FAN, the performance at each Speed Control Limit may vary for different models.

OUR PRODUCT RANGE



EMERALD

70%
ENERGY
SAVINGS



**REMOTE
CONTROL**



**SMART
HOME**



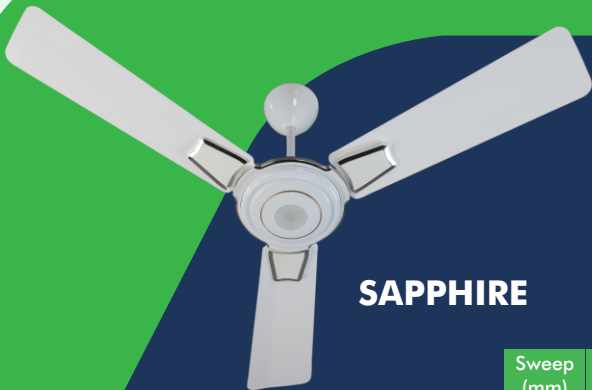
**MAINTENANCE FREE
BLDC MOTOR**



**DUST
RESISTANT**



EMERALD+



SAPPHIRE

Sweep (mm)	Input Voltage (v)	Power (w)	RPM	Air Delivery CMM (m3/min)
900	120-300	20	-	-
1200	120-300	28	350	220

OUR OTHER PRODUCTS AND SERVICES

1. BLDC ceiling fan and components
2. LED profile lighting indoor and outdoor
3. Project Lighting
4. Industrial and commercial lighting indoor and outdoor
5. Wireless Street light automation



HOZON70™

IT SAVES 70% POWER



Energy saving technologies

for a greener and brighter world

*We bring you Energy Saving electronic ceiling fan.
One conventional ceiling fan consume annual electricity bill upto ₹4000.00.*

*Hozon70 Energy Saving electronic ceiling fan consumes 70% less energy
compared to a conventional normal ceiling fan and it helps
you to save upto ₹2744.00 per ceiling fan/per annum.*

Hozon Tech Innovation Pvt Ltd

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