



# megh neel

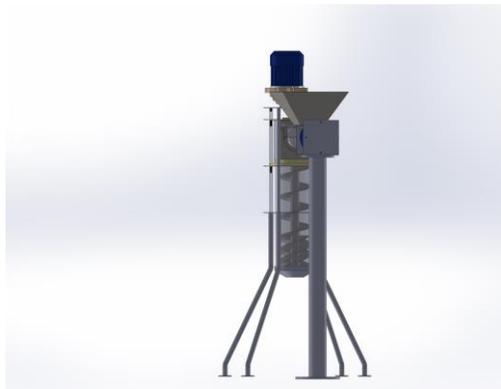
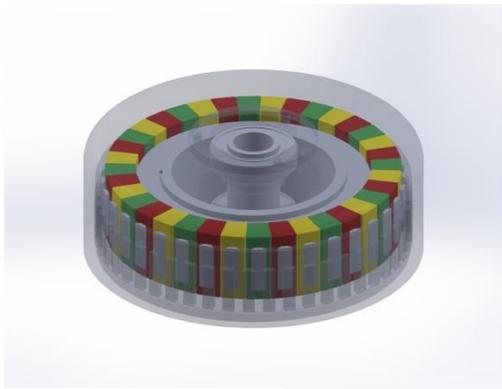
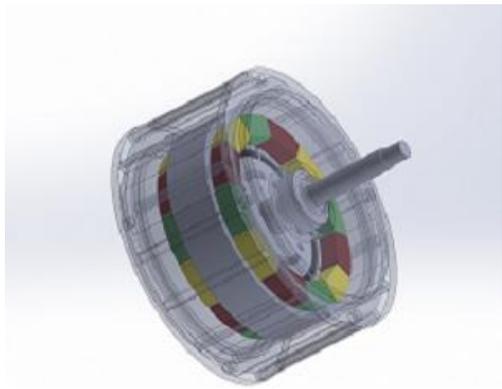
## Profile 2022



### BLDC Motors

### PM Alternators

### Services



**Regd Office:**

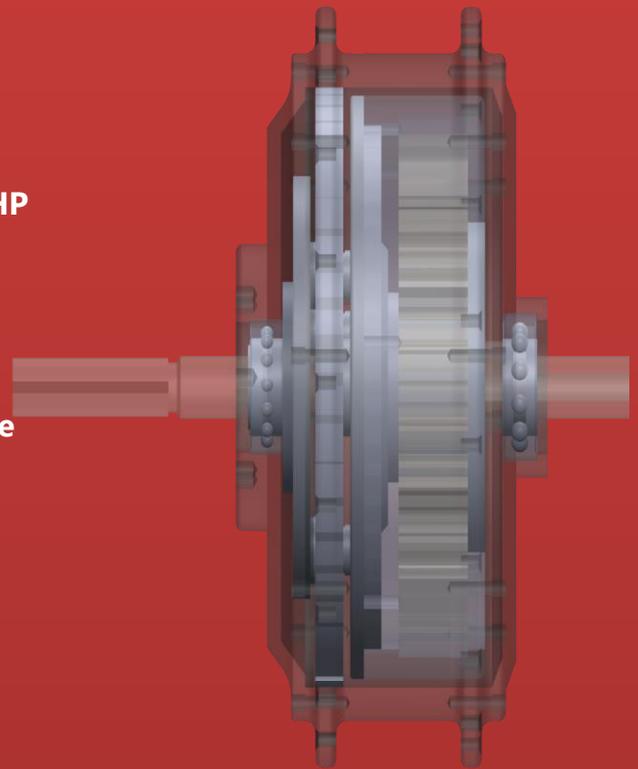
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# Brushless Direct Current Motors

BLDC motors have seen tremendous growth in the last few years and many applications are moving away from brushed DC motors and induction motors. BLDC motors are highly efficient, have high power density and require low maintenance. Besides, the electronic controllers are more affordable now, making the shift to BLDC motors automatic.

To cater to the demands for energy efficient Brushless Direct Current Motors, we are offering the following series of Inner & Outer rotor BLDC motors:-

- **Slot-less, Core-less BLDC Motors**
  - ✓ 250 Watts – 3 KW
- **IR120 Series (Inner Rotor Series)**
  - ✓ 100 Watts – 6000 Watts BLDC Motors
  - ✓ BLDC Monoblock Pumps – 0.5, 1 HP
  - ✓ BLDC Open Well Submersible Pumps – 1HP
- **OR120 Series (Outer Rotor Series)**
  - ✓ 100 Watts – 500 Watts BLDC Motors
  - ✓ 500 Watts - Mini Scooter motors with tyre
  - ✓ E-Bicycle motors - 350 and 500 Watts
- **OR260 Series (Outer Rotor Series)**
  - ✓ 250 Watts – 4500 Watts BLDC Motors
- **IR44 Series (Inner Rotor Series)**
  - ✓ 35 Watts to 100 Watts BLDC Motors
- **OR44 Series (Outer Rotor Series)**
  - ✓ 35 Watts to 100 Watts BLDC Motors



These motors are suitable for a variety of applications and can be built for a varying range of voltages. Our BLDC motors can be used in water pumps that run on solar energy, home appliances, sports applications and industrial automation to electric vehicles like bicycles, mini-scooters, electric bikes and golf carts.

# Permanent Magnet Alternators

We are also offering PMAs for low wind speed turbines with direct drive mechanism. These PMAs output ranges from 250 watts to 4.5 Kilowatts and can be customized for different operating speeds and output voltages. We are offering both inner rotor and outer rotor type alternators. These alternators are suitable for wind & tidal.

## Features of our Permanent Magnet Alternators

- ✓ Suitable for both low and high RPM turbines
- ✓ Customizable to match the speed of turbine
- ✓ Suitable for direct drive, avoiding the hassles of gears and gear boxes.
- ✓ Customizable to match any voltage and output requirements
- ✓ Refined design resulting in very low cogging
- ✓ Highly efficient

We offer the following series of Permanent Magnet Alternators:-

### Slot-less, Core-less Permanent Magnet Alternators

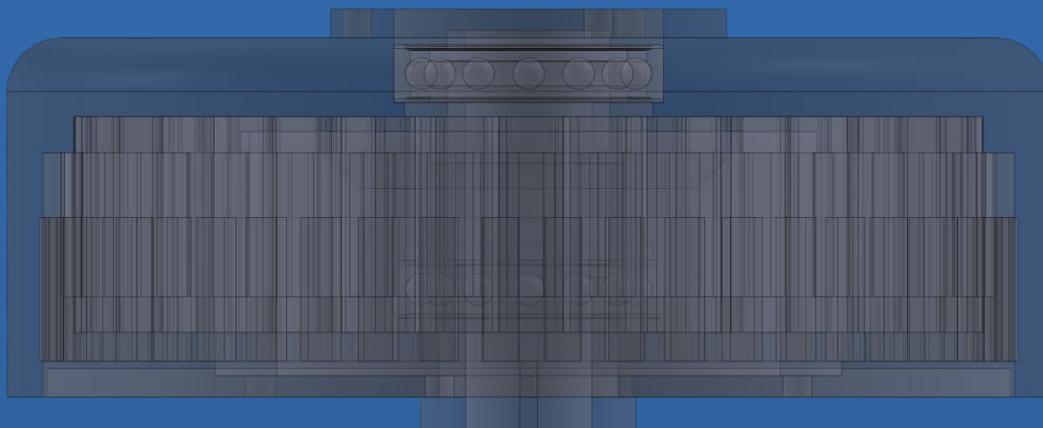
- ✓ Outputs ranging from 100 Watts to 4500 Watts

#### IR120 – PMA (Inner Rotor Series)

- ✓ Outputs ranging from 100 Watts to 4500 Watts

#### OR260 – PMA (Outer Rotor Series)

- ✓ Outputs ranging from 250 Watts to 4500 Watts



# Services

We understand what it takes to bring innovative products to market, and our constant monitoring of changing needs allows our clients to stay ahead of the competition. We solve customer problems relating to motors, drives and generators by utilizing its engineering capability to design, develop, prototype and manufacture innovative products and value added components. With our industry expertise and deep knowledge of applicable technologies we are able to offer high quality, practical and deliverable advice to our clients and help them to successfully find solutions to complicated issues.

Using our expertise right at the beginning of your design phase will prevent any potential weak point in your end product that may limit its general performance.

- ✓ We offer consulting services to assist our client's development team to gain experience in the electrical motor and drive field.
- ✓ We advise on the best motor drive technologies to use in a variety of applications and also help you identify suppliers for these products, based on the customers overall requirements and constraints.
- ✓ We assist manufacturers incorporate new technology into their existing design and keep their products up to date thereby helping them gain the crucial edge over their competitors.



This being a knowledge intensive arena, we have invested a vast amount of time, effort and resources to develop the knowledge and engineering capabilities.

We have the best in class technical team who are highly motivated and have the drive to solve all customer requirements.

We have the necessary tools and capabilities to develop any custom BLDC motors, drives and gear boxes that may be required in their application. We also build and test any special purpose custom drives and/or gear boxes.

# Research & Development

Development of clean technology systems requires continuous research and development. To keep costs down it is also imperative to build systems that uses in-house developed technologies. Considering these aspects we have built a dedicated small R&D team to work on the various aspects of our focus area. It may be noted that all of the sub systems of our products were designed and built in-house. We also have developed mathematical models for different types of Brushless DC Motors and Permanent Magnet Generators.

We aid research institutions and colleges to develop different types of BLDC motors and drive systems.

By ensuring continuous research & development in clean technology we are confident of building products that will positively transform the lives of millions.

Some of our on-going research projects

1. Magnet-less BLDC Motors
2. Micro Wind Turbines
3. Smart phone integrated electric vehicles



# Customers

## Some of our top customers

1. **Tata Elxsi – Geared BLDC motors suitable for electric scooters**
2. **Sundaram Fasteners Limited – Product development of electric coolant pumps**
3. **Sethu Institute of Technology – Research Project**
4. **Singapore Innovations Pte Ltd – Custom motor**
5. **Kart's n Kit Cars (P) Ltd – BLDC motors for go-karts.**
6. **Meladath Auto Components Pvt Ltd – Custom hub motor for converting existing petrol scooters to hybrid**
7. **Sri Madhuram Sweets & Snacks - Design & Development of Screw Conveyor System**
8. **Nathan Industries – BLDC motors for Automatic Guided Vehicles**
9. **Robert Bosch Automotive Electronics (I) Pvt Ltd., - BLDC, PMSM motors for research & testing**
10. **UCAL Fuel Systems Limited – BLDC motor for research and development**
11. **University of Sheffield, UK – Custom Permanent Magnet Alternator**
12. **Kumaraguru College of Technology – BLDC, PMSM for R&D & events**
13. **Center for Development of Advance Computing (CDAC) – BLDC motors for Centrifugal machines and R&D**
14. **Evergreen Automation – BLDC Motors for Forklift applications**
15. **RANS Electric – BLDC Motors for Forklift applications**
16. **Akvotransiro Tech Pvt Ltd, Guwahati – BLDC Motors for boats**

# About Us

Our company Megh Neel Renewable Power Systems Private Limited was founded in August 2011 to address the growing need for green technologies. Our company is registered in India and wholly owned by Indians.

The primary objectives of the company are

- ✓ Reduce dependency on existing technologies that severely impact the environment by improving efficiency of existing systems, promote electric vehicles and renewable energy systems.
- ✓ Bring green technologies to the mainstream by making them reliable, affordable and competitive when compared to existing technologies.
- ✓ Our primary social objective is to provide employment opportunities (direct / indirect through local outsourcing). We intend to increase this scope in the near future.

To meet our primary business objectives, we are currently manufacturing energy efficient brushless DC motors (BLDC motors) and permanent magnet generators (PMA). All our products are completely developed in-house and are 100% indigenous. This has been possible thanks to the work done by our research & development team.

## Management Team



Navin C.C.  
Founder & Managing Director



Ratna Prakash C.P.  
Chief Technical Advisor