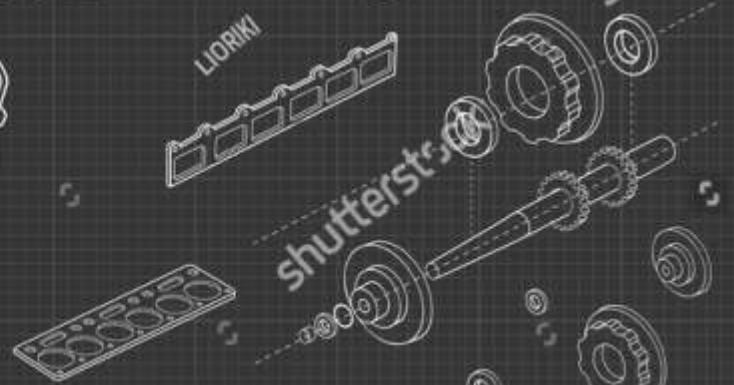
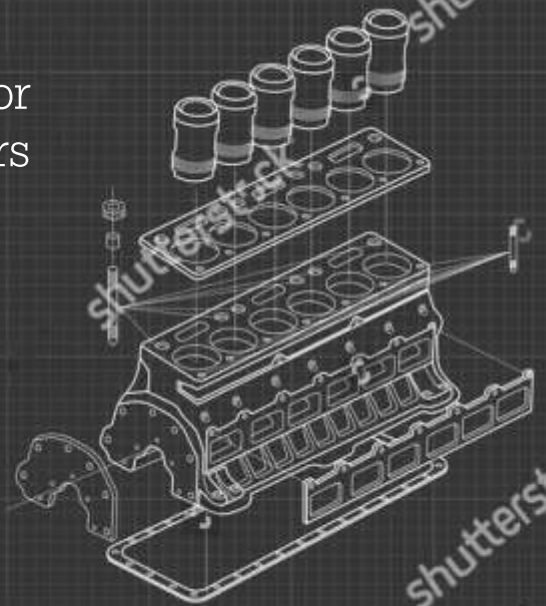
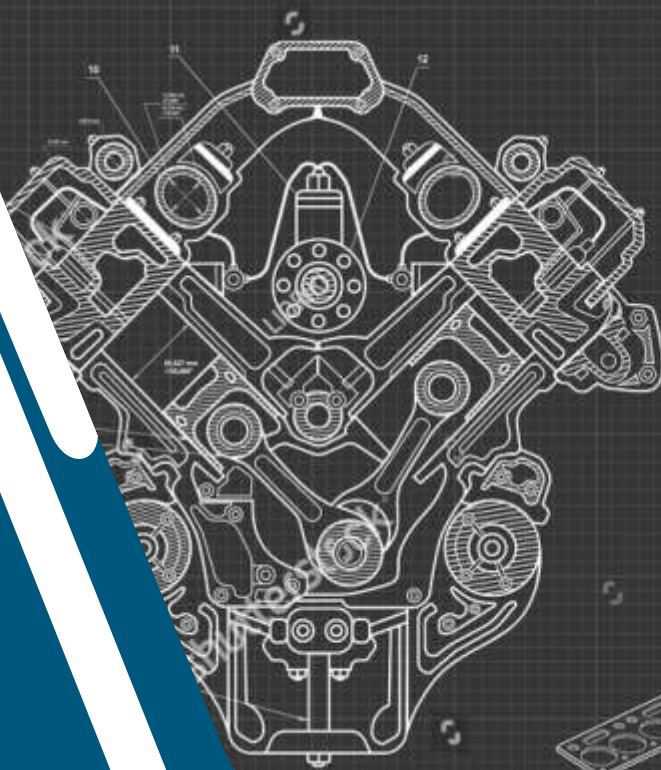
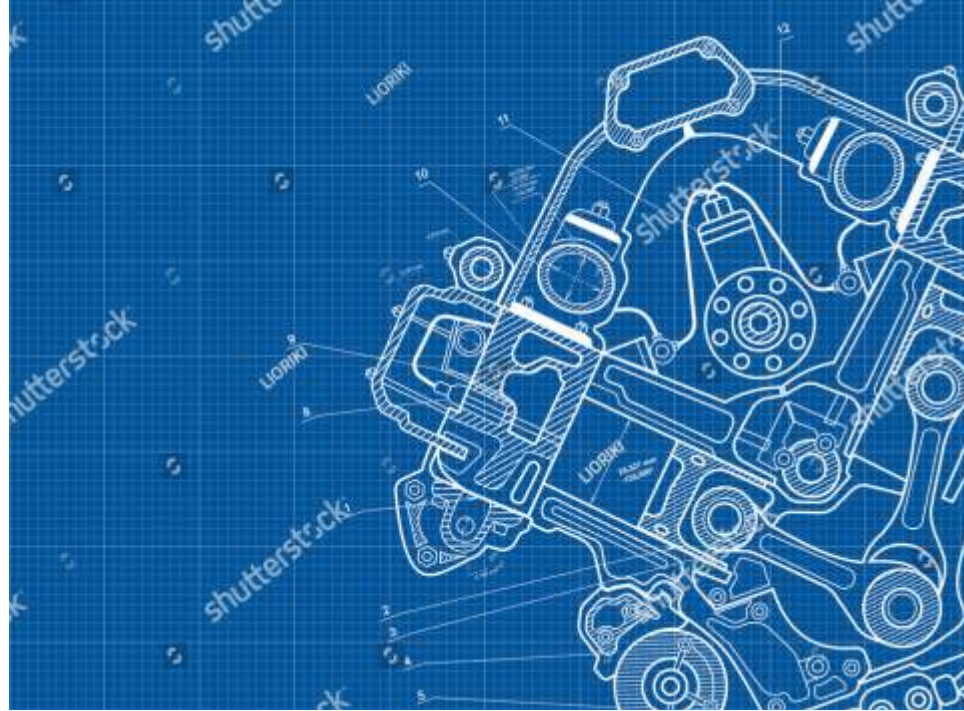




MOTOR DIVISION IFB INDUSTRIES LTD

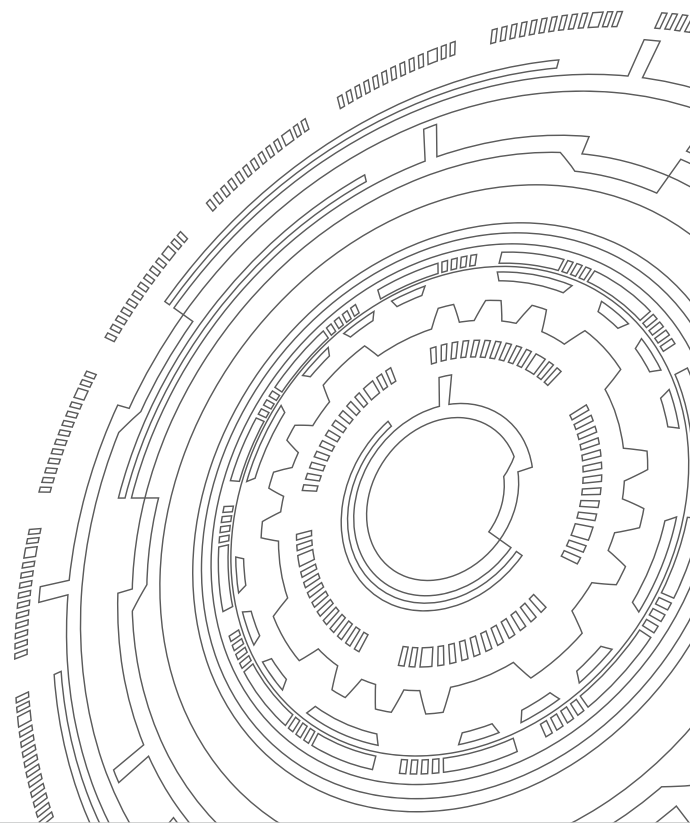
Your Destination for
Electrical Motors





▶ About Us

Welcome to IFB Motors. IFB motors are part of USD 600 million IFB Group of Companies with business interests in Automotive, Appliances & Agro products. We at IFB are pioneers in the design, development and manufacturing of Electric motors for various applications in Appliances & Automotive areas. For customers, suppliers and manufacturers, IFB stands for quality, innovation and foresight.



▶ Company profile

IFB Industries limited originally known as Indian Fine Blanks Limited started their operations in India during 1974 in collaboration with Hienrich Schmid AG of Switzerland.

IFB motors are part of USD 600 million IFB Group of Companies with business interests in Automotive, Appliances & Agro products. We at IFB are pioneers in the design, development and manufacturing of Electric motors for various applications in Appliances & Automotive areas. For customers, suppliers and manufacturers, IFB stands for quality, innovation and foresight.

We are one of the largest manufacturers of universal motors for use in fully automated front load washing machines. We have developed BLDC motors for use in top loading & front loading washing machines & also for E-Vehicles. Our other electric drive products include Permanent Magnet DC Motors for Engine cooling (ECF / Radiator), Cabin cooling (blower motor), & Window lift motor.

Our core competence lies in our dedicated Research and Development Centre, which strives to develop technologically advanced and superior products in pace with international innovations. All the products are designed keeping in mind the stringent energy regulations & safety requirements. Most of our products are successfully tested / used globally by various OEMs. Our products are at par with international quality standard, our price will be most competitive and our delivery and service will be at par or better than the best from other suppliers.

IFB has complete testing and validation facilities. IFB has the capability of performing the motor & system level testing. These facilities adhere to global standards. In addition to testing and validation during development, we also conduct planned COP testing and monitor product performance on a regular basis.

We are local manufacturing company having our manufacturing plant in Bangalore.





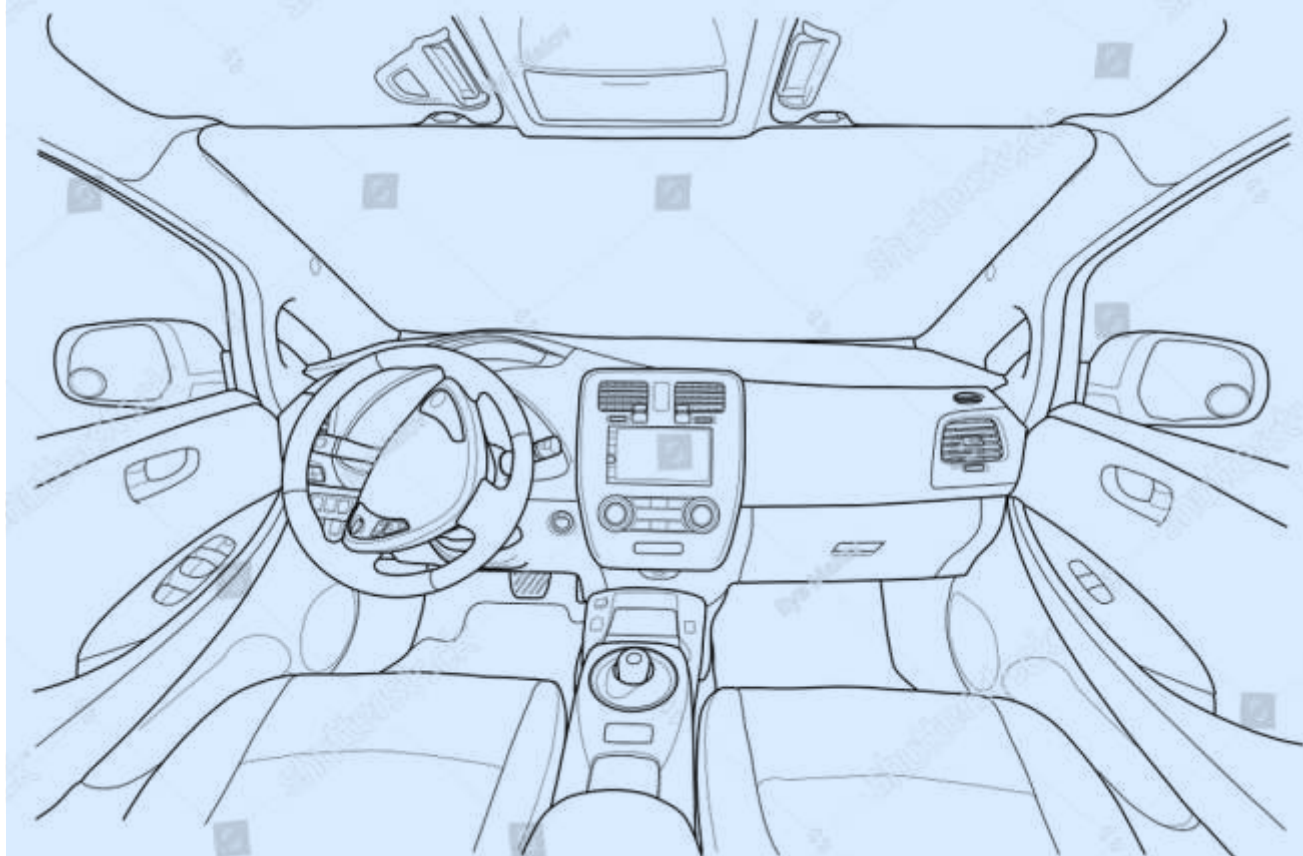
Mission

IFB will be synonymous with Innovation & Technology in its chosen fields of business activities. IFB will excel in Quality & Services to be in consonance with Global Standards.



Mission

Our mission is to create and deliver high quality and innovative products that will contribute to our customer's success and deliver value to our shareholders. We shall provide complete solutions through our system capabilities in design, analysis, development, testing and validation. We are committed to environmental preservation and social responsibility.



Quality Policy

To supply products that will "Exceed Customer Expectation" due to excellence through perfection in quality & service. To maintain an environment for team work & continuous improvement leading to total quality in all activities of the Organisation.



Environment Policy

We at IFB are committed to protect the environment & prevent pollution by adhering to all applicable environment legislations and regulations by adopting the following,

- Pollution prevention techniques in manufacturing.
- Conserving all natural resources & energy.
- Achieving continual improvement in environment performance.
- To provide a clean working environment to our employees.

IFB Time line

- 1974:** IFB Industries Kolkatta was established with products like fine blanking & automotive sub-assemblies.
- 1982:** IFB Agro was started in Kolkatta with products like Organic manure, Aqua feed, Grsin alcohol etc.
- 1984:** IFB industries Bangalore was established with products like fine blanking & automotive sub-assemblies.
- 1989:** IFB Automotive pvt ltd was started in Bangalore with products like seat mechanism, door mechanism, automotive motors.
- 1990:** IFB Appliances was started in Goa with products like washing machine, refrigerator, dish washer, microwave oven.
- 1991:** IFB expanded to hospitality systems with a name called Travel systems.
- 1993:** IFB Motor division was started in Bangalore with products like FHP motors, Universal motors.
- 2003:** IFB Automotive R&D was started in Bangalore.
- 2005:** IFB Automotive Chennai
- 2007:** IFB Automotive Pune, Uttarakand, Binola was started.
- 2018:** IFB entered into Defence with a project with Indian Ordinance Factory with a motto "Make In India"



IFB Industries Limited

IFB Industries Limited originally known as Indian Fine Blanking Limited started their operations in India during 1974 in collaboration with Hienrich Schmid AG of Switzerland. IFB Industries Ltd is an Indian based company. The company is engaged in manufacturing & marketing engineering products. They operate in three segments, namely engineering, home appliances & others.

The Engineering divisions are located at Kolkata & Bangalore. At Bangalore, apart from Fine Blanked components, IFB manufacturing Factional Horse Power Electric motors for White goods and as well as Automobile applications.

The IFB Group

From Precision to Perfection

IFB celebrates over three decades of excellence, cutting edge technology and solutions that have touched people's lives. We strive to achieve perfection through constant innovation and bring you the best in quality and technology. The IFB Group comprises four independent companies-

IFB Industries Ltd.

- Fine Blanking Division
- Home Appliance Division
- Appliances Motor Division

IFB Automotive Pvt. Ltd.

IFB Agro Ltd.

Travel Systems Ltd.

IFB Group Business Verticals



HOME APPLIANCES

Manufacturing home appliances for over three decades,

IFB designs machines focused on liberating the Indian woman from the hassle of household chores.

The Company is reputed for its forte in quality and technology.



AGRO

Our business operates in the areas of

- International-Export of marine products
- Domestic-Ready to Cook Ready to Fry
- Aqua Feeds-Shrimp & Fish Feed and Aqua Shop



AUTO

Established in 1989, IFB Automotive pioneered the manufacture of fine blanked automotive components, seating systems, door systems and automotive motors.



FINE BLANKING

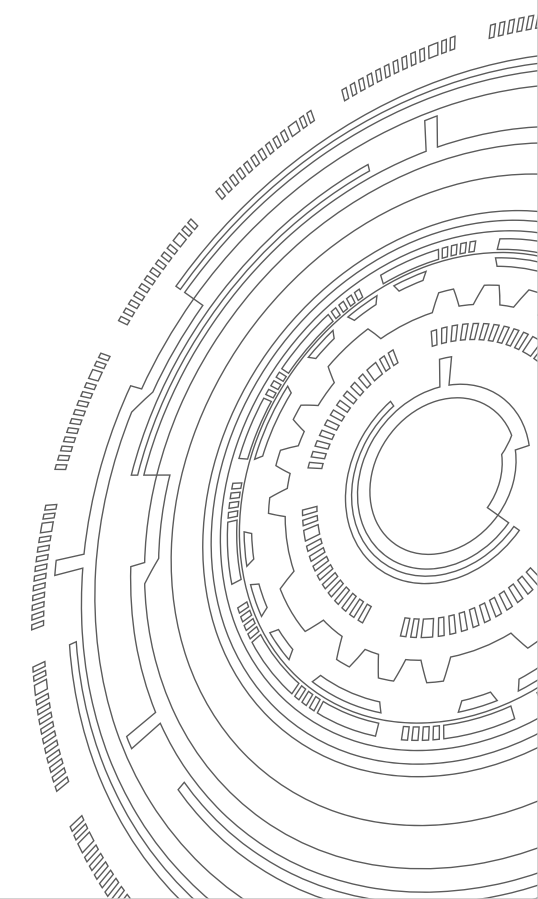
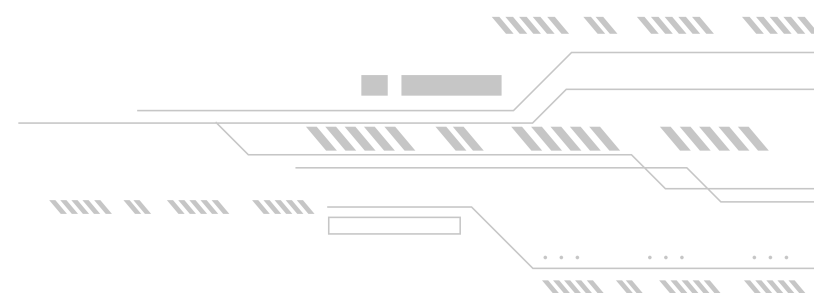
With 40 years of core fine blanking experience, backed by a world class tool room, advanced fine blanking presses and supporting machineries manned by highly skilled, competent personnel, IFB is a leader in the field of manufacturing fine blanked components for various industries.



TRAVEL SYSTEMS

Founded in 1991, Travel Systems Ltd is an IATA accredited, travel solutions company with offices in Bangalore, Kolkata, Goa, Guwahati, and Delhi.

Our hospitality services include 4,000 domestic and 23,000 international hotels.



Motor Division Profile

History

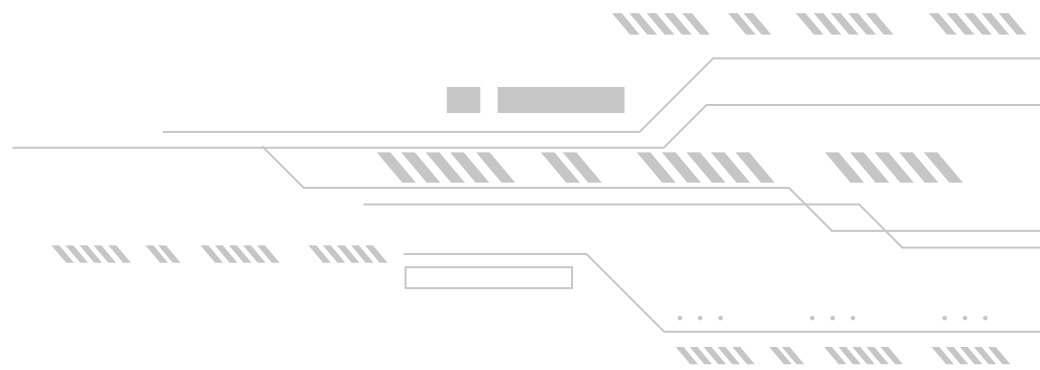
IFB Motor Division was started in the year of 1993 in collaboration with Siemens, Germany to manufacture FHP Induction cum Series Motors for washing Machine application.

Then extended the product range to manufacture FHP Universal Motor for Front Load Washers.

IFB developed Belt Driven BLDC Motor for Premium Model Washing Machines & BMC BLDC Motor for TOP loading Washing Machines and also in the process of developing Induction Motor for Top Loading Washing Machines,.

We have developed BLDC Motor for Auto Transmission Unit of E-Vehicles (e-Rickshaw & e-Auto).

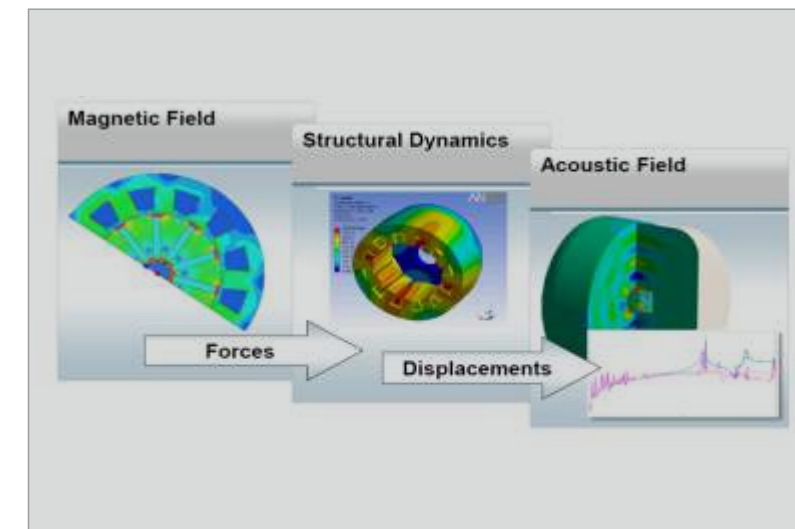
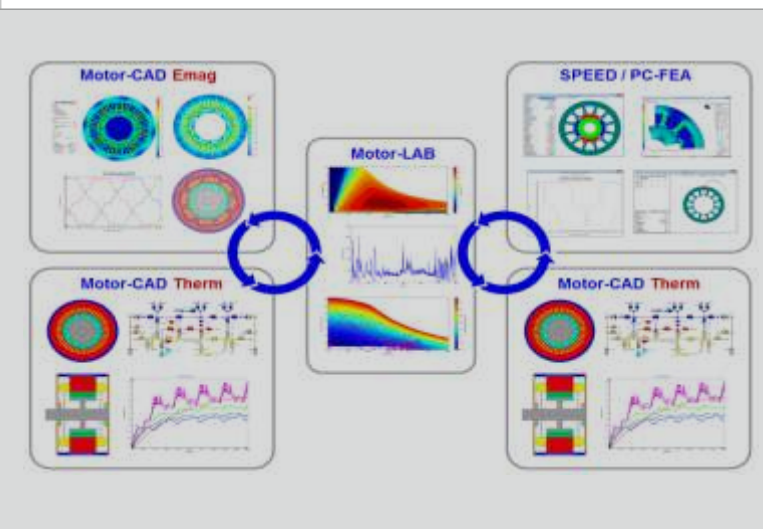
Factory Location
IFB Industries Limited
16, Visveswaraiah Industrial Area
Off Whitefield Road, Mahadevpura
Bengaluru – 560 048, India



Motor Division R&D

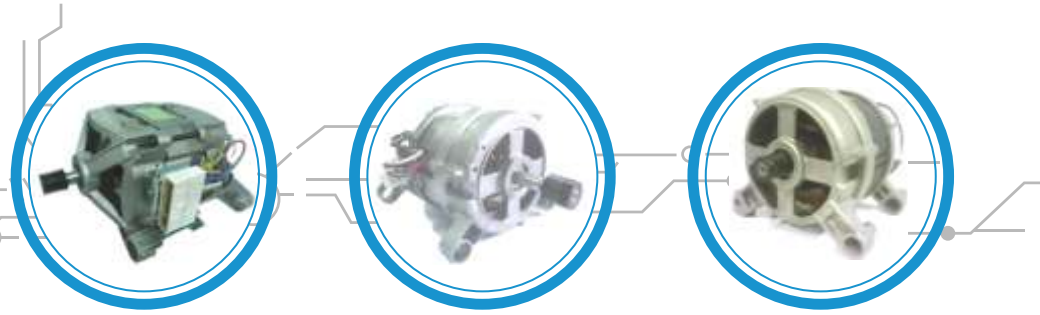
- The Company's R&D centre is equipped with High-end Design software's like Iron CAD, Auto CAD, Pro e, CATIA for various products. Also Hypermesh, ANSYS and ADAMS for mechanical simulation.
- For electrical design, simulations & FEA analysis with software's like SPEED(Siemens) & ANSYS.
- The R&D lab is well equipped with latest test instruments like Hysteresis Dynamometer, Inertial Dynamometer, Temperature Monitoring Systems etc.
- Other test facilities include Endurance test fixture, Reliability test, Salt spray chamber, Motor life test fixture, Life test panel etc.

Certificates

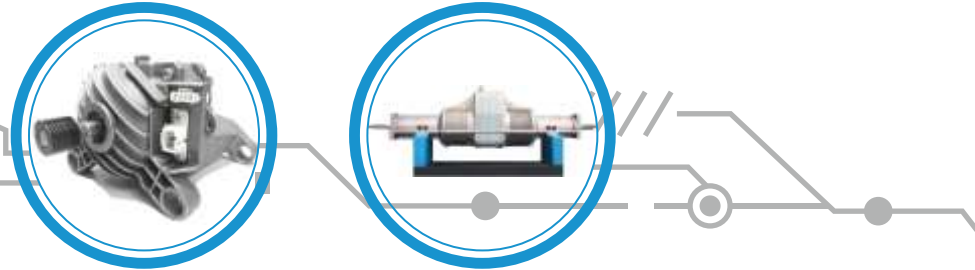


▶ Product Range

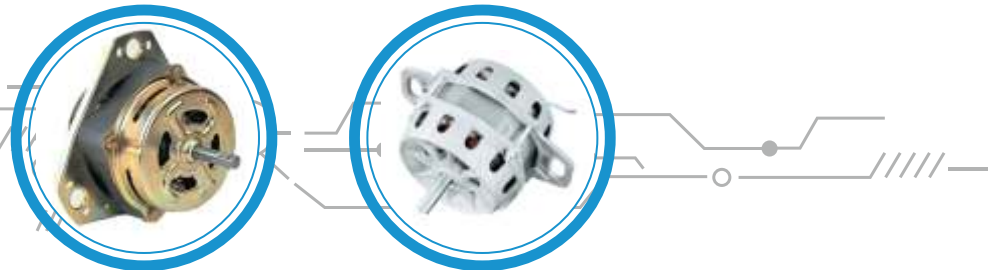
Universal Motor



BLDC Motor

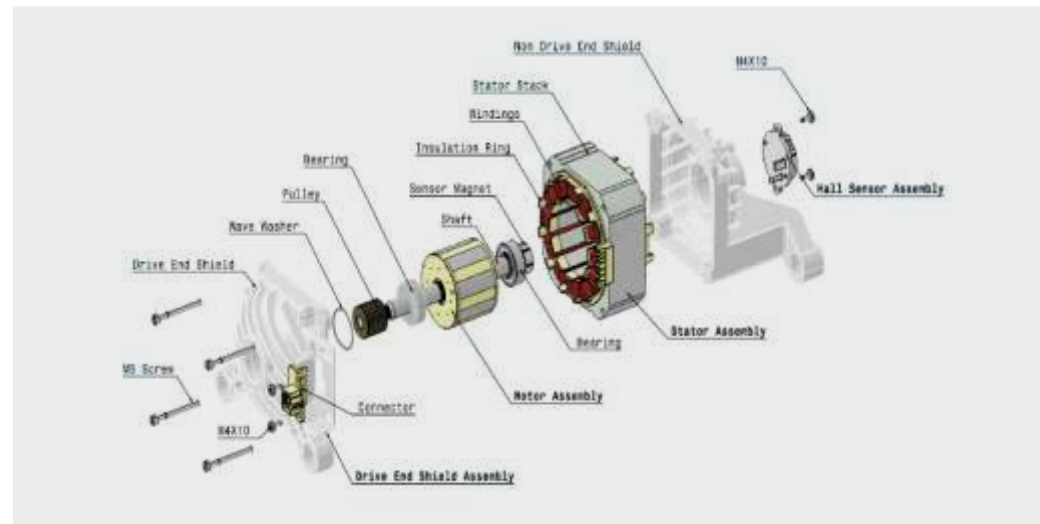


Induction Motor

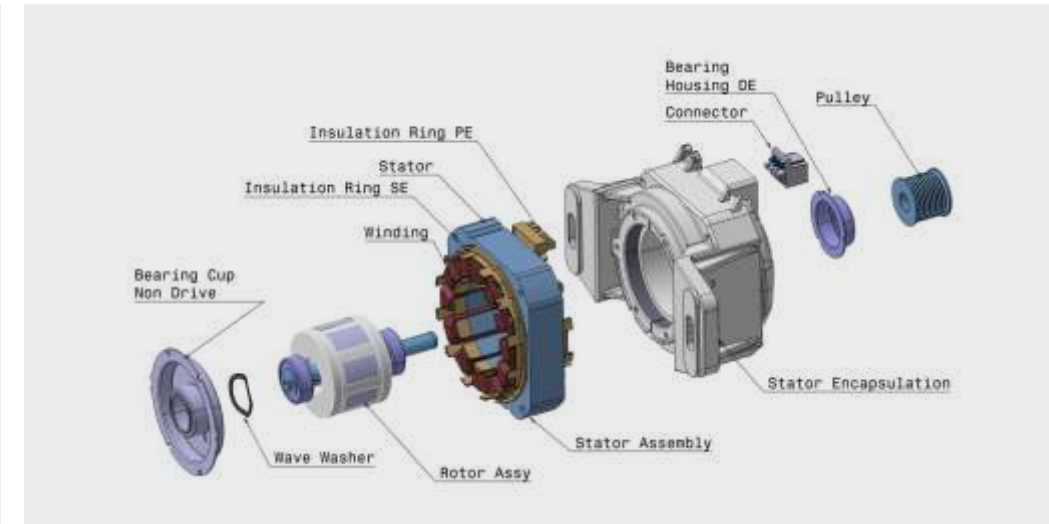
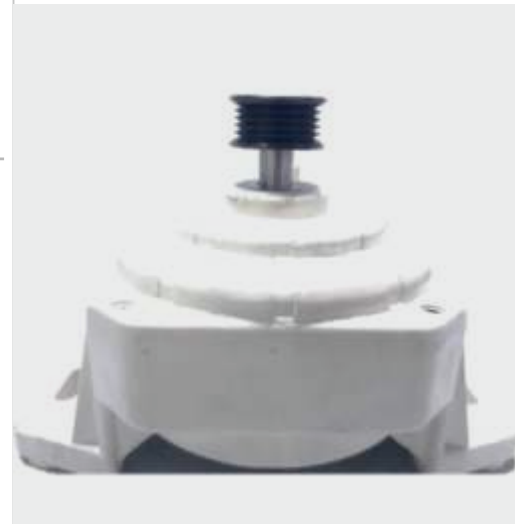


▶ Washing Machine BLDC Motor – Front Load

IFB developed BLDC motors for both front & top load Washing machines. These motors vary from 6kg to 9 kg load used for both domestic & industrial laundry applications.



▶ Washing Machine BLDC Motor – Top Load

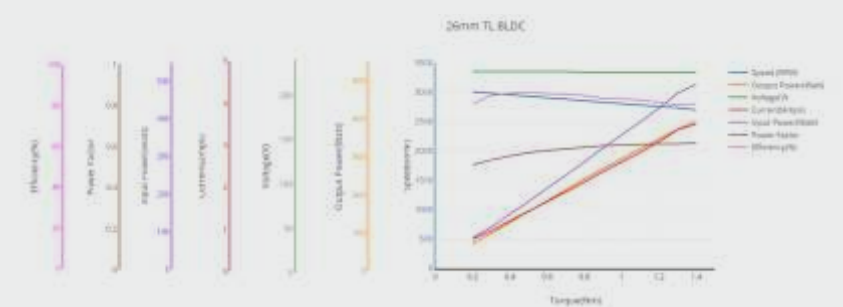
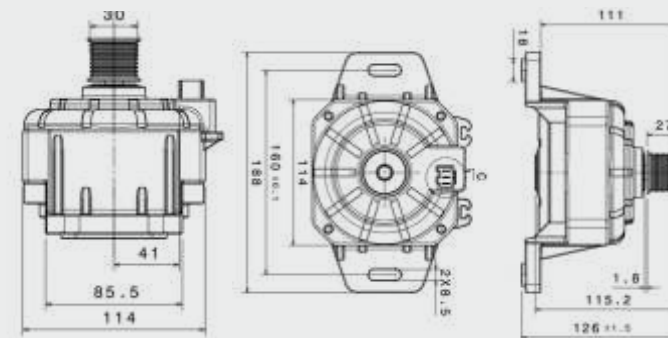


▶ Washing Machine BLDC Motor – Technical Specifications

EEM26A-4LSQD

Application : Top Loading Washing Machine
 BLDC motor for Fully Automatic washing machine with duty cycle up to 63% with 6.5-10 Kg Load with a spin speed up to 3000 rpm is possible.
 Rated Voltage : 220 / 240 V AC 50/60 Hz
 Output Power : 180/200/250 Watts
 Efficiency : 85 %
 Slot pole ratio : 12 stator slot/8 rotor pole
 Stack Length : 22/26/30mm

Belt drive : Poly-V-Belt profile J
 Feedback System : Sensored or Sensorless
 Pulley Ratio : 1:3.53 (According to customer Requirement)
 Gear Ratio : 1:5.2
 Insulation : Class F/H
 Armature winding : Aluminium Winding
 Direction : CW / CCW
 Motor Weight : 3.1 Kg

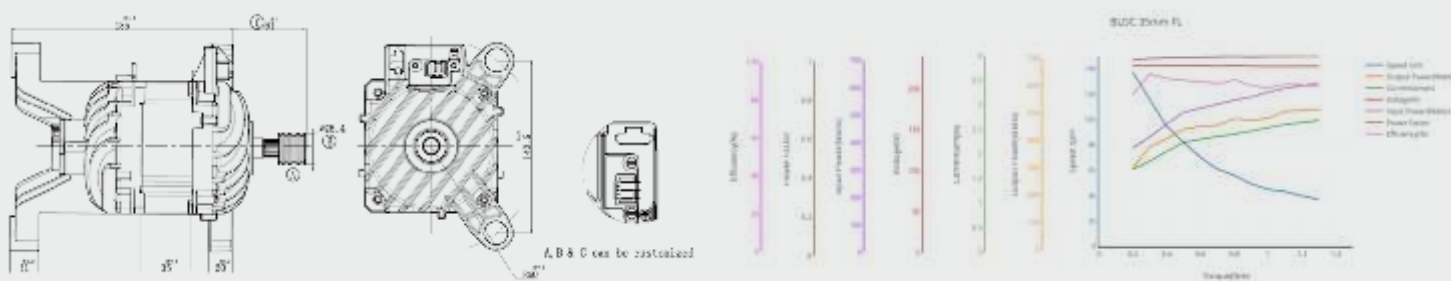


▶ Washing Machine BLDC Motor – Technical Specifications

EEM35A-4LSQD

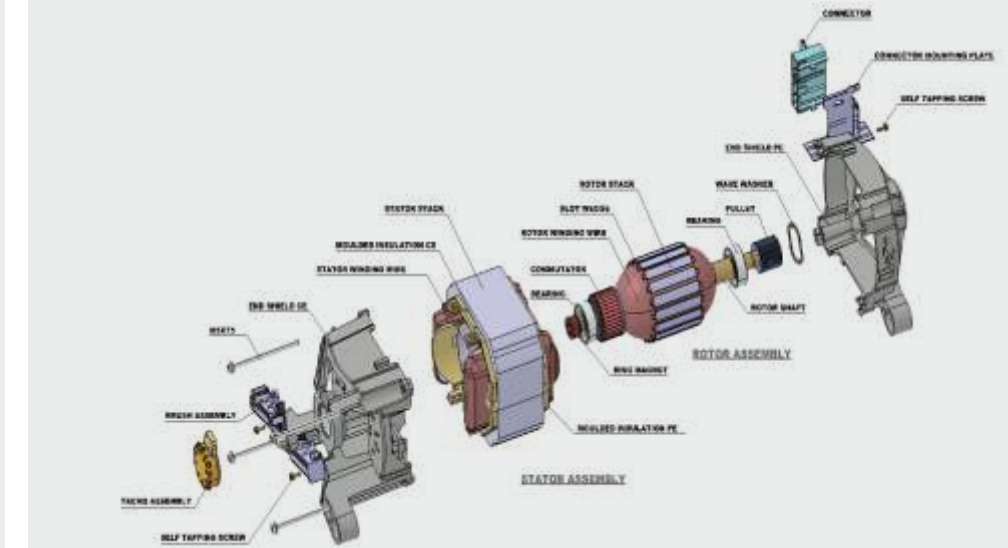
Application : Front Loading Washing Machine
 BLDC motor for Fully Automatic washing machine with duty cycle up to 60% with 7.5-8.5Kg Load with a spin speed up to 1400 rpm is possible.
 Rated Voltage : 220 / 240 V AC 50/60 Hz and DC
 Output Power : 350 Watts
 Speed : 14500 RPM
 Efficiency : 85 %

Slot pole ratio : 12 stator slot/8 rotor pole
 Stack Length : 35mm
 Belt drive : Poly-V-Belt profile J
 Feedback System : Sensored or Sensorless
 Pulley Ratio : 10-15 (According to customer Requirement)
 Insulation : Class F/H
 Armature winding : Aluminum Winding
 Direction : CW / CCW
 Motor Weight : 3.8 Kg



▶ Washing Machine Universal Motors

IFB Motors are pioneers in manufacturing of Universal motors for front load washing machines since two decades. The range vary from 5.5kg load to 9kg bot for domestic & industrial laundry applications.

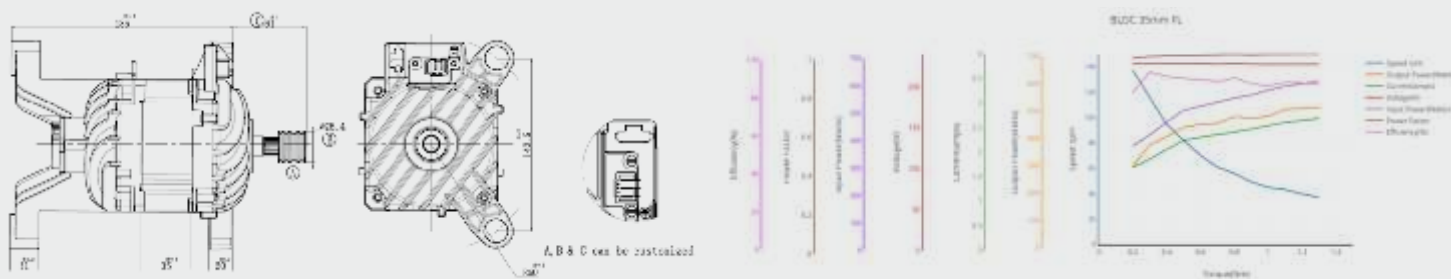


▶ Washing Machine BLDC Motor – Technical Specifications

EEM42A-4LSQD

Application : Front Loading Washing Machine
 BLDC motor for Fully Automatic washing machine with duty cycle up to 60% with 8.5Kg & above Load with a spin speed up to 1400 rpm is possible.
 Rated Voltage : 220 / 240 V AC 50/60 Hz and DC
 Output Power : 400 Watts
 Speed : 15000
 Slot pole ratio : 12 stator slot/8 rotor pole

Stack Length : 42mm
 Efficiency : 85 %
 Belt drive : Poly-V-Belt profile J
 Feedback System : Sensored or Sensorless
 Pulley Ratio : 10-15 (According to customer Requirement)
 Insulation : Class F/H
 Armature winding : Aluminum Winding
 Direction : CW / CCW
 Motor Weight : 4.20 Kg

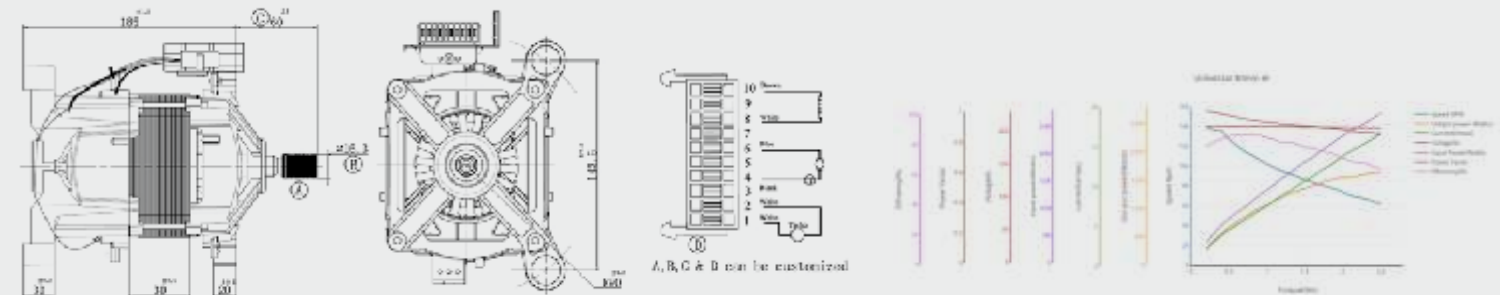


▶ Universal Motors – Technical Specifications

UM30A-4LSQD

Application : Front Loading Washing Machine
 Universal motor for Fully Automatic washing machine with duty cycle up to 60% with 5.5 Kg Load with a spin speed up to 800 rpm with tapped field is possible. This motor is designed with Higher Diameter Rotor for Higher Efficiency
 Rated Voltage : 220 / 240 V AC 50/60 Hz and DC
 Output Power : 240 Watts
 Speed : 14000 RPM
 Efficiency : 72 %

Stack Length : 30mm
 Belt drive : Poly-V-Belt profile J
 Feedback System : 16 Pole Tacho Generator
 Pulley Ratio : 12-16 (According to customer Requirement)
 Insulation : Class F/H for Motor Winding & Class B for Tacho
 Field winding : Aluminium Winding
 Over Load Prot. : Thermal Over Load Protector
 Direction : CW / CCW
 Motor Weight : 4.05 Kg

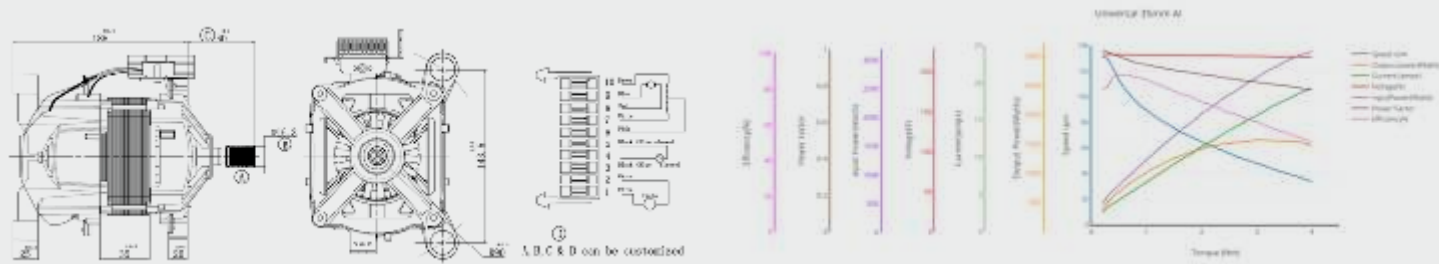


▶ Universal Motors – Technical Specifications

UM30A-4LSQD

Application : Front Loading Washing Machine
 Universal motor for Fully Automatic washing machine with duty cycle up to 60% with 5.5 Kg Load with a spin speed up to 800 rpm with tapped field is possible. This motor is designed with Higher Diameter Rotor for Higher Efficiency
 Rated Voltage : 220 / 240 V AC 50/60 Hz and DC
 Output Power : 270 Watts
 Speed : 14000 RPM
 Efficiency : 75%

Stack Length : 35mm
 Belt drive : Poly-V-Belt profile J
 Feedback System : 16 Pole Tacho Generator
 Pulley Ratio : 10-14 (According to customer Requirement)
 Insulation : Class F/H for Motor Winding & Class B for Tacho
 Field winding : Aluminium Winding
 Over Load Prot. : Thermal Over Load Protector
 Direction : CW / CCW
 Motor Weight : 4.40 Kg

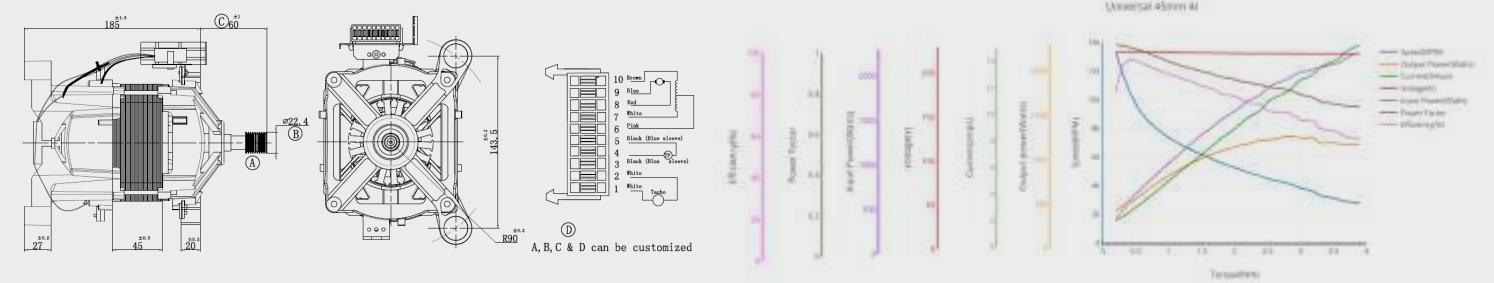


▶ Universal Motors – Technical Specifications

UM45A-4LSQD

Application : Front Loading Washing Machine
 Universal motor for Fully Automatic washing machine with duty cycle up to 65% with 7 Kg , 7.5Kg and 8 Kg with a spin speed up to 1200 rpm with tapped field is possible. This motor is designed with Higher Diameter Rotor for Higher Efficiency
 Rated Voltage : 220 / 240 V AC 50/60 Hz and DC
 Output Power : 340 Watts
 Speed : 14500 RPM
 Efficiency : 75%

Stack Length : 45mm
 Belt drive : Poly-V-Belt profile J
 Feedback System : 16 Pole Tacho Generator
 Pulley Ratio : 10-14 (According to customer Requirement)
 Insulation : Class F/H for Motor Winding & Class B for Tacho
 Field winding : Aluminium Winding
 Over Load Prot. : Thermal Over Load Protector
 Direction : CW / CCW
 Motor Weight : 5.25 Kg

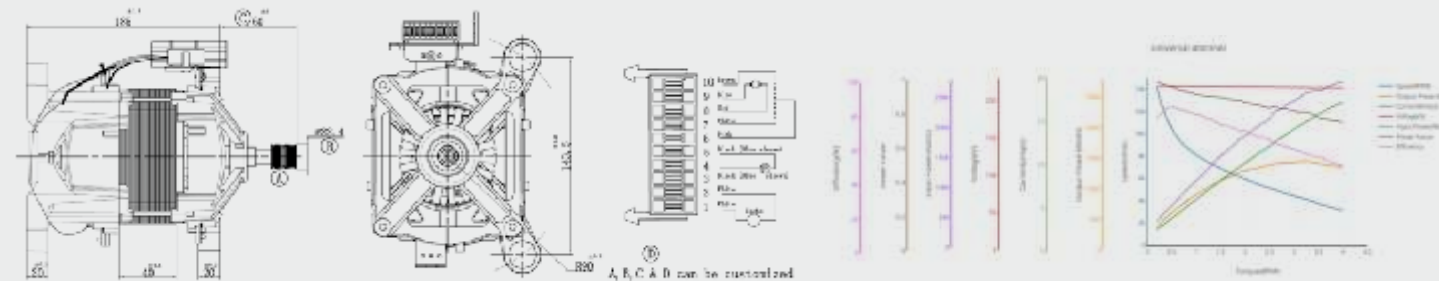


▶ Universal Motors – Technical Specifications

UM40A-4LSQD

Application : Front Loading Washing Machine
 Universal motor for Fully Automatic washing machine with duty cycle up to 60% with 5.5 Kg Load with a spin speed up to 800 rpm with tapped field is possible. This motor is designed with Higher Diameter Rotor for Higher Efficiency
 Rated Voltage : 220 / 240 V AC 50/60 Hz and DC
 Output Power : 300 Watts
 Speed : 14500 RPM
 Efficiency : 75%

Stack Length : 40mm
 Belt drive : Poly-V-Belt profile J
 Feedback System : 16 Pole Tacho Generator
 Pulley Ratio : 10-14 (According to customer Requirement)
 Insulation : Class F/H for Motor Winding & Class B for Tacho
 Field winding : Aluminium Winding
 Over Load Prot. : Thermal Over Load Protector
 Direction : CW / CCW
 Motor Weight : 4.9 Kg

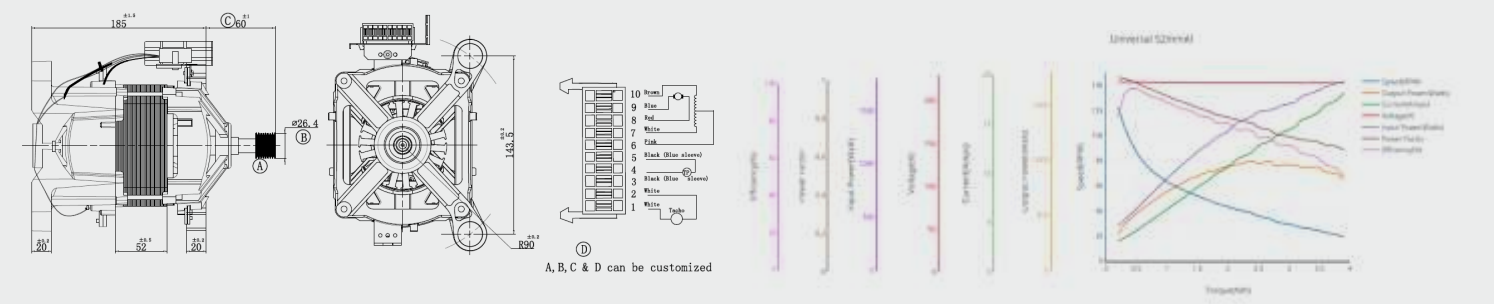


▶ Universal Motors – Technical Specifications

UM52A-4LSQD

Application : Front Loading Washing Machine
 Universal motor for Fully Automatic washing machine with duty cycle up to 65% with 8.5 Kg Load with a spin speed up to 1400 rpm with tapped field is possible. This motor is designed with Higher Diameter Rotor for Higher Efficiency
 Rated Voltage : 220 / 240 V AC 50/60 Hz and DC
 Output Power : 395 Watts
 Speed : 15000 RPM
 Efficiency : 75%

Stack Length : 52mm
 Belt drive : Poly-V-Belt profile J
 Feedback System : 16 Pole Tacho Generator
 Pulley Ratio : 10-14 (According to customer Requirement)
 Insulation : Class F/H for Motor Winding & Class B for Tacho
 Field winding : Aluminium Winding
 Over Load Prot. : Thermal Over Load Protector
 Direction : CW / CCW
 Motor Weight : 5.60 Kg

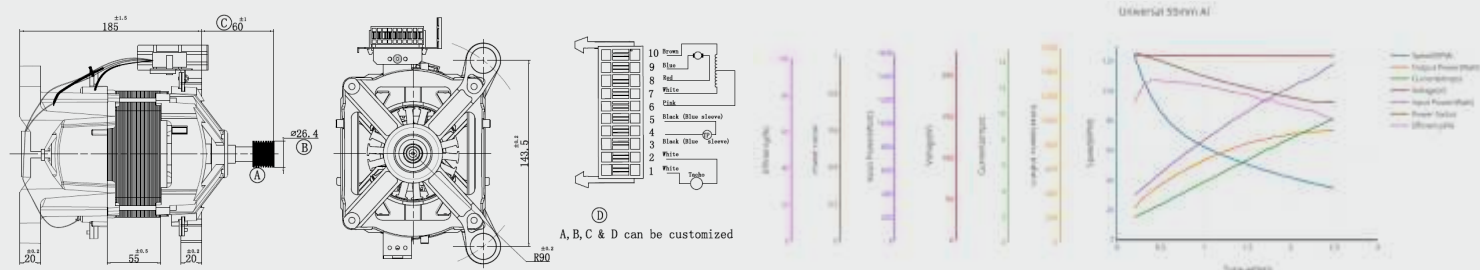


▶ Universal Motors – Technical Specifications

UM55A-4LSQD

Application : Front Loading Washing Machine
 Universal motor for Fully Automatic washing machine with duty cycle up to 65% with 9 Kg Load with a spin speed up to 1500 rpm with tapped field is possible. This motor is designed with Higher Diameter Rotor for Higher Efficiency
 Rated Voltage : 220 / 240 V AC 50/60 Hz and DC
 Output Power : 425 Watts
 Speed : 16000 RPM
 Efficiency : 75%

Stack Length : 55mm
 Belt drive : Poly-V-Belt profile J
 Feedback System : 16 Pole Tacho Generator
 Pulley Ratio : 10-14 (According to customer Requirement)
 Insulation : Class F/H for Motor Winding & Class B for Tacho
 Field winding : Aluminium Winding
 Over Load Prot. : Thermal Over Load Protector
 Direction : CW / CCW
 Motor Weight : 6.2 Kg



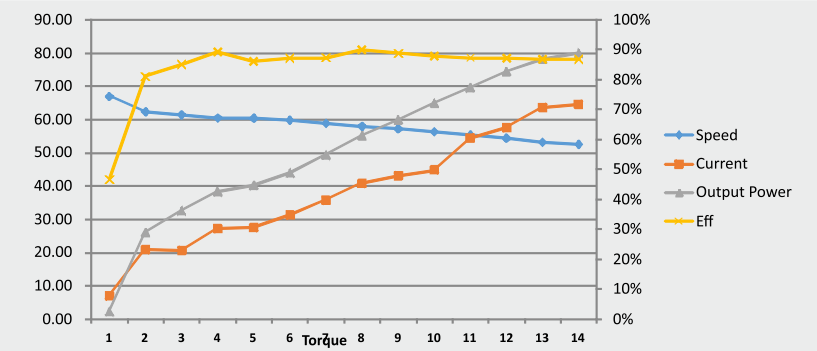
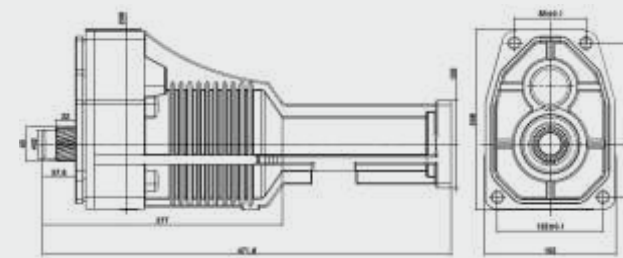
▶ E-Vehical BLDC Motor – Technical Specifications

Recently IFB has developed a BLDC Motor for ATM Kit of E Vehicle Application with a joint Venture of Foreign company. As this is different from the other ATM drive where the motor is coupled directly with Shaft & gear Mechanism of ATM kit.

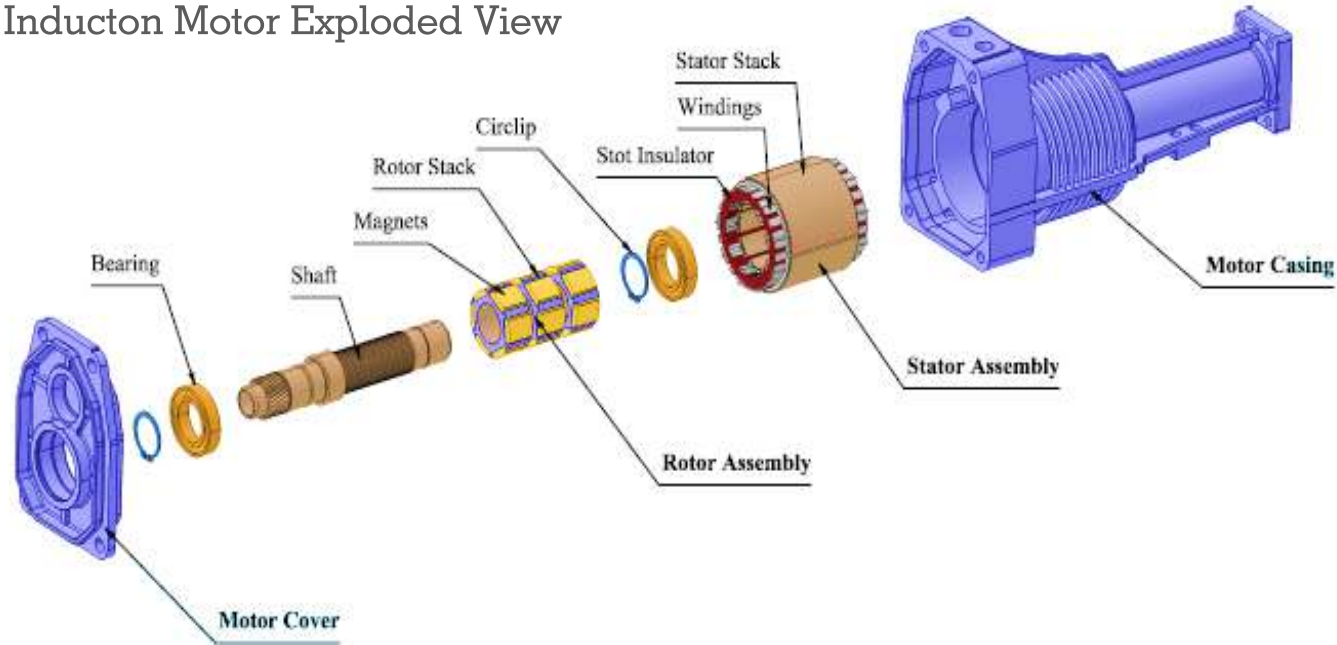
Motor Specification:

Stack Width : 85mmstack
 Slot / Pole : 10 slot / 6 pole & 12 slot/10pole
 Rated Voltage : 48/72 V DC
 Drive : Direct Drive
 Speed : 3000-6000rpm

Feedback Mechanism : With Hall Sensor Assy
 Insulation : Class H
 Field winding : Aluminum Winding
 Weight : 16– 25 Kg
 Rated Power : 2-3 KW
 Rated Torque : 6-10Nm



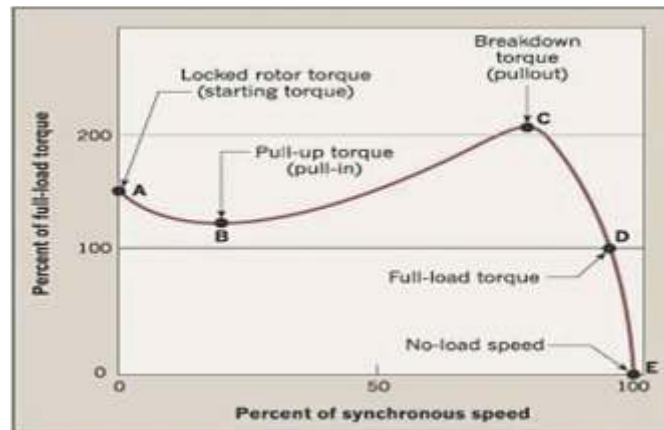
▶ Inducton Motor Exploded View



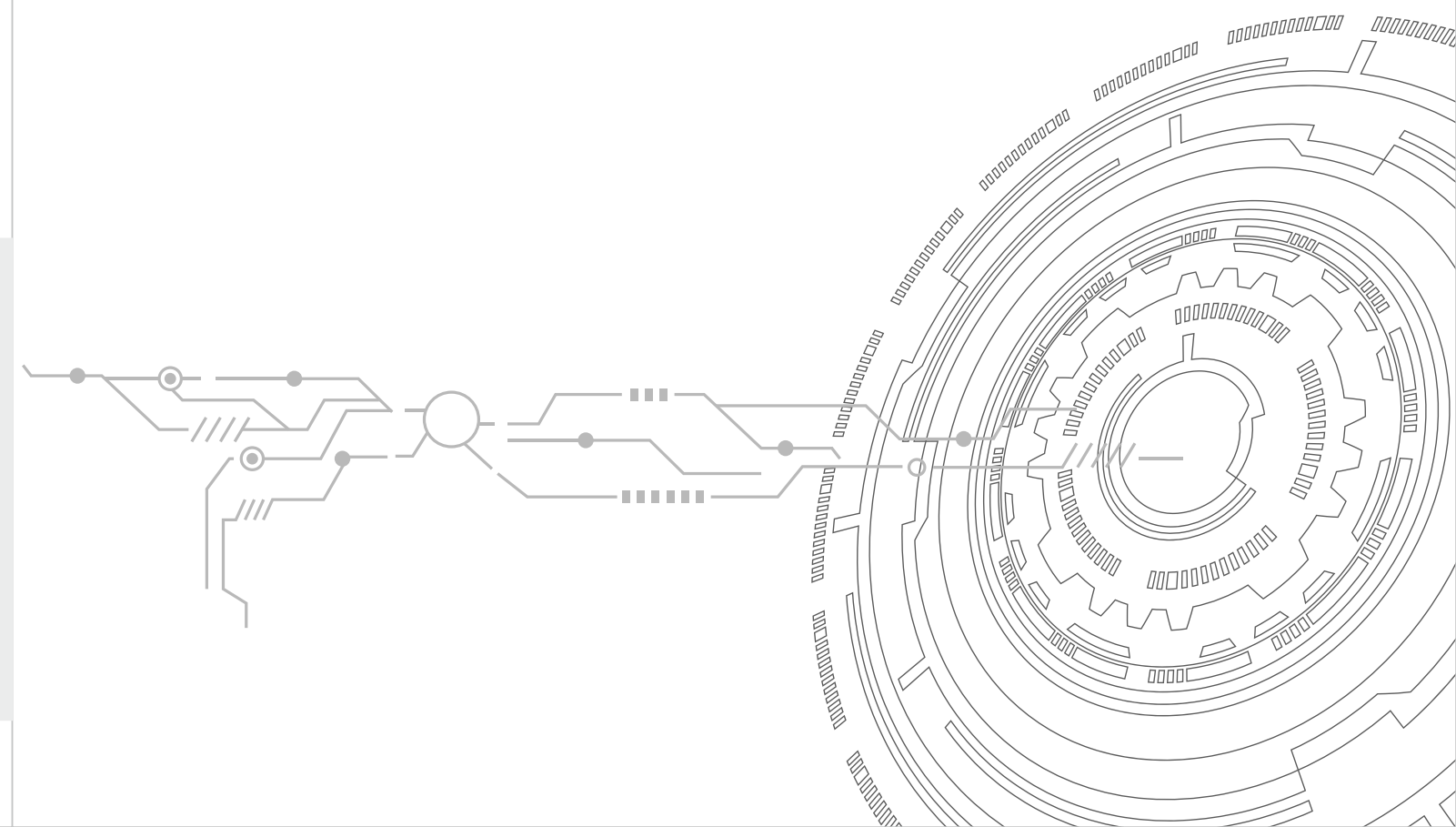
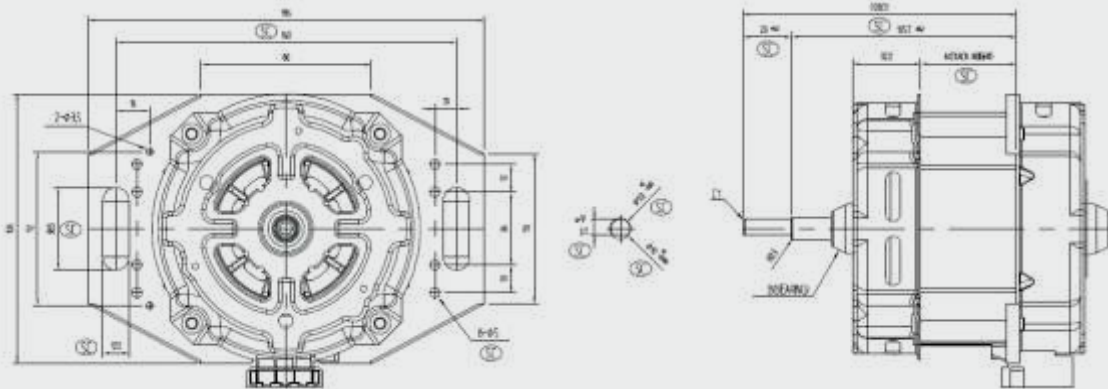
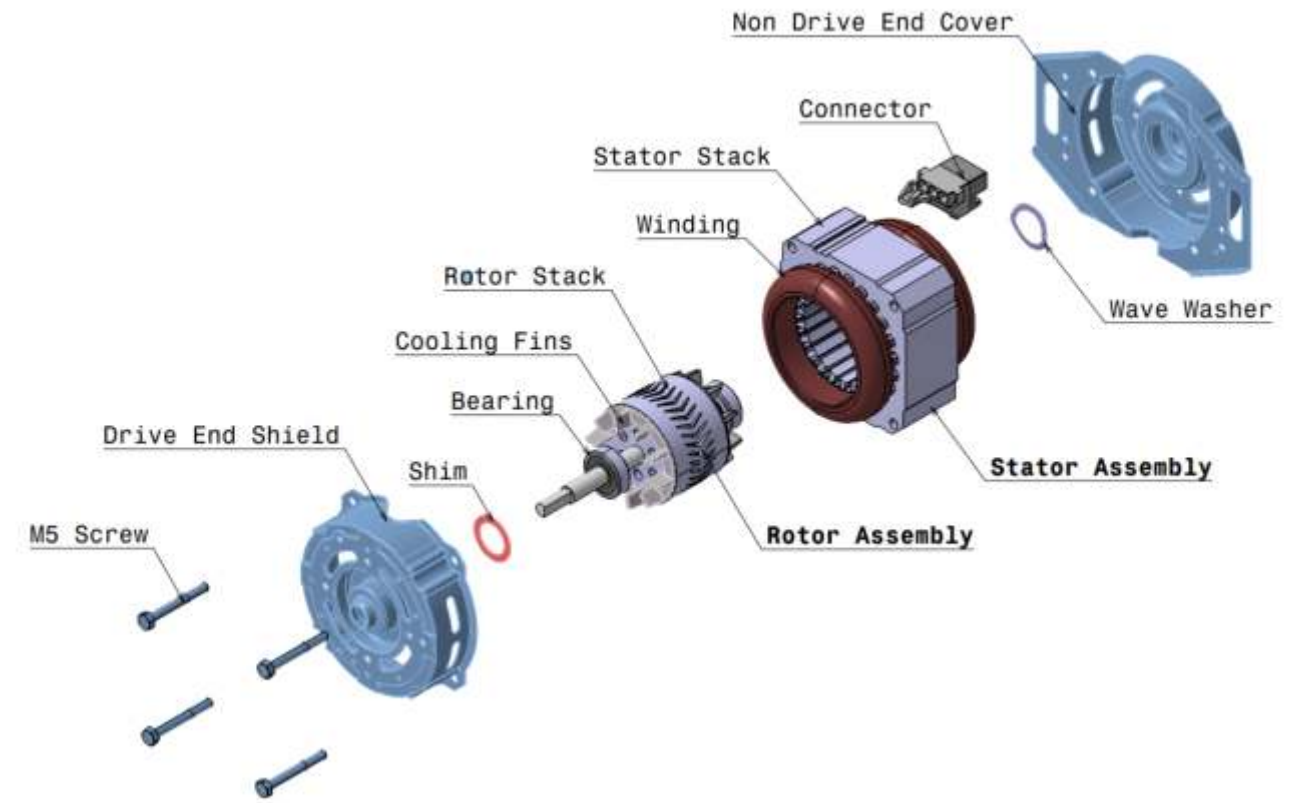
▶ Induction Motor – Technical Specifications

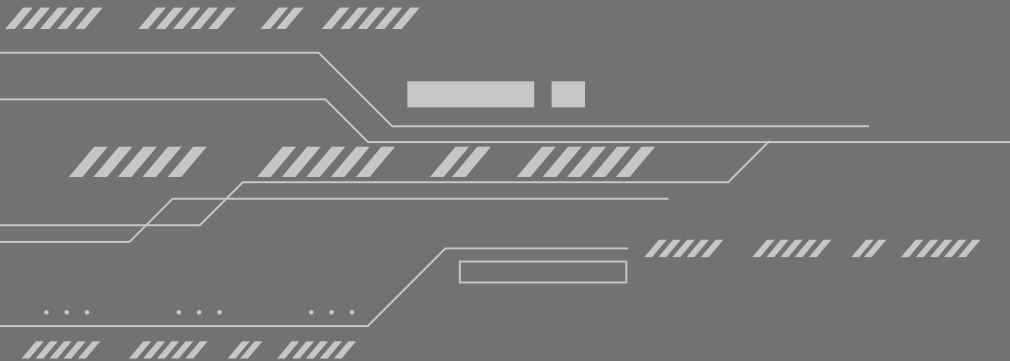
Single Phase Asynchronous Induction Motor for TOP loaded Washing Machine

Stack Width	: 30mm stack to 55mm stack
Slot	: 36
Rated Voltage	: 220 / 240 V AC 50 /60 Hz
Belt drive	: V groove
Motor Speed	: 1250~1350
Insulation	: Class F / H
Field winding	: Cu / Aluminum Winding
Protection	: IP00
Duty	: S3
Weight	: 2.2 to 4.2 Kg
Energy Rating	: Can meet the customer requirement



▶ Inducton Motor Exploded View





**Head – Motor Division
IFB Industries Limited**

#17, Visveswaraiyah Industrial Estate, Off Whitefield Road
Mahadevpura, Bangalore – 560 048
M: +919343706168 | email: mdprod@ifbbangalolre.com