PROJECT REPORT ON

"PROCREATE THE POWER EMPLOYING AVERSION TECHNOLOGY TO CONSUMMATE GREEN SOURCES"

Project report submitted in partial fulfillment of the degree of

BACHELOR OF ENGINEERING

BY

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(Affiliated to University of Mumbai)

FOR

ACADEMIC YEAR **2017-18**

CERTIFICATE

Certified that the project report entitled **"PROCREATE THE POWER EMPLOYING AVERSION TECHNOLOGY TO CONSUMMATE GREEN SOURCES"** is a bonafied work done under my guidance by

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DISSERTATION APPROVAL FOR BACHELOR OF ENGINEERING

This dissertation report entitled "**PROCREATE THE POWER EMPLOYING AVERSION TECHNOLOGY TO CONSUMMAT E GREEN SOURCES**" by

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Examiners

1.--------------------------------------

2.--------------------------------------

Date:

Place:

DECLARATION

I declare that this written submission represents my ideas in my own words and where others ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not represented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission have not been taken when needed.

(Signature)

(Name of student and Roll No.)

Date:

Acknowledgement

It is indeed a matter of great pleasure and proud privilege to be able to present this project on "**Procreate the Power Employing Aversion Technology to Consummate Green Sources**" The completion of the project work which is partial fulfillment of Degree academic works is a milestone in student's life and its execution is inevitable in the hands of guide. I am highly indebted to the project guide **Prof. Mohsin Khan** for their invaluable guidance and appreciation for giving form and substance to this report. It is due to their enduring efforts, patience and enthusiasm which has given a sense of direction and purposefulness to this seminar report and ultimately made it success.

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ABSTRACT

Since the conventional system is facing many problems such as the incremental of global fuel price and give higher environmental impact. This project was proposed to overcome that problem by designing the system that can generate the electrical energy source without use any fuel or electricity to run it. The approach is based on "Perendev" concept known as PERENDEV MAGNETIC MOTOR. This motor uses magnetic force in order to rotate the rotor. Therefore, the arrangement of the magnet for stator and rotor must be in accurate position to make sure the magnets are not in 'stable' position and static. This PERENDEV MAGNETIC MOTOR is use as a turbine (in hydro power plant) and will connect to generator. Then, during rotating, the generator will produce electricity. A brief explanation about this project is given in the introduction of this report regarding the purpose, the problem statement and the scope of the project. The explanation of the work progress is given in the circuit description.

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CHAPTER 1

1. INTRODUCTION

1.1 Overview

The term “Free-Energy” generally means a method of drawing power from the local environment, without the need to burn a fuel or coal. The author stated that free energy is coming from the local environment that supply to the system where these free energy is indefinite and perpetual. However, the conventional science contradicts the method of free energy. The Law of Conservation of Energy is undoubtedly correct when it shows that more energy cannot be taken out of any system than is put into that system.

According to, the magnet actually does not exert any power at all. Similar like the solar panel does not put effort into producing electricity, the power of a magnet flows from the environment and not from the magnet. The electrical pulse which creates the magnet aligns the atoms inside the iron and creates a magnetic “dipole” which has the same effect that the electrical “dipole” of a battery does. It polarizes the quantum environment surrounding it and causes great streams of energy flow around itself.

This is the reason that magnet can attract the iron or other specific kind of metal with the energy flow that we so called “magnetism”. This energy flow allows the magnet to defy the gravity for years on end. This property of magnet is believed that have the capabilities to create an indefinite source of energy. Through the concept of the natural polarity of the magnetic poles that the like poles attract each other, unlike poles repel each other. The natural repulsion or the repelling characteristics of magnetic waves creates a perpetual motion that is being harnessed by the magnetic devices.

1.2 Introduction

The main purpose of this project is to generate electricity from the free energy magnet motor by understanding new science doctrines of free energy theories.

Permanent Magnets have continuous power. This should be obvious as one will support its own weight on the vertical face of a refrigerator, for years on end. Conventional science says that permanent magnets can't be used as a source of power. However, the reality is that conventional science just doesn't know the techniques necessary for extracting that power. The permanent magnets have continuous power that were disclaimed by conventional science century year ago as the energy (i.e. work) is only done when something actually moves against as a result of force. The energy cannot be extracted without there is being motion.

The Law of Conservative of Energy has also clearly stated that the idea of no more energy coming out of a system than goes into it. In fact, the fridge magnet can be put on a fridge and seem like it will stay there forever with no sign of any power source input. Besides that, when we try to push the like poles of 2 magnets together, seem like the magnets will try to repel each other where there is no power or energy input to the magnets. However, our hands require some energy to against the magnets repelling motion. From these observed facts have stated that the conventional science probably is out of date and need to be upgraded.

Conventional physics says that it is impossible for magnets to provide a primary energy source. However, the free energy magnet motor can be achieved based on the property of magnet which attracting and repelling. Yet thousands of researchers worldwide have been pursuing the task of building a working magnet motor. Many claimed to have achieved this objective. However, none has reached the marketplace yet.

1.3 Aims and Objectives

The main objective of performing this project is to generate electricity on the aversion technology of magnet where the natural repulsion or the repelling characteristic of magnetic waves is believed can creates a perpetual motion is being harnessed by the magnetic prime mover.

Besides that, this project is aimed to bring the awareness to the public about the development of the new technology which is free energy that can be used to replace the reliability on the non-renewable energy sources such as fossil fuel which is depleted and polluted to the environment.

In addition, we will further our study on the feasibility of the free energy magnet motor by constructing a prototype and performing the software simulation on our project by applying the knowledge and technical skill that we gained and learned throughout our study on the magnet energy.

The aims that we expected to be achieved while carrying the project on the procreate the power employing aversion technology to consummate green sources

- Able to prove the existence of free energy magnet motor which can act as indefinitely and sustainable energy source.
- Able to construct a simple prototype to prove the existence of free energy magnet motor.
- Able to carry several experiments to study the feasible of free energy magnet motor behind the natural properties of neodymium magnet.
- Able to discover several new theories that related to free energy term after conducting the research and study.

1.3 Motivation

Nowadays, our world has faced with the global warming, greenhouse effect issue which is getting worse and worse. The emission gas of the non-renewable energy sources such as fossil fuel and coal is the main reason for the above environmental issue.

- Environmental pollution-Traditional power generation method like oil generator can do harm to our environment. So, with this system, it can protect our environment from the pollution.
- Fuel resource- The conventional power plants need fuel resources which not suitable to environmental friendly. Besides that, an incremental in fuel global price can be under by this alternative power plant. All oil generator need a fuel to generate electricity so why not use magnet power in state buying fuel
- Fossil fuels being use every day in the course of time it will finish, so the alternative is renewable energy

Therefore, the development of new energy sources which is clean and non-polluted to the environment is getting more and more demand in our world today. The free energy sources such as magnet energy are adaptable in replacing the non-renewable energy sources. However, the principle of the free energy is still under oppugned as the free energy has infringed the law of conventional science.

This project will be conducting of about feasibility of the free energy using the magnet to create the perpetual motion that lead to useful work which is sustainability and indefinitely.

1.4 Background

The seemingly mysterious ability of magnets to influence motion at a distance without any apparent energy source has long appealed to inventors. One of the earliest examples of a magnetic motor was proposed by Wilkins and has been widely classified.

Classification

One classification of perpetual motion machines refers to the particular law of thermodynamics the machines purport to violate:

- A perpetual motion machine of the first kind produces work without the input of energy. It thus violates the first law of thermodynamics: the law of conservation of energy.

- A perpetual motion machine of the second kind is a machine which spontaneously converts thermal energy into mechanical work. When the thermal energy is equivalent to the work done, this does not violate the law of conservation of energy. However, it does violate the more subtle second law of thermodynamics (see also entropy). The signature of a perpetual motion machine of the second kind is that there is only one heat reservoir involved, which is being spontaneously cooled without involving a transfer of heat to a cooler reservoir. This conversion of heat into useful work, without any side effect, is impossible, according to the second law of thermodynamics.

- A perpetual motion machine of the third kind is usually (but not always) defined as one that completely eliminates friction and other dissipative forces, to maintain motion for ever (due to its mass inertia). (Third in this case refers solely to the position in the above classification scheme, not the third law of thermodynamics.) It is impossible to make such a machine, as dissipation can never be completely eliminated in a mechanical system, no matter how close a system gets to this ideal (see examples in the Low Friction section).

Magnets are not like springs. Application of newton’s first and second laws of motion on magnetic forces prove that magnets must possess energy. Reliable experiments verify it. There are also other proofs that magnets possess energy.

Chapter 2

2. Block diagram of procreate the power employing aversion technology to consummate green sources

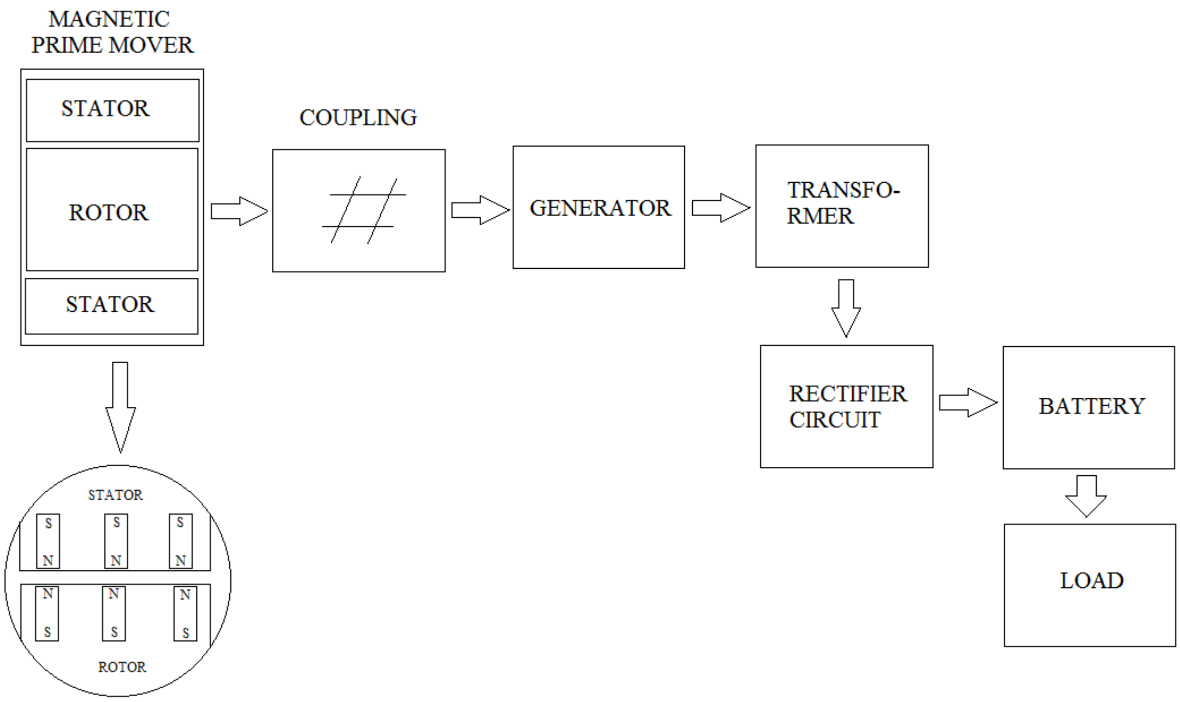


fig.2.1 Block diagram

2.1 Neodymium Magnet

A neodymium magnet (also known as NdFeB, NIB or Neo magnet), the most widely used type of rare-earth magnet, is a permanent magnet made from an alloy of neodymium, iron and boron to form the $Nd_2Fe_{14}B$ tetragonal crystalline structure. Developed independently in 1982 by General Motors and Sumitomo Special Metals, neodymium magnets are the strongest type of permanent magnet commercially available. They have replaced other types of magnets in many applications in modern products that require strong permanent magnets, such as motors in cordless tools, hard disk drives and magnetic fasteners.

Neodymium is a metal which is ferromagnetic (more specifically it shows antiferromagnetic properties), meaning that like iron it can be magnetized to become a magnet, but its Curie temperature (the temperature above which its ferromagnetism disappears) is 19 K (−254 °C), so in pure form its magnetism only appears at extremely low temperatures. However, compounds of neodymium with transition metals such as iron can have Curie temperatures well above room temperature, and these are used to make neodymium magnets.

The strength of neodymium magnets is due to several factors. The most important is that the tetragonal $Nd_2Fe_{14}B$ crystal structure has exceptionally high uniaxial magneto crystalline anisotropy. This means a crystal of the material preferentially magnetizes along a specific crystal axis, but is very difficult to magnetize in other directions. Like other magnets, the neodymium magnet alloy is composed of microcrystalline grains which are aligned in a powerful magnetic field during manufacture so their magnetic axes all point in the same direction. The resistance of the crystal lattice to turning its direction of magnetization gives the compound a very high coercivity, or resistance to being demagnetized.

The neodymium atom also can have a large magnetic dipole moment because it has 4 unpaired electrons in its electron structure as opposed to (on average) 3 in iron. In a magnet it is the unpaired electrons, aligned so they spin in the same direction, which generate the magnetic field. This gives the $Nd_2Fe_{14}B$ compound a high saturation magnetization and typically 1.3 teslas. Therefore, as the maximum energy density is proportional to J_s^2, this magnetic phase has the potential for storing large amounts of magnetic energy. This magnetic energy value is about 18 times greater than "ordinary" magnets by volume. This property is higher in NdFeB alloys than in samarium cobalt (SmCo) magnets, which were the first type of rare-earth magnet to be commercialized. In practice, the magnetic properties of neodymium magnets depend on the alloy composition, microstructure, and manufacturing technique employed.

The $Nd_2Fe_{14}B$ crystal structure can be described as alternating layers of iron atoms and a neodymium-boron compound. The diamagnetic boron atoms do not contribute directly to the magnetism, but improve cohesion by strong covalent bonding. The relatively low rare earth content and the relative abundance of neodymium and iron compared with samarium and cobalt makes neodymium magnets lower in price than samarium-cobalt magnets.

2.1.1 Magnetic properties

Some important properties used to compare permanent magnets are:

- Reminiscence (B_r) - which measures the strength of the magnetic field
- Coercivity (H_{ci}) - the material's resistance to becoming demagnetized
- Energy product (BH_{max}) - the density of magnetic energy
- Curie temperature (T_C) - the temperature at which the material loses its magnetism

Neodymium magnets have higher renascence, much higher coercivity and energy product, but often lower Curie temperature than other types. Special neodymium magnet alloys that include terbium and dysprosium have been developed that have higher Curie temperature, allowing them to tolerate higher temperatures. The table below compares the magnetic performance of neodymium magnets with other types of permanent magnets.

Table no 2.1: Material properties

Magnet	B_r (T)	H_{ci} (kA/m)	BH_{max} (kJ/m^3)	T_C	
				(°C)	(°F)

$Nd_2Fe_{14}B$ (sintered)	1.0–1.4	750–2000	200–440	310–400	590–752
$Nd_2Fe_{14}B$ (bonded)	0.6–0.7	600–1200	60–100	310–400	590–752
$SmCo_5$ (sintered)	0.8–1.1	600–2000	120–200	720	1328
Sm(Co, Fe, Cu, Zr)$_7$ (sintered)	0.9–1.15	450–1300	150–240	800	1472
Alnico (sintered)	0.6–1.4	275	10–88	700–860	1292–1580
Sr-ferrite (sintered)	0.2–0.78	100–300	10–40	450	842

2.1.2 Physical and Mechanical properties

Comparison of physical properties of sintered neodymium and Sm-Co magnets.

Table no 2.2: Physical and Mechanical properties

Property	**Neodymium**	**Sm-Co**
Remanence (T)	1–1.3	0.82–1.16
Coercivity (MA/m)	0.875–1.99	0.493–1.59
Relative permeability	1.05	1.05
Temperature coefficient of remanence (%/K)	−0.12	−0.03

Temperature coefficient of coercivity (%/K)	−0.55 – −0.65	−0.15 – −0.30
Curie temperature (°C)	320	800
Density (g/cm^3)	7.3–7.5	8.2–8.4
CTE, magnetizing direction (1/K)	5.2×10^{-6}	5.2×10^{-6}
Flexural strength (N/mm^2)	250	150
Compressive strength (N/mm^2)	1100	800
Tensile strength (N/mm^2)	75	35
Vickers hardness (HV)	550–650	500–650
Electrical resistivity (Ω·cm)	$(110–170)\times10^{-6}$	86×10^{-6}

2.2 Magnetic Prime Mover

The invention provides a magnetic repellent motor which comprises: a shaft rotatable about its longitudinal axis, a first set of magnetic sources arranged about the shaft in a rotor for rotation with the shaft, and a second set of magnetic sources arranged in a stator surrounding the rotor, wherein the second set of magnetic sources is in magnetic communication with the first set of magnetic sources, where in the magnetic sources of the first and second sets of magnetic sources are at least partially magnetically screened so as to direct their magnetic field into a gap between the two sets of magnetic sources. Thus, the interaction of at least some of the magnetic sources of the first and second set urges the shaft to rotate.

The interaction may be the net repelling force of like magnetic poles repelling each other thereby urging the magnetic sources away from each other, however, since only the magnetic sources of the first set of magnetic sources are able to be displaced under the urging of the force, the shaft is urged to rotate into a position in which the repelling force is less.

The rotor may be substantially disc shaped, and the first set of magnetic sources may be located in a peripheral region of the rotor which rotates together with the shaft.

The stator may be in the form of a pair of arms, which co-operates with the corresponding rotor.

The arms of a pair may be displaceable relative to each other and their corresponding rotor, such that a gap between the arms and the rotor may be selectively set. The gap may be set manually, for example by a hand wheel, or automatically, for example by a centrifugal distributed weights system, thereby to effect control over the rotational speed of the shaft i.e. the smaller the gap the greater the repulsion forces between the magnetic sources of the rotor and the stator.

The rotor may have a plurality of magnetic source receiving zones provided therein for receiving the magnetic sources of the first set of magnetic sources.

The stator may have a plurality of magnetic source receiving zones provided therein for receiving the magnetic sources of the second set of magnetic sources.

The receiving zones may be in the form of circumferentially extending spaced apart sockets.

The sockets may be substantially cylindrical and may be arranged in a plane perpendicular to the longitudinal axis of the shaft.

The sockets may be angled at an acute angle relative to the tangent to the circumference of the rotor at the mouth opening of its sockets and to the inner circumference of the stator at the mouth opening of its sockets.

This angle may be between 18 degrees and 40 degrees, preferably between 30 degrees to 35 degrees.

The sockets may receive or incorporate a socket lining consisting at least partially of a magnetic screening material. The socket lining may line the entire extent of the sockets so that only the opening to the exterior remains unlined.

The socket lining may comprise a shield of another magnetic screening material. The shield may envelop the entire extent of the socket lining so that only the opening to the exterior remains unlined. In another preferred embodiment, the shield covers a substantial percentage of the socket lining, eg, 50% thereof.

The magnetic sources may be Neodymium magnets (Nd-Fe-B) sized and dimensioned to snugly fit into the sockets and socket linings, respectively.

The magnetic sources may be constituted by a 37mm diameter 75mm length cylindrical magnet having 360000 gausses.

The socket lining, the shield and the magnetic sources may comprise through holes to receive a securing pin, preferably in a direction parallel to the longitudinal axis of the shaft.

The number of sockets in the rotor and the corresponding stator may differ so that there is not a one to one relationship between the sockets in the rotor and the sockets in the corresponding stator. Likewise, the number of magnetic sources in the first and second sets may differ so that a proportion of the magnetic sources of the two sets are out of register at any given time. Some sockets may be empty i.e. without a magnetic source, in either the rotor or the stator, or in both.

The magnetic repellent motor may have one or more rotors and stators of the above type arranged in a stack.

It is preferable for magnetic sources of adjacent rotors to be out of register ie. staggered or offset relative to each other.

2.2.1 Description of the drawings

Without in any way limiting the scope of the invention, the invention will now be illustrated with reference to the accompanying drawings.

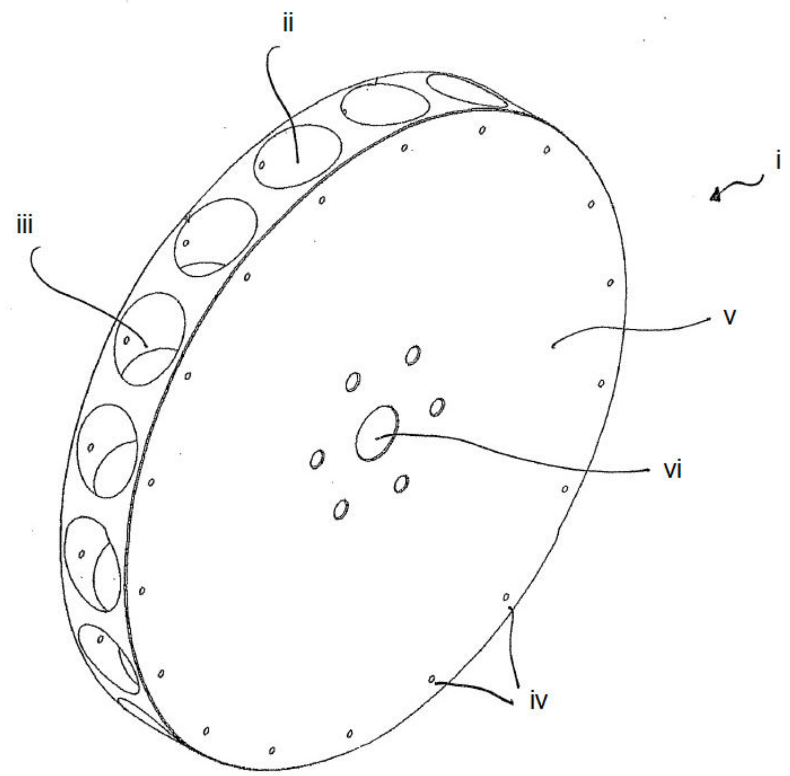


Fig.2.2: A rotor of the magnetic repellent motor

Referring to Fig.2.2, a substantially disk-shaped rotor **i** is made of a non-magnetic material. The rotor **i** comprises a plurality of magnetic source receiving zones **ii** provided therein for receiving magnetic sources **viii** (shown in later figures) of a first set 16 of magnetic sources. The receiving zones **ii** are in the form of circumferentially extending spaced apart and substantially cylindrical sockets **iii** which are located in a plane perpendicular to the rotational axis of the rotor **i** in a peripheral region thereof.

In the region of the sockets **iii**, the rotor **i** further comprises through holes **iv** arranged in its side surfaces **v** and extending parallel to the rotational axis of the rotor **i**. The rotor **i** further comprises a center hole **vi** for receiving a shaft **vii** (shown in later figures).

The sockets **iii** are preferably angled at an acute angle relative to a tangent to the circumference of the rotor **i** at the mouth opening of the sockets **iii**. Preferably, this angle is between 18 and 40 degrees, more preferably between 30 and 35 degrees. In one particularly preferred embodiment the angle is 34 degrees.

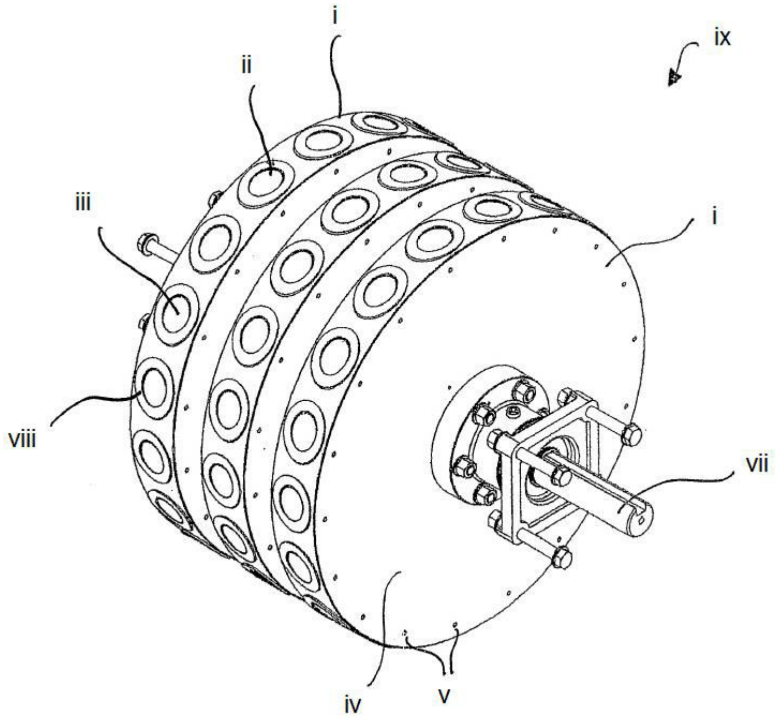


Fig:2.3: A stack of rotors

A shown in Fig. 2.3, the sockets **iii** receive or incorporate) a socket lining **viii** (shown in more detail in later figures) which is at least partially made of a magnetic screening non-metallic or metallic material, for example graphite. The socket lining **viii** covers the entire extent of the sockets **iii** so that only the opening to the exterior remains uncovered.

In the rotor assembly **ix** shown in Fig. 2.3, three rotors **i** have been stacked in a row on the shaft **vii**. The connection between the rotors **i** and the shaft **vii** as well as the connection between the multiple rotors **i** can be established via linking means known in the art. In general, the magnetic repellent motor may have any number of rotors **i** and corresponding stators **x**, since the effect of operating several rotors **i** in parallel is accumulative. However, it may be useful for a smooth operation of the motor to arrange the rotors **i** such that the magnetic sources of adjacent rotors **i** are staggered or offset relative to each other

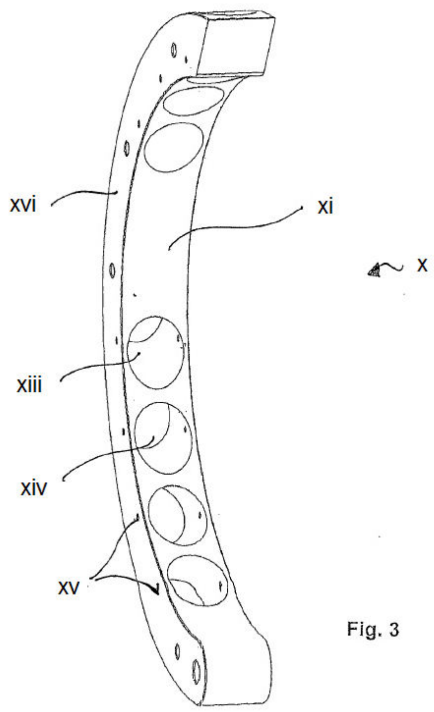


Fig. 3

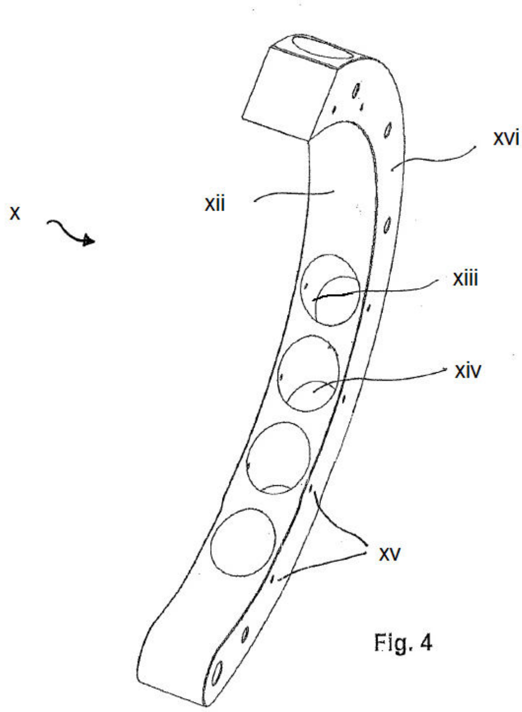


Fig. 4

Fig.2.4 & 2.5: A left arm and right arm of a stator of the magnetic

Referring to Fig. 2.4 and 2.5, a stator **x** is depicted. The stator **x** is made of a non-magnetic material. The left arm **xi** shown in Fig. 3 and the right arm **xii** shown in Fig. 2.3 combine to form the stator **x**. Each of the arms **xi**, **xii** has a substantially semicircular shape and is adapted to enclose the corresponding rotor **i** in radial direction while still leaving a gap between the stator **x** and the rotor **i**. The arms **xi**, **xii** of one stator **x** are displaceable relative to each other and their corresponding rotor **i** such that the gap between the arms **xi**, **xii** and the rotor **I** may be selectively set.

The stator **x** comprises a plurality of magnetic source receiving zones **xiii** provided therein for receiving magnetic sources 40 (shown in later figures) of a second set 42 of magnetic sources. The receiving zones **xiii** again are in the form of circumferentially extending spaced apart and substantially cylindrical sockets **xiv** which are located in a plane perpendicular to the longitudinal axis of the shaft **vii**.

In the region of the sockets **xiv**, the stator **x** comprises through holes **xv** arranged in its side surfaces **xvi** and extending parallel to the longitudinal axis of the shaft **vii**.

The sockets **xiv** are again preferably angled at an acute angle relative to a tangent to the inner circumference of the stator **x** at the mouth opening of the sockets **xiv**. Preferably, this angle is between 18 and 40 degrees, more preferably between 30 and 35 degrees. The angle of the sockets **iii** and **xiv** and the relative positioning between them has to be adjusted to allow for a good performance of the motor

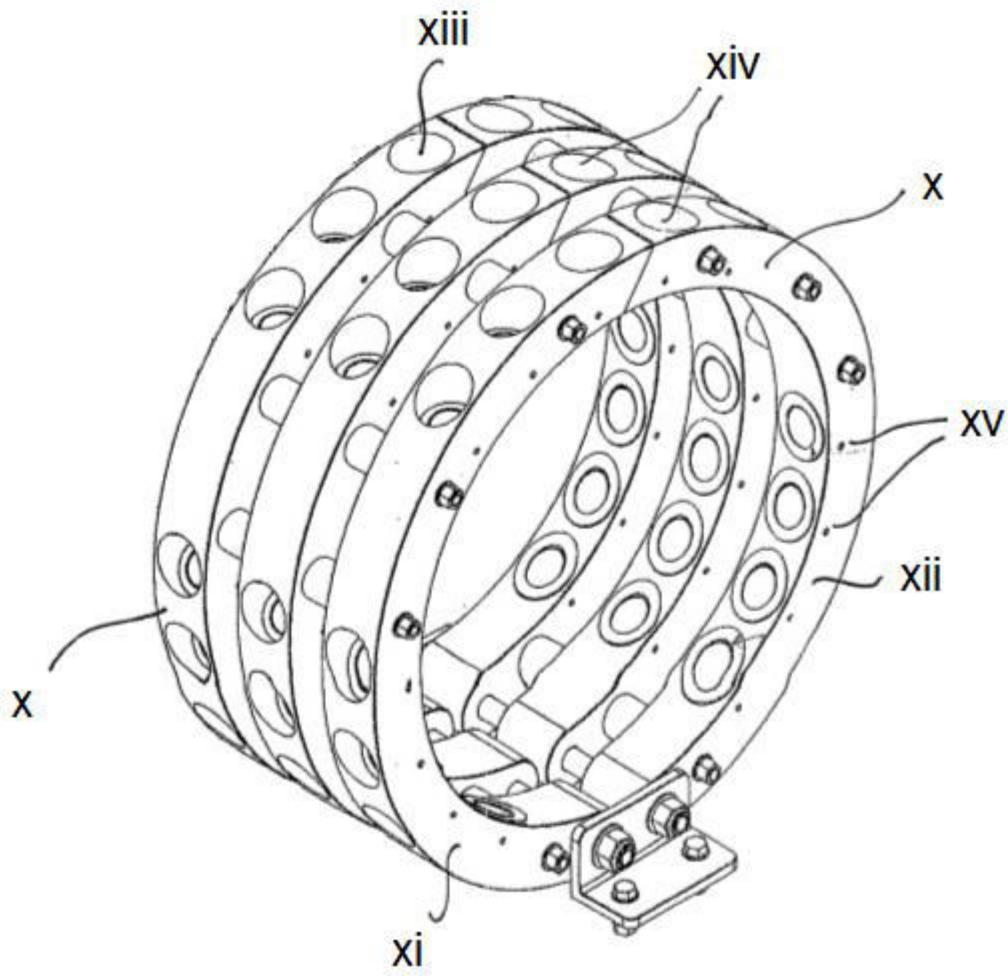


Fig.2.6: A stack of stators

Fig.2.5 shows a stator assembly consisting of three stators so as to fit to the rotor assembly of Fig. 2.3 As described with reference to the sockets **iii** of Fig. 2.3, the sockets **xiv** receive (or incorporate) a socket lining 50 (shown in more detail in later figures) which is at least partially made of a magnetic screening non-metallic or metallic material. The socket lining 50 covers the entire extent of the sockets **xiv** so that only the opening to the exterior remains uncovered.

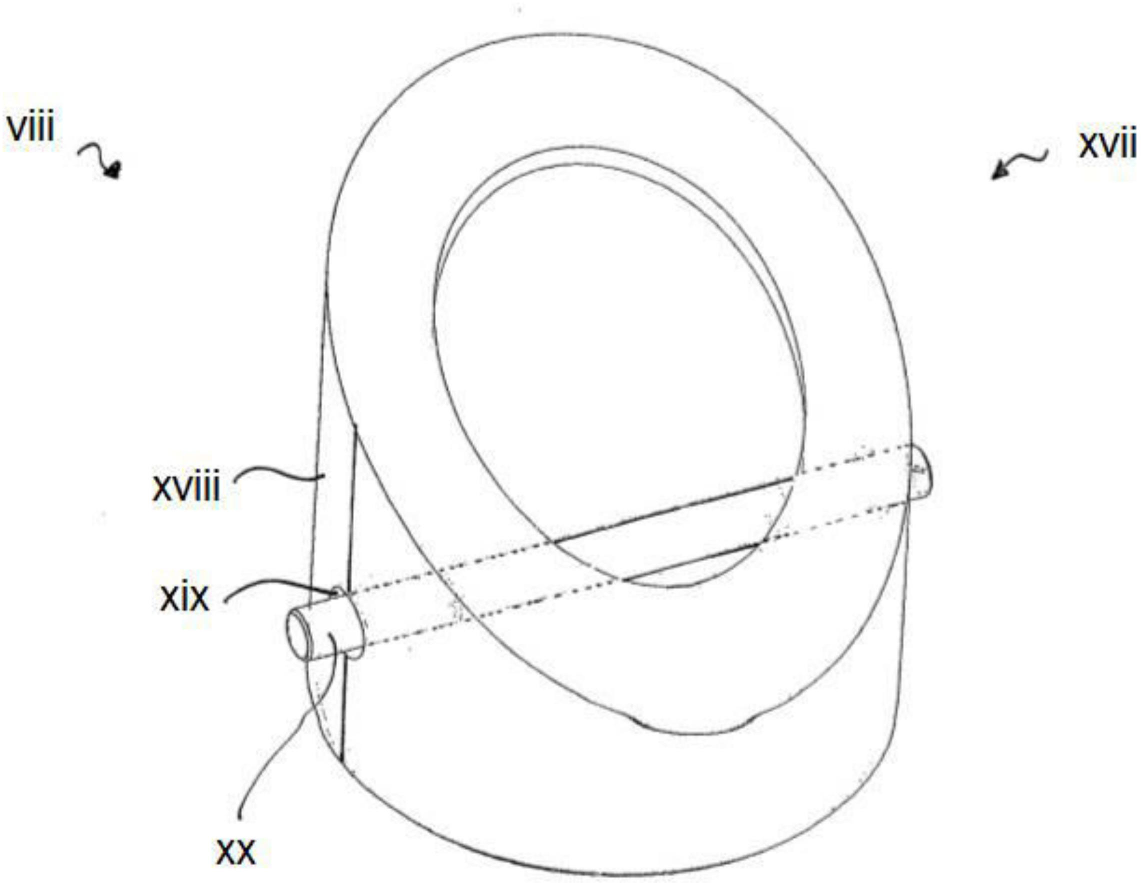


Fig2.7: A socket lining of a stator or a rotor of the magnetic

Referring to Fig. 2.7, a socket lining **vii**, **xvii** of the rotor **i** or the stator **x** is depicted in more detail. The socket lining **viii**, **xvii** is formed to fit into the sockets **iii**, **xiv** and may fully be made of a non-metallic or a metallic material which has magnetic screening properties, In one preferred embodiment the socket lining **viii**, **xvii** is made of diamagnetic graphite and is partially surrounded by an additional shield **xviii** of a material having strong magnetic screening properties, e.g, stainless steel. In the embodiment shown in Fig. 2.7, the shield **xviii** surrounds about 50% of the socket lining surface

Thus, by at least partially covering the sockets **iii**, **xiv** with a magnetic screening material the magnetic field of inserted magnetic sources **xxi**. **xxiii** is, so to say focused axially with the socket **iii**. **xiv**, rather than dissipated about the magnets.

Further, through holes **xix** are provided in the socket linings **viii**, **xvii** which correspond to through holes **iv** and **xv** in the rotor and stator **x**, respectively. Thus, a retaining pin **xx** may be inserted after the magnetic source **xxi xxiii** has been put in the socket 16, **xiv** to detachably fix the magnetic source **xxi**, **xxiii** to the socket lining **viii**, **xvii** and the socket **iii**, **xiv** so as to prevent expulsion of the magnetic sources **xxi**, **xxiii** during operation

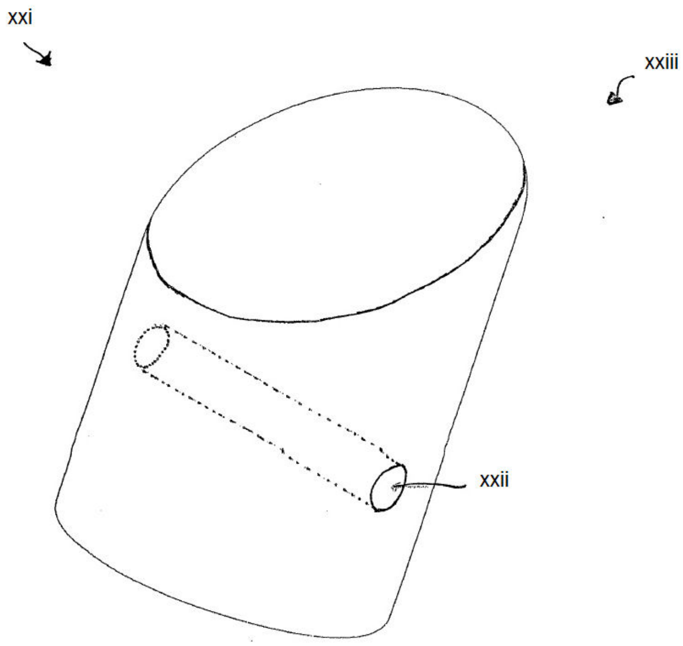


Fig.2.8: A magnetic source of the magnetic repellent

Fig. 2.8 shows a typical magnetic source **xxi**, **xxiii** used in the motor 1 according to the invention. The magnetic sources **xxi**, **xxiii** may be natural magnets, induced magnets or electromagnets. The magnetic source for example is a Nd-Fe-B magnet sized and dimensioned to snugly fit into the socket **iii**, **xiv** and socket lining **viii**, **xvii**, respectively. In one preferred embodiment, the magnetic source **iii**, **xiv** is a substantially cylindrical shaped magnet and preferably has a diameter of 37mm, a length of 75mm and provides 360000 gausses However, the magnetic source **iii**, **xiv** may be shaped differently than cylindrical and may Comprise different characteristics. In any case, the magnetic source **iii**, **xiv** has to comprise an through hole **xxii** for receiving the retaining pin **xx**

The magnetic repellent motor 1 of the example of Fig. 8 is mounted on a frame 60 and is coupled to an electrical generator 62. In this specific embodiment, the motor 1 comprises three rotors **i** of the above type which are mounted on a single rotating haft **vii** and work with three stators **x** of the above type to urge the shaft **vii** to rotate about its longitudinal axis. The shaft **vii** of the mechanism may be connected to a gearbox to obtain mechanical advantage. The stator arms can be moved e.g. by a stepper motor 62.

The number of sockets in the rotors **i** and their corresponding stators **x** may differ such that there is not a one to one relationship between the sockets 18 in the rotor **i** and the sockets **xiv** in the corresponding stator **x**. Likewise, the number of magnetic sources in the stator **x** and the rotor **i** may differ so that a proportion of the magnetic sources **xxi**, **xxiii** are out of register at any given time. Some sockets may be empty i.e. without a magnetic source, in either the rotor **i** or the stator **x**, or both.

The sockets **iii** of the rotors **i** can be staggered i.e. offset relative to the sockets of adjacent rotors or they can line-up in register. Thus, the magnetic repellent motor 1 may be time-tuned by the relative positioning of the magnetic sources **xxi** of adjacent rotors **i**.

Thus, the interaction of at least some of the magnetic sources **xxi**, **xxiii** of the first and second set 16, 42 urges the shaft **vii** to rotate. Once the shaft **vii** begins to rotate the plurality of simultaneous interactions causes the shaft **vii** to continue rotating.

As mentioned before, the magnetic repellent motor 1 may have any number of rotor **i** and stator **x** sets. Although the precise adjustment of the motor elements is important, one may imagine other embodiments covered by the invention according to the appended claims.

2.3 Magnetic arrangement

If you look at some of the Prime mover" work" by others on the net, there is the issue of finding an arrangement of the magnets so that they don't find a local minimum in the gradient field and get "stuck there"; the solutions usually involved using multiple "rotors" (3 typically) with a staggered configuration of the outer stator magnets. I thought "why not stagger the magnets on a single rotor/stator pair in such a way that a single pair will never find a local minimum in a full rotation.

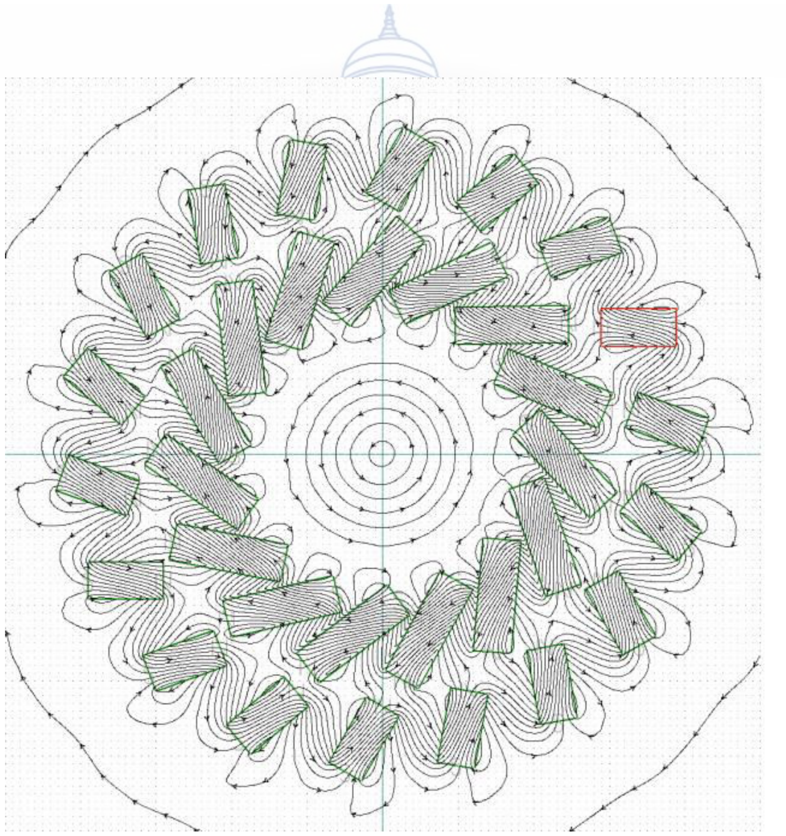


Fig no.2.9 Arrangement of magnets

The idea is that the outer ring would be fixed on an annulus, called a stator, and the inner ring would be on another annulus but attached to a rotating axis, which could drive a generator.
Given that the outer ring would be fixed, I used Vizimag to determine the x & y force components on each of the inner magnets, did some simple trig and got the total tangential force on the rotor. Because the tangential force from each magnet acts along the tangent of the inner annulus to which they're attached, you can then just add them all up together and see if there is a non-zero tangential force in one rotary direction. Using parameter values for

real rare-Earth magnets, Vizimag said that the total net tangential force on the inner rotor was in the hundreds of feet (not inches) pounds of torque, for a 12″ rotor with 1″ x 3″ magnets of typical "rare-earth magnet" Gauss strength, which I just looked up the value for on the web from a retailer for these magnets. The stator magnets are 1″ x 2″.

Other designs I read about had directly-facing magnets on inner and outer annuli. While this would cause repulsion in one direction if they were all perfectly lined up, it also automatically creates a local minimum, or balance, of force between the magnets, when they were angled "in between" each other. So, the inner axis would just rotate into the intermediary position and then STOP, forcefully. This required 2 or 3 more disks /annuli combo's to be oriented at staggered positions relative to each other along a connecting drive axis so that when one disk wanted to stop rotating, the others would keep on pushing.

Why not stagger the magnets on a single disk, then? That's what I tried. The result being that as the inner rotor rotates relative to the stator, while the total tangential force in the CCW direction does vary in magnitude, it does not ever reverse direction. If a few magnets start repulsing in the wrong direction, there are always more magnets of more total force pushing in the original direction.

The rotating magnets would cause huge EMF. It might be picked up by "authorities" as radio emission. Therefore, do the test inside a Faraday cage or out in the country far away from everything and then quickly and leave. The magnetic EMF might also have health issue concerns so might not want to get too near. It might also look like an EMP weapon or, be an EMP weapon. It would create a ridiculously huge rotating vortex of magnetic energy flowing out along the axis when spinning at a few thousand RPM.

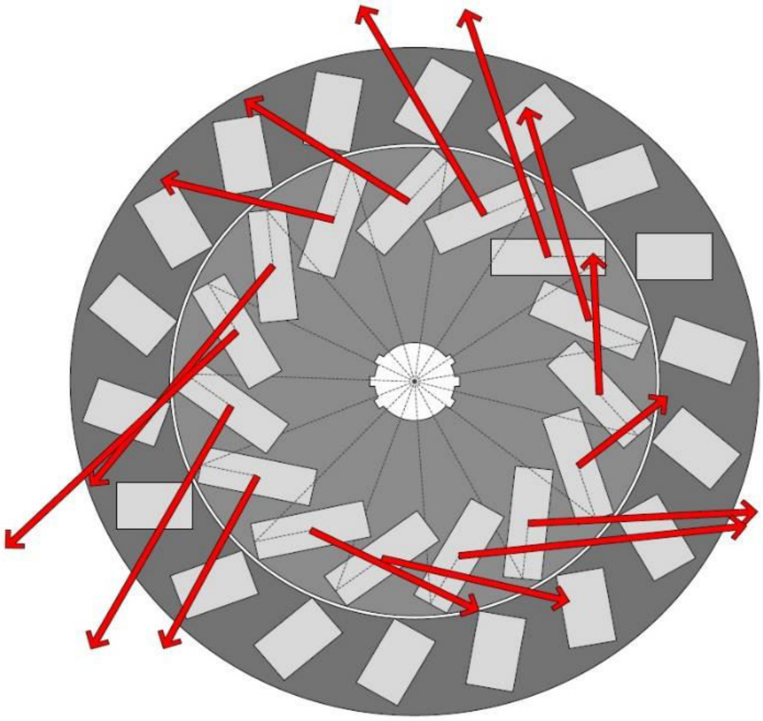


Fig no.2.10 rotation of magnet in different direction

The next two images are GIFs and should animate – if they're not animating then click on them or open them in a new tab…they might take a minute or two to download all the frames.

Anyway, just posting this here because I had it lying around on my desktop for the last few years. I honestly don't know if it would work or not. The magnetic force analysis says it would, but hey, models are hardly anything to go by!

2.4 Generator

Generator is a machine that converts mechanical energy into electrical energy. It works based on principle of faraday law of electromagnetic induction. The faradays law states that whenever a conductor is placed in a varying magnetic field, EMF is induced and this induced EMF is equal to the rate of change of flux linkages. This EMF can be generated when there is either relative space or relative time variation between the conductor and magnetic field. So, the important elements of a generator are:

- Magnetic field
- Motion of conductor in magnetic field

An Electrical Generator is a device that produces an Electromotive Force (e.m.f.) by changing the number of Magnetic Flux Lines (Lines of Force), Φ, passing through a Wire Coil. Figure 1 is one type of Generators. When the Coil is rotated between the Poles of the Magnet by cranking the handle, an AC Voltage Waveform is produced.

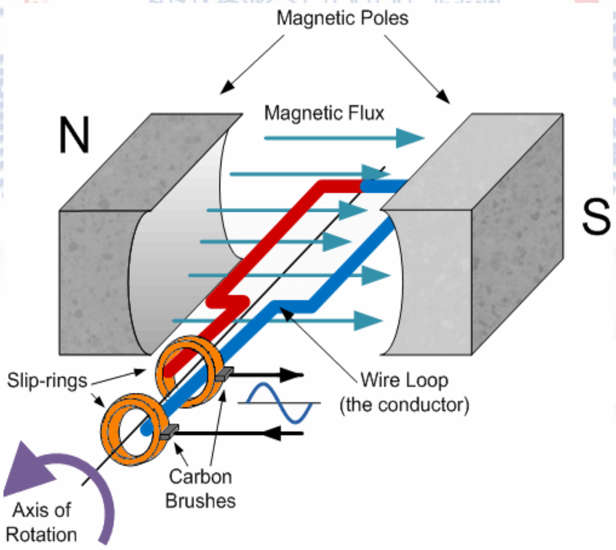


Fig no.2.11 Generator

2.4.1 Principle

When the Coil is rotated between the Poles of the Magnet by cranking the handle, an **AC** Voltage Waveform is produced. Operation principle of a Generator is based on Electromagnetic Induction, which is defined by Faraday's Law.

$$E_{emf} = -N \frac{d\Phi}{dt}$$

The Electromotive Force, E_{emf}, induced in a Coil is proportional to the number of turns, N, in the Coil and the Rate of Change, $d\Phi / dt$, of the number of Magnetic Flux Lines, Φ, passing through the surface (A) enclosed by the Coil. An Induced Effect is always such as to Oppose the cause that produced it.

2.4.2 Working

Voltage in a generator is generated by a changing magnetic flux linked with a conducting coil.

This phenomenon is called electromagnetic induction, which states that a changing magnetic field induces an emf whose direction is such as to oppose the change which is causing it.

All atoms consist of tiny current loops arising due to the motion of electrons around the nucleus. When this "moving charge" is subjected to a changing magnetic field, a force starts acting on them which causes them to flow in a particular direction, which produces an EMF or a voltage.

The generator(alternator) has two parts stator and rotor. The prime-mover has start the rotor. Then the rotor starts moving the rotor induces magnetic flux to stator winding then both of them have flux.

The rotor is still in movement and the stator coils producing magnetic flux then the rotor and stator emf are clashed to each other and they are produce charged magnetic flux. This phenomenon is called electromagnetic induction, which states that a changing magnetic field induces an emf whose direction is such as to oppose the change which is causing it.

This is the phenomena of producing voltage from generator.

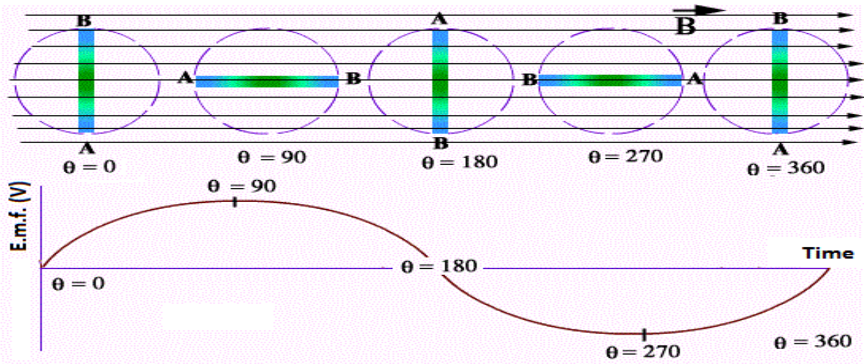


Fig no. 2.12 waveform expression

For the generation of large currents, it is more practical and advantageous to keep the coil fixed and to rotate the magnetic field around the coil. In this case, the magnetic field cuts the coil to produce the induced e.m.f., instead of the coil cutting the magnetic field.

The prime mover can be arranging to magnet which help to find out local minimum gradient field idea is that outer ring will be fixed i n an annulus called stator. the inner rotor rotates and magnet rotates gauss strength will improve. the inner axis would just rotate into the intermediary position and then stop forcefully rotating magnets would cause huge emf the magnetic energy flowing out along the axis when spinning at few thousand-rpm generators is machine that converts mechanical energy into electrical energy emf induced equal to the rate of change of flux linkage.

The number of socket in the rotter corresponding stator it may differ so that there is one to one relationship socket in the rotor. the magnetic replant motor one or more rotor arranges in stack. it is prefilled for magnetic sources of adjacent rotor to out of resistor or offset relive to each other.

The angle between 18 degrees and 40 degrees preferably between 30 to 35 degree the magnetic sources neodymium magnets size and dimension fit into sockets and lining the arms of pair may displaceable related to each other and corresponding rotor such gap between the arms and rotor may selective set

The rotor may have magnetic source receiving zone provided the magnetic source of the first set

The stator may have magnetic source receiving zone provided the magnetic source of the second set

The interaction may be net replant force like magnetic force repelling each other there by urging the magnetic sources from each other however since only the magnetic sources the first set of magnetic are able to be displace under the urging of force the shaft is urged to rotate into position in which repelling force is less .the rotor substantially the disk shape the first set of magnetic source may be located in a peripheral the region of the rotor which rotates tougher with shaft.

2.5 Transformer

A transformer is an electrical device that transfers electrical energy between two or more circuits through electromagnetic induction. Electromagnetic induction produces an electromotive force within a conductor which is exposed to time varying magnetic fields. Transformers are used to increase or decrease the alternating voltages in electric power applications

It is a general-purpose chassis mounting mains transformer. Transformer has 240V primary windings and center tapped secondary winding. The transformer has flying colored insulated connecting leads (Approx. 100 mm long). The Transformer act as step down transformer reducing AC - 240V to AC - 12V. Power supplies for all kinds of project & circuit boards. Step down 230 V AC to 12V with a maximum of 1Amp current. In AC circuits, AC voltage, current and waveform can be transformed with the help of Transformers. Transformer plays an important role in electronic equipment. AC and DC voltage in Power supply equipment are almost achieved by transformer’s transformation and commutation

2.5.1 Principle of Working of a Transformer

An electrical transformer works on the principle of Mutual Induction, which states that a uniform change in current in a coil will induce an E.M.F in the other coil which is inductively coupled to the first coil.

In its basic form, a transformer consists of two coils with high mutual inductance that are electrically separated but have common magnetic circuit. The following image shows the basic construction of a Transformer.

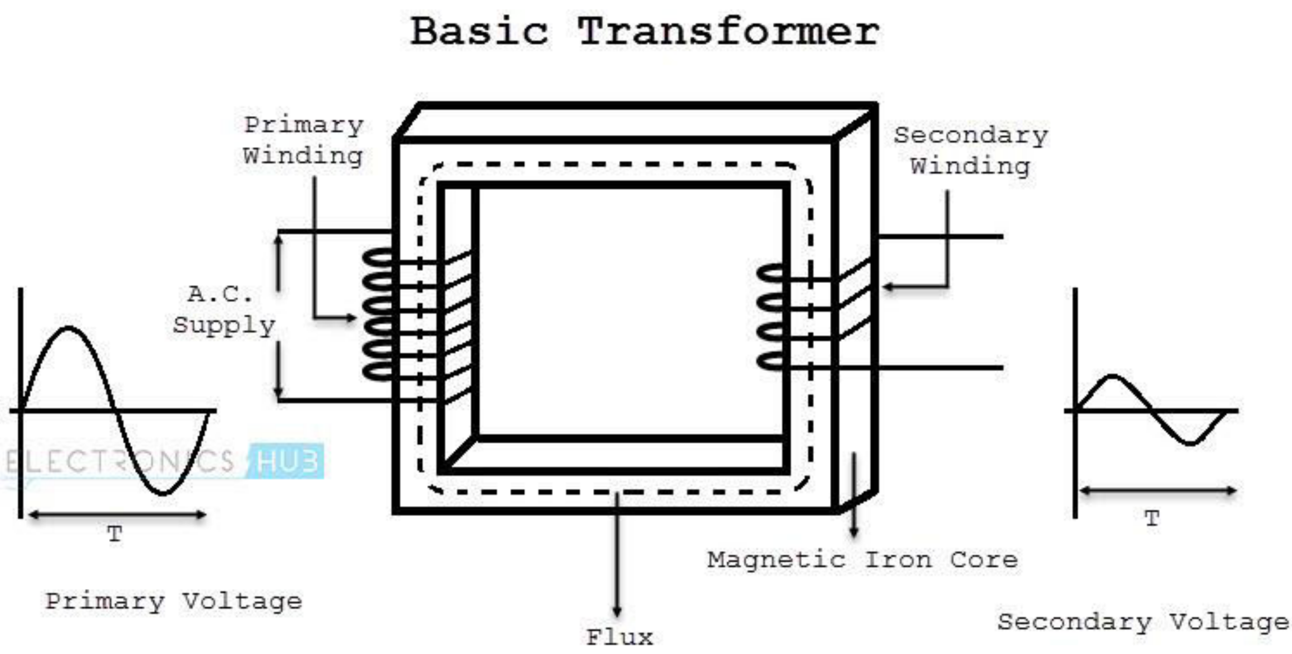


Fig no.2.13 Basic Transformer

2.5.2 How Transformer Works

The first set of the coil, which is called as the Primary Coil or Primary Winding, is connected to an alternating voltage source called Primary Voltage.

The other coil, which is called as Secondary Coil or Secondary Winding, is connected to the load and the load draws the resulting alternating voltage (stepped up or stepped down voltage).

The alternating voltage at the input excites the Primary Winding, an alternating current circulates the winding. The alternating current will result in an alternating magnetic flux, which passes through the iron magnetic core and completes its path.

Since the secondary winding is also linked to the alternating magnetic flux, according to Faraday's Law, an E.M.F is induced in the secondary winding. The strength of the voltage at the secondary winding is dependent on the number of windings through which the flux gets passed through.

Thus, without making an electrical contact, the alternating voltage in the primary winding is transferred to the secondary winding.

2.5.3 Relation Between Voltage and Turns

Let N_P be the number of turns of the coil in the Primary Winding and N_S be the number of turns of the coil in the Secondary Winding.

If the alternating voltage at the primary side of the transformer is V_P and the alternating voltage at the secondary side of the transformer is V_S, then the relation between the voltages at primary and secondary and number of turns of the coil in primary and secondary is given as follows.

$$\mathbf{V_P/V_S = N_P/N_S}$$

2.5.4 Step Down Transformer

A Step-down Transformer is a type of transformer, which converts a high voltage at the primary side to a low voltage at the secondary side.

If we speak in terms of the coil windings, the primary winding of a Step-down Transformer has more turns than the secondary winding. The following image shows a typical step-down transformer.

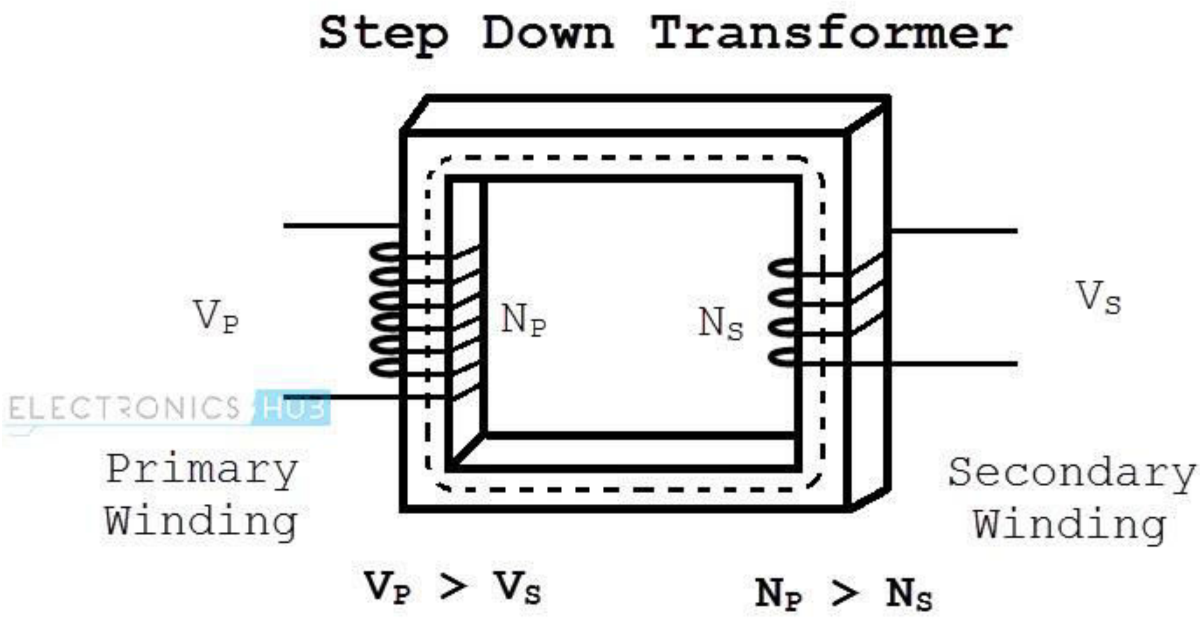


Fig no 2.14 Step down transformer

Step Down Transformer

For example, consider the following situation. The number of turns in the primary winding of a transformer is 3000 and that in the secondary winding is 150. If the alternating voltage at the primary of the transformer is 240V, then the voltage at the secondary of the transformer can be calculated using the following equation.

$\mathbf{V_P/V_S = N_P/N_S}$

Here, N_P is primary winding turns = 30000

N_S is secondary winding turns = 150

V_P is voltage at the primary winding of the transformer = 240V

V_S is the voltage at the secondary of the transformer =?

Using the above equation,

$V_S = (V_P * N_S)/N_P$

$= 240*150/3000$

$= 12V$

Hence, the voltage at the secondary winding of the transformer is 12V, which is less than that at the primary. Therefore, the transformer in this subject is a Step-down Transformer.

Power in Step down Transformer

The power in a transformer is measured using the product of voltage and current. The power in a transformer is rated in Volt – Amps VA (or Kilo Volt – Amps kVA for larger transformers).

Ideally, the power in any transformer is constant i.e. the power available at the secondary of the transformer is same as the power at the primary of the transformer.

This is even applicable to a step-down transformer. But, since the voltage at the secondary of a step-down transformer is lesser than that at the primary, the current at the secondary will be increased in order to balance the total power in the transformer.

Current and Voltage Relation in Step Down Transformer

We will now see how this works. Let V_P be the voltage at the primary, I_P be the current at the primary and P_P be the power at the primary side of the transformer.

We know that the power can be calculated by simply multiplying the voltage and current. Hence, the power at the primary side of the transformer is given by

$$\mathbf{P_P = V_P * I_P}$$

Similarly, let V_S be the voltage at the secondary, I_S be the current at the secondary and P_S be the power at the secondary side of the transformer.

The power at the secondary of the transformer is given by

$\mathbf{P_S = V_S * I_S}$

Since, the power in a transformer is constant, $P_P = P_S$.

Which means, $\mathbf{V_P * I_P = V_S * I_S}$

As V_S is less than V_P in a step-down transformer, I_S has to be more than I_P. Hence, the output voltage in a step-down transformer is less than that of the primary voltage and the output current is more than the input current.

From the above analysis, we can define a Step-down transformer as a device which converts a High Voltage and Low Current alternating source to a Low Voltage and High Current alternating supply.

2.6 Rectifier Circuit

A rectifier is an electrical device that converts alternating current (AC), which periodically reverses direction, to direct current (DC), which flows in only one direction. The process is known as rectification since it "straightens" the direction of current. Physically, rectifiers take a number of forms, including vacuum tube diodes, mercury-arc valves, stacks of copper and selenium oxide plates, semiconductor diodes, silicon-controlled rectifiers and other silicon-based semiconductor switches. Historically, even synchronous electromechanical switches and motors have been used. Early radio receivers, called crystal radios, used a "cat's whisker" of fine wire pressing on a crystal of galena (lead sulfide) to serve as a point-contact rectifier or "crystal detector".

Rectifiers have many uses, but are often found serving as components of DC power supplies and high-voltage direct current power transmission systems. Rectification may serve in roles other than to generate direct current for use as a source of power. As noted, detectors of radio signals serve as rectifiers. In gas heating systems flame rectification is used to detect presence of a flame.

While half-wave and full-wave rectification deliver unidirectional current, neither produces a constant voltage. There is a large AC ripple voltage component at the source frequency for a half-wave rectifier, and twice the source frequency for a full-wave rectifier. Ripple voltage is usually specified peak-to-peak. Producing steady DC from a rectified AC supply requires a smoothing circuit or filter. In its simplest form this can be just a capacitor (also called a filter, reservoir, or smoothing capacitor), choke, resistor, Zener diode and resistor, or voltage regulator placed at the output of the rectifier. In practice, most smoothing filters utilize multiple components to efficiently reduce ripple voltage to a level tolerable by the circuit.

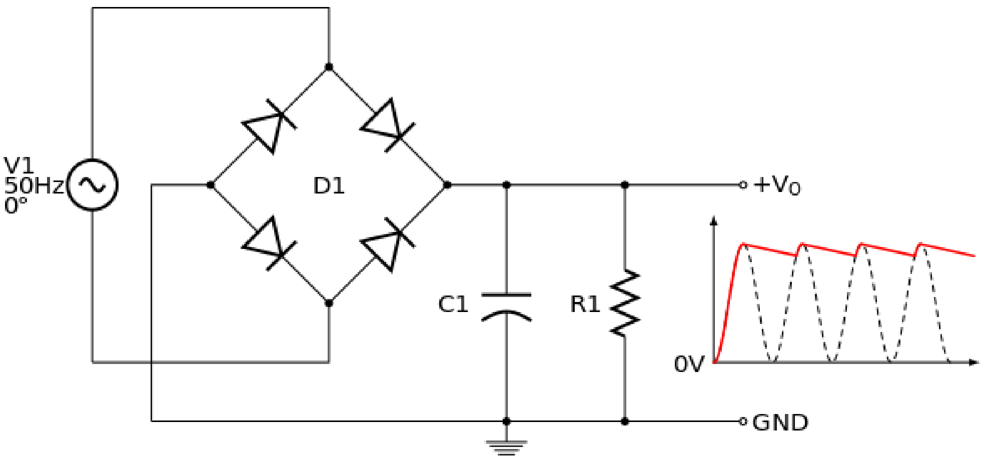


Fig no 2.15 Rectifier circuit

The filter capacitor releases its stored energy during the part of the AC cycle when the AC source does not supply any power, that is, when the AC source changes its direction of flow of current.

Performance with low impedance source

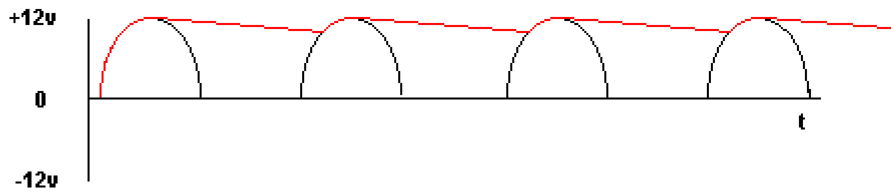


Fig no 2.16 Performance from a near zero impedance source

The above diagram shows reservoir performance from a near zero impedance source, such as a mains supply. As the rectifier voltage increases, it charges the capacitor and also supplies current to the load. At the end of the quarter cycle, the capacitor is charged to its peak value Vp of the rectifier voltage. Following this, the rectifier voltage starts to decrease to its minimum value Vmin as it enters the next quarter cycle. This initiates the discharge of the capacitor through the load.

The size of the capacitor C is determined by the amount of ripple r that can be tolerated, where r=(Vp-Vmin)/Vp.

These circuits are very frequently fed from transformers, and have significant resistance. Transformer resistance modifies the reservoir capacitor waveform, changes the peak voltage, and introduces regulation issues.

Capacitor input filter

For a given load, sizing of a smoothing capacitor is a tradeoff between reducing ripple voltage and increasing ripple current. The peak current is set by the rate of rise of the supply voltage on the rising edge of the incoming sine-wave, reduced by the resistance of the transformer windings. High ripple currents increase I^2R losses (in the form of heat) in the capacitor, rectifier and transformer windings, and may exceed the ampacity of the components or VA rating of the transformer. Vacuum tube rectifiers specify the maximum capacitance of the input capacitor, and SS diode rectifiers also have current limitations. Capacitors for this application need low ESR, or ripple current may overheat them. To limit ripple voltage to a specified value the required capacitor size is proportional to the load current and inversely proportional to the supply frequency and the number of output peaks of the rectifier per input cycle. Full-wave rectified output requires a smaller capacitor because it is double the frequency of half-wave rectified output. To reduce ripple to a satisfactory limit with just a single capacitor would often require a capacitor that's infeasibly large.

Choke input filter

It is also possible to put the rectified waveform into a choke-input filter. The advantage of this circuit is that the current waveform is smoother: current is drawn over the entire cycle, instead of being drawn in pulses at the peaks of AC voltage each half-cycle as in a capacitor input filter. The disadvantage is that the voltage output is much lower – the average of an AC half-cycle rather than the peak; this is about 90% of the RMS voltage versus times the RMS voltage (unloaded) for a capacitor input filter. Offsetting this is superior voltage regulation and higher available current, which reduce peak voltage and ripple current demands on power supply components. Inductors require cores of iron or other magnetic materials, and add weight and size. Their use in power supplies for electronic equipment has therefore dwindled in favor of semiconductor circuits such as voltage regulators.

Resistor as input filter

In cases where ripple voltage is insignificant, like battery chargers, the input filter may be a single series resistor to adjust the output voltage to that required by the circuit. A resistor reduces both output voltage and ripple voltage proportionately. A disadvantage of a resistor input filter is that it consumes power in the form of waste heat that is not available to the load, so it is employed only in low current circuits.

2.7 Battery

Battery (electricity), an array of electrochemical cells for electricity storage, either individually linked or individually linked and housed in a single unit. An electrical battery is a combination of one or more electrochemical cells, used to convert stored chemical energy into electrical energy. Batteries may be used once and discarded or recharged for years as in standby power applications. Miniature cells are used to power devices such as hearing aids and wristwatches; larger batteries provide standby power for telephone exchanges or computer data centers.

An electric battery is a device consisting of one or more electrochemical cells with external connections provided to power electrical devices such as flashlights, smartphones, and electric cars. When a battery is supplying electric power, its positive terminal is the cathode and its negative terminal is the anode. The terminal marked negative is the source of electrons that when connected to an external circuit will flow and deliver energy to an external device. When a battery is connected to an external circuit, electrolytes are able to move as ions within, allowing the chemical reactions to be completed at the separate terminals and so deliver energy to the external circuit. It is the movement of those ions within the battery which allows current to flow out of the battery to perform work. Historically the term "battery" specifically referred to a device composed of multiple cells, however the usage has evolved additionally to include devices composed of a single cell.

Batteries come in many shapes and sizes, from miniature cells used to power hearing aids and wristwatches to small, thin cells used in smartphones, to large lead acid batteries used in cars and trucks, and at the largest extreme, huge battery banks the size of rooms that provide standby or emergency power for telephone exchanges and computer data centers.

Batteries have much lower specific energy (energy per unit mass) than common fuels such as gasoline. In automobiles, this is somewhat offset by the higher efficiency of electric motors in producing mechanical work, compared to combustion engines.

Fig.2.17 Lead acid battery

Lead-acid batteries are the most common in PV systems because their initial cost is lower and because they are readily available nearly everywhere in the world. There are many different sizes and designs of lead-acid batteries, but the most important designation is that they are deep cycle batteries. Lead-acid batteries are available in both wet-cell (requires maintenance) and sealed no-maintenance versions.

Lead acid batteries are reliable and cost effective with an exceptionally long life. The Lead acid batteries have high reliability because of their ability to withstand overcharge, over discharge vibration and shock. The use of special sealing techniques ensures that our batteries are leak proof and non-spoilable. The batteries have exceptional charge acceptance, large electrolyte volume and low self-discharge, which make them ideal as zero- maintenance batteries lead acid batteries.

2.7.1. Features

- Manufactured/tested using CAD.
- Electrolyte volume.
- PE Separators.
- Protection against leakage.
- Reliable over 140 years of development.

Chapter 3

Circuit Description

Fig no.3.1 Circuit diagram

Magnetic prime mover consists of two main part rotor and stator. Rotor is a rotating part and stator is a static part.

magnetic sources is arranged on both rotor and stator region

The rotor is substantially disc shaped, and magnetic sources are located in a peripheral region of the rotor which rotates together with the shaft.

Where in the stator is formed as a two pair of arms which co-operate with the corresponding rotor. The two arms of a pair are displace able relative to each other and to the corresponding rotor, such that a gap between the arms and the rotor may be selectively set.

The sockets are substantially cylindrical and are arranged in a plane perpendicular to the longitudinal axis of the shaft. The sockets are angled at an acute angle relative to the tangent to the circumference of the rotor at the mouth opening of its sockets and to the inner circumference of the stator at the mouth opening of its sockets respectively. the angle is between 18 degrees and 40 degrees, preferably between 30 degrees and 35.

The magnetic sources are Nd-Fe-B magnets sized and dimensioned to snugly fit into the sockets. In such a way that rotor and stator magnetic sources should face same polarity to each other. The magnetic sources are consisting of a 37mm diameter, 75mm length cylindrical magnet providing 360000 gausses.

As the rotor start rotating, shaft will also start rotates which is connected with rotor. Alternator is coupled with generator.

Magnetic prime mover will rotate due to aversion of Nd-Fe-B magnet. As generator is connected with the prime mover it will rotates along with it.

Generator will generate electricity and this is utilizing by residential application.

Electricity is generated in the form of AC supply. Then it is convert in to dc by using bridge rectifier

CHAPTER 4

4. DATA SHEET

4.1 Resistor

A resistor is a passive two-terminal electrical component that implements electrical resistance as a circuit element. In electronic circuits, resistors are used to reduce current flow, adjust signal levels, to divide voltages, bias active elements, and terminate transmission lines, among other uses. High-power resistors that can dissipate many watts of electrical power as heat, may be used as part of motor controls, in power distribution systems, or as test loads for generators. Fixed resistors have resistances that only change slightly with temperature, time or operating voltage. Variable resistors can be used to adjust circuit elements (such as a volume control or a lamp dimmer), or as sensing devices for heat, light, humidity, force, or chemical activity.

Fig no.4.1 Resistor

Resistors are common elements of electrical networks and electronic circuits and are ubiquitous in electronic equipment. Practical resistors as discrete components can be composed of various compounds and forms. Resistors are also implemented within integrated circuits.

The electrical function of a resistor is specified by its resistance: common commercial resistors are manufactured over a range of more than nine orders of magnitude. The nominal value of the resistance falls within the manufacturing tolerance, indicated on the component.

The electrical resistance of a resistor is measured in **ohms**. The symbol for an ohm is the Greek capital-omega: Ω. The (somewhat roundabout) definition of 1Ω is the resistance between two points where 1 volt (1V) of applied potential energy will push 1 ampere (1A) of current.

As SI units go, larger or smaller values of ohms can be matched with a prefix like kilo-, mega-, or giga-, to make large values easier to read. It's very common to see resistors in the kiloohm (kΩ) and megaohm (MΩ) range (much less common to see milliohm (mΩ) resistors). For example, a 4,700Ω resistor is equivalent to a 4.7kΩ resistor, and a 5,600,000Ω resistor can be written as 5,600kΩ or (more commonly as) 5.6MΩ

4.1.1 Features:

- Resistance: 1k ohms (1,000 ohms)
- Power rating; 0.25W
- Tolerance: ±5%
- Maximum working voltage: 250V

4.2 Diode (1N4007)

A rectifier diode is used as a one-way check valve. Since these diodes only allow electrical current to flow in one direction, they are used to convert AC power into DC power. When constructing a rectifier, it is important to choose the correct diode for the job; otherwise, the circuit may become damaged. Luckily, a 1N4007 diode is electrically compatible with other rectifier diodes and can be used as a replacement for any diode in the 1N400x family. of popular 1 A general-purpose silicon rectifier diodes commonly used in AC adapters for common household appliances. Its blocking voltage varies from 50 volts (1N4001) to 1000 volts (1N4007). This JEDEC device number series is available in the DO-41 axial package, and similar diodes are available in SMA and MELF surface mount packages (in other part number series).

Fig no.4.2 Diode

The 1N540x (or 1N5400) series is a similarly popular family of diodes for higher-current 3 A applications. These diodes are typically available in the larger axial package to dissipate heat better.

Features

- Case: Epoxy, Molded
- Weight: 0.4 gram (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solder able
- Lead and Mounting Surface Temperature for Soldering Purposes: 260 C Max. for 10 Seconds, 1/16 from case
- Shipped in plastic bags, 1000 per bag.

4.3 Capacitor

A capacitor is a two-terminal, electrical component. Along with resistors and inductors, they are one of the most fundamental passive components we use. You would have to look very hard to find a circuit which didn't have a capacitor in it.

What makes capacitors special is their ability to store energy; they're like a fully charged electric battery. Caps, as we usually refer to them, have all sorts of critical applications in circuits. Common applications include local energy storage, voltage spike suppression, and complex signal filtering.

To provide a steady DC output. The raw rectified DC requires a smoothing capacitor circuit to enable the rectified DC to be smoothed so that it can be used to power electronics circuits without large levels of voltage variation.

The raw DC supplied by a rectifier on its own would consist of a series of half sine waves with the voltage varying between zero and √2 times the RMS voltage (ignoring any diode and other losses). A supply of this nature would not be of any use for powering circuits because any analogue circuits would have the huge level of ripple superimposed on the output, and any digital circuits would not function because the power would be removed every half cycle.

To smooth the output of the rectifier a reservoir capacitor is used - placed across the output of the reciter and in parallel with the load.. This capacitor charges up when the voltage from the rectifier rises above that of the capacitor and then as the rectifier voltage falls, the capacitor provides the required current from its stored charge.

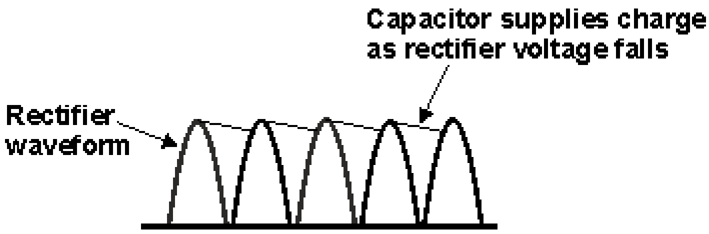


Fig no.4.3 Rectifier waveform

Smoothing action of a reservoir capacitor

It should be remembered that the only way discharge path for the capacitor, apart from internal leakage is through the load to the rectifier / smoothing system. The diodes prevent backflow through the transformer, etc.

Smoothing capacitor value

The choice of the capacitor value needs to fulfil a number of requirements. In the first case the value must be chosen so that its time constant is very much longer than the time interval between the successive peaks of the rectified waveform:

$R_{load} * C >> 1 / f$

Where:

R_{load} = the overall resistance of the load for the supply

C = value of capacitor in Farads

f = the ripple frequency - this will be twice the line frequency a full wave rectifier is used.

Smoothing capacitor ripple voltage

As there will always be some ripple on the output of a rectifier using a smoothing capacitor circuit, it is necessary to be able to estimate the approximate value. Over-specifying a capacitor too much will add extra cost, size and weight - under-specifying it will lead to poor performance.

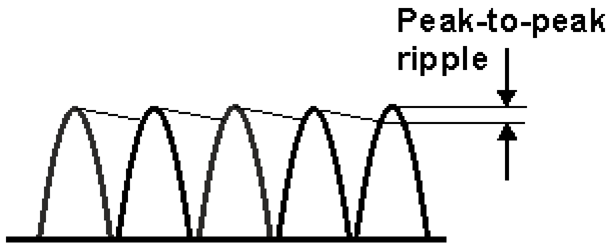


Fig.no 4.4 Peak to peak ripple for smoothed diode rectifier circuit

The diagram above shows the ripple for a full wave rectifier with capacitor smoothing. If a half wave rectifier was used, then half the peaks would be missing and the ripple would be approximately twice the voltage.

For cases where the ripple is small compared to the supply voltage - which is almost always the case - it is possible to calculate the ripple from a knowledge of the circuit conditions:

Full wave rectifier

$V_{ripple} = I_{load} / 2 f C$

These equations provide more than sufficient accuracy. Although the capacitor discharge for a purely resistive load is exponential, the inaccuracy introduced by the linear approximation is very small for low values of ripple.

It is also worth remembering that the input to a voltage regulator is not a purely resistive load but a constant current load. Finally, the tolerances of electrolytic capacitors used for rectifier smoothing circuits are large - ±20% at the very best, and this will mask any inaccuracies introduced by the assumptions in the equations.

4.3.1 Features:

- Material: Aluminum.
- Low ESR.
- GLR series aluminum electrolytic capacitors are high reliable with low impedance, low ESR and guaranteed 2,000 hours at 105°C.
- Suitable for switching power and automobile industry.

4.4 LED Load

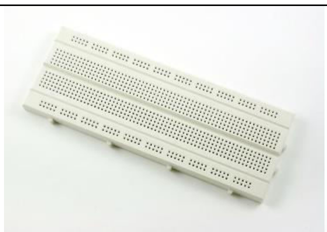
These are lamps made from semiconductor materials in the similitude of light emitting diodes such that several light emitting diodes are combined to yield an LED lamp. Since the output of an individual unit in terms of power is small compared to incandescent and compact fluorescent lamps, the most recent of these lamps possess internal circuits that make them operate from standard AC voltage. However, for the sake of this project, DC lamps are to be used. LED lamps offer long life and high efficiency, but with initial high costs compared to fluorescent tubes or lamps. LED units naturally emit light in a very small band of wavelengths, thereby producing strongly colored lights. The color is a characteristic of the energy band gap of the semiconductor material used in manufacturing it.

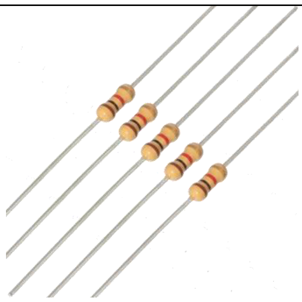
Chapter 5

5. Estimation and costing

Table 5.1 Estimation and cost

Sr no	Product Image	Item Name-	QTY	Price
1		1N4007 **1N4007 is a 1.0A general purpose rectifier diode.**	4	Price - Rs.12.00
2		1N4148 **1N4148 is a high speed switching diode.**	4	Price - Rs.8.00
3		**470uf ceramic disk capacitor**	1	Price - Rs.2.00
4		**Bearing (2691Z)**	2	Price - Rs.40.00
5		**Aluminium material**	1	Price - Rs.350.00

6		**Neodymium magnet**	**20**	**Price - Rs.500.00**
7		**Motor**	**1**	**Price - Rs.8.00**
9		**Breadbord**	**1**	**Price - Rs.60.00**
12		**Solder iron 25w**	**1**	**Price - Rs.140.00**
15		Mini Digital Voltage Detector	**1**	**Price – Rs.80.00**
16		**LEDs**	**24**	**Price – Rs.3.00**

17		**current limiting resistor**	**12**	**Price – Rs.2.00**
18		**connecting wires**	**1**	**Price – Rs.30.00**
19		lead acid battery	1	**Price – Rs.350.00**
20		**Miscellaneous**		**Price – Rs.3500.00**
		Total		**Price – Rs.5168.00**

ADVANTAGES

- Works in all types of weather conditions: Generally, the wind and solar energy alternatives rely much on natural phenomena, but in case of a magnetic generator, the device would continue to perform well without depending upon weather conditions.

- Free Energy Source: Permanent magnet generators generate electricity with the inside magnets that can be used to power other electric devices, which means that you will no longer need to pay for the expensive electric bills. In addition, you can even sell your excessive electricity to local utilities and get payment from them.

- Reliable Energy Output: Compared to generators powered by other renewable and green energy, solar energy and wind power, for example, permanent magnetic generators are working independent of factors inside or outside of your house. You will no longer need to worry about the weather.

- Minimum maintenance cost: Once these magnetic generators are constructed, they can operate efficiently without any problems for long periods of time. Additionally, one need not have to check them on a regularly basis and extra cost for generator maintenance can be avoided.

- Ability to reduce the power bill: The magnetic electrical generator can reduce an individual's power bill by about fifty percent. Thus, it is one of the best reasons for anybody to own a magnetic electrical generator.

- Environmentally friendly: There is absolutely no environmental impact on this mode of electricity generation. No harmful emissions or by-products are generated and no excess heat is generated.

- Constant source of production: Production of electricity is continuous until the magnets are removed from the connection.

- Versatile and Resilient: It is solely depending on magnets unlike the solar and wind.

- Space required: It requires less space.

APPLICATION

- Free energy can be used to power up small led & bulb on vehicle
- It can be used as a separate power house in homes which helps in reducing electricity bills.
- It can be used as a source of power in remote areas, where electric lines aren't working.
- It can be used in space as an alternate source of power while sending satellites for distinct operations.
- It can be used in unnamed aerial vehicles operated on electric power, which will increase the flight time of the aircraft.
- It can be used in automobile vehicles to power the electrical system, which will eliminate the need of replacing or charging the battery again & again.
- Free energy can be used to charge small Li-Ion batteries of high voltage & low current which are used for other applications.

RESULT

The purpose of the project to generate electricity from the free energy magnet.

By applying the knowledge and skill we gained and learned how to develop the magnet energy which will able to prove the existence of free energy magnet motor which help to discover several new theories related to free energy.

Rotation of magnet depend as the rotation the force applied in particular direction.

Transformer

240v-primary winding

Connecting leads (approximately100mm)

AC-240v to AC-12v

Step down-230v AC to 12v

Current -1 amp (maximum)

No of turns in the coil will be equal

Primary winding turns = 30000

Vp = 240v

Power measure VA and KVA current and voltage relationship

Pr=Vr*Ir (primary)

Ps=Vs*Is (secondary)

The magnetic sources may be contributed by a 37mm diameter and 75mm length cylindrical magnet having 360000 gauss.

Magnetic arrangements are done through prime mover which will help for the arrangement of magnets.

In this outer ring will be fixed on an annual called as a stator.

Free energy is can be made using magnets and simple motor which generates electricity using conventional sources of energy.

CONCLUSION

Cylindrical magnet shape is the best type found of various shape simulation due to the regular distribution of the magnetic flux lines which seems the squirrel cage rotor which depends the cylindrical shape as well as the ability to control the direction of magnetic lines.

Magnetic forces inversely proportional with the spacing distance between magnets, while. Because of existence of symmetry in magnetic field on the both side of Y-axis, leading to a state of equilibrium on vertical axis, which leads to the magnetic forces be equal to zero the linear arrangement simulation found that the horizontal force is neglecting value the vertical force has positive values all time that means the (FEPMM) will don't stop during its rotation but it needs external force for braking.

The torque depending on the situation, a positive torque represents a starting point toward movement and this. The torque values are positive any does not have points shall continue to weaken the ongoing movement and found the total loss for all cases equal to zero.

Magnetic rotation depends upon the magnetic field strength the magnet is using very strong magnetic field depend upon the magnetic field start rotating with strong magnetic field. The cage like structure is called as stator and round like structure is called as rotor coupled with spring to the generate the AC which is purely sine wave in the nature.

Due to the magnetism rotation of alternator take place around 30rpm which generator coupled which give us 28 rpm. And 2 rpm are Losses between alternator and generator due to friction losses.

The energy which generate AC form. as we know that ac cannot be store in the circuit therefore we are converting AC to DC for storing. For converting AC to DC, we are employing bridge diode (uncontrolled) rectifier for obtain the pure DC we are employed a filter removed pulsating AC. The only one source can store charge battery which using charging take place the load we are using fan 20 watt and light 10 watt.

It concludes that by using aversion technology create procreate the power to consummate the green source with free energy.

FUTURE SCOPE

To develop a system for consumers that can saves cost and generate a clean source of energy. It can be used at homes or industrial applications such as home appliances on the small scale, machines and automobile on the medium scale, and power stations on the large scale.

Manage to build this system until success without any problem occurs and hope the system will produce at least a few volts. Although the system only produces a small amount of energy, it it's fair enough to show that the theory of the system is right and this system can be developed in larger scale form.

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