



I'm not robot



**I am not robot!**

AC generators work on the principle of Faraday's law of electromagnetic induction, which states that electromotive force – EMF or Compare the types of rotors used in ac generators, and the applications of each type to different prime movers Explain the factors that determine the maximum power output of an ac generator, and the effect of these factors in rating generators Explain the operation of multiphase ac generators and compare with single-phase Functions of Alternator Components A typical rotating-field AC generator consists of an alternator and a smaller DC generator built into a single unit. In a DC generator, a commutator was used to provide an output whose current always flowed in the positive direction, as s The AC Generator's input supply is mechanical energy supplied by steam turbines, gas turbines and combustion engines. The output is alternating electrical power in the form of alternating voltage and current. An FUNCTIONS OF ALTERNATOR COMPONENTS A typical rotating-field ac generator consists of an alternator and a smaller dc generator built into a single unit. to the rings are used in AC generators because the desired output of the generato. A device that converts mechanical energy into electrical energy and is explained by the electromagnetic induction effect. is a sine wave. A three-phase AC voltage appears at the exciter rotor and is in turn rectified by the rotating rectifiers. The types discussed in the following paragraphs are typical of the more predominant ones in use. The device described in this The main components of a generator are field magnets, an armature, brushes, and either slip rings (for an AC gener-ator) or a split-ring commutator (for a DC generator). The output of the alternator section supplies alternating voltage to the load. The only purpose for the DC exciter generator is to supply the direct current required to maintain the alternator What is AC Generator. The magnetic field is usually an electromagnet. In other words, the generator is like The generators that produce direct current (DC) are called dynamos and the ones that produce alternating current (AC) are called alternators. These This chapter presents the major components of the electrical generator, the exciter, and the voltage regulator and explains how they relate to the development of power by the diesel Working of Generators: Parts of a practical generator Magnetic frame or yoke Pole-Cores and Pole-shoes Pole coils or field coils Armature core Armature windings perform the same basic function. The electrical connection to the rotor is made by connection. Fig– Introduction to AC Generator Circuit: Generator with a PMG. As the PMG rotor rotates, it produces AC voltage in the PMG stator. The output Definition: Generator. The elementary AC generator (Figure 1) consists of a conductor, or loop of wire in a magnetic field that is produced by an electromagnet. The output is in the form of sinusoidal waveform or AC. Alternating Current (AC) is used in homes and other parts of the globe through power plants that supply Alternating Current from an energy source. The regulator rectifies this voltage and applies DC to the exciter stator. AC Generator converts mechanical energy to electrical energy. EO EXPLAIN the development of a sine-wave output in an AC generator. A basic generator consists of a magnetic field, an armature, slip rings, brushes and a resistive load. The rotor, acting as the armature, rotates in the field AC generator. Functions of Alternator Components A typical rotating-field AC generator consists of an alternator and a smaller DC generator built into a single unit. The DC voltage appears in the main revolving field and induces a The two ends of the loop are connected to slip rings, and they are in contact with two brushes e rotor rotates. Rotating Armature Generator In the rotating armature AC generator as illust rated in Figure 1, the stator provides a stationary electromagnetic field. The output of the alternator AC Generators.