



**GENPOWER**<sup>®</sup>  
GENERATOR

# GENPOWER

Genpower Generator, which started its activities in Ankara OSB in 2001, has been providing service to meet all your energy needs since its establishment. It continues to offer the most reliable form of uninterrupted energy to its solution partners for 21 years through its state-of-the-art products. This way which was started with "Our standard is high!" motto, it offers a performance approved by the authorities, whose reliability has been proven with the quality-control certificates it has, and opens the doors of uninterrupted energy.





# GENPOWER

In this way, its products are in high demand in the domestic and foreign markets, and it continues to be the representative of many companies related to the sector. It has a wide import network of up to 120 countries with a 100% domestic and national production approach. Moreover, it has the feature of being the "world's largest generator factory" with its factory built on a 216,000 m<sup>2</sup> land and with a 51,000 m<sup>2</sup> closed area! It is one of the leading manufacturers in Turkey and the world, with its state-of-the-art production system and a generator production capacity of 60,000 units/year in its current factory environment.





# PRODUCTION BAND

All products with the Genpower label are produced in state-of-the-art machines. All electronic and mechanical connections are made with the production stations on the bands, thus, all products are combined in a controlled manner at every step. 2 automatic and 1 manual production lines operate with an annual production capacity of 60,000 generators. Products are sent directly to the test room and their controls are provided after progress on the production lines. In this way, the production journey is completed in the factory after the quality control tests of each product are also done.





# STOCK AREA

The desired products are delivered in a minimum time thanks to the stock area with a wide range of products. All products in stock are checked and ready to go into production.





# SPARE PART WAREHOUSE

A 2-year product warranty is provided for all generators sold, and a spare part supply warranty is offered for 10 years. All the parts needed are provided in a minimum time and solutions are offered as soon as possible for possible problems thanks to the spare parts warehouse.





# TEST ROOMS

All products bearing the Genpower signature must pass all durability tests successfully in order to be guaranteed of maximum quality. Therefore 8 products are tested at the same time in 8 test rooms. Operations carried out on machines with extensive equipment and calibration certificates are tested at 50%, 75%, 100% and 110% load. All test processes are made publicly to customers, and test reports of the products sold are sent along with them.





# STEEL SHEET PRODUCTION

All cutting, dividing, joining, etc. operations with special machines are made in steel sheet production plant. All stages of canopy production are carried out in the facilities, and production is provided according to demand for special projects.





# PAINT HOUSE

Production is made with Pantone coded color specific to Genpower and electrostatic powder paint is used. In addition, different colors can be produced without human touch in fully automated systems in line with demand.





# GENERATOR, ENGINE AND ALTERNATOR

## GENERATOR:

Generators are electrical machines that transform mechanical energy into electrical energy. It works according to the principle of creating an electromotive force by induction in a conductor rotating in a magnetic field.

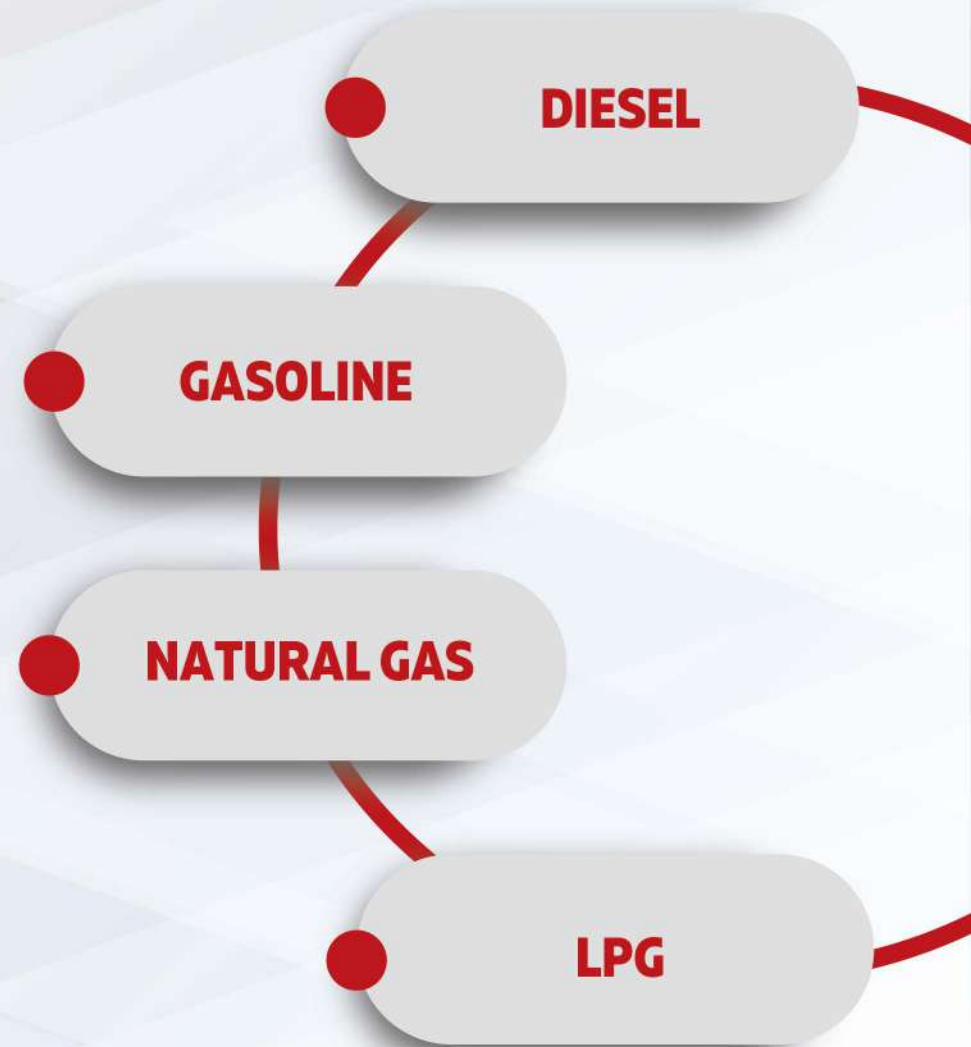
It is a collection of electromechanical systems that transform chemical energy into heat energy, heat energy into mechanical energy, and mechanical energy into electrical energy with the fuel it takes. In other words, it can also be called a machine that transforms mechanical energy into electrical energy through a steam engine, water, internal combustion engine, wind turbine or such a system. When viewed as a working principle, generators work just like electric motors. The only difference is that it works in reverse. Generators are equipped with parts that provide electric current source. These parts are, in general terms, the engine and alternators. All these systems have become indispensable for uninterrupted energy today. These structures of generators act as a continuous power source in cases where grid energy is not available in any way.





Generated electrical energy can be used in commercial establishments, industry and homes.

For example, portable generators are practical for outdoor leisure activities. On the other hand, generators are very important especially for contractors and workers working in construction sites where there is no electricity. A standby generator can be a good investment for people living in areas with severe climates or weather conditions. It is possible to separate generators according to fuel types:





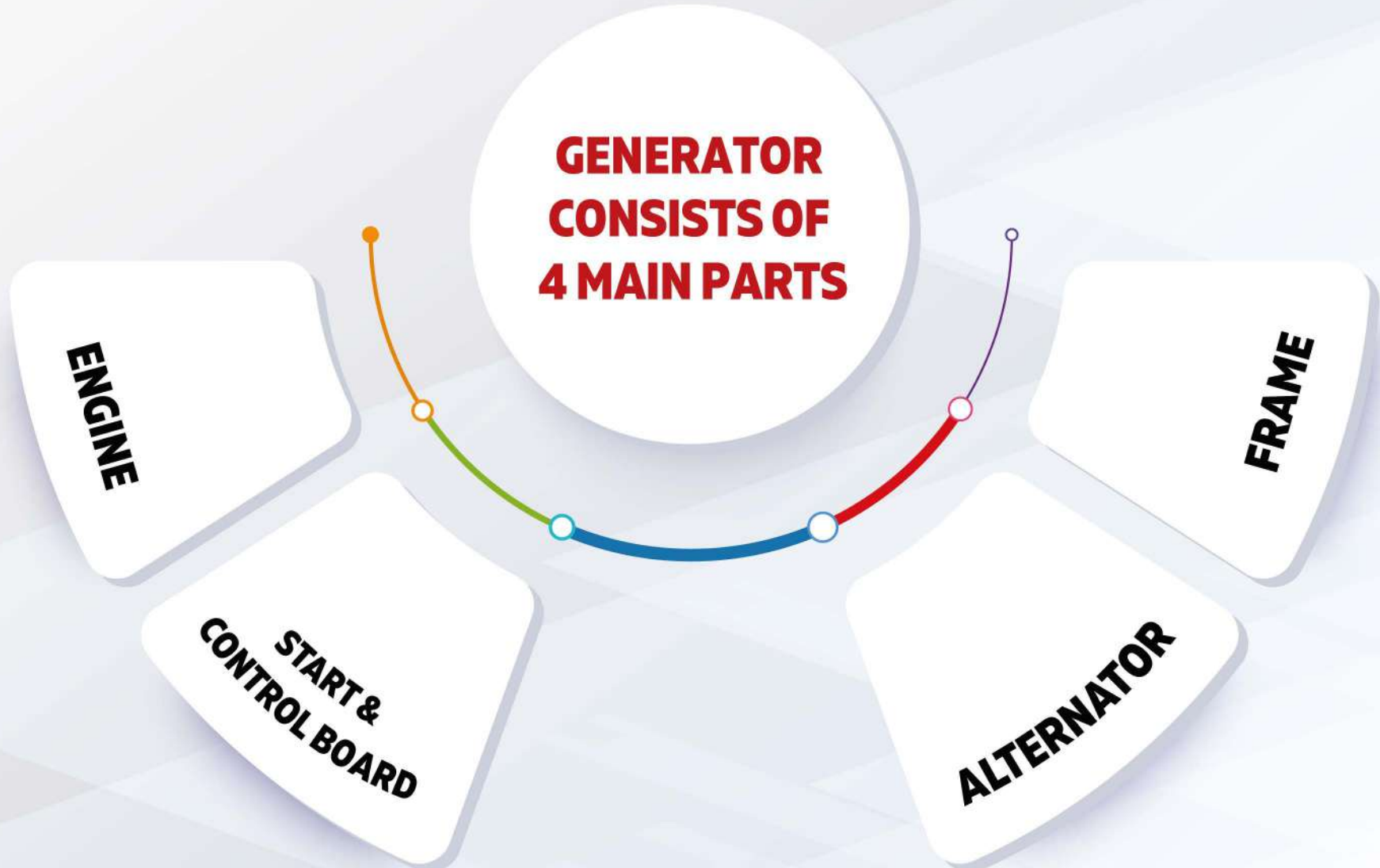
**GENERATOR  
CONSISTS OF  
4 MAIN PARTS**

**ENGINE**

**START &  
CONTROL BOARD**

**ALTERNATOR**

**FRAME**





# GENERATOR, ENGINE AND ALTERNATOR



## ENGINE:

### **Diesel engines:**

They are internal combustion and 4-stroke like gasoline engines. It differs from gasoline engines in terms of its main working principle. The air filled into the cylinder is highly compressed by the pistons. This ratio is quite high compared to gasoline engines. The compressed air reaches a temperature of 500 degrees Celsius under high pressure. At this time, the fuel injected into the cylinder ignites and an explosion occurs. The mixture delivered by the piston is ignited by the spark plug and an explosion occurs.

### **Gasoline engines:**

Gasoline engines with internal combustion and 4-stroke operating system reach the combustion chamber by mixing fuel (gasoline) and air in the carburettor. Here, an explosion occurs when the mixture compressed by the piston is ignited by the spark plug.



# 4 STROKE ENGINE WORKING PRINCIPLE

4-stroke engines are engine types in which one cycle of the piston is completed in 4 stages (4-stroke cycle). They are in the class of internal combustion engines (internal combustion engines). Power generation in engines first occurs when the chemical energy in the fuel is converted into heat energy, and then this heat energy activates the piston. This process is as follows in four stroke engine:





**01**

The fuel and air mixture is filled with the outward movement of the piston.

**02**

The mixture is compressed by the piston moving in.

**03**

The compressed mixture is ignited by a spark in gasoline engines, while in diesel engines, it ignites spontaneously under high pressure and temperature and combustion takes place. The piston is pushed out with the energy released as a result of combustion. In this way, the crankshaft is rotated and kinetic energy is obtained.

**04**

During the return of the piston, the exhaust valve is open and the exhaust gases are discharged from the piston. The cycle thus comes to its starting position and the operations are repeated from step 1.

These types of engines are called 4-stroke engines because the engine completes one cycle in the 4 stages described above. In a moving gasoline vehicle, this cycle is repeated an average of 3000-3500 times per minute, and 1500 (adjustable) times in diesel engines. 4-stroke engines, which are more efficient than 2-stroke engines, are the most used internal combustion engine type today.

# INLINE TYPE AND V TYPE ENGINE

It is the type of engine in which the cylinders are lined up on the crankshaft. V-engine, type of engine in which the cylinders are arranged in two rows in a "V" shape on the crankshaft. This type of engines, which have a higher power/volume ratio than inline type engines, are used in applications where relatively high performance is required.

## V TYPE



## INLINE



# GENERATOR, ENGINE AND ALTERNATOR

## ALTERNATOR

An electrical machine that transforms the energy of motion transformed by a converter machine into electrical energy. Alternators are alternating current generators. It is generally used in places where electrical energy cannot be supplied from the grid.

Alternator can be used with various inverters such as water turbines, wind, diesel engine. Diesel engine driven alternators are commonly used as mains standby. In most places where electricity is needed, the new form of alternators used in this type of field by being driven by a diesel engine is called a generator.



# CANOPY TECHNOLOGY



**1**

Ensures 60-70 dB sound isolation at 7 mt. distance.

**GLASS VEIL COATING ON  
GLASS WOOL**



**2**

Ensures maximum heat isolation.

**TEMPERATURE TESTS  
SUITABLE FOR ALL  
ENVIRONMENTS**



**3**

Canopy colors can be changed upon request. (RAL)

**ROBOTIC PAINTING WITH  
ELECTROSTATIC POWDER  
PAINT**

\*Super silent canopy technology is specially produced according to your request.

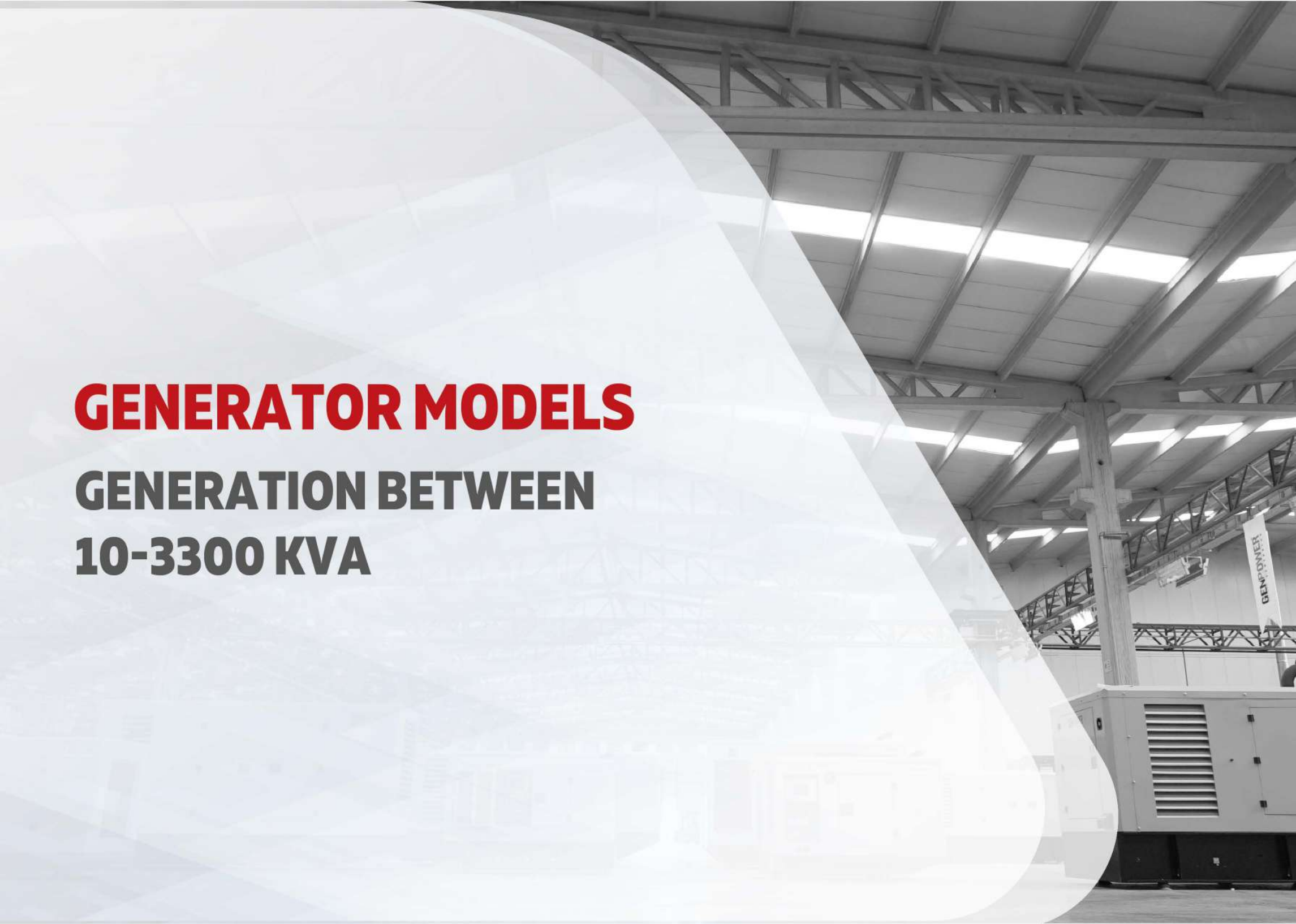




# **GENERATOR MODELS**

**GENERATION BETWEEN**

**10-3300 KVA**



# PRODUCT SERIES



**GNT SERIES**  
11-3300 kVA



**GDZ SERIES**  
30-263 kVA



**GCC SERIES**  
28-2250 kVA



**GPR SERIES**  
10-2500 kVA



# ENGINE BRANDS



11 - 3300 kVA

GNT SERIES



10 - 2500 kVA

GPR SERIES



28 - 2250 kVA

GCC SERIES



26 - 300 kVA

GDZ SERIES

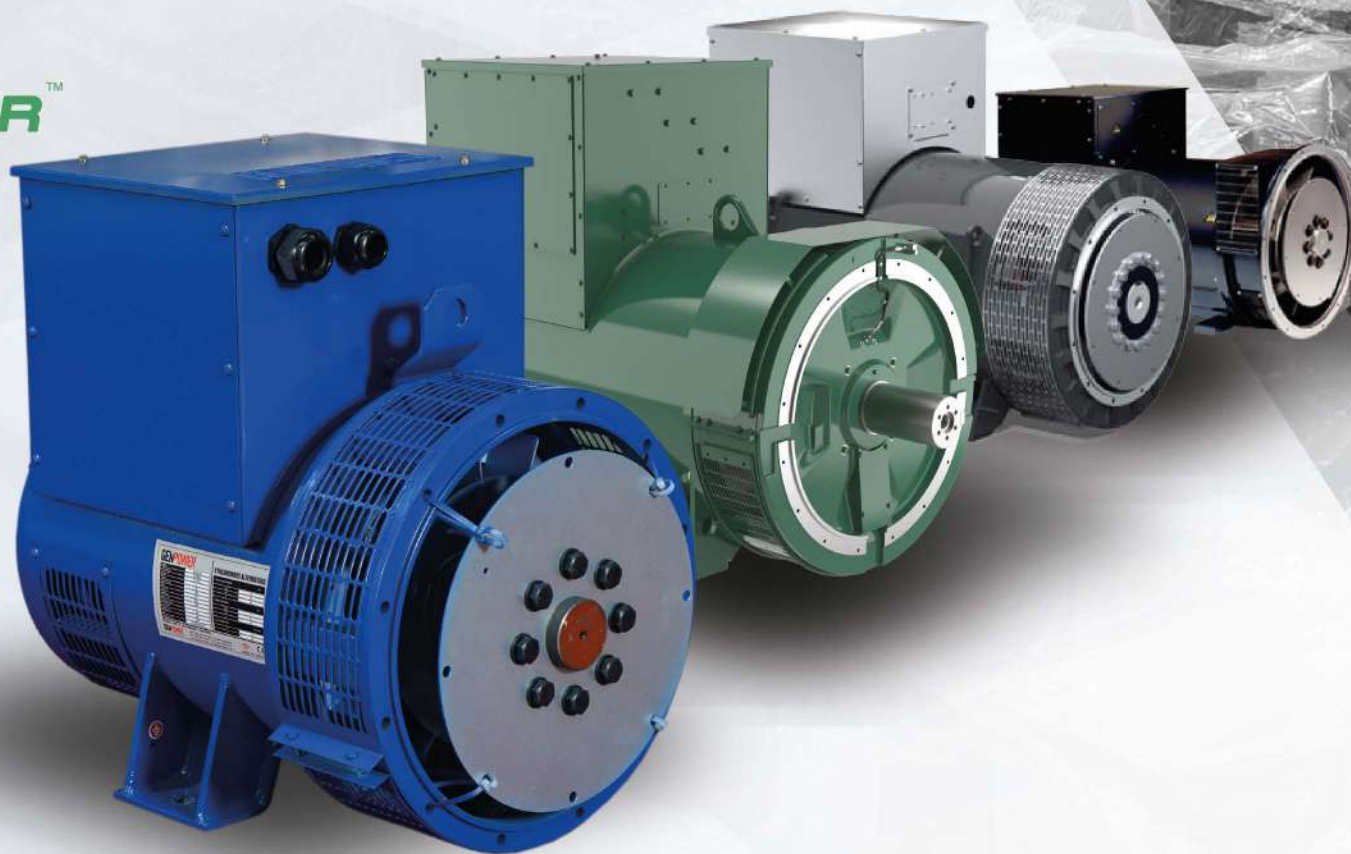
# ALTERNATOR BRANDS

**GENPOWER**<sup>®</sup>  
ALTERNATOR

**LEROY-SOMER**<sup>™</sup>

**meccalte**

**STAMFORD**  
power generation





# PORTABLE GENERATORS

Portable generators are rather small in size compared to canopy generators. Therefore, it can be used in many different areas according to the need. It offers advantages with its portable structure wherever you need to use unlimited electrical energy. At home, in the hobby garden, at the campsite or at the cottage...

**GASOLINE**  
**DIESEL**

---

**GBG SERIES** 0.8 - 14 kVA  
**GDG SERIES** 7 - 17 kVA



# LIGHT TOWER GENERATORS

Genpower Light Tower Generators can be used anywhere easily with its small and light structure. It shows excellent performance, even in harsh weather conditions. Since it is durable and produced in accordance with heavy-duty conditions.

## GLT SERIES





V13

# WATER PUMPS

**Diesel**  
GDP Series

**Gasoline**  
GBP Series



# WELDING MACHINES

**Diesel**  
GDW Series

**Gasoline**  
GBW Series





# DATA CENTER SOLUTIONS

The status of data centers is vital for the security of companies, institutions and businesses. Even a mere second interruption can seriously damage the functioning of these centers. For this reason, your energy must be uninterrupted in order to prevent power cuts, which are the most important security factor in data centers. That's why Genpower is with you with years of experience and customary quality. Meet the perfect state of uninterrupted energy thanks to our solutions tailored to your needs and our products, every part of which has been completed with high quality and flawless tests!



# HYBRIDE GENERATORS

Hybrid systems allow the use of diesel generator systems in addition to wind and solar energy, while preventing continuous energy and unnecessary solar or wind energy installation. They have the feature of providing an efficient, environment-friendly and combined use since these systems enable the use of renewable energy sources in generators as well.





# OTHER PRODUCTS

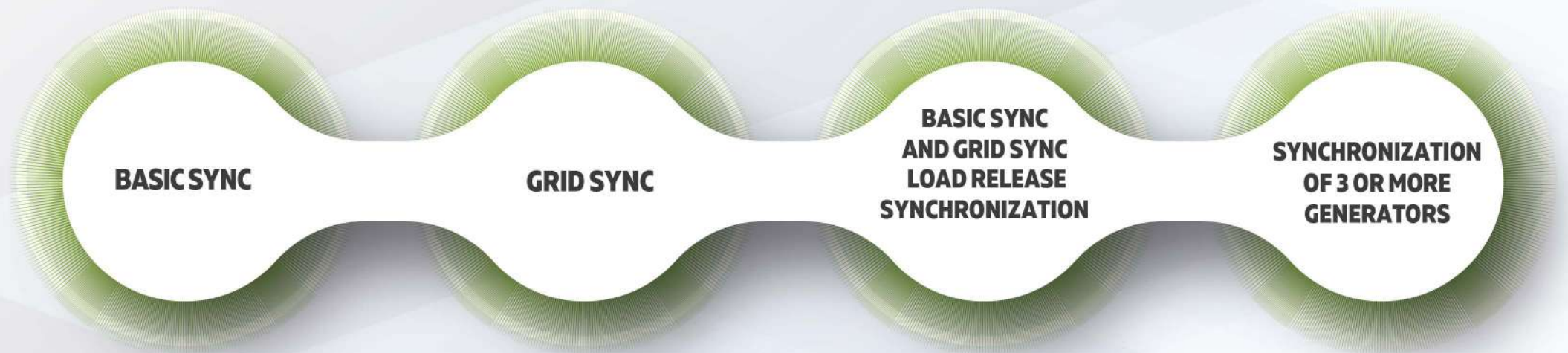
Genpower Generator evaluates the special projects of its customers together with both its sales and technical team, and aims to respond with the most efficient solutions suitable for the working conditions of the products in the project, whether requested or not. It utilizes from its technological and technical experience, which has been revealed and developed in various conditions (climate, distance, lack of resources, etc.) encountered in the geographies where the products have been exported for years in project evaluation. Such as special canopies, special colors, trailer generators, mobile generators, power support unit.



# SYNCHRONOUS SYSTEMS

Form of application implementation of the synchronous system is created according to customer needs. Scenarios from the customer, the nature of the synchronous system, feature, etc. can change many parameters.

Sync options:







## **AFTER SALES SERVICES, WARRANTY PROCESS, PARTS SUPPLY**

All kinds of technical support to Genpower users are provided by our expert technical personnel. Genpower's trust is always there, wherever you are with our fast, easy-to-reach and after-sales support activities available 24 hours a day, 7 days a week.

Periodic maintenance contracts have been formed by our after-sales services department in order to ensure that the generators, which are out of warranty, remain in an effective and high performance working condition and have a long service life.

All of the consumables used in periodic maintenance are used as originals.

All revisions to your existing generators are carried out meticulously in line with your demands and needs (Panel etc. hardware adding services).

A 10-year spare part supply guarantee is also provided in addition to the product warranty of 2 years or 1500 hours.

# QUALITY DOCUMENTS AND CERTIFICATES



CE Certificate  
EN ISO 17050-1:2004



Seismic test certificate - AZ



ISO 9001-2015  
Certificate No: QMS-05207



ISO 14001-2015  
Certificate No: EMS-05207



ISO 45001:2018  
Certificate No: OHS-02236



Trade registry certificate - Certificate  
No: 2008 05576 - Trade



TSE Service - Certificate  
No: 06-HYB-40



TSE-8528-8 - Certificate  
No: 003560-TSE-01/01



TSE-8528-4 - Certificate  
No: 003560-TSE-02/02



TSE-8528-5 - Certificate  
No: 003560-TSE-03/07



TS EN 60034-1 -Certificate  
No: 003560-TSE-04/01



Manufacturing Competence  
Certificate - Document No:  
4/505709



SSHYB - Certificate  
No: 57353



EAC Technical Regulation  
Certificate- Gasoline



EAC Technical Regulation  
Certificate- Diesel



Capacity report - 2021 / 876



Industry register  
certificate- 592616



# GENERAL DIRECTORATE & FACTORY



[www.genpower.com.tr](http://www.genpower.com.tr)



2. Organize Sanayi Bölgesi 2010 Caddesi No: 18 Temelli-Sincan/Ankara, Turkey



+90(312) 641 32 22 - 641 32 32



+90(312) 641 32 23



[genpower@genpower.com.tr](mailto:genpower@genpower.com.tr)



## **Showroom**

İvedik Organize Sanayi Bölgesi Teknoloji ve Sanayi Sitesi 1385. Sokak No: 24 06378 Ostim  
Yenimahalle/Ankara

**GENPOWER**<sup>®</sup>  
G E N E R A T O R