

Generators: Preventing Disaster

Information courtesy of <http://dedicatedpower.co.za>

With Eskom continuing to stage rolling blackouts across South Africa, more home owners and businesses are considering investing in a standby generator than ever before.

While businesses have long seen the benefit of backup power solutions, these systems often seem like an indulgence when used in the home. The reality however is that a backup generator is a good investment for both businesses and homes..

What to consider when buying an Industrial Diesel Generator

Choosing the right industrial diesel generator often comes down to finding the most affordable option, but other than price, there are a number considerations to ensure the generator is a solid investment. These generators are used most often for standby and emergency systems, but can also be used as a dedicated power source. With many different brands on the market, not

to mention many different sizes and capacities, generators are used in many industrial sites of all sizes and natures.

Choosing the right Industrial Diesel Generator

How do you determine which type of industrial diesel generator is best for your requirements? Consider the following criteria to help give you an idea of which features are the most important when making your final decision.

- **Standby vs dedicated.** The first thing to consider is whether you will need a standby generator or a dedicated generator. Dedicated generators are used when there are no other power sources on the site, or at sites that require a generator that is in use all day, every day. These

are also known as prime or continuous generators. A standby generator on the other hand acts as a backup source to a pre-existing power source. These may be used when regular power is not available, during power shortages or other infrequent use situations. These generators typically run at a lower RPM (rates per minute), as they are designed to be used in emergencies or as backup only.

- **Generator sizing.** Then, you will need to choose the size of the generator. Typically, generators are sized by their power capacity level (kilowatts or megawatts). Capacity levels can vary from small 5kW generators for individual use to large-scale 3mW generators that can power an



entire plant. For industrial units, factory power requirements need to be considered along with on-site office power. Choosing a larger size is often the best way to ensure that your needs are covered, with enough power to last through emergencies.

- **Reliability and value.** While it's often easier to choose the cheapest option, this can end up costing you more in the long run – especially if you are losing out on quality. Reliability and quality are essential when choosing a generator, as this will help ensure that you will not be let down during a power outage or disaster. Generators need to work every time, or else they are ultimately useless. Consider well-known, trusted brands and make sure that all systems are tested for their durability and reliability.

Sourcing your generator through a trusted supplier goes a long way in ensuring that you choose the right system for your requirements. A good supplier will not only offer input on which brands best suit your needs, but will also assist with the installation and management of your industrial diesel generator.

Backup Generator Installation – How it Works

Backup generator installation may seem like a challenge, but in reality,

this process can be done simply and quickly if the job is outsourced to a professional company that has sufficient experience and ability to manage the installation properly.

Everything you need to know about Backup Generator Installation

Backup generators protect a variety of premises when traditional electricity is not available. These generators typically run on natural gas, petrol or propane fuel, and are placed outside much like a large scale central air-conditioning unit. When the generator senses a disruption in power, it turns on automatically and runs until power is restored. Some of the most important things to consider when it comes to installing a generator for your premises include the following:

- **Choosing a provider.** Generators should be sourced from licensed, reputable suppliers who adhere to strict standards in the supply, manufacture and installation of their products. While pricing is of course always important, do not only consider this factor when choosing a supplier.
- **Typical requirements.** Then, you will need to determine whether there are any laws or regulations about installing a generator within your premises. Most suppliers will consider the location of the generator, the fuel source and the power services it will

need. Other things that they will determine include the sizing, how the generator will be used, and the wattage that is needed. You will also need to ensure that the generator complies with local regulations – codes, industry standards, technical requirements such as carbon monoxide detectors and any zoning laws that may be in place. Once these things are checked and approved, and you have chosen your supplier, you will be ready for the installation.

- **Installation process.** After purchasing the generator and any required accessories that are needed, your supplier will prepare for the installation. The installer will work with a gas installation company to connect the generator to your chosen fuel source, keeping all regulations in mind to ensure that the generator is installed legally and properly. Once it has been installed, it will be tested to make sure that everything is working as it should be, and you will be given instructions on how it operates. Most reputable suppliers also offer a maintenance plan that covers all upkeep of the generator, which further simplifies

What generator size is best for my needs?

Some of the most important things



to remember when determining ideal size for industrial generators are as follows:

- **Size variations.** There are many different sizes to choose from, to allow for the many different needs of industrial premises across the world. For home and small business usage, typical generator sizes range from 50kW to over 3 Megawatts. For factories, large companies and bigger premises however, industrial sized generators are required in order to cover a larger floor area as well as a much bigger demand.
- **Power usage.** What power is used for is another factor to consider. In a home, washing machines, heaters, geysers and other smaller appliances are powered. In a factory however, machinery and tools require a great deal more power, and as many industrial units cannot afford to go even a few hours without power, the demand becomes even higher to ensure long-lasting backups in the event of power shortages. As a general rule of thumb, it is better to over-estimate the demands than under-estimate – more wattage is always better than less wattage, in other words.
- **Specific requirements.** Knowing exactly what you need is the first step in getting the right genera-

tor to cater to those needs. Make a list of all items that will be powered by the generator, find out the starting and running wattage of each item and then calculate the total power requirements in kilowatts or amps.

- **Determining the starting and running wattage.** You can find this information on the ID plate of various tools and equipment, or in the manual. Alternatively, you can do an online search to find a handy calculator that breaks down exact wattages for a range of commonly used appliances. Speak to your generator supplier if you are unsure – as experts in the field, they are often the best people to give you a realistic idea of the wattage needed.

Which businesses benefit most from Standby Generators?

While it's safe to say that every business benefits from backup generators, some types of business are at high risk of safety, quality and health hazards if proper precautions are not taken to prepare for power outages. These generators are used to ensure that systems remain powered, even in the event of load shedding or unplanned power cuts. Ranging in size and capacity, generators are used across multiple sectors, including residential. In the world of industry, who benefits most from backup genera-

tors, and how do these vital planning aids help to prevent disaster?

- **Agriculture.** As for the agriculture sector, which employs a large labour base and contributes significantly towards the economy, power shortages are equally unwanted. Farming relies on a time dependent schedule, with many variables to consider from seasons to time of day, weather conditions and natural disasters. Electricity issues should not be another worry for those in this sector.
- **Processing.** Processing plants help to ensure that foods, beverages and many other consumable products are safe for consumption. They also deal with medical products and additional goods that cannot be spoiled by a drop in temperature, interruption during processing or any other unforeseen problem that could arise in a power outage. If any consumable products are contaminated, the potential for disaster is huge.

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